Assessment Study of the Urban Innovative Actions 2014-2020

Accompanying Annexes to the Final Report

C S E S

Centre for
**Strategy & Evaluation
Services**

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ANNEX 1: LIST OF PROJECTS BY TOPIC

This annex offers a list of all 75 UIA projects by topic for the first four calls and states key information.

Energy transition (Call 1)

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
Call 1						
SE	Fossil Free Energy Districts	FED	07/04/2017	31/10/2019	Gothenburg City Council	€4.65
FR	Co-Responsibility in District Energy Efficiency & Sustainability	CoRDEES	04/04/2017	31/10/2019	City Of Paris	€4.36
ES	VILAWATT - Innovative local public-private-citizen partnership for energy governance	VILAWATT	13/04/2017	29/02/2020	Viladecans Municipality	€4.27

Integration of Migrants and Refugees (Calls 1 and 2)

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
Call 1						
IT	Villa SALUS as a new Sustainable Accessible Liveable Usable Social space for intercultural Wellbeing, Welfare and Welcoming in the metropolitan City of Bologna	S.A.L.U.S. 'W' SPACE	16/06/2017	31/01/2021	Bologna Municipality	5.00
BE	Co-housing and case management for Unaccompanied young adult Refugees in ANTwerp	CURANT	25/04/2017	31/10/2019	City of Antwerp	4.89
AT	Centre of Refugee Empowerment	CoRE	14/04/2017	31/10/2019	City of Vienna	4.79
NL	Utrecht- Refugee Launch Pad	U-RLP	11/05/2017	31/10/2019	City of Utrecht	2.78
Call 2						
EL	Curing the Limbo – From apathy to active citizenship: Empowering refugees and migrants in limbo state to ignite	Curing the Limbo	14/05/2018	31/03/2021	Municipality of Athens	5.00

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
	housing affordability					
UK	Migration Friendly Cities	MiFRIENDLY CITIES	08/06/2018	28/02/2021	Coventry City Council	4.28
ES	Migrants Labour Integration Model based on Acculturation Project	MILMA Project	23/04/2018	28/02/2021	Fuenlabrada City Hall	3.59

Jobs and skills in the local economy (Calls 1 and 3)

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
Call 1						
NL	Building the Right Investments for Delivering a Growing Economy (BRIDGE)	BRIDGE	06/06/2017	31/10/2019	City of Rotterdam	5.00
IT	New Skills for new Jobs in Peri-urban Agriculture	OpenAgri	29/03/2017	30/10/2020	Municipality of Milan	5.00
ES	MARES de Madrid: resilient urban ecosystems for a sustainable economy	MARES de Madrid	18/04/2017	31/10/2019	Madrid City Council	4.80
ES	Bilbao Alliance For Smart Specialisation in Advanced Services Towards the Digital Transformation of Industry	AS-FABRIK	24/04/2017	31/07/2020	Bilbao Local Council	4.65
Call 3						
LV	Next Generation Micro Cities of Europe	NextGen Microcities	11/04/2019	31/10/2021	Ventspils City Council	5.00
NL	PASSPORT4WORK	P4W	28/05/2019	31/10/2021	City of Eindhoven	4.92
PT	AVEIRO STEAM City: Urban Network for Upgrading STEAM Skills and Increasing Jobs Added-Value through Digital Transformation in a new economic context	AVEIRO STEAM City	08/03/2019	31/10/2021	Municipality of Aveiro	4.89
RO	Cluj Future of Work	Cluj Future of Work	27/05/2019	31/10/2021	Cluj-Napoca Municipality	4.43
FI	Urban Growth - Growth and Social	Urban Growth -	28/03/2019	31/10/2021	City of Vantaa	3.99

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
	Investment Pacts (GSIP) Vantaa	GSIP Vantaa				
ES	Urban Forest Innovation Lab Cuenca	UFIL	06/05/2019	31/10/2021	Municipality of Cuenca	3.94

Urban poverty (Call 1)

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
Call 1						
FR	Transforming Areas with Social Talents: Feed, Include, Value, Educate, Share	TAST'in FIVES	11/04/2017	30/06/2020	City of Lille	5.00
FR	Creating bridges between homeless and local communities	5Bridges	10/05/2017	31/07/2020	City of Nantes	4.95
ES	Combining guaranteed minimum income and active social policies in deprived urban areas of Barcelona.	B-MINCOME	12/04/2017	31/10/2019	Barcelona City Council	4.85
IT	CO-CITY. The collaborative management of urban commons to counteract poverty and socio-spatial polarisation.	CO-CITY	24/04/2017	29/02/2020	Municipality of Turin	4.13
IT	Monterusciello Agro City	MAC	18/04/2017	31/07/2020	City of Pozzuoli	4.00
UK	Unlocking Social and Economic Innovation Together	USE-IT!	28/07/2017	31/12/2019	Birmingham City Council	2.91
Call 4						
DE	home and care	home and care	27/02/2020	31/08/2022	Stadt Landshut	4.98
ES	Energy Poverty Intelligence Unit	EPIU	01/07/2020	31/08/2022	Getafe City Council	4.98
IT	"Wellbeing Integrated System of Milan	WISH MI	09/03/2020	31/08/2022	Municipality of Milan	4.97
IT	Children Against Poverty Awake the CITy Education System	CAPACITyES	NOT YET SIGNED	31/08/2022	Municipality of Bergamo	4.80

Circular Economy (Call 2)

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
Call 2						
BE	Antwerp Circular South: engaging the community in an online and offline circular economy	Antwerp Circular South	06/04/2018	31/12/2020	City of Antwerp	4.98
FR	"On-site recycling process of extracted soil from construction sites in SEVRAN and transformation into raw building materials	EARTH CYCLE	04/07/2018	28/02/2021	City of Sevran	4.89
NL	First Circular Social Housing Estate for 100% Material and Social Circularity	Super Circular Estate	17/05/2018	31/10/2020	Municipality of Kerkrade	4.71
SI	ApPLAuSE (Alien PLAnt SpEcies) - from harmful to useful with citizens' led activities	APPLAUSE	30/04/2018	31/10/2020	City of Ljubljana	4.16
ES	Artificial regeneration of urban beaches with eroded recycled aggregates.	BRICK-BEACH	03/10/2018	30/06/2021	Vélez-Málaga Town Council	4.04
FI	Circular economy materials and novel method development to produce recyclable and functional urban construction products	Urban infra revolution	09/04/2018	31/10/2020	City of Lappeenranta	3.39
EL	Avoidable and Unavoidable Food Wastes: A Holistic Managing Approach for Urban Environments	A2UFood	16/04/2018	28/02/2021	Municipality of Heraklion	3.13
SI	Establishment of Innovative Urban Soil Based Economy Circles to Increase Local Food Self-sufficiency and Minimize	URBAN SOIL 4 FOOD	23/04/2018	31/05/2021	Municipality of Maribor	3.00

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
	Environmental Footprint in the city of Maribor					

Urban mobility (Call 2)

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
Call 2						
FR	COllaborative Mobility Management for Urban Traffic and Emissions reduction	COMMUTE	14/05/2018	31/10/2020	Metropolitan Toulouse	4.19
FI	Citizens' cap-and-trade co-created	CitiCAP	14/05/2018	31/12/2020	City of Lahti	3.80
BE	Traffic Management as a Service	TMaaS	16/08/2018	31/01/2021	City of Ghent	3.46
DK	Transforming Urban Planning Providing Autonomous Collective mobility	LINC-TUPPAC	03/05/2018	28/02/2021	Albertslund Municipality	3.37
HU	Smart Alliance for Sustainable Mobility	SASMob	05/09/2018	31/01/2021	City of Szeged	2.61

Adaptation to climate change (Call 3)

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
Call 3						
FR	School yards: Openness Adaptation Sensitisation Innovation Social ties	OASIS	09/04/2019	31/10/2021	City of Paris	5.00
NL	Resilience nEtwork of Smart Innovative cLImate-adapative rOoftops	RESILIO	24/06/2019	31/10/2021	City of Amsterdam	4.81
UK	Innovative financinG aNd delIvery of naTural clImate sOlutioNs in Greater Manchester	IGNITION	28/03/2019	31/10/2021	Greater Manchester Combined Authority (GMCA)	4.56

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
ES	Green Urban Actions for Resilient fire Defence of the Interface Area	GUARDIAN.	06/11/2019	30/10/2021	Riba-roja de Túria	4.40
ES	CartujaQanat. Recovering the street life in a climate changing world	CartujaQanat	07/02/2020	01/10/2021	Seville City Council (SCC)	4.00
ES	Blue, Green & Grey: Adapting Schools to Climate Change	GBG_AS2C	29/07/2019	30/10/2021	Barcelona City Council	4.00

Air quality (Call 3)

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
Call 3						
FI	Healthy Outdoor Premises for Everyone	HOPE	28/08/2019	31/10/2021	City of Helsinki	4.56
FR	Digital Alliance for Marseille Sustainability	DIAMS	13/05/2019	31/10/2021	Aix Marseille Provence Metropole	3.78
IT	Improving the environmental quality of the City of Portici: Monitoring, Modelling, and Mitigating Air Pollution through participated and efficient Policies.	AIR-HERITAGE	04/03/2019	31/10/2021	Portici Municipal Authority	3.27
NL	Air Quality through EV Battery Connectivity	AirQon	02/05/2019	31/10/2021	Municipality of Breda	2.54
CZ	CLear AIR and Climate Adaptation in Ostrava and other cities	CLAIRO	23/09/2019	30/04/2022	City of Ostrava	2.07

Housing (Call 3)

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
Call 3						
BE	Care and Living in Community	CALICO	15/07/2019	31/10/2021	Brussels Capital Region	5.00
FR	Home Silk Road, housing toward empowerment	Home Silk Road	02/07/2019	31/10/2021	Metropole of Lyon	5.00

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
BE	Improving housing Conditions for CAptive Residents in Ghent	ICCARus (Gent knapt op)	16/05/2019	31/10/2021	City of Ghent	4.80
HU	Co-creating a Regenerative Housing Project Together with the Community	E-Co-Housing	13/08/2019	31/10/2021	City of Budapest, District 14 Zugló Municipality	4.51
ES	Leveraging vacant private property to build up a cooperative affordable housing scheme	Yes We Rent!	16/07/2019	31/10/2021	Mataró City Council	2.50

Digital transition (Call 4)

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
Call 4						
IT	Digital Environment for collaborative Alliances to Regenerate urban Ecosystems in middle-sized cities	DARE	09/04/2020	31/08/2022	Municipality of Ravenna	5.00
AT	Building Regulations Information for Submission Envolvement – Vienna	BRISE-Vienna	06/04/2020	31/08/2022	City of Vienna	4.86
PT	People, Processes & Technology towards digital transformation of the urban mobility system of Lisbon	Vox Pop	NOT YET SIGNED	31/08/2022	Municipality of Lisbon	4.48
ES	Gavius: from reactive to proactive public administrations	Gavius	NOT YET SIGNED	31/08/2022	Gavà City Council	4.28
FR	Rennes Urban Data Interface	RUDI	11/02/2020	31/08/2022	Rennes Métropole	3.96
SE	DIigital ACCeleration for medium SizE Sustainable cities	DIACCESS	24/04/2020	31/08/2022	Municipality of Växjö	3.62
NL	w(e).service.heerlen	WESH	20/05/2020	31/08/2022	Municipality of Heerlen	2.62

Sustainable use of land and nature based solutions (Call 4)

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
Call 4						
NL	Urban River Regeneration through Nature Inclusive Quays	GreenQuays	10/04/2020	31/08/2022	Municipality of Breda	4.70
UK	Green Minds - a planning and management system for sustainable land use and nature based solutions	Green Minds	16/03/2020	31/08/2022	Plymouth City Council	4.00
IT	Urban productive parks for the development of NBS related technologies and services	UPPER	NOT YET SIGNED	31/08/2022	Municipality of Latina	3.95
IT	Prato Urban Jungle	PUJ	07/02/2020	31/08/2022	Prato Municipality	2.96
RO	Smart Post-Industrial Regenerative Ecosystem	SPIRE	12/03/2020	31/08/2022	Baia Mare Municipality	2.61

Urban security (Call 4)

Member State	Title	Acronym	Subsidy contract signed	Project End Date	Main Urban Authority	ERDF (€m)
Call 4						
IT	To-nite community-based urban security	To-nite	09/04/2020	31/08/2022	Municipality of Turin	4.64
EL	A Holistic Urban Security Governance Framework for Monitoring, Assessing and Forecasting the Efficiency, Sustainability and Resilience of Piraeus	BeSecure-FeelSecure	10/04/2020	31/08/2022	Municipality of Piraeus	3.97
FI	Smart Urban Security and Event Resilience	SURE	18/03/2020	31/08/2022	City of Tampere	3.21

ANNEX 2: PROJECT SCORECARDS (CALLS 1 AND 2)

An expert assessment was undertaken for a sample of 22 projects within Calls 1 and 2. Drawing on all sources of evidence (project documents and data, interviews, on-line survey, case studies), the assessment considered the extent of implementation, changes made and the likely extent to which activities would be sustained or scaled up. The results of the assessment were captured in a scorecard for each project, which are presented in this annex. The assessment was not undertaken for projects within Calls 3 and 4, given that they were in the early state of implementation or still in the initiation phase. Evidence for a sample of projects in Calls 3 and 4 is instead offered in Annex 3.

Energy transition (Call 1)

FED (Gothenburg, SE)

Indicator	Response	Comment (evidence source)
Call	• Call 1	
Reached end date?	• Yes	End date: 31/10/2019
Core innovation (description)		Local and digital marketplace to connect cooling, heating, and electricity into a single system through a new automated ICT-solution.
Actual completion of activities	• Fully	• Research: research necessary to design the digital marketplace has been completed. • Technology development: FED marketplace has been built. • Citizen/user outputs: FED energy marketplace launched, providing the citizens with a more robust energy system that can handle increased proportions of variable production. (Source: Case study research)
To schedule	• Ended	Call 1 project
Changed during initiation phase	• Not at all	(Source: Project's response to on-line survey)
Major changes during implementation	• 2	• Budget x 2 (Source: UIA Secretariat database)
(Likely) extent to which activities sustained or scaled up	• Fully	• The aim of the FED project was not to scale it up but to replicate it due to the unique nature of the area where the project is based. The FED project is located at the Chalmers Campus, a unique place for the regulatory or infrastructure challenges. • The digital marketplace for energy is working successfully in the campus of Chalmers University of Technology, there is a continuation of the project activities at site and hopefully also in the city and in the region. Currently funded with own resources. The project was a test for a place that had specific conditions for the moment it cannot be scaled up to other areas other than the campus in the exact same terms. (Source: Case study research)
Core innovation fulfilled	• Fully	• FED successfully tested the core innovation; the local and digital marketplace to connect cooling, heating, and electricity into a single system through a new automated ICT-solution is now fully operational. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey and case study)

CoRDEES (Paris, FR)

Indicator	Response	Comment (evidence source)
Call	• Call 1	
Reached end date?	• Yes	End date: 31/10/2019
Core innovation (description)		New energy ecosystem with a multiplayer energy governance, a Community Energy Management Platform to monitor, consolidate and analyse energy data for all buildings and public facilities in real time and new services to empower stakeholder through a new actor.
Actual/likely completion of activities	• Mostly	• Research: completed; developed a web platform to share the data collected at the district and building levels. • Technology development: new energy ecosystem with a multiplayer energy governance, a Community Energy Management Platform to monitor, consolidate and analyse energy data for all buildings and public facilities in real time and new services to empower stakeholder through a new actor. • Citizen/user outputs: Access to data collected comes with services aimed at improving the energy efficiency of the district and the proportion of renewable energy. • Some outputs were not delivered as planned, like the Community Portal or some of the urban energy services that were still in the test phase. (Source: Case study research)
To schedule	• Ended	Call 1 project
Changed during initiation phase	• Not at all	(Source: Project's response to on-line survey)
Major changes during implementation	• 1	• Budget • Other (Nature of investment) (Source: UIA-PS database)
(Likely) extent to which activities sustained or scaled up	• Fully	• Roll-out of the project is already foreseen on the global Clichy Batignolles neighbourhood and on short-coming urban operations in Paris. The results will also be integrated within the overall Paris City Plan. (Source: Case study research)
Core innovation fulfilled	• Fully	• The primary innovation tested by the project was the concept of creating a new energy ecosystem. The energy ecosystem was formed by an interoperable and multi-user monitoring platform (the Community Energy Management Platform (CEMP)), a new multiplayer energy-governance framework and the creation of a new actor (the Urban Sustainability Trustee Facilitator) to deliver new services to empower stakeholders and target groups. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey and case study)

VILAWATT (Viladecans, ES)

Indicator	Response	Comment (evidence source)
Call	• Call 1	
Reached end date?	• Yes	End date: 31/10/2020
Core innovation (description)		Public-Private Citizen governance Partnership (PPCP) that include access to local energy supply, energy savings contracting, deep renovations assessment of buildings and new financing possibilities.
Actual/likely completion of activities	• Mostly	• Governance innovation achieved: Public-Private Citizen governance Partnership (PPCP). • Research: Research necessary to provide access to local energy supply, renovation assessment of buildings and financing possibility has been developed. • Infrastructure: 3 neighbourhood communities have been renovated. • Citizen/user outputs: two proposed outputs are not fully working yet: the energy renovation works and the energy currency. (Source: Review of project documents, project's response to on-line survey)
To schedule	• Ended	Call 1 project
Changed during initiation phase	• Not at all	(Source: Project's response to on-line survey)
Major changes during implementation	• 2	• Budget • End date. (Source: UIA-PS database)
(Likely) extent to which activities sustained or scaled up	• Fully	• The VILAWATT models is designed for scaling up, in that once set up it only requires for new users to adhere to the project to expand. • In June 2019, a citizen association was created that adheres to the consortium. (Source: Review of project documents, project's response to on-line survey)
Core innovation fulfilled	• Mostly	• The main innovation proposed has been fulfilled i.e. to create an innovative organisational structure made up of residents, businesses and the City Council, along with other public bodies. The structure is a Public-Private Citizen governance Partnership (PPCP) that aimed to include access to local energy supply, energy savings contracting, deep renovations assessment of buildings and new financing possibilities. However, the renovation works were not delivered on time. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey)

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Integration of Migrants and Refugees (Calls 1 and 2)

S.A.L.U.S. 'W' SPACE (Bologna, IT)

Indicator	Response	Comment (evidence source)
Call	• Call 1	
Reached end date?	• No	End date: 31/01/2021
Core innovation (description)		Regeneration of integrated community and service space. Participatory collaborative project with full engagement of refugees.
Actual/likely completion of activities	• Partly	• Delays to the building work delayed the activities. • Many training courses have taken place off site, apart from field training (i.e. training in construction) for refugees and migrants which could not take place. • The Wellbeing work package which relates to participatory processes has taken place as expected and the Think Tank was established. • The Welcome work package has been most affected by the delays to the building works as co-housing and social enterprises, as well as gardens and arts events cannot be implemented until the building is ready. (Source: Case study research)
To schedule	• Slightly	• Once environmental testing and surveys were completed it was found that one of the two buildings planned for re-purposing could not safely be converted. The decision was taken to demolish the old building and build a new facility for housing. The second building would be used for theatres, catering and social laboratory activities. Activities planned in the facility had to take place at other locations while the building work took place. • The project experienced setbacks due to COVID-19 and will begin integration of activities when the site opens. • Given the delays, the project timescale was extended. (Source: Case study research)
Changed during initiation phase	• Slightly	(Source: Case study research)
Major changes during implementation	• 2	• Start date • Other (Nature of investment) • Budget (Source: UIA-PS database)
(Likely) extent to which activities sustained or scaled up	• Partly	• The project has not completed all activities and is not at the stage of scale-up. • The plan for scale up was to be through the network of reception centres and where regeneration projects and refugees exist in a similar space. Some areas of the project show potential for scale up such as the co-design and participation model, community evaluator model and potentially a model for financial sustainability through social enterprise and co-housing located on site. (Source: UIA-PS database)
Core innovation fulfilled	• Partly	• The project was delayed and had to request a 1-year extension to test and develop the key innovations. The project changed from an urban

Indicator	Response	Comment (evidence source)
		building renovation project to a demolition and rebuild which has taken significant time; building work was also hindered due to the COVID-19 lockdown and related ban on construction. However, a number of core innovations have taken place such as community evaluators, supporting community based evaluation, and community journalists gathering and telling stories for local media. In addition, the project has implemented strong element of community participation, co-design and co-management which is an innovative feature of the project. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey, case study)

CURANT (Antwerp, BE)

Indicator	Response	Comment (evidence source)
Call	• Call 1	
Reached end date?	• Yes	End date: 31/10/2019
Core innovation (description)		Co-housing and 'buddy system' connecting local young people with unaccompanied refuge minors and providing those minors with tailored trajectory planning focussing on activation, education, independent living, language, leisure, social integration and psychological counselling.
Actual completion of activities	• Fully	• Affordable co-housing solution for 83 young migrants and 79 local buddies. • Integrated and personalised approach to support services for 83 young migrants • Development of innovative housing supply through purchasing, renovating and renting housing stock. (Source: Review of project documents, interview, project's response to on-line survey)
To schedule	• Ended	Call 1 project
Changed during initiation phase	• Not at all	(Source: Project's response to on-line survey)
Major changes during implementation	• 1	• Budget • Other (Nature of investment) (Source: UIA-PS database)
(Likely) extent to which activities sustained or scaled up	• Partly	• The project is in discussions with local and national government to find further funding to scale up the model. • CURANT 2.0 has been initiated, however, the project is far smaller (only 7 recipients). • Some of the training and other services will be taken up by the project partners and mainstreamed into their existing services. (Source: Review of project documents, interview, project's response to on-line survey)
Core innovation fulfilled	• Fully	• The project delivered on the two major areas of innovation: i) bringing together young citizens with unaccompanied minors in a co-housing and 'buddy' set up testing models of housing purchase and rental; ii) providing unaccompanied minors with tailored trajectory planning focussing on activation, education, independent living, language, leisure, social integration and psychological counselling.

Indicator	Response	Comment (evidence source)
		(Source: Expert assessment based on review of project documents, interview, project's response to on-line survey)

CoRE (Vienna, AT)

Indicator	Response	Comment (evidence source)
Call	• Call 1	
Reached end date?	• Yes	End date: 31/10/2019
Core innovation (description)		Regeneration of disused building to be fit for purpose. Integration of refugee in co-design process, maximising existing skills. Refugees act in a coaching, mentoring and teaching role in education, language, vocational training.
Actual completion of activities	• Fully	• Working with 119 peer mentors, providing training for 60 teachers, ten public calls for support for civil society initiatives and volunteer activities, 16 trade specific workshops in the fields of bakery/confectionery, gastronomy, hairdressing, carpentry, tailoring and IT. • 54 projects by NGOs, civil society initiatives and volunteers were provided with funding for the implementation of their integration offers. • Two certificate courses teachers deployed to 25 local schools as part of non-profit/public service employment. (Source: Review of project documents, interview, project's response to on-line survey)
To schedule	• Ended	Call 1 project
Changed during initiation phase	• Not at all	(Source: Review of project documents, interview, project's response to on-line survey)
Major changes during implementation	• 1	• Activities • Budget (Source: AIR 2019)
(Likely) extent to which activities sustained or scaled up	• Partly	• The project has not scaled up but numerous activities will be continued by the project partners. • The certificate course for refugee teachers will be organised by the University of Vienna, the trained Peer Mentors will continue offering city walks and school workshops, and activities like the information modules, workshops, charter talks and discussion rounds. • The CORE Centre will be continued after the end of project. • The project as a whole will not be funded by local public funds due to changes in policies which do not prioritise this work. (Source: Review of project documents, interview, project's response to on-line survey)
Core innovation fulfilled	• Mostly	• The project has delivered the innovative components: regeneration of disused building for refugee and migrant integration services, and the concept of 'integration from day one' empowering refugees to use their own skills and competencies in the integration process. The project has delivered on first language literacy courses, learning support in German, IT courses, teaching training and deployment to local schools, creative and

Indicator	Response	Comment (evidence source)
		vocational/business workshops. It has also provided organisational support for civil society initiatives, associations and volunteers to implement their own activities for refugees. • (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey)

U-RLP (Utrecht, Netherlands)

Indicator	Response	Comment (evidence source)
Call	• Call 1	
Reached end date?	• Yes	End date: 31/10/2019
Core innovation (description)		Reception centre regeneration: social interactions and training bringing together asylum seekers and young NEET citizens
Actual completion of activities	• Fully	• Community building: co-housing and living • Business incubation programme (229 participants) • Entrepreneurship classes (200 participants) • Flexible education and training activities (281 participants) • social activities to promote integration of citizens and asylum seekers (117 activities) (Source: Review of project documents, interview, project's response to on-line survey)
To schedule	• Ended	Call 1 project
Changed during initiation phase	• Not at all	(Source: Review of project documents, interview, project's response to on-line survey)
Major changes during implementation	• 1	(Source: UIA-PS database)
(Likely) extent to which activities sustained or scaled up	• Partly	• The project transferred its site from one reception centre to another owned by the COA resulting in having to make adaptations to a new site. This caused challenges in developing a multilevel governance structure. • Policy challenges have generally hampered the potential scale up of the initiative. Despite, a motion in national parliament in 2018 which approved the suggestion that the project concept should be transferred in other asylum centres in the Netherlands, the final evaluation report notes that 'national policy shifts and differences in ideology and organisational priorities between the local level and national COA's perspective on its responsibilities have created tensions and affected the project's ability to scale to another location across the city'. (Source: Review of project documents, interview, project's response to on-line survey)
Core innovation fulfilled	• Mostly	• The project successfully implemented the Utrecht – Refugee Launch Pad (U-RLP) combining community housing, learning activities as well as a business incubator and work spaces to support entrepreneurship among asylum seekers and young citizens who are NEETs (not in Education, Employment or Training), who represent 20% of the neighbourhood population. Some issues outside of the project's control (e.g. challenges in the working

Indicator	Response	Comment (evidence source)
		relationship with the national Central Agency for the Reception of Asylum Seekers) may have inhibited the full innovative potential of the project. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey)

Curing the Limbo (Athens, GR)

Indicator	Response	Comment (evidence source)
Call	• Call 2	
Reached end date?	• No	End date: 30/06/2021
Core innovation (description)		Four pillar integration model (Limbo Ext lab) - Housing, training, job counselling, connection with active citizens.
Likely completion of activities	• Partly	• Social rental agency housing model has provided an innovative medium between refugees and private sector landlords, combined with a suite of services to support refugees to actively participate in civic life alongside citizens • 116 housing contracts signed (target: 75) • 60 exchange plans (target: 116), i.e. a plan for refugees and migrants to volunteer time in civic activities in exchange for affordable housing subsidies). • Training outputs, especially for language classes were over ambitious with an expected 240 certificate exams taken in English and Greek. The dropout rate for language classes with over 50% with many people not attended more than a few classes, and a number of people joining at various points during the programme. (Source: Case study research)
To schedule	• Slightly behind	• The start date of the project was delayed due to the recruitment process that had to take place before the project commenced. • There were also some delays due to public procurement procedures. • The COVID-19 lock down resulted in some further delays to training activities. • However, activities have otherwise been delivered largely to schedule. (Source: Case study research)
Changed during initiation phase	• Slightly	(Source: Project's response to on-line survey)
Major changes during implementation	• 1	• Partnership • Budget (Source: UIA-PS database)
(Likely) extent to which activities sustained or scaled up	• Not at all	• The project was intended to be scaled up to reach more refugee and migrant populations in Athens, but will not be scaled up in practice. • A change in the political leadership of the city is likely to reduce the level of future investment in initiatives to support integration of refugees. • While the project aims to advocate for scale up, it is unlikely the project as a whole will be expanded with local funds. (Source: Case study research)

Indicator	Response	Comment (evidence source)
Core innovation fulfilled	• Mostly	• The project has, for the most part, achieved its goal of offering innovative solutions to the problems of refugee 'limbo' and lack of integration and participation of refugees in public life. The social rental agency housing model has provided an innovative medium between refugees and private sector landlords, combined with a suite of services to support refugees to actively participate in civic life alongside citizens. The project has incorporated a number of innovative methods to deliver mainstream services such as language tuition in city settings; using art and media as a means to facilitate better understanding of the city by refugees and migrants, and supporting refugees and citizens to work together on local regeneration projects which area funded through synAthina. Certain innovative features that were planned such as financial incentives for landlords were not employed as much as anticipated largely because they were not needed. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey and case study)

MiFRIENDLY CITIES (Coventry, UK)

Indicator	Response	Comment (evidence source)
Call	• Call 2	
Reached end date?	• No	End date: 31/05/2021
Core innovation (description)		Creating a "migrant friendly city" from the bottom up e.g. social enterprise start-ups, social innovation projects, student networks, business networks, schools based rights training
Likely completion of activities	• Mostly	• Creation of social enterprises which build solidarity between communities (16) and social innovation grassroot organisations (11) • Community Health Champions from refugee and migrant communities (43) who trained and are active in their communities • Share My Language (100) sessions in libraries and community centres • migrants and refugees rights health check (66) are verifying the legal situations of displaced persons • families in difficulties (34) have seen their accommodation receive make overs by refugee and migrant community members who are trained in furniture renewal and painting and decorating. • Citizen Social Scientists trained (5) to support the monitoring and evaluation of the project • 129 citizens journalists trained to gather stories about the project for online and local media (Source: Review of project documents, interview, project's response to on-line survey)
To schedule	• Slightly behind	• Some delays caused by COVID-19 (Source: Review of project documents, interview, project's response to on-line survey)
Changed during initiation phase	• Not at all	(Source: Review of project documents, interview, project's response to on-line survey)

Indicator	Response	Comment (evidence source)
Major changes during implementation	• 1	(Source: UIA-PS database)
(Likely) extent to which activities sustained or scaled up	• Partly	• The project has worked on scaling up some initiatives in other cities in the region. • For example, the Share My Language initiative is being scaled up in different ways. • The project has developed some guides (e.g. Employers survey 2019, Employers Guide, Interactive Project Guide) to support aspects of the project being taken up in other areas. • There are concerns that reduction in available funding for certain activities at local level may prevent scale up. (Source: Review of project documents, interview, project's response to on-line survey)
Core innovation fulfilled	• Mostly	• The project has been successful in developing and testing core innovations. This is a multi-dimensional project working in a number of interconnected areas e.g. getting migrants and refugees ready for employment through training and apprenticeships offered through the Business Leaders Forum, and supporting the creation of social enterprises and grassroots community initiatives. The project also supports language learning through Share my Language initiatives in local community settings. It trains people from refugee and migrant communities and community heath champions to enable better access to healthcare and as citizen journalists and social scientists. Some parts of the project have been delayed such as the re-purposing the Hope Centre into a community hub for integration activities. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey)

MILMA (Fuenlabrada, ES)

Indicator	Response	Comment (evidence source)
Call	• Call 2	
Reached end date?	• No	End date: 31/08/2021
Core innovation (description)		Business Challenge Labs (BC Labs) provide training oriented in niche, high demand employment. Intercultural activities and training supports integration.
Likely completion of activities	• Fully	• Public/private partnerships established through seven Business Challenges (BCs) Labs. • Achieved all intended outputs, • Some higher level results achieved, e.g. 40% of refugees involved in the project acquired employment. (Source: Review of project documents, interview, project's response to on-line survey)
To schedule	• Slightly behind	• Delays in the refurbishment of the BC lab buildings • Project is otherwise on track to deliver activities by the end of the project.

Indicator	Response	Comment (evidence source)
		(Source: Review of project documents, interview, project's response to on-line survey)
Changed during initiation phase	• Fundamentally	(Source: Project's response to on-line survey)
Major changes during implementation	• 0	(Source: UIA-PS database)
(Likely) extent to which activities sustained or scaled up	• Partly	• The project is looking for additional funds to sustain and scale up the project. • There is potential for scaling up through developing strong connections to local businesses that could provide new investment mechanisms beyond traditional means of funding local vocational training. • In some cases local companies have taken on the operation of the BC Labs • There have been challenges in terms of the capacity of local SMEs to help sustain the business labs due to their small size and turnover. (Source: Review of project documents, interview, project's response to on-line survey)
Core innovation fulfilled	• Fully	• The project has delivered the intended innovations of seven Business Challenge Labs (BC Labs) in key high demand areas of the economy, and engaged local companies and social enterprises in skills development training programme in these areas. The project also created "Experimental Teams of Employment and Integration" (ETEIs) consisting of locals and migrants within the BCs Labs which have strengthened integration and social cohesion. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey)

Jobs and skills in the local economy (Call 1)

BRIDGE (Rotterdam, NL)

Indicator	Response	Comment (evidence source)
Call	• Call 1	
Reached end date?	• Yes	End date: 31/10/2019
Core innovation (description)		Targets young people in a disadvantaged area, orients their studies (from primary school) towards growing sectors in need of employees. Agreements made with employers to have them promise students in this programme a job position before they enter vocational training (Career Start Guarantees)
Actual/likely completion of activities	• Fully	• Training/skills outputs: more than 650 career start guarantees • 1-on-1 mentoring of pupils from South Rotterdam • Students participating in vocational training, agreements made with employers for more career start guarantees (Source: Review of project documents, interview, project's response to on-line survey)
To schedule	• Ended	Call 1 project

Indicator	Response	Comment (evidence source)
Changed during initiation phase	• Not at all	(Source: Review of project documents, interview, project's response to on-line survey)
Major changes during implementation	• 2	• Budget x 2 (Source: UIA Secretariat database)
(Likely) extent to which activities sustained or scaled up	• Fully	• The project is being scaled up to include the whole of Rotterdam. • Scale up involves increasing the number and variety of Career Start guarantees by involving more employers. • More career start guarantees have been made with different types of employers being brought in to the system. • Students involved are now not just in South Rotterdam but the surrounding area as well. (Source: Review of project documents, interview, project's response to on-line survey)
Core innovation fulfilled	• Fully	• The project was successful in its targeting of young students and was provided more career start guarantees than initially targeted. The project was successful in orienting students and adults from disadvantaged areas of Rotterdam to growing sectors of the economy and sectors where there is labour shortage and in solving the issue of skills mismatch. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey)

OpenAgri (Milan, IT)

Indicator	Response	Comment (evidence source)
Call	• Call 1	
Reached end date?	• Yes	End date: 31/10/2020
Core innovation (description)		Innovation hubs and spaces in Peri-Agriculture created for businesses to test their business ideas in local food agriculture. Training of aspiring farmers and entrepreneurs occurring alongside innovation.
Actual completion of activities	• Mostly	• Infrastructure: building of innovation/ training hub was delayed. • Training/skills outputs: digital tool to indicate skills obtained by aspiring farmers and entrepreneurs launched • Business outputs: new business ideas and models launched after innovation tested in hubs and peri-agricultural spaces • New partnership with municipal authority for more testing of innovation (Source: Case study research)
To schedule	• Ended	Call 1 project
Changed during initiation phase	• Not at all	(Source: Project's response to on-line survey)
Major changes during implementation	• 1	• Start date • Activities • Budget • Other (Nature of investment) (Source: UIA Secretariat database)

Indicator	Response	Comment (evidence source)
(Likely) extent to which activities sustained or scaled up	• Partly	• Some activities are being sustained. • The project application noted that scale-up would depend on the demand and interest for more activities of the project. • In practice, there does not seem to have been much of an emphasis on scaling up the activities. (Source: Case study research)
Core innovation fulfilled	• Mostly	• The community model for the agri-food sector whereby start-ups and young businesses are complemented by research and development, incubation, and social initiatives was successfully implemented. Through this model, participants obtained training and certified skills. The innovative model also led to the creation of new start-ups and entrepreneurship activities, and with it new jobs. Reconstruction of the farmhouse in Porto di Mare that would serve as a living lab for open innovation, social inclusion and skills development was delayed. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey and case study)

Mares de Madrid (Madrid, ES)

Indicator	Response	Comment (evidence source)
Call	• 1	
Reached end date?	• Yes	End date: 31/10/2019
Core innovation (description)		Hubs dedicated to specific sectors related to the sustainable development goals created where business ideas can be tested and designed and partners involved can receive training in inter alia in social economy and how to scale production.
Actual/likely completion of activities	• Partly	• Some outputs achieved but short of the targets in the application. This was particularly the case with the amount of new cooperatives incubated. • Some hubs were more successful than others due to the differing levels of maturity of the economic sectors. • The project had more success with the learning communities established and the training of businesses in innovation hubs on social economy and scaling up production. • The application made reference to jobs created out of these activities but there seems to be limited evidence of the project recording this output. • Project fell short again the target for new businesses/cooperatives established to meet local needs. (Source: Review of project documents, interview, project's response to on-line survey)
To schedule	• Ended	Call 1 project
Changed during initiation phase	• Slightly	(Source: Project's response to on-line survey)
Major changes during implementation	• 1	• Activities • Other (Nature of investment) (Source: UIA Secretariat database)
(Likely) extent to which activities	• Partly	• Core to the potential for scale up was interest and adoption from other municipal districts. This would

Indicator	Response	Comment (evidence source)
sustained or scaled up		lead to a mobilisation of resources to expand the activities of MARES. This has not yet occurred. • There was a change in the party coalition governing the municipality which does not have the same priorities with regard to social economy, so the likelihood of scaling up is uncertain. (Source: Review of project documents, interview, project's response to on-line survey)
Core innovation fulfilled	• Partly	• The project hosted training sessions on the social economy and was able to bring together stakeholders into sectoral hubs to incubate new businesses, and test and develop their products/services to be market ready. Some hubs were more successful than others due to the differing levels of maturity of the economic sectors. The project was able to implement many of its initiatives but fell short of its targets for business creation. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey)

AS-FABRIK (Bilbao, ES)

Indicator	Response	Comment (evidence source)
Call	• Call 1	
Reached end date?	• Yes	End date: 31/07/2020
Core innovation (description)		Networks established between local business and universities that allow for local businesses to develop services and products in KIBS sector whilst receiving economic forecasting and relevant training from research institutions related to industry 4.0. Fab lab undergoing construction to allow for testing of products.
Actual/likely completion of activities	• Mostly	• Not completed: new building and the Minimum Viability Product lab (to be housed within) • Outputs achieved for training from university of entrepreneurs for skills relevant to industry 4.0 • New business partnerships created to develop products and services in KIBS that are adapted to industry 4.0 (Source: Case study research)
To schedule	• Ended	Call 1 project
Changed during initiation phase	• Fundamentally	• The project postponed the official start date by 9 months (01/08/2017 to 31/07/2020) and took this opportunity to present by the new project end date a more mature and ambitious project. • The modifications to the work plan mainly consisted of activities extensions, inclusion of new deliverables and deeper analysis carried out within existing activities in order to maximize project impact. (Source: UIA Secretariat database)
Major changes during implementation	• 2	• Other (Nature of investment) • Budget (Source: UIA Secretariat database)
(Likely) extent to which	• Partly	• Scale-up of the construction plans occurred midway through the project in response to greater

Indicator	Response	Comment (evidence source)
activities sustained or scaled up		demand. • Scaling up of the pilot activities are planned but not yet fully in motion. • Efforts are underway to include more and a larger variety of stakeholders . (Source: Case study research)
Core innovation fulfilled	• Partly	• The project created an ecosystem of policymakers, academia, business clusters, local companies, entrepreneurs and students which would allow the Bilbao KIBS and manufacturing sector to innovate and adapt to industry 4.0. Academia working with business clusters performed research to identify new market niches and technological changes for manufacturing to adopt. Networking and mentoring, informed by the findings of research, have allowed for new partnerships to emerge leading to new business ventures and new product innovations. However, the new building has not been completed and with it the Minimum Viability Product lab. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey and case study)

Urban poverty (Call 1)

B-MINCOME (Barcelona, ES)

Indicator	Response	Comment (evidence source)
Call	• Call 1	
Reached end date?	• Yes	End date: 31/10/2019
Core innovation (description)		Testing four types of minimum income schemes paid with local funds and accompanying them with by socio-occupational activation policies which would also be evaluated.
Actual completion of activities	• Fully	• Distribution of the income (including local digital currency) to at least to 200 households. • Households also obtained access to local socio-occupational activation programmes aimed at reducing their social exclusion, encouraging individuals to take the initiative and develop their own strategies. • The project used a local currency for payment of part of the minimum income. • Evaluation report on the effects of different minimum income schemes produced. (Source: Case study research)
To schedule	• Ended	Call 1 project
Changed during initiation phase	• Not at all	(Source: Case study research)
Major changes during implementation	• 0	(Source: UIA-PS database)
(Likely) extent to which activities sustained or scaled up	• Mostly	• The project's aim was to scale up to the level of the whole city, i.e. targeting all disadvantaged households in Barcelona. So far, there is scaling up of activities to some of the other deprived areas of

Indicator	Response	Comment (evidence source)
		Barcelona, but not yet to all of them. • Funding is being sought from the regional government for additional scaling up across the whole city. (Source: Case study research)
Core innovation fulfilled	• Fully	• The project successfully applied the minimum income approach at the city level, in combination with active labour and social policies. This was a key innovation since minimum or basic income is not normally applied at the level of a city. The project used a local currency for payment of part of the minimum income, a novel and innovative approach. An additional innovation was the significant focus on evaluation of results, with a control group identified in neighbouring disadvantaged areas of the city. The overall results and the final evaluation carried out showed highly positive effects for the project's beneficiaries, versus those in the comparison control group. Project participants showed improved aspects of economic and social wellbeing such as physical and mental health, nutrition, community participation and education outcomes. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey and case study)

USE-IT! (Birmingham, UK)

Indicator	Response	Comment (evidence source)
Call	• Call 1	
Reached end date?	• Yes	End date: 31/12/2019
Core innovation (description)		Creating bridges between macro-assets in the city (e.g. hospitals) and micro-assets in the local community, through engagement with grassroots community organisations and as a means to facilitate research, pathways to employment and business opportunities for social enterprise.
Actual completion of outputs and results	• Fully	• USE-IT! successfully tested the core innovation, i.e. it developed improved mechanisms to connect poor and migrant communities to urban development and city-regional resources (linking micro-assets in poor neighbourhoods to macro-assets in order to reduce displacement). • The project achieved all the core outputs listed in the application form. (Source: Case study research)
To schedule	• Ended	Call 1 project
Changed during initiation phase	• Slightly	• End date revised during the initiation phase (Source: UIA-PS database)
Major changes during implementation	• 2	• Budget • Activities (Source: UIA-PS database)
(Likely) extent to which activities sustained or scaled up	• Mostly	• Birmingham City Council intends to replicate the whole USE-IT! model in other parts of the city. • Community Researcher programme will be sustained as a self-standing social enterprise or community interest company. • Employment pathways programme model (engaging

Indicator	Response	Comment (evidence source)
		with grassroots community organisations in order to reach "unused" overseas medical professionals amongst the local migrant/refugee community) has been sustained and scaled up by the hospital trust via a dedicated continuation programme with mainstream funding and is reaching a wider set of target groups. • However, the activity has not been rolled out to the two other major hospital trusts in the city (as proposed in the UIA application). (Source: Case study research)
Core innovation fulfilled	• Fully	• USE-IT! successfully tested the core innovation, i.e. mechanisms to connect poor and migrant communities to urban development and city-regional resources (linking micro-assets in poor neighbourhoods to macro-assets in order to reduce displacement). This included: i) empowering community researchers to undertake community research embedded in principles of sustainable urban development; ii) creating alternative & sustainable enterprise & employment structures enabling communities & the 3rd sector to have greater roles in creating structures for overcoming poverty; iii) large-scale developers have been engaged and connected with social enterprises that might serve as suppliers, i.e. firms involved in building infrastructure for the Commonwealth Games due to take place in Birmingham in 2022 (swimming pool, athletes village). (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey and case study)

Circular Economy (Call 2)

Earth Cycle (Sevran, FR)

Indicator	Response	Comment (evidence source)
Call	• Call 2	
Reached end date?	• No	End date: 28/02/2021
Core innovation (description)		Raw earth construction materials made from excavated waste found on demolition and construction sites. Will be used on major construction sites.
Likely completion of activities	• Mostly	• Factory site has been scaled down (for producing usable construction material from leftover waste at construction and demolition sites). • Factory building permit was secured in 2019. • Once the factory opens (projected for 2021), the project can achieve its intended material outputs. • Project has exceeded outputs for the number of training days and number of workshop attendees. (Source: Review of project documents, interview, project's response to on-line survey)
To schedule	• Slightly behind	• While all production lines have been designed, machines selected, and the treatment process secured, the factory itself has not yet opened; this is projected for 2021. • Outputs, such as a positive rating from the inhabitant

Indicator	Response	Comment (evidence source)
		survey and reduction of grey energy, are have not yet been achieved as the survey was not yet launched and the energy reduction will only become apparent when construction projects are using the factory's materials. (Source: Review of project documents, interview, project's response to on-line survey)
Changed during initiation phase	• Slightly	(Source: Project's response to on-line survey)
Major changes during implementation	• 1	• Partners • Budget • Other (Nature of investment) (Source: UIA-PS database)
(Likely) extent to which activities sustained or scaled up	• Too early to say	• Factory opening is delayed, therefore uncertainty over its sustainability. • Three of the proposed means of scaling up appear uncertain at this stage: expanding outputs within a wider urban development project (Sevran Terre d'Avenir); diversifying the source for extracted soils; moving from earth materials used for filling and finishing to earth materials used for outside and structural needs. • There remains potential for scaling up through promoting the project through third partners and securing business deals with a construction firm. (Source: Review of project documents, interview, project's response to on-line survey)
Core innovation fulfilled	• Partly	• The project was behind schedule, due to a major change request (scaling down the factory site) and the COVID-19 lockdown, meaning that the actual construction material production was delayed. Some innovative potential has been fulfilled through training days for various actors (unemployed civilians, architects, and construction industry leaders) and deals with construction businesses interested in incorporating Earth Cycle materials into their projects. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey and case study)

Urban Soil 4 Food (Maribor, SI)

Indicator	Response	Comment (evidence source)
Call	• Call 2	
Reached end date?	• No	End date: 31/05/2021
Core innovation (description)		Increasing dependence on local food production and self-sufficiency by setting up community gardens in the city centre and connecting citizens to local farmers/food producers via an online platform and app. A factory will be set up to convert urban waste into soil for the community gardens, which will produce fruit and vegetables for the city.
Likely completion of activities	• Mostly	• Delays to both the location of the waste treatment plant and, therefore, the certification of usable recycled soil, mean that not all planned activities will occur within the project timeframe. • Research completed: preliminary test of mixture of

Indicator	Response	Comment (evidence source)
		soil and bio-waste proved that bio-charcoal retains heat very well. • Technology development: Set up a large urban garden, comprised of 66 plots. • Online platform has launched and been promoted to/by other municipalities in Slovenia. • The factory itself will be verified by the ETV (environmental technology verification). • Citizen/user outputs: There is an increased interest among citizens in saving food and urban gardening, with over 180 people attending a Living Lab presentation, and over 300 expressing interest in this type of event. • New business opportunities: Start-ups and SMEs are crowdfunding. (Source: Case study research)
To schedule	• Slightly behind	• Delays to the location of the waste treatment plant and the certification of usable recycled soil. • Some setbacks due to COVID-19 lockdown. • Delayed activities are on track to be realised within 2020, however implementation in urban gardens and redevelopment projects are projected to take place by 2021 • The UIA-PS risk assessment refers to a medium risk regarding timing, in which the project may not have enough allotted time to sufficiently test the soil for reuse. (Source: Case study research)
Changed during initiation phase	• Slightly	(Source: Project's response to on-line survey)
Major changes during implementation	• 0	(Source: UIA Secretariat database)
(Likely) extent to which activities sustained or scaled up	• Mostly	• The factory is not yet operational, so none of the Material Circle operations have been scaled up • Online platform is connecting civilians to 100 local farmers and will roll out a mobile app to increase user convenience. • Factory's technology is being verified by the ETV which will allow it to be replicated in other Member States. • Living lab start-ups are being supported and promoted by the project on a variety of platforms. (Source: Case study research)
Core innovation fulfilled	• Fully	• The project planned several innovations. Although operating in different "circles" or work packages, they are connected by a main innovation, which has been achieved: to establish a circular economy in Maribor through the conversion of municipal waste into soil for community gardens and material for construction and urban redevelopment projects. The project remained consistent in all its innovations, except for one minor change to the initial food label target. According to the application, the urban food label was intended to denote produce grown locally, and to encourage Maribor's self-sufficiency. This innovation has been strengthened by the creation of an online platform, where citizens are connected to +100 local farmers, can arrange delivery and pick-up time slots of their produce, and increase their reliance on locally-grown

Indicator	Response	Comment (evidence source)
		rather than imported food. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey and case study)

Urban mobility (Call 2)

CitiCAP (Lahti, FI)

Indicator	Response	Comment (evidence source)
Call	• Call 2	
Reached end date?	• No	End date: 31/12/2020
Core innovation (description)		Personal Carbon Trading scheme using a mobile application based on transport mode detection and offering incentives for citizens choosing sustainable mobility options.
Likely completion of activities	• Fully	• Research: app tested with 600 citizens. Survey of 1,000 citizens analysed mobility behaviour. • Technology development: data platform and app have been completed. • Citizen/user outputs: personal carbon trading scheme launched. (Source: Review of project documents, interview, project's response to on-line survey)
To schedule	• On schedule	• The latest UIA Expert Journal (March 2020) reported that the progress of the project was in line with what was planned (up to March 2020), that progress is very good, performance can be seen to be improving, and significant progress has been made in some of the project's key milestones. (Source: UIA Expert Journal)
Changed during initiation phase	• Not at all	(Source: Review of project documents, interview, project's response to on-line survey)
Major changes during implementation	• 0	(Source: UIA Secretariat database)
(Likely) extent to which activities sustained or scaled up	• Mostly	• Personal Carbon Trading Scheme will be sustained by the City of Lahti. It will be extended to more users (beyond the 1,800 that have downloaded the app, of which 200-350 using each day). • Beyond that, the UIA Expert Journal (March 2020) notes that the objective is to establish a joint venture to ensure long-term funding and upscaling. Progress has been made in identifying appropriate partners but the project will need to identify a future business case for a PCT if it is to be scaled up in Lahti but also in other cities. (Source: Review of project documents, interview, project's response to on-line survey)
Core innovation fulfilled	• Fully	• The core innovation was the personal carbon trading (PCT) scheme, which has been developed and launched as planned. The UIA Expert notes that Lahti's scheme is the EU's first city-wide PCT. The UIA Expert journal (March 2020) describes the project as "an internationally significant example" of a policy tool to reach the objectives of the Paris Climate Agreement as well as the EU Green Deal and as the "first PCT ever in the mobility sector".

Indicator	Response	Comment (evidence source)
		(Source: Expert assessment based on review of project documents, interview, project's response to on-line survey)

TMaaS (Ghent, BE)

Indicator	Response	Comment (evidence source)
Call	• Call 2	
Reached end date?	• No	End date: 31/01/2021
Core innovation (description)		Traffic Management as a Service to monitor and manage traffic (for all transport modes) collects and processes innovative mobility data and notifies operators and citizens
Likely completion of activities	• Mostly	• Research: research necessary to design the platform has been completed. • Technology development: TMaaS platform has been built; features information platforms for traffic controllers and for citizens. • Citizen/user outputs: citizens' notification service is delayed; initial testing identified the need for further testing. • The UIA Secretariat reports the project has very low risk for "implementation time", meaning that the achievability of results remains intact. (Source: Review of project documents, interview, project's response to on-line survey)
To schedule	• Slightly behind	• The core output has been completed, i.e. the traffic management platform. • Citizens' notification service is delayed and requires further testing, which means that the service has not been fully launched. • The project promoter reports being slightly behind schedule at present but with several months still left before the project end-date. (Source: Review of project documents, interview, project's response to on-line survey)
Changed during initiation phase	• Fundamentally	(Source: Project's response to on-line survey)
Major changes during implementation	• 1	• Partner change (Source: UIA Secretariat database)
(Likely) extent to which activities sustained or scaled up	• Partly	• City of Gent will own and operate the platform (Traffic Management as a Service) but will need to enter into commercial agreements with the partner companies providing the mobility data. There remains the risk of vendor lock-in and interoperability. • The partners have looked at how to ensure the solution developed is an open one so that its sustainability is not dependent on the three private companies involved. • However, the project promoter reports that not all data is accurate enough for the traffic management operators and that the whole solution might be too expensive to sustain and scale up.

Indicator	Response	Comment (evidence source)
		(Source: Review of project documents, interview, project's response to on-line survey)
Core innovation fulfilled	• Fully	• The project application proposed one core innovation: a new traffic management concept via a subscription-based service (featuring a central cloud-platform that offers traffic management functionality, collecting and process information about public transport, social media messages, weather, traffic light status, etc, configuration of the platform to city needs and local mobility polices, and a module providing personalised information to citizens). Progress in developing this core innovation has been successful to date. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey)

LINC-TUPPAC (Albertslund, DK)

Indicator	Response	Comment
Call	• Call 2	
Reached end date?	• No	End date: 28/02/2021
Core innovation (description)		Intelligent and driverless shuttle busses as a solution to the "first and last mile" challenge of public transport; to be piloted on a university campus
Actual completion of activities	• Too early to say	• There is considerable risk that the full testing of the driverless vehicles (and associated activities) will not be complete by the project end date. • Other activities and outputs depend on the outcomes of the vehicle testing and thus risk not being completed by the project end date. (Source: Project's response to on-line survey)
To schedule	• Far behind	• Research: not yet complete; will include traffic modelling of impact of autonomous vehicles. • Infrastructure: not yet ready; considerable delay in gaining type approval of vehicles. On-road testing not yet started. • Technology development: app for users to access the mobility service and for researchers to collect data has been developed. • Citizen/user outputs: not yet happened. University staff and students will participate in testing of autonomous vehicles. Link app will have 500 designated users on the campus. (Source: Case study research)
Changed during initiation phase	• Fundamentally	(Source: Project's response to on-line survey)
Major changes during implementation	• 1	(Source: UIA Secretariat database)
(Likely) extent to which activities sustained or scaled up	• Too early to say	• Testing of autonomous vehicles is not yet complete; therefore sustainability is not guaranteed. • Regarding scaling up, the original intention was for autonomous vehicles serving first/last mile to be implemented across the Greater Copenhagen Light Rapid Transit network. However, with the testing

Indicator	Response	Comment
		not complete, there are no concrete plans at the current time. (Source: Case study research)
Core innovation fulfilled	• Partly	• The core innovation concept is being tested. In fact, it is the innovative nature of the project that has caused difficulties in implementation; this is one of the first times that this kind of use for autonomous vehicles has been tested in Denmark and the legislative framework does not appear well suited to it. This has led to delays. Some innovative parts of the project have been scaled back, e.g. testing the explicit on-demand service with flexible stops. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey and case study)

SAS Mob (Szeged, HU)

Indicator	Response	Comment (evidence source)
Call	• Call 2	
Reached end date?	• No	End date: 31/01/2021
Core innovation (description)		Build data-driven intelligent transport system based on structured multi-stakeholder governance and with two interconnected pillars: Employers Mobility Pledges; IT platform for collecting and monitoring commuting behaviour and vehicle use with reliable, real-time data
Likely completion of activities	• Fully	• Project has achieved most of the results and outputs that were set out in the application. • Project is on track towards completion of outputs and results according to plan. • Framework for the Employers' Mobility Pledge: completed • Employer pledges: on track to be achieved (7 to date + 12 declarations of intent). • Innovative, integrative ticketing scheme for public transport system is in development. • First IT URBAN sensors have been installed. • Achieved an increase in homeworking to 5% of office working days among participating institutions. (Source: Review of project documents, interview, project's response to on-line survey)
To schedule	• Slightly behind	• Some of the mobility campaigns have also been postponed due to the pandemic and the finetuning of the mobility tracking system is also in progress. • There are some delays with the app as well as the communications events due to the pandemic. • The project promoter requested an extension and the project activities are planned to be completed by the extended deadline. (Source: Review of project documents, interview, project's response to on-line survey)
Changed during initiation phase	• Not at all	(Source: Review of project documents, interview, project's response to on-line survey)
Major changes during implementation	• 1	• Partner change (Source: UIA Secretariat database)

Indicator	Response	Comment (evidence source)
(Likely) extent to which activities sustained or scaled up	• Mostly	• Employers who signed the pledge will sustain their role and some will transfer the pilot's mobility pledges to other company sites. • Employers will maintain mobility infrastructure . • Bike rental and bike servicing systems will be maintained by the project partners. • When the IT app is introduced, project partners plan to promote its usage to increase awareness for sustainable mobility. • The sensors installed in the city will be sustained and used for data analysis by the Municipality. • Partnership aims to extend network of employers. (Source: Case study research)
Core innovation fulfilled	• Mostly	• The two core pillars have been/are being developed and tested. The Employers Mobility Pledge has been tested and adopted by employers Innovative, integrative ticketing scheme for public transport system was in development, although there are some delays. For instance, the mobility app that accompanies the Commute and Telework Deals at employers is being tested but is not yet fully developed. Some mobility campaigns were postponed due to the pandemic and the finetuning of the mobility tracking system is in progress. (Source: Expert assessment based on review of project documents, interview, project's response to on-line survey and case study)

ANNEX 3: PROJECT SUMMARIES (CALLS 3 AND 4)

This annex offers descriptive information and evidence on the state-of-play for a sample of projects in Calls 3 and 4. Evidence on the state-of-play is largely based on project promoters' responses to the on-line survey of applicants. Evidence on major changes is sourced from the database of the UIA Secretariat.

Jobs and skills in the local economy (Call 3)

Next Generation Micro Cities of Europe (Ventspils & Valmiera, LV)

Indicator	Description
Call	Call 3
Date of signature of subsidy contract #	11/04/2019
Project End Date #	31/10/2021
Core innovation #	"EdTech Factory", digital innovation hub for the educational sector which will allow for the piloting of education technologies and help in the projects goal of providing 21st century ICT, digital and education skills for employers, educational organisations and local authorities of the micro cities – implemented through a new form of co-operation between small municipalities
Changed during initiation phase*	No
Major change requests during implementation #	0
Being implemented according to the plan*	Mostly to plan
Being implemented to schedule*	Too early to say
Extent to which activities expected to continue beyond period of UIA funding*	Too early to say
Experience expected to be scaled up*	Too early to say

*Source: *promoter's response to survey; # UIA Secretariat database*

GSIP (Vantaa, FI)

Indicator	Description
Call	Call 3
Date of signature of subsidy contract #	28/03/2019
Project End Date #	31/10/2021
Core innovation #	Growth and Social investment pact involves financially rewarding companies if they also engage in activities that improves employees' and unemployed person's skill levels; ICT platform combines and shares public and companies' data in order to facilitate companies' funding for upskilling their workforce. The platform will allow for tailoring of training programmes to local business and economic needs.
Major change requests during implementation #	0

Source: # UIA Secretariat database. NB: project promoter did not respond to the survey.

AVEIRO STEAM City (Aveiro, PT)

Indicator	Description
Call	Call 3
Date of signature of subsidy contract #	08/03/2019
Project End Date #	31/10/2021
Core innovation #	Development of a STEAM (Science Technology, Engineering, Arts and Maths) education approach in the University of Aveiro, which will allow for new skills including in artistic, creative and human sciences areas while ensuring supply and demand for new digital skills and competences are matched. A lab is also being created to test 5G technology ideas.
Changed during initiation phase*	Slightly changed
Major change requests during implementation #	0
Being implemented according to the plan*	Mostly to plan
Being implemented to schedule*	Slightly behind schedule
Extent to which activities expected to continue beyond period of UIA funding*	Most activities will continue
Experience expected to be scaled up*	Too early to say

Source: *promoter's response to survey; # UIA Secretariat database

Adaptation to climate change (Call 3)

RESILIO (Amsterdam, NL)

Indicator	Description
Call	3
Date of signature of subsidy contract #	24/06/2019
Project End Date #	31/10/2021
Core innovation #	The introduction of smart blue green roofs that are expected to help the city adapt to climate change by reducing impacts of heavy rain, urban heat island effect and drought while improving building insulation, biodiversity and quality of life.
Changed during initiation phase*	Slightly changed
Major change requests during implementation #	1
Being implemented according to the plan*	Fully to plan
Being implemented to schedule*	Slightly behind schedule
Extent to which activities expected to continue beyond period of UIA funding*	Most activities will continue
Experience expected to be scaled up*	Yes

Source: *promoter's response to survey; # UIA Secretariat database

IGNITION (Manchester, UK)

Indicator	Description
Call	3
Date of signature of subsidy contract #	28/03/2019
Project End Date #	31/10/2021
Core innovation #	Retrofit of urban green infrastructure and nature-based solutions to combat urban over-heating (provision of shade and evaporative cooling) and flooding in the city.
Changed during initiation phase*	Slightly changed
Major change requests during implementation #	0
Being implemented according to the plan*	Mostly to plan
Being implemented to schedule*	Too early to say
Extent to which activities expected to continue beyond period of UIA funding*	Too early to say
Experience expected to be scaled up*	Too early to say

*Source: *promoter's response to survey; # UIA Secretariat database*

Air quality (Call 3)

AirQon (Breda, NL)

Indicator	Description
Call	3
Date of signature of subsidy contract #	02/05/2019
Project End Date #	31/10/2021
Core innovation #	Digital platform to connect visitors to events, communication between individual hardware components and a viable method to calculate total amount of necessary cars to power up an event and replace the diesel generators.
Changed during initiation phase*	Slightly changed
Major change requests during implementation #	0
Being implemented according to the plan*	Mostly to plan
Being implemented to schedule*	Slightly behind schedule
Extent to which activities expected to continue beyond period of UIA funding*	Too early to say
Experience expected to be scaled up*	Yes

*Source: *promoter's response to survey; # UIA Secretariat database*

HOPE (Helsinki, FI)

Indicator	Description
Call	3
Date of signature of subsidy contract #	28/08/2019
Project End Date #	31/10/2021
Core innovation #	Feedback loop between high-resolution hyperlocal air quality data and actions of individuals and communities through a comprehensive sensor network and development of air quality index.
Changed during initiation phase*	Fundamentally changed
Major change requests during implementation #	0
Being implemented according to the plan*	Very differently to the plan
Being implemented to schedule*	Too early to say
Extent to which activities expected to continue beyond period of UIA funding*	Too early to say
Experience expected to be scaled up*	Too early to say

Source: *promoter's response to survey; # UIA Secretariat database

CLAIRO (Ostrava, CZ)

Indicator	Description
Call	3
Date of signature of subsidy contract #	23/09/2019
Project End Date #	30/04/2022
Core innovation #	Measurement and evaluation of data using new-generation sensors and new methodology.
Changed during initiation phase*	Slightly changed
Major change requests during implementation #	1
Being implemented according to the plan*	Mostly to plan
Being implemented to schedule*	On schedule
Extent to which activities expected to continue beyond period of UIA funding*	Some activities will continue
Experience expected to be scaled up*	Too early to say

Source: *promoter's response to survey; # UIA Secretariat database

Housing (Call 3)

Home Silk Road (Lyon Metropole, FR)

Indicator	Description
Call	3
Date of signature of subsidy contract #	02/07/2019
Project End Date #	31/10/2021
Core innovation #	Renovating an old silk factory in a neighbourhood in the city centre, transforming the site into social housing units for students, single-parent families and refugees. Building will be constructed using worksite waste.
Changed during initiation phase*	Slightly changed
Major change requests during implementation #	0
Being implemented according to the plan*	Mostly to plan
Being implemented to schedule*	Slightly behind schedule
Extent to which activities expected to continue beyond period of UIA funding*	Some activities will continue
Experience expected to be scaled up*	Too early to say

*Source: *promoter's response to survey; # UIA Secretariat database*

CALICO (Brussels, BE)

Indicator	Description
Call	3
Date of signature of subsidy contract #	15/07/2019
Project End Date #	31/10/2021
Core innovation #	Using Community Land Trust (CLT)-purchased land, affordable housing will be provided to older women and single mothers, older adults and low-income families, organised into three clusters of both owner-occupied and rental units.
Changed during initiation phase*	No
Major change requests during implementation #	0
Being implemented according to the plan*	Mostly to plan
Being implemented to schedule*	Too early to say
Extent to which activities expected to continue beyond period of UIA funding*	All activities will continue
Experience expected to be scaled up*	Yes

*Source: *promoter's response to survey; # UIA Secretariat database*

Digital transition (Call 4)

DARE (Ravenna, IT)

Indicator	Description
Call	4
Date of signature of subsidy contract #	09/04/2020
Project End Date #	31/08/2022
Core innovation #	Digital-based and citizen-centred governance approach aimed at facilitating the implementation and evaluation of urban regeneration processes. 3-layers digital environment, composed by DMP (data layer), CMS (editorial layer) and VIR-virtual realm (presentation layer), intended as the enabling technology needed to activate urban actors.
Changed during initiation phase*	No
Major change requests during implementation #	0
Being implemented according to the plan*	Mostly to plan
Being implemented to schedule*	Slightly behind schedule
Extent to which activities expected to continue beyond period of UIA funding*	Most activities will continue
Experience expected to be scaled up*	Too early to say

Source: *promoter's response to survey; # UIA Secretariat database

WESH (Heerlen, NL)

Indicator	Description
Call	4
Date of signature of subsidy contract #	20/05/2020
Project End Date #	31/08/2022
Core innovation #	Integrating technology into citizen engagement and urban regeneration processes. Building an app and using block chain technology to encourage and incentive local people to take part in regeneration activities.
Changed during initiation phase*	Slightly changed
Major change requests during implementation #	0
Being implemented according to the plan*	Fully to plan
Being implemented to schedule*	On schedule
Extent to which activities expected to continue beyond period of UIA funding*	Too early to say
Experience expected to be scaled up*	Yes

Source: *promoter's response to survey; # UIA Secretariat database

Sustainable use of land and nature based solutions (Call 4)

PUJ (Prato, IT)

Indicator	Description
Call	4
Date of signature of subsidy contract #	07/02/2020
Project End Date #	31/08/2022
Core innovation #	Innovative urban design for "re-naturing" Prato's neighbourhoods in a sustainable and socially inclusive way.
Changed during initiation phase*	Slightly changed
Major change requests during implementation #	0
Being implemented according to the plan*	Mostly to plan
Being implemented to schedule*	On schedule
Extent to which activities expected to continue beyond period of UIA funding*	Some activities will continue
Experience expected to be scaled up*	Yes

*Source: *promoter's response to survey; # UIA Secretariat database*

GreenQuays (Breda, NL)

Indicator	Description
Call	4
Date of signature of subsidy contract #	10/04/2020
Project End Date #	31/08/2022
Core innovation #	Green technology, specifically designed to support the development of a vertical ecosystem and to create conditions for the growth of herbaceous plants, ferns and mosses.
Changed during initiation phase*	No
Major change requests during implementation #	0
Being implemented according to the plan*	Fully to plan
Being implemented to schedule*	Too early to say
Extent to which activities expected to continue beyond period of UIA funding*	Some activities will continue
Experience expected to be scaled up*	Yes

*Source: *promoter's response to survey; # UIA Secretariat database*

Urban security (Call 4)

To-Nite (Turin, IT)

Indicator	Description
Call	4
Date of signature of subsidy contract #	09/04/2020
Project End Date #	31/08/2022
Core innovation #	Integrated technology infrastructure (i.e. platform, beacons, geofences) to understand, analyse urban insecurity phenomena (security sensing) and to provide open intelligence data to improve citizens' awareness regarding perception of security.
Changed during initiation phase*	Slightly changed
Major change requests during implementation #	0
Being implemented according to the plan*	Fully to plan
Being implemented to schedule*	Ahead of schedule
Extent to which activities expected to continue beyond period of UIA funding*	All activities will continue
Experience expected to be scaled up*	Yes

Source: *promoter's response to survey; # UIA Secretariat database

BeSecure-FeelSecure (Piraeus, EL)

Indicator	Description
Call	4
Date of signature of subsidy contract #	10/04/2020
Project End Date #	31/08/2022
Core innovation #	Local Council for Crime Prevention (LCCP) formed to promote collaborative decision making between urban stakeholders. Technology development (CURiM) enables synergies among local stakeholders towards identifying, modelling, evaluation, forecasting and prevention of cyber/physical security threats. Offers proactive reaction to urban threats based on simulation and pattern matching processes.
Changed during initiation phase*	No
Major change requests during implementation #	0
Being implemented according to the plan*	Mostly to plan
Being implemented to schedule*	On schedule
Extent to which activities expected to continue beyond period of UIA funding*	Most activities will continue
Experience expected to be scaled up*	Too early to say

Source: *promoter's response to survey; # UIA Secretariat database

ANNEX 4: LIST OF INTERVIEWEES

Project promoters and partners (interviewed)

Project code	Acronym	Role	Organisation
UIA01-004	USE-IT!	Promoter	Birmingham City Council
UIA01-004	USE-IT!	Partner	CLES
UIA01-004	USE-IT!	Partner	Initiative for Social Entrepreneurs
UIA01-004	USE-IT!	Partner	University of Birmingham
UIA01-004	USE-IT!	Partner	Birmingham City University
UIA01-031	B-MINCOME	Promoter	Barcelona City Council
UIA01-047	S.A.L.U.S. 'W' SPACE	Promoter	Comune di Bologna
UIA01-060	AS-FABRIK	Promoter	Bilbao Local Council
UIA01-131	U-RLP	Promoter	Gemeente Utrecht
UIA01-151	TAST'in FIVES	Promoter	Ville de Lille
UIA01-209	FED	Promoter	City of Gothenburg
UIA01-209	FED	Partner	Johanneberg Science Park
UIA01-222	BRIDGE	Promoter	City of Rotterdam
UIA01-266	CURANT	Promoter	Stad Antwerpen
UIA01-378	OpenAgri	Promoter	Municipality of Milan
UIA01-433	VILAWATT	Promoter	Viladecans Municipality
UIA01-495	CoRDEES	Promoter	City of Paris
UIA01-495	CoRDEES	Promoter	City of Paris
UIA01-495	CoRDEES	Promoter	City of Paris
UIA01-540	MAC	Promoter	Comune di Pozzuoli
UIA01-586	CoRE	Promoter	Stadt Wien
UIA01-598	MARES de Madrid	Promoter	Madrid City Council
UIA02-064	Urban Soil 4 Food	Promoter	Maribor
UIA02-064	Urban Soil 4 Food	Partner	Wcycle Institute Maribor
UIA02-064	Urban Soil 4 Food	Partner	Deltaplan
UIA02-064	Urban Soil 4 Food	Partner	ZIP
UIA02-064	Urban Soil 4 Food	Partner	Ezavod
UIA02-064	Urban Soil 4 Food	Expert	-
UIA02-081	Curing the Limbo	Promoter	Municipality of Athens
UIA02-086	TMaaS	Promoter	Stad Gent
UIA02-087	EarthCycle	Promoter	City of Sevran Municipality
UIA02-129	CitiCAP	Promoter	City of Lahti
UIA02-227	LINC-TUPPAC	Promoter	Albertslund Municipality
UIA02-239	SASMob	Promoter	City of Szeged
UIA02-240	Super Circular Estate	Promoter	Municipality of Kerkrade
UIA02-253	MILMA	Promoter	Fuenlabrada City Municipality
UIA02-320	MiFRIENDLY CITIES	Promoter	Coventry City Council
UIA03-011	Home Silk Road	Promoter	Metropole of Lyon
UIA03-084	AVEIRO STEAM city	Promoter	Municipality of Aviero
UIA03-093	RESILIO	Promoter	City of Amsterdam
UIA03-109	CALICO	Promoter	Brussels Capital Region
UIA03-109	CALICO	Partner	Brussels Housing

Project code	Acronym	Role	Organisation
UIA03-109	CALICO	Partner	Community Land Trust Brussels
UIA03-250	NextGen Microcities	Promoter	Ventspils City Council

Other organisations

Type	Country	Organisation
Interviewed		
EU-level	EU	DG REGIO desk officers (ES, NL)
EU-level	EU	Entrusted Entity (Région Hauts-de-France)
EU-level	EU	UIA Permanent Secretariat
EU-level	EU	URBACT Secretariat
EU-level	EU	EIT Climate KIC
EU-level	EU	Eurocities
MA	IT	Agenzia per la Coesione Territoriale
MA	PT	Comissão de Coordenação e Desenvolvimento Regional do Centro
National	PT	DG Territorio
Non-applicant	FR	City of Boulogne-sur-Mer
Non-applicant	IT	Sacile City
Non-applicant	ES	Ajuntament d'Olot
Non-applicant	CZ	City of Brno
Unsuccessful	DE	Mannheim
Unsuccessful	IT	Comune di Firenze
Unsuccessful	AT	Stadt Graz

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ANNEX 6: CASE STUDY REPORTS

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URBAN POVERTY

1. USE-IT! (BIRMINGHAM, UK)

1.1 Key project facts

USE-IT!	
Key facts	
Call	1
Acronym	USE-IT!
Title	Unlocking Social and Economic Innovation Together
Project Number	UIA01-004
Status	Complete
Duration	01/01/2017 - 31/12/2019
Topic	Urban poverty
Member State	United Kingdom
Number of partners	15
Main urban authority	Birmingham City Council
Other partners	• Higher education and research: University of Birmingham • Higher education and research: Birmingham City University • Interest groups including NGOs: Karis Neighbour Scheme • Interest groups including NGOs: Birmingham Voluntary Services Council • Interest groups including NGOs: Localise West Midlands • Interest groups including NGOs: Smethwick Church Action Network • Interest groups including NGOs: Co-operative Futures • Interest groups including NGOs: Canal and River Trust • Interest groups including NGOs: Father Hudson's Care • Enterprise: Initiative for Social Entrepreneurs • Enterprise: Health Exchange CIC • Infrastructure and (public) service provider: Sandwell and West Birmingham Hospitals NHS Trust • Business support organisation: Greater Birmingham Chambers of Commerce • SME: Citizen Coaching CIC
Budget	
ERDF	€2.912m
Public co-financing	€0.426m
Private co-financing	€0.302m
Total	€3.640m

1.2 The city

Birmingham is a city of 1.1m inhabitants and forms part of a wider metropolitan area of 2.6m inhabitants. The city has a relatively young population compared to other European cities due largely to the influx of university students as well as international migration.[1] Overall, the city's population is more ethnically diverse than the rest of England, with only 54% of inhabitants classified as "White British/Irish" compared to 81% in England as a whole.[2] In March 2020, the city had the highest rate of unemployment claimants (9.3%) amongst the UK's core cities. A key feature of the city's labour market is that average

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[1] Birmingham City Council (2019), Mid-2018 Mid-year Population Estimates
[2] Office for National Statistics: 2011 Census

earnings are significantly higher for those working in the city than for residents, reflecting the fact that large numbers of people commute into the city for work and not all the city's residents are able to access the better paid jobs in the city.[3] Reflecting this, there are significant disparities across the city, with some neighbourhoods suffering much higher rates of deprivation than others.

The project's target area was one of the inner-city neighbourhoods, Greater Icknield. The application describes this as "a transect that is extremely deprived but which has a number of assets including a reservoir & gravity fed canal network that includes Icknield Port Loop, where 3,000 new homes and 1,000 new jobs will be delivered over the next decade; the new Midland Metropolitan Hospital will be built within the area in the lifetime of USE-IT!". Greater Icknield features high level of deprivation and a diverse population, including migrants and refugees from many different countries, such as Syria.

1.3   Rationale for the project

The need for the USE-IT! project was related to the high levels of deprivation in certain inner-city neighbourhoods that had persisted despite extensive investments into the city's infrastructure and into urban regeneration schemes in recent decades. Whilst high-profile infrastructure investments by the public and private sectors had created new – and often well-paid - employment opportunities in the city, it was apparent that many residents of these neighbourhoods were unable to access them. Whilst previous "top-down" urban regeneration schemes had brought about improvements in the city, the benefits did not always trickle down to deprived neighbourhoods and/or those in poverty. At the same time, some "bottom-up", community-based regeneration schemes (e.g. New Deal for Communities) had often been successful in the short-term but not always proved to be sustainable in the long-term.

The overall rationale for the project was therefore to create bridges between "macro-assets" (top-down investments or large "anchor" institutions) and "micro-assets" (local communities and the residents thereof). The macro-assets, such as hospitals or new property developments, faced challenges around recruiting a skilled workforce and accessing local suppliers. At the same time, many local residents or social enterprises faced barriers in accessing employment or procurement opportunities with the macro-assets, despite having the skills or attributes required by the macro-assets. Thus, the rationale of the project was to create the links that would enable local markets (employment, procurement, etc.) to function better for the mutual benefit of both the macro- and micro-assets.

1.4   Objectives and intended effects

The overall aim of the project was to deliver sustainable urban development by helping developers deliver regeneration benefits to local communities whilst empowering poor residents to engage and create the conditions to deliver social & economic innovation. The project proposed a place-based approach to unlocking the potential of poor and migrant communities by empowering them to work collectively with agents of change.

The objectives were to:

- Empower and enable community researchers to have leadership roles to influence change;

- Develop a reciprocal relationship between the community and agents of change (e.g. hospitals, developers, businesses, universities) working collaboratively to unlock innovation;

- As public services managers, academics & entrepreneurs, open ourselves to challenge

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[3] Birmingham City Council (2014), Local Economic Assessment for Birmingham (based on 2011 census data).

by the communities themselves;

- Create alternative and sustainable enterprise & employment structures enabling communities & the Third Sector to have greater roles in creating structures for overcoming poverty;

- Work with high gross value-added (GVA) private sector partners who do not traditionally alleviate poverty, to bring corporate social responsibility (CSR) from an 'add-on' to a fundamental mentality-shift in the way 'business' is conducted;

- Develop richer insight into communities to develop a more systematic approach to tackling entrenched poverty.

The main intended effects were:

- Development of transferable model of a 'whole community' eco-system - underpinned by the engagement of community researchers – where macro-assets and micro-assets (found within people & place) are mutually and positively reinforcing;

- Community research model for sustainable urban development and poverty reduction;

- Community-based insight into existing innovation and assets within the local community and gaps;

- More embedded higher education sector within poor neighbourhoods co-producing innovation;

- Increase in the number of local citizens in (self-)employment or an employment pathway connected with macro-asset organisations/in local growth sectors;

- Increase in local people producing or actively engaged in social, economic, physical, cultural activity that enhance life chances;

- Macro-asset organisations being more meaningfully engaged with the local community;

- Comprehensive feasibility examination of how a community endowment fund or other innovative forms of funding could support this eco-system.

1.5   Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured public funding of €426,000, mostly to be provided by Birmingham City Council, two local universities and a local hospital trust (within the National Health Service). The budgeted private funding of €302,000 was mostly to be provided by social enterprise or third sector organisations.

As well as the financial inputs, the partnership also brought considerable local influence, as it included several of the main public sectors bodies in the city, as well as the skills needed for the different work packages. Birmingham City Council also provided the use of council premises in the target neighbourhood. The third sector organisations offered knowledge of the neighbourhood and connections with and trust of the local community.

1.6   Innovation process

1.6.1 Knowledge informing the innovations

The implementation of the project drew on various forms of knowledge:

- Research by the project partnership (prior to the application) into examples of community participatory research and engagement models aiming to engage with hard-to-reach groups, e.g. in the USA (Cleveland Greater University Circle) and Japan (Tohoku and Waseda). According to the UIA application, this research identified that "there is no enduring legacy of community research repository to develop peer-to-peer support for communities engaging with urban developments and no established models

for innovation using community research training and sustainable urban development."

- Partners' experience of previous local regeneration schemes in the city and elsewhere, as well as local examples of macro-assets engaging in the community, notably Cadbury (the chocolate manufacturer).

- Academic expertise from two of the city's universities. This included staff involved in delivering the University of Birmingham's MSc in Urban and Regional Planning.

- Students on the MSc were tasked with generating ideas for how to combine a top-down and bottom-up approach to urban development with reference to specific macro-assets in the target neighbourhood. Some of these ideas ultimately informed the activity that was implemented.

- Research and consultations into needs of local residents, particularly those with a migrant or refugee background.

1.6.2 Experimentation

The primary innovation tested by the project was the concept of creating bridges between macro-assets in the city and micro-assets in the local community. This concept was tested in several different ways, which were intended to work together and be mutually-reinforcing. Two of those ways are explained here.

Community researchers: the aim of this activity was to build a better understanding of the local community by training local people to undertake research to inform the UIA project and the wider activities of the project partners. By training local people, it was hoped that trust would be built with the local community, local knowledge tapped and thus research outcomes enhanced (compared to research undertaken by non-residents). It was also the intention for the Community Researchers (CR) to signpost local residents to other strands of activity (e.g. relating to employment pathways or social enterprise) but in practice that tended not to happen to any great extent.

The University of Birmingham worked with local third sector and community organisations to recruit the CRs. Crucial to this process was the involvement of these local partners as trusted intermediaries who could host recruitment sessions and identify potential recruits. The University provided training in research methods, ranging from a single day to 3 x 3-day sessions and in some cases leading to qualification. According to the local evaluation of the UIA project, key features of the training include its delivery in venues in the local community and its accessibility for people with no formal education or with limited English language skills.[4] The CRs have worked with partner organisations to design, conduct, and disseminate research and has allowed them to shape the research being conducted in their communities, with the University of Birmingham playing a convening role. The CRs have been paid for their work.

The original intention was for the CRs (assisted by dedicated and senior community research academics) to undertake up to 400 face-to-face and 60 walking interviews, 12 focus groups and up to 70 stakeholder interviews, as well as a baseline and comparison survey of 3000 residents at the beginning and end of the project. The survey results were to feed into all work packages of the project application form.

The baseline survey in Year 1 faced a number of challenges.

- First, there was a need to build trust in the local community and overcome a considerable degree of frustration or even hostility towards some of the main institutional partners, notably the City Council. This was facilitated by the involvement of the (trusted) local community organisations and the fact that the CRs were local residents.

- Second, the survey was quite long and complex, which made it difficult for non-native

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[4] Centre for Local Economic Strategies (2020), USE-IT! Impact report, 2016-19.

English speakers to complete.

- Third, the focus on poverty tended to discourage responses, as many local people (particularly refugees) either did not consider themselves as poor or did not want to be labelled as poor. The Year 2 survey was therefore redesigned and attracted a better response rate.

As the CR model developed, it became clear that there was potential to undertake smaller-scale research into a range of issues. UIA project funding for research was retargeted towards 27 projects that emerged from discussions between the macro-assets and the CRs. These were both useful to the macro-assets and interesting to the CRs and focussed on themes including child obesity and a mapping of local community organisations. According to project staff, a key feature of this work was the empowerment of the target group, "the CR became a community in themselves, very powerful, and they embarked on very specific research topics, e.g. on the role of black and minority ethnic women in planning or interviewing local GPs about problems migrants face in accessing services".

Employment pathways: this activity aimed to address the skill shortages faced by the local hospital trust by creating pathways into employment for local residents with appropriate but under-utilised qualifications in the health and care professions.

Previous research and consultations had identified that many local residents, particularly those with a migrant or refugee background, had qualifications and experience in the medical professions but were not currently working in such roles. In the case of refugees, individuals would benefit from initial state support (once granted leave to remain), for example, provision of housing and a basic income. But this support did not address the more complex issues such as gaining recognition of overseas qualifications and professional experience, demonstrating proficiency in English, taking exams, etc, where individuals were left to navigate the process themselves. Where such individuals were working long hours in low-paid insecure jobs, the problem tended to be exacerbated.

At the same time, the local health provider, Sandwell and West Birmingham Hospitals NHS (National Health Service) Trust, faced severe skill shortages and unfilled vacancies, as well as the challenge of addressing persistent health problems in the target neighbourhood. Whilst the Trust had developed a community engagement strategy, the existing methods of recruitment tended not to tap into the potential talent available locally and there was recognition the Trust did not have the necessary insight into how the local community functioned.

The model developed by the project was to involve around 40 local community organisations, many of whom represented different ethnic or religious communities in the neighbourhood. These organisations were intended to act as bridges to local people and in that way help both in recruitment and in the provision of support. A key role was also played by the hospital trust, which received UIA funding to employ two dedicated outreach officers.

The initial intention was to provide a package of support worth about £500 per person and covering incidental costs such as costs of travel to interviews, etc. However, it became apparent very early on that the primary obstacle to employment was demonstrating proficiency in English. The standard required by the NHS within the International English Language Testing System (IELTS) exam proved to be challenging and required considerable investment of time and money in language classes. To overcome this barrier, the UIA project invested funds in providing the necessary tuition and support through two local organisations with local presence and with experience in serving the local community. After outreach via the network of local community organisations, word-of-mouth proved the most effective means of attracting participants.

Additional support was provided via a specialist organisation in London that helped with the recognition of foreign medical qualifications, which was particularly important for refugees who had lost or left behind the documentary evidence of their professional status

or qualifications. Temporary job placements in the health or care sectors were also provided to facilitate the return to work and adaptation to the working culture.

1.6.3 Achievements against project targets

With regard to the innovations considered by this case study, the main outputs were as follows.

Community Researchers (CRs)

According to the project's own monitoring (April 2020) and the local evaluation of the USE-IT! project, the CR outputs compared to the original application include the following.

Project outputs: Community Researchers	
Target (application)	**Achieved**
• 60 CRs validated, recruited and trained	• 80 CRs upskilled and trained in the project are now in jobs or are generating their own income (via research projects)
• 30 local residents gaining formal higher education qualification as a result of participating in the CR programme	• 85 local residents gained a formal higher education qualification
• 26 specific research projects commissioned to the CRs to deliver	• 26 research projects commissioned (25 in the project lifetime + 1 confirmed in January 2020)[5]
• 2 CRs (from the target neighbourhood) financed to undertake the MSc Urban and Regional Planning at the University of Birmingham	• 2 CRs financed to undertake the MSc Urban and Regional Planning at the University of Birmingham
• 5 CR trained to assist in training of further CR cohorts in Y2 and Y3	• 5 CRs undergoing training so they are able to train new researchers

In terms of strategic impacts, the research undertaken is informing policy and delivery by the institutional partners. For example, the research into child obesity has informed a £300,000 project implemented by the City Council.[6]

Employment pathways

According to the project's own monitoring (April 2020) and the local evaluation of the USE-IT! project, the employment pathways outputs compared to the original application include the following.

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[5] Research reports were not undertaken for public dissemination.
[6] https://useituia.co.uk/strands/community-research

Project outputs: Employment pathways	
Target (application)	**Achieved**
• 225 Local residents accessing the service and entering job pathways. • 60 Residents with overseas qualifications undertaking professional equivalency pathways	• 250 overseas medical professionals (for health and care sectors) upskilled and trained in the project that are now in jobs or are generating their own income
• £1.2m savings to local hospital trust from switching from international to local recruitment of medically qualified professionals (60 individuals x £20,000)	• £2.8m savings (140 individuals x £20k)
• £2.4m increased annual income per local household of overseas medical professionals after securing jobs within the NHS	• £6.4m increase

The main immediate outputs of the employment pathways work has been 250 medical professionals (health or care sectors) upskilled and trained that are now in jobs or are generating their own income, from 36 countries across the world. These include surgeons, dentists, doctors and nurses. This greatly exceeds the original target of 60 and was achieved by the strategic re-orientations of the project at the outset, first to focus primarily on provision of English language training and, second, to increase the project funding devoted to this activity. One beneficiary, a Palestinian doctor with +7 years' experience before arriving in the UK, stated (in a broadcast interview) "The support was great since I arrived here. They welcome and removed all the burden by registering me with the IELTS and helping me to pass the test. They have [arranged] teaching for the doctors and help me pursue clinical attachment and arranged advice through GPs [general practitioners]". A medical scientist from Sudan, who arrived in the UK in 2011, stated "When I first came into the country, I was looking to get into the NHS and made many phone calls and sent emails without getting any positive replies. From USE-IT!, I got engaged with the hospital and was quickly given support."

A key strategic impact has been the effect on the local hospital trust. This includes an estimated £2.8m savings from switching from international to local recruitment of medically qualified professionals. One key to this achievement of this output was the ability to attract around £600,000 from mainstream health or education funding sources for additional language training (above and beyond the funding through the UIA project), based on the demonstration effect of the project. Staff of the hospital trust reported that USE-IT! went far beyond a short-term recruitment initiative: "One part of USE-IT! that is of absolute importance is enabling local people within our community to get into the NHS. It fills our vacancies but importantly we have people from our local community who are trained and then supporting our local community. So the improvements in healthcare and in being able to communicate properly as to the healthcare needs of specific communities in our local area is absolutely important for our patient care but also for a sustainable workforce in 5 or 10 years' time."

Staff from the trust also report a key strategic impact in terms of a change in overall culture, methods of recruiting and training staff. This involves offering a wider range of clinical placements for potential recruits and creating individual learning plans, based on each individual's professional experience overseas and qualifications. "This is culturally different for the trust, because we're used to dealing with Medicine students at a university who are on a clear pathway [towards professional employment]. But the USE-IT! approach is often a little bit slower. It's called on our staff to be more patient and tolerant and to

anticipate a longer return back to practice. We've had to innovate in the way we work with people." This included recruiting professionals such as doctors initially into less skilled roles, which enabled them to have a salary and operate in a clinical setting whilst they undertook any (re-)training and assessment necessary to enter their intended roles, which could take a few years.

Another strategic impact recorded in the project's external evaluation is that of greater professionalism and expansion of the English language training provided by one of the main community organisations involved: Brushstrokes (a partnership community project serving the locality, particularly asylum seekers, refugees and newcomers).[7]

1.6.4 Sustainability and scaling-up of the project at local level

The USE-IT! application proposed that the key innovations would be scaled up in the city. In responding to the on-line survey, the project promoter reported that most activities would be sustained beyond the life of the project and that the project as a whole would be scaled up. In the interviews for this case study, Birmingham City Council confirmed the intention to replicate the whole USE-IT! model in other parts of the city. Planning for replication currently involves building foundations for delivery, working on metrics and securing budgetary commitments.

With regard to the two innovations covered by this case study, scaling up has been as follows.

Community Researchers: the application proposed that the model of Community Research would be rolled out to another area of the city in Year 3 of the UIA project. At city-regional level, the application proposed the development of a sustainable capacity in CRs in order to leverage further innovation funding.

At the time of writing, Birmingham Voluntary Service Council, the local umbrella organisation for the third sector, was supporting a proposal to create a social enterprise or community interest company to continue the research and to provide financial reward for the CRs from their involvement in any future research projects. In the meantime, a £3m contract has been secured from the West Midlands Police and Crime Commissioner to use the CRs in the evaluation of the local crime prevention programme. This will also provide money for continuing the work on setting up the social enterprise or community interest company. However, the work on this has been delayed by the Coronavirus pandemic.

The external evaluation commissioned by the UIA project also highlights the important of the University's continued support, for example, in a verification or quality checking role (particularly in the early stages).

In addition, Birmingham City Council reports an aspiration to replicate the CR model (as part of the wider replication of the USE-IT! model) in other parts of the city that are the subject of wider regeneration activities, for example, in East Birmingham.

Employment pathways: the application proposed that the employment pathways model, if successful, would be offered to two other major NHS hospital trusts in the city. The model was offered to one of the trusts, but the trust is reported to have chosen not to adopt it, as it did not consider that it fits with its priorities. Staff from the USE-IT! project report that a continuing challenge remains to engage the strategic leadership of macro-assets, such as this hospital trust, who do not necessarily grasp the concept of broader engagement that goes beyond a short-term recruitment campaign.

The most significant scaling up has taken place within the hospital trust within the UIA project partnership, i.e. Sandwell and West Birmingham Hospitals NHS Trust. As noted above, the model was scaled up within the lifetime of the project by attracting £600,000

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[7] https://www.brushstrokessandwell.org.uk/

of mainstream funding for education of health professionals (above and beyond the funding and training provision within the UIA project).

Beyond that, the hospital trust has sustained and scaled up the USE-IT! activities by adopting into its overall recruitment strategy the model of community engagement using local community organisations/infrastructure. This has been achieved through a cultural change in the organisation that was stimulated by its involvement in the UIA project. It takes the form of a dedicated programme entitled "Health Overseas Professionals" (HOP) with national funding from Health Education England. Within the HOP programme, the trust has now launched 5 recruitment initiatives using the UIA model targeted at migrants, people with autism, homeless people, ex-offenders and young people leaving the care system.

1.6.5 Transfer and replication of the project elsewhere in Europe

In the application, it was proposed that the model of linking macro-assets and micro-assets would have the potential to be transferred and replicated elsewhere. One suggested means of transfer was further EU funding, to develop a European community research model, for example, through a Marie Skłodowska-Curie Innovative Training Network. At the time of writing, such funding had not been secured, although an URBACT Transfer Network had instead been used, as described below. With respect to the two main innovations considered by this case study, the evidence for transfer and replication in other cities is as follows.

Community Researchers: The CR model has not yet been replicated in other cities. However, it offers potential for replication, provided that there is commitment from a university (or other educational or research body) and other relevant partners.

Employment pathways: The model offers scope for replication in other cities, particularly other UK cities with a significant migrant or refugee population and unfilled healthcare vacancies. This replication depends on the relevant hospital trusts making a strategic commitment to recruit in this way. This in turn will require the Sandwell and West Birmingham Hospitals NHS Trust to make further knowledge transfer activities targeted at its counterparts elsewhere. There is also scope to replicate the model with other macro-assets, such as public sector "anchor institutions" or private sector developers. Again, the possibility for replication will depend on the macro-assets making a strategic commitment to engage with the model.

For the UIA project in general, being funded in Call 1, it does not have a formal knowledge transfer plan. However, the key activities undertaken include the following.

First, the local external evaluator has produced a "transferability study".[8] This is a guide for people working in economic development and identifies the core elements of the project approach that could be applied in other European cities experiencing similar issues. It presents the context, the project model (i.e. how macro-assets and micro-assets have been linked), and the strategic and financial approach taken.

Second, knowledge from the project has been transferred within an URBACT Transfer Network project (URBAN REGENERATION REMIX), whose aim is to replicate the Lodz model of mediator in regeneration.[9] The USE-IT! experience of community connectors and community researchers has enriched that model and made it multi-dimensional and less top-down by introducing the concepts of community leadership in regeneration and capturing community voices. Within this network, Bologna learned about the role of anchor institutions and how to fully understand the role of universities as anchors. Toulouse is

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[8] Centre for Local Economic Strategies (undated), Linking macro and micro assets for urban transformation: USE-IT! transferability study.
[9] https://urbact.eu/urban-regeneration-mix

learning about the work with social enterprises and how to build consortia for social enterprises to access public procurement opportunities.

1.6.6 Summary of key outputs and results (according to study typology)

Key outputs and results (related to case study activities)	
Outputs	
• New services, products, processes	• New model of community research involving local people as Community Researchers • New model of CR training • New employment pathways model
• Partnerships created	• New CR partnership between University of Birmingham, Birmingham Voluntary Services Council (BVSC) and individual CRs • New partnership between the hospital trust and a network of 40 community organisations
• Experience gained	• Macro-assets gaining experience of working with micro-assets • Local community organisations gaining experience of serving as bridges between macro-assets and micro-assets • CRs gaining experience of paid research • Unused overseas medical professionals gaining work experience relevant to a re-turn to their professions
• Knowledge produced	• Better understanding of local community needs from community research • Better understanding of barriers to employment of (unused) overseas medical professionals living locally (e.g. refugees)
Results: local level	
• Identifiable effect on urban issues faced at local level	• Macro-assets better engaged with the local community, including the hospital trust and the University • Local people earning additional income as community researchers • Overseas medical professionals living locally entering employment in the health or care sector • Local hospital filling professional vacancies
• Sustainability of partnership working	• University and the BVSC continue to work in partnership regarding the CR social enterprise • Hospital Trust sustaining a partnership with network of 40 community organisations
• Innovations scaled up	• Employment pathways model scaled up by the local NHS Trust with £600k funding (during project lifetime), and via a successor programme featuring 5 new initiatives using the UIA model
Results: EU level	
• Knowledge disseminated	• Other cities reached by dissemination via URBACT network

1.7   Project implementation

With the approval of the UIA Secretariat, the project start date was delayed by two months to 1 January 2017 to allow more time for the preparation phase. The project also received approval for changes to the budget and the activities, in order to invest more funding in language tuition within the employment pathways work, in response to the need and opportunity identified in the early stages of implementation. According to the project promoter, these changes enabled an increase in the level of ambition and innovativeness of the project, notably in respect of supporting the overseas medical professionals to re-enter the health and care sector. The project promoter also reports that the biggest challenge faced was linked to the ambition and the scale of the project. Early in the implementation, the partnership realised that the biggest challenge was the culture change required to deliver this type of intervention. This challenge related to the situation "on the ground" rather than to the administrational requirements of the UIA. The project was completed on time on 31 December 2019.

1.8   UIA flexibility and administrative requirements

Staff from the USE-IT! project were mostly satisfied with design of the UIA instrument and the associated administrative requirements. The response to the on-line survey described all aspects (50% advance payment of ERDF, simplified rules on State Aids, 20% budget flexibility, possibility to make project changes) as "very helpful", except for "Simplified cost options (flat rates, lump sums) for certain categories of expenditure", which they described as "Slightly helpful". Similarly, assistance from the Secretariat was confirmed as "very helpful", whilst support from the UIA Expert and networking with other UIA projects was described as "fairly helpful".

The project staff reported particular satisfaction with the possibility to make project changes. "We were given approval to adjust the programme to the situation on the ground which was invaluable. We also had a very helpful conversation with the UIA Secretariat around our long term results – and the process of defining new indicators was very helpful in identifying success factors we would not have taken into account otherwise."

Overall, the UIA was seen as being more facilitative of innovation than other EU programmes or the partners' mainstream funding. As one partner stated: "A strength of the UIA was that money was available for 3 years; no-one outside the project really understood it, so the team was left to get on and do it, adapt to change and respond to opportunities. It operated below the radar of the senior management of the City Council and the University, so they left it alone. Their bureaucracy could have crushed it. At the end, the challenge was therefore to engage the senior management of those organisations, as they hadn't been engaged since Day 1."

All but two of the administrative requirements of the UIA were reported to be "not burdensome at all". Two elements were described as "very burdensome": financial claims and audit checks/visits. Regarding the latter, project staff reported the main problem as being that the (non-UK) auditor appeared to lack crucial technical knowledge about financial accounting in the UK.

1.9   Communication and media image

According to the USE-IT! application, the communication strategy was designed to enable citizens, public services and academia to come together, practically and meaningfully, to communicate the aims and results of USEIT!. The objectives focused on three target groups:

- Enabling Individuals and Communities to co-create and co-control communication and influencing spaces, to engage with USE-IT!

- Enabling the Public Sector to test models of poverty alleviation with citizens and macro-asset organisations.

- Enabling Academia to benefit from positive disruption in researching, learning and teaching.

USE-IT! operated a project website to communicate the project, host materials (e.g. reports, tools) and provide links to social media (e.g. Twitter, Facebook, Instagram, YouTube). The websites of the partner organisations also featured pages dedicated to the UIA project. Websites and other communication materials mostly acknowledged EU support and featured the UIA and EU logos (one exception is described below). The project's social media data show 1,289 followers across all platforms, plus 1,039 posts and retweets of USE-IT content in 2019 and 303,000 impressions.[10]

In line with the core philosophy of the project, the main focus of the communication has not been on reaching a wide audience of media, citizens and stakeholders across the city and beyond. Instead, as identified by the local evaluation, the focus was on building "hyper-local communication channels" to connect people and build community capacity, given that such channels were identified as being largely non-existent in the target neighbourhood. The local evaluation report goes on to note that USE-IT! social media channels have built the local communications infrastructure and through direct support to community groups and organisations they have enabled those with little or no social media capacity to promote and engage online.[11] Hyper-local communication was also seen as essential to building trust with the local community. As one staff member stated: "It became a trust-building project, as there was low trust in the City Council, even hatred and frustration, e.g. due to a strike by refuse collection workers in 2017. Many frustrations needed to be released. The key was to change perceptions of the City Council amongst local communities."

In terms of reaching target groups, according to the local evaluation, there was no formal advertising of opportunities. Instead, as noted above, the CRs were reached via local third sector and community organisations. "The key was not adverts; it was to show one's face in the community, due to scepticism about the City Council and the perception of broken promises", according to project staff member. Within the Employment Pathways work, the local evaluation reported that communication to the target groups was mostly through word-of-mouth, either via grassroots organisations or through participants signposting their friends towards the activities. According to the project communication manager, "we needed to find key individuals that local people already trust and build a relationship, as this can open doors".

Whilst the project's communication activities were successful in engaging a high number of the target group, the project's communication manager reported that some content on the website attracted negative feedback at an early stage of the project. The content in question focussed on poverty and disadvantage in the neighbourhood, which, according to the critics, risked overshadowing the many positive things happening in the community. Moreover, many of the target group tended not to see themselves as poor or disadvantaged, most notably those that were refugees from conflict-stricken countries.

Knowledge from the project has been made freely available on the project website and associated social media. There have also been targeted efforts to communicate knowledge to key decision-makers in other macro-assets, e.g. other hospital trusts, local police force, as discussed above. Some elements of the project attracted the attention of the specialist media[12] and the UK national media, such as the Employment Pathways model that was featured in the Guardian newspaper (though, unfortunately, the newspaper article did not

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[10] Centre for Local Economic Strategies (2020), Impact report, 2016-19.
[11] ibid.
[12] http://www.pulsetoday.co.uk/pulse-intelligence-your-practice/new-refugee-recruitment-scheme-sees-14-gps-taken-on-in-one-region/20038264.article

mention the EU sponsorship of the project).[13] At EU level, one of the key forms of communication has been the URBACT network, also described above.

1.10 European Added Value

According to the interviews and the project promoter's response to the on-line survey, none of the activities would have been implemented without EU funding from the UIA and the main benefit from being part of an EU initiative was that "EU funding provided the opportunity to test new ideas". On that point, the project promoter reported that without EU funding, the project would have been deemed too risky both by Birmingham City Council (as project promoter) and by the other project partners. The local evaluation notes that reductions of 30% in the City Council's global budget over the last decade mean that funding for non-statutory services (such as those tested by the UIA project) "has essentially evaporated". As well as enabling the implementation of the activity directly financed by the UIA project, the EU funding has also offered EU added value by attracting the additional £600,000 of mainstream funding for language provision for potential recruits to the hospital (above and outside the project).

As noted above, the USE-IT! project, as an EU-funded project, has gained from participation in URBACT Transfer Network project (URBAN REGENERATION REMIX), which is looking at how cities use macro-assets to include people in place-based development. Participation in the URBACT project has reportedly led to some elements of the project (relating to mediation and support for Social Enterprises) being adopted in Łódź (Poland), bologna (Italy) and Toulouse (France).

One way that the USE-IT! project has offered European added value is through the strong links and connections to the Urban Poverty Partnership within the Urban Agenda for the EU (UAEU).[14] This was one of the first four pilot partnerships, which served as a tested ground for the UAEU. Birmingham City Council is a member of the partnership and has contributed to its development. In this context, the USE-IT! project has been used as a reference point for the recommendations that emerged from the Urban Poverty Partnership.

1.11 Complementarity with Cohesion policy and other EU and national programmes

The USE-IT! project took place in the context of a substantial investment of ESF funding to promote employment and inclusion in the Birmingham and Solihull area (combined population 1.3m) during the 2014-2020 programming period. Birmingham City Council has been a key player in the body responsible for implementation, i.e. the Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP).[15] The GBSLEP received £110m (€122m) from the European Social Fund England Operational Programme 2014-2020 (divided equally between Promoting Employment and Mobility; Promoting Social Inclusion and Employability; and Skills for Growth and Entrepreneurship) and a further £19 million from the Youth Employment Initiative (YEI).

The USE-IT! project is consistent with the broad strategic objectives of the ESF investment and was led by staff from the same department that leads the City Council's involvement in ESF-funded activity. However, there was no specific connection between the implementation of the ESF activity and that of the USE-IT! project. In part, this reflects the innovative nature of the UIA project, which required to be implemented in a somewhat

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[13] https://www.theguardian.com/society/2019/feb/13/refugee-scheme-nhs-staffing-crisis-work-placements
[14] https://ec.europa.eu/futurium/en/node/1954
[15] Local Enterprise Partnerships (LEPs) are voluntary partnerships between local authorities and businesses, set up in England 2011 to determine local economic priorities and lead economic growth and job creation within their local areas.

to different way to the mainstream ESF activities. Nonetheless, the USE-IT! team has submitted two ESF applications (to the 2014-2020 programme) in order to sustain certain elements of the UIA project.

Similarly, the same department within the City Council also leads the implementation of Birmingham's sustainable urban development (SUD) strategy funded under ERDF Article 7.[16] Staff from that department report having had discussions on how to use the learning from USE-IT to inform future SUD projects, i.e. using intermediaries to create the link from macro-assets to micro-assets. However, there was no specific link in terms of activities, as the SUD strategy is focussed on very different topics, namely Low-Carbon Economy (TO4) and Environment Protection and Resource Efficiency (TO6).

As noted above, there has been strong coherence and complementarity between the UIA project and the URBACT Transfer Network project, which has facilitated knowledge transfer and replication.

With the UK having departed the EU in January 2020, there will be no possibility for future EU investments (beyond the 2014-2020 programmes) to be used to sustain or scale up the USE-IT! project.

1.12 Lessons learned

The evidence gathered for this case study and the findings presented above allow us to draw some main conclusions regarding these two parts of the USE-IT! project are as follows:

- The essential concept of linking macro-assets to micro-assets has proven to be effective. Intervention can add value where there are poor connections and lack of trust, as well as a failure in the local labour market (i.e. unfilled vacancies co-existing with professionals with unused relevant skills).

- Linking requires "bridges" to be built between the macro and micro-assets. Such bridges must both give a credible "offer" to the macro-assets and create trust amongst local people.

- Building trust amongst local people takes time who may be sceptical or even hostile towards statutory bodies and other institutional players. But it can be achieved by the involvement of local or grass-roots community and third sector organisations that are present and trusted locally.

- Effective implementation of a project such as this does not necessarily require a high-profile media campaign or prominent advertising, e.g. of opportunities for the target group. Instead, where the need is to engage local communities (some of whom may be sceptical, as just described), then "hyper-local communication channels" (e.g. based on grassroots organisations, personal contacts and word-of-mouth) can be both effective and low cost.

- A credible offer to a macro-asset must offer the potential for a tangible benefit to accrue to the macro-asset. Here it is important to recognise and respect the strategic priorities and interests of the macro-asset. It is not enough to rely on a broad commitment to corporate social responsibility. For example, in the case of USE-IT!, the primary function of the health trust is to provide healthcare rather than support community development per se. However, success came first from the trust beginning to explore community engagement as a way of delivering better health outcomes and, second, the trust seeing the potential of USE-IT to deliver tangible recruitment outcomes.

- Scaling up requires a broader cultural change on the part of the macro-assets. In the case of the USE-IT! project, such a cultural change was required both within the City

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[16] https://urban.jrc.ec.europa.eu/strat-board/#/factsheet?id=UK-002&fullscreen=yes

Council (in terms of how it engaged with grassroots organisations) and within the hospital trust (in terms of its engagement with the local community and in terms of its approach to recruitment and training). This takes time but can occur once it is proven that the intervention can help the macro-assets achieve its objectives. Once this happens, there is the scope to unlock considerable additional (mainstream) funding and scale up the intervention.

- As shown with the second hospital trust that chose not to replicate the employment pathways model, a macro-asset might not immediately understand or see the potential benefits of an innovation that is complex, nuanced and multi-dimensional and that requires broader cultural change. This can serve as a potential barrier to replication.

1.13 List of interviews

Organisation	Role in project	Date of interview
Birmingham City Council	Promoter (Project Manager)	07/05/2020 13/05/2020 19/06/2020*
Birmingham City Council	Promoter (Legal Representative)	18/05/2020
Centre for Local Economic Studies	Partner	18/05/2020
Initiative for Social Entrepreneurs	Partner	14/05/2020
Birmingham City University	Partner	19/05/2020

* email response to additional questions

1.14 Documents and websites consulted

UIA Initiative
- https://uia-initiative.eu/en/uia-cities/birmingham
- UIA Expert: Zoom-in N° 1 to 3
- UIA Expert: USE-IT! project Journals N° 1 to 5

USE-IT! project promoter and partners
- USE-IT! website and YouTube channel (https://useituia.co.uk/)
- Centre for Local Economic Strategies (2020), USE-IT! Impact report, 2016-19.
- Birmingham City Council (2019), Mid-2018 Mid-year Population Estimates
- Birmingham City Council (2014), Local Economic Assessment for Birmingham
- Brushstrokes Community Project: https://www.brushstrokessandwell.org.uk/
- URBAN REGENERATION MIX URBACT Transfer network: https://urbact.eu/urban-regeneration-mix
- Centre for Local Economic Strategies (undated), Linking macro and micro assets for urban transformation: USE-IT! transferability study.

Other
- Office for National Statistics: 2011 Census
- Pulse Today: http://www.pulsetoday.co.uk/pulse-intelligence-your-practice/new-refugee-recruitment-scheme-sees-14-gps-taken-on-in-one-region/20038264.article
- Guardian: https://www.theguardian.com/society/2019/feb/13/refugee-scheme-nhs-staffing-crisis-work-placements

2. B-MINCOME (BARCELONA, SPAIN)

2.1 Key project facts

B-MINCOME	
Key facts	
Call	1
Acronym	B-MINCOME
Title	Combining guaranteed income and active social policies in deprived urban areas of Barcelona
Project Number	UIA01-031
Status	Complete
Duration	01/11/2016 - 31/10/2019
Member State	Spain
Number of partners	6
Main urban authority	Barcelona City Council
Other partners	• General public: Catalan Institute of Public Policy Evaluation • Higher education and research: The Young Foundation • Higher education and research: Autonomous University of Barcelona • Higher education and research: Polytechnic University of Barcelona • Interest groups including NGOs: Nova - Center for social innovation
Budget	
ERDF	€4.854m
Public co-financing	€1.184m
Private co-financing	€0.030m
Total	€6.068m

2.2 The city

The city of Barcelona is located on the coast of North Eastern Spain, being the capital and largest city of the autonomous community of Catalonia. With a population of 1.6 million people within the city limits, its urban area extends to numerous neighbouring municipalities within the Province of Barcelona, and is home to around 5.6 million people in total (2019 figures).[17] The Barcelona metropolitan area comprises over 66% of the population of Catalonia, a region which generates 20% of Spain's GDP and is one of the richest regions in Europe. GDP per capita in Barcelona amounted to €43,700 in 2016, well above the EU average and the average for Spain.[18] However, poverty and social inequality have increased steadily in Barcelona since the financial crisis of 2008. While income per capita has increased 11% in richer districts, it has fallen by 27% in the poorest districts of the city. The income gap has more than doubled over the past five years, with about 20% of the city's population now below the at-risk-of-poverty threshold.

This gap has not only affected the most excluded social sectors, where poverty has become chronic; it has also heavily affected immigrants, families with children, single parents and significant parts of the middle class, in particular those whose livelihood depends on certain declining economic industries, such as construction, or jobs suffering structural processes of automatization, seasonality, delocalisation/globalisation. Poverty also affects the

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[17] https://www.ine.es/jaxiT3/Datos.htm?t=2861#!tabs-tabla
[18] https://www.barcelona.cat/internationalwelcome/sites/default/files/DataSheet2018Web_eng_1.pdf

employed, who have either low wages, precarious or part-time jobs, or all of these combined. Income insecurity is combined with difficulties in finding affordable housing in Barcelona, energy poverty, higher school drop-out rates, health problems (e.g. mental disorders) and lower life expectancy. Poverty tends to concentrate in certain districts, thus shaping circles of social and territorial exclusion in certain areas of the city.

2.3 Rationale for the project

The project was based on the city authority's decision to implement a guaranteed minimum income (GMI) system to supplement income in the most deprived areas of the city. Up to 1,000 households would receive a minimum income amount on a trial basis, combined with active social and labour policies such as job training and employment experience, social and cooperative entrepreneurship support, community participation, to address several dimensions of poverty at once. The long-term goals were to reduce poverty and to develop more efficient and effective welfare services by testing the effects of combining a cash transfer with various active policies.

The target population for the project were families at risk of, or already experiencing, socioeconomic exclusion - i.e. their annual income in 2017 was below the annual cost of the family's basic needs. Participants were chosen from the 10 neighbourhoods of the Eix Besòs area, located in the north-eastern area of Barcelona, where average income is 45-60% lower than the average for the city. Beneficiaries were active users of social services, and/or social support programmes. The project also selected a control group for comparison of results and effects. This control group was made up of families/people with very similar characteristics to the project participants, but who were not beneficiaries of the GMI or the active social and labour policies designed for the project.

2.4 Objectives and intended effects

The overall aim of the project was to reduce poverty among families living in very deprived areas of Barcelona, and to develop more efficient and effective welfare services.

The objectives were to:

- Complement the income of disadvantaged Barcelona residents, raising them above the at-risk-of-poverty threshold, and reducing inequality levels.

- Provide disadvantaged families with security, freedom and greater responsibility as a lever in overcoming poverty.

- Pilot GMI measures and actions using funds exclusively from the city's own budget. Other components financed by the city's budget included a series of services made available to GMI beneficiaries; a better understanding of poverty, based on the life stories of those affected; the introduction of a social currency to cover part of the GMI, and new forms of co-creation, interrelation between services, community involvement and public-private cooperation.

- Test the contribution of a cash transfer scheme in ensuring an increase in decision-making capacity, helping beneficiaries to develop their own strategies for escaping poverty and dependence on public or private resources to cover their basic needs. A key element was the integration of various services and public policies linked to the fight against poverty and social exclusion in the area.

The main intended effects were to:

- Achieve a sustained reduction in poverty, prioritising the city's lowest-income urban areas, by means of the experimental introduction of a guaranteed minimum income, the empowerment of people experiencing poverty, and new co-design and co-

production dynamics (between the municipal services and departments, third sector organisations, the community and, to a lesser extent, the recipients of the income and/or active policies).

- Improve the social and economic inclusion of project participants, and their capacity in future to eventually do without the permanent support of GMI.

2.5 Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured public funding of €1.184m to be provided by Barcelona City Council. The budgeted private funding of €30,000 was to be provided by Novact (Institut Internacional per a l'Acció No Violenta) and the UK's The Young Foundation.

The project partners collaborated in the design, implementation and evaluation of the project and brought significant expertise in social research and analysis. Partners include The Young Foundation (led the qualitative evaluation of effects on participating families), Novact (International Institute for Non-violent Action, a Spanish NGO), Ivàlua (Catalan Institute of Public Policy Evaluation which led the quantitative impact evaluation), the IGOP-UAB (Institute of Government and Public Policies at the Autonomous University of Barcelona) and the UPC (Polytechnic University of Catalonia).

2.6 Innovation process

2.6.1 Knowledge informing the innovations

The name B-MINCOME refers to another experience, namely "Mincome", a guaranteed-income project carried out at the end of the 1970's in Manitoba, Canada.[19] The idea was to assess the social impact of a guaranteed, unconditional annual income. There have recently been pilot projects on universal basic income in Finland between 2017-2018, in Kenya and in Utrecht, Netherlands. These have mainly focussed on the improved wellbeing aspects of providing a guaranteed income, whilst recognising that economic activity is not always increased under such schemes.[20]

In addition, the use of local currencies - such as that introduced in Barcelona - has previously been piloted in other European cities including Bristol (UK), Nantes (France), and Toulouse (France).

2.6.2 Experimentation

The core innovation was the provision of a cash transfer each month, to disadvantaged families living below the poverty line. The amount transferred varied according to existing income levels, but it was designed to bring monthly income up to a minimum amount needed to cover basic necessities, according to the nominal cost of a basket of essential goods and services in Barcelona. A secondary innovation was the comparison of the intervention group with a control group, i.e. to compare results achieved for the project beneficiaries with results for a group of people with similar characteristics who received no basic minimum income. This particular method for evaluating results, and its

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[19] https://mdl.library.utoronto.ca/collections/numeric-data/microdata/manitoba-basic-annual-income-experiment-mincome-1974-1979
[20] https://www.bbc.com/news/world-europe-47169549, https://www.kela.fi/web/en/news-archive/-/asset_publisher/lN08GY2nIrZo/content/results-of-the-basic-income-experiment-small-employment-effects-better-perceived-economic-security-and-mental-wellbeing

incorporation into the project design from the outset, is a fairly novel approach for addressing the issue of urban poverty reduction and effectiveness of social policies.

An additional innovative aspect was that the local city authority was in charge both of administering the minimum income amounts, which is usually the responsibility of national or regional government, and also had responsibility for active labour and social policies.[21]

The B-MINCOME project had different strands covering the 1,000 participant households, and there were 36 nationalities among the participants, although the largest proportion (38%) were Spanish.[22]

- 3,632 households which met the requirements were contacted by letter, inviting them to submit an application for participation in the project. After the letters had been sent out, information sessions were organised for potential applicants (45 minutes in length with an average of 10 households per session). An attempt was made to contact all eligible households by telephone so that people would take part in the information sessions being offered prior to submitting the full application.[23] The information sessions described the project, answered questions and provided support to anyone who needed help with filling out the form. The difference between those who attended these sessions and those who did not had a significant impact on the project, since 93% of households participating in the sessions ended up applying to participate in the project. In total, 1,889 applications were received (52% of all eligible households) and the final sample selected for the project was 1,524 households.

- Some participants were randomly assigned to a group which received the GMI on condition of their participation in the designated active policies. Other participants were randomly assigned to a group which received the GMI but without any conditions.

- A comparison control group was set up, in neighbouring disadvantaged areas, which received no GMI or any active policy.

- Participants in the 'conditional' and 'unconditional' groups received a proportion of their minimum income payment in a Barcelona-specific local currency, the REC (Real Economy Currency). This digital-only currency could only be used in local businesses and was designed to ensure that money stayed in the local area and circulated locally.[24]

- A one-stop-shop was set up, to provide public and social services to the participating families. Participants were encouraged to make their voice heard regarding the development of services received, and in some cases – especially in the community participation active policy - they definitely co-designed some activities. Each participant family had an assigned social worker (employed by Barcelona City Council).

- Individual and community initiatives were supported.

- An ethnographic research study gathered information on participants during and after

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[21] It is important to mention that this was possible because the GMI (called Municipal Inclusion Support, in Catalan, SMI) was a social-emergency economic subsidy for the household as a whole, which was complementary and subsidiary to other benefits and incomes such as the guaranteed citizen's income (the responsibility of regional government) the active insertion income, unemployment benefit, pensions and employment income, etc. It was not a subjective right, it was temporary (for the two-year duration of the project) and it was aimed at covering basic needs such as food, clothing, education, housing, transport, etc.

[22] See this report for further information on the selection, characteristics and distribution of participants, as well as the overall project methodology: https://ajuntament.barcelona.cat/dretssocials/sites/default/files/arxius-documents/resultados-bmincome-en.pdf

[23] 49% of the households in the sample were contacted. After reviewing the contact details, around 9% of the sample were found to have no contact telephone number or had their calls restricted at the time they were contacted. It was also impossible to establish clear, fluid communication with 1.8% of the sample due to language problems or because the telephone no longer belonged to the person being contacted.

[24] https://rec.barcelona/en/home/

the project, based on participants' own stories, experiences and expression of needs.

- A quantitative evaluation carried out by one of the project partners compared the effects on the intervention group and the control group, and also the effects on the conditional and unconditional groups.

It was intended that the combination of these core elements would lead to a progressively lower dependency on the GMI, resulting in the financial and social sustainability of the measures.

2.6.3 Achievements against project targets

According to the application form, the interim and final project reports, the main outputs of the project include the following.[25]

Project outputs:	
Target (application)	**Achieved to date**
Research outputs:	• All reports produced; dissemination is ongoing.
• Final report; assessment of the governance, management of GMI and recommendations, summary per group and analysis of proposals, co-created solutions	• The main report findings were that: recipients spent their additional income on one or more of the following: more and better quality food, clothes and household essentials, education and training, most often for their children, other activities for children e.g. sports, cinema, arts and crafts, paying off debts, rent and bills.
• Creative reports representing different situations of poverty from citizen viewpoints, ethnographic information and transformation narratives	• GMI is effective in increasing wellbeing and mental health, reducing severe material deprivation, reducing food insecurity, residential exclusion and increasing quality of sleep, as well as improving some aspects of the financial and perceived economic situation of participating families. A reduction in outstanding debt or the need to borrow from friends or family was observed. Families had more time to look for a better job and less urgency in taking the first one offered. Some positive effects for participating minors were found in education, for example a positive effect on the reduction of school drop-out rates and a small increase in the probability of continuing with post mandatory education.[26]
• Methodology and results of the impact evaluation of GMI on household outcomes	
• Conclusions and recommendations on social currency use and application	
Citizen and public service outputs:	• 952 households identified as at risk of socio-economic exclusion received basic income support, averaging a monthly payment of €480, over a period of 2 years. The income support was combined with activation policies including training and employment, social entrepreneurship, room rental promotion and community participation promotion.
• Access to GMI and active anti-poverty policies that are designed with the beneficiaries' input	
• Final version of the web app and software for GMI beneficiaries and municipal services mobile app	• The Training and Employment policy had a high participation rate (152 people overall with 115 people participating in the employment phase), whilst the Social Entrepreneurship policy had 99 participants.
	• The project improved total perceived support among those that took part in the community participation policy (270 people). It also increased the probability of engaging in social activities.

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[25] For a more detailed set of interim results, see
https://ajuntament.barcelona.cat/dretssocials/sites/default/files/arxius-documents/resultados-bmincome-en.pdf
[26] B-MINCOME project final report: Impact evaluation of GMI on household outcomes, produced by the Catalan Evaluation Institute for Public Policy (IVALUA), December 2019.

	Project outputs:
	• The web app, software and mobile app were developed.
Social economy outputs • New social economy starts-up with GMI recipients' participation • Distribution of the social currency to at least 200 households and 150 businesses from the area • GMI recipients participate in local social economy organisations improving their employability	• Social entrepreneurship training did not seem to have any effect on entrepreneurship attitudes, as paid employment continued to be seen as the most promising route to financial security. • Social currency (REC) was distributed to 533 families and accepted in 175 local shops in Barcelona. • The social economy programme was not perceived as very useful, since it was incompatible with the majority of participants' desire for stable and secure work. However, it did offer opportunities for positive social contact and learning new skills.
Jobs and skills • Improved employability, skills and increased capacity to meet labour market requirements • Selection and training of the local team • Professional practices in companies	• Participants were given an employment contract lasting 12 months, preceded by a 5-month vocational training course. The training and jobs provided spanned a range of sectors including infrastructure, ecological sustainability, leisure, nutrition and health assistance. • However some participants felt that the training and job they had been offered were not well matched to their skill-set or interests. • A minority of participants stated that their job prospects had improved directly as a result of receiving the GMI, for example those who used their income to gain additional qualifications, take part in vocational training or education with a view to enhancing their long-term work prospects. For some people who were unemployed before the project, B-MINCOME gave them more time, resource, motivation and 'mental bandwidth' to look for a job.
Housing • Adaptation of 100 dwellings for social housing • Social housing renting system	• Only 24 households agreed to take part in the grants for rehabilitation and room renting policy, as many preferred not to have to rent out a room in their own house. There were problems with the implementation of the policy, which was delayed starting until spring 2019. • Housing insecurity persisted among beneficiaries and the project did not affect the probability of being forced out of a current residence. However, the project reduced residential exclusion, the probability of falling into rent arrears, having roof leaks or moisture problems.

The research findings on participants' improved wellbeing and financial situation, reduced deprivation and residential exclusion will be used to inform future policies and to justify the scaling up of this project. The reports produced will also be used for learning regarding replication of the project activities in other areas of Spain and Europe. The social economy outputs benefited the local area and will continue to inform other local currency pilot projects. The jobs and skills outputs may benefit the GMI recipients in the medium-long term.

2.6.4 Sustainability and scaling-up of the project at local level

The project's aim was to scale up to the level of the whole city, i.e. targeting all disadvantaged households in Barcelona. Funding is being sought from the regional government for additional scaling up across the whole city.

The project promoter stated that the main project innovations should be scaled up by the City Council's Social Rights Area, whereas the complementary currency model will be sustained by the Local Economic Policies Department, and could be used as a strategic tool to stave off the potential collapse of thousands of small businesses and commercial ventures.

Within the current context of the COVID-19 pandemic, the City Council's Social Rights Area has approved an extraordinary Municipal Inclusion Support (SMI) for 6 months, offered to 9,600 households (30,000 individuals) from the whole city - including former B-MINCOME beneficiaries - with an expected cost of €18 million. However, the beneficiaries of this pandemic SMI were assigned based on objective criteria established on administrative data from Social Services. Furthermore, a general plan for the community intervention model of Social Service Centres in the city is now being designed, considering the lessons learnt from the B-MINCOME project.

2.6.5 Transfer and replication of the project elsewhere in Europe

There is clear potential for replication and this may happen over time as the results are more widely disseminated and as there is interest from other European/global cities in the project's approach. However, it is still too early to tell whether the project will actually be transferred within the region or more widely across Spain, as no final funding decisions on further support have yet been taken. It is certainly transferable, including the REC local currency, and further transfer activities are planned both with the Barcelona municipal authorities and other European cities. The EUROCITIES network will be a key channel to spread information on results.

There has been interest in the project from South Africa, South Korea and Colombia, and project partners say they have promoted the findings and learning as applicable to other projects (e.g. in the UK), as well as in publications, reports and at events. The Young Foundation has already produced 2 publications centred on the project.[27]

The REC currency won a prestigious prize in February 2020, the EIC Prize on Blockchains for Social Good, awarded by the European Commission. The REC was part of a consortium, which won the prize for Financial Inclusion, and will use its €200,000 share of the prize money to look at scaling up the technology and making it fully open source.[28]

2.6.6 Summary of key outputs and results (according to study typology)

Key outputs and results (related to case study activities)	
Outputs	
• New services, products, processes	• Barcelona local currency scheme piloted in 10 areas across the city, over €900,000 worth of transactions using the REC carried out between November 2018-April 2020.[29] Creation of social capital, support for local economy and small businesses. GMI system successfully piloted at the city level, with 952 households taking part over 2 years. • Co-design of local labour and social policies.
• Partnerships created	• Municipal authority working closely with NGOs and research bodies involved in analysing social policies.
• Experience gained	• Operation of an innovative, conditional and unconditional cash transfer scheme, across 10 deprived neighbourhoods of Barcelona city.

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[27] https://www.youngfoundation.org/?s=BMINCOME

[28] https://ec.europa.eu/research/eic/index.cfm?pg=prizes_blockchains

[29] https://www.metropoliabierta.com/informacion-municipal/total-tiendas-moneda-local-barcelona_26851_102.html

	Key outputs and results (related to case study activities)	
		• Operational implementation of a local currency including technology issues.
• Knowledge produced	• Knowledge of effective social policies and effects on wellbeing of GMI.	
	• Knowledge of barriers to participation and practical issues such as payment methods for participants, language barriers.	
	• Knowledge of how local currency can be used to stimulate demand and multiply the effect of public spending.	
	Results: local level	
• Identifiable effect on urban issues faced at local level	• Reduced urban poverty among the participating 952 households.[30]	
	• Improved overall wellbeing among participants, in terms of economic, financial and material wellbeing, as well as community participation.	
	• Overall, 60.5% of households received a lower income transfer at the end of the project than at the beginning. About 12% did not need any further income transfer by the end of the project, suggesting they had reached the minimum income threshold.	
• Sustainability of partnership working	• Sustainable and ongoing.	
• Innovations scaled up	• Project extended to other city neighbourhoods in Barcelona. Discussion on potential scale-up at regional level.	
	• Local currency technology being further developed.	

2.7   Project implementation

The project was implemented mostly according to plan, and was completed on time, although the dissemination of results is ongoing. There were no major changes to the project. Project partners commented that Barcelona City Council did a good job of bringing all the partners together, putting them in direct contact with each other and keeping them updated on developments. The core team at the city council were really invested in the project and put in a lot of effort to ensure its success.

Another success factor was the willingness of the Barcelona authorities to provide accurate data in a timely manner, to allow the B-MINCOME to be subject to rigorous evaluation and to show willingness and interest in adapting policies, based on evaluation results and findings. The achievements information was robust since it was based on both qualitative and quantitative findings, and this dual approach worked well. Participant's individual project stories - as well as the aggregated results based on comparative data - showed an overall positive set of financial, material and individual wellbeing effects for project beneficiaries.[31] The fairly high level of budget allocated to evaluation activities, which were carried out by several partners, was significant.

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[30] Although 1,000 households were enrolled at the start of the project (they were selected by a draw), only 952 finally completed the requirements and took part in the project. Some families moved away from the eligible areas of the city.

[31] Results are summarised in Section 2.6 above and can also be found in more detail here:
https://www.youngfoundation.org/publications/the-voices-of-basic-income/

Although local authorities had to design new labour and participation policies, social participation functioned well and social collectives (e.g. of vulnerable groups) participated well. There was good co-design of policy on participation. The communitarian policy helped to create a feeling of ownership and pride in the project and made people feel useful, even if they were not necessarily working. Particular examples (according to the project promoter) included food and cooking activities, initiatives to sow cushions, create clothes and hold art exhibitions. Some of these had the potential to become remunerated activities whilst others were just for fun.

However, project partners mentioned that the duration of the project - with its fixed timeline - was too short in terms of having sufficient months for preparation and design, and that the planning of the project could have been done with all partners before the project application was submitted. There was not enough preparation time for testing communications materials in different languages and allocating the participants to the different conditional arms. As neighbours living in the same building were sometimes on different trial arms (conditional, capped, unconditional, etc.), and as some recipients had low levels of literacy, this led to confusion and lack of clarity among the target groups about which activities they were supposed to participate in. In addition, there was a lot of uncertainty about income levels fluctuating month to month.

There were some staffing issues in the middle of the project, as some contracts were too short and then not renewed on time. The team on the ground did not always have the correct language skills and more effort could have been made to match interviewers to the target groups.

One partner underestimated their costs in terms of the number of man-hours required to carry out evaluation activities and the additional work required to 'change the culture' of public authorities. They recommended that in future, a fixed percentage of the total project cost should be devoted to evaluation activities. A common approach to evaluation, perhaps set out within the UIA call, would have been useful.

2.8   UIA flexibility and administrative requirements

The project partners welcomed the design of the UIA instrument, and the survey response showed that the UIA rules were considered as 'very helpful' for the implementation of the project. However, more than one partner stated that the financial reporting was incredibly burdensome and should be simplified ('receipts faded over time and were then rejected, there were some very complex spreadsheets with codes'). The project promoter stated that the payment system was very complicated and burdensome, especially considering the many different partners including NGOs and universities. It was difficult for the smaller partners to manage with these systems and as they did not receive all the funds upfront, some had to get bank loans.

The administrative burden of the initiation phase was felt to be 'light', although the initiation phase was also thought to be 'too short'. In general, all other aspects of the UIA requirements were not considered burdensome apart from the audit requirements, which were considered very burdensome (also complicated and a source of delay).

Support from the UIA Expert, assistance and monitoring from the UIA Secretariat and networking with other UIA projects were all found to be 'fairly helpful'. The project promoter found the support from the UIA Expert in the knowledge transfer phase to be

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Report on the preliminary results of the B-MINCOME project, Barcelona City Council Planning and Innovation department, July 2019. https://ajuntament.barcelona.cat/dretssocials/sites/default/files/arxius-documents/resultados-bmincome-en.pdf
B-MINCOME project final report: Impact evaluation of GMI on household outcomes, produced by the Catalan Evaluation Institute for Public Policy (IVALUA), December 2019.

helpful, e.g promoting the studies, using the newsletter and participating in conferences to explain the project.

2.9   Communication and media image

As noted earlier, the main way of communicating with the target groups was to send letters to households in a number of deprived neighbourhoods informing them about the project and inviting them to apply to participate, however only about half responded positively. Local community events were also held to communicate with target groups and with the wider public. Training activities with social workers involved in the project also took place, to communicate the overall objectives, the different participant groups and the particular methodology of the project.

During project implementation, the Young Foundation project partner created a series of videos to tell participant families' stories. A couple of open community events were held to screen the videos, and these were well received by stakeholders. The Barcelona City Council event in 2019 was well attended, including at the political level.

Some connections were made with other international projects and there was considerable regional media interest, as well as an interview with the project promoter by the international press agency, Pressenza.[32] The project was featured in a 2017 article about ongoing basic income experiments, by the Basic Income Earth Network (BIEN).[33]

The REC local currency had its own website (https://rec.barcelona/es/inicio/) as well as a good social media presence, especially on Twitter, and was also featured in the regional media.[34]

2.10   European Added Value

According to the survey response, only some project activities would have been implemented without EU funding. The EU funding given to B-MINCOME has indirectly resulted in some further EU funding, in the form of €200,000 prize money awarded to the REC local currency. Additional funding from the city council's municipal budget is being made available for scaling up of the project to other wards in Barcelona.

The main benefit of being part of an EU initiative was that the EU funding provided the opportunity to test new ideas, and to recognise the importance of several different activities. Project partners also spoke of the networking opportunities regarding the local currency element of the project.

Networks such as URBACT and EUROCITIES were mentioned as important channels for disseminating project learning and results.

2.11   Complementarity with other EU programmes

The project promoter from Barcelona City Council stated that "we were awarded at the same time three projects strongly related: sustainable urban development strategy (SUDS), B-MINCOME (UIA) and URBinclusion (URBACT). We hoped to participate in the URBACT inclusion network by sharing experiences and knowledge with other participating

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[32] https://ajuntament.barcelona.cat/bmincome/es/prensa
https://www.pressenza.com/es/2018/07/lluis-torrens-nuestro-objetivo-es-acabar-con-la-pobreza/
[33] https://basicincome.org/news/2017/10/overview-of-current-basic-income-related-experiments-october-2017/
[34] https://rec.barcelona/es/clipping-es/

cities, in particular regarding effective decision-making processes and new financial mechanisms for tackling urban poverty".

The SUD strategy for Barcelona is financed by €7,500,000 of ESIF funds and includes the following Thematic Objectives: TO2 Information & Communication Technologies, TO4 Low-Carbon Economy, TO6 Environment Protection & Resource Efficiency, TO9 Social Inclusion.[35] The B-MINCOME project aligns closely with TO9 on Social Inclusion. In addition, the 10 neighbourhoods targeted by the SUD strategy were the same as those targeted by the B-MINCOME project.

The implementation of the SUD strategy was mainly led by the Urban Ecology department and the public agency Foment de Ciutat SA, which both come under the remit of Barcelona City Council. The Social Rights section of the city council, which ran the B-MINCOME project, coordinated with these departments. Discussions are ongoing with the Foment de Ciutat Agency regarding the continuation of financing for one of B-MINCOME's active policies on community action.

The introduction and use of a local currency is already being trialled in other EU-funded projects in Catalonia, including the VilaWatt energy transition project financed by the UIA, and the Grama local currency being used in neighbouring areas of Barcelona, an ERDF funded project.[36]

2.12 Lessons learned

- A crucial lesson was the issue of non-take up of the programme: a lot of eligible families who were sent targeted messages by the City Council inviting them to participate did not do so. Some people did not understand the invitation letter they were sent (perhaps due to language differences as they were immigrants), others did not attend the information sessions offered on how to apply for the project.

- One partner mentioned that there were too many trial arms with too many variants, which made the project over-complicated. Whilst the conditional activities were useful for developing skills and networking, they reduced the time available to find other work and, in some cases, went against individual participants' preferences. Overall, there was a slight negative impact on employment - although the project was not aimed at increasing the participants' labour market participation in the short term - meaning that participants worked less overall once they began receiving the minimum income payment and taking part in the activation policies.[37] With that in mind, future editions of the programme should reconsider the implementation of employment or entrepreneurship training and target only those that can actually take advantage of them. In addition, it was found that participants experienced reduced incentives to do an activity which they were forced into.

- The project promoter mentioned a common issue in several cities where immigrants are scared of being deported if they approach public authorities for support. Immigrants are more likely to ask NGOs for help instead. In addition, there could be some stigma associated with receiving minimum income among those who were formerly middle-income families. Such families may be unwilling to reach out for

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[35] https://urban.jrc.ec.europa.eu/strat-board/#/factsheet?id=ES-057&fullscreen=yes
[36] https://www.viladecans.cat/es/vilawatt-3
https://www.gramenet.cat/es/sites/moneda-local/
[37] There were many reasons given by participants for working less, including taking on family care responsibilities, looking after their own health, spending more time helping their children with schoolwork, See https://youngfoundation.org/wp-content/uploads/2020/02/Voices-of-Basic-Income.pdf
Some participants said they worked less as their time was taken up participating in the activation policies. See the Report on the preliminary results of the B-MINCOME project, Barcelona City Council Planning and Innovation department, July 2019. https://ajuntament.barcelona.cat/dretssocials/sites/default/files/arxius-documents/resultados-bmincome-en.pdf

assistance and therefore co-operation with the third sector is important.

- Some parts of the trial were much less successful and the extra trial regarding the local currency, which was introduced part way through the project, was problematic for some recipients. Some shops took the local currency whilst others didn't, and some beneficiaries had trouble accessing the currency via their phones (although for those in need, the Barcelona City Council lent them a smartphone). In addition, participants were worried about the stigma arising around the use of local currency; it would be seen as 'poor people's money'. Instead the message given by the project was that it was a currency to help the local economy.

- One partner mentioned ethical issues with the design of the trial and the consequences of ending the pilot. These were not adequately thought through and participants were worried about what was going to happen to them after their basic income support ended. Some participants were clearly at risk of slipping back under the poverty line, whilst others had gained some new skills or been trained. In future, some transitional support for participants would be very useful, or earlier consideration of how to make the model self-sustaining in the medium-longer term.

- One project partner recommended a further meta-analysis of all the recent city-level minimum income schemes, to analyse collective findings. Also, as the evaluation work on B-MINCOME stopped before the end of the project, some follow-up interviews would be useful to understand long-term effects for Barcelona residents. The duration of the project was too short for some of the data findings to be significant, for example with regards to effects on education attainment levels of the children in participating families.

- The role of the social workers was vital in this project, since they acted as the point of contact and key link between participating families and Barcelona City Council. One project partner mentioned rather mixed feedback from participants on the social workers and questioned how well they understand the complexity of the project, with its different intervention groups and conditions. Another partner stated that thorough training of the social workers in the project's methodology and preparation for their role (which came on top of their existing workload), was essential.

2.13 List of interviews

Organisation	Role in project	Date of interview
Lluís Torrens, Barcelona City Council	Project promoter	3 June 2020
Marc Balaguer, IVALUA	Project partner, led the quantitative evaluation	23 July 2020
Victoria Boelman, Young Foundation	Project partner, led the qualitative evaluation and ethnographic research	30 July 2020
Martí Olivella Sole, NOVACT	Project partner*	7 August 2020

*information sent by email

2.14 Documentary sources consulted

Documents / websites / YouTubes
https://mdl.library.utoronto.ca/collections/numeric-data/microdata/manitoba-basic-annual-income-experiment-mincome-1974-1979
https://www.barcelona.cat/internationalwelcome/sites/default/files/DataSheet2018Web_eng_1.pdf
https://www.viladecans.cat/es/vilawatt-3
https://www.gramenet.cat/es/sites/moneda-local/

Documents / websites / YouTubes
Intermediate and final project reports, including https://ajuntament.barcelona.cat/dretssocials/sites/default/files/arxius-documents/resultados-bmincome-en.pdf https://www.youngfoundation.org/?s=BMINCOME
UIA project journals: https://www.uia-initiative.eu/sites/default/files/2019-02/Barcelona_BMINCOME_Journal.pdf
Project Application form and survey https://www.ine.es/jaxiT3/Datos.htm?t=2861#!tabs-tabla https://urban.jrc.ec.europa.eu/strat-board/#/factsheet?id=ES-057&fullscreen=yes https://rec.barcelona/wp-content/uploads/2020/02/informe-final_CAST_compressed.pdf https://rec.barcelona/en/home/

INTEGRATION OF MIGRANTS AND REFUGEES

3.   S.A.L.U.S. 'W' SPACE (BOLOGNA, ITALY)

3.1   Key project facts

S.A.L.U.S. 'W' SPACE	
Key facts	
Call	1
Acronym	S.A.L.U.S. 'W' SPACE
Title	Villa SALUS as a new Sustainable Accessible Liveable Usable Social space for intercultural Wellbeing, Welfare and Welcoming in the metropolitan City of Bologna
Project Number	UIA01-047
Status	Ongoing
Duration	01/08/2017 - 31/01/2021
Topic	Integration of migrants and refugees
Member State	Italy
Number of partners	17
Main urban authority	Bologna Municipality
Other partners	• Infrastructure and (public) service provider: ASP City Of Bologna - Public Company for Personal Care and Welfare • Higher education and research: University of Bologna • Education/training centre and school: Ciofs Fp Emilia Romagna • Education/training centre and school: Cefal Emilia Romagna Cooperative Society • Education/training centre and school: CSAPSA • Business support organisation: Microfinanza S.r.l. • Enterprise: ETA BETA Coop. Soc. Onlus • SME: Institute For Social Research • SME: ICIE- Cooperative Institute For Innovation • Other: Association Cantieri Meticci • Other: Dolce Society • Other: Open Group Soc. Coop • Other: C.I.D.A.S. Social Cooperative • Other: Antoniano Onlus • Other: Italian Workers Christian Associations of Bologna Department • Other: Association MondoDonna Onlus
Budget	
ERDF	€5.000m
Public co-financing	€1.040m
Private co-financing	€0.210m
Total	€6.250m

3.2 The city

Bologna is the capital and largest city of the Emilia-Romagna region in Northern Italy. It is the seventh most populous city in Italy with about 390,000 inhabitants and 150 different nationalities.[38] Its metropolitan area is home to more than 1,000,000 people.[39] Bologna is also one of the wealthiest cities in Italy, often ranking as one of the top cities in terms of quality of life in the country.[40] The city's population is aging: minors (children under 18) totalled 14% of the population compared to pensioners who number 25%. This compares with the Italian average of 18% (minors) and 20% (pensioners). 88% of the population is Italian.[41] The largest immigrant groups are from other European countries (42% - mostly Romanians and Albanians), Asians (33.6%) and Africans (18.4%).[42]

Italy has an increasing number of refugees from Africa. Asylum applications have risen from around 20,000 applications per year from 2006 to 2010 to 150,000 in 2016. The judicial system is overloaded with appeals and this is exacerbated by the low numbers accepted on first application. Those waiting for formal acceptance cannot work in the formal economy. Bologna estimates that about 850 people seeking refugee status were living in about 48 reception facilities spread across the city towards the end of 2016. The number of refugees living in the city is thought to be double this figure.[43]

The project covers the whole estate complex of Villa Salus, located on the eastern suburbs of Bologna, in Malvezza Street in the San Lazzaro di Savena district (32,792 inhabitants), which is a mixed area popular with students and accommodating a number of ethnic minority groups.[44]

3.3 Rationale for the project

The project was conceptualised as a solution to three problems experienced in the city:

- An ageing population and an increasing inflow of migrants and refugees from outside the EU, along with citizens' poor perceptions of the migrant population as a social and economic burden.

- The 'emergency' response model employed in refugee reception policy and practice. There was a need to find new sustainable and participatory ways to integrate refugees, migrants and citizens into the social and economic framework.

- The need to regenerate sites of urban decay and abandoned city buildings which were causing their own set of urban economic and social problems.

While in Bologna the reception system is reasonably efficient and professional, it is responsive only to a temporary emergency situation and is not a structural solution. It consists of flats, small reception centres and community homes, spread all around the metropolitan area and mainly isolated, a quite fragmented solution that has almost no links with the citizens, and it often causes security concerns to the local population.

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[38] "Ufficio statistica regionale" *(in Italian). Regione Emilia Romagna. 10 April 2019.*
[39] "Città Metropolitana di Bologna" *(in Italian). tuttitalia.it. 30 November 2019.*
[40] "Qualità della vita"*. Il Sole 24 ORE. Retrieved 19 June 2020.*
[41] https://www.citypopulation.de/en/italy/admin/emilia_romagna/037__bologna/
[42] https://urbact.eu/bologna-attracts-young-and-cultured-immigrants-0
[43] Salus Space Project Journal #1
[44] https://www.tuttitalia.it/emilia-romagna/23-san-lazzaro-di-savena/

3.4 Objectives and intended effects

The overall aim of the intervention is to create an experimental site for social innovation through a participatory design process (co-design), with a generative and intercultural welfare approach.

The objectives were to:

- Design and implement a creative and innovative model of refugee reception integrated with the social and economic urban fabric;
- Contribute to urban regeneration, re-using abandoned sites for social purposes and promoting economic revitalization of peripheral areas with the involvement of the local community;
- Foster intercultural exchange and the creation of a culture of dialogue and solidarity among citizens and migrants, preventing social tensions;
- Develop new models of economic development, where refugees build autonomy, acquire new skills and build micro-enterprises;
- Create new urban centralities, where a wide range of facilities are provided to citizens, such as co-working space, gardens, artistic laboratories, restoration and accommodation facilities etc.;
- Create a "Think Tank" for the elaboration of new models of generative welfare, that aims to become a European centre for discussion and promotion of relevant issues.

The main intended effects were:

- Cultural Change: integration of citizens and migrants based on constant exchange and collaboration, reducing conflicts and fostering a new intercultural model of co-living and mutual support, where the contribution of migrants to the city will be recognised and respected.
- Urban Regeneration: alleviating social decay, re-use and renovation of old and abandoned buildings, reducing squatting and improving environmental quality.
- Economic development: the refurbishment becomes a site for economic growth, opportunities for training, employment support to refugees and disabled persons, enterprise start-up opportunities.
- Health and wellbeing improvement: holistic improvement to physical, psychological and social well-being, improving community cohesion.
- Development of a replicable model of integrated community centres where the third sector and citizens play an active role in supporting the reception and integration of refugees.

3.5 Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured €1.040m of public funding provided by the City of Bologna, and the ASP Città di Bologna (City of Bologna's public company for personal care and welfare), and the University of Bologna. Private contributions amounted to €210,000 provided mostly by private companies and associations such as the Institute for Social research (responsible for Evaluation activities) and the Association Cantieri Meticci (arts organisation) and Open Group.

3.6   Innovation process

3.6.1 Knowledge informing the innovations

The implementation of the project drew on various forms of knowledge, learning from good practices of fostering autonomy and integration of refugees at European level. However, these projects tend to focus on one area of refugee integration, e.g. housing, employment. For example, the refugees' hotel in Vienna, the Migration Hub for Startups in Berlin, the job-matching mobile platform for refugees in Germany, and the numerous projects carried out in Europe to involve refugees in community services. All projects have a lack of systemic vision and economic sustainability, depending almost entirely on public funding.

The project also drew on local social integration programmes such as 'Bolognaccoglie' which supported the integration of refugees with involvement of the third sector, supporting integrated active citizenship, job training, etc.

During the preparation phase of the project, there were several partner meetings which worked with a committee of local stakeholders including migrants and citizens. The project drew on local knowledge and opinions from the outset to co-design project activities based on community needs and demands. This included gathering in-depth knowledge of the community and neighbourhood in which Villa Salus is located.

3.6.2 Experimentation

Regeneration of disused urban spaces: the concept of Villa Salus (conversion of an old disused private hospital) has combined multiple functions, such as social housing, public facilities, arts and crafts facilities, theatre and entertainment, entrepreneurship space, food processing and a restaurant and many other activities in a unique centre where refugees are both beneficiaries and service providers to the local community.

Co-design and participatory governance: the project tested a new form of governance involving private actors, public stakeholders, citizens and refugees. The co-production and design element was a key innovation in the project. A charter of values has been jointly developed, and several online and offline processes have been put in place to facilitate this. To date, the project has facilitated six focus groups and four community meetings involving least 140 people, with at least 46% migrants and refugees attending and participating.[45] The two other aspects that have a strong participative element are on communication and evaluation which involve citizen journalists and citizen evaluators, training and supporting community members to work alongside professional journalists and evaluators. This co-design feature is further driven by three work packages (WPs), which aim to foster ongoing community collaboration and integration: welfare, well-being and welcome.

- The Wellbeing work package takes a holistic view of health and integrates societal and cultural aspects with environment and economy. It leads on the co-design of all aspects of housing, living, green spaces and arts and crafts. Outputs have taken place according to the plan, although some aspects have taken place off-site due to delays in the building process.

- The Welfare work package provides specific training courses and entrepreneurial assistance, financial education and personalised guidance for business plan implementation, with the final objective of launching start up and enhancing social economic empowerment.

- The Welcome work package aims to create and implement a co-management structure for all new services and facilities provided within the new Salus Space. Social

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[45] Interview with ASP Bologna

enterprises will play a direct role in generating revenue in the space that will include a range of on-site services and facilities: green areas, spaces for psychological and physical wellbeing, cultural amenities, artistic laboratories, a co-working space, a bed and breakfast facility, and a multi-ethnic restaurant. Although it was planned to commence work in November 2020, due to COVID-19 lockdown none of planned activities were carried out and there are delays in the development of the building, and pre-requisite practical training.

Economic Sustainability: The project has set up the first of a number of social enterprises that will be set up within the centre and will provide sustainable revenue and employment options. The project piloted a food processing and delivery facility as a low-cost enterprise which will benefit the local community and generate income. This proved to be an innovative and adaptive feature during the COVID-19 lockdown, when running a restaurant was not possible.

3.6.3 Achievements against project targets

With regard to the innovations considered by this case study, the main outputs were as follows.

Work Package 4: Well-being (WP4)

According to the project promoter interview, and the progress report submitted in October 2019, the outputs of WP4 compared to the original application include the following.

Project outputs: Well-being (WP4)	
Target (application)	**Achieved**
Participatory Agreement on the Design Guidelines for the regeneration of the Villa and its green area	• Partnership agreement signed. Major change from re-generation of existing building to demolishing and building a new structure. • Planned functional/architectural/structural maintenance and refurbishment of the Villa, and interventions in the green areas were presented to the public in June and October 2017.
Participatory Agreement on the Social and Economic Regeneration Guidelines	• Villa Salus' social, economic and environmental regeneration Guidelines was submitted with the final architectural plan, based on inputs from participatory planning at an event on 15 June 2018 with 200 people in attendance. • Partnership agreement signed.
Constitution of Intercultural Welfare Think Tank Project Board	• Think Tank set up by the Bologna Institution for Social and Community Inclusion - opening discussion held in October 2017. Operation currently suspended until the new building is opened.

The above outputs relate to the participatory governance model implemented by the project, which have been prioritised and embedded within the overall project framework. Several meetings took place to consult the local community, businesses, refugees, students and others on the regeneration of the disused building, alongside the co-design of social and economic initiatives, such as the ratio of profit making to non-profit activities, professional training and housing management. The preparation phase of building the community within the neighbourhood will then flow into the 'experimentation phase' from 2021-2022. The expected strategic impact is that Salus Space will then become a hub of

a wider network of proximity services, co-managed with refugees and local organisations, according to a public-private collaboration model. In addition, the project partners believe that the participatory governance model has had far reaching impacts for project sustainability and the integration process, by empowering stakeholders to feel ownership of the project from the outset.

The Think Tank has been set up to support development of new co-operative welfare models to improve empowerment and capacity building. This acts as a planning board promoting wider discussion on intercultural dynamics and will become an operational board producing studies and events at national and international level. A series of nine seminars were due to take place from May 2019 – April 2020.[46] The last event took place in February 2020 before the Covi-19 lockdown. The project promoter mentioned that a series of workshops and initiatives, funded with neighbourhood support, will take place from March 2021, focussing on environmental, social and inter-religious issues.[47]

Work Package 5: Welfare (WP5)

According to the project's own monitoring (Salus Space Dossier, February 2020) and the project promoter interview, the outputs of WP5 compared to the original application include the following:

Project outputs: Welfare (WP5)	
Target (application)	**Achieved**
• 2 Field training courses	• Not possible to involve refugees in the new build (advanced techniques required, less opportunity for low skilled labour). Refugees have been trained in trades such as electricians, restaurant trade, building maintenance. One course started in June 2020 and another is planned for November 2020.
• 4 Artistic training courses	• 2 training cycles have taken place at the Civic Centre Savenna District.
• 2 training courses	• 2 courses, one for artistic arts craft jobs (glassmakers, potters and carpenters) and one for maintenance technicians (electricians, plumbers, bricklayers) have been successfully run by Eta Beta.
• 1 Accommodation, food processing and green maintenance course	• Course for maintenance technicians (10 people); Caterer process-skilled processing products agro-foodstuffs (12 people); Course for accommodation providers (12 people); Course for catering staff: cooking (5 – 6 women); Course for restaurant workers: hall activities (5-6 women); Course for green maintenance workers (12 people).
	• Fewer participants than anticipated in the application due to problems at the local asylum reception centre.
• 3 gardens established with the involvement of the refugees	• Gardens have not yet been established. Land has been procured from private owner. Final stage of training will be the establishment of the

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[46] A list of seminars can be found in the Salus Space Dossier (February 2020)
[47] Interview with project promoter

Project outputs: Welfare (WP5)	
	'productive' garden.
• Training to support business ideas for micro-entrepreneurship	• Work has been done to select participants from the participatory and co-design processes. However, training has not yet been undertaken.

The change from the intended process of regeneration to a 'new build' approach meant that refugees could not be employed on the building site, due to complex contractor arrangements. Therefore, refugees have been trained and employed on small building yards.

Where possible, all other training courses have taken place at sites across the city. The training courses have three functions: they support the cultural and social activities of the project; provide skills for potential income generation by refugees and citizens; and support the ability of selected citizens and refugees in the co-management of the space as an ongoing sustainability measure. From the training course, relevant teams are set up to support the application of training to the social, cultural and economic functions of the centre through the Welcome WP. This is where the strategic impact of the training is seen.

Work Package 6 – Welcome (WP6)

Project outputs: Welcome (WP6)	
Target (application)	**Achieved**
Collaborative social housing start-up - Charter of Values (CoV) and Co-housing Rules and Regulations	• Delayed due to delay in building works. Process of development now underway.
The Association of "Salus people": Co-housers and fellows	• Process has commenced.
1 multi-ethnic refreshment-point and catering service (4 refugee/ migrant women)	• The restaurant has not yet opened, but a catering service providing take away food was developed and implemented during the COVID-19 lockdown.
1 Green Teams established (5 refugees involved)	• Garden teams have been established and are working on site.
1 Artistic Team established (5 refugees involved)	• Not yet in place due to building delay.
1 Co-working team service management established	• Not yet in place due to building delay.

The Welcome work package aimed to foster the community building element, ensuring training is translated into working teams for the ongoing sustainability of the relevant intervention within the project (e.g. garden maintenance, catering service, cultural and artistic interventions). The co-management teams were designed to bring together representatives and ensure a strong community led element to the co-housing part of the project, which will commence in late 2020.

Several public meetings have taken place to discuss a new model of management for Collaborative Social-Housing. Community Laboratories plan the social support programme with the aim of mentoring and activating the residential community start-up. The outcome

of this is a set of co-habitation regulations that govern the living and working community in the Salus Space and the relationship between the district, associations, inhabitants and stakeholders.[48] The project promoter mentioned that "although some [refugees] have contributed to drawing up the Charter of Values, the real engagement of refugees will start with the creation of the professional teams and with the beginning of the selection phase for the housing facility". The overall strategic impact of this is to create a sustainable, collaborative model of co-management between stakeholders living and working within the space alongside institutional actors. This will ensure the space is a thriving sustainable intercultural community hub, which can act as a model for other reception facilities in major asylum destination cities.

3.6.4 Sustainability and scaling-up of the project at local level

The project application proposed scaling-up the model and the co-design process (once tested and developed) at the city and metropolitan levels through a network of more than 40 Centres for Extraordinary Reception as set up according to the System for the Protection of Asylum Seekers and Refugees (SPRAR). This calls for integrated approaches, involving the third sector and setting up multi-level governance. The model could also be implemented at smaller and neighbourhood reception facilities.

The **co-design and participatory governance** aspect of the project has been very successful with representative committees comprising local residents, business-people, students and refugees and asylum seekers. The participation process has run through the project from its inception, with consultation on ideas for the original building and gardens, through to the planning of social and economic activities such as training, enterprise development, arts and crafts. The development of the Think Tank by partners has also enabled the documentation of the model and lessons learned in the process enabling potential scale up.

 Economic sustainability: the project has worked in a collaborative way with local stakeholders to build a strong plan for economic sustainability through developing several social enterprises and training refugees and local citizens in relevant skills (e.g. restaurant and food processing facility). Co-management teams have been established, made up of people involved in this training, which will be responsible for running the on-site social enterprises. There are also plans to generate revenue through rental of accommodation in co-housing and through tourism accommodation provided through an onsite bed and breakfast. The aim is that within 1-2 years following the end of the funding Villa Salus will be entirely self-sustainable.[49] This will reduce the reliance on municipality and other grant funding allowing for a self-sustaining model of income generation. This process will be developed and tested during the 'experimentation phase' due to commence in January 2021.

3.6.5 Transfer and replication of the project elsewhere in Europe

In the application, it was proposed that a number of European cities with similar conditions and problems e.g. abandoned buildings, increasing numbers of refugees and a policy environment which favours integration, inclusion and participatory processes, could find the project useful. The regeneration of the existing facility was proposed as a model which could be adapted to other cities. It was intended that the regeneration model would be presented through the project communication campaign and a book which was planned to be developed on the entire project. It was proposed that the "Intercultural Welfare Think Tank", would support the development and transfer of approach paradigms and best practices.

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[48] Project News: https://uia-initiative.eu/en/news/salus-space-working-buildings-and-communities
[49] Interview with Evaluation Lead, IRS

The project promoter reported that it was too early to say what potential exists for transfer to other cities: "we need to collect some data on social, economic results. This is a collaborative process. We are currently in the testing phase. We need at least another year before we can share what we have learnt with confidence".[50] Due to the difficulty replicating like-for-like with social projects such as migrant and refugee inclusion and integration projects, it was felt that the project would not be replicated as a whole. However, some pillars of the project could be modelled in other societies such as diverse citizen participation and self-sufficiency through social enterprise, co-housing and other revenue streams.

3.6.6 Summary of key outputs and results (according to study typology)

	Key outputs and results (related to case study activities)
Outputs	
• New urban infrastructure and equipment	• Demolition of existing disused hospital building • Development of new multi-purpose community centre • Redevelopment and repurposing of existing buildings and green spaces.
• New services, products, processes	• New model of co-design and collaboration involving end users as key stakeholders in decision making, governance, planning and implementation from the outset • New approach to income generation through a combination of social enterprise profit making and non-profit activities co-designed and led by refugees and local stakeholders • Community evaluators (i.e. training and engaging community members to track progress and results of the project) offer greater insight into the project outcomes - from individual and community perspectives as well as providing skills and empowerment to support employment.
• Partnerships created	• Partnership between European Office, City Officials (social inclusion) and Istituto Cooperativo per l'Innovazione (ICIE), a specialist organisation working on social innovation processes to design the project alongside community input • Partnership agreement signed between 17 partners. Several partners are responsible for various work packages. • Co-management committees formed between involved project stakeholders to implement the project e.g. co-management committees, monitoring and evaluation committee etc.
• Experience gained	• Co-design and co-delivery – using this as a model to ensure project success, ownership, inclusion. • Using urban regeneration opportunities as a means of integrating refugees and promoting community cohesion between diverse groups. • Community evaluators and journalists support integration while building skills, allowing refugees to contribute, dispel stigma and prejudice.
• Knowledge produced	• Better understanding of how to work with a diversity of partners. • Knowledge of participation processes, co-design and co-delivery to create community ownership.
Results: local level	
• Identifiable effect on urban issues	• Too early to say -expected improvement of the Savenna district and local neighbourhood – attracts more (and

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[50] Interview with Project Promoter

		Key outputs and results (related to case study activities)
	faced at local level	diverse) people. • Improvement in perceptions of citizens towards refugees and migrants. • Improvements to the urban fabric and environment - opening up previously disused, unsafe spaces for multiple community uses.
•	Sustainability of partnership working	• Some partners will continue to work together (e.g. training delivery partners). • Co-management partnerships for the management and governance of the project is designed to be ongoing.
•	Innovations scaled up	• Too early to tell, although some indication that participatory co-design will be sustained and scaled up, as well as community evaluators and journalists. • Villa Salus itself sustained through several revenue streams and co-management structure with community members.

3.7   Project implementation

The project met with challenges, and severe delays, in the regeneration process. Once environmental testing and surveys were completed, it was found that one of the two buildings planned for re-purposing could not safely be converted. The decision was taken to demolish the old building in 2017 and to build a new facility for housing. The second building would be used for theatres, catering and social laboratory activities. This meant that activities planned to take place in the facility had to take place at other locations while the building work took place. The project also experienced setbacks due to COVID-19 and planned to begin testing the integration of activities when the site opens. Given this delay, the project team proposed an extension of the project to allow sufficient time after the opening of the centre (expected in November 2020) to test project activities and develop the model through the 'experimentation phase' - an additional 12 months.

Once completed, the new building will comprise 20 flats accommodating approximately 80 people with additional bed and breakfast accommodation, alongside a theatre space, co-working spaces, social enterprise offices, multi-cultural restaurant and food outlets and other community spaces for exhibitions, meetings, etc.[51]

The project promoter described the challenges involved in the building process including "working with the complexity of the regulation framework and the public procurement process". It took a long time to secure a private enterprise to do the work. This was compounded by environmental and safety problems causing the need for demolition of the building. However, the long-term outcome of this was described as "very positive, because it gave us time to think and to develop strong management and governance processes and agreements with all partners".[52] The participatory approach to management and governance was described as a key reason for the project's success to date by all interviewees. Although it has been a "complex and time-consuming process, it has cemented the long-term sustainability and success of the project".[53]

In the original application, field training was planned to train refugees in construction skills and provide jobs on the Villa Salus site. However, due to on-going delays and restrictions resulting from multiple onsite contractors, this was not possible. Building and green maintenance training and electrical skills courses have taken place, although final applied

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[51] Interview with Municipality of Bologna
[52] Interview with Municipality of Bologna
[53] Interview with Community Building lead

and practical elements will only take place when the new site opens. The dedicated project partner has put in place the creation of arts and handicrafts teams, and training in artistic industry skills (set design and building, costume design and making). Mentoring and training for micro entrepreneurship has also taken place, although in-depth support has been delayed due to the COVID-19 lockdown.

3.8   UIA flexibility and administrative requirements

The project promoter expressed the opinion that the UIA rules were "useful to guide decisions, especially during the design phase. However, there were many challenges and uncertainties that were discussed with the UIA secretariat, due to this being the first (pioneering) call". All elements (50% advance payment of ERDF Simplified rules on State Aids, 20% Budget flexibility and the possibility to make changes were described as "Very helpful". However, the simplified cost options (flat rates, lump sums) for certain categories of expenditure was seen as fairly helpful, but the initial changes caused several problems.

The project promoter expressed satisfaction with the flexibility provided by the Secretariat to make changes to the project. "We did a more detailed technical analysis on the total refurbishment of the building than was initially foreseen, and we realised that the intervention was not feasible for several reasons (seismic regulations, and so on). From there, we started to change the "regeneration project" involving all partners and negotiating the decision with the citizens living in the neighbourhood".[54] The project was changed twice: "the first time the demolition and reconstruction, the second time the project had to change the multifunctional building with the three temporary buildings to host the theatre, restaurant and laboratories. This was due to the complexity of the executive project (several companies working on the same space) and above all the Italian procurement code. Furthermore, the project requested an extension to the building phase when challenges with procurement and regulatory frameworks emerged, and further with the COVID-19 lockdown which set back building work.

The UIA was seen as flexible and supportive of innovation and changes that come along with learning when initiatives are being constantly tested. The project promoter said "the call was perfect, the innovation aspect and direct investment in regeneration, the capacity and willingness to tackle the difficulties we had. There was a big effort [on the part of the Secretariat]."[55] However, the project promoter did not feel well supported by the UIA Expert who did not seem to have the required expertise to help bridge the gap between Salus Space and other European city experiences. The project promoter stated that the project received "very helpful support" from the Secretariat and that the project offered "really big innovation in comparison to other [EU funding] programmes".

3.9   Communication and media image

The project has a website (designed to communicate at the European level) with links to social media channels: a Facebook page (1,171 followers), an Instagram profile (222 followers) and a YouTube channel (targeted at the local level) to showcase the project's progress and results. Promotional materials were also generated to promote events and the general direction of the project.

Several online and offline communication events have been held with the local community to consult, gather ideas and feedback on design, as well as co-design the strategy for social and economic activities and income generation approaches. The Salus Space website also documents promotional materials such as posters, brochures, and radio clips used to inform the public. The project has also featured in the local press so has informed residents

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[54] Interview with project promoter
[55] Interview with project promoter

of the neighbourhoods and Bologna generally, but has not been captured by the national press as yet.[56]

The interviewee from Open Group, the communication work package leader, said the main lesson learnt and outcome of the communication process has been the trust created through the level of transparency. Citizens have come to know the partners and the activities being undertaken, from the beginning of the project. However, communications targeting migrants and refugees have been a challenge as the project is a long-term intervention and does not meet their urgent, daily needs. Refugees have so far been involved in two phases: the training (within WP5), and the charter of values (within WP6). Refugees and migrants will be the target of communications in the job and housing parts of the project during the experimental management phase.

As regards the promotion of the project at EU level and the scaling up, the competency belongs to the International Relations and projects of the Municipality of Bologna. The city is part of several international networks which will be used to disseminate of project results and encourage reciprocal learning between cities.[57] However, no specific activities to transfer knowledge on the project have taken place as yet.

3.10 European Added Value

The survey revealed that the project could not have taken place without the UIA funding due to its challenging and innovative nature. The added value of the UIA programme is the urban regeneration plan, linked to a social innovation idea which bridged the gap between two sectors of the administration (public works and social inclusion) thus enhancing a multi-sectoral collaboration that had never been achieved before.

According to the project promoter interview, the funding provided by the UIA was unique in that it combined social inclusion and integration of migrants and refugees with significant funding for urban space regeneration. This allowed the project team to develop a model that was more community led and therefore sustainable than pure regeneration projects.

3.11 Complementarity with other EU programmes

The Salus Space project took place in the context of a large sustainable urban development SUD) strategy within the City of Bologna, running from 2014-2020, with a total ESF contribution of €18.885m.

The Salus Space project supports the SUD strategy thematic objective of Social Inclusion (TO9). Axis 4 of the SUD encompasses Infrastructure for social inclusion which aims to create collaborative urban spaces through the redevelopment and re-functionalisation of buildings, in order to host association activities, encourage youth self-entrepreneurship, stimulate social innovation and active inclusion through culture and creativity, in synergy with active inclusion, welfare, informal training and civic collaboration actions.

The SUD strategy is implemented by the National Operational Program for Metropolitan Cities (Pon Metro) and also provides funding (through the City of Bologna) for the community-building activities complementing the Salus Space project. This includes hiring professionals to build intercultural mediation, communications committee and to bridge the gaps between the refugee community and those already resident in the neighbourhood. This will include facilitating access to local services, schools, health and social services.

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[56] Bologna Today article on the demolition on Villa Salus, 14 August 2017
[57] A list of relevant networks which the project will use can be seen here

An additional and much smaller SUDS initiative focussing on TO2 Information & Communication Technologies and TO6 Environment Protection & Resource Efficiency has no connection to the Salus Space project.

The Project promoter also mentioned that the project is applying for Horizon 2020 support to help develop the food processing facility on the Villa Salus site.

3.12 Lessons learned

The evidence gathered for the case study and the findings presented above allow us to draw some main conclusions regarding the Salus Space project:

- Both the project promoter and the partner responsible for the community co-design process (the Welcome WP) commented that the concept of codesign and participatory governance, which has been integrated into the project from the outset, has been essential to the success of the delivery of the project and will be a critical feature in the ongoing economic and social sustainability of the project. The Salus Space training programme has provided refugees with the opportunity to contribute and use their skills for the development of local neighbourhoods, which the project partners believe is critical for local integration.

- Interviews with partners revealed that the project's partnership model integrating public, private sector, local institutions, third sector organisations, citizens' groups is essential to build a collaborative model including a range of functions and users and promoting long-term sustainability.

- Economic and social sustainability is dependent upon developing robust mechanisms for revenue generation, for example the restaurant, bed and breakfast, rental accommodation, co-working combined with co-design and co-management by those that will live in and use the space to ensure full community ownership and commitment to ongoing operation of the space.

- Training community members such as community journalists and community evaluators to take an active role in the project has been critical in ensuring the voices of refugee and migrant communities are heard, and is an innovative way to build skills and employability.

3.13 List of interviews

Organisation	Role in project	Date of interview
City of Bologna	Project Promoter	19/06/2020 27/06/2020*
City of Bologna – Public Company For Personal Care and Welfare (ASP)	Community building process, WP leader for WP6 - Welcome	20/07/20
Institute for Social Research	Monitoring and evaluation, WP leader for WP7 - Evaluation	22/07/20
Open Group	Communications	Email communication

* *email response to additional questions*

3.14 Documentary sources consulted

Documents / websites / YouTubes
Dossier Salus Space (February 2020)
UIA Annual Progress Report (submitted October 2019)
The Salus Space Project Journal #1 (December 2017)
The Salus Space project website
UIA Website: Salus Space project news

4. CURING THE LIMBO (ATHENS, GREECE)

4.1 Key project facts

Curing the Limbo	
Key facts	
Call	2
Acronym	Curing the Limbo
Title	Curing the Limbo – From apathy to active citizenship: Empowering refugees and migrants in limbo state to ignite housing affordability
Project Number	UIA02-081
Status	Ongoing
Duration	01/04/2018 - 31/03/2021
Topic	Integration of Migrants and Refugees
Member State	Greece
Number of partners	5
Main urban authority	Municipality of Athens (MoA)
Other partners	• International organisation: International Rescue Committee • International organisation: Catholic Relief Services • Higher education and research: National and Kapodistrian University of Athens • Municipal Agency (S.A): Athens Development and Destination Management Agency S.A (ADDMA)
Budget	
ERDF	€ 5.000m
Public co-financing	€ 1.200m
Private co-financing	€ 0.050m
Total	€ 6.250m

4.2 The city

The Athens Municipality forms the centre of Greater Athens with a population of 664,046 (in 2011) [58] and is one of 35 municipalities in Greater Athens. The entire metropolitan area is divided into four regional units (Central, North, South and West Athens), accounting for 3,153,00 people (in 2020).[59] Since the financial crisis of 2010, Athens has been experiencing a population decline with many young professionals leaving the country to find employment. A fall in GDP has been accompanied by a sharp increase in unemployment in the city. In 2018, the unemployment rate for Greece as a whole was 14%, with youth unemployment at 32% (March 2020).[60]

In 2015, the refugee crisis meant that Greece became an entry point for refugees and migrants from a number of countries hoping to travel to destinations further into Europe. However, more than 115,000 refugees are now held in Greece due to international migration laws which have prevented further travel from the point of entry. In mid-2017, it was estimated that between 2,500 and 3,000 migrants were housed in squats in Athens. In August 2018, an informal survey suggested there were 850 people (of which total, 30% were children and 40% female) living in Athens' six refugee squats.[61]

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[58] Latest available statistics for the municipality
[59] https://www.macrotrends.net/cities/21113/athens/population
[60] https://tradingeconomics.com/greece/youth-unemployment-rate
[61] Georgiopoulou, Tania. (2017). "More than 2,500 Refugees Live in Athens Squats." Ekathimerini, May 10.

4.3 Rationale for the project

The need for the Curing the Limbo project stems from two sets of challenges:

Social challenges included a high and increasing unemployment rate among refugees and in the city as a whole. Despite having received asylum in the country, many refugees remain in a state of recipient passivity relying on social support. There was a deep sense of disempowerment, inertia and exclusion among the refugee community. Very few refugees had started learning Greek and almost none had been employed or in education in the year preceding the project's start. There were very few integration activities in the city, compounding the sense of exclusion, and prejudice of citizens towards refugees.

Housing challenges: many local inhabitants have gradually moved out of the city of Athens, leaving 30% of flats vacant in the centre. There is a lack of social housing and low levels of housing secured to those who have been granted asylum. The project aims to address the problem of matching refugees with vacant housing and supporting regeneration of the inner city through 'social exchange' of community service in urban and social regeneration for housing provision. The majority of participants came from Relocation Schemes (47%) whereas 28% lived in camps in and around Athens. Beneficiaries were either in short-term government-funded residencies, or low-quality housing in the private housing market.[62]

The Curing the Limbo project aimed to develop Limbo Exit Lab to provide tailored integrated services to refugees by combining refugee housing, employment and training with city regeneration and integration activities between citizens and migrants.

4.4 Objectives and intended effects

The overall aim of the project was to support refugees that have been granted asylum to overcome their state of inertia and their sense of social exclusion, by becoming more active and more socially engaged. The project aimed to facilitate a system of social exchange where refugees receive subsidised living spaces in vacant and disused publicly-owned and privately-owned properties, in return for community service.

The objectives were to:

- Develop the 'limbo exit lab' - a safe place where refugees can have access to the different services of the programme such as affordable housing, psychosocial support, language and skills training, and interaction and engagement with local communities/citizens' initiatives.

- Develop a 'menu of options'; tailored plans for individuals focused on job counselling, soft skills training, affordable housing and social integration activities.

- Provide affordable housing, by piloting different possibilities based on the housing resources available.

- Provide beneficiaries with a training programme including language tuition (Greek and English), psychological support, Street Law education.

- Support parallel activities and initiatives facilitated by local community groups which respond to the city needs, both social and urban.

The main intended effects were:

- Improved integration of citizens and refugees, greater empowerment, sense of belonging, inclusion and contribution to the city and community.

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[62] Curing the Limbo 1st evaluation report (October 2019)

- Update regulation and develop a framework for affordable housing in Athens.

- Create a replicable and scalable model for refugees transitioning to independent living.

- A more inclusive city and increase the quality of life in the neighbourhoods.

- Refugees transition from passive receivers to active and responsible citizens.

- Increase skills in order to facilitate greater job readiness and employability.

4.5 Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured public funding of €1.2m, mostly to be provided to three partners by the Municipality of Athens (MoA); Athens Development and Destination Management Agency; Catholic Relief Services (CRS) and University of Athens. The budgeted private funding of €50,000 was provided by the International Rescue Committee (IRC Hellas).

In addition to funding, some partners provided furniture to the Limbo Exit Lab offices as well as training to their staff to take part in the project. The project promoter stated that no other in-kind support was provided by the partners in the project.

4.6 Innovation process

4.6.1 Knowledge informing the innovations

The project builds on other European cities' approaches to cultural integration and bottom up processes which focus on active engagement of citizens and refugees in the co-design and implementation of the process.

"Curing the Limbo" draws its inspiration from small-scale innovations from past local and European examples, but integrates key elements that generate further possibilities. For example, embedded language learning, cultural and psychosocial support are not new, but their integrated combination into mechanisms that generate social exchange and connections to the city is an experiment focussing on an original partnership of national and international institutions. The project draws on the available social innovation data but found that most projects focus on the psychological trauma or cultural discrimination in employment and that the concept of joining skills vacancy and building vacancy with city needs in a conscious process to build quality citizenship is entirely new.

As part of the project, a detailed literature review and analysis of 33 detailed case studies of refugee and other marginalised groups' housing and integration projects was carried out, including exchange models, credit-based systems and incentive schemes. The report was published in 2018 and commissioned by the CRS as a partner of the Curing the Limbo project to provide intelligence on good practice and lessons learned in other contexts.[63] Further studies were conducted under the Housing work package in the early stages of the project, including a needs assessment of the refugee population group and an assessment of the Athens housing stock and the incentives that could be provided to landlords to participate in the project. In addition, SynAthina team performed four neighbourhood public events to assess the needs that are associated with the open call for funding and support made for the collaborative actions with citizens and refugees.[64]

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[63] The Bartlett Development Planning Unit University College London (UCL) December 2018. Social innovation in housing for refugees. From emergency to integration: Housing and meaningful lives. Literature review, London
[64] Interview with synAthina

4.6.2 Experimentation

Affordable Housing through Exchange Model

The project aimed to develop and test a framework and model for affordable housing in the city of Athens. The premise of this was to provide an exchange between recognised refugees and the public, private and institutional property owners of vacant and disused accommodation in the city. The project proposed testing various incentive schemes to find sustainable ways for refugees to access subsidised housing in exchange for limited hours of voluntary community service. The project aimed to provide a complete exchange with planned and sustained affordable accommodation for 75 refugees. Initially, it was expected that the housing stock would come from public institutions such as the University of Athens. However, due to lengthy procurement processes private sector accommodation options were sought. There was a lot of interest from private renters and despite having incentives such as 6 months upfront rental payment being offered this was only taken up by 20 of the 116 landlords who have entered into rental contracts.[65]

The project conducted three feasibility studies and needs assessments looking at housing models employed to house marginalised groups in other European cities (UCL study), an assessment of refugees' needs locally and an assessment of the Athens housing market and the potential incentives for landlords.

The project established a pilot social rental agency, the first of its kind in Greece, to act as a mediator between owners and recognised refugee renters. The social rental agency provides a number of services: identifying accommodation, assessing suitability, organising repairs, vetting and matching accommodation options to refugee renters based on demands and needs, mediating and agreeing the lease, and signing contracts. The project then also facilitates a subsidy system over the 12-month tenancy period. The subsidies include a small amount to support the move in process (purchase of white goods and setting up utilities). An amount of rental subsidy is based on the size the family/household. The full amount of the subsidy is paid in the first 6 months reducing to 75% in the next three months and 50% for the last three months of the contract.[66]

Each signed contract has an individual case promoter (working across individual language groups) who acts as mediator should the need arise. The project expected to sign a total of 75 contracts with landlords during the entire 3-year project and now has a total of 116 signed 12-month contracts. Approximately 80 of these were identified and signed by the refugees themselves and supplementary support was provided by CRS. The project also provides pre-tenancy training (legal obligations, apartment costs, building regulations, common building rules) to all participants.

Menu of Tailored Services/ Training

The project provided tailored pathways for individual refugees. The menu of services was anchored by two **psycho-social support sessions** for refugees (an initial intake session and a follow-up). These were conducted by social workers and operated as a case management approach and were used to monitor engagement and retention in project activities. The sessions differed greatly from the original intention of providing counselling support to refugees and largely responded to a range of issues including social, practical, legal, administrative. A total of 477 sessions were held up to October 2019.[67] These sessions did not, as the name may suggest, deal with mental health and personal challenges and beneficiaries needing these services were referred to other providers.

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[65] Interview with Catholic Relief Services
[66] Interview with Catholic Relief Services.
[67] Monitoring report (October 2019)

The project has facilitated two out of three planned **parallel English and Greek language** cycles catering for a range of competency levels based on the Common European Framework of Reference for Languages. The courses took place both in the classroom and in the city. Three-hour language classes took place at the Athens Exit Lab premises and other sessions would take place within the city, helping to connect refugees to the city and making language tuition more practical for everyday needs. The University of Athens Interviewee said: "Teachers organise the classes keeping in mind what would be useful for the students: classes are taking place in the shopping centre, the hospital, in cultural places... they feel that the language is useful for them." These were attended by 67 of the language trainees. The dropout rate was higher than expected (approx. 50%) due to the social challenges experienced by the target group, despite a clear desire to attend many people did not attend more than a few classes.

While the language programme received generally positive feedback from beneficiaries, teachers complained of non-regular attendance, high rates of drop out, and disruptions caused by people joining sessions at late stages.[68] The University of Athens interviewee said that the project included a lot of informal individual support (including phone calls) from tutors to maintain attendance in spite of social problems and the challenges presented by Covd-19. The interview with an English language instructor for the programme said that the language classes helped people to feel a stronger sense of belonging, self-esteem and contribution, which in turn led to better employment outcomes and better chances of integration.[69]

Audio-visual laboratories were set up with 20 sessions of training over two cycles in photography (beginner and advanced), music and video. These skills training sessions were designed to empower refugees, provide them with skills with which to support integration activities, and to enable them to have a vehicle through which to experience and connect with the city, its culture and citizens.

Photography and audio-visual productions from these workshops were shown at an exhibition in the centre of Athens. **Training of mediators** differed from the original plan, working with a different set of people (people who had been in Greece a long time, had received permanent residence and spoke good Greek). The first cycle (five cycles were planned) had taken place by October 2019 with 14 people completing the course.

The Curing the Limbo **employment services** support participants through the provision of market relevant employment and self-employment skills, access to services, and financial management support. Individual job readiness counselling has been provided to 126 individual refugees and asylum grantees, 20 job readiness workshops have taken place, along with 19 job clubs. The IRC and employment specialists will work to identify interested employers in growth sectors and training providers in relevant skills or other private stakeholders needed to support employment service provision.

The project aims to integrate the suite of training models with the **engagement with local activities** work package, which has identified a number of community social and environmental needs and priorities, as well as civil society and voluntary sector groups who could participate in the initiative. Utilising new skills, refugees work with local citizens to create local regeneration projects, which form part of the exchange model allowing refugees to exchange their time spent on regeneration projects for affordable housing subsidies. The citizenship pillar has launched Co-Athens, a process to develop collaborative actions with the participation of neighbourhood initiatives and refugees, promoting collaboration as a vehicle for designing integration. The project has opened a call for application for funding, training, capacity building and other resources. The project

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[68] Monitoring report (October 2019)
[69] Interview with UoA English Instructor

selected 20 projects from a total of 58 applications. They were provided with 3 months of training, with 14 then applying for funding, 9-10 projects have been selected for a grant. The average grant amounts to €8-14,000 and is between 10 months and 1 year in duration.[70] The application proposed that this process will be managed and tracked trough a 'micro site' hosted under the SynAthina platform. However, due to political and bureaucratic issue the digital platform concept was shelved.

Athens Limbo Exit Lab

Curing the Limbo connects the aspects of education, active citizenship, employment and housing in one system where skills, connections, time and space are all resources to be shared within an exchange framework. The Athens Limbo Exit Lab is a municipal building in central Athens that brings all areas of the project together under one roof: affordable housing services, employment services, training, empowerment, social inclusion activities.

The main area of innovation in the project was to take four very distinct and separate services (housing, skills training, job support and community connections) and to enable a co-operative system in which these services work effectively together in an integrated whole.

This collaboration, structured through a methodology developed by the University of Athens, highlighted many challenges regarding the compatibility of working methods between different public bodies, NGOs and a university. However, it also opened new processes of collaboration between different actors, offering trajectories not only for refugees but to all members of the supporting ecosystem: teachers, trainers, property owners, community initiatives, NGOs and actors in the social economy.[71]

To do this, the project invested time in the development of the partnership framework between the four key partners. The project has tested this partnership model by setting up various working groups (e.g. case management team, evaluation team project management team, partnerships team) to facilitate the co-design and decision-making processes.[72] This process has taken considerable time to come to fruition. According to the interviewee from the University of Athens "at the end of the second year we are seeing collaborative working, but it has taken time and effort". It was felt by several interviewees that the level of efficiency needed to deliver on key deliverables hampered the flexibility and agile nature of collaborative working to develop joined-up solutions.

4.6.3 Achievements against project targets

With regards to the innovations considered by this case study, the main outputs were as follows.

WP 4: Training/WP6 Engagement with Local Activities

According to the project's own monitoring report (October 2019), and the most recent UIA Expert report (March 2020) the outputs of WP4 compared to the original application include the following.

Project outputs: WP 4 Training and WP 6 Engagement with local activities	
Target (application)	Achieved to date
• 80 certification exams on ICT skills	• ICT competency (use of software packages, information systems and social media. Started later than expected (48 people attended)

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[70] Interview with synAthina
[71] Interview with Municipality of Athens
[72] Interview with MoA Monitoring and Evaluation lead

Project outputs: WP 4 Training and WP 6 Engagement with local activities	
Target (application)	Achieved to date
• 240 Certification exams in Greek or English Language	• 168 students have attended at least one class. Less than expected due to high drop-out rate)
• Job readiness training guide. 60 people trained for job readiness.	• 126 individual job readiness sessions • 20 group workshops • 19 job clubs
• Identifying local city needs handbook • Micro-site within the existing SynAthina digital platform	▪ 4 public events held to raise awareness of Co-Athens. Call for proposals created, projects selected, trained and mentored. 9-10 will be funded. • Micro-site completed

These outputs form a core element of the integration programme being offered both in classroom and 'in-city' settings to support greater engagement with the city by refugees and migrants. The integration of voluntary and community sector activities is a means to further embed and develop skills and encourage collaboration between citizens and refugees. This forms part of the social exchange mechanism to deliver the affordable housing model. It also provides a vehicle for contribution, empowerment and action of refugees and migrants to enable them to feel a greater sense of belonging, having more strategic impact by deepening the integration process in the long-term.

WP5: Affordable Housing

According to the project's own monitoring report (October 2019), and the most recent UIA Expert report (March 2020) the outputs of WP5 compared to the original application include the following.

Project outputs: WP5 Affordable Housing	
Target (application)	Achieved to date
• Publication of Report on Refugee Needs, vacant housing options, and exchange models with recommendations	Consists of three different publications: • Housing models and case study report published by UCL in October 2018 • Assessment of refugee needs - Internal study conducted by CRS and SynAthina • Assessment of Athens housing market – identifying private and public owners, and possible incentives
• 75 Refugee Households create and complete Exchange Plan	• SynAthina activities and university activities – three engagement options (see below). Approximately 60 of 116 provided with affordable housing have developed exchange plans. About 20 are consistently working.
• 75 Refugee Households living in affordable housing	• 116 (12-month) contracts have been signed by June 2020. With subsidies in place.
• Urban Accommodation How To Guide	• Series of housing preparatory training workshops. 'How to' guide was developed from this, to be launched in Sept 2020. Website pending.

The development of a pilot social rental agency and the process involved in bringing this together is a strategic impact which has created a great deal of learning for other areas of

the city of Athens which are working with housing for marginalised groups (e.g. homeless, people moving to independent living from care situations). The project has developed and tested a framework for encouraging exchange of beneficial civic, social and environmental activities with support and subsidies for suitable accommodation. The exchange model is implemented through three type of interventions which encourage contribution and engagement of refugees in 'exchange' for affordable housing. However, the subsidised housing is not contingent upon the refugees' participation in these citizen engagement activities. These activities include:

- Participation in SynAthina and UoA activities which involve learning Greek and English through activities that benefit the city.

- Linking refugees to volunteer opportunities in the city or with university students to practice the Greek language (language Café).

- Matching refugees with citizen volunteers that live in the area who are willing to offer support with day to day issues.

The model is the first of its kind for Greece, and could be replicated in other cities where such a service does not currently exist. Key learnings from implementation of the social rental agency, a concept note and business plan will be published and disseminated to enable scale up and sustainability of the model.

WP7: Athens Limbo Exit Lab

According to the project's own monitoring report (October 2019), and the most recent UIA Expert report (March 2020) the outputs of WP7 compared to the original application include the following.

Project outputs: WP7 Athens Limbo Exit Lab	
Target (application)	**Achieved to date**
- Athens Limbo Exit Lab	- One stop shop facility set up in the centre of Athens – affordable housing, employability, training, empowerment, social inclusion services available to refugees and asylum seekers.
- Employment Services approach for Athens	- Underway – testing employment and job readiness package in Year 3

The Athens Exit Lab develops and tests a one-stop-shop model of bringing together essential services under one roof and supporting this through a tailored approach for individual refugees and migrants (Menu of Services). A survey is currently being consulted to see if this is the best way to deliver services to refugees and their attitudes to the centre.

It is difficult to say at this stage what the strategic or systemic impacts of the project have been as the monitoring data so far only demonstrates that delivery of outputs and some of the attitudes of individuals to the project and its activities. There is some anecdotal evidence that the project has had an impact on professionals in the project especially those working with refugees in different services. The support and training given to bring these professionals together in a network where they can share ideas, support each other and create stronger referral links was a successful part of the project.[73]

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[73] Interview with University of Athens

In addition, some of the key curricula used in training courses such as language tuition and how this integrates with 'on the street' learning and practical application could also be seen as sustainable impact which can be scaled up and replicated in programmes to support other marginalised and excluded communities in the city.

4.6.4 Sustainability and scaling-up of the project at local level

The project application described scaling up of the solution in different areas of the Municipality of Athens (MoA). This was initially thought to be through increasing the number of people making use of one or more service. It was anticipated that by the end of the second year, small-scale replications could take place, with the full project being ready for replication by the middle of the third year.

It was intended that the MoA would disseminate the positive results of the project, keeping strong bonds with private/public stakeholders and partners, who would eventually secure the financing for the project and support the MoA with their expertise in replicating the project in other parts of the city. The application mentioned scaling up exchange-mechanisms used in the project through private organisations, foundations, NGOs and other municipalities in Greece, which are already doing significant work for the integration of migrants and refugees. This creates a network of experts and expertise and builds up new collaborations and synergies which will allow the continuation of the project.

The project survey notes that it was too early to say whether project activities will continue beyond the project period or whether the experience can be scaled up in the city, region or country. The survey recorded no response on the funds that could be used for scale-up and sustaining project activities or an indicative budget.

According to the project promoter interview, there are currently no concrete plans for scaling up and replication of the project, and more evidence of impact is needed. The project promoter said "there is no plan [for scale up] at the moment: it depends on whether the municipality continues having an integration programme for refugees. If it is proved successful, there may be a plan for the municipality to take it up. We would have to find a cheaper way to do it. Refugee integration is a national competence issue (not local). We have to convince the municipality that we have a successful model. It is our ambition to advocate for the municipality to take up the project as a model, although challenging".

One interviewee raised a concern that the MoA does not seem to take ownership of the project, suggesting that the project risks being a short-lived add-on to public service delivery. Political will is tenuous with a change in the mayor during the project to one who is less supportive of integration issues. It is therefore unlikely that funding and other resources for continuation beyond the end of the UIA project will come from the public purse.

However, it was felt that some niche areas of the programme would have the potential to be used in other parts of the city. For example, the language training curriculum which was designed by the project was described by the University of Athens interviewee as "situation based, caters to the needs of the people living in the city, not abstract, joins the Greek and English languages together. This is a part of the programme that could be replicated by other programmes working with marginalised communities in the city".

4.6.5 Transfer and replication of the project elsewhere in Europe

The application suggests that several European cities are burdened by similar problems of inactive, disempowered populations: newly-arrived refugees, under-skilled migrants, or unemployed locals. The Curing the Limbo premise of addressing inactivity before supporting access to employment, and developing a deeper understanding of bottom-up initiatives, is expected to gain ground.

The transferability of the project components also depends on connecting the exit strategy of inactivity and disempowerment to other relevant needs in the city. For example, making use of vacant and disused buildings owned by small-scale proprietors. The social exchange model - exchanging community service for affordable housing - has strong potential for transfer and replication in other urban European contexts.

The team has started drafting the knowledge transfer plan but is still too early to say what activities will feature in this as a lot more data needs to be collected to determine the impact of the project. There were no responses in the survey to the questions regarding the activities that will be transferred to other cities and what the barriers to that may be. It was felt by all interview respondents that the model could not be replicated in other contexts in its entirety, and it was likely to be small components of the project such as course curricula and partnership approaches that have the potential for replication. The Project Promoter said: "116 people have found an apartment, we need time to know if people will keep it, and if people will keep working, and what are the barriers and other constraints on that success".

The project forms part of the URBACT and UIA joint initiative on implementing the right to housing, exploring how cities can design housing policies and practical solutions to implement the right to housing, across urban areas in Europe. [74]

4.6.6 Summary of key outputs and results (according to study typology)

Key outputs and results (related to case study activities)	
Outputs	
• New services, products, processes	• First holistic integration programme for refugees implemented by a Greek municipality. • Social exchange and affordable housing model through a social rental agency -creating exchange of affordable/ subsidised housing for community service by unemployed/ inactive citizens and refugees. • New 'menu of services' model of training for refugees and citizens to activate and promote citizen integration and job readiness. • New methodology for learning Greek and English as a foreign language, tailored to the needs of the beneficiaries. • Promoting collaborative community actions and initiatives between citizens and refugees (small grants and coaching provided) to enable refugees and migrants to contribute to the city and connect with citizens.
• Partnerships created	• Public, private and voluntary sector partnership between the 5 project partners. New multi-disciplinary approach to working to facilitate integrated services.
• Experience gained	• Testing new models for each of the four pillars in the project: housing, training, job counselling and integration activities. • New ways of collaborative working: co-design and delivery through a network of interconnected working groups.
• Knowledge produced	• Understanding of integration needs of the target groups and barriers to uptake of services. Many assumptions were made. • Understanding of the importance of connecting refugees with the city as a space for learning, e.g. application of

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[74] https://urbact.eu/cities-engaging-right-housing

Key outputs and results (related to case study activities)	
	language and audio-visual learning in city contexts.
	• Understanding of how to have better inclusion of refugees and perception of refugees' contribution to the city. Baseline and ex-post evaluation will examine how these have changed.
Results: local level	
• Identifiable effect on urban issues faced at local level	• As yet there are no tangible effects on the urban environment and society as most impact has been seen at the individual level so far. Only personal evaluations of their experience have been collected. In September 2020 when citizen-led projects start in the city, the project will start to see impact at the city level.
• Sustainability of partnership working	• Although there have been challenges there were very positive experiences of working between the partners with good outcomes for integrated service provision and inclusive integration programmes.
• Innovations scaled up	• No results yet. Will depend on success of advocacy with the municipality and municipal priorities in social policy.

4.7   Project implementation

The project is being delivered mostly to plan and on the expected schedule according to the survey response. The project did not request any major changes from the UIA during the project period. The most challenging aspects of the project were the public procurement processes. This relates to the bureaucracy involved in recruiting trainers and the delays caused by the municipality procurement processes[75], as well as the difficulties and long delays in acquiring the vacant accommodation from institutional providers such as at the University of Athens.[76]

In their interview, the project promoter mentioned that a multi-disciplinary working approach presented some challenges due to the divergent ways of working between the partners: academic, public sector, private sector and international and local non-profit organisations: "each had a very different culture and ways of working and it was difficult to align the approaches". In addition, the political environment posed some barriers, with the election of a new mayor during the project period where the previous mayor had been supportive meant that additional advocacy was needed to garner political support at the city level. However, these have not prevented the delivery of the project outputs.

The COVID-19 lockdown has hindered face-to-face training activities. However, instructors have attempted to keep momentum and retention of beneficiaries through phone (using Viber) and online lessons. A further challenge presented by the University of Athens interviewees (instructor and lead) was the challenges of working with marginalised groups which leads to a high rate of drop out, largely due to social and logistical challenges of getting to a set location on multiple occasions, and the transient nature of their lives. Therefore, targets for service delivery were too ambitious. A further challenge was the level of bureaucracy in the project which caused delays and frustrations among the partners and meant that opportunities for innovation and agility were lost.

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[75] Interview with University of Athens
[76] Interview with Catholic Relief Services

4.8   UIA flexibility and administrative requirements

The project staff were satisfied overall with the design of the UIA instrument and its associated requirements. The project promoter said: "On a personal level I am very happy with the support/ communication from UIA". Overall, the project staff found the rules helpful, describing the 50% advance payment of ERDF, Simplified rules on State Aids, 20% Budget flexibility and the ability to make changes to the project as "very helpful", with the Simplified cost options (flat rates, lump sums) for certain categories of expenditure described as "fairly helpful". The survey described the revision of the application form as the most burdensome aspect of the UIA process, and the administrative burden of the administrative process was described as "light".

The survey described the assistance from the UIA Expert as fairly helpful, the assistance and monitoring from UIA Secretariat, very helpful, and the contact and networking with other UIA projects, slightly unhelpful. The project promoter stated the application, selection and contracting phase of the project was clear and straightforward, and that the seminar in Brussels helped to clarify any issues.

The initiation phase was described as simple and clear. The implementation phase was described as "good due to the flexibility of the programme, allowing for changes to support innovative practice and test ideas". The project promoter praised the support and responsiveness of the UIA coordinator who has been "extremely responsive to emails – replying the same day". She was unable to comment on the knowledge transfer phase as this has not yet taken place.

The project promoter felt that the UIA could improve communication and visibility of the programme for new applicants. She said "only a few cities know, it is very competitive, dealing with complex problems and would benefit from the funding. There are 3 projects in Greece which are all very different from each other, we could come together to communicate our understanding". She also mentioned that "The UIA could give us more direction to create media [to promote the project] – e.g. interviews, videos - push everyone to know about it".

4.9   Communication and media image

The communications work package (co-ordinated by Athens Development and Destination Management Agency) planned to develop a Communication Guidebook, with brochures, a website, a selection of social media channels and campaigns and e-newsletters to provide information on key elements of the action and related policy information.

In practice, the project was successful in engaging a range of media and utilising intermediary organisations to reach a range of target groups (refugees, housing owners, voluntary groups). The project reached out to refugees directly through the camps and refugee organisations working with them. The project website received 2,800 hits in the last 180 days and its community partner project SynAthina received 8,600 in the same period.

Facebook was the most successful social media platform (10k+ followers via the SynAthina profile) used to engage the wider Athens citizens and to attract private landlords to the project. The project team also took part in 15 national and international conferences where they reached out to more than 100 organisations and NGOs in order to explain the project plans and expected results, which led to further media exposure for the project. The project utilises local press to promote calls for proposals, SynAthina projects and calls to landlords, as well as public events to bridge the gaps between citizens and refugee groups.[77] The project has had some media attention including some beneficiaries taking

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[77] Email correspondence with synAthina

part in the national television show, MasterChef, where participants cooked for the refugees: this achieved huge publicity for the project. The project was also covered in several national print and online newspapers.[78]

The project results were promoted on social media and through the public events organised by SynAthina in local neighbourhoods. The project was internationally showcased at the New Concepts for Housing: UIA at the International Social Housing Festival in Lyon in June 2019 alongside a number of other projects from Antwerp, Budapest, Ghent and others.[79] Another example of results sharing is the upcoming International Conference on Multidisciplinary Studies: Resilience for Survival, hosted by Cambridge University where the common language curriculum framework and non-formal language education during COVID-19 lockdown will be discussed.

4.10 European Added Value

The response to the survey shows that the project could not have taken place without the EU funding and that EU funding was the main source of funds for the project. The UIA funding was considered to be unique and beneficial in that it provided the opportunity to test new ideas and was flexible with changes that needed to take place as new knowledge was created. The survey shows no response on the value added provided by the EU funding to the project.

The responses received from interviewees were that a project which facilitated this level of innovation, without a focus on output delivery, would not have been possible were it not for the unique funding provided by the UIA.

4.11 Complementarity with other EU programmes

Athens' sustainable urban development (SUD) strategy, 'Athens 2020: Sustainable Development for Tourism, Culture and Innovation' contains linked topics of TO8 (Sustainable and Quality Employment) TO9 (Social Inclusion), TO10 (Educational and Vocational Training). The total ESIF contribution is €68.4m.

The project promoter confirmed that there is no operational link between the SUD strategy and the UIA project. While the survey described other funds received from the EU by the municipality including URBACT, other ERDF, ESF or Cohesion Fund programme, there is no indication that these are operationally linked. Greece also received funding from the Asylum, Migration and Integration Fund (AMIF) which has as one of its pillars the effective integration of non-EU nationals. However, this is a national programme with no co-operation at the city level.

The project is working closely with URBACT to support sharing and dissemination of results and lessons. The project forms part of a joint initiative with a number of other European Cities implementing similar projects to explore how housing policies and practical solutions can be designed to facilitate the right to housing for the most marginalised and disadvantaged groups. This includes: experimenting with new housing models and governance structures, designing strategies for those locked out of the housing market, and implementing anti-speculation measures.[80]

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[78] The most popular newspapers Kathimerini, Efimerida ton Syntakton, Proto Thema. The largest free press of Athens Lifo. Most visited online media in Greece like Popaganda, In.gr, Naftemporiki, Elculture
https://www.amna.gr/en/article/352647/Athens-Municipality-presents-refugee-integration-program
https://www.ekathimerini.com/255529/article/ekathimerini/news/stricter-rules-to-assess-status-of-young-asylum-seekers
https://greece.greekreporter.com/2019/04/16/municipality-of-athens-launches-refugee-integration-program/
[79] New Concepts for Housing: UIA at the International Social Housing Festival in Lyon – report June 2019
[80] https://urbact.eu/cities-engaging-right-housing

4.12   Lessons learned

The evidence gathered for this case study and the findings presented above allow us to draw some main conclusions regarding the key elements of the Curing the Limbo project:

- Despite intensive work to establish operational partnerships, the way the project was designed perpetuated siloed working among the four distinct pillars of the programme. The lesson is that an integrated team provides integrated services, and the project team has therefore put in place measures to build meaningful collaboration. It is important to build ownership of the project within the municipality, including both administrative and political buy-in. This will improve the success of the implementation of the project as well as the sustainability once the funding has ceased.

- The space to innovate, to change course and be agile in the design and delivery is very important (and was facilitated by the UIA). This needs to be matched by flexibility and reduced bureaucracy at the municipality level which stifles creativity and causes delays and frustrations.

- A thorough understanding of the barriers and challenges facing the target group must be understood, and these should be factored into the design of the project, preferably with their participation in the design. High dropout rates and low demand for housing support are often the result of social and economic determinants and not a lack of interest.

- Being open-minded and providing refugees and migrants with opportunities to contribute skills, knowledge and time supports better integration through reducing stigma and prejudice as well as building confidence, connections and sustainability of solutions.

4.13   List of interviews

Organisation	Role in project	Date of interview
Municipality of Athens	Project Promoter	12/06/20 22/07/20*
Municipality of Athens	Monitoring and Evaluation	09/07/20
University of Athens	Training Lead	10/07/20
Catholic Relief Services	Affordable housing model	13/07/20
Municipality of Athens /SynAthina	Citizen engagement / Co-Athens	14/07/20
Municipality of Athens /SynAthina	Communications WP	Email communication
University of Athens (independent)	Instructor Greek/ English language training	28/07/20

*Followed up by email

4.14   Documentary sources consulted

Documents / websites / YouTubes
UIA website – Curing the Limbo project page
Curing the Limbo Website
Selected media articles: https://www.amna.gr/en/article/352647/Athens-Municipality-presents-refugee-integration-program https://www.ekathimerini.com/255529/article/ekathimerini/news/stricter-rules-to-assess-status-of-young-asylum-seekers

Documents / websites / YouTubes
https://greece.greekreporter.com/2019/04/16/municipality-of-athens-launches-refugee-integration-program/ https://curingthelimbo.gr/blog/2020/3/18/-curing-the-limbo-master-chef (Greek only – video)
Video showcasing the joint community activities between citizens and refugees (Greek only)
Levente Polya (UIA Expert) Curing the Limbo Expert Journal # 3 (October 2019)
Curing the Limbo 1st evaluation report (October 2019)
The Bartlett Development Planning Unit University College London (UCL) December 2018. *Social innovation in housing for refugees. From emergency to integration: Housing and meaningful lives,* London
Video about the Co-Athens initiative (In Greek)
Cooperative City in Quarantine #9 – REFUGEES -Webinar May 2020 https://cooperativecity.org/2020/05/18/cooperative-city-in-quarantine-9-refugees/
New Concepts for Housing: UIA at the International Social Housing Festival in Lyon – report June 2019
Levente Polyak (UIA Expert) The Curing the Limbo Project Journal # 4 (unpublished) (March 2020)

JOBS AND SKILLS IN THE LOCAL ECONOMY

5.   AS-FABRIK (BILBAO, SPAIN)

5.1   Key project facts

AS-Fabrik	
Key facts	
Call	1
Acronym	AS-FABRIK
Title	Bilbao Alliance For Smart Specialisation in Advanced Services Towards The Digital Transformation Of The Industry
Project Number	UIA01-060
Status	Complete
Duration	01/08/2017 - 31/07/2020
Topic	Jobs and skills in the local economy
Member State	Spain
Number of partners	10
Main urban authority	Bilbao Local Council
Other partners	• Local public authority: Bilbao Ekintza • EEIG, EGTC: Eiken Digital Cluster Association • Higher education and research: Mondragon Faculty of Engineering • Higher education and research: Mondragon University Faculty of Business Studies • Higher education and research: MIK. Mondragon Innovation and Knowledge • Higher education and research: Deusto Foundation – Basque Institute of Competitiveness (ORKESTRA) • Enterprise: IDOM Engineering and Consulting • Other: GAIA - Association of Electronic and Information Technologies in the Basque Country • Other: Mondragon Corporation Promotion Centre
Budget	
ERDF	€4.646m
Public co-financing	€0.746m
Private co-financing	€0.415m
Total	€5.807m

5.2   The city

Bilbao is a city in the Basque Country in northern Spain. The city has a population of around 350,000, and a population of 1,042m in the larger metropolitan area. The Bilbao economy was historically oriented towards the iron and steel industry, as well as ship building. The Port of Bilbao played an important role for ships carrying raw materials such as iron or coal, as well as crude oil and refined oil products. The 1973 oil crisis triggered a collapse of the industry, significantly damaging the Basque economy. Factories, as well as areas along the Nervion River were gradually left abandoned. Rehabilitation and urban development plans were launched in 1992. These efforts have helped the Bilbao economy, once dominated by heavy industry, transition to become a business hub, service provider and cultural centre. Projects launched included the renovation of port facilities and of the airport, the construction of motorways, and the development of a rapid transit system (metro). An important part of these revitalisation efforts was the building of the Bilbao Guggenheim Museum, which encouraged tourism and helped the city to become an important cultural centre. Part of its role as a business hub involves hosting conferences

and trade shows at the Bilbao Exhibition Centre (BEC), the Euskalduna Conference Centre and Concert Hall, and the Guggenheim Museum amongst others.[81,82] As a result of these efforts, the KIBS (Knowledge Intensive Business Services) sector has become a key part of the Basque economy. Manufacturing still plays an important role, representing 23% of the economy.[83]

The project aimed to ensure that the KIBS sector that has arisen out of these revitalisation plans remains competitive in the face of new demands from the global economy related to "Industry 4.0". Industry 4.0 refers to the digital transformation of manufacturing and production and related industries. It involves the increasing use of software systems, the Internet of Things (IoT) and Internet of Systems in production. These efforts to ensure competitiveness involve guaranteeing workers have the right skills, companies have the right tools and sector stakeholders are aware of the products and services demanded. This will allow local manufacturing companies and KIBS businesses to increase their capacity to provide services relevant to Industry 4.0 (servitization in Industry 4.0).

Central to the project is the idea of regeneration. The project sought to contribute to the regeneration of the Zorrotzaurre area, a former industrial zone in Bilbao, by redeveloping a brownfield site located in the area. The space will house many of AS-Fabrik's activities including networking activities as well as the new Minimum Viable Product (MVP) test Fab Lab. Bilbao, as with other cities in Spain suffered job losses as a result of the 2008-2009 economic crisis. Growth had only begun to pick up again in 2015. The project therefore sought to contribute to this regeneration by adding more good quality jobs in the local KIBS sector.

5.3   Rationale for the project

The KIBS sector forms a key part of the Basque economy, but if there are no efforts to ensure it is adapted to the modern economy it could face a crisis. Global manufacturing and production are increasingly shifting towards digitalization, Industry 4.0, the IoT, the provision of high-tech services and the use of data. To meet these challenges, the project sought to encourage smart specialisation; ensuring workers have the right skills to match these demands, and that providers are able to deliver these advanced services and products.[84] Furthermore, the sector has a strong presence of small companies. Such companies may struggle to adapt to significant systemic shifts in the global economy and may struggle with the large innovation processes required to adapt.[85]

To allow the sector to adapt, the project created a consortium bringing together different stakeholders that would allow the sector to develop competitiveness. The main stakeholders of this consortium would be entrepreneurs, KIBS companies and local service providers, universities and research institutions, and policy-makers. The university would be involved in creating tailored courses to ensure entrepreneurs and young graduates had the appropriate skills required for Industry 4.0. Research institutions would provide analysis and forecasting of new industry trends. The network would further allow companies to find the right partners that would allow them to supply products and services to these new markets.[86] Accompanying the creation of this consortium was the redevelopment of a brownfield site that would serve as a physical location for these activities and house a Minimum Viable Product (MVP) test Fab Lab, which would allow for the testing of products and services destined for these markets.

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[81] https://www.bizkaiatalent.eus/en/pais-vasco-te-espera/apuesta-de-futuro/industrial-cultural-servicios/
[82] https://unesdoc.unesco.org/ark:/48223/pf0000113355.nameddest=113376
[83] UIA Expert Journal 1 https://www.uia-initiative.eu/en/news/asfabrik-journal-1-hear-projects-uia-expert-how-it-implementing-its-bold-solution
[84] Ibid
[85] Interview with Bilbao Local Council
[86] Ibid

5.4   Objectives and intended effects

The overall aim of the project was to set up a self-reinforcing ecosystem in Bilbao that would improve the competitiveness and resilience of both the manufacturing and the KIBS sector in the face of emerging demands from Industry 4.0.

The objectives were to:

- Increase the competitiveness of the KIBS sector of Bilbao;
- Build the capacity of local firms to provide services and adapt their internal processes to meet the challenges of digital transformation to Industry 4.0;
- Foster collaboration between companies that would allow them to provide goods and services demanded of Industry 4.0.

The main intended effects were to:

- Restructure the services sector towards the digital economy;
- Reinforce the competitiveness and preparedness of Bilbao's companies in the face of Industry 4.0 demands;
- Ensure start-ups based on services for Industry 4.0 were more likely to be successful. The intention was to have them launch onto the market after having been fully validated including for product risk;
- Increase the rate of business creation, as well as the new products and services created;
- Increase the number of professionals trained in the requirements of Industry 4.0. It is hoped that this would have the additional effect of restructuring companies' services and creating new specialised jobs. A further intended result is a fall in the youth unemployment rate;
- Contribute to the urban regeneration of the Zorrotzaure area. A key influencing factor was the restructuring and renovation of a brownfield site currently in disuse. The renovated building will have fully equipped spaces to implement project activities;
- Position Bilbao as an international hub and specialised territory for the Digital Economy.

5.5   Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured public funding of €0.746m to be provided by the Bilbao Local Council and Bilbao Ekintza, a local development office. The budgeted private funding of €0.415m was to be provided by two research institutions, the University of Mondragon and the Orkestra – Basque Institute of Competitiveness (an initiative of the University of Deusto and its subsidiary the Deusto Foundation). The other contributors to the private budget were two sectoral clusters GAIA (Association of Electronic and Information Technologies in the Basque Country) and Eiken Digital Cluster Association, and an Engineering and Consulting company IDOM.

While most of the activities received contributions from all the partners involved, the research institutes and GAIA led the activities that involved researching the trends and developments in Industry 4.0. The research institutes were in charge of designing training courses that resulted from this research. The clusters and consultancy provided mentoring and made use of their associations to facilitate networking activities.

5.6 Innovation process

5.6.1 Knowledge informing the innovations

The project has cited the activities of the Cambridge Service Alliance as an influence for the design of AS-Fabrik. The alliance joins together firms and academics which jointly share experience and knowledge in order to design new complex services and tools relevant to modern industry and digitalization. As part of this alliance, Cambridge engages in practical research on industry trends. The knowledge obtained is transferred through events, briefings and courses which companies can take advantage of to gain competitiveness.[87] AS-Fabrik also brings together academia and business to find solutions relevant to the fourth industrial revolution. The project builds on this experience by involving more stakeholders, such as public authorities and policy makers, and having a more local focus, concentrating activities on solving regional strategic challenges.[88]

AS-Fabrik also builds on the experience of the Bilbao Berrikuntza Faktoria (BBF), an education/innovation centre established by Mondragon University in 2012. This initiative sought to establish a strong link between higher education and local companies. It encouraged students to create start-ups and innovative products/services destined towards modern industry. The BBF also included physical spaces that could be used for prototyping and networking.[89]

5.6.2 Experimentation

The core innovation of the AS-Fabrik project relies on the public-sector led ecosystem approach. In addition to policy-makers, the ecosystem gathers together academia, manufacturing and KIBS industry actors, students, and entrepreneurs. The stakeholders involved collaborate and contribute expertise to create a self-reinforcing ecosystem that allows the KIBS sector and the manufacturing industry to build its competitiveness, foster start-ups and create good quality employment. The ecosystem involves three main innovative pillars.

Advanced Services Observatory (WP 4): the purpose of the observatory was to gather information on the latest technology and market trends when it came to Industry 4.0. This exercise would then inform the ecosystem on the market opportunities for firms to engage, as well as inform the design of the courses that the university would offer to provide the appropriate skills.

The observatory was organised around three research tasks. The first task involved analysing developments concerning market and technology in Industry 4.0 through desk research. The areas of technological innovation that were analysed in 2017 were Cyber-Physical systems (CPS), IoT, Cloud technologies, Data Analytics technologies and Cyber security technologies. The research also looked into current manufacturing business transformations, analysing how manufacturing firms were adapting to the trends in Industry 4.0.[90] The second task involved performing quantitative analysis to measure how and the extent to which the Bilbao economy was involved in the supply and demand for KIBS i.e. Bilbao's competitiveness in the sector. On the supply side, this meant looking at the presence of KIBS companies and activities as well as their specialisation index. On the demand side, this involved measuring how much local demand there is for KIBS from a

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[87] UIA Expert Journal 1 https://www.uia-initiative.eu/en/news/asfabrik-journal-1-hear-projects-uia-expert-how-it-implementing-its-bold-solution

[88] UIA Expert Journal 2 https://www.uia-initiative.eu/en/news/implementing-asfabrik-project-bilbao-get-update-activities-carried-out-second-uia-expert

[89] Interview Mondragon Innovation and Knowledge, Coordinator Bilbao AS-Fabrik

[90] Report on technological and market international trends, MIK- MONDRAGON INNOVATION AND KNOWLEDGE S. Coop. Editors: Eduardo Castellano (MIK) and Cristina Murillo (GAIA), 2017

Business to Business perspective.[91] In the third year of project activities, the project partners incorporated a survey of a panel of industrial firms demanding KIBS services into the competitiveness reports. The panel would be surveyed again to assess changes in their attitudes. For future competitiveness analysis, project partners intend to incorporate a survey of businesses supplying KIBS services into the reports. The third exercise involved a benchmarking exercise analysing the different policies that have been implemented across Europe to support KIBS and then sessions where participants assessed the possibilities of implementing such interventions in Bilbao. Reports have been produced for 2017, 2018, 2019 and 2020. [92] [93] [94]

The insights from these three tasks would later inform the delivery of the fourth task, road-mapping workshops wherein participants would assess the market niches that local businesses and start-ups could engage in and the possible collaborations that would facilitate doing so. The workshops also involved discussions with local professionals from KIBS companies and the Basque manufacturing sector on how emerging technologies would affect company activity and skills required. The insights from the road-mapping exercise also informed the content of the Specialised Education (WP 5).[95,96]

Specialised Education (WP 5): As part of this work package, courses were provided by the Mondragon University's Faculty of Engineering (MGEP) and the School of Business (ENPRESAGINTZA). There were five packages of training programmes, including one training programme on advanced services for local providers and professionals, a business education programme focused on servitization for professionals and entrepreneurs, a PhD programme for new university graduates, a customised training programme for companies that would allow in-house training at the company site, and a training programme for policy-makers. For the development of the first two courses and the customised training for companies, in addition to using insights from the research of the observatory, companies were interviewed to gather insights on what should be taught. Part of the intention behind these courses was to have a system of ongoing development whereby training courses are developed as new technologies arise, highlighted by insights from the Observatory.

The interviewee from MIK S.coop indicated that cyber-security courses were developed for interested companies, as this was identified as a market niche that could be exploited. Training courses on data-analytics were also developed as these skills were identified as key for adapting to Industry 4.0. Interviewees noted that the face-to-face interaction allows industry actors to better grasp the information about technology and market dynamics coming out of research centres.[97,98,99]

Compared to the other courses, the development of the training course for policy makers occurred over a longer period. Discussions between the faculty and local policymakers including BILBAO EKINTZA were held to identify the latter's needs in this field. Practices from the first two training programmes were combined to design five courses. These

[91] Report on technological and market international trends, MIK- MONDRAGON INNOVATION AND KNOWLEDGE S. Coop. Editors: Eduardo Castellano (MIK) and Cristina Murillo (GAIA), 2017
[92] Interview with Bilbao Local Council
[93] Interview with Mondragon Innovation and Knowledge, Coordinator Bilbao AS-Fabrik
[94] UIA Expert Journal 4 https://www.uia-initiative.eu/en/news/asfabrik-expert-journal-4-get-know-what-happened-last-6-months
[95] UIA Expert Journal 2 https://www.uia-initiative.eu/en/news/implementing-asfabrik-project-bilbao-get-update-activities-carried-out-second-uia-expert
[96] Value Roadmap 2017, MIK- MONDRAGON INNOVATION AND KNOWLEDGE S. Coop. Editors: Luis Berasategi (MIK), 2018
[97] Interview Mondragon Innovation and Knowledge, Coordinator Bilbao AS-Fabrik
[98] UIA Expert Journal 2 https://www.uia-initiative.eu/en/news/implementing-asfabrik-project-bilbao-get-update-activities-carried-out-second-uia-expert
[99] interview GAIA Cluster, Project partner

involved courses on RIS3 strategies and KIBS, Embedded systems, Data Analytics, Servitization and Advanced Services Design and Entrepreneurship Financing. In 2018, the first course was given for city council policy makers. The intention of these courses was to ensure policy-makers were up to date with the developments in Industry 4.0.[100,101,102,103]

Partnership Brokering (WP 6): facilitated partnerships between firms that could complement each other's specialities and together supply new products and services in market niches identified by the observatory.[104] Partnerships established would receive mentoring from MIK S.coop and GAIA. The first year of activity involved designing the partnership brokering, led by ENPRESAGINTZA and MIK S.coop. The second and third year involved networking and discussions with local business clusters, then holding seminars where possible partnerships could be identified. In round tables, companies shared ideas of possible innovative and collaborative projects. Companies were tasked with establishing a plan for these potential business ventures and then MIK S.coop and GAIA provided guidance.[105] Additional guidance from the partners on how to manage and sustain the collaboration established were included in the third year of activity.

An international focus to the partnership brokering was added to the work package. The interviewee from GAIA explained that since 2008, internal markets have been depressed and so exporting had been identified as an avenue for growth. While this is the case, the targeted industries are dominated by SMEs which find it difficult to export. Through GAIA´s domestic and international networks, they helped companies develop alliances with external clients or partners. An example highlighted was a tech company which made an alliance with a French distributor.[106]

5.6.3 Achievements against project targets

Advanced Services Observatory

According to the Milestone review n°8/8 – July 2020, third annual progress report finalised 30 November 2019 (latest annual progress report available) and the 2017 Value Roadmap report, the Advanced Services Observatory outputs compared to the original application include the following:

Project outputs: Advanced Services Observatory	
Target (application)	Achieved to date
• 10 potential streams identified in value roadmaps 2017	• 10 market niches related to Industry 4.0 that Bilbao companies can enter.
• 15 potential streams identified in value roadmaps 2018	• Some new streams have been identified (the 2020 Milestone review does not provide a specific number). Activities for the roadmap begun at the end of 2018.

The Advanced Services Observatory involved three main tasks, the insights of which have been compiled into several internal reports. The first involved research on market and

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[100] Annual Progress Report of AS-Fabrik 2018
[101] UIA Expert Journal 2 https://www.uia-initiative.eu/en/news/implementing-asfabrik-project-bilbao-get-update-activities-carried-out-second-uia-expert
[102] Interview with Mondragon Innovation and Knowledge, Coordinator Bilbao AS-Fabrik
[103] interview with GAIA Cluster, Project partner
[104] Interview with Bilbao Local Council, Project Promoter
[105] UIA Expert Journal 4 https://www.uia-initiative.eu/en/news/asfabrik-expert-journal-4-get-know-what-happened-last-6-months
[106] Interview with GAIA Cluster, Project partner

servitization trends, and technology developments in Industry 4.0. The second involved research into the presence of the Bilbao economy in the supply and demand of KIBS services (i.e. research into Bilbao's competitiveness in the KIBS sector). The third involved roundtable discussions with local industry experts and professionals to discuss potential market niches, referred to here as value streams. Examples of such streams explored include, inter alia, shopfloor/edge computing technology, and cloud computing.[107] Identification of these value streams also informed the training courses that should be held and the alliances that companies should forge to participate in value streams. In terms of strategic impact, these activities helped local companies prepare for Industry 4.0.

Specialised Education

According to the third annual progress report finalised 30 November 2019 (latest annual progress report available) the Specialised Education outputs compared to the original application include the following.

Project outputs: Specialised Education	
Target (application)	Achieved to date
• 50 total participants in own university degrees	• 50 individuals are participating in the university degrees.
• 100 Total participants in continuous training programmes	• 10 participants (professionals in the advanced services provision) so far have participated in the technical 4.0 continuous training programmes offered.
• 50 Participants in the programmed University Degrees	• 40 business professionals and entrepreneurs that attend the programmed business university degrees.
• 100 Participants in different specialist and short courses.	• 50 business professionals and entrepreneurs that attend the programmed business specialist and short courses.
• 3 Doctoral candidates in servitization and advanced services	• 3 Doctoral Candidates in Servitization and Advanced Services.
• 9 Companies that hire customized training programmes.	• 10 companies have hired customized training programmes.[108]
• 5 Policy-making bodies that are trained on Industry 4.0 and partnership brokering	• 5 training modules delivered to Policymakers (councils of the city of Bilbao and Bilbao Ekintza workers).[109]

In terms of strategic impact, participation in these courses on the part of members of the ecosystem would allow access to the insights from the Observatory and contribute to making the ecosystem more adapted to the requirements of Industry 4.0 and competitiveness.

There were no significant deviations or corrective measures required in the activities for specialised education but as indicated in the table above, challenges were found in

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[107] Value Roadmap 2017, MIK- MONDRAGON INNOVATION AND KNOWLEDGE S. Coop. Editors: Luis Berasategi (MIK), 2018

[108] UIA Expert Journal 5 https://www.uia-initiative.eu/en/news/asfabrik-expert-journal-5-get-know-what-happened-last-6-months

[109] MILESTONE review n°8/8 – July 2020

recruiting companies for participation. For industrial firms, as the economy began emerging from the recession, demand for their output picked up significantly, stretching their capacity and limiting time individuals wanted to spend on training. This further reduced the urgency felt within industry to innovate. Moreover, the project will seek to increase participation from a more diverse group of companies. As of 2018, 75% of the company individuals came from within the Mondragon corporation.[110] As indicated in the table above, there were not as many issues with gathering participation from students and entrepreneurs.

Partnership Brokering and Start-up Boosting

According to the Milestone review n°8/8 – July 2020 UIA Expert report, the Specialised Education outputs compared to the original application include the following.

Project outputs: Partnership Brokering and Start-up Boosting	
Target (application)	**Achieved to date**
• 15 New strategic alliances	• 34 partnership agreements have been signed between KIBS providers and companies involved in the manufacturing sector and the smart cities field as a result of the partnership brokering activity,
• 6 new educational alliances	• 6 training agreements have been signed between the education sector and the services provision sector as a result of this partnership brokering activity,
• 12 start-ups created or new services launched by KIBS companies from Bilbao	• 36 new ventures have emerged in this activity after seven rounds of the Start-up boosting activity.

The partnerships agreed and the new business ventures created are an indicator of success for the project. The partnerships allow actors in the sector to complement others' specialties and take advantage of the opportunities of Industry 4.0. In the case of smaller firms, the interviewee from GAIA noted that the partnerships have allowed them access to more experienced firms which allows them to learn best-practice. The partnerships for small firms also allow them to access higher positions in value chains.[111]

The interviewee from MIK S.coop, highlighted a partnership that had developed between a blockchain start-up and an IoT company. The possible partnership was identified in round table discussions and arose as the opportunity to involve blockchain technology to safeguard data that IoT relies upon.[112] Another example of a partnership developed was between Purple Blob, a young data analytics firm, and Techfriendly, a larger company that performs management consulting in Spain. The former provided their expertise to analyse data of Spanish cities which Techfriendly could then use to inform its consulting.[113]

The UIA Expert noted that a major success of this project was the ability to bring together stakeholders that often are not in the same orbit. Considering the increasing importance of digitalisation to manufacturing, the project being able to foster partnerships between

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[110] UIA Expert Journal 2 https://www.uia-initiative.eu/en/news/implementing-asfabrik-project-bilbao-get-update-activities-carried-out-second-uia-expert
[111] Interview with GAIA Cluster, Project partner
[112] Interview with Mondragon Innovation and Knowledge, Coordinator Bilbao AS-Fabrik
[113] UIA Expert Journal 3 https://www.uia-initiative.eu/en/news/asfabrik-expert-journal-3-working-increasing-competitiveness-industry-and-developing-new

consultancies and software companies on the one hand, and established manufacturing firms is a positive result of the project. The UIA Expert highlighted a partnership created between a large manufacturer of construction cranes and a small software company as an example. The partnership was originally formed as the latter would help the former by developing tools to reduce the loud sounds that the cranes built by the construction company made.[114]

Some 12 companies received mentoring from AS-Fabrik between January 2019 and July 2020 (Purple Blob, Imatek, Material Connexion, Noismart, Symplio, Wimbitek, Bytek, BeClever, Nexmachina, Zylk, RKL, Saint Intelligence) entered into partnership agreements with companies involved in the Smart Industry and Smart Cities field. The companies include Ulma Embedded, Jaso, Panap Innovation, Sarenet, Telefónica, PedroVelarde, Loriot, ITP, Izertis, NXP, Oscatech, Quenta, InproRD, Liferay, Ikerlan, Mondragon Centro de Promoción, Nakulas, InnovMedical Alliance, Fagor Healthcare, C2B, Tech Friendly, Caser Residencial, Resa, Setelsa, Urbegi, S-Connect, Orange, PQC, Amazon, Hispasat and other groups that wished not to be named. In total, 34 partnership agreements were established.

5.6.4 Sustainability and scaling-up of the project at local level

A key way in which the project had planned to sustain and scale-up its activities was by expanding the number and type of partners that would be involved in the consortium. The project aimed to reach the whole sector of advanced service providers in Bilbao (9,245 companies) with successful initiatives shown as references, to indicate the potential benefits to these other companies. Additionally, the project believed scale-up could occur by involving more sectors such as banking services, business-oriented video games, and audio-visual companies, and different Basque business groups similar to GAIA located outside of Bilbao.

In the physical space, the project anticipated that the testing of products and services created would be scaled up. More spaces would be built for an extra laboratory allowing start-ups to prototype physical and mechatronic products, and a space for scaled up collaborative activities for advanced service enterprises.

Plans are already in place to move AS-Fabrik's activities from the spaces provided by BBF and conducted in the new building in the Zorrotzaurre district industrial area, once construction of the BETA II building is completed. The intention is for this new building to be an innovation hub for Industry 4.0 and KIBS for Bilbao and beyond the city. Construction of the BETA II building was scaled-up during the project as there was more interest than expected. Four additional floors were included in the planning, expanding the building from 4,000m^2 to 10,000m^2.[115] Part of the intention for the new space is to create labs following the co-working space model, whereby prototyping can occur alongside the natural fostering of partnerships. Additionally, there is an interest in cooperating with schools to allow young pupils to use such labs when learning about technology.[116]

Bilbao Local Council is hoping to foster more innovations as part of AS-Fabrik. They are particularly interested in exploring whether there are innovations related to bioengineering and health that can be found within the ecosystem and supported by public investment. Bilbao City Council are interested in finding health tech solutions that can help old people as currently their care is a financial burden on the public administration. This was also

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[114] UIA expert
[115] UIA Expert Journal 3 https://www.uia-initiative.eu/en/news/asfabrik-expert-journal-3-working-increasing-competitiveness-industry-and-developing-new
[116] Interview with Mondragon Innovation and Knowledge, Coordinator Bilbao AS-Fabrik

noted as being particularly salient since the COVID-19 crisis has highlighted the need to have a domestic supply of medical equipment and technology.[117]

When it comes to funding, after making use of European funding to establish the project's foundations, the project promoter and partners are seeking to find ways to make the activities self-funding. One of the ways this might occur is through a membership programme whereby companies pay for access to the ecosystem with different payment levels for different access to services.[118] [119]

Observatory: Orkestra will continue monitoring the demand and supply developments of Industry 4.0, the analysis of Bilbao and the Basque Country's competitiveness compared to other regions, and the international benchmarking exercises.

Specialised Education: Training courses will continue to occur, with three of the faculties moving from Mondragon University to the second floor of BETA II. During the project, many courses were offered free of charge. Some of these courses will continue, but as part of efforts to make the project self-sustainable, these courses will now involve a fee for participation.

Partnerships and Start-ups: In the mentoring provided for start-ups a section was dedicated to how to sustain activities. The interviewee from GAIA noted that local companies, as well as start-ups which created new ventures, are now integrated and working in the GAIA networks. Some are also participating in their international networks, exporting and sharing their knowledge of these innovations with other international partners. [120] [121]

5.6.5 Transfer and replication of the project elsewhere in Europe

The project application proposed engaging in knowledge transfer at the end of the project to ensure that lessons learnt could be transferred to other organisations. This would be done by making use of networks the project had in Europe and the possibility to participate in events and workshops. Examples of networks include the Urban Development Network and the IN FOCUS[122] network of URBACT. Knowledge transfer would also occur through the submission of the final qualitative report and the project evaluation with the UIA Expert.

Throughout the project's duration, efforts were made to transfer insights obtained. The project promoter noted that the Municipality of Vic in Catalonia visited to learn about AS-Fabrik. Vic has a different economic landscape as it is oriented towards agriculture and animal breeding but the sector is similarly dominated by small companies. The administration was interested in how to create a similar ecosystem approach but for their food industry. Madrid, Zaragoza, Hamburg and Bordeaux were other municipalities that visited to learn about the cluster approach. Additionally, the partner from MIK S.coop highlighted as an example a presentation about AS-Fabrik he had given in Osijek, Croatia. As planned, partners also participated in events such as in the URBACT InFocus network, the 18th European Week of Regions and Cities, and an Interreg event in Malta, 16-17 May 2017 to share insights about RIS3 strategies developed in AS-Fabrik. Knowledge gathered

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[117] Interview with Bilbao Local Council, Project Promoter
[118] Interview with GAIA Cluster, Project partner
[119] Interview with Mondragon Innovation and Knowledge, Coordinator Bilbao AS-Fabrik
[120] UIA Expert Journal 5 https://www.uia-initiative.eu/en/news/asfabrik-expert-journal-5-get-know-what-happened-last-6-months
[121] Interview with GAIA Cluster, Project partner
[122] IN FOCUS is a network of URBACT which seeks to boost the urban agenda by means of smart specialisation. It seeks to employ Research and Innovation Strategies for Smart Specialisation (RIS3)

from the PhD research and the competitiveness reports were disseminated through UIA and GAIA newsletters and informed some of the conferences mentioned above.[123] [124]

Project partners expressed confidence that the project could be replicated in other cities. The promoter from GAIA noted they are applying some ideas from AS-Fabrik in the province of Gipuzkoa, particularly those related to training for start-ups and networking activities. Gipuzkoa is also seeking ways to foster advanced services dedicated to health solutions for the aging population ("silver economy"). The interviewee from MIK S.coop noted that the project is replicable but that the ecosystem designed would have to be specific to the cities' economy and opportunities. Engagement needs to be widespread to include, entrepreneurs, citizens, academia, business and government. As with AS-Fabrik, the specificities of the urban landscape need to be considered to properly house all of these activities.[125] For replication, the UIA Expert noted that it would be useful to have a partner organisation that forms a bridge between academia and business as the Mondragon institution did, housing a university and a conglomerate of industrial companies.

AS-Fabrik met with other UIA projects within the Jobs and skills topic early in their lifecycles but knowledge transfer was limited because the projects were very different.[126]

5.6.6 Summary of key outputs and results (according to study typology)

Results gathered from milestone review July 2020

Key outputs and results (related to case study activities)	
Outputs	
New urban infrastructure and equipment	• Renovation of the BETA II building, which will house AS-Fabrik activities after the UIA project lifecycle, had not been completed at the time of the research. Finalisation of the construction and inauguration is planned for early 2021.
New services, products, processes	• In February 2016, 3 expert courses were launched: Embedded systems, Data Science and Design of advanced services for the industry.
	• Specialist course in Machine Learning and other specialist course in Deep Learning was designed and launched during the 2018-2019 school year. Both ended the school year achieving AS-Fabrik's KPI goals developed for that school year.
	• New business education programmes: expert course in servitization has been taught twice (2 editions), 70 Servitization webinars taught .
	• Expert course on Risk Capital and Startups taught during the 2019-2020 school year.
	• In-Company training programmes on Advanced Services Design, Servitization and Data Science, given to companies participating in the start-up boosting activities.
	• 5 training modules taught to Policymakers (councils of the city of Bilbao and Bilbao Ekintza workers).
	• 4 Rounds of WP6 Partnership Brokering mentoring process have been completed with 12 companies.
	• 36 entrepreneurial projects being mentored through Start-

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[123] Interview with Bilbao Local Council, Project Promoter
[124] Interview with GAIA Cluster, Project partner
[125] Interview with Mondragon Innovation and Knowledge, Coordinator Bilbao AS-Fabrik
[126] Interview with UIA expert

Key outputs and results (related to case study activities)	
	up Boosting.
Partnerships created	• 34 partnership agreements established between companies receiving mentoring from AS-Fabrik and companies involved in the Smart Industry and Smart Cities field. • 6 Educational Agreements have been promoted.
Experience gained	• Experience with managing infrastructure works which would help to manage similar obstacles in the future. • Experience tutoring start-ups. Start-ups did not progress at the same speed through different lessons. Start-ups also had different goals besides financialization. Experience taught them the need for flexible planning in mentoring start-ups .
Knowledge produced	• New trends in technology and business model innovations identified. • Experience and knowledge gained on how to inform businesses and policy makers on latest developments with regards to target markets for Advanced Services. • Current state of smart servitization in Bilbao. • List of interesting policy instruments to promote of KIBS at an urban level. • Manual developed building upon the systemization of methods to assess good practices from benchmarking exercises, as well as their usefulness and transferability. • New value opportunities (market niches to exploit or technological changes to adopt) have been put on track towards fruition. • Development of replicable protocols to provide guidance to new ventures seeking to provide advanced services.
Results: local level	
Identifiable effect on urban issues faced at local level	• The project will contribute to the regeneration of the Zorrotzaure area by the construction of the new building for AS-Fabrik activities (when opened, due in 2021).
Sustainability of partnership working	• The partnership between policy-makers, academia, business clusters, start-ups, entrepreneurs and students will continue beyond the project timeline. Research in the observatory will continue to be performed, courses and tutoring will continue to be offered.
Innovations scaled up	• Too early to comment.

5.7   Project implementation

Most of the project's activities were completed on time. The main delay was in the construction of the Beta II building in the Zorrotzaure area. The final event of the project was also delayed as it was planned to take place in the new building, once completed. The construction of the Beta II building faced several challenges. Initially, the reconstruction of the building was delayed because the owner of the brownfield site was reluctant to sell the space. Further delays occurred as the reconstruction of the building was found to be more difficult than planned as the brick walls of the structure were too weak to be continued to be used.[127] In the last year, the COVID-19 crisis caused further significant delays. In February and March 2020, the construction phase faced shortages of materials

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[127] UIA Expert Journal 5 https://www.uia-initiative.eu/en/news/asfabrik-expert-journal-5-get-know-what-happened-last-6-months

as some borders started closing. Between mid-March and mid-May 2020, construction was completely halted as the Spanish Government enacted a confinement decree which required workers to stay at home.[128] As confirmed by interviewees, this did not cause delays to the other project activities as they were housed in the BBF's facilities.[129] The UIA Expert noted that a few businesses participating in the project made use of other fab labs but more of such activity is likely to occur once the construction work creating the new labs are finalised.[130]

The COVID-19 crisis also halted the publication of newsletters, press releases, information updates on the local government's website and social media feeds in March. Besides these activities, the other tasks and workshops faced no delays and were completed on time. During the COVID-19 crisis, these activities were moved to an online format.

As noted earlier, there were issues with recruiting company professionals to participate in the training schemes. Companies felt they were too busy as economic recovery meant demand for their services had picked up. Recovery also reduced the urgency felt among company leaders of the need to innovate in line with digital transformations. This was recognised as a significant challenge as ensuring the competitiveness of the Bilbao economy requires companies to engage in such activity.[131]

Besides these issues, the interviewees noted that there were not many problems arising in the project. Factors highlighted were the good understanding of each partner's role and the project's goals, as well as the ease with which they all cooperated.[132] In May 2020, the project submitted a request for a budget change. This was approved in June 2020 and a revised Application Form (6th version) was prepared.[133]

5.8 UIA flexibility and administrative requirements

The project promoter reported a positive experience with the UIA. They particularly welcomed the possibility of receiving EU funding for public works, which is not found in other projects, such as Horizon 2020. A small issue they found was with the major changes. The possibility of only being able to ask for two major changes they found limiting as projects sometimes require more changes. The promoter also indicated that the application process was standard when it comes to EU funding programmes and that they did not face excessive administrative burden. The promoter noted that there was some initial confusion with how to manage the project and auditing system because the requirements were different to Horizon 2020 and because they did not have experience with managing EU funding for public works. Nevertheless, these hurdles were overcome and the administrative requirements were not considered burdensome. The promoter noted that both the UIA Expert and the UIA Secretariat were very helpful. The UIA Expert already had a close relationship with Bilbao through URBACT projects related to smart specialisation strategies. A Smart Cities and Communities Lighthouse project application was submitted to Horizon 2020 in November 2019. The UIA Expert knows the Basque country very well. Comparing it with other projects, the UIA has been extremely helpful. The Secretariat was helpful particularly with accommodating the delays to the construction of the Beta II building.[134]

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[128] MILESTONE review n°8/8 – July 2020
[129] Interview with GAIA Cluster, Project partner
[130] Interview with UIA expert
[131] UIA Expert Journal 2 https://www.uia-initiative.eu/en/news/implementing-asfabrik-project-bilbao-get-update-activities-carried-out-second-uia-expert
[132] Interview with Mondragon University, Project partner
[133] MILESTONE review n°8/8 – July 2020
[134] Interview with Bilbao Local Council, Project Promoter

5.9 Communication and media image

The target groups of the communication strategy were:

- Advanced Services companies: would be reached via personal communication with the goal of raising their awareness of new solutions to boost their competitiveness.

- Companies in the Manufacturing Industry: would be reached through public events to identify their needs and highlight Industry 4.0 requirements.

- Entrepreneurs and students: would be reached mainly through digital activity. This would be to engage them in the collaborative network of activities.

- Members of the Educational sector: would be reached through newsletter publications to raise awareness among students of the project's opportunities.

- Public Administrations: would be reached through press and personal communication based on previous contact to share best practice and encourage replication.

- Citizens of Bilbao: would be reached via events and digital activity to increase awareness and allow them to improve the project.

The project promoter noted that they promoted their activities on LinkedIn, YouTube, Facebook, and Twitter but did not obtain significant traction. The promoter noted that translating some documents and social media posts could possibly help with increasing traffic. He noted that the monthly newsletter had more viewership.

The project attracted significant interest from the press. The local newspapers El Correo and Nervión covered the project significantly. Articles also featured in national newspapers El Economista and La Vanguardia as well as the news agencies Europa Press and EFE. Particular attention was placed on the efforts and projects implemented to regenerate the Zorrotzaurre area.[135]

A total of 750 companies in advanced services in Bilbao were contacted for partnership brokering compared to the 300 targeted. 171,000 employees of Basque manufacturing companies were contacted for partnership brokering compared to the 70,000 targeted.[136]

5.10 European Added Value

The project promoter indicated that the availability of funding for public works was very beneficial for the success of the project. As noted earlier, BBF had already implemented activities creating a link between academic training programmes and businesses, so it is likely that the project would have occurred regardless of UIA funding. Nevertheless, the UIA Expert noted that funding from the UIA allowed them to scale up the ambition of these ideas and provided the possibility of building the infrastructure that would later serve to house the AS-Fabrik activities after the project and the construction itself has been completed. The central hub will be important for multiplying the effects of the project as it would create a central meeting space which would increase the likelihood of chance encounters that would spark new ideas and possible collaborations.[137]

5.11 Complementarity with other EU programmes

The Bilbao municipal authority receives EU funding for a sustainable urban development (SUD) strategy under Article 7. The programme "Integrated Sustainable Urban Development Strategy of Bilbao" receives a total ESIF contribution of €4.644m. Its thematic objectives are: Information & Communication Technologies, Low-Carbon

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[135] Interview with Bilbao Local Council, Project Promoter
[136] Annual Progress Report of AS-Fabrik 2019
[137] Interview with UIA expert

Economy, Environment Protection & Resource Efficiency, and Social Inclusion. While there is no direct link with the SUD strategy, the UIA Expert indicated AS-Fabrik's focus on Industry 4.0 forms part of a larger vision that the Bilbao Local City Council has for the city. Under Bilbao's SUDS, the municipal authority is seeking to regenerate the Zorrotzaurre area into a residential and business district. A key part of this strategy is the project ATELIER which has obtained funding from Horizon 2020. The project aims to make the Zorrotzaure area a positive energy district, i.e. make the space generate more energy than is consumed by the activities (including AS-Fabrik's activities) operating in the space. The council is now looking for subsidies on the topic of mobility. The Zorrotzaure area is not located in the centre of Bilbao and the local city council is finding solutions to ensure the island is accessible only by zero-emissions vehicles.[138]

The interviewee from MIK S.coop noted that while their project focuses more on the theme of Information & Communication Technology, the municipal authority has hosted local council forums where promoters from other projects related to the SUD strategy have been able to gather and share experiences.[139]

As indicated above, the AS-Fabrik project has also been closely linked to URBACT and Interreg. AS-Fabrik partners have used these networks to share their best practice and insights obtained.

5.12   Lessons learned

The evidence gathered for this case study and the findings presented above allow us to draw some main conclusions as follows:

- The project demonstrated that an ecosystem that brings together the public sector, academia, and business can be successfully created. The project demonstrated that public policy can be used to make positive changes in local business. Guided by the public sector, and helped by insights from academia, local business can be encouraged to innovate as well as adapt to the requirements of a constantly changing economic system. Despite there being a variety of different types of partners involved, it was possible to bring them together to collaborate.

- Expert forecasting and analysis of current economic trends can be beneficial for local companies, particularly if the insights are transmitted through personal interaction e.g. through training courses.

- Partnerships established throughout the project indicate the success of networking and mentoring activities. An ecosystem whereby market niches and possible synergies between companies are highlighted can help develop new partnerships and business ventures.

- While welcoming the possibility of investing in infrastructure, the project promoter noted that a lesson learned was that infrastructure projects inevitably face hurdles and that the potential for obstacles should be considered at the planning stage.

- An important lesson learned highlighted by the partners from MIK S.coop and GAIA involved the flexibility of objectives regarding start-up tutoring. They noted that each company has their own requirements and interests and that management needs to take this into account. In the design of start-up boosting activities, the ultimate goal was obtaining financing, however companies may not be interested in this ultimate goal. The partners highlighted, for example, that some start-ups simply required a partner with which to export new products. The methodology should be flexible, allowing various other exit goals to be established at the start besides financing.

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[138] Interview with UIA expert
[139] Interview with Mondragon Innovation and Knowledge, Coordinator Bilbao AS-Fabrik

- When it came to tutoring start-ups, the partners from MIK S.coop and GAIA noted that flexibility is also required when moving from different stages of the mentorship. Companies may be still developing at one stage but the time-schedule would indicate that the tutoring needs to move on to the subsequent stage. They noted that some start-ups began facing financial difficulties and were not able to progress with the tutoring until these problems were resolved. Flexibility is important to ensure companies are not left behind.

- The partner from GAIA noted that since the local companies are technically competitors, it is important to establish early on the red lines that must be adhered to, alongside demonstrating the benefits of synergies.

5.13   List of interviews

Organisation	Role in project	Date of interview
Bilbao Local Council	Project Promoter	08/06/2020
GAIA (Association of Knowledge and Applied Technologies	Partner	15/07/2020
MIK S. Coop (Mondragon Innovation & Knowledge)	Partner	05/08/2020
Mondragon University	Partner	13/08/2020
Amsterdam University of Applied Sciences	UIA Expert	17/08/2020

5.14   Documentary sources consulted

Documents / websites / YouTubes
Annual Progress Report 2017
Annual Progress Report 2019
Annual Progress Report 2018
https://unesdoc.unesco.org/ark:/48223/pf0000113355.nameddest=113376
https://www.bizkaiatalent.eus/en/pais-vasco-te-espera/apuesta-de-futuro/industrial-cultural-servicios/
UIA Expert Journal 1 https://www.uia-initiative.eu/en/news/asfabrik-journal-1-hear-projects-uia-expert-how-it-implementing-its-bold-solution
UIA Expert Journal 2 https://www.uia-initiative.eu/en/news/implementing-asfabrik-project-bilbao-get-update-activities-carried-out-second-uia-expert
UIA Expert Journal 3 https://www.uia-initiative.eu/en/news/asfabrik-expert-journal-3-working-increasing-competitiveness-industry-and-developing-new
UIA Expert Journal 4 https://www.uia-initiative.eu/en/news/asfabrik-expert-journal-4-get-know-what-happened-last-6-months
UIA Expert Journal 5 https://www.uia-initiative.eu/en/news/asfabrik-expert-journal-5-get-know-what-happened-last-6-months
MILESTONE review n°8/8 – July 2020
Report on technological and market international trends, *MIK- MONDRAGON INNOVATION AND KNOWLEDGE S. Coop. Editors: Eduardo Castellano (MIK) and Cristina Murillo (GAIA), 2017*
Value Roadmap 2017, *MIK- MONDRAGON INNOVATION AND KNOWLEDGE S. Coop.*

6. OPENAGRI (MILAN, ITALY)

6.1 Key project facts

OpenAgri	
Key facts	
Call	1
Acronym	OpenAgri
Title	New Skills for new Jobs in Peri-urban Agriculture
Project Number	UIA01-378
Status	Ongoing (at the time of the research)[140]
Duration	01/05/2017 - 31/10/2020
Topic	Jobs and skills in the local economy
Member State	Italy
Number of partners	16
Main urban authority	Municipality of Milan
Other partners	- Local public authority: Metropolitan Chamber of Commerce of Milan-Monza-Brianza-Lodi - Higher education and research: Milan Polytechnic Foundation - Higher education and research: PTP Science Park - Higher education and research: University of Milan - Higher education and research: Milan Polytechnic University - Higher education and research: Cineca - Higher education and research: Future Food Institute Trust - Higher education and research: Poliedra - Education/training centre and school: IFOA – Training Institute for Enteprises Operators - Interest groups including NGOs: La Strada Social Cooperative - Interest groups including NGOs: Sunugal - Interest groups including NGOs: Mare S.r.l. social enterprise - SME: Avanzi S.r.l. - SME: ImpattoZero S.r.l. - SME: Food Partners S.r.l.
Budget	
ERDF	€ 4.997m
Public co-financing	€ 0.827m
Private co-financing	€ 0.422m
Total	€ 6.246m

6.2 The city

The Municipality of Milan has 1.4m inhabitants and is part of the second-largest metropolitan area in Italy housing 3.2m inhabitants.[141] Milan is well-known as the economic and financial heart of the country: it significantly contributes to the national Gross Domestic Product (GDP, about 10%), counts for 6% of the total active workforce in

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[140] A request for change due to COVD-19 in process for this project at the time of closing the report.
[141] 2019 data. Source: National Statistical Office (demo.istat.it), retrieved on 15th July 2020.

Italy and boasts a low unemployment rate (5.9%) as compared to other metropolitan areas as well as the national average (10%).[142]

The value chain in this city comprises both traditional manufacturing companies as well as advanced service companies. Nevertheless, Milan also provides a significant contribution to the agricultural sector. The Milanese food sector accounts for 3.8% of Italy's total exports and 1.2% of all enterprises operating in the agriculture-forestry-fishing sector.[143] The largest agricultural park in Italy is located in the southern peri-urban area of Milan, although its economic potential is not fully exploited[144]. The lack of skills and young entrepreneurs is found to hamper the growth potential of the agri-food economy in Milan: only 5.6% of farms in Milan are run by young people, a lower proportion than the average for Lombardy (7.1%), reflecting the low level of generational renewal in this sector.[145]

The UIA project, OpenAgri, is devoted to the creation of new skills and job opportunities in urban and peri-urban farming. It invests in the regeneration of Porto di Mare area, which is located in the southern peri-urban area of Milan, mentioned above. The target area is defined in the application form as an 'urban fringe' representing the transition zone between the consolidated part of the city and agricultural lands. It is described as a degraded area characterised by persistent social, economic, cultural and environmental problems (e.g. it includes disadvantaged suburbs populated by Roma communities, the presence of criminal associations, as well as other disadvantaged groups, it lacks water and sanitation facilities as well as electrical lines for the establishment of activities, etc). The project aimed to turn this area into an attractive hub to host innovative entrepreneurial ideas and start-ups in the agri-food sector, while strengthening skills and jobs opportunities (including for young and disadvantaged people).

6.3 Rationale for the project

The need for OpenAgri comes from the growing awareness by the municipal administration in recent years that peri-urban agriculture plays a fundamental role in the metabolism of the city, since it is an activity capable not only of producing food, but also of contributing to the protection of the environment, landscape and culture. More specifically, the focus of the project on food comes from the emerging role played by the latter on the policy agenda (both at local and EU level). At the time of the project's design, food was no longer considered as a commodity or as a nutritional necessity, but rather as an emerging policy challenge affecting different dimensions. It was found to encompass ecological concerns (e.g. loss of biodiversity and overconsumption of water, related to traditional agricultural activity), social and public health problems (e.g. food scarcity), economics (e.g. short supply chains, delivery and consumption), spatial and city planning strategies (e.g. urban-rural linkages, farmhouses reconversion, agricultural land preservation).

OpenAgri should be understood as an integrated urban strategy which – focusing on the agri-food sector – addresses the multidimensional challenges affecting Porto di Mare target area.[146] At the core of the project, is the creation of an open innovation hub on Peri-Urban Agriculture in Cascina Nosedo, an ancient farmhouse located in Porto di Mare. The overall rationale of the project was that the renovated site of Cascina Nosedo should serve as a

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[142] 2019 data. Source: National Statistical Office (I.Stat), retrieved on 15th July 2020.
[143] 2017 data from Sousa, M., December (2017).
[144] A recent study by the Municipality of Milan and Cariplo Foundation found that the amount of farmland has diminished over the last 60 years by 64%, at an average annual rate of 1.1%. Source: Milan Municipality and Cariplo Foundation, (December 2018).
[145] Milan Municipality and Cariplo Foundation, (December 2018).
[146] Together with agricultural lands, ancient farmlands and historical sites (e.g. Chiaravalle Abbey), the target area accommodates what the city has rejected and expelled over the years: discos, scrapyards, Roma camps, disadvantaged groups, etc. On the other hand, this area boasts important endowments (e.g. availability of land, a water treatment plant) and significant social resources (in terms of NGOs and community actors that work here) which can contribute to the growth of the city.

living lab for social inclusion, jobs and skills creation, open innovation along the food supply chain while increasing the level of resilience and sustainability of the city. Beyond the renovation of the site (the territorial and urban dimensions of the project), different integrated solutions – having food as a common denominator - were proposed by the project to address the multiple challenges affecting the area: developing projects involving SMEs and start-ups (entrepreneurial dimension), community-led initiatives for social inclusion (social dimension), new approach and tools for food production and delivery (technology and innovation dimension). Overall, by focusing on different policy dimensions, the project addresses three main priorities related to the growth of Milan city including the development of peri-urban areas, support to entrepreneurship and the implementation of Milan's Food Policy.

6.4　Objectives and intended effects

The overall aim of the project was to boost innovation in peri-urban agriculture through the creation of an open innovation hub, addressing job creation, capacity building, skills enhancement, technology transfer as well as supporting start-ups' development.

 The project's specific objectives included:

- Building up a sustainable food chain, from production to consumption, in order to answer the emerging demand for a sustainable agri-food sector;

- Targeting young entrepreneurs and innovative SMEs in the agri-food sector, and supporting experimental solutions that could emerge from their collaboration;

- Creating an innovative ecosystem, a hub that connects stakeholders at different levels and territorial scales, linking economic development and social inclusion challenges, and that fosters mutual learning, co-creation and new skills;

- Capitalising the initiative, upscaling the hub model and mainstreaming the approach;

- Developing OpenAgri as the flagship project of the Food Policy agenda promoted by Milan Municipality;

- Strengthening Milan's position at international level in the field of food policy;

- Addressing the impacts of OpenAgri in the area of Porto di Mare, developing the potential of the innovative action as an urban regeneration project;

- Contributing to the improvement of urban resilience;

- Integrating agricultural policy into the broader framework of innovative policies at local level by creating a new paradigm on future urban farming.

Overall, the main intended effects were to:

- Boost the peri-urban agri-food sector;

- Increase investments contributing to food availability (particularly of fresh products);

- Increase food security;

- Improve eating habits;

- Provide new skills and job opportunities in the agri-food sector;

- Regenerate a peri-urban zone of the city by making it an example of social inclusion and innovation as well as an international model of peri-urban integration for other cities.

6.5 Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured public funding of €827,000, mostly to be provided by the Municipality of Milan (74%), research and education institutes (12%) and the local trade agency (7%). The budgeted private funding of € 422,000 was to be provided by private education institutes (41%), NGOs (33%) and SMEs (36%).

In addition to the financial resources, the partnership also brought additional inputs to the project. These include skills for the implementation of the different work packages, premises for the delivery of training courses (mostly higher education centres involved in the project), knowledge of the neighbourhood and local community (mostly NGOs involved).

6.6 Innovation process

6.6.1 Knowledge informing the innovations

OpenAgri builds on several previous local initiatives.[147] However, the most relevant ones include the adoption of the Food Policy by the Municipality of Milan in 2015 - which aimed to developing sustainable food systems, protecting biodiversity and reducing food waste – and the Milan Urban Food Policy Pact - through which 132 (and growing) cities from all over the world committed to making urban food systems more inclusive, resilient, safe and diverse.

Specific forms of knowledge contributed to developing innovations brought about by the project:

- An **online survey** with 40 specific questions was addressed – during the first year of the project - to various players of the agri-food sector including companies, SMEs, start-ups, public administrations, foundations, organisations and professionals. The survey was focused on needs, expectations and possible development projects. It was structured to tackle each segment in the value chain (e.g. production, trade, distribution, etc.).

- **Public discussions** were carried out via two distinct initiatives. The first was a focus group involving several stakeholders (Lombardy Region, agricultural districts, associations, scientific institutes) and focusing on the following three topics: 1) *How is Milan positioned in the agri-food sector?* 2) *What are the specific innovation needs throughout the agricultural value chain in the Milanese area?* 3) *Which limits and opportunities are related to the creation of an open innovation hub?* The second initiative was a public meeting organised by the Municipality of Milan during the Milan Food Festival (May 2017), in the form of a round table which allowed some of the projects' partners to engage in public debate with civil society on the power of food and on how to ensure a successful result for the project itself.

- **Qualified interviews** with SMEs, sector experts, technicians, environmental associations on the following topics: a) innovation needs (strengths and weaknesses in the value chain, etc.), b) education and training, c) services provided in the Hub.

- **Partners' previous experience** of training schemes, social inclusion activities as well as the establishment of social incubators and accelerators devoted to social entrepreneurs.

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[147] Other initiatives include for instance i) the creation of the Agricultural District of Milan (DAM Consortium) in 2012 which was actively involved in the design of the project; ii) the Alimenta2Talent business accelerator programme - developed by PTP Science Park (one of the partners of OpenAgri project) and co-funded by the Municipality of Milan in 2013 – which inspired one of the innovations developed within OpenAgri project (the 18*33 accelerator programme).

6.6.2 Experimentation

The innovation tested by OpenAgri does not concern the regeneration of Cascina Nosedo (located in Porto di Mare target area) and surrounding agricultural land. Instead, it consists of the capacity to attract new talent, creators, entrepreneurs, business and others, to develop new practices in peri-urban agriculture in a unique experimentation laboratory that follows a place-based approach. The renovation of the area and the buildings is not seen as an aim in itself but rather as an important catalyst for the development of a policy experimentation that stimulates jobs and skills in the local economy.

The project approach is based on an "innovation playground" which combines innovation, social and commercial activities. Some relevant activities are described in what follows:

Experimentation Laboratory (part of WP4 New Skills for new jobs in Peri-Urban Agriculture)**:** this Lab was addressed to explore innovative techniques in urban agriculture (from production to logistics, from Internet of Food to sharing economy) and engages businesses to make the best use of a publicly-owned plot of 33 hectares of land surrounding Cascina Nosedo (Milan Southern Park). The process to find innovative projects started in August 2017 and followed three phases. A two-stage public open call was addressed to the selection of innovative projects. The latter were required to include new knowledge and skills or act as an impetus for innovation and/or be functional or integrated within the agri-food system (production, processing, distribution, consumption, waste management). 50 proposals were submitted during the *Phase I* (August-September 2017), out of which 27 were admitted to the *Phase II* (October – November 2017). After an in-depth examination (a workshop was held on November 17th 2017), only 18 proposals were selected. They were grouped according to three thematic clusters (see Figure 1), such as Technological innovation (8 projects), agro-system production and services (5 projects) and

Figure 1 – An overview of 18 selected

social innovation and sharing economy (5 projects). New cutting-edge technologies are being tested by the selected projects. Some examples include a plant for the generation of clean energy starting from organic agricultural and horticultural waste, the hydroponic cultivation of spirulina algae considered the food of the future, the creation of a shared oven to produce bread and bakery products derived from the cultivation of ancient cereals, automated greenhouses for the cultivation of Km 0 fruit and vegetables [148] to be ordered via smartphone, etc.

The lab was able to attract young entrepreneurs, since 77% of the selected projects were presented by people under the age of 40 years. Beyond the free use of land (13 out of 18 selected projects made use of land), the lab offered an accompanying incubation programme (Phase III, which started in January 2018) including individual training, mentorship and strategic networking, support in the drafting of business plans as well as facilitating access to credit and meeting with possible investors. In this regard, a key role was played by education institutes involved in the project which delivered individual

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[148] It denotes the food produced, sold and eaten locally, which has travelled zero kilometres. Mainly it refers to non-industrial fruits, vegetables, cheese, meat, honey etc, which does not go through global trade chains, therefore it does not have big price margins and loss of quality during long storage in international supermarkets.

training as well as job-shadowing activities (one was organised in Seville), such as a short stay in a company to exchange good practice, gain experience and build partnerships. Training courses and meetings were organised at partners' premises considering that the renovation of the infrastructure site – Casina Nosedo – expected to host these activities faced delays (see "Project implementation" below for more details on the challenges faced by the project).

As pointed out by interviewees, the experimentation laboratory acted as a mediator within the selected projects, enhancing communication and business cooperation between innovation actors, for instance, synergies and new collaboration were created during Phase II and some proposals were merged. Crucial to the implementation of this innovation was the co-creation approach adopted by the project's partners: all the activities of the laboratory – such as individual training, meetings, etc. - were co-designed together with the selected projects.

Open Badges for New Skills in Peri-urban Agriculture (part of WP4 New Skills for new jobs in Peri-Urban Agriculture)**:** this activity aimed at certifying the skills and competences acquired as part of the OpenAgri project. It consisted of a digital picture of individual skills, specifically providing information on the place and time they were provided. The release of OpenBadge as part of the project relied on the BESTr platform (already established by a project partner in 2015).[149]

This activity targeted both the participants of the experimentation laboratory as well as other target groups, including young people, disadvantaged groups, NEETs, etc. The identification of skills needs was carried out both during the design phase (e.g. consultation process through surveys, interviews) and the implementation phase of the project (e.g. co-design process mentioned above). The Open Badges were released on the basis of flexible criteria – including, for instance, participation in the training course, providing evidence or passing a test – the choice was left to each educational institution in charge of delivering the course.

Besides the Open Badge, this activity also envisaged the connection of skills to pathways (called learning playlist in the application form) which means the acquisition of more badges combining integrated skills. The acquisition of the macro badge stands for the completion of the pathway.

Social Lab (WP6): the activity combines innovation and environment with social inclusion. It consists of two components; 1) training courses to create new skills in the agri-food sector (e.g. green maintenance, etc.) aimed at disadvantaged groups, women and foreigners with a view to enhancing their social inclusion; 2) meetings, workshops, conferences, etc. to boost the presence of the hub and its role in the regeneration of territory as well as to raise awareness on food sustainability.

The performance of this activity relied on the operational network of some OpenAgri partners (mostly NGOs operating in Valle dei Monaci) which were involved in previous social inclusion and regeneration projects targeting the area (e.g. Porto di Mare pilot project focusing on the urban Park Vettabia and Parco Agricolo Sud Milano).

6.6.3 *Achievements against project targets*

A postponement of the end-date of the project (until October 2020) was approved by the UIA Secretariat, in part because some activities were suspended due to the COVID19 pandemic. Evidence provided in what follows is taken from the project's internal documents and an Annual Progress Report. According to these sources, the main outputs of the project include the following:

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[149] https://bestr.it/project/show/97

WP4 New Skills for new jobs in Peri-Urban Agriculture

Project outputs: WP4 New Skills for new jobs in Peri-Urban Agriculture	
Target (application)	**Achieved to date**
15 SMEs selected for co-creation of development projects	• 18 selected of which 13 new start-ups, 3 already-established companies and 2 non-profit organisations and associations.
10 Start-ups business plan	• 10 start-ups business plan.
1 job shadowing	• 1 job shadowing organised in Seville. Two additional ones were organised in agricultural farmsteads located in Lombardy and in Tuscany regions but they were suspended because of COVID-19.
1 Open Badges published and issued to learners	• 15 type Open Badges corresponding to specific skills and competencies were released.
1 Open Badge Playlists/Pathway	• 2 Pathways combining different skills and competences (different badges) were undertaken but not assigned yet.[150]

The 18 co-developed projects are the main relevant output of Work Package 4. The experimentation laboratory (described above) allowed for the implementation of innovative ideas along with the establishment of new start-ups. One selected start-up dealing with the production of ancient cereals stated that: "We have always failed to access lands within the city while the project made it possible; this allowed us to start the first bread production in the city (bread made in Milan); we created a new start-up for the implementation of our business idea. Now, our intention is to build on this experience and create a network of bakers extending outside Milan and working on common themes, from the enhancement of the production of bread (by using ancient cereals) to the narrative of bread (the Bread for Change initiative was launched in Turin in 2019). We also want to establish a school for training new bakers in Chiaravalli district."

Another start-up involved in the laboratory stated: "OpenAgri accompanied me in the development of a business idea which I was pursuing for many years: the provision of flowers through a subscription-based business model. Flowers are delivered periodically according to the selected subscription (weekly/fortnightly or monthly basis). The project provided me with skills and competence to perform my business and enabled me to create synergies with other local businesses. For the delivery of my service, I use flowers cultivated in the OpenAgri laboratory)." Both beneficiaries interviewed will continue to expand their activity and many other start-ups will do the same, as reported by the project promoter. This evidence confirms the impacts generated by the project on the local economy in terms of new entrepreneurship and jobs opportunities created in the agri-food sector.

A further interesting output of WP4 concerns the Open Badges, whose achievement greatly exceeds the target. This is expected to have a key strategic impact on the agri-food community involved since it has drawn attention to the importance of achieving certified skills and competencies in the sector which can be recognised elsewhere. One participant of the Open Badges stated: "I am now able to prove my competences and skills on my

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[150] The first pathway – called Entrepreneurship, Business plan and peri-urban agriculture – allowed to gain knowledge and skills with different topics – such as market analysis, strategy formulation (supply analysis, segmentation and customer types), business management and financial planning – needed for starting a peri-urban agricultural project in the area of Milan. The second pathway – called Sustainability, sustainable development and energy conservation – allowed to raise awareness and skills on sustainable production and consumption.

CV." By the time of this evaluation, two open badge pathways have been completed but not assigned yet. A project partner clarified that this delay is due to participants who have not yet requested the release of these pathways: "some participants are more interested in carrying it out rather than having it assigned."

Overall, all project partners interviewed confirmed that supporting agri-food business to implement innovation is much more difficult than supporting business in other sectors that are more technology-driven (e.g. manufacturing). Most of the participants in the experimentation laboratories and Open Badge were traditional farmers, and tailored efforts were needed to support them in the implementation of their innovative business idea as well as involvement in the training activities.

WP6 Social Lab

| Project outputs: WP6 Social Lab ||
Target (application)	Achieved to date
Cascina Nosedo: Permanent workshop of orchard/green maintenance of a Common Property: 50 members of the target group	• 60 members of the target group were involved in green maintenance activities.
5 Basic training courses for work inclusion	• 8 basic training courses delivered. The green maintenance training courses (Green Academy) was scheduled for March 2020 and cancelled because of COVID-19.
Mulino di Chiaravalle: Mill Farm-lab	• Educational visits to the Chiaravalle Mill Farm were organised for primary and secondary school students on issues of the supply chain, the enhancement and sustainability of territory (overall two classes of 33 students). The remaining study visits with students to the mill (March and April 2020) were cancelled because of COVID-19.
Cascina S.Bernardo: seed multiplication and training: 10 events	• 4 events delivered while 4 events scheduled in March 2020 in the local area of Corvetto (at the Municipal Market in piazza Ferrara) were cancelled because of COVID-19.
Cascina Corte San Giacomo: development of agri-food work activities for women in a situation of fragility: 1 event	• Target achieved
Cascina Gerola: training and awareness-raising of new residents of Parco Vettabbia: 1 event	• Target achieved

Training and awareness events are the main outputs of WP6. As highlighted by the work-package leader, the strategic importance of these activities consisted in the ability to 'attract disadvantaged groups and people with a criminal record to new job opportunities by providing them with new skills and knowledge'. Most of the targets planned were however not fully achieved because of the COVID pandemic emergency which forced the cancellation or suspension of many events and training courses.

6.6.4 Sustainability and scaling-up of the project at local level

The OpenAgri application form did not provide a specific plan for the scaling-up of the project. It was said that "specific business initiatives tested in the project will be scaled up if successful and that the scale-up process will be based on the demand of the target groups."

As stated by the project promoter, the sustainability of the hub has always been a crucial issue during the implementation of the project. Amongst the activities included in the OpenAgri project, there was the definition of a feasibility study to estimate the costs and management modes of this infrastructure. According to recent events reported by the interviewees, the sustainability of the project will be ensured by Metropolitana Milanese spa (hereafter MM), a company which is entirely owned by the Municipality of Milan and in charge of providing the integrated water service in Milan city. The company will complete infrastructure works of the OpenAgri project (e.g. the renovation of building 10 which faced delays, implementation of the aquaponic system which will be hosted at the premises of the wastewater treatment plant, close to Cascina Nosedo and managed by MM, etc.) as well as developing the wider Nosedo Farm through new investments in the area. Sustainability will be ensured through the tariff paid by citizens for the integrated water service. The MM's plan will establish a bridge between OpenAgri and Nosedo Wastewater treatment plant: the ambition is to recycle water and use it in peri-urban agriculture (circular economy).

With regard to the specific activities of OpenAgri, MM will take over the management of 33 hectares of land allocated for the experimentation laboratory. Selected businesses are currently negotiating with the company the conditions (e.g. rent agreement) for continuing to use the assigned land as well as expanding their activity in the area. As reported by interviewees, all the activities related to training and raising of awareness (meetings, workshop, etc.) end with the project's closure.

6.6.5 Transfer and replication of the project elsewhere in Europe

In the application form, it was proposed that the Milan Urban Food Policy Pact – signed with 64 other European cities (and 55 other international cities) - can trigger the transferability of the OpenAgri project. According to interviewees, the hub can certainly be replicated in other cities provided that it is tailored to local needs (a survey could be useful to detect the needs of the territory) and project partners are prepared to interact with stakeholders from different backgrounds. The availability of a site equipped to host the activities of the hub is a crucial element to consider (as discussed in "Project implementation" below, this was a major challenge faced by the project).

By the time of this evaluation, there is no evidence of the replicability of the entire project in other cities, rather only of some components. For instance, Open Badges and Open Badge pathways are now implemented by the project's partner in another UIA project (UIA DARE managed by the Municipality of Ravenna). In another project (Abitare Borgo) co-financed by the PON METRO, one of the project's partners is also using lessons learnt from OpenAgri to create green spaces for shared crops within an old public building which is now going to be used for social housing.

6.6.6 Summary of key outputs and results (according to study typology)

Key outputs and results (related to case study activities)	
Outputs	
Urban infrastructure and equipment	• Renovated building (not realized yet). • Construction of the Aquaponic plant (not realized yet).[151]
New services, products,	• New model of community involvement in the agri-food

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[151] In the aquaponics system, the three main elements - the fish, plants, and bacteria - share the water. There is a continuous cycle where the bacteria convert fish wastes into plant's food, and plants clean the water for the fish.

Key outputs and results (related to case study activities)	
processes	sector • New training pathways in the agri-food sector • New certified skills and competences (through Open Badges) in the agri-food sector • 33 Hectares of public agriculture land re-activated
Partnerships created	• New partnership between higher education institutes, public and private partners and NGOs • Synergies and collaboration amongst participants in the project's activities
Experience gained	• Co-design processes between project partners and beneficiaries • Agri-food community gaining experience of innovation and become aware of the importance of certified training
Knowledge produced	• Better understanding of agri-food community needs • Better understanding of the potentialities of the target area to boost peri-urban agriculture (Master plan including re-design of major equipment – electric lines and water and sanitation facilities – needed for fostering agriculture in the target area). • Sustainability plan and business model for OpenAgri • Improved planning for agriculture production and management of resources
Results: local level	
Identifiable effect on urban issues faced at local level	• New start-ups and entrepreneurship activities • New jobs created
Sustainability of partnership working	• The Municipality of Milan, through its publicly-owned company MM, will ensure the sustainability of the project. • Collaboration established during the project will continue amongst some partners.
Innovations scaled up	• Experimentation laboratory will continue and expand its activities.

6.7   Project implementation

As mentioned, the closure of the project was postponed in agreement with the UIA Secretariat. Nevertheless, not all the project activities were completed. The project team encountered delays in the renovation of the physical and nodal infrastructure of the project, such as Cascina Nosedo. Critical aspects included the bad state of conservation of the buildings (e.g. steel removal, etc.), as well as delays with the public procurement process for renovation works. The project promoter explained that "construction works were not under the control of the project management team, nor the politicians committed to the project. Legislative rules in Italy and overload of the public administration technical departments represented the main constraints".

This delay required adopting contingency measures to keep going with the implementation of other project activities. To overcome this difficulty, the team came up with the "widespread hub", a solution that has been built on the existing capacity of the partners to receive, on a temporary basis, some project activities (e.g. training courses/meetings/workshop were organised at partners' premises). Delays also forced the project team to change the location of some activities. For instance, the Aquaponics greenhouse – which has not been realised yet - will move to a new location, close to Cascina Nosedo thus ensuring that synergies with the other activities of the project will not be lost.

A further challenge was faced during the implementation of the experimentation laboratory mentioned above: the 33 hectares of land were not equipped to host farmlands. The project team had to develop a master plan including a design of electricity lines, hydrography and principal access routes.

Amongst the key success factors of the project which were mentioned by the interviewees, there are the co-design process (organisation of spaces for the experimentation laboratory as well as training needs were co-designed with participants) and partners' responsiveness to challenges (availability and prompt reaction in the implementation of the contingency measures).

6.8   UIA flexibility and administrative requirements

The OpenAgri team were mostly satisfied with the UIA instrument and the associated administrative requirements. The response to the online survey showed that some aspects – such as 20% budget flexibility, simplified cost options (flat rates, lump sums) for certain categories of expenditure as well as the possibility to make project changes – were found to be very helpful. Other rules - such as 50% advance payment of ERDF and simplified rules on State Aids - were described as fairly helpful. Assistance and monitoring from UIA Secretariat were found to be very helpful, while the support provided by UIA Experts as well as contact with other UIA projects was described as fairly helpful.

The project team were satisfied with the conversations held with UIA Secretariat: "this allowed us to think about the project's targets, results to be achieved as well as knowledge transfer and lessons learnt". As reported by the project team interviewed, they had little knowledge and experience with EU projects, as well as a scarcity of personnel to deal with its implementation. Responses to the online survey suggest that the UIA could increase communication with municipalities so people are aware of how to apply and implement projects.

The UIA requirements – including annual progress report, financial claims, site visits by the Secretariat, ad hoc meetings with the Secretariat - were found to be 'not burdensome at all'. However, milestones reviews and audit checks and/or visits were found to be 'fairly burdensome' and 'very burdensome' respectively.

6.9   Communication and media image

Work package 3 of the project – addressed to the design of a communication plan - included communication activities as a structural part of the whole project. The project promoter has coordinated these activities while all partners contributed to their implementation. They have targeted different groups (e.g. citizens, agri-food community, young people, NEETs, women, people with a criminal record, etc.) considering the different dimensions included in the OpenAgri project.

OpenAgri operated a project website[152] to narrate the activities of OpenAgri widespread hub, activities of the partners as well as specific local support provided through the social lab network. Activities were also made visible through project partners' websites and social media. By the time of this evaluation, data on social media[153] show 1,247 followers on Facebook and 1,046 on Twitter. The project also relies on its own logo and *#MilanoUpsideDown* hashtag for communication purposes.

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[152] https://open-agri.it/openagri/
[153] accessed on July 31st, 2020.

Also, several 'activation events' were delivered as a crucial moment for engaging stakeholders, disseminate project results and best-practices as well as share strategies. Interviewees mostly cited the following ones:

- "Promised Land. The future of urban consumption", a two-day event (20-21 June 2019) to discuss future skills, new technologies, narratives and policies with which cities are imagining new relations between production, consumption and sustainability of their agri-food systems.[154] Five cities in the process of implementing 5 Urban Innovative Actions projects, Milan (OpenAgri), Madrid (Mares), Maribor (Urban Soil for Food), Pozzuoli (MAC) and Lille (Tast'in Fives) were invited to share the first results of their projects.

- "OpenAgri Artists-in-Residence": a project encompassing contemporary artistic languages (such as performance, public and participatory art) was selected through an open call for delivering a nine-week long residency, interacting creatively with UIA OpenAgri's partnership and activities. The performance was structured in three phases, each one lasting three weeks, and was hosted at a project partner's premises (Cascina Casottello).

6.10 European Added Value

According to interviewees, the OpenAgri project would have not been realised without EU funding. Milan city has many priorities on the agenda and the UIA project provided the opportunity to address many of these priorities in an integrated and structured way. Some project partners suggested that some social inclusion initiatives in the project's target area would have been implemented without the project, but not with the same relevance and strategic importance brought about by OpenAgri (e.g. focusing on green and sustainable topics).

There was no evidence from the survey on the benefits for the promoter from being part of an EU initiative. In this regard, during the interviews, the project promoter stressed that the Municipality gained experience of how to implement EU projects (e.g. application process, administrative procedures, etc.) as well as acquired a results-orientation approach (e.g. setting targets to achieve) in the implementation of a policy. As stated by the project promoter, "it forced us to establish a monitoring and evaluation system (including key performance indicators and results indicators) to ensure the measurement of impacts. Technical challenges were faced considering the different dimensions of the project; however, lessons were learnt for the future".

6.11 Complementarity with other EU programmes

The project is complementary to Milan's sustainable urban development strategy (SUDS) funded under ERDF Article 7.[155] Although not being directly funded by this strategy (since it is expected that MM will ensure its sustainability and scale-up), OpenAgri shows complementarities with this strategy in terms of objectives and geographical target (several projects are financed in the Corvetto-Chiaravalle district, which includes OpenAgri target area) particularly with Axes 3 Services for social inclusion and 4 Infrastructures for social inclusion but also Axis 2 Sustainability of public services and urban mobility (through the component of cargo bike included in the OpenAgri). The strategy is implemented by

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[154] https://economiaelavoro.comune.milano.it/news/promised-land-future-urban-consumption
[155] https://urban.jrc.ec.europa.eu/strat-board/#/factsheet?id=IT-060&fullscreen=yes
The amount made available for this strategy is about 38 million, which raises to 40.2 million if considering additional resources provide upon the achievement of objectives. For more details, https://www.comune.milano.it/aree-tematiche/quartieri/pon-metro-milano

many departments – entailing different activities and dimensions – including the department dealing with the implementation of OpenAgri.

In addition, OpenAgri shows synergies with the Horizon 2020 project 'Sharing the cities'[156], which focuses on energy redevelopment and sustainable mobility. In this project, the Municipality of Milan has implemented several regeneration interventions in the area targeted by the OpenAgri project (Chiaravalle-Vettabia Park). Also, one partner of OpenAgri contributed to developing e-bike logistic services (cargo bikes)[157] which were then proposed and implemented by OpenAgri.

In addition, OpenAgri has developed direct contacts with the following projects in the Milan area:

- Horizon 2020 REFLOW project, in which the Municipality of Milan is a partner, which applies the principles of the circular economy to cover municipal markets by relating them to the local peri-urban agricultural production also developed by OpenAgri.[158]

- At the regional level, the Interreg Europe P-IRIS project that enhances the restart of agricultural practices in difficult and marginal areas as a tool to start up local economies.[159]

- At the local level, OpenAgri is in synergy with the following projects 'Cammino dei Monaci', 'Strada delle Abbazie', 'Abbracciami' as well as other programmes co-financed by Cariplo Foundation which focus on the improvement of the south Milan periphery as well as on sustainable urban mobility of the area, etc.[160]

6.12 Lessons learned

The evidence gathered for this case study and findings presented above point to the following conclusions:

- Significant time and efforts are needed to build bridges across sectors and amongst partners of a different nature. However, a participatory and integrated approach is crucial for fostering a change.

- 3 years for the implementation of a project which includes the renovation of an old public building in a context of overloaded public administration and cumbersome legislative framework can be challenging. More time would have been needed in the case of OpenAgri.

- Tailored efforts are needed to raise awareness and involve the sectoral local community in cutting-edge initiatives. Compared to other traditional sectors (e.g. manufacturing), the agri-food community needs more stimulation as well as accompanying actions to develop an innovation.

- The OpenAgri project shows how an urban metabolism solution can be implemented in a city. The project looks from a systemic point of view at all the social, economic, territorial, ecological, resource, waste, etc. challenges that coexist in the target area. Results from the completion of this kind of project are likely to affect different dimensions: e.g. OpenAgri contributes to local food security, job and training opportunities, supports the development of a sustainable connection with nature and biological food production; activates challenges in food distribution via alternative local food retail and delivery systems.

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[156] http://www.sharingcities.eu/sharingcities/about
[157] http://www.poliedra.polimi.it/project/sharing-cities/
[158] https://reflowproject.eu/
[159] https://www.interregeurope.eu/p-iris/events/event/2672/study-visit-in-italy/
[160] https://lacittaintorno.fondazionecariplo.it/live/media/uploads/2019/11/Lacittaintorno_quaderno-Corvetto-Chiaravalle.pdf

- A place-based approach combining horizontal and vertical integration is a crucial element for the effective implementation of such a project.

- OpenAgri showed that the co-design approach was a critical element for the implementation of the experimentation laboratory. It allowed the tailoring of interventions provided by the different partners and affecting different dimensions of the project (e.g. training, urban renewal of the area, etc.) according to the needs of beneficiaries.

- Interdependencies amongst project activities and partners should be appropriately considered when designing this type of project, as well as contingency measures are foreseen. In OpenAgri, some project components (renovation of the infrastructure site) delayed the implementation of other project activities as well as forcing the need to look for alternative solutions (e.g. widespread hub).

- Strictly related to the previous lesson, a strong partnership coordination role (played by the project promoter) along with prompt responsiveness of the project partners to contingency measures is a crucial element in the implementation of this type of project.

- The communication strategy – based on events, meetings, workshops targeting different target groups – plays a key role in fostering a cultural shift. In the OpenAgri project, it showed that it is helpful to demonstrate the growth potential of an area, to shed light on new job opportunities and entrepreneurship pathways as well as raising awareness of new emerging challenges (e.g. food sustainability, security, etc.).

6.13 List of interviews

Organisation	Role in project	Date of interview
Comune di Milano	Promoter (Project Manager)	April (2020) 16/07/2020 23/07/2020*
Avanzi S.r.l.	Partner	16/07/2020
Food Partners S.r.l.	Partner	17/07/2020
Associazione Terzo Paesaggio/Davide Longoni S.r.l.	Beneficiary (start-up involved in 18*30 programme)	20/07/2020
IFOA	Partner	21/07/2020
La Strada	Partner	27/07/2020
FioreUrbano	Beneficiary (start-up involved in 18*30 programme and beneficiary of open badge)	27/07/2020
Cineca	Partner	30/07/2020

*email response to additional questions

6.14 Documentary sources consulted

Documents / websites / YouTubes
Documents
Milan Municipality and Cariplo Foundation, (December 2018), The Food System in Milan: Five priorities for a sustainable development, http://www.foodpolicymilano.org/wp-content/uploads/2015/04/Milan_food_system_EN1.pdf
Municipality of Milan (2015). Milan 2015-2020 Food Policy guidelines, http://mediagallery.comune.milano.it/cdm/objects/changeme:71638/datastreams/dataStream3943587268670669/content?1482924699146
Municipality of Milan (July 2018). PON Metro

Documents / websites / YouTubes
http://www.ponmetro.it/wp-content/uploads/2016/10/Piano-Operativo-MI_3luglio2018-1.pdf
https://sitmilano.maps.arcgis.com/apps/MapJournal/index.html?appid=d3015c1ae23a402daa0465511a66c195#
OpenAgri (March 2018). Zoom in: Experimentation Laboratory in Urban Agriculture, https://www.uia-initiative.eu/en/news/openagri-zoomin-indepth-look-experimentation-lab-urban-agriculture
OpenAgri (July 2019). Zoom in: Skills you don't expect! Open Badges for New Skills in Periurban Agriculture, https://www.uia-initiative.eu/sites/default/files/2019-10/OpenAgri_Zoom-in_Open_Badges.pub_.pdf
OpenAgri (March 2020). Zoom in: OpenAgri Participative Urban Metabolism, https://uia-initiative.eu/en/news/openagri-participative-urban-metabolism-zoom-3
Sousa, M., (December 2017). The OpenAgri Project, Journal N°1: Project led by the City of Milan, https://uia-initiative.eu/sites/default/files/2017-12/FINAL%20VERSION_Milan.pdf
Sousa, M., (June 2018). The OpenAgri Project, Journal N°2: Project led by the City of Milan, https://www.uia-initiative.eu/sites/default/files/2018-06/UIA01-378_OpenAgri_Milan_Miguel%20Sousa_Journal%202_June%202018.pdf
Sousa, M., (December 2018). The OpenAgri Project, Journal N°3: Project led by the City of Milan, https://www.uia-initiative.eu/sites/default/files/2019-02/Milan-OpenAgri-Journal%203_0.pdf
Sousa, M., (October 2019). The OpenAgri Project, Journal N°3: Project led by the City of Milan, https://www.uia-initiative.eu/sites/default/files/2020-03/Milan_OpenAgri_Journal.pdf
Additional internal documents provided by project's partners include: Milan circular economy, OpenAgri deliverable delayed because of the COVID-19, job shadowing programmes, Open Agri results indicators-Draft.

Website
https://open-agri.it/openagri/
https://bestr.it/project/show/97
https://www.comune.milano.it/aree-tematiche/quartieri/pon-metro-milano
https://www.fondazionepolitecnico.it/progetti/circular-economy/openagri/

Articles
https://it.businessinsider.com/pane-di-qualita-davide-longoni-o-la-resurrezione-del-panettiere-ma-4-0/
https://nova.ilsole24ore.com/progetti/laboratori-periurbani-aperti/?refresh_ce=1
https://www.valledeimonaci.org/il-social-lab-di-open-agri/

YouTube
Promised Land | The future of urban Consumption | Day 1
https://www.youtube.com/watch?v=yZubuWok2WU&list=PL5LCmU96Ntnf2fuogZ43EpPvaSn3LZCFr&index=2&t=14s
Promised Land | The future of urban Consumption | Day 2
https://www.youtube.com/watch?v=7DfUsCrXPH4&list=PL5LCmU96Ntnf2fuogZ43EpPvaSn3LZCFr&index=2
Promised Land | OpenAgri | Workshop 18x30 Lab
https://www.youtube.com/watch?v=8sppdxejcOE&list=PL5LCmU96Ntnf2fuogZ43EpPvaSn3LZCFr&index=3

7.   NEXTGEN MICROCITIES (VENTSPILS & VALMIERA, LATVIA)

7.1   Key project facts

NextGen Microcities	
Key facts	
Call	3
Acronym	NextGen MicroCities
Title	Next Generation Micro-Cities of Europe
Project Number	UIA03-250
Status	Ongoing
Duration	01/11/2018 - 31/10/2021
Topic	Jobs and skills in the local economy
Member State	Latvia
Number of partners	10
Main urban authority	Ventspils City Council (VCC)
Other partners	• Local public authority: Valmiera City Council • Higher education and research: Ventspils University of Applied Sciences • Higher education and research: Vidzeme University of Applied Sciences • Education/training centre and school: Valmiera Technical School • Education/training centre and school: Ventspils Vocational School • Business support organisation: Valmiera Development Agency • Business support organisation: Ventspils High Technology Park • Enterprise: Aspired Ltd • Enterprise: IntelliTech Ltd
Budget	
ERDF	€4,997m
Public co-financing	€1,144m
Private co-financing	€0,105m
Total	€6,246 m

7.2   The city

Ventspils (population of 34,377 in 2019) and Valmiera (population of 23,125 in 2019) are micro-cities in Latvia, a country in North East Europe. The country has a total 1,9 million inhabitants.[161] The country has experienced severe outward migration of its educated citizens. From 2000 to 2010, more than 220,000 people emigrated from Latvia and on average 38% were aged between 20 to 29 years; around half of these had higher education. Those leaving are mainly people whose skills and professions are in high demand in Latvia, including IT specialists, engineers and medical professionals. The government is spending considerable resources to train and retain as many such professionals as possible.[162]

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[161] Latvia Central Statistical Bureau, Number of population in Cities and Counties
[162] https://eng.lsm.lv/article/society/education/study-says-latvias-brain-drain-at-100000-people-since-2000.a264459/

The national rate of unemployment was 8.4% in early 2020, with the rate among young people aged 15-24 years standing at 13.5%. Today, partly because of financial insecurity, the population is in decline as well as ageing, causing significant problems for local economic development of these micro-cities.[163]

7.3   Rationale for the project

Ventspils and Valmiera each year shrink by an average of 0.6% due to emigration of the most skilled workers, to the capital or abroad. This causes an additional burden on local development, as enterprises face a diminishing skilled workforce, especially in ICT and other technical sectors. As the skills gap widens and the pressure on employers to retain their top performing workers is growing, the local authorities need to take action to prevent and reverse migration of skilled people. The cities lack comprehensive career development support for pupils, students and adults and few young people choose careers in science, technology, engineering or mathematics (STEM). Vocational schools and universities do not always keep up with the rapid changes in the labour market. Furthermore, the public sector lacks innovative marketing approaches to attract local and foreign direct investment, especially in technical sectors.

Therefore, the project focuses on both the supply and demand side of the job market, by developing job creation and business development strategies while strengthening innovative skills development approaches. To address the ageing population, brain-drain and population decline particularly outside large European cities, the project will test new solutions to develop a next generation economy in European micro-cities.

The ICT sector is particularly strategic for Ventspils as it is known that ICTs can build the local economy but also prepare the next generation with 'future skills'. It is an important sector to transform teaching and learning from being teacher dominated to student centred. This is linked to the focus on Education Technologies (EdTech) which will foster transformation that will result in increased learning improvements for students, developing learners' creativity, problem-solving abilities, informational reasoning skills, communication skills, and other higher-order thinking and ICT skills.

7.4   Objectives and intended effects

The main objective of the project is to grow the local economy of Ventspils and Valmiera micro-cities by increasing the capacity and skills of the workforce and by providing favourable preconditions for business development and job creation.

The project will develop, test and apply new, unproven solutions to:

- ensure inclusive and sustainable growth of the local economy by developing and implementing new career guidance and talent attraction methodology;
- increase capacity and skills in the local economy through innovation and technological capacity in education institutions and business sector;
- foster innovations through Education Technologies (EdTech) and digital technologies;
- support and develop the entrepreneurship ecosystem creating new jobs and new workplaces;
- establish a next generation micro-city network at national and international level.

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[163] https://www.bbc.co.uk/news/world-europe-10913098

The main intended effects are:

- An increase in the number of high-level specialists (100) in the ICT sector in Ventspils City, with a corresponding increase in the number of students in IT faculties (14% increase) and lifelong learning programs (68% increase).

- Increase in the use of EdTech in education settings through educating academics in its use.

- New and innovative EdTech products will be developed and tested, increasing foreign investment and generating employment.

- New jobs (273) and workplaces (80) created, 100 people retrained to work in high demand industries, from which 50 are currently unemployed.

- Development of new businesses (20) and the development of existing businesses (30).

- Ventspils and Valmiera recognised by fDi's European Cities and Regions of the Future.[164]

- Development of a transferrable model for other micro-cities in Europe.

7.5   Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured public funding of €1.144m to be provided by eight of the ten partners. The main funders are Ventspils City Council, Ventspils High Technology Park (VHTP), Ventspils University of Applied Sciences (VeUAS). The budgeted private funding of €105,000 was to be provided by the two enterprise partners: Aspired Ltd and IntelliTech Ltd. During the interviews there was no indication of other in-kind support, provision of assets, expertise provided by the partners, outside of those detailed in the application.

7.6   Innovation process

7.6.1   Knowledge informing the innovations

The project conducted a benchmarking exercise in the project design phase. It was found that a similar project has never been implemented in the EU or other countries related to the EdTech innovations, Foreign Direct Investment (FDI) and The Ten Type Innovation Framework (TTIF) in the same context. The application states that most of the innovations developed and tested in the project are entirely new and there was no evidence found of similar approaches. However, the career guidance and talent attraction to the micro-cities is based on the "Gatsby Foundation" good career support principles for education.[165] These have never been pioneered outside the UK or adapted for public sector use.

Some feasibility and market research were conducted in the early stages of the project. For instance, research was conducted by Civitta Latvia into the Generation Marketing strategies for tertiary education institutions to overcome the challenges of attracting next generation students. The research identified habits and opinions of the target audiences regarding continuing education and access to information. In-depth market research, analysis of high-performing EdTech solutions and active learning classroom methodologies and user-need research has taken place to support the development of the EdTech factory and associated digital products. An experience exchange visit took place in the Netherlands, with visits to universities in Amsterdam, Utrecht, and Eindhoven to share

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[164] fDi is a European investment promotion and economic development solutions agency: https://www.fdiintelligence.com/
[165] Gatsby Foundation Benchmarks of Best practice can be found here: https://complete-careers.com/gatsby-benchmarks/

their current conclusions about the newest Active Learning Classroom (ALC) supporting technologies.[166]

Members of the team from Ventspils High Technology Park visited maker-spaces in Estonia, Latvia, Norway, Portugal and Sweden to explore good practice elsewhere before the project commenced, as well as working closely with EdTech providers around the world to learn more.[167]

7.6.2 Experimentation

The project aims to develop and test new innovations to create an enabling environment for skills development, business start-up and development, and job creation in micro-city settings. The project aims to develop a sustainable model which can be continuously adapted to ensure a thriving local economy, society and environment in micro-city contexts. The project is implemented through the following Work Packages (WPs):

- WP4: Career Guidance and Talent Attraction;
- WP5: Innovative Education Technologies (EdTech) and 21st Century Skills;
- WP6: New Solutions for Job Creation;
- WP7: Investments for 21st Century Skills and Jobs (not detailed in this report).

WP4: Career Guidance and Talent Attraction

The main premise of this Work Package is to attract school students and leavers to STEM and ICT careers, and to take up post-school courses in these core subjects at the technical schools in Ventspils and Valmiera. In Valmiera (run by the City Council), this takes the form of summer camps for groups of students to introduce concepts such as Robotics and STEM subjects. The aim is to increase the number of students enrolling in STEM subjects in further education by 60-70%. In Valmiera, the aim was to conduct 150-200 career guidance sessions by the end of 2019, with 23 of these being done by September 2019.

The main innovative feature of the Work Package is the Future Career Office online platform for Ventspils which supports those who are moving to, or moving back to, the city, to find a range of services to support their transition including job and study opportunities. The idea is that this will make the transition easier and act as a marketing tool to attract talent to the city. One participant who returned to Ventspils from Norway had a positive experience of working with the project: "I attended one event organised for the new inhabitants of Ventspils. There, I learnt more information about the support available and heard stories of others who have moved to Ventspils from other towns".

The Generation Marketing strategies is a portfolio of marketing solutions (website, social media, webinars, online open days, email newsletters) encouraging young people to enrol at the education institutions in the project. These have been developed and are being implemented by the four education providers involved in the project to help attract more people onto STEM and ICT courses within technical and vocational school. In addition, the project has worked to develop Massive Open Online courses (MOOCs) to ensure that STEM and ICT courses are accessible in various formats.

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[166] UIA Annual Progress Report submitted October 2019
[167] Interview with Ventspils High Technology Park

WP5: Innovative Education Technologies (EdTech) and 21ˢᵗ Century Skills

The EdTech factory component of the project aims to test and develop new EdTech features and to bring this into secondary and tertiary learning spaces. This will develop in-demand skills from a young age and encourage further learning and talent creation in these key areas. The project began by exploring best practice case studies of EdTech solutions from 30 other identified international models, including those in the Netherlands, which were visited as part of the feasibility process.

A Smart Tech Gallery (which forms part of the Ventspils City Development Program) has been developed at the Science and Innovation Centre in central Ventspils and is a temporary measure facilitating EdTech solutions testing while the EdTEch factory is being developed. Interactive digital classes have commenced for school-age children in Chemistry, Maths and Physics, alongside the implementation of Active Learning Classrooms with Virtual Reality/Augmented Reality solutions. The pilot course in IT at tertiary level was due to commence in the second half of 2020. This WP contains a Smart School teacher training component involving manuals and training programmes for teachers in the techniques needed to employ EdTech in the classroom, with an evaluation and data collection element to support the development of a model.

WP6: New Solutions for Job Creation

The project is testing several processes for generating new workspaces and creating new jobs. The project has opened one Makerspace in the city of Valmiera with another due to open in Ventspils by the end of 2020. The centres will allow start-up entrepreneurs to test innovations and support them in developing prototypes and taking these to market. In addition, the project is conducting re-training for people who would like to enter an ICT career. So far, the project has trained 23 people with 9 people accessing employment in these careers. This Work Package also aims to support foreign direct investment into the cities by incentivising new businesses to locate there.

7.6.3 Achievements against project targets

According to the most recent progress report (to October 2019), the main outputs of the project include the following:

Project outputs: WP4 Career Guidance and Talent Attraction	
Target (application)	**Achieved to date**
Career Guidance and Talent Attraction Strategy for the next generation European Micro-Cities	• 23 individual career guidance consultations took place in 2019.
Internet Platform "Future Career Office" for the next generation European Micro-Cities 1	• Procurement of provider successful. Work began in October 2019. Beginning to test platform July 2020.
Generation Marketing Strategy recommendations for the next generation educational institutions in the Micro-Cities	• Four education partners have developed marketing strategies and plans.

Ventspils has created an online Future Careers Office platform which allows people who want to move to the city to find a range of relevant opportunities and connect with possible employers. It also supports employers to find new employees. In Valmiera, the onus is on getting more students to take up STEM subjects with the aim of increasing this by 60-70%. Seven companies in Valmiera implemented Summer STEM employment and internship programmes. The first STEM skills training was provided with 52 students enrolled. Thirty school pupils attended career summer camps with a focus on robotics. A

second camp took place from 10-14 August 2020 with 30 pupils attending, building on the results of the previous camp. The planned programme of the camp was fully implemented, providing the participants of the camp with an opportunity to get acquainted with professions in various fields and develop new skills for future career development. Two practical workshops for Valmiera schoolteachers and career project specialists in Valmiera's comprehensive schools have also taken place. These activities have the strategic impact of encouraging a stream of new or returning inhabitants to the city and encouraging them to take up careers in high demand areas in the city.

Project outputs: WP5 Innovative Education Technologies (EdTech) and 21st Century Skills	
Target (application)	Achieved to date
EdTech Factory - Digital innovation hub in education	• Temporarily using the Smart Tech Gallery in Ventspils as the EdTech space. Testing underway for digital classes in chemistry, maths, physics for secondary school children. • EdTech factory building has been identified and work is under way to make the space fit for purpose.
5 Innovative EdTech solutions for the tertiary education	• Two seminars for IT programme trainers, with 18 and 14 participants, respectively. • Interactive digital classes have opened. • 5 Active Learning Classroom (ALC) courses have been identified and developed. The IT programme in English will be ALC pilot course launched in September 2020. • 3D Virtual CAVE integration was not able to take place due to COVID 19.
Smart School Teaching Aids for next generation educators and develop Smart School concept	• EdTech audit for the primary and academic secondary level schools complete. • Work has begun on developing manuals and to train teachers in the use of EdTech. • Data gathered to evaluate the process and develop the model.

The EdTech component aims to create a digital innovation hub consisting of five services: i) increasing awareness of EdTech; ii) providing infrastructure for research and development; iii) developing a prototype lab developed through makerspace (WP6); iv) implementing research and pilot projects; and v) providing a demonstration space for EdTech solutions. The process involves teaching pupils in Latvia's general education system future skills in an interactive and interesting way. The project provides the design, furniture, equipment and methodology for using EdTech in schools as a component of the National Centre for Education Skola2030 initiative.[168]

The project is testing 'Future Classes' (digital classes) in maths, chemistry and physics for general education schools in Ventspils with the aim of rolling this out to schools in Latvia as part of the Skola2030 programme. Alongside this, the project has also rolled out digital

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[168] Interview with Ventspils High Technology Park

solutions in tertiary settings and has started the work to train teachers in the use of EdTech.

Project outputs: WP6 New Solutions for Job Creation	
Target (application)	**Achieved to date**
2 operational and economically sustainable Makerspaces model	• DARE Makerspace opened in Valmiera Design and Art School in January 2020; another will open in Ventspils in 2021.
Job creation concept for next generation Micro-Cities	• Offer people in mid-late stages of their careers the opportunity to re-train in ICT jobs for which there are vacancies.
	• Retraining pilot programme for ICT job creation in Ventspils: 2 retraining courses were held, 23 individuals participated, 9 of whom have started working in the ICT sector.
	• Database and marketing plan developed to attract new business to the city. Foreign Direct Investment strategy using design thinking. 11 meetings held with partners who work with FDI in Ventspils.
	• Seminars held with other cities to support development of FDI strategy.
A fully fledged innovation support programme for business support & recommendations	• Open calls for innovation projects by entrepreneurs and enterprises: 12 applications received, 6 of which have been granted funding. Designed to develop and improve entrepreneurship.

Makerspaces are critical parts of the project in both cities. They act as a space to test new business ideas, receive support, develop minimum viable products and go to market.[169] They are part of testing and defining an operational and economically sustainable model for such spaces.[170] The DARE makerspace has two functions: a Greenhouse room and a Garage room. The Greenhouse room supports product and prototype development and product photography, and the Garage room supports graphic and design experiments. The interviewee from the Ventspils High Technology Park noted that the small size of the cities can result in a lack of sufficient users of the spaces to make them viable. A self-sustainable financing model to attract foreign direct investment and new businesses into the city is being developed to support a thriving, sustainable makerspace model.

The job creation concept is centred around the retraining of people in existing careers towards jobs in ICT, as well as creating those vacancies by working with employers. The project works with employers and potential employers to make suitable job matches and provide the necessary training. Furthermore, the FDI component involves developing an FDI marketing plan and strategy, identifying development opportunities for attracting foreign direct investments, contacting potential investors and conducting training of key staff to deliver the FDI strategy.

7.6.4 Sustainability and scaling-up of the project at local level

The application form expected that EdTech will be brought into one of the key smart specialisation areas of the city, promoting the EdTech Factory into a Multifunctional

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[169] Interview with project manager
[170] NextGen Microcities opens DARE, the makerspace for creative ideas and new opportunities

Innovation Centre for EdTech. The project also planned to mainstream EdTech within general education (primary, secondary, high school) and informal education areas. The urban municipality was expected to continue to drive forward attracting new businesses in the private sector, as well as the employment and skills development drive. Ongoing political support is ensured through close alignment with local development planning for 2030.

The project's involvement in large networks such as Digital City Challenge, UNESCO Institute for Lifelong Learning, European TEN-T transport core network and others are expected to promote the scale up and transfer of results. The survey responses, however, stated that it was "too early to say" whether activities will be scaled up and where this would happen. Some suggestions for possible funding was stated but nothing has been secured as yet, and there was no indicative budget. The interviewee from the Ventspils High Technology Park mentioned the alignment with the National Centre for Education's Skola2030 strategy and that the project planned to integrate EdTech outcomes, specifically Future Classes (digital classroom technology), into this policy framework to support sustainability and scale up. The focus of the project on Foreign Direct Investment and attracting new business also supports the sustainability of the project and its impact on the local economy.

7.6.5 Transfer and replication of the project elsewhere in Europe

The application form states that all innovative project components will be developed to be replicable and transferrable and will provide clear methodologies for guiding other urban authorities in this process. The Career Guidance and Qualified Specialists attraction methodology, Generational Marketing manual for education can be transferred to other contexts, as well as the online "Future Career Platform" which will be promoted widely to other micro-cities. The EdTech Factory – innovative Digital Innovation Hub concept and development strategy and the Smart School concept methodology are also replicable. The Ed Tech Factory will act as a space to share and disseminate knowledge about innovations. The generalised Job Creation Strategy in micro-cities, elaborating on business support and FDI attraction measures, and a report with guidelines on using maker-spaces for next generation workplaces are tools which support replication.

The sharing of solutions in other EU micro-cities will be facilitated through networks such as URBACT, Digital Cities Challenge, UNESCO Global Network of Learning Cities, Digital Innovations Hubs, Tech Town, BUP and others. International innovation experts on the established Steering Committee will be engaged to spread outputs Europe-wide.

The project's survey response stated that any interested city could replicate the results. However, no response was given on the plan for knowledge transfer or how far the plan been implemented. Interviews with the project manager and partners also confirmed that few plans for knowledge transfer have been developed yet. However, it was mentioned by the project manager that knowledge transfer would first take place in Latvia through teaching and training, and that the UIA Expert has been helpful in supporting knowledge dissemination outside Latvia through URBACT and Interreg Europe.

7.6.6 Summary of key outputs and results (according to study typology)

Key outputs and results (related to case study activities)	
Outputs	
New services, products, processes	• "Future Career Office" online platform
	• Generation Marketing Strategy and Plans
	• EdTech factory innovative Digital Innovation Hub concept containing Alternative Learning Classrooms, VR/AR technology

Key outputs and results (related to case study activities)	
	• Smart School teacher training resources and programme model
	• Functioning Makerspaces offering support and testing facility for new business ideas.
	• Career Guidance and Qualified Specialists Attraction methodology
Partnerships created	• New partnerships between enterprise and education providers e.g. Aspired Ltd and Ventspils High Technology Park (VHTP) in development of EdTech factory
	• Learning partnerships between Ventspils and Valmiera City Councils.
Experience gained	• Working with a range of partners to integrate demand and supply side innovations for the local labour market
Knowledge produced	• Better understanding of talent attraction systems
	• Better integration of EdTech into schools and tertiary institutions
	• Better understanding of integration of EdTech job creation, talent attraction, business support as a means to promote local economies.
Results: local level	
Identifiable effect on urban issues faced at local level	• No tangible effects have been observed yet.
Sustainability of partnership working	• No evidence yet.
Innovations scaled up	• No innovations have been scaled up yet.

7.7   Project implementation

According to the survey, the project is being implemented mostly according to plan with no major changes. It is too early to say whether the project will be completed on time. The survey also stated that the impact of COVID-19, difficult procurement processes and staff turnover caused challenges which could affect the timely delivery of the project.

Some events, such as vocational school open days, had to be cancelled due to the COVID-19 lockdown and delays in procurement have led to additional time being added to service contracts. The interactive digital classroom component was impacted by frequent turnover of staff, including the Dean of IT, which caused a loss of institutional knowledge. High demand for IT specialists has caused difficulties in recruiting people to the project with the required levels of skills and experience. Difficulty also arose in being able to find people with the required level of technical skill necessary to facilitate procurement within the project.

7.8   UIA flexibility and administrative requirements

The project manager was satisfied with design of the UIA instrument and the associated administrative requirements which they did not find burdensome at all. The administrative

burden in the initiation phase was described as "slightly excessive" in the survey. The ex-ante audit was described as the most burdensome aspect of the initiation phase.

The response to the on-line survey described all aspects (simplified rules on State Aids, 20% budget flexibility, possibility to make project changes, simplified cost options (flat rates, lump sums) for certain categories of expenditure" as "very helpful". Similarly, assistance from the Secretariat was confirmed as "very helpful", whilst support from the UIA Expert and networking with other UIA projects was described as "fairly helpful". The UIA Experts and the monitoring from UIA Secretariat was described as "very helpful"; networking and contact UIA project was described as "fairy helpful".

The project promoter expressed the opinion that the application process was "fairly straightforward, nothing incomprehensible, guidelines were helpful". She described the UIA Secretariat as "very supportive, they did an excellent job – easy to work with them, really amazed…we were the first one in the Baltic states". The only changes to the project were changes to dates of events and deadlines due to various unavoidable delays largely in procurement processes; there were no major changes to the project it itself.

7.9   Communication and media image

Work Package 3 is dedicated to communication with the Valmiera Development Agency taking full responsibility for activities and outcomes. The project application described a public relations kick-off event informing stakeholders and target groups about upcoming activities, events and outcomes for WP4, WP5 and WP6. The project planned to make use of project partners' websites and social media accounts as well as digital communication (including web publications in local, national media, social media, and infographics, fact sheets etc). Project results were to be disseminated through public workshops, public third-party conferences, demo days and a final conference.

Interviews with project partners revealed that a range of platforms were used depending on the target group: Meet-up was a platform used to engage educators, and social media (Facebook and Twitter) was used to reach the 13-16 year target group. The lifelong learning target group (aged 30-50 years) was targeted through social as well as traditional media and radio. LinkedIn has been used to reach potential Foreign Direct Investors for research and communication. Direct communication with companies for activities such as ICT retraining has also taken place alongside use of job marketing websites.[171]

The opening of the DARE makerspace in Valmiera was covered in several Latvian online media.[172] A number of videos were also created and it has its own dedicated Facebook page with 457 followers and a landing page on the website of the Valmiera Development Agency.[173]

The interviewee from the Valmiera Development Agency said that there is a detailed communication plan, with each project partner having a dedicated communications person. Partners also develop articles about their part of the project on their own websites. A separate communications group consisting of these representatives was set up, with regular reporting back. The UIA webpage has eight blog posts about the project.

With regard to the dissemination of project results, the interviewee responsible for communications said: "We are planning to use more actively also other information channels (URBAN, URBACT, Cities4CSR, EU CITY Networks, Networks on local

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[171] Interview with Ventspils Vocational School and Ventspils High Technology Park
[172] https://www.lsm.lv/raksts/kultura/kulturtelpa/valmiera-durvis-verusi-koprades-darbnica-dare.a350586/
https://www.valmieraszinas.lv/foto-svinigi-atklata-valmieras-koprades-darbnica-dare/
http://www.retv.lv/2020/03/03/valmiera-atklata-koprades-darbnica-dare/
[173] http://developvalmiera.lv/koprades-darbnica-
dare/?fbclid=IwAR3On4C0zKCu_4Uzinv8vIWeb0rKFt10rhyyaqHEYO1ICZpM_SEmQl863MA

municipalities NGOs etc.). There will also be participation in international events related to urban planning and micro-cities management in 2021 when the results of the project will be available".

More than 107 online posts have been created on partners' social media accounts about project activities (45 were originally planned in the project). There have been 51 web publications in mass media to date. Two project newsletters have been sent out to more than 800 interested contacts.

7.10 European Added Value

The project manager interview revealed that some of the activities included in the UIA project would not have been implemented without the funding, especially the development and testing of new approaches, and gaining and sharing new knowledge. The project is the first of its kind in the Baltic states. This was considered to be the primary added value of the funding.

The UIA project has helped to leverage additional funding, allowing activities to be broader, facilitate wider marketing activities and involve more stakeholders. The project has enabled visits to the Cities Forum and participation in several URBACT events to exchange knowledge. However, the extent to which these opportunities are harnessed has been down to the individual organisation and there has not been any direct support from the UIA to facilitate these knowledge-sharing activities to date.

7.11 Complementarity with other EU programmes

The Ventspils sustainable urban development (SUD) strategy covers the period from 2015-2030 and the Ventspils City Development Program runs from 2014-2020 and forms part of the SUD strategy. The SUD strategy has a total ESIF contribution of €25.4m. Growth and employment, and jobs and skills are key topics within this. The SUD strategy has similar key topics to the Micro-Cities project including TO3 (Competitiveness of SMEs), TO10 (Vocational Education and Training). The UIA project promoter reported that the only link to the UIA project was the use of the Smart Technology Gallery as a temporary location for the EdTech Factory for Ventspils.

In Valmiera, the City Sustainable Development Strategy covers 2015-2030 and includes the Valmiera City Development Programme for 2015-2020 (the topics covered in Ventspils are also included in this programme). The programme has a total ESIF contribution of €21.1m. The programme aims to modernise the infrastructure of Valmiera's Technical College, as part of a €104m ERDF investment (made from 2007-2013). One initiative that links to the NextGen Project included a new metalworking laboratory building in the DARE makerspace, in the Valmiera Technical School.[174]

7.12 Lessons learned

The following lessons were observed in the project reports and in interviews with the project promoter and other project partners:

- The project promotor noted that effective communication and engagement with a diverse range of stakeholders is critically important in a project such as this because of the ecosystem of local economic development. Solving complex problems require collaboration from a range of political, social, economic and education leaders and stakeholders.

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[174] https://uia-initiative.eu/en/news/nextgen-microcities-opens-dare-makerspace-creative-ideas-and-new-opportunities

- Interviews with the Vocational School and High Technology Park in Ventspils revealed the challenge of working on an ambitious innovation project within the boundaries of a local administration, as the speed required to react to ever-changing environments does not always happen in public institutions.

- The above project partners also noted the need to innovate constantly in the EdTech, ICT and STEM fields. The next generation require ever increasing levels of innovation to attract them into these spaces. The cities need to stay "ahead of the curve" with technology to consistently attract the best talent into the city.

- The next generation marketing activities within the project have identified the need to address the continued stigma around vocational education. There is a need to change people's mindsets so they see it as a viable route into the productive labour market.

7.13 List of interviews

Organisation	Role in project	Date of interview
Ventspils City Council Department of Economics	Project Manager	15/07/20
Ventspils High Technology Park	WP 5 and 6	22/07/20
Ventspils Vocational School	WP 4 and 5	22/07/20
Valmiera Development Agency	Communication / DARE Makerspace	Email communication
Individual service user	Participant of Ventspils new resident service	Email communication

7.14 Documentary sources consulted

Documents / websites / YouTubes
UIA Annual Progress Report (October 2019)
NextGen Microcities opens DARE, the makerspace for creative ideas and new opportunities
UIA Milestone Review - April 2020
Latvian Public Media – Co-creation workshop DARE opens doors in Valmiera
Fabio Sgaragli UIA Expert (Jan 2020) NextGen MicroCities Project Journal #1

ENERGY TRANSITION

8. FED (GOTHENBURG, SWEDEN)

8.1 Key project facts

FED project	
Key facts	
Call	1
Acronym	FED
Title	Fossil Free Energy Districts
Project Number	UIA01-209
Status	Complete
Duration	01/11/2016 - 31/10/2019
Topic	Energy transition
Member State	Sweden
Number of partners	9
Main urban authority	Gothenburg City Council
Other partners	• Higher education and research: Chalmers • Higher education and research: RISE Research Institutes of Sweden AB • Enterprise: Gothenburg Energi AB • Enterprise: Business Region Göteborg AB • Enterprise: Chalmersfastigheter AB • Enterprise: Ericsson AB • Other: Johanneberg Science Park AB • Other: Akademiska Hus AB
Budget	
ERDF	€4.65m
Public co-financing	€0.399m
Private co-financing	€0.764m
Total	€5.818m

8.2 The city

The city of Gothenburg is the second-largest city in Sweden, with a population of approximately 570,000 in the city proper and about 1 million inhabitants in the metropolitan area. In the energy area, the City of Gothenburg's ambition is to further strengthen its position as a spearhead within smart integrated energy systems globally. To meet its challenges Gothenburg combines earlier initiatives with new technologies. District heating was first introduced in the 1950s and today, approximately 90% of all buildings in Gothenburg are connected to the system. Approximately 80% of the hot water is surplus heat, originating from various industrial activities such as waste incineration, oil refining and electricity production. Around 15% is based on renewable sources. In the summertime, when the demand for district heating is low, Göteborg Energi produces and sells District Cooling, based on the surplus heat.

The project's target area is located at the campus of the Chalmers University of Technology with about 15,000 end-users. It has a well-balanced set of property owners, energy infrastructure, and users, including prosumers (who both produce and consume energy) as well as buildings with different needs and usage profiles. The area is exempted from the law of concession for electricity distribution, providing the opportunity to test and validate a local energy market. The Chalmers campus is a unique testbed in that it has a power plant that can burn fossil fuels or biomass on-site and produce electricity and heating from these fuels. Additionally, there is a district heating and cooling network and a large potential for the campus buildings to generate solar electricity.

8.3   Rationale for the project

Cities like Gothenburg face a number of global energy challenges. Global warming has made a transition from fossil-based to renewable energy sources urgent. At the same time, the power demand is increasing due to, for example, electrification of transport and industry as well as high construction rates in growing cities. In addition, there is the challenge of increased market fluctuations brought on by a higher share of renewable energy. The solution proposed by the Fossil-free Energy District project (FED) is multi-faceted since, in their view, there is no single solution to solve all these challenges at once. The proposed solution includes increased investments in renewable production, different energy storage solutions and local market solutions that optimise the local energy consumption and productions while staying connected to the overlaying system.

The FED project connects the buildings on the Chalmers' campus to a digital marketplace, the FED system is programmed to independently manage a constantly ongoing trade between buildings that can both consume, produce and store energy. The system continuously gets external input such as weather forecasts and electricity prices and it is also connected to the surrounding energy grid.

In this way, the system can control energy consumption, for example, by heating a building a few hours before the weather turns cold, and ensure that locally-produced, renewable energy is used efficiently within the area. Hence, power-intensive peaks are avoided, and imports of fossil-based energy can be reduced.

8.4   Objectives and intended effects

The overall aim of the project was to support smart cities in their transition to fossil-free economies. The project proposed a grid-connected local energy system with demand and supply in balance, integrating electricity, heating and cooling and a local energy market and trading system functioning in symbiosis with the existing energy markets with the ambition of introducing environmental improvements, creating new business and improving social conditions.

The objectives were as follows:

Energy system:

- Develop and demonstrate a microgrid, in full scale, serving approx. 15,000 end users;
- Decrease fossil energy peaks by 80%;
- Decrease energy imported to the microgrid by 30%;
- Develop and demonstrate, in full scale, an ICT service supporting future volatile energy markets.

Sustainable business and growth:

- Develop and operate an ICT-system for local energy trading, i.e. the technical backbone of a local marketplace co-operating with existing energy markets.
- Develop, demonstrate and evaluate a new local energy marketplace, with at least 10,000 business transactions.
- Develop, test and evaluate new local market business models for 1) real-estate owners 2) utility companies and 3) end-users.
- Develop additional innovative services through collaboration friendly 3rd party interaction activities.

Replication:

- Implement successful solutions from the microgrid in large-scale refurbishment and new city districts in Gothenburg;

- Map the European market relevant for local energy solutions;

- Present the FED solution to at least 50 European cities;

- Become a demonstration site for smart microgrids. At least 100 external delegation visits, and displays at least 3 large conferences.

The main intended effects were:

- 100% fossil free local energy production;

- 80% less fossil energy peaks exported (i.e. energy peaks from the microgrid causing external use of fossil energy);

- 30% less energy imported from the overlying system (as an effect of increased internal use of recycled energy, efficiency, and local generation);

- New business and revenues for real-estate owners and users, utility companies and 3rd party suppliers;

- Creation of cost-effective energy improvement solutions, thus avoiding higher rental cost for economically disadvantaged citizens (e.g. the students in the FED demonstration area).

8.5 Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured public funding of €399,000 to be provided by enterprises relating to energy supply or real estate and the Gothenburg City Council. The budgeted private funding of €764,000 was to be provided by public-private companies (Johanneberg Science Park and by Akademiska HUS).

As well as the financial inputs, the partnership also brought considerable local influence, as it included an energy company and two real estate enterprises that could learn from each other. Moreover, the university and research centres offered knowledge of the project to students who are using the project's learning in their thesis.

8.6 Innovation process

8.6.1 Knowledge informing the innovations

As single components, the technologies in FED and their reliability are well documented. The innovation of FED consists of a system of different energy systems autonomously co-operating. During the application process, all the partners applied their different technical knowledge and experience to the different components of the proposed solution such as buildings, technology or energy, to interrelate them in the proposed solution. For instance, Ericsson (the programmers of the ICT-solution) benefited from the knowledge of the partner that operates the power station, to understand how a power station works.

One of the main technologies used in the proposed solution is the microgrid. Prior to the application, the project partnership studied other international projects using this element of the proposed solution. Several microgrid projects were studied, such as Biotope which is a project funded by Horizon 2020, led by Aalto University in Finland; the state-of-the-art power microgrids programmes run by the city of Eindhoven in the Netherland, with a focus on electric power only compared to FED's integrated approach; and the 'Vertical Building-City Hall', in the city of Rotterdam programme, which was the most advanced energy system developed using a similar technical approach to FED. However, the

Rotterdam project is only integrated in a single building. FED, on the contrary, integrates for the first time several energy systems and support systems on a city district scale (15,000 people).

8.6.2 Experimentation

The main innovation of FED is connecting cooling, heating and electricity into a single system. FED is a demonstrative project testing a local digital marketplace that combines, for the first time, the three energy carriers: electricity, heating, and cooling.

In the first step, the existing **energy system** of the campus was supplemented with additional solar PVs, heat pumps and energy storage. The second step involved the real innovation of the project which was to connect the energy system to the **local energy market,** the fully automated ICT-solution developed by Ericsson (one of the partners). The electricity market is made up of various submarkets with their own price signals, which producers and consumers use to base their planning on. Transmission system operators use balancing capacity to correct unpredictable deviations from these plans. The balancing group and balancing energy system ensure that supply and demand is employed as cost effectively as possible. The electricity market thus rewards output and capacity. The FED´s local energy market is built on the Ericsson IoT Accelerator platform, which ensures that every hour the supply and demand are balanced with the use of Artificial Intelligence agents that represent every market participant. The AI-agents trade energy on behalf of the different market actors optimising the overall cost but can also consider CO_2 emissions and/or primary energy.

Within the Work Packages (WPs) that involved the implementation of the core innovation (WPs 4, 5, 6 & 7) the project tested different solutions for different issues and challenges:

- **Adaptation to renewable energy systems**. Since renewable energy depends on climate conditions, FED tested the use of weather forecasts and prognoses for energy use to adapt to renewable energy systems. The digital system used in FED manages a large supply of volatile power optimising the use of renewables. This system was designed to optimise energy consumption schedules in buildings, considering possibilities of energy exchanges between buildings, storage, and fossil free local energy production.

- **Avoid fossil peaks in the city's networks**. To avoid fossil peaks in the city's networks, the FED local energy system is connected to, and dependent on, the electricity grid and Gothenburg's district heating network. By optimising the use of energy storage in the FED energy system, batteries, thermal inertia in buildings and cooling storage using phase changing material, the import of energy from the city grids can be lowered and more balanced.

- **Remedy power shortage** occasioned by the increasing demand (due to factors such as electrification in the transport sector, and in industry). FED proposed an alternative to building new expensive and time-consuming power lines from centralised electricity generation; a local energy system with its own power generation and balanced with a FED ICT solution and marketplace could offer a flexible solution to meet these challenges.

- **Grid stability as a service**. The FED solution had to consider that a higher input of renewable power risks jeopardising frequency and voltage stability in the networks. Based on the batteries and turbine available, as well as reactive power from solar PVs, FED has the potential to offer energy services to compensate for this.

- **Collaboration between multiple energy carriers.** Flexibility in the sense of lower dependence on one certain energy carrier can be utilised and managed in a system like FED. The project has proven that a system can automatically switch between energy carriers, dependent on availability, which is mirrored in the price signals.

Electrically driven heat pumps can be used for heating or cooling purposes when there is a lot of wind or solar power available, either from internal sources or external from the grid. The biofuel boiler or district heating from the external grids can be used when electricity prices are high.

- **Local waste heat recovery.** Local excess heat from cooling of houses and server halls can be recovered by means of heat pumps and district heating systems with a lower temperature than normal; 70°C in FED's case. FED uses several so-called cooling heat pumps for this purpose and its ICT solution facilitates trade in local waste heat.

8.6.3 Achievements against project targets

With regard to the innovations considered by this case study, some of the main outputs, according to the project's own monitoring and the local evaluation of the FED project and compared to the original applications include the following.

Project outputs:	
Target (application)	**Achieved to date**
FED system version 2.0 and control fully integrated and operational	• Achieved
A high performance and optimised technical FED system	• Achieved
FED local energy trading system is operational	• Achieved
FED local energy trading system is demonstrated and handed over to the receiving organisation	• Achieved
3 innovative services implemented in the FED full-scale system	• Achieved
5 research projects initiated answering to challenges	• FED has helped to initiate more than 15 research projects (including academic research, master thesis and large EU-funded projects), several innovative start-ups and the development of new concepts and solutions within the industry.
Replication strategy document	• Achieved. In "The book about FED", the replication strategy is developed.[175] It provides insights on drivers and barriers as well recommendations for further action and changes in legislation. A study was performed looking at replication of the FED system in the Netherlands. The question that the study considered was: "What are the opportunities and barriers for scaling up, through replication and upsizing of the FED marketplace, within the Netherlands, from a national perspective?"[176]
Local energy market trading system	• Achieved

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[175] https://www.johannebergsciencepark.com/sites/default/files/FED_boken_uppslag_0.pdf
[176] https://www.johannebergsciencepark.com/sites/default/files/FED%20Technical%20Final%20Report%20-%20v1-2020-01-16.pdf pp90-93

The FED project has achieved its outputs and created a new digital local marketplace, connecting electricity with district heating and cooling. The FED results can be summarised in four points:

- **The energy system:** the existing energy system of the campus area of Chalmers University of Technology was supplemented with additional solar PVs, heat pumps and energy storages.

- **The local energy market**: the fully automated ICT-solution developed by Ericsson where AI-agents trade energy on behalf of the different market actors, like buildings consuming and/or generating energy.

- **The testbed**: the project made sure to invite third party actors to use FED as a testbed, thus ensuring that the investments of FED would have a greater reach.

- **The replication strategy**: the project has laid the ground for a future where it can start to become a real solution to the energy transition challenge. The replication strategy provides insights on the drivers and barriers, as well as a number of policy recommendations for local, national and EU levels.

8.6.4 Sustainability and scaling-up of the project at local level

The FED-system is created as a testbed to be used also after the project ends. Five companies have already tested their products in the FED-system. This includes advanced control systems for buildings, smart charging of cars, advanced battery control systems, phase shifting material storage, prognosis of production in the electricity system, heat pumps in co-operation with district heating and cloud services for energy data. During the implementation phase, the project made sure to invite third party actors to use FED as a testbed, thus ensuring that the investments of FED would have a greater reach.

To date, twelve new projects are based on FED's testbed. Six are large EU-funded projects that will use the FED results in various ways (see below). The project activities continue on-site with its own funding, although they hope FED would attract national or EU funding. The project manager highlighted that it is not possible to talk about upscaling the testbed, as a demonstrator area, because it is located in a Campus area, which makes it a unique location for regulatory or infrastructure challenges. The Chalmers campus is exempted from the law of concession for electricity distribution, providing the opportunity to test and validate a local energy market. The prerequisites to optimise the use of primary and secondary energy using intermediate storage are well developed, as they are for generation, storage and distribution. Therefore, FED's testbed was not designed for scaling-up, but the project worked to enhance replication potential of the proposed solutions (see below).

8.6.5 Transfer and replication of the project elsewhere in Europe

The replication strategy was one of the main outputs of the project. FED's replication strategy included a study providing insights on drivers and barriers as well as a number of policy recommendations for the local, national and EU levels.[177]

The feasibility of replicating the FED solution in other cities depends on the existing energy infrastructures and on the political, regulatory and societal landscape. Finding cities with a sustainable profile and engaged actors will increase the possibility for successful replication. Important aspects that work in favour of FED's solution to enhance transferability are: i) Social aspects: to increase the chances of successful implementation of technologies such as local energy markets, social aspects should be investigated in-depth and in the current context. The various actors and end users in a local energy system/market must be understood and local benefits should be promoted, especially

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[177] https://www.johannebergsciencepark.com/sites/default/files/FED_boken_uppslag_0.pdf

through long term and clear incentives. ii) Legislation and governance: A local energy market, like FED, could create flexibility in the local power grids, which could benefit the network operator if the legislative framework were adjusted.

The replication strategy, apart from the replication study, had a knowledge transfer plan in which activities were organised to promote the project, such as videos, websites, publications, organising events, presentations at events, peer-to-peer activities, seminars and workshops with stakeholders on many levels and from various parts of society. To bridge the regulatory challenges, the project team will continue the City of Gothenburg's lobbying engagement, primarily towards the European Commission and national regulatory bodies. Through the city-led large-scale EU project CELSIUS, Gothenburg has a good relationship with the European Commission and 50+ European cities.[178]

The project manager commented that FED was built on a campus with concrete conditions that facilitated the creation of the digital marketplace. FED cannot be replicated in the exact same way, although the knowledge acquired can be applied to other projects. In fact, the project manager, Johanneberg Science Park, is currently transferring FED's knowledge to another EU project called ACCESS[179] within the North Sea Region (Interreg), which has ERDF funding of €2.27m.[180]

8.6.6 Summary of key outputs and results (according to study typology)

Key outputs and results (related to case study activities)	
Outputs	
New services, products, processes	• Creation of a local and digital marketplace to connect cooling, heating and electricity into a single system
Partnerships created	• Nine local partners representing academia, industry and municipality.
Experience gained	• To work with the different partners that could learn from each other, e.g. researchers laying the theoretical foundation of the marketplace, as well as with the experienced property owners
Knowledge produced	• Better understanding of local energy markets • Better understanding of the value of collaboration between the community and its actors, real estate owners, private households and others • Better understanding of complex energy system solutions
Results: local level	
Identifiable effect on urban issues faced at local level	• Adaptation to renewable energy systems • Avoid fossil peaks in the city's network • Remedy power shortage • Grid stability as a service • Collaboration between multiple energy carriers • Local waste heat recovery
Sustainability of partnership working	• Some partners will continue to work together • Good relationship has been built among partners for future projects

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[178] https://www.johannebergsciencepark.com/en/projects/fed-fossil-free-energy-districts/articles-activities

[179] https://northsearegion.eu/access

[180] https://www.johannebergsciencepark.com/en/news/johanneberg-science-park-brings-knowledge-fed-access

Key outputs and results (related to case study activities)	
Outputs	
Innovations scaled up	• Twelve new projects are based on the FED-testbed. Six of these projects are large EU-funded projects that will use the FED results in various ways

8.7   Project implementation

FED was delivered on time, a new local marketplace for electricity, district heating, and district cooling has been developed between 2017 and 2019. The project was implemented mostly according to plan, but some changes were necessary to deliver the project on schedule.

There were some delays due to an overly-ambitious time plan and unforeseeable situations such as challenges facing some partners to meet deadlines; according to the project manager this required extra effort to make sure the project was delivered on time. However, they stressed it was a good and committed partnership overall. All nine partners are based in Gothenburg, including the ICT-system provider Ericsson. All meetings could be held face-to-face and in the native language. These two facts, the closeness between partners and the possibility of working in the native language were highlighted as success factors of the project. Both the project promoter and project manager commented that UIA was flexible since in a long project changes are inevitable; they reported that the UIA Secretariat understood this and approved their request for changes.

8.8   UIA flexibility and administrative requirements

Staff from the FED project were mostly satisfied with the design of the UIA instrument and the associated administrative requirements. The response to the on-line survey described almost all aspects (50% advance payment of ERDF, 20% budget flexibility, simplified cost options (flat rates, lump sums) for certain categories of expenditure, possibility to make project changes) as "very helpful", except for "simplified rules on State Aids" where the respondent answered, "don't know".

As mentioned above, the project staff perceived assistance from the UIA Secretariat as very helpful, flexible and fast in answering their questions. However, regarding the UIA Expert, although they said the communication was easy, they thought that the UIA Expert's role was not clear enough. The analysis that he had to write was mainly based on the project management analysis and this turned out to be more work for them. Thus, they perceived the role of the UIA Expert as not that helpful.

For the project manager, the administrative burden of the initiation phase was acceptable, however the knowledge transfer phase was perceived as burdensome since the lump sum allocated to the knowledge transfer phase (€15,000) was not sufficient in the project manager's opinion. They would have used funding left over from the implementation phase, but that was not allowed. The project manager highlighted that the knowledge transfer phase requires resources and time to organise and attend events, and although the number of events has been reduced due to the COVID-19 situation, there would not have been enough resources for this.

8.9   Communication and media image

The FED project has successfully promoted its activities and results. Promotional activities included:

- Videos to explain the project, showing conferences, presenting the partnership or showing other events;[181]

- Websites;[182]

- Publications;[183]

- Events: the FED project organised several events (e.g. FED Summit in Gothenburg and in Brussels) and also FED was presented in other events (e.g. Eurocities, IASP Nantes);[184]

- Guided visits to the FED project in the Chalmers campus;

- Peer-to-peer activities and seminars and workshops with stakeholders on many levels and from various parts of society.

Staff from the FED project declared that communication activities needed to be ongoing throughout the innovation process to maximize utilisation and impact. A comprehensive project, such as FED, needs to communicate regularly throughout the project to continuously raise interest, create engagement and dialogue, and to prepare the target groups for the forthcoming results.

Communication is therefore a strategic competence to realise replication and innovation. The project's communication is wrapped in a journalistic format to attract attention and make FED more user-friendly. The main goal is to bring FED into the focus of cities, the real-estate and utility sectors, and regulatory bodies as a cost-efficient, business friendly local energy strategy for greatly decreasing use of fossil energy and increasing security of supply.

8.10   European Added Value

According to the interviews and the project manager's response to the on-line survey, none of the activities would have been implemented without EU funding. The main benefit from being part of an EU initiative was that the EU funding provided the opportunity to form the interdisciplinary partnership in which each of the partners were key to success. Without the EU funding, it would not have been possible to gather all the partners and to develop the new solution.

The FED project has been presented in several events at the EU level, which ultimately helped the project to reach a wider public and disseminate its knowledge to other cities that wish to replicate the project. However, in the project manager's view, the knowledge transfer from the UIA was too local and did not generate sufficient knowledge transfer between cities. Other EU programmes such as Horizon 2020, put more efforts into this aspect and it could be of added value if the UIA put more emphasis on knowledge transfer between cities and on disseminating the UIA projects results.

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[181]https://www.youtube.com/playlist?reload=9&list=PLft18fKngbBuebDWaxJgHmo7deuCWF92k
https://www.ericsson.com/en/about-us/company-facts/ericsson-worldwide/sweden/tekniken
[182]https://smartcitysweden.com/best-practice/322/fed-the-fossil-free-energy-districts-project/https://www.johannebergsciencepark.com/en/projects/fed-fossil-free-energy-districts
[183]https://www.johannebergsciencepark.com/en/projects/fed-fossil-free-energy-districts/articles-activities
[184]https://www.johannebergsciencepark.com/en/projects/fed-fossil-free-energy-districts/articles-activities

8.11 Complementarity with other EU programmes

The FED project took place in parallel to a sustainable urban development (SUD) strategy, the Cross-Sectoral Integrated Plan for Sustainable Urban Development within the City of Gothenburg, running from 2014 -2020 with a total ERDF contribution of €2.5 million. The SUD strategy´s thematic objective 4 (TO4) encompasses Low Carbon Economy, which is complementary to UIA topic 'Energy transition', although there was no direct operational link between the SUD strategy and the UIA project. In addition, more than twelve new projects are based on the FED's testbed and respond to the challenges of local energy markets. These projects range from academic research, master thesis work to innovative start-up projects and large EU-funded projects. As part of the FED project, more than 10 companies have been involved in testing and developing their products and services. This includes adding functions and developing existing products and solutions but also innovative technology, such as Phase Change Materials (PCM) energy storage. Six of these projects are large EU-funded projects that will use the FED results in various ways:

- IRIS, Horizon 2020 Smart Cities Lighthouse.

- Micro to mega grids, Era-Net Smart Grid Plus.

- United grid, Horizon 2020.

- ACCESS, Interreg North Sea region.

- Celsius Initiative, Climate KIC, Swedish Energy Agency and DG Energy.

- Flexi-grid, Horizon 2020.

The operation of the FED market will probably continue within the Flexi-grid project. Several other projects on this topic have also started, either in the FED system or in the testbeds HSB Living Lab and Riksbyggen Positive Footprint Housing in Johanneberg. The campus area of Johanneberg, together with nearby buildings, is planned to be a testbed for local sustainable energy systems for years to come. The objective of the project to create an urban lab for these questions is fulfilled.

8.12 Lessons learned

The main lessons learned regarding both the technical solution and the need for further development required to make FED a solution feasible to replicate are as follows:

- This project required that several parties with limited experience and knowledge of technical installations in energy systems and buildings needed to understand these in order to develop the simulation model and the market itself, including agents, bids and so forth. The available documentation for technical installations and production units are not suited for this type of information and this made the work more difficult. Nor is there typically any visualisation made of the technical systems that could help to provide an understanding of how the systems function and are connected. That is why the partnership is key, to complement the knowledge from each partner. The interdisciplinary partnership is perceived as a key success.

- A lesson learned regarding commissioning and optimisation of the operation of production and storage units within the FED system is that this is time-consuming. When planning for replication of a FED-type solution, one should take into account that this is a complex issue and if not given sufficient time may lead to delays and/or loss of performance.

- Due to the particular conditions of the Chalmers campus where the FED project is based (e.g. regulatory exemptions), it could be difficult to replicate the FED project in the exact same terms in another city or area. The replication strategy studied all the barriers that cities might find to overcome this and to successfully replicate the FED project, adapting it to local conditions.

8.13 List of interviews

Organisation	Role in project	Date of interview
City of Gothenburg	Project promoter	05/06/2020
Johanneberg Science Park	Project manager	11/06/2020
Chalmers University of Technology	Project partner	24/09/2020
Akademiska Hus	Project partner	25/09/2020

8.14 Documentary sources consulted

Documents / websites / YouTubes
https://www.youtube.com/playlist?reload=9&list=PLft18fKngbBuebDWaxJgHmo7deuCWF92k
https://www.ericsson.com/en/about-us/company-facts/ericsson-worldwide/sweden/tekniken
https://smartcitysweden.com/best-practice/322/fed-the-fossil-free-energy-districts-project/
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FED Policy Recommendations https://www.johannebergsciencepark.com/sites/default/files/FED-policy-folder.pdf
The Book about FED https://www.johannebergsciencepark.com/sites/default/files/FED_boken_uppslag_0.pdf
FED Final Technical Report https://www.johannebergsciencepark.com/sites/default/files/FED%20Technical%20Final%20Report%20-%20v1-2020-01-16.pdf
https://www.johannebergsciencepark.com/en/news/johanneberg-science-park-brings-knowledge-fed-access

9. CORDEES (PARIS, FRANCE)

9.1 Key project facts

CoRDEES	
Key facts	
Call	1
Acronym	CoRDEES
Title	Co-Responsibility in District Energy Efficiency & Sustainability
Project Number	UIA01-495
Status	Complete
Duration	01/11/2016 - 31/10/2019
Topic	Energy transition
Member State	France
Number of partners	5
Main urban authority	City of Paris
Other partners	• Infrastructure and (public) service provider: Metropole & Paris Urban Developer • Higher education and research: ARMINES • SME: Another City • SME: EMBIX
Budget	
ERDF	€4.365m
Public co-financing	€0.149m
Private co-financing	€0.942m
Total	€5.456m

9.2 The city

Paris is the capital of France and the central city of a large metropolitan area (11 million inhabitants), facing high urban density, traffic congestion, and an energy and climate crisis. In 2007, Paris adopted a proactive and ambitious Climate Action Plan (Plan Climat) with a view to reducing greenhouse gas emissions in the long term. The City set a reduction target of 75% between 2004 and 2050 and a short-term target of 25% by 2020. Since then, the City of Paris has adopted several actions to reduce emissions, such as facilitating the installation of local renewable energy and energy recovery facilities. Over 50,000m² of solar panels have been installed in the Paris area. Since 2015, municipal services have been powered by electricity generated from renewable sources.

The CoRDEES project is based in the western sector of the Clichy-Batignolles eco-district. This is an area filled with environmentally-friendly buildings which form part of the city's climate action plan. The CoRDEES project covers about 200,000m² of floor area divided into 12 plots, which are further divided into 50 real estate entities for various uses (housing units, offices, retail, public and leisure facilities and others). The Clichy-Batignolles neighbourhood receives its heat from a dedicated local geothermal power plant supported by the Paris urban heating network, which provides additional heat when needed. The facility was created and is operated jointly by the Paris water company, Eau de Paris, and the Paris urban heating company, Compagnie Parisienne de Chauffage Urbain (CPCU). The power plant aims to provide heat and domestic hot water to buildings using 85% renewable energy, including geothermal energy production. The district also produces power through its solar panels. The energy performance targets are ambitious: the buildings must not consume more than 50 kWhm²/year in primary energy for defined purposes (heating, hot water, lighting and ventilation).

9.3   Rationale for the project

CoRDEES originated from an observed gap between forecast and actual energy performance in the operational phase of the eco-district's East sector developments, already delivered. Such gaps are unfortunately common in eco-districts because many factors can influence energy consumption and the proportion of renewable energy. These factors relate mostly to design choices and the operating and usage behaviour of the many stakeholders: network operators, developers, investors, institutional sponsors, housing operators, condominium owners' associations and their management agents, heating operators, office occupants, merchants, residents, workers and others.

The CoRDEES team set itself the mission of getting these stakeholders to take responsibility for achieving their objectives in the design of eco-districts, as illustrated by the word "co-responsibility" in the project's name. The project consisted of leading key decision-making stakeholders in the energy sector to make performance commitments and establish internal governance structures. This governance was to be supported by an entity called an "energy facilitator", which was to assist with the administration, the procurement of IT tools to monitor or control the actual energy performance of buildings and performance improvement using various means, such as proposing technical recommendations for the energy transition, assisting users with the adoption of the different schemes or raising awareness among users.

9.4   Objectives and intended effects

The overall aim of the project was to provide communities and future facilitators with an energy model to simulate and assess energy efficiency measures and check their real impacts on the energy and environmental performance of the district. In addition, to determine the duties, business models and legal forms best suited to the job of energy facilitator to sustain the role over the long term and/or reproduce it on other sites.

The objectives were to:

- Develop a multi-stakeholder governance framework focused on common objectives and targets, including at least 80% of the energy value chain actors in the framework, and put in place energy efficiency commitments in the long run.

- Design relevant data and decision-making tools through the implementation of the Community Energy Management Platform (CEMP), a platform for multi-users and multi-energy sources.

- Design and deliver new energy services, empowering citizens on climate issues and ensuring significant improvements in building and grid management.

The main intended effects were to:

- Raise awareness and change end-user behaviours with actions such as training, digital services, serious gaming, or self-consumption approach.

- Deliver the necessary tools to monitor efficiency commitments by energy value chain players, through the CEMP.

- Create the capacity to scale up and replicate the governance model with the Urban Sustainable Trustee Facilitator (USTF) operator in multi-functional and multi-operator projects, which are not yet economically viable in other territories (e.g. Greater Paris) and sectors (e.g. water use, etc).

9.5   Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured public funding of €149,000 to be provided by the City of Paris. The budgeted private funding of €942,000 was to be provided by other project partners. The partner that contributed the most was the Metropole & Paris Urban Developer (Infrastructure and public service provider).

The City of Paris has positioned itself as the project leader around which a public-private consortium has been formed, made up of the local public company, Metropole & Paris Urban Developer (developer of the district); Embix, a design office specializing in smart grids; Une Autre Ville, a consulting firm specializing in eco-responsible urban planning, and a scientific research laboratory.

9.6   Innovation process

9.6.1 Knowledge informing the innovations

The implementation of the project drew on various forms of knowledge:

- Prior to the application, the partnership studied the most advanced smart grid projects such as Capucins eco-district in Brest (France); Aspern Smart City project (Vienna); Fort d'Issy Issy-les-Moulineaux (France) or Watt & Moi Lyon (France);

- Identification of the interests of residents and house and building owners of the Clichy-Batignolles neighbourhood in terms of energy efficiency measures they want to implement (smart meters, air conditioning and heating systems required);

- Analysis and integration of the new legal framework to improve the benefits of the PV systems to be installed in the western sector of the Clichy-Batignolles eco-district;

- Data collection - regarding the installations to monitor the energy performance of buildings, part of the data was collected using measuring and communication devices installed in five residential buildings, covering 1,100 housing units. Each installation is different to take into account pre-existing equipment. The meters and sensors are for electricity, heating, domestic hot water, indoor temperature and weather. Data is recorded every hour and transmitted in real time to the facilitator's central server, but only in aggregate across the building to comply with privacy laws (the French data protection authority (CNIL) and the EU General Data Protection Regulation). Regarding the protocols for data exchange with operators, at the time of the bid (2016), "top-down" data collection, meaning from network operators, was not an option. This alternative to the "bottom-up" data collection solution emerged during the pilot project, thanks to the French Act on Energy Transition for Green Growth and the Digital Republic Act, which call for greater transparency in energy consumption data.

9.6.2 Experimentation

The primary innovation tested by the project was the concept of creating a new energy ecosystem. The energy ecosystem was formed by an interoperable and multi-user monitoring platform (WP4), a new multiplayer energy-governance framework (WP5) and the creation of a new actor (the Urban Sustainability Trustee Facilitator) to deliver new services to empower stakeholders and target groups (WP6). The proposed solutions were tested and developed as follows:

Community Energy Management Platform – CEMP (WP 4). The aim of the CEMP was to define optimisation scenarios by measuring real-time district energy performance from buildings (electricity and heat) and public facilities (electric vehicle stations, street lighting and automated waste collection). The data collected from various sources is routed to the facilitator's platform and gathered in one place. The calculation engine in the platform processes the data in real time and converts it into indicators. Data can also be made

available to third parties through an interface. The first users were researchers (the French engineering school MINES ParisTech) and service providers (the consulting firm Inddigo) associated with the project.

The first version of CEMP, delivered in March 2019, took the shape of a web application, filled with simulated data, but offering most of the functionalities that were planned to be developed. Tests were made on the first version of CEMP to identify anomalies and improvements. The CEMP final version, which is still a web application, embeds real KPIs calculated from real raw data collected on the district.

All five partners were involved during that phase. The involvement of all partners might have caused some of the delays experienced due to a different process the partners decided to follow: working on the user interface of CEMP and the backbone of CEMP which collect real time raw data from different sources. This delay had a minor impact since the facilitator benefited from intermediate tools until the CEMP final version was ready.

The platform is intended for use by all stakeholders in the district: landlords, management agents, condominium associations and businesses, to name a few. They will be able to conveniently monitor their energy consumption and production. Individuals will connect to a different application (managed by the service provider offering resident coaching). Access to the platform is governed by terms and conditions that ensure data privacy. Professionals can also use the platform to access a library that contains all the technical and contractual documents concerning energy in their buildings.

Urban Energy New Deal – UEND (WP5). According to the application form, the concept of Urban Energy New Deal (UEND) relies on the observation that all the stakeholders of the Clichy Batignolles project have a role to play in global energy efficiency, not only in decreasing consumption, but also in reducing CO_2 emissions and peak demand, increasing renewable energy (RE) coverage, controlling operating costs, etc. These objectives needed to be reached with a satisfying level of comfort and a high level of quality of service and of energy supply security for the end-user. To address these complex interrelations, the project proposed working on new governance frameworks and contracting financial schemes based on the principles of co-responsibility. In order to co-construct these new schemes and convince stakeholders to commit themselves further, CoRDEES proposed a comprehensive analysis of the various interrelations and simulation of commitment scenarios, to support the stakeholders involved and the end-users in their understanding of these complex issues. This work package was going to rely mainly on the interactions between all actors involved in local energy efficiency that were likely to be part of the UEND new schemes, and on the creation of the Urban Sustainable Trustee Facilitator (USTF), a key body for energy management at the district level.

The project partnership had to abandon the idea of a contractual obligation to an actual energy performance target by building owners and inhabitants, as they did not want to promise results beyond their control. Hence, the partnership shifted their position and tried to convince stakeholders to go into a partnership with CoRDEES. Energy performance would still be theoretical and depend on a largely unknown combination of factors relating to design, operation and use. Finally, neither the City nor the planning authority would have the instruments (contractual or regulatory) to compel stakeholders to commit to binding targets.

Urban Energy Services – UES (WP6). Energy services were the most visible part of the project for most end-users, by involving them in energy challenges through the creation of a 'virtuous circle'. To achieve this objective the main challenges were to raise awareness, use of energy data collected (at various scales from each building sensor to national networks), develop a digital community portal to involve and help end-users, develop services to help technicians optimise buildings and public space consumption,

energy production and storage and to maintain energy counters, to develop a portal around energy challenges and collaborative economy.

As buildings were not yet being monitored and energy coaching of employees was not a priority for companies, the partnership had trouble getting stakeholders to join coaching programs. One of the objectives of this Work Package, the Community portal, was supposed to be an online platform like the CEMP, but the partnership considered that multiplying the number of digital tools was not a good idea, with a risk that inhabitants would not know the use of each platform. For this reason, the partners decided to centralise all elements onto the CEMP (on the welcome page, users can find links to access digital coaching tools).

9.6.3 Achievements against project targets

According to CoRDEES annual progress report and the lessons learned report, the main outputs of the project include the following.

Project outputs:	
Target (application)	**Achieved to date**
Community Energy Management Platform (CEMP) final version	• Delivered. The final year of the project was mainly focused on ending the development of the CEMP; ongoing data collection from smart sensors installed during the project and from network operators' information systems; realising further analysis and diagnosis based on real data in order to understand the key issues of the district and help stakeholders improve energy performance.
Urban Energy New Deal, UEND	• Partially. In February 2019, the first partnership agreement with a condominium was signed.
Urban Energy Services	• Workshops with local landlords on their building's energy performance were held. • The owners of office plots have shown little interest so far.
Community Portal	• The partnership thought it was more user-friendly for stakeholders to use the CEMP for the community portal.

According to the project promoter, now that the UIA project has been completed, the energy facilitator for the West sector of Clichy-Batignolles has a data platform and tools, which will allow it to perform an in-depth analysis of the energy performance of the district, buildings and individual homes. The facilitator has taken the technical and legal steps that allow data collection with measuring and communication devices installed in buildings or through data sharing agreements with network operators and occupants. It has developed a web platform to share the data collected at the district and building levels. Access to this data comes with services aimed at improving the energy efficiency of the district and the proportion of renewable energy used. This data is also used to calibrate an energy model that can assess demand-side management measures in order to determine which ones are most relevant to the district. Various services are in the test phase, some of the services completed are as follows:

Partnership agreements: the first partnership agreement was signed in February 2019 between the energy facilitator and the condominium, the shop owner and a social housing

operator, joint occupants of one of the twelve plots in which the CoRDEES areas is divided into, for a total of about 100 people. It sets out mutual commitments for the operation and maintenance of meters and devices the facilitator uses for transmitting the building's energy data. The agreement also covers the services provided free of charge by the facilitator, namely assistance with the operation of energy facilities; monitoring of consumption; proposals for corrective measures; coaching of interested residents; and an individualized rate structure for heating costs. So far, the owners of office plots have shown little interest in partnership agreements, therefore more communication activities need to take place to attract office owners.

Resident coaching: More than 600 residents subscribed to the free coaching offered during information campaigns organised in October 2018 and March 2019, i.e. a 68% participation rate. The coaching includes personalised assistance to adopt environmentally-friendly practices, supplemented by monitoring of energy consumption thanks to the individual data collected (which remains to be implemented: the data is recorded but not yet transmitted for legal reasons). People are free to choose the environmentally-friendly practices that interest them and that concern the environment generally, not just energy (waste management, biodiversity and so on).

9.6.4 Sustainability and scaling-up of the project at local level

Members of the partnership have formed an association to continue the work undertaken and the use of the tools created. The purpose of the association is as follows:

- Use all the findings made by the CoRDEES consortium as part of the European project.
- Use the additional energy use monitoring instruments installed in buildings as part of the European project.
- Use the digital performance monitoring platform developed as part of the European project.
- Demonstrate the ability of the energy facilitator to raise the renewable energy rate of the Clichy-Batignolles district by implementing corrective measures.
- Test the provision of free or paid services by the energy facilitator to stakeholders in the Clichy-Batignolles district, which will be financed by the partnership.
- Promote the energy facilitator to stakeholders in the Clichy-Batignolles district and, generally, involve occupants in energy and environmental issues.
- Determine the specifications of the future energy facilitator.
- Identify funding arrangements for the continuation of pilot projects.
- Generally, perform any operations that directly or indirectly relate to its purpose or that may facilitate its achievement.

Additionally, an insurance company is considering subscribing to a paid service from the provider eGreen, a partner of the facilitator. The company's employees would learn environmentally-friendly practices concerning energy, water and waste management via communication tools, nudges and the organisation of collective challenges. Other projects may follow with major companies in the district.

The lessons learned from the CoRDEES project are being applied to another district in Paris, the Saint-Vincent-de-Paul project.[185] Paris & Métropole Aménagement has learned from this experience and is requiring the developers of the Saint-Vincent-de-Paul project to provide the following:

- Installation of housing units to connect buildings by means of open and interoperable

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[185] https://www.parisetmetropole-amenagement.fr/sites/default/files/2020-03/Saint-Vincent-de-Paul-EN.pdf

devices.

- A commissioning obligation with submission of a report on actual energy performance of the building two years after delivery. This obligation is subject to financial penalties for noncompliance through an escrow account.

- Assistance to condominium owners after delivery with drafting contracts with the facilitator, and two years of funding for a district manager for educational activities related to energy issues.

9.6.5 Transfer and replication of the project elsewhere in Europe

The project promoter intended to promote the project' results and lessons through the CoRDEES association, and take every opportunity to share with other French and European cities; they prepared a document with the project´s results and lessons learned in order to share this with other European cities that might be interested in the project.[186] The promoter highlighted Paris as a city with international exposure which helps to reach potentially interested parties. The Clichy-Batignolles district where the CoRDEES project is based is a high-level eco-district that attracts different stakeholders.

9.6.6 Summary of key outputs and results (according to study typology)

Key outputs and results (related to case study activities)	
Outputs	
New services, products, processes	Community Energy Management Platform to monitor, consolidate and analyse energy data for all buildings and public facilities in real time.
Partnerships created	The work started by the five partners of the CoRDEES Project will continue within a partnership now being created. The first partnership agreement was signed in February 2019 with the consortium, energy facilitator and occupants (for a total of about 100 people) The partnership is located in one of the twelve plots in which the CoRDEES area is divided. The plot covers around 15,000 m^2.
Experience gained	Experience has shown the importance of communication in energy facilitator duties, especially because the audience changes quickly (delivery period), with owners and occupants replacing developers.
Knowledge produced	The project has shown the benefit of collecting actual energy consumption and production data and providing a form of energy facilitation for eco-districts.
Results: local level	
Identifiable effect on urban issues faced at local level	Users are increasingly more receptive to have high-quality data to improve the energy performance of buildings. Key energy efficiency results include: • 83 KWh/m^2/year thermal energy consumption (target was 35 KWh/m^2/year) • 78% of energy used in heating and domestic hot water from renewable energy (target was

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[186] http://cordees.paris/wp-content/uploads/2019/10/1909_REX-CORDEES-BD.pdf

Key outputs and results (related to case study activities)	
	85%)
Sustainability of partnership working	The CoRDEES project will continue within a partnership now being created.
Innovations scaled up	Lessons learned with CoRDEES project are being applied to other districts of Paris such as the Saint Vincent de Paul Project.

9.7   Project implementation

According to project staff, the project was implemented mostly according to plan. They had to request a major change, which the UIA Secretariat approved, relating to the nature of the investment. However, the project promoter noted that this change did not affect the ambition or the scope of the project. For them, the most challenging factor during the implementation was the delay in the project's implementation due to external factors, such as late building deliveries. The UIA process involved a tight schedule and predetermined checkpoints, which were particularly useful in mobilising team members. However, they would have appreciated more flexibility with the timing of phases times, a later official start, in May 2017, after the initiation phase (validation of all the contracts by the partners and the EU), and implementation spread over more time would have been preferable, especially due to the disruption caused by late building deliveries. The CoRDEES project is based in a new district where some buildings were not finished yet and the number of estimated residents for the project varied because of this. That aside, it provided a number of lessons learned related to project timeframes.

9.8   UIA flexibility and administrative requirements

The project's response to the on-line survey described all aspects of the design of the UIA instrument (50% advance payment of ERDF, 20% budget flexibility, simplified cost options (flat rates, lump sums) for certain categories of expenditure, possibility to make project changes) as "very helpful", except for "simplified rules on State Aids" which was described as "fairly helpful". The interviews of the project promoter and project partners identified only one drawback, which was that they would have appreciated more flexibility with the time frames. Assistance from the Secretariat was confirmed as "very helpful" in the survey response, although the audit check and monitoring visits were seen as very burdensome.

Support from the UIA Expert was described as "very unhelpful", as the UIA Expert changed during the implementation of the project, and no UIA Expert was assigned to the CoRDEES project for the third year. Networking with other UIA projects was described as "slightly unhelpful".

9.9   Communication and media image

According to the CoRDEES application, the communication strategy was designed to make use of innovative and interactive tools and features for communicating with stakeholders and citizens and for disseminating results to ensure a continuous and committed participation and interest of relevant stakeholders. The communication objectives were raising awareness on project objectives and key results and implementing an active communication and dissemination plan (e.g. by participating in events to present the project or coordinating with other projects).

The following activities were implemented for the different stakeholders: i) for professional stakeholders (companies): two events (one for the CoRDEES launch and one for

completion), meetings were organised; ii) for residents and the public: social media was used to engage them, a website with instructional video and explanatory videos was released and events and meetings were organised; and iii) for urban development and smart grid professionals: members of the facilitator's team participated in many conferences and round tables throughout Europe.

9.10 European Added Value

The UIA gave the opportunity to gather the partners around one common project; all the partners were very involved in the project and contributed to the delivery of the project. According to the interviews and the project promoter's response to the on-line survey, none of the activities would have been implemented without EU funding and the main benefit from being part of an EU initiative was that "EU funding provided the opportunity to test new ideas". As one of the CoRDEES' partners noted: "Without the UIA, we would have not been able to undertake this project or would have undertaken a much smaller project".

EU funding for the CoRDEES project contributed to the city's climate transition and urban pilot projects, which according to the project manager, the City of Paris has capitalised on CoRDEES project to be more involved in this type of projects. Another value added from the UIA is that the CoRDEES experimentation is cited in the Paris Climate Action Plan as an example of solutions to facilitate Paris' energy transition.[187]

9.11 Complementarity with other EU programmes

Paris has seven sustainable development (SUD) strategies in place.[188] Some of the SUD strategies were relevant to the CoRDEES project, as they included a focus on energy transition. However, the UIA project promoter reported that there was no operational connection between the UIA project and the SUD strategies.

9.12 Lessons learned

The evidence gathered for this case study and the findings presented above allow us to draw some main conclusions regarding the CoRDEES project:

- Some tasks should have been performed earlier. For efficiency, the energy performance monitoring of housing units should be designed at least one year before the delivery of the units, in the absence of the residents. This also applies to commissioning of the energy facilities and the establishment of heating operating contracts, which must be well formulated and entrusted to well-trained professionals.

- The spread over time of some tasks would have been more effective. For housing units, services should be offered to condominium owners' associations about one year after delivery, the time for them to address priorities, which include the selection of a management agent and the withdrawal of reservations. Before this, they are insufficiently responsive to energy issues. Services for residents take time, being difficult to work with them on reducing their energy bills without having a sufficiently long series of reference data. Also, training in environmentally-friendly practices using the method employed during the pilot project does not generate tangible results before 18 months. There was not enough time because of late delivery of buildings. This is also the case for offices, given that 12 to 18 months are needed to configure the technical management of buildings (data collected when occupants have just moved

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[187] https://cdn.paris.fr/paris/2019/07/24/1a706797eac9982aec6b767c56449240.pdf
[188] Integrated Territorial Investment (Iti) Cu Grand Paris Seine Et Oise; Strategy - Paris Municipality; Integrated Territorial Investment (Iti); Vallée Sud Grand Paris; Integrated Territorial Investment (Iti) Grand Paris Sud; Integrated Territorial Investment (Iti) Grand Paris Sud Est Avenir; Integrated Territorial Investment (Iti) Grand Paris - Grand Est and Strategy - Ept Paris Terres D'envol

in is not necessarily significant) and companies are too busy getting settled into their new premises to be attentive to services like raising awareness in employees of environmentally friendly practices.

- The role of the facilitator needs to be reviewed, some economic and political strategic choices need to be made to validate the existence of a viable business model and to choose the appropriate legal form (public, private or mixed), both of which are intimately linked (i.e. a facilitator paid with public funds to participate fully in eco-district development or a facilitator paid with private funds on a competitive basis through the provision of services and incentives for energy savings).

9.13   List of interviews

Organisation	Role in project	Date of interview
City of Paris	Project Promoter	19/06/2020
City of Paris	Project Manager	19/06/2020
Une Autre Ville	Project Partner	02/11/2020
MINES Paris Tech	Project Partner	10/11/2020

9.14   Documentary sources consulted

Documents / websites / YouTubes
CoRDEES Lessons Learned October 2019 https://www.parisetmetropole-amenagement.fr/sites/default/files/2019-11/1910_LESSONS%20LEARNED%20CoRDEES.pdf
http://cordees.paris/
https://www.youtube.com/watch?v=GC6wX8vlYrg
https://www.20minutes.fr/elections/2523983-20190523-elections-europeennes-ue-peut-etre-quartier-clichy-batignolles-paris
http://cordees.paris/wp-content/uploads/2018/11/Cordees_ComparaisonEcoquartier_EN.pdf
https://www.parisetmetropole-amenagement.fr/fr/clichy-batignolles-paris-17e
https://www.parisetmetropole-amenagement.fr/sites/default/files/2020-03/Saint-Vincent-de-Paul-EN.pdf
https://cdn.paris.fr/paris/2019/07/24/1a706797eac9982aec6b767c56449240.pdf

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CIRCULAR ECONOMY

10. URBAN SOIL 4 FOOD (MARIBOR, SLOVENIA)

10.1 Key project facts

URBAN SOIL 4 FOOD	
Key facts	
Call	2
Acronym	URBAN SOIL 4 FOOD
Title	Establishment of Innovative Urban Soil Based Economy Circles to Increase Local Food Self-sufficiency and Minimize Environmental Footprint
Project Number	UIA02-064
Status	Ongoing
Duration	01/12/2017 - 31/05/2021
Topic	Circular Economy
Member State	Slovenia
Number of partners	8
Main urban authority	Municipality of Maribor
Other partners	• Infrastructure and (public) service provider: Snaga, public service provider for management of waste and other utility services • Infrastructure and (public) service provider: Wcycle Institute Maribor • Higher education and research: Slovenian National Building and Civil Engineering Institute • Interest groups including NGOs: Institute for Innovation and Entrepreneurship • Interest groups including NGOs: E-institute, institute for comprehensive development solutions • SME: DELTAPLAN, service and consulting company, d.o.o. • Other: Development of social projects and promotion of active life association AKTIVIRAJ SE
Budget	
ERDF	€2.988m
Public co-financing	€0.582m
Private co-financing	€0.167m
Total	€3.748m

10.2 The city

Maribor is the second-largest city in Slovenia, and the capital of the Podravje region. Spanning 148 km² and with a population of approximately 112,682, Maribor is among the more densely populated municipalities in Slovenia.[189]

According to the application form, Maribor is renowned as an educational and industrious centre of Eastern Slovenia. It contains one of the highest numbers of enterprises (approx. 11,257).[190] However, it depends highly on outside resources to meet the population's

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[189] SiStat STAGE. (n.d.). Population > number of population > total. SiStat.
https://gis.stat.si/#lang=en&tid=411&sid=3&vid=19633&p={"cm":0,"cb":5,"cp":"YlOrRd","cba":[null,2499,25 00,4999,5000,9999,10000,24999,25000,null],"inverse_pallete_checkbox":false,"decimals":0}&z=11&o=0.7&c ={"lat":46.49018269818797,"lng":15.470155477523805}
[190] SiStat STAGE. (n.d.). Enterprises > total number. SiStat.
https://gis.stat.si/#lang=en&tid=242&sid=3&vid=21848&p={"cm":0,"cb":5,"cp":"YlOrRd","cba":[null,149,150

demand for energy, water, waste management and food. As a city, it generates a high level of waste (572 kg per person). In Slovenia as a whole, the second most common household-generated form of waste (after packaging waste) is biodegradable waste.[191]

10.3 Rationale for the project

As stated above, Maribor's self-sufficiency is quite low. Transporting outside resources to the city produces excessive greenhouse gases, whilst citizens' have to devote more than 80% of their incomes to meeting food, housing and transportation needs. According to the application form, as a result of these processes, 52% of food produced is lost or wasted, and only 31% of the demand for fruit and vegetables in Slovenia is met internally. Meanwhile, there is widespread soil degradation across Europe due to urban development and expansion, as well as a lack of a proper soil standardisation method to ensure soil produced from recycling processes is of sufficient quality.

Urban Soil 4 Food addresses these issues by closing the loop of bio household consumption by returning any waste to the city's green spaces. To achieve this end, the project is developing a pilot device to extract and process urban waste into usable materials for both agricultural projects and construction projects. Meanwhile, the project aims to educate citizens on how to engage in environmental conservation, and support a transition to a circular economy, through opening urban gardens that members of the public can reserve and use to cultivate their own crops.

10.4 Objectives and intended effects

The overall aim of the project was to close the loop of food production in urban environments by reducing the amount of biological and mineral waste generated. Rather than leaving this waste in landfills, Urban Soil 4 Food proposes to transform it into soil, which can be used in key urban activities such as food production, park beautification, and construction. For the former, urban gardens would be established to increase a focus on local food and decrease the dependence on imported ingredients; these circular economy activities will be supported by the establishment of innovative circular economy start-ups.

The objectives were to:

- Demonstrate to policymakers the importance and applicability of circular economy projects within urban areas;

- Establish an innovative, urban soil-based loop to increase local self-sufficiency in food production;

- Minimize Maribor's carbon footprint: recycle organic and mineral waste into certified, safe soil, through fermentation and pyrolysis technology;

- Reduce organic waste by 2,400 t per year and mineral waste by 2,000 t per year. Produce 3,000 t of soil and building material and 590 kWh of energy;

- Use the soil produced to rejuvenate urban gardens, and recycled mineral composites in construction and roadworks;

- Increase environmental awareness by involving civil society;

- Support new employment opportunities arising from this new circular economy via the establishment of a Living Lab, boost open innovation in Maribor and increase social

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,299,300,599,600,1199,1200,null],"inverse_pallete_checkbox":false,"decimals":0}&z=12&o=0.7&c={"lat":46. 56681515602883,"lng":15.511555373668672}

[191] SiStat. (n.d.). Municipal waste generated and treatment (tons), Slovenia, annually. Republic of Slovenia Statistical Office. [online] Available at:
https://pxweb.stat.si/SiStatDb/pxweb/en/30_Okolje/30_Okolje__27_okolje__02_Odpadki__01_27061_odvoz_odpadkov/2706101S.px/table/tableViewLayout2/

dialogue on this topic.

The main intended effects were:

- Develop a standardized, internationally-certified urban soil; different varieties will be used for areas such as urban agriculture, parks, roadwork and construction;

- Shift from traditional waste-based practices to circular-economy approaches;

- Establish new urban gardens for public use;

- Establish local labelled food: a label used by at least 50 Maribor-based farmers;

- Decrease greenhouse gas emissions that would normally arise from importing resources inside the city;

- Decrease municipal waste;

- Include the citizens of Maribor in all activities, including workshops on green innovation;

- SMEs working in circular economy will receive support for development and innovation.

10.5 Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured public funding of €582,280 to be provided by the Municipality, Snaga (public service provider for management of waste and other utility services), AKTIVIRAJ SE (Association of Development of social projects and promotion of active life), ZAG (Slovenian National Building and Civil Engineering Institute) and Wcycle Institute. The budgeted private funding of €167,250 was to be provided by Deltaplan consulting company, E-institute for comprehensive development solutions, and the Institute for Innovation and Entrepreneurship (Zavod).

Aside from funding support, the Institute for Innovation and Entrepreneurship would aid in networking and project management; E-institute and AKTIVIRAJ would contribute expertise in circular economy and SME support; Snaga would support waste collection and treatment processes; Deltaplan would provide legal advice and counsel; ZAG would aid in building permits and environmental studies; and Wcycle would help coordinate the public services.

10.6 Innovation process

10.6.1 Knowledge informing the innovations

While many of this project's innovations are quite novel, there are some key precedents. In terms of urban food policies, the project promoters were inspired by Milan Urban Food Policy Pact and EIP AGRI focus group on short supply chains. In addition, the partners have made significant contributions to the knowledge base of this project: AKITVIRAJ, E-institute, and Zavod all have extensive experience in circular economy work, civil society, and sustainable development.

Deltaplan, the partner responsible for environmental and permit issues, has mentioned that in initial soil composition tests, bio-charcoal demonstrated promising attributes such as carbon storage and excellent heat retention.

10.6.2 Experimentation

All UIA project activities are organised in work packages (WPs). URBAN SOIL 4 FOOD featured eight separate work packages, of which four (referred to as "circles") were particularly important to the innovation tested in the project. The description of each circle is outlined below.

Material Circle (WP4): To facilitate a circular economy, the project aims to establish a recycling process, in which urban waste is converted into usable soil and building materials. This involves not only developing machines that can achieve these processes, but also testing the bio-waste to ensure it is reusable. According to project promoters, this core innovation is unprecedented both on a European level and globally, so it is important that the pilot project sets positive precedents. It combines three key technologies: composting, mixture, and processing. Project partners have mentioned that one of the primary mind-set changes that must occur is how people consider waste; rather than perceiving it as material that can be discarded, it should be viewed as a reusable resource. In the application, one of the key outputs of this WP was a series of conduct manuals on waste and urban soil. Once the soil is developed, this circle aims to create a legally-sound, distributable soil that can be produced, as well as the development of a set of legal standards for these products in Slovenia.

Food Circle (WP5): A key actor in this project is Maribor's wider society. The food circle involves the development of a network of community gardens, a Learning Garden and an orchard, which local residents can reserve and cultivate. Some gardens are reserved for children and the elderly to promote intergenerational interactions. The Learning Gardens will host workshops and other events to educate the community on how to tend to their gardens each season.

In addition, this circle aims to increase reliance on Slovenian produce. To accomplish this, an online platform and mobile app has been developed to connect local people to local farmers within 30 km of the centre of Maribor. Users can search over 100 local producers for the products they want, then receive directions and reserve a pickup or delivery slot. In addition, the project aims to create a unique label for the food produced by both these farmers and the local residents' urban gardens.

Open Innovation Circle (WP6): To encourage and avail of public interest in sustainability, the project plans to support SMEs and start-ups that focus on sustainable solutions and circular economy approaches to urban life. As stated in the application, 10 businesses receive non-financial support such as communication and incubation, and five will receive crowdfunding support. An Urban Agri Living Lab has been established, where these social innovation actions can be tested and scaled up as they develop.

Knowledge Circle (WP7): To ensure scalability and replicability, the project will catalogue the lessons learned throughout implementation, create a roadmap for replication, and ensure that the process for producing urban soil is fully developed, validated, and prepared for the market.

10.6.3 Achievements against project targets

At the time of interviewing, project promoters and partners admitted they were somewhat behind on a few of the innovations. The primary delay was in the production of urban soil, due in part to a backlash from the areas where they aimed to set up the pilot factory and in part to the nationwide lockdown in response to the COVID-19 pandemic. The former obstacle was especially challenging, according to project partners, as they faced many legal limitations in terms of where the pilot project could take place, as well as protests from the public who misconstrued what was being set up on the building site. With a new location just outside Maribor secured, the team was working on assembling the machines, as well as addressing construction permits and environmental permits. Project partners mentioned that once the factory is set up and the machines are fully operational, the team could conduct tours of the site to demonstrate that the factory is not something to protest against, but rather to welcome.

Despite these setbacks, there has been significant progress. The urban gardens have been established, and nearly all plots have been reserved; although they are not yet able to use

the urban soil, the public is highly engaged in workshops on how to cultivate and prepare food grown in these gardens. The Municipality is discussing the possibility of providing more land for urban gardens with other communities within the municipality. In addition, tests have been carried out to determine the optimal soil composition for reproduction. The soil was then applied to test fields in Maribor and Ljubljana, which yielded promising results.

In terms of innovation, the call for collaborative, innovative products from local businesses was put out, and met with high interest. Project promoters are supporting the start-ups and SMEs with their crowdfunding campaigns.

For other project targets, the lockdown has been quite advantageous. The online platform has received high levels of traffic since the pandemic reached Slovenia; project promoters believe this could be due to a lack of trust in the sanitary conditions of traditional supermarkets, and the relative safety of travelling to a local farmer based outside the city centre. Furthermore, with more people spending their time working remotely and using the Internet, the project team was able to promote the website and app more effectively. A new feature is being introduced, where people can advertise how much material they have available from their construction sites or gardening/home maintenance projects. This is also beneficial for the project team, as they can better understand who is responsible for which types of waste. The app developer (ZIP) is now working on questionnaires about how the farms could offer some deals to users. There are some potential problems, mainly that the majority of farmers are in the 50-70 years demographic and do not grasp the technology as well as other users, and are somewhat suspicious of the app. The developers have secured trust from these farmers by demonstrating how the website and app are benefiting them, as well as by removing the administrative burden of the farms having their own websites or social media pages.

According to the application form, the main outputs of the project include the following.

Project outputs:	
Target (application)	**Achieved to date**
• Reduction of organic waste to 2,400 t/year and reduction of mineral waste to 2,000 t/year to produce circa 3,000 t of soil and building material (as well as 590 kWh of energy)	• Too early to say - factory was intended to be up and running by autumn 2020, with urban gardens using recycled soil by winter 2020.
• Establishment of 4 urban gardens	• The urban gardens have been established, with 66 plots of land reserved by different citizens.
• Urban Agri Living Lab operational, with 6 social innovation pilots	• A workshop was held at the Living Lab, with over 180 attendees and 300 expressing interest in these events.
• Establishment of local labelled food (1 label, used by at least 50 farmers)	• Confirmed
• Established food chain from local farmer to consumer (at least 10,000 users of local food per year)	• A website has been set up, connecting citizens to 100 local producers for groceries and other products • Mobile app will be available

The waste reduction targets are critical to the project's success. According to the application, 52,000t of combined bio and mineral waste is dumped in landfills per year in Maribor. Employing a circular economy approach to waste management, in which it is transformed into useful, effective material for urban agricultural development, could reduce this number dramatically.

The local label for food products combines with the food chain from farmer to consumer via the online platform. Meanwhile, developing the Urban Agri Living Lab will provide the public with opportunities to learn about sustainable solutions, and be inspired by the social innovation pilot projects to live more sustainably in their daily lives.

10.6.4 Sustainability and scaling-up of the project at local level

After the UIA funding period, the project is intended to become self-sustaining. If not the project itself, the application mentions that the SMEs and start-ups will sustain and promote ideals of food self-sufficiency through their solutions. In terms of scaling up locally, the application divided these activities into three of the project circles:

1. Material Circle: Lowering the amount of bio waste from 27,000 t per year to 2,400 t, and the amount of mineral waste from 25,000 t per year to 2,000 t; increase production of soil from 3,000 t to circa 30,000 t per year. These targets will be achievable if the pilot factory is working properly and if the city is able to secure financial support for the construction of a larger recycling plant.

2. Food Circle: increase urban garden size by at least 20,000m^2, increase the number of food label users from 50 to 100, and increase the consumers of urban food products from 10,000 to 20,000. Scaling up in this circle will be based on local interest, and lessons learned from the project.

3. Open Innovation Circle: the urban gardens could be scaled up to be a permanent project; a social organic restaurant could open on a bigger site and invite similar restaurants in other cities to join the initiative; an Urban Food 4 Charity initiative could be scaled up to the national level and include the Red Cross and Caritas institutions; an Urban Soil 4 Bees could expand; and a Recyclable waste 4 urban soil and seeds project has potential to extend to 25,000 users.

According to interviewees, the project partnership plans to host international study visits and tours of the factory, urban gardens, and Living Lab, and has successfully arranged an international tour of Urban Soil 4 Food's work. At present, they do not know whether this will take place in person or via webinar. An extension to the end date of the UIA project was granted by the UIA Secretariat, due to the delays experienced.

To secure the scalability of the factory, the technology will be verified by the ETV (environmental technology verification) in terms of its safety and soundness. Once the project has received a national certification for meeting European product standards, it can be scaled up and taken to other EU Member States. In terms of the online platform, the partner responsible stated that they have meetings with the school systems in the region's municipalities and is adding 22 organisations that work in public food sectors in Maribor to the website. They hope that this platform can move beyond individual users, and that local farmers could supply food to larger organisations such as schools. As for the urban gardens, one partner said that the network will be further developed. Public interest was very high, and there were no problems with filling the initial 66 plots, so they hope to expand the urban gardens to meet increasing interest in the project. The project promoter also mentioned that the team is working to establish an "urban garden net", where customers can purchase seeds and other materials for gardens in bulk.

10.6.5 Transfer and replication of the project elsewhere in Europe

This project would be highly beneficial to urban environments across Europe. The application form mentions that the neighbouring city of Ptuj expressed interest in adopting a circular economy approach and is participating in the Interreg Aline Space GREENCYCLE project as observers, while Maribor is a partner.[192] Within this consortium, the German city of Freiburg and Italian city of Trento expressed interest in learning from Urban Soil 4 Food, and possibly replicating all or parts of its innovations. The Austrian district AmKumma, which consists of four municipalities, also expressed interest in the soil production pilot. In addition, Osijek (Croatia), Kraljevo (Serbia), and Graz (Austria) stated they would be willing to participate in the international study tour.

To disseminate knowledge and lessons from the project, the application mentions presentations in front of European Commission bodies, as well as at conferences across the EU.

To date, cities from both within and beyond the EU have expressed interest in adopting the innovations tested. For example, engineers from Houston, Texas said they would be interested in replicating the factory once it is up and running, and Belfast, Ireland aims to replicate aspects of the project as part of Horizon 2020. Budapest, Hungary has also expressed interest. Indeed, there is construction waste and bio-waste in every urban environment, but it is up to these cities to utilise it. Whether it is through the Urban Soil 4 Food structure or adapted to municipalities' own recycling and development purposes, any circular economy approach is a positive step.

The partner responsible for the online platform referenced the Croatian, Serbian and Austrian cities when discussing replicability, saying that they are working on different flagship projects there, and that the cities are planning to use the platform for local products and tourism.

10.6.6 Summary of key outputs and results (according to study typology)

Key outputs and results (related to case study activities)	
Outputs	
• New services, products, processes	• Reuse of urban waste in urban gardens network, featuring an orchard, plots reserved for children and the elderly • Online platform to connect customers to local producers
• Partnerships created	• The project partnership • Partnerships with 15 SMEs and start-ups focused on circular economy and food self-sufficiency
• Experience gained	• Applying for construction, environmental, and other related permits to set up the factory • Navigating legal and environmental standards regarding recycled urban soil and construction materials • Effectively promoting the project to the wider community, working with the media to portray the project accurately and positively • Communicating clearly with the local community and building a good report with future urban gardeners
• Knowledge produced	• National Agency for Materials conducted a preliminary test of a mixture of soil and bio-

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192 Interreg Alpine Space Greencycle. (n.d.). Project Partners. Interreg. [online] Available at: https://www.alpine-space.eu/projects/greencycle/en/about/project-partners

Key outputs and results (related to case study activities)	
	waste that proved successful. Discovered that bio-charcoal retains heat well.
	• Tested soil in two Slovenian cities and it worked
Results: local level	
• Identifiable effect on urban issues faced at local level	• Increased interest among citizens in saving food and urban gardening
• Sustainability of partnership working	• Strong partnership among the eight organisations involved, and continued support and enthusiasm despite lockdown.
• Innovations scaled up	• 15 start-ups and SMEs in the food/gastronomy and tech sectors have reached crowdfunding stages.
	• Online platform was due to be launched as an app in the second half of 2020

10.7 Project implementation

Based on interviews, all the circles are being implemented slightly according to plan. As stated above (see "Innovation process" above), this project has faced challenges in the planning and initiation phases. The main issue the partnership encountered was the backlash regarding where the soil production factory would be set up. Both the legal limitations and protests caused delay in commencing the project, as the team had to find another location. Therefore, there was a delay in soil composition research and permit acquisition.

According to the most recent project journal, other challenges have arisen from the COVID-19 pandemic. For example, participation in urban gardens may be affected by social distancing guidelines and public fear of catching the virus from community gatherings.[193] This may also affect the long-term sustainability of the gardens. However, there are some positive outcomes as well: the project's online dimension has received significant attention in the absence of in-person activity, and many customers are more comfortable with the online shopping and booking aspect than with visiting their local grocery stores.

A potential challenge that could apply to other cities that wish to adopt this project is convincing farmers to use the online platform. As the partner responsible for the app mentioned, there was some reluctance among farmers; most were aged between 50 and 70 years and were not as comfortable using this technology as younger people. To ensure this part of the project is successful, and that all players are involved, future adopters could hold a training session for farmers and customers on how to use the platform, and/or create an online tutorial video for any new users.

10.8 UIA flexibility and administrative requirements

Overall, project promoters and partners regarded the UIA highly, saying that it has been a positive experience thus far. It is clear that the UIA staff are very passionate, professional and informed, and interviewees praised their communication. The UIA Expert is very involved in the topic and has contributed advice regarding the community garden network's scalability after the UIA funding period. The UIA Expert corroborated that the Secretariat are very professional, and is pleased that they have expanded the list of outputs considered when evaluating projects: beyond technical journal articles, there are

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[193] Patti, D. (2020). The URBAN SOIL 4 FOOD project Journal N° 4. UIA. Available at: https://www.uia-initiative.eu/sites/default/files/2020-06/Maribor_UrbanSoil4Food_Journal%204.pdf

now webpages, news articles, etc. The administrative burden was not too large, and the project's UIA project officer was very supportive.

In terms of improvement, one interviewee mentioned that perhaps the UIA could provide project promoters with an app for projects that are on the same topic, but part of different calls, to connect them. The expert agreed that given the current set-up of the UIA, synergy between projects is quite difficult, but there should be more networking opportunities.

10.9   Communication and media image

In the application form, the communication strategy was outlined in WP3, which stated that communication activity targets would be to reach at least 50% of citizens with information about the project, as well as include these citizens in as many project activities as possible. The application also states that communication activity will focus on national and international levels to generate interest from citizens and entrepreneurs beyond Maribor.

In practice, it is not clear yet whether this target will be achieved, but Urban Soil 4 Food's activities have received extensive media coverage. Interviewees admitted that promotion in the media and social media could have been better in some areas. The project attracted attention when there were protests against the establishment of the factory in its initial location, but that was not wholly positive or planned. When promoting the calls for garden plots to be claimed by members of the public, the media helped cover those somewhat, and the open calls for SMEs were promoted via the press, municipal Facebook page, a radio show on urban gardens, and a TV interview on urban gardens. Once the soil is produced, the project team aims to have more publicity. One key event that raised the project's profile was the Cities Forum 2020 in Porto, Portugal, where 57 UIA, Interreg and Cohesion Fund projects were showcased over the course of three days. Urban Soil 4 Food was recognised as a best project and received a certificate confirming this.

The team has a communication officer to oversee future communication activities. The promoter mentioned that they take advantage of any opportunity where they can present the project and circular economy ideas in general, such as conferences and lectures.

10.10 European Added Value

In interviews, members of the partnership made it clear how EU funding greatly benefited the project. From the opportunity to present at European conferences (such as the Cities Forum 2020 in Porto) to networking with other cities through Interreg programmes to promote Urban Soil 4 Food, EU support has allowed the project team to extend its influence beyond Maribor. Even though the project has yet to produce its key output, these opportunities have bolstered its efforts. Furthermore, although Maribor is an active participant in other EU funding programmes (see below), this particular project presents a number of unprecedented innovations that the municipality would not have been able to execute without UIA funding.

10.11 Complementarity with other EU programmes

Maribor benefits from a Horizon 2020 project, Cinderela, which deals with circular urban construction and, in part, excavated materials.[194] Project partners also mentioned that Maribor applied for the Interreg project, City Water Circle (CWC), which experiments with using rainwater and wastewater for construction materials.

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[194] Cinderela. (n.d.). Cinderela Home Page. [online] Available at: https://www.cinderela.eu/The-project

In parallel to the UIA project, Maribor is implementing a sustainable urban development (SUD) strategy supported by €14.3m of ERDF funding under Article 7.[195] The SUD strategy has two Thematic Objectives:

- TO4. Low-Carbon Economy: a circular economy approach entails a city reducing its carbon footprint. By localising food production, reliance on local growers, and transforming urban waste into soil and building materials, Urban Soil 4 Food's multiple circles interoperate to establish a circular economy in Maribor. In time, the decreased demand for imports will reduce the carbon output from transportation vehicles, and the decrease in urban waste will reduce the reliance on landfills, as well as the amount of methane produced from decomposing waste.[196]

- TO6. Environment Protection & Resource Efficiency: one of the main funding priorities of Slovenia's Operational Programme for the Implementation of Cohesion Policy is increasing energy efficiency and the use of renewable energy sources in the public sector, households and enterprises. In Maribor, the SUD strategy and the UIA project both reflect this goal, as Urban Soil 4 Food aims at increasing sustainability through reliance on both local production and creating a new source of renewable energy.[197]

10.12 Lessons learned

Among interviewees, one of the key lessons, and success factors, was that collaboration is most successful when there are regular meetings, strong communication, and when everyone feels like they have ownership of the project idea and a chance to pitch in. On the latter point, the project was managed such that everyone was up-to-date on project activities and what the team aimed to achieve. They consider the fact that all eight partners have been able to work together for nearly three years a great achievement.

Beyond smooth project partnership cooperation, the initial pushback from the public demonstrated how important it is to work with local people from the outset. To avoid protests or misunderstandings of what the project is, project teams should facilitate trust in the project and involve members of the public in the planning stages in addition to the initial recruitment for urban gardens. This will increase participation and boost Urban Soil 4 Food's reputation.

Another important lesson was how to adapt when the project does not go to plan. Having to relocate the initial pilot site required resourcefulness and compromise, with the factory now being located outside of Maribor rather than within it. One project partner mentioned that a success factor for this project is carrying out all the procedures and obtaining all the necessary permits to erect the factory. Location permit was only one step; they had to then obtain a permit for each component of the device, which involved explaining its functions in great detail, such as how much soil it can compost at once. As mentioned earlier, an expected innovation emerging from this project is a set of legal standards surrounding urban soil products. Furthermore, an important lesson from the planning phase was that public procurement, evaluation of different options and selection took much longer than expected, due in part to the fact that this type of treatment plant is an unprecedented innovation. Therefore, there should be time allocated for administrative delay when planning future replications.

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[195] European Commission. (n.d.). Operational Programme for the Implementation of the EU Cohesion Policy in the period 2014-2020: Slovenia. European Commission. [online] Available at: https://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/slovenia/2014SI16MAOP001
[196] Gies, E. (2016). Landfills Have a Huge Greenhouse Gas Problem. Here's What We Can Do About It. Enisa. [online] Available at: https://ensia.com/features/methane-landfills/
[197] https://urban.jrc.ec.europa.eu/strat-board/#/factsheet?id=SI-007&fullscreen=yes

As explained earlier, communication and promotion are key. The high interest in claiming and working in urban gardens demonstrated how quickly the public will get involved in and support the project's activities, as well as how effective promotion in the media and at conferences can be. The upcoming international tour of the project is expected to increase interest.

10.13 List of interviews

Organisation	Role in project	Date of interview
Municipality of Maribor	Promoter	03/06/2020
Wcycle Institute Maribor	Partner	16/06/2020
Deltaplan	Partner	17/06/2020
ZIP	Partner	30/06/2020
Eutropian	UIA Expert	24/06/2020

10.14 Documentary sources consulted

Document / website / YouTube
https://www.uia-initiative.eu/en/uia-cities/maribor
https://pxweb.stat.si/SiStatDb/pxweb/en/30_Okolje/30_Okolje__27_okolje__02_Odpadki__01_27061_odvoz_odpadkov/2706101S.px/table/tableViewLayout2/
https://www.cinderela.eu/The-project
https://www.uia-initiative.eu/sites/default/files/2020-06/Maribor_UrbanSoil4Food_Journal%204.pdf
https://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/slovenia/2014SI16MAOP001

11. EARTH CYCLE (SEVRAN, FRANCE)

11.1 Key project facts

EARTH CYCLE	
Key facts	
Call	2
Acronym	EARTH CYCLE
Title	On-site recycling process of extracted soil from the subway work in Sevran and its impact on the circular economy
Project Number	UIA02-087
Status	Ongoing
Duration	01/03/2018 - 28/02/2021
Topic	Circular Economy
Member State	France
Number of partners	13
Main urban authority	City of Sevran
Other partners	• Higher education and research: Gustave Eiffel University
	• Higher education and research: Sciences Po
	• Higher education and research: Architecture, Environment and Building Cultures, Research Unit AE&CC
	• Higher education and research: amàco
	• Interest groups including NGOs: Skills for Employment
	• Interest groups including NGOs: CRATERRE
	• Sectoral agency: Greater Paris Transportation
	• Enterprise: ANTEA Group
	• Sectoral agency: Great Paris Developer
	• Enterprise: Quartus Urban Expertise
	• Enterprise: Joly & Loiret architectural agency
	• Enterprise: ECT Group
Budget	
ERDF	€4.885m
Public co-financing	€0.218m
Private co-financing	€1.003m
Total	€6.106m

11.2 The city

Sevran has a population of 51,201 people, located in the north-eastern suburbs of the Grand Paris Metro region, and is considered one of the poorest.[198] A 2013 Economist article stated that 36% of its residents are below the poverty line, and 75% live in subsidised housing, and a 2017 Al Jazeera article mentioned that youth unemployment is at 40% in Sevran.[199,200] Interviewees corroborated this, describing Sevran as a relatively poor former industrial city that has lost its industry. With unemployment at approximately 20%, and a high crime rate, the population of Sevran faces many difficulties. The project's target

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[198] Insee. (2019). Legal Populations 2017: Municipality of Sevran (93071). Insee. [online] Available at: https://www.insee.fr/fr/statistiques/4269674?geo=COM-93071

[199] The Economist. (2013). France's troubled suburbs: Forgotten in the banlieues: Young, diverse and unemployed. The Economist. [online] Available at: https://www.economist.com/europe/2013/02/23/forgotten-in-the-banlieues

[200] Mandhai, S. and El Amraoui, A. (2017). In a Paris suburb, apathy and fear of Le Pen. Al Jazeera. [online] Available at: https://www.aljazeera.com/indepth/features/2017/04/paris-suburb-apathy-fear-le-pen-170421200738259.html

groups not only include industrial actors who will use the recycled building materials, but also urban authorities and citizens themselves.

11.3 Rationale for the project

As the application form outlines, the construction industry is the largest user of raw materials in the world, and sand (used to produce concrete) is the second most consumed material in the world (the first being water). However, in Paris and its suburbs, 85% of dumped materials consists of building materials and excavated soil; this demonstrates how these materials are considered waste despite an increased demand for building resources. Earth Cycle aims to counter this practice, to prove that excavated soil can be used to produce building materials, and through initial testing and experimentation, inspire other cities to reuse excavated soil in urban construction projects.

According to interviewees, the Earth Cycle project addresses the need to both aesthetically and internally transform the construction occurring in Sevran and, more widely, in the Paris region. As stated above, Sevran was once an industrial city; project promoters wanted to redevelop that industrial ethos for the 21st century. By closing the loop on the construction and demolition cycle, this project can reduce potential resource shortages in Sevran, as well as the excess CO_2 emissions involved in dumping materials and producing and transporting concrete.

11.4 Objectives and intended effects

The overall aim of the project was to foster a new model of urban development through the utilisation of raw earth construction. This process would take advantage of the high volume of excavated soil, considered as waste, produced by the construction of the Great Paris subway, and the resulting development of urban areas from these 70 new stations, by establishing an industrial process of transforming extracted soil into building materials.

The objectives were to:

- Establish an industrial process to reuse extracted soil from construction sites;
- Create bricks, clay panels, mortar and wall coating from existing resources;
- Assemble actors - citizens, construction industry, factory workers and other businesses - able to work together in a process from excavation to final material using the Earth Cycle factory that can be replicated in other cities across the region and Europe;
- Prove that soil extracted from construction sites must be considered as a resource and not as waste;
- Increase the use of raw earth materials in construction;
- More effectively safeguard the natural resources traditionally used for concrete production;
- Train and employ local, unemployed workers, and include inhabitants in a circular economy dynamic;
- Reduce truck traffic in urban areas;
- Improve the public image of Sevran.

The main intended effects were to:

- Deter construction and industry actors from reverting to dumping and its associated environmental and economic costs;
- Avoid massive dump areas in the Paris region;

- Secure material availability;

- Promote a low-carbon urbanisation strategy, and reversible buildings;

- Part of the Greater Paris Transportation (SGP) soil excavations in Sevran will be used to produce material for local urbanisation projects, including train station construction;

- Produce three technical standards for earth building materials, approved by a French certification body (CSTB) to bolster European accreditation of raw earth construction;

- Develop new technical skills for a variety of professionals and implement Skills for Employment plans to train unemployed people. 70% will be workers and 30% will be specialist technicians and managers;

- Reduce CO_2 emissions from construction;

- Develop workshops during the project's 3-year duration with different target groups (young people, adults, elderly);

- Have direct contact with 500 people in the Sevran community and foster a participatory process throughout the project's lifetime.

11.5 Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured public funding of €218,000 to be provided by the City of Sevran, Grand Paris Aménagement (GPA), Société du Grand Paris (SGP), Gustave Eiffel University, Architecture, Environment and Building Cultures Research Unit (AE&CC), and others. The budgeted private funding of €1 million was to be provided by ANTEA Group, Quartus, Joly & Loiret Architectural Agency, CRAterre, Amàco and ECT Group.

According to the project application form, Antea Group will serve as the expert in earth management and control data systems; GPA will initiate the process in Sevran and assist in scaling up the activity across Greater Paris; SGP is in charge of the subway works from which the materials will be extracted; Quartus is a real estate business that will aid in construction, selecting building companies, and selling raw earth construction projects once they are completed; Joly & Loiret and AE&CC will advise on the construction of the factory and future raw earth construction; ECT is specialised in soil management and will oversee factory operations; CRAterre will help define the type of products that could be produced from the excavated soil and present the greatest potential to meet the social demand; Compétences Emplois will develop professional integration offers to companies and factory workers; amàco will provide research and training expertise in this area; and the academic institutions, Gustave Eiffel University and Sciences Po, will provide assessment tools.

11.6   Innovation process

11.6.1 Knowledge informing the innovations

Earth Cycle was influenced by a number of projects, and although its innovation is truly progressive, it is part of a much greater initiative across France to utilise biomaterials instead of concrete and other manufactured products. The French laboratory CRAterre is renowned for its work in raw earth materials, and Fedarene (the European Federation of Agencies and Regions for Energy and the Environment) demonstrated via experiments how using artisanal methods for individual housing (in Ireland) or in larger buildings (Rennes, France) is beneficial and feasible.

Although no project to date has implemented a circular economy strategy involving the processing and transformation of construction waste material, the projects mentioned above still created new structures from earth, albeit from a nearby field rather than a recycling factory. These projects also operate on a much smaller scale, whereas the

current project aims to work on the larger scale, producing material for construction companies rather than individuals.

The most similar project to Earth Cycle is the 1985 social housing project in Isère, in which 65 units were constructed from adobe, raw earth blocks, and wooden frames made out of an earth and straw mixture. These projects share a highly ambitious objective of providing large-scale impacts through raw earth construction. The Sevran project learned from Isère that a lack of dissemination and high costs of material construction can impede any scaling up potential; therefore, Earth Cycle ensures it is in close contact with the media, and reduces costs by using already-excavated materials.

11.6.2 Experimentation

All UIA project activities are organised in work packages (WPs). EARTH CYCLE featured nine WPs, of which two were particularly important to the innovation tested in the project.

Plant and production line conception (WP5): The first main innovation of this project, and among the first phases of the recycling process, is turning excavated soil into usable construction material for urban development projects across the city. To accomplish this, a new factory will be constructed by 2021, wherein the right type of earth will need to be tested for a variety of metrics (absence of pollution, cohesion, resistance) and selected for processing. This process need only occur once, after which the selected earth will be dried and broken up into powders. From there, transformation machines will direct the material along three disparate lines. With these aspects in place, or at least being designed, a unique business plan will need to be drafted to fit this unique industrial process. Products are then tested for soundproofing, insulation, heat retention, and flammability.

Another key component of this innovation is that this factory, and the trained staff within, will be able to test and mix the excavated soil from different origins to make useful material. Of course, despite the soil coming from different origins, the selected soil will be the same. In time, this process has potential to become highly adaptable, and yield incredibly useful knowledge about the earth in the Greater Paris region, what types of soil and waste can be used at different times of year, and what can withstand the climate. Of course, this adaptability will require an increase in machines, which the project cannot currently afford for the first few years. At a later stage, if this pilot is successful, the project will invest more in research and development to determine the viability of other soil formulas and accept a wider variety of soils. This may lead to more aesthetically diverse products being produced and placed on the market.

Investment to set up three material production lines (WP8): once the factory buildings are erected, and the necessary laboratory equipment purchased, production can begin. The factory will be made out of wood and other natural materials. The three material outputs from this factory will be mortar and wall coating and Compressed Earth Blocks, which will be purchased by construction and other industry actors for new construction projects around Sevran. A fourth material, extruded panels, has been abandoned for the time being, as the product's technical performances are not satisfactory yet. After a delay due to the COVID-19 pandemic, the preparatory works for the building started in July 2020.

Despite the hindrances due to nationwide lockdown, the project secured a number of key achievements. In 2019, the business plan for the factory was outlined, and the building permit was filed and accepted. All production lines have been designed and the machines have been selected, and in summer 2019 there was an agreement between Earth Cycle and its first client, a subsidiary of a housing company. In February 2021, this client will launch a pilot operation of 50 housing units using raw earth products from Earth Cycle's

factory.[201] According to the project promoter, another potential client is a construction company working on the stadiums for the Paris Olympics in 2024.

The deadline for launching the factory and placing its products on the market is currently February 2021, but an extension of project duration until October 2021 has been requested, with preparatory works for construction commenced in July 2020, and building works set to begin in November 2020. According to interviewees, they are selecting contractors and intend to begin after that.

The application refers to the factory as "mobile", as it was originally intended for the factory to be easily transportable to building sites, directly supplying them with the material and reducing any material transportation (and the resulting environmental cost). That has since changed, with the project management team believing it is better to have a static site in the city; however, there may be a mobile production line in later stages of the project, which would serve as a supplement to the fixed factory site. One of the benefits of having a static site is that the project has included a treatment centre close to the factory for soil drying, and that the pilot can serve as a hub for excavated soil from multiple sites, rather than just one working site at a time.

Once the factory opens in 2021, the project can pursue its other targets, such as reducing CO_2 or grey energy produced in Sevran and delivering more training days to interested parties. With the business plan already outlined, the project reports in its most recent journal that the volumes produced in a current year are 300,000 bricks (2,500 t/year), 35,000 extruded panels (700 t/year) and 1,700 t of plaster and mortar.

According to the project application and interviews, the main outputs of the project include the following.

Project outputs:	
Target (application)	**Achieved to date**
• 6,500 t of earth recycled per year	• The factory's annual output of recycled materials is currently projected to be 2,500 t of bricks, 700 t of extruded panels, and 1,700 t of plaster and mortar. If the extruded panel line is not set up at the start of production, the production of bricks will increase to maintain the same level of overall production.
• 200 training days for people in companies and for urban development actors	This target has been exceeded: • 12 unemployed people trained for about 60 days on necessary skills for building sites using raw materials; • 50 architects attending a one-day training session and a second one planned for this autumn; • 100 architects, engineers and developers received a half-day training on raw earth construction.
• Equivalent of 12,500 t of extracted earth (50% of raw materials)	• Potential to achieve the target during the project lifetime, subject to production starting.

[201] Diab, Y. (2020). The Earth Cycle project Journal N° 2. UIA. Available at: https://www.uia-initiative.eu/sites/default/files/2020-06/Sevran%20Earth%20Cycle_0.pdf

Project outputs:	
• 10% reduction of "grey" energy (landfilling activity, truck traffic, material sourcing)	• Too early to say.
• At least 60% positive feedback from inhabitant survey	• Inhabitant survey is planned for September 2020-January 2021

While some outputs – such as the quantities of extracted earth and processing of materials – are quite clear in their purpose, others require some additional context. The training days, for example, are an integral component of the project's wider social mission. Training individuals at various levels and in different industries to adapt to the project's practices (from drying and testing soil to using the materials) not only provides opportunities to learn new skills and access employment, but also involves them in the green transformation of Sevran, and may inspire them to create further circular economy projects.[202]

11.6.3 Sustainability and scaling-up of the project at local level

After the three-year funding period, the project aims to continue most of its activities, and will require around €10m to be scaled up. The majority of activities will be funded by the sale of building materials. According to project promoters, the entity operating the factory will probably solicit bank loans to purchase more machines and increase the variety of products on offer. They are currently soliciting other public and private funds to create a training centre on raw earth construction, which will be connected to the factory.

The application proposes the following means of scaling up:

• first, it places the onus for scaling-up on Great Paris Developer, which can use tools such as the Special Technical Specifications for Land Transfer to establish rules on reusing local material to produce building materials;

• second, it mentions diversifying the source of extracted soil, or using the same approach of testing and recycling earth but from a variety of urban development sites;

• third, it refers to third partners - Agence de la transition écologique (ADEME), ARENE, and the Urbanism Construction Architecture Plan (PUCA) - to promote the Earth Cycle project through close follow-up and evaluation; and fourth, to shift the very nature of outputs from materials used for filling gaps and finishing to those for outside and basic structures.

The project was already quite constrained time-wise. The lockdowns have only further impeded any real scaling-up initiatives that could take place before the UIA funding period ends. However, interviewees remained hopeful that once construction is completed in 2021, some activities can begin. For example, if the initial factory in Sevran is successful, one project partner projected the team could make more within the next two to three years. The aim of this pilot site is that in a few years, it will be self-sufficient and sell the materials it produces. In addition, they plan to distribute guidance and notes to anyone who wants to build a similar factory in their own urban centre. Another partner mentioned that the Earth Cycle partnership is currently trying to identify all the projects within each member's network that could avail of these materials.

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[202] Diab, Y. (2020). The Earth Cycle project Journal N° 2. UIA. Available at: https://www.uia-initiative.eu/sites/default/files/2020-06/Sevran%20Earth%20Cycle_0.pdf

11.6.4 Transfer and replication of the project elsewhere in Europe

The primary intention of Earth Cycle is to be replicable in other cities around the world. Sevran's site is intended to demonstrate the processes project and site managers will need to go through to choose the proper soil for recycling—this will vary in each city based on its climate and geological features—and to share best practices. In the survey, respondents stated that they do not yet have a clear plan for knowledge transfer, and indeed the application only says the project intends to "trigger the transfer of this new industrial sector to other areas of Great Paris, and to other European cities" with little further detail.

The application responses point out that communication activities, such as architectural guidelines for the factory or training local inhabitants to manage and oversee the recycling process, are designed to ensure transferability. In terms of concrete knowledge transfer activities, the application lists participation in the Urban Development Network (UDN) and submitting reports and evaluations, as this will allow the project team to share experiment results for both feedback and to demonstrate to actors in other localities how to establish a circular economy through raw earth recycling and construction.

Two project partners led an exhibition in 2016 in Paris on raw earth construction and architecture. The stand demonstrated how to recycle excavated soil (waste) into usable materials. Although this exhibition predated the UIA funding period, it was this initiative that piqued the City of Sevran's interest, led to the formation of the Earth Cycle partnership and eventual application to the UIA. The high volume of attendees marked a significant interest in this innovation. Since the project began, partners have presented approximately 20 lectures across France and two in Brussels. More knowledge transfer activities were planned for 2020 (lectures and presentations) but cancelled due to the COVID-19 pandemic. These included a presentation at the French embassy in China and another in Switzerland. Nonetheless, the activities that have taken place have generated high interest in the Earth Cycle solution, both from the general public and from various industries (such as concrete). The latter are beginning to investigate their own factories' capacity for this innovation. Meanwhile, workshops and courses on raw earth and waste materials are emerging around France, with architectural schools adopting the use of this new material resource. One interviewee, who is responsible for networking and selling the materials produced by the factory, added that although interest is high, there are still misconceptions as to what raw earth construction entails. Questions such as, "is the earth polluted?" or "is it stable?" appear, so there is a need for education first.

Interviewees mentioned that they want to communicate how similar projects will be able to operate without massive public funding like the UIA; they hope that Earth Cycle will have a strong enough impact that the market will be more responsive to any spin-outs or smaller duplicates, and that those leading such initiatives will feel confident in borrowing money to fund their work because the market will have been established.

11.6.5 Summary of key outputs and results (according to study typology)

Key outputs and results (related to case study activities)	
Outputs	
New urban infrastructure and equipment	• New factory for turning excavated soil into usable construction material to be opened in 2021.
New services, products, processes	• New service providing the conversion of excavated earth into usable building materials, located at a new factory.
	• A novel testing and transformation industrial process to reuse extracted soil from construction sites.
	• Assessment services/tools.

Key outputs and results (related to case study activities)	
	• Bricks, panels and other construction materials made from recycled waste.
Partnerships created	• The Earth Cycle partnership, comprised of 13 stakeholders from various industries.
Experience gained	• Working with raw earth materials. • Collaborating with actors from various industries. • Establishing training programmes. • Technical skills developed for a variety of professionals in the construction industry.
Knowledge produced	• Durability of different types of soil and raw earth specific to the Grand Paris region, in terms of soundproofing, insulation, flammability, etc. • New methods of working, testing soil, which qualities to test for. • A set of three technical standards for earth building materials.
Results: local level	
Identifiable effect on urban issues faced at local level	• Too early to say
Sustainability of partnership working	• Too early to say
Innovations scaled up	• Too early to say

11.7 Project implementation

Earth Cycle has been implemented mostly to plan, with a few setbacks setting them slightly behind schedule. In the survey, the project promoter stated that there was a major change requested in order to maintain the innovativeness and achievability of the project's goals. This is most likely referring to the change of site due to some conflicts encountered in the regulatory process.[203] The new site is significantly smaller, which interviewees have mentioned has caused a minor delay in redesigning the factory based on these constraints. It could also be referring to the shift from a mobile factory to a fixed site.

One of the key difficulties which interviewees mentioned was that the process is quite spontaneous; factory workers and associated partners cannot know in advance what kind of earth will be extracted from each construction site. It is therefore important to train both the people who extract the earth and the people who receive the waste to quickly determine if the earth is useful, and then just as quickly send it to the treatment site, as treatment must occur within 24 to 48 hours. Indeed, in the survey, one of the main challenges listed was that the various project phases always take longer than expected. However, the project team mentioned they are working on this issue, designing a geological map of the type of soil that can be used by Earth Cycle's industrial processes in the Greater Paris region. This map will then be cross-referenced with the schedules of urban development projects to ascertain when and where specific types of soil are going to be excavated.

11.8 UIA flexibility and administrative requirements

Overall, the perception of the UIA instrument is quite positive. The project promoter praised the Secretariat for their support, clarity, flexibility and transparency, as well as the encouragement they receive. They fully believe the Secretariat is there to help, so long

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[203] Diab, Y. (2020). The Earth Cycle project Journal Nº 2. UIA. Available at: https://www.uia-initiative.eu/sites/default/files/2020-06/Sevran%20Earth%20Cycle_0.pdf

as they respect the initial deal and are committed to the innovations proposed. In the online survey, the promoters listed almost all aspects of the UIA rules (50% advanced ERDF payment, simplified rules on State Aids, 20% budget flexibility, and possibility to make project changes) as "very helpful".

In terms of the administrative burden from the UIA, in the survey the project promoters said the development of the partnership agreement was the most burdensome element, but commented that it was a necessary step in initiation. The UIA requirements perceived as "very burdensome" were the annual progress reports and audit checks and/or visits. Interviewees mentioned that the contracting process was quite intense, as they only had six weeks between acceptance and implementation to define the project and secure the partnership, but they appreciated that the process allowed them to clarify the role of each partner and consider the project's logistics.

There are a few areas for improvement. First, interviewees have mentioned that since the project duration cannot be extended, adjusting a project's actions and ambitions to a relatively short time span can prevent some projects from being fully realised. With the regulatory procedures involved in construction, and the administrative requirements of the UIA itself, it is quite difficult to then deliver each result initially proposed in the application or project plan. Second, in terms of the allotted funding, interviewees pointed out that while some projects, such as Earth Cycle, may be short on budget, others may not be able to spend the full amount due to duration issues and plan changes, and conclude their work with leftover funds. They suggested that there should be a mechanism to distribute leftover funds to projects that are currently operating but running out of funding. Third, Earth Cycle faced some issues with its assigned UIA Expert: the first UIA Expert wrote a satisfactory first journal article, but it took quite a long time to deliver it and the expert was difficult to reach. This expert left, and the UIA Secretariat appointed someone else who has been far more helpful.

11.9   Communication and media image

In the application form, WP3 is dedicated entirely to the project's communication strategy. The project's target groups are inhabitants of both Sevran and the Greater Paris region, project partners, urban development actors, regional authorities and other policymakers, students, and media organisations. Deliverables include an inaugural conference, the development of a website, promotional videos after the conference, a regular newsletter written by the City of Sevran, and two workshops with Sevran citizens: one for children 3-15 years of age, another for the wider public to take place in a community centre. Once the project is completed, this WP proposes a final conference with a number of political stakeholders and UIA representatives, to share the project results and demonstrate its replicability in other European cities.

The inaugural conference took place on 27 September 2018, and the project partners have attended several conferences and events since.[204] However, due to the lockdown in response to the COVID-19 pandemic, several communication activities were either cancelled or delayed. One of the partners mentioned there were plans to organise a conference in April 2020, which also had to be cancelled. To adjust to lockdowns lifting and safety regulations, project partners stated that there is a new communication phase in the works, which will be rolled out in the coming months.

There is a project website, but according to interviewees it has yet to generate much online traffic.[205] Similarly, the project is not as prominent on social media: the partners post

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[204] Cycle Terre. (2018). Earth Cycle Conference at the Pavillion de L'Arsenal: A Certain Craze for the Earth. Cycle Terre. [online] Available at: https://www.cycle-terre.eu/conference-cycle-terre-au-pavillon-de-larsenal-un-engouement-certain-pour-la-terre/

[205] Cycle Terre. (n.d.) Earth Cycle Official Website. [online] Available at: https://www.cycle-terre.eu/

about Earth Cycle news and updates on their own Facebook or LinkedIn profiles. Nonetheless, the high volume of media coverage and conference presentations has generated a significant amount of interest. The benefit of having 13 project partners is that each organisation can publicise the project among its respective network, and indeed the promoters discussed the frequency of calls from journalists. In total, they estimate there have been between 20 and 30 pieces of media coverage, such as radio shows, newspaper articles, and even a documentary.[206, 207]

11.10 European Added Value

Both in the survey and interviews, the project management team praised the EU support and funding for this project. The unprecedented innovations that this project will deliver both in Sevran and in the wider Paris region would not have been possible without the UIA funds.

11.11 Complementarity with other EU programmes

According to interviewees, there is no evident complementarity with other EU programmes. There is no apparent linkage with the sustainable urban development strategies for Sevran or Paris.

11.12 Lessons learned

A key lesson learned thus far is that it is difficult to recycle the waste. Nobody wants to use it because it takes quite a long time to process, from drying the soil to actually transforming it into materials. In addition, project partners learned how to convince the variety of actors involved in construction to start working in sync with one another. There were some contradictory needs between contractors and architects that were eventually reconciled by the project partners insisting that they could use part of their UIA funding to train contractor employees, architects, and clients.

Another difficulty the project promoters faced was striking a balance between the technical rationale behind certain recycled materials and the marketing/business models for different construction projects. Since raw earth materials are most useful in the walls between rooms, and must be protected from rain, they are not visible. However, when a developer wants to use a material, they prefer if it were visible, so the Earth Cycle team had to try to shift that mentality to meet the technical demands. To compromise, they are currently working on construction models that allow for the materials to be usable, but also partially visible in certain areas of the building.

11.13 List of interviews

Organisation	Role in project	Date of interview
City of Sevran	Project Promoter	05/06/2020
Quartus	Partner - Realtor	09/07/2020
Joly & Loiret	Partner - Architect	13/07/2020

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[206] Le Monde. (2019). L'architecture se plie à la fibre végétale. Cycle Terre. [online] Available at: https://www.cycle-terre.eu/wp-content/uploads/2019/11/Le-Monde-311019.pdf
[207] Architecture & technique. (2020). Matériau Crue, la terre promise à un bel avenir. Cycle Terre. [online] Available at: https://www.cycle-terre.eu/wp-content/uploads/2020/02/LMoniteur10012020_ArchiTerrecrue-light-a.pdf

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URBAN MOBILITY

12. LINC-TUPPAC (ALBERTSLUND, DENMARK)

12.1 Key project facts

LINC-TUPPAC	
Key facts	
Call	2
Acronym	LINC-TUPPAC
Title	Transforming Urban Planning Providing Autonomous Collective mobility
Project Number	UIA02-227
Status	Ongoing
Duration	01/03/2018 - 28/02/2021
Topic	Urban Security
Member State	Denmark
Number of partners	8
Main urban authority	Albertslund Municipality
Other partners	• Local public authority: Gladsaxe Municipality
	• Infrastructure and (public) service provider: Nobina Denmark
	• Higher education and research: Technical University of Denmark
	• Education/ training centre and school: Roskilde University
	• Enterprise: IBM Danmark ApS
	• Other: LOOP CITY (drop-out)
	• Other: Gate 21
Budget	
ERDF	€3.371 m
Public co-financing	€0.329 m
Private co-financing	€0.514 m
Total	€4.214 m

12.2 The city

Albertslund is a municipality with a population of 30,000 people and an area of 23km[2] within the western side of the Greater Copenhagen area. As a planned community or new town mainly built in the 1960s and 1970s, it is characterised by experimental and innovative low-rise urban planning, integrating water and green spaces in the architecture. Albertslund Municipality has declared a goal of finding new ways to reduce total CO_2 emissions and minimise water, soil and air pollution. To support this ambition, the municipality is a partner in the Green Cities network, which aims to promote sustainable citizen behaviour and alternatives to car traffic, amongst other things. Alongside this, the municipality also prepares a Green Accounting Statement showing the production of CO_2 emissions, as well as the consumption of heat, electricity and water and the production of waste.[208] All branches of local authority and local institutions are environmentally certified according to the EU's Eco-Management and Audit Scheme (EMAS) standard.[209]

The UIA project involved an associated urban authority as a delivery partner, Gladsaxe Municipality, also in the Greater Copenhagen area, with a population of about 70,000 people. The Traffic and Mobility Plan of Gladsaxe includes an objective "to cooperate with

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[208] https://albertslund.dk/servicemenu/english/about-albertslund/environment/
[209] https://ec.europa.eu/environment/emas/

transport companies and neighbouring municipalities to increase the number of passengers in public transport by 25% over a 10-year period".[210]

12.3 Rationale for the project

The UIA project takes place in the context of a wider infrastructure development, i.e. a Greater Copenhagen light rail system in suburban Copenhagen Area. A total of 11 municipalities, the Capital Region and the Danish State are behind the Greater Copenhagen Light Rail. The light rail system will include 29 new stations and 28km of track across 10 municipalities on the outskirts of Copenhagen, including Albertslund Municipality and Gladsaxe Municipality. Whilst this will contribute to the wider goal of providing alternatives to car traffic, it will not immediately solve the "first and last mile" challenge inherent in public transport, i.e. public transport can remain less attractive then private car use, as it rarely stops directly in front of the passenger's ultimate destination.

The overall rationale for the project was therefore to enhance the environmental and mobility benefits of the new light rail system by testing the potential of driverless vehicles to meet the first and last mile challenge. The idea was that intelligent and autonomous shuttle busses, if proven to be successful, could complement the new light rail system and transform urban planning by enabling passengers to get closer to their final destination and increase urban liveability. If successful, this solution could thus be rolled out more widely across other municipalities along the light rail system (earlier called the LOOP CITY agglomeration).

12.4 Objectives and intended effects

The overall aim of the project was to demonstrate and evaluate how autonomous collective mobility can be enhanced in urban mobility transition plans. The project proposed to purchase 3 driverless vehicles, develop their control systems, demonstrate their operation in two different environments, and generate knowledge in order to integrate this solution in a range of urban development projects and plans, involving early users. It would evaluate the results of autonomous collective mobility as a business case and the impact, if scaled, would be quantified with a scenario model for LOOP CITY.

The objectives were to:

- contribute to increased mobility and generate an environmental responsible infrastructure which can handle the first/last mile challenge;
- enhance urban mobility transition plans, and make it possible to develop cities with a more sustainable, flexible and coherent infrastructure;
- enhance the attractiveness and liveability of urban environment for the benefits of citizens, the economy and society as a whole;
- address the major challenges identified in the Sustainable Urban Mobility Planning (SUMP) framework, i.e. participation, cooperation, measure selection, and monitoring and evaluation;
- develop, test and demonstrate practical solutions to the principal problems of integrated, driverless bus transport, including safe operation, public trust, cyber security, flexible routing;
- contribute to a better environment due to neutral CO_2 emission from electrical busses and possible increased use of public transportation;
- improve safety and contribute to minimizing accidents and reach a level of zero killed in the traffic.

[210] https://gladsaxe.dk/kommunen/politik/planer-politikker-og-visioner/veje-og-trafik/trafik-og-mobilitetsplan

- increase the potential for cheaper tickets and increasing customer choice;

- improve productivity due to saved time on transport;

- evaluate how autonomous collective mobility can be enhanced in urban mobility transition plans, through identifying learnings from test beds to qualify how this will change future planning.

The main intended effects were:

- evaluation of how autonomous collective mobility can be enhanced in urban mobility transition plans;

- practical solutions to the principal problems of integrated, driverless bus transport;

- increased attractiveness and liveability of the urban environment;

- clarification of how users intercept and respond to autonomous collective mobility service,

- best practice implementation of autonomous collective services in sustainable urban mobility planning;

- knowledge on obstacles and potentials when introducing new infrastructure, including ICT infrastructure, cyber security etc.;

- a better environment due to low emissions from the busses and possible increased use of public transportation because of integrated solutions handling the first/last mile issue;

- a model for Copenhagen principles for collective mobility services, describing steps towards solving challenges in urban areas, where mobility and flexible public transportation will be necessary in order to address the societal challenges.

12.5 Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured public funding of €0.329m, of which about half to be provided by Gate 21, a non-profit partner organisation implementing inter-municipal projects, and the rest by two universities and the two municipalities. Most of the budgeted private funding of €0.514m was to be provided by Nobina Denmark a/s, Denmark's 5th largest bus operator, with an additional contribution from IBM Danmark ApS, the national arm of the global technology company, which includes a Research Division focusing on smart cities, automotive smart transportation and other aspects related to traffic.

As well as the financial inputs, the partnership brought considerable technical expertise in urban planning, provision of public transport services, research, design and technology development. The municipalities also provided influence, for example, through their responsibilities for urban planning and traffic management, which included certain statutory powers to permit road closures. Originally, LOOP CITY provided the strategic and operational link to the wider light rail system. During the project lifetime, the Forum of Mayors, consisting of the 11 municipalities behind the Greater Copenhagen Light Rail, decided to end support of the LOOP CITY agglomeration. Gate 21 took over responsibilities from LOOP CITY, which ensured good access to a wider set of stakeholders, not least its 77 partners and members in Greater Copenhagen.

12.6 Innovation process

12.6.1 Knowledge informing the innovations

The implementation of the project has drawn on various forms of knowledge.

Prior to the UIA application, the partnership reviewed 13 European and 3 American projects, experimenting with driverless systems in recent years. Through this review, as number of best practice examples of autonomous vehicles were identified, including: Kista Science City (Sweden), which has successful operated driverless electrical busses; WEpod (Netherlands), which has introduced, driverless busses and developed a legal framework for driverless traffic on public roads; La Rochelle (France), which has introduced 6 driverless electrical buses operated in dynamic traffic with cars, cyclists and pedestrians on a complex route.

During the implementation of the project, the partnership reviewed research literature focusing on opportunities and risks with driverless vehicles and their implications on policy-making and planning. Staff from the project also visited Sweden where driverless buses have been approved by the relevant authorities for use on open roads.

12.6.2 Experimentation

The project featured one core innovation: testing the adaptation and deployment of electric, intelligent, driverless shuttle busses in connection with new light rail stations in Greater Copenhagen. More specifically, this was to include the purchase of three driverless vehicles, development of their control systems, demonstration of their operation in two different environments, and generation of knowledge in order to integrate this solution in a range of urban development projects and plans. The results of the tests were to be evaluated as a business case and the impact, if scaled, was to be quantified with a scenario model for LOOP CITY. The driverless system was to be SAE Level 3 or 4 if possible, as defined by the Society of Automotive Engineers:

- Level 3: "Conditional Automation": the driving mode-specific performance by an automated driving system of all aspects of the dynamic driving task with the expectation that the human driver will respond appropriately to a request to intervene.

- Level 4: "High Automation": the driving mode-specific performance by an automated driving system of all aspects of the dynamic driving task even if a human driver does not respond appropriately to a request to intervene.[211]

At the heart of the experimentation was to be the testing of three driverless vehicles. After a procurement process in 2018, three Easymile EZ10 vehicles were received in early 2019. It was then necessary to get legal permission to operate the vehicles on open roads. This legislative process featured two stages. The first stage involved gaining vehicle approval. As no EU type-approval rules exist, it is necessary for each country to have a single piece approval process. In practice, it proved challenging to satisfy requirements around braking functionality and electromagnetic compatibility, which required more tests and modifications to be undertaken than had been anticipated. As a result, some delays were faced in gaining the necessary approval. Vehicle approval was gained from the Danish Road Traffic Authority (Færdselsstyrelsen) in the first half of 2020, the first time that a vehicle from the manufacturer Easymile was approved for use in Denmark.[212]

The second stage required the partnership to gain approval from the Danish Road Directorate to operate the vehicles on open roads. This is a comprehensive process involving 15 steps, including a site assessment, a public hearing, political approval of a Consolidation Act by the national Transport Committee and a site acceptance test, before the test can start.[213] At the time that the current assessment was carried out, this approval had not yet been granted, although it was hoped that testing would start in the second half of 2020. The major change also involved reducing the scope of testing, as it became apparent that it would be difficult to test and gain approval for the on-demand service with

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[211] https://www.sae.org/standards/content/j3016_201806/
[212] https://uia-initiative.eu/en/news/first-selfdriving-easymile-vehicle-approved-testing-denmark
[213] https://uia-initiative.eu/en/news/understanding-legislative-framework-test-autonomous-vehicles-public-streets-zoom-2

flexible stops and full driverless operation. Once permission is gained, the first testing phase will operate with the three autonomous Easymile vehicles as regular buses on designated routes, whereas the second phase will involve a demand-driven service based on optimised routes with user data collected via the developed LINC smartphone application.

The initial proposal was to test the vehicles at two locations: the campus of the Technical University of Denmark (DTU) and Hersted Industrial Park. However, after receiving permission from the UIA Secretariat to make a major change due to the delays experienced in gaining, the testing was reduced to one site, the university campus. Nonetheless, there remains an intention to undertake some smaller tests at Albertslund Municipality that only require permission from the municipality and local police to close the road to traffic, for demonstration and test purposes. Some demonstrations and tests will be undertaken in Hersted Industrial Park.

In parallel to the activity to gain approval, a smartphone application was developed for users. As well as providing real-time information on bus movements for users, the application can also invite users to provide survey responses. Around 300 smart Bluetooth beacons on the campus will provide data on users' movement patterns, which can inform the routing of busses. Consultation of representatives of students and university staff facilitated some pre-tests on campus and the recruitment of a minimum 500 designated users of the application.

12.6.3 Achievements against project targets

The main intended outputs of the project are listed in the table below. According to the 2019 Annual Progress Report) and the 2020 Milestone Review, achievement to date is as follows.

Project outputs	
Target (application)	**Achieved to date**
Permission to pilot the use of autonomous busses at DTU Campus	• Not yet achieved
Permission to pilot the use of autonomous busses at Hersted Industrial Park	• [output target removed from project following approval of a major change]
Market analysis report	• Completed (2019 Annual Progress Report)
3,025 hours of bus operation in a secure environment at DTU Campus area	• Not started yet (awaits permission for autonomous testing at DTU Campus; will be achieved providing that a 6-month test phase is still possible within the project lifetime)
Operation procedures manual for operation centre	• Not started yet (2019 Annual Progress Report)
3,025 hours of bus operation in a secure environment at Hersted Industrial Park	• [output target removed from project following approval of a major change]
Operation procedures manual for operation centre in Hersted Industrial Park	• [output target removed from project following approval of a major change]
Test-user database	• Completed
Report: User reactions and service design recommendations	• Behind schedule (2019 Annual Progress Report)

Project outputs	
Report: The bus stop as a concept – from fixed to flexible bus service	• Completed (2019 Annual Progress Report)
LINC-TUPPAC Mobile app for autonomous bus service with flexible routing	• Behind schedule: app has been developed but will only be tested once the piloting of the busses starts (Milestone Review January 2020)
Demand prediction report	• Behind schedule: awaits finalisation of the DTU Campus test and follow-up on the data collected (Milestone Review January 2020)
Software application for static vehicle routing/Dynamic Vehicle routing	• Behind schedule: awaits finalisation of the DTU Campus test and follow-up on the data collected (Milestone Review January 2020)
Procurement of three autonomous buses	• Procured in 2019

As seen from the table, there are delays in achieving most of the main outputs. These result primarily from the delays in, first, gaining approval of the vehicles and, second, gaining permission to test the vehicles on the DTU campus. As described above, approval of the vehicles has been granted and it is anticipated that permission to test the vehicles will soon be granted. The testing of the vehicles will open the way to achieving the intended outputs and results of the project.

In the long-run, there remains potential for strategic impact, provided that the tests demonstrate that the driverless vehicles are an effective and viable solution. The light rail station serving the DTU campus is expected to open in 2025 and to be complemented by a demand-driven autonomous bus service, which goes where regular buses can't or don't go. Once the service is operational (alongside the light rail system), data will be gathered on usage both of the busses and the light rail system and on any impact on private car use and congestion.

12.6.4 Sustainability and scaling-up of the project at local level

The project application proposed that the innovation would be scaled up across the Greater Copenhagen light rail network, subject to any technical constraints. This remains the intention, although it is too early to state whether scaling up will take place in practice, largely because the testing has not yet taken place. However, one of the proposed deliverables will be an analysis of traffic modelling and of the potential impact of driverless busses, which is intended to inform the wider development of the light rail system in Greater Copenhagen. Indirectly, this can theoretically show whether autonomous vehicles can have an impact on passenger counts for the new light rail.

There are some technical and practical uncertainties about the potential to scale up the concept. This relates to whether it would be necessary to operate a traffic control centre using 5G technology, which does not feature in the UIA project. Another uncertainty is whether the vehicles will be technically and legally able to operate without a driver. According to the UIA Expert Journal, the current legislative framework requires a driver on board with a full focus on operating the bus. A requirement to include drivers would risk undermining the financial sustainability of the solution. Last, the UIA Expert Journal

notes that the vehicles may drive slowly and stop if they cannot safely operate. This risks making the solution unattractive to users.[214]

There remains some organisational challenges that make scaling up uncertain. First, as earlier explained, the LOOP CITY agglomeration, which was created by 10 municipalities (plus the Danish state) to promote the concept of autonomous buses, was disbanded one year into the UIA project. Whilst the LOOP CITY vision is still shared by the 10 municipalities, the disbanding of the Secretariat has affected the promotion of the concept, although Gate 21 (a partner organisation and one of the partners in the UIA project) has taken over some of the promotional activities and governance arrangements. Second, it is a separate organisation, the Copenhagen Metro and Light Rail company, that is building the light rail system. Although there is direct contact between that organisation and the UIA partnership, the organisation currently only has a remit to build the light rail system and not to introduce the driverless bus shuttle service.

12.6.5 Transfer and replication of the project elsewhere in Europe

The UIA application noted that an autonomous collective mobility solution, as proposed for the LINC-TUPPAC project, would potentially be of interest to other cities and globally. One of the main means by which to support transfer and replication was proposed to be a set of guidelines bringing experience and results from the operation and experiments to other urban areas who work with sustainable urban mobility planning. Given the delays to testing described above, it has not been appropriate to develop the guidelines yet. However, the project manager (when interviewed) reported that an ideation catalogue and report were to be developed on how municipalities can develop autonomous collective mobility services, finance them and integrate them into urban planning. Further SUMP planning for autonomous vehicles, in the context of the two municipalities urban transformative plans, will deliver some examples on how cities development plans can integrate new innovative mobility schemes and services.

The main effort at promoting knowledge transfer and replication will come later, once the testing is complete and the results are available. At that point, the project proposes a promotional effort targeted at other cities in Denmark and elsewhere. Some dialogue has already taken place within cities in other EU Member States, and this will be further developed later.

12.6.6 Summary of key outputs and results (according to study typology)

Key outputs and results (related to case study activities)	
Outputs	
New urban infrastructure and equipment	• Procurement of three autonomous buses
New services, products, processes	• Potential (as yet unrealised) to provide a new urban mobility service for users of public transport, to address the first and last mile challenge.
Partnerships created	• New partnership formed to develop test the use of autonomous vehicles as a possible solution to the first and last mile public transport challenge.
Experience gained	• Experienced gained about the process of gaining legal approval to operate autonomous vehicles, the challenges faced, best approaches (e.g. importance of having the vehicle manufacturer engaged in the type approval process) and lessons for legislators.

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[214] UIA Expert Journal No 3, November 2019.

Key outputs and results (related to case study activities)	
Knowledge produced	• Insights into user experience (e.g. feelings of insecurity in a driverless vehicle). • Importance of combining different research approaches to the development and application of new technology, i.e. both theoretical modelling and real tests and trials.[215]
Results: local level	
Identifiable effect on urban issues faced at local level	• Potential (as yet unrealised) to encourage a shift from private car use to public transport, with positive effects on air quality, congestion, etc.
Sustainability of partnership working	• (Not certain)
Innovations scaled up	• Potential (as yet unrealised) for driverless buses to be used across the Greater Copenhagen light rail system, depending on the results of the testing in the UIA project.

12.7 Project implementation

With the approval of the UIA Secretariat, the project start date was postponed by four months to 1 March 2018 to allow more time for the preparation phase. The project promoter reports that the reason for delaying the start was to give time to organise with partners and make changes to the application form. Within one year, it was then necessary to obtain approval for a major change to the activities, i.e. for LOOP CITY to drop out as a partner and for a project name change. A major change request has been submitted to the UIA Secretariat to reduce the sites for testing driverless busses from two sites to one site. This change is considered necessary due to the difficulties and delays related to testing (described above). According to the survey response of the project, this major change was necessary but reduced the ambition and innovativeness of the project. An early task was to operate a procurement process for the supply of the driverless vehicles. According to the 2018 Annual Progress Report, this showed that the market for providing such vehicles is relatively immature, with only a few suppliers able to offer autonomous shuttles of the standard required by the project. Nonetheless, a suitable supplier was identified and thus the procurement process did not cause any particular delays to project implementation.

Overall, the project reports that getting permission from the Danish Road Directorate to undertake testing has been the greatest challenge during implementation. It is too early to say with any certainty that the project activities will be completed on time. However, the project manager reports that the intention is to seek any extension of the project end date (28 February 2021) by up to six months due to delays in relation to the COVID-19 situation.

12.8 UIA flexibility and administrative requirements

Staff from the LINC-TUPPAC project were mostly satisfied with design of the UIA instrument and the associated administrative requirements. The response to the on-line survey described two aspects as being "very helpful", namely the 20% budget flexibility and the possibility to make project changes (the respondent was did not offer comment on the other UIA rules). In an open comment, the survey response noted described the latter as being key when doing innovation. Assistance and monitoring from the Secretariat and assistance from UIA Experts was described as "very helpful". In an interview, project

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[215] UIA Expert Journal No 3, November 2019.

staff highlighted the benefit of being involved in the selection of the UIA Expert. The UIA Expert had very relevant experience, having been involved in a project in Sweden that also tested autonomous vehicles and was thus able to provide unique insights.

The project staff reported particular satisfaction with the flexibility offered by the UIA: "It's a good thing that flexibility is built in from beginning. We pushed the start date back a couple of months, which was very beneficial, as it gives time to organise with partners, make adjustments to application form. The UIA evolves around the idea of building something at the edge of innovation and trying something not tried before, so we needed this flexibility and it was provided via the UIA."

Overall, the project staff welcomed the opportunity to innovate represented by the UIA. As one stated: "The programme is quite unique. We need more initiatives like this to enhance innovation in new technologies. If you work on edge of new technology, then you need to be willing to take a risk, but then we can learn something new. The UIA Secretariat are communicating this to the projects: saying they aren't here to control, they want projects to succeed, but it's OK if they don't. This is a good approach; it's how great results can be created."

12.9 Communication and media image

According to the LINC-TUPPAC application, the main objective of the communication strategy was to engage test users and stakeholders. More specifically, the main target groups were:

- Commuters to and from DTU Campus numbering around 10,300 students and 5,800 employees.

- Commuters to and from Hersted Industrial Park numbering around 10.000 employees who tended to have a higher dependence on cars than the general population.

- Secondary target groups were related to upscaling possibilities within the LOOP CITY geography, such as local politicians and urban planners within local municipalities, the Board of Directors of Greater Copenhagen Light Rail, and commuters and local residents.

The proposed strategic approach was to involve and engage the target groups in a manner that makes it easy and motivating for them to test the driverless busses and makes them feel secure and safe when trying out this new type of transportation.

The challenges experienced in gaining permission to test the vehicles and in having to reduce scale of the testing posed some difficulties in communication. The UIA Expert noted that one challenge has been to strike the right balance in terms of setting expectations. On the one hand, the project has need to raise expectations amongst those that might see driverless busses as too futuristic to be taken into account in the urban planning process. On the other hand, the communication has had to encourage those audiences (politicians, partners, potential users) that had very high expectations to take a more nuanced of the likely performance of the buses.

Communication activities have included a website and Facebook page, as well as news releases to local or specialist media (e.g. engineering, transport). Local and national media (including TV) have given coverage after attending events on the DTU campus and visiting to test the shuttles. However, several of the important communication activities have been delayed by the time taken to gain permission for the testing and by the COVID-19 pandemic. These include recruitment of test passengers at DTU Campus, the kick-off event at DTU campus, flyer and digital recruitment hubs (testbed at DTU Campus), campaigns for DTU campus, information posters at bus stops, information stickers or folders in busses and demonstrating autonomous shuttles to the public. Indeed, communication has not

been worthwhile given that students and university staff have mostly not been present on campus during the pandemic and it is not when they will return. Nonetheless, the project has intention of recruiting some 500 test users, mostly from amongst students and university staff. The return of students at the campus allowed the recruitment process to start and during the first two weeks 140 have been enrolled as test passengers. More extensive communication activity will take place as when the testing is undertaken and completed.

12.10 European Added Value

According to the project promoter's response to the on-line survey, only some of the activities would have been implemented without EU funding from the UIA and the main benefit from being part of an EU initiative was that "EU funding provided the opportunity to test new ideas". The project promoter went on to highlight the greater prestige and profile associated with being part of an EU programme: "EU funding brings a lot of attention to the project for local politicians, media and others. It brings a level of 'seriousness' to the project and a feeling of being relevant as a city. On top of that, because of the demands for communicating the project, it forces us (municipal participants) to get out and speak with other municipalities and share knowledge and ideas. These events are a great opportunity to create local networks". The project reported the support from the UIA Expert as another form of European added value offered by the UIA Initiative. Such support would not usually be offered by other funding sources.

At this point, with the testing delayed and the main results of the project not yet achieved, the full potential of the project to offer European added value in terms of scaling up, transfer of experience and dissemination of knowledge has not yet been realised. Once the test results are available, at the very least (i.e. in the event that the tests fail to demonstrate the viability of the autonomous vehicles) this will generate knowledge that other cities can benefit from. Should the tests demonstrate the viability of the innovation, this should offer European added value through potential for scaling up and transferability.

12.11 Complementarity with other EU programmes

The LINC-TUPPAC project builds on or is indirectly linked to projects funded by other EU programmes.

Gladsaxe Municipality was a partner in the ENDURANCE European Sustainable Urban Mobility Plans (SUMPs) network.[216] ENDURANCE assists cities and regions in developing SUMPs by facilitating networking, mutual learning and sharing of experience and best practice across countries. The Danish network included several cities that shared the objective of having a fossil free transport system by 2050.[217] The project manager reported that the activities of the ENDURANCE network helped prepare urban planners and traffic managers for the innovations to be tested by the UIA project.

Gate 21, the key delivery partner for the UIA project, is also a partner in an Interreg project focussed on testing intelligent transport solutions in partnership with other organisations in the Capital Region of Denmark (Region Hovedstaden), Zealand Region ((Region Sjælland) and Skåne Region (Region Skåne), i.e. the part of Sweden closest to Greater Copenhagen (and connected by a road bridge). The aim of the testing activities has been to create a basis for dissemination and scaling of smart mobility solutions by supporting knowledge sharing and by implementing a joint development process for a wider circle of municipalities across the regions involved.[218] Whilst the Interreg project has

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[216] https://www.eltis.org/mobility-plans/project-partners/endurance
[217] http://www.epomm.eu/endurance/index.php?id=2809&country=dk
[218] https://www.gate21.dk/fremtidens-intelligente-mobilitet-i-greater-copenhagen/fimo-usecases/

been implemented separately from the UIA project, information has been shared between the two projects and a joint conference is being considered.

The LOOP City grouping of municipalities (including Albertslund and Gladsaxe) were partners in the Tech Town URBACT Network, which operated from 2016 to 2018.[219] Whilst the focus of the network was on how cities can maximise the job creation potential of the digital economy, the Integrated Action Plan of LOOP CITY was set in the context of the development of the light rail system and the aim was to act as a testbed for data use and technological solutions that can enable innovation and a smart city with multimodal mobility solutions.

12.12 Lessons learned

The evidence gathered for this case study and the findings presented above allow us to draw some lessons learned regarding the LINC-TUPPAC project:

Certain innovations may be technologically possible, i.e. the autonomous vehicles have been supplied. However, legal frameworks for the application of certain technologies may be relatively undeveloped and untested. This is not necessarily a failing of national legislators, as legislative frameworks have to prioritise issues such as public safety. But it does highlight the need for additional time to be allowed to go through the approval process. It also highlights the need to engage constructively with legislators with a view to informing revisions that will create a more enabling legislative framework whilst not jeopardising safety. This is especially relevant when no directives or regulations at an EU level exist.

Technological readiness and functionality does not necessarily ensure a solution to urban problems. In the case of driverless busses, the attractiveness of the solution to users risks being undermined by premature technology being semi-autonomous and only allowing for slow travel times.

Expectations around the potential uses of new technology need to be effectively managed. Communication is essential both to raise expectations but also to manage those expectations. The aim has to be to articular a nuanced and realistic view of the potential of new technologies. Enabling stakeholders, media and potential users to experience the technology for themselves (e.g. through tests) can help in that respect.

As noted by the UIA Expert, demonstrating the viability of technological innovations might require a combining different research approaches to the development and application of new technology, i.e. both theoretical modelling and real tests and trials.[220]

12.13 List of interviews

Organisation	Role in project	Date of interview
Gate 21	Partner	23/06/2020
Albertslund Municipality	Partner	06/10/2020
Technical University of Denmark	Partner	02/10/2020

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[219] https://urbact.eu/techtown
[220] UIA Expert Journal No 3, November 2019.

12.14 Documentary sources consulted

Documents / websites / YouTubes
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UIA Expert Journal No 2, April 2019
UIA Expert Journal No 3, November 2019.
UIA Expert Zoom in (1)
UIA Expert Zoom in (2), May 2020
https://uia-initiative.eu/en/uia-cities/albertslund
http://www.epomm.eu/endurance
https://www.eltis.org/mobility-plans/project-partners/endurance
https://www.gate21.dk/fremtidens-intelligente-mobilitet-i-greater-copenhagen/fimo-usecases/
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https://gladsaxe.dk/kommunen/politik/planer-politikker-og-visioner/veje-og-trafik/trafik-og-mobilitetsplan

13. SASMOB (SZEGED, HUNGARY)

13.1 Key project facts

SASMob - Smart Alliance for Sustainable Mobility	
Key facts	
Call	Urban Innovative Actions 2014-2020
Acronym	SASMob
Title	Smart Alliance for Sustainable Mobility
Project Number	UIA02-239
Status	Ongoing
Duration	01/02/2018 - 31/01/2021
Topic	Urban mobility
Member State	Hungary
Number of partners	12
Main urban authority	Municipality of the City of Szeged
Other partners	• Infrastructure and (public) service provider: Szeged Transportation Ltd. • Infrastructure and (public) service provider: Centre for South-Alföld Transport Ltd. • Infrastructure and (public) service provider: Urban Management of Szeged Municipality Nonprofit Ltd. • International organisation: Regional Environmental Center • Higher education and research: University of Szeged • Sectoral agency: Szeged Pólus Development Non-profit Ltd • Enterprise: IT Services Hungary Ltd. • Enterprise: Pick Szeged Ltd. • SME: GriffSoft Ltd. • SME: evosoft Hungary Ltd. • SME: Mobilissimus Ltd.
Budget	
ERDF	€ 2.607 m
Public co-financing	€ 0.218 m
Private co-financing	€ 0.433 m
Total	€ 3.259 m

13.2 The city

Szeged, with approximately 170,000 inhabitants, is the third largest city in Hungary and one of the south-eastern gateways into the European Union. It is also the largest city and regional centre of the county of Csongrád-Csanád. The river Tisza flows through the town, with the Belvarosi [Inner city] bridge connecting the old town with many university campuses and residential areas. Szeged is the business centre of the South Great Plain Region, hosting almost 19% of the businesses in the South Great Plain Region and approximately 53% of businesses operating in Csongrád-Csanád County.[221] During recent decades, the city of Szeged has undergone major changes both in infrastructural development and in mobility culture. Szeged adopted its Sustainable Urban Mobility Plan (SUMP) in 2017, building on the city's Strategic Transport Development Concept (STDC). The STDC placed Szeged amongst the first cities in Hungary to prepare a "sustainable mobility" vision.[222]

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[221] Investinszeged.hu

[222] https://www.eltis.org/el/node/49075

Between 2008-2016, the city carried out many important infrastructural projects to improve its public transport system. Improvements among several others included the development of three major transport hubs, the introduction of pedestrianisation and traffic calming zones, the development of new bicycle lanes, the introduction of WIFI-equipped modern public transport vehicles, as well as the modernisation of the ticketing systems. Although these actions created a good quality public transport system, Szeged still experienced a steady decline in public transport usage. The city's public transport system was often too slow to respond to the population's mobility changes as the city's infrastructure evolved. Although the modal share of cycling has increased from 9% to 17%, it increased at the expense of public transport usage.[223] In cities like Szeged, car usage is associated with social status and hence people might be reluctant to swap their cars for public transport. Data shows that despite all the modernisation of public transport, the level of car usage remained unchanged at 23%, while the use of public transport dropped from 55% to 35%.

13.3 Rationale for the project

The need for the SASMob project relates to the characteristics of Szeged, where despite the several infrastructural investments in previous years, public transport usage was steadily declining. The city's leadership was not able to find the right solutions for promoting sustainable transport, without the necessary available data to analyse transport usage, mobility patterns and mobility habits. Szeged needed more information on mobility patterns: to adjust mobility services to explicit and implicit mobility needs. It also became evident that the corporate culture of Hungarian employers was not offering clear and direct means to support sustainable commuting options for employees.

The overall rationale for the project was to initiate a mentality change by involving employers and employees in the promotion of sustainable transport for commuting; and to provide data for the municipality to fine-tune public transport to the needs of those who use it for going to work. The project addresses this issue by promoting a change in behaviour and attitude towards commuting and sustainable transport solutions, and by introducing a monitoring system to collect data about mobility within the city. The target group of the project is the commuter population or more specifically those who have to travel to get to work (working-age citizens). The focus on working-age citizens is exacerbated by the fact that they make up the core of personal car-based journeys.

13.4 Objectives and intended effects

The overall aim of the project was to deliver sustainable urban development by building up a data-driven intelligent transport system based on structured multi-stakeholder governance. The project was based on two interconnected pillars; the Employers Mobility Pledges, and an IT platform for collecting and monitoring commuting behaviour and vehicle utilization with reliable, real-time data. The project is based on the Mobility Challenge Framework – a workplace commuting solution - that was worked out in Austin, Texas by a conglomerate of US-based organisations. This framework is adapted to the Hungarian situation.

The objectives were to:

- Create Employers' Mobility Pledges (SASMob PLEDGE), which is a contractual cooperation between the Municipality of Szeged and engaged employers. Through these agreements businesses received tools to facilitate sustainable commuting for their employees, create an innovative and supportive business environment, and change institutional work arrangements through Commute and Telework Deals

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[223] https://www.eltis.org/el/node/49075

(carpooling, home working, renovated bicycle storage facilities etc.).

- Encourage cross-sectoral cooperation (Smart Alliance) between businesses and the city of Szeged, through which businesses received guidance to co-design and tailor innovative solutions to facilitate sustainable commuting for their employees.

- Implement an intelligent data-driven municipal response system (SASMob RESPONSE), which is an optimized, high quality urban mobility service to create more options for better informed / more satisfied users and commuters. Initiatives included new routes, parking management and ticketing, dynamic information, taxi service deals, last mile solutions etc., based on data analysis such as vehicle sensors, GPS tracking, modal split predicting apps.

- Develop a strong data management process enabling analysis of the complex and interrelated urban mobility network, using transport behaviour data collected through detecting sensors/ surveys/ data aggregates from personal mobility patterns and facilitated by smart phone applications.

- Adapt mobility-service solutions to local circumstances in a responsive way through trials and stakeholder dialogues:

  - Optimize public and private transport services and local mobility infrastructure to correspond more closely with demand. The level of demand would be identified through data-driven objectivity and stakeholders' experiences, collected via the co-design function of the IT platforms;

  - Measure and improve the mobility carbon footprint of the city of Szeged, of participating companies and employees within the Smart Alliance, including a 20% rise in sustainable modes of transport and corresponding CO_2 emissions reduction;

  - Raise awareness among all stakeholders of the benefits of sustainable mobility to corporate interests, health benefits and urban quality of life;

  - Enlarge the SASMob network to persuade every business within the Szeged Functional Urban Area to be part of this joint effort;

  - Draw up an integrated, practical mobility roadmap that responds best to the needs of the city.

The main intended effects were:

1) Behaviour change of citizens and improved company culture:

- Stronger cross-sectoral cooperation (Smart Alliance) between businesses and the city of Szeged for low environmental impact mobility;

- Positive changes in public perception and behaviour change by citizens and commuters in Szeged towards sustainable mobility, and a more enabling corporate culture to support these changes;

- Greater awareness among private companies about the intrinsic benefits of sustainable mobility for retaining employees and creating a healthy workforce;

- Innovative and supportive business environment established, successful services including car sharing options for sustainable mobility achieved through Commute and Telework Deals.

2) Decreased mobility footprint and improved, more sustainable mobility system:

- Decreased mobility footprint with less congestion, better air quality and noise exposure and lower CO2 emissions from urban mobility, through reduced dependence on passenger cars;

- Higher quality, more responsive urban mobility services, with more options for better informed and more satisfied users and commuters;

- Intelligent and Responsive transport offer reflecting constantly evolving demand for urban mobility;

- A more sustainable urban mobility system within the city of Szeged, offering improved mobility services, reaching out to more commuters, increasing revenues for the public transport system that responds best to the needs of the city.

13.5 Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured public funding of €218,000 to be provided mostly by the Municipality of Szeged, and the University of Szeged. The budgeted private funding of €433,000 was to be provided by private IT and other organisations.

As well as the financial inputs, the partnership also brought substantial local influence, as it included the city's university, the Municipality of Szeged and a wide range of private and public companies, who were committed to the project beyond their financial contribution. One of the original partners (Regional Environmental Centre) left the partnership during the implementation of the project.

13.6 Innovation process

13.6.1 Knowledge informing the innovations

The project has drawn on previous knowledge from different sources:

- The Municipality of Szeged prepared its Smart City concept in 2016, focusing on improving mobility and a cashless city including public transport.

- The municipality and its partners had vast experience and extensive networks with EU projects, including a range of sustainable mobility initiatives, such as

  - LowCarb – aimed to install free Wi-Fi routers on all vehicles;

  - TramTrain – a new light train e-mobility service;

  - Regulatory initiatives such as introducing mandatory company mobility plans;

  - Cohesion fund financed infrastructure programmes, such as the renewal of tram/trolley/bus systems;

  - New passenger information/traffic management system with electronic displays at 100 stops.

- Academic expertise from the University of Szeged. The project was built on the innovations developed by the University's research team, whereby in a previous research project they measured urban mobility with WI-FI technology. The idea was to improve the existing WI-FI technology by integrating cameras into the system to improve measurement of mobility levels, patterns and behaviours.

- Partner's experience in employment-related matters such as telework and bike-to-work initiatives.

- The work was founded on a study visit by project partners to Austin, Texas and the adaptation of the Austin Mobility Challenge Toolkit. The visit gave a global understanding of the Mobility Challenge process and supported the adaptation of the Mobility Challenge Toolkit as well.

13.6.2 Experimentation

Experimentation can be split into two major parts including the development and operation of the partnership with employers (SASMob Pledge), and experimentation related to the development and introduction of an Intelligent and responsive IT platform for collecting and monitoring commuting data (SASMob Response).

One of the most important innovations of the project is that the municipality is working together with public and private employers to change mobility patterns and initiate a change in mobility behaviour and awareness. This type of collaboration is very advantageous for knowledge transfer and innovation, but at the same time it may bring challenges and learning opportunities for the partners involved, due to its complexity as well as the different working patterns of these diverse organisations. The initial experimentation phase involved some changes in partners as well as some adjustments to how these very different organisations can work together, but partners overcame these challenges and the project team reported very good working relationships and a strong network of partners.

Employers' Mobility Pledges

According to project partners it took some time to get familiar with the project at the beginning. Partners interpreted the different activities in diverse ways, which slowed down the initial phase of the project. Nevertheless, partners overcame these challenges and the monthly project meetings proved very useful for ironing out interpretation differences and finding a common direction. Although the preparation of the framework took more time than originally expected, it was finished before the pledges were signed. The aim of the Pledges is to implement and manage Commute and Telework Deals-related interventions and mobility measures.

Employers introduced different initiatives that were specifically tailored for their employees. According to project partners the development of mobility plans was 'very important and useful' and many stated that the senior management of their organisations strongly supported these initiatives. Many partners explained that they did not have mobility managers before and their companies were not familiar with the mobility patters of their employees. Partners also noted that employees received the mobility plans and interventions very positively and engaged with the initiatives actively. Project partners had to adjust some of the infrastructural investments to the local needs, for instance one of the partners had to extend the bicycle storage facility as the demand for it was larger than anticipated in the summer season, when more employees commuted by bike. Some partners, such as Evosoft Hungary invested in bicycles and designed a system for employee rental. They also experimented with investing in electronic scooters and introduced renting schemes, whereby employees can rent the bikes and scooters for a day or a week to try them out for commuting.

Other employers, such as Deutsche Telekom IT Solutions (previously in the application form called IT Services Hungary Ltd) have introduced bike rental schemes to provide employees with the flexibility to commute between the different site buildings. They have also experimented with free bike servicing for employees. This innovative activity was designed to address the problem that many employees, although they used their cycles to travel to work, owned bicycles that were in poor condition. Addressing this risk, the company introduced free cycle servicing for employees who started to use their bike to travel to work. As a result, 50% of their employees now commute by bicycle. Due to the increased demand for bicycle parking they also extended their bike storage facilities, and when demand rose from employees, invested in making these parking facilities covered. Employees can use their own bikes or may also rent bicycles from the reception.

The Urban Management of Szeged Municipality Nonprofit Ltd. built a covered bicycle storage facility, provided tools in this facility, prepared the installation of a public transport ticketing machine at the office building, requested a tram stop to make the accessibility of the site more convenient for workers, and introduced an initiative to encourage savings on petrol use, among other measures. It also introduced a promotion scheme for employees, whereby those who use their bike to go to work on at least 125 working days in a year, receive an extra day of paid leave. The employer plans to sustain this measure even after the project's completion. Pick Szeged introduced measures to make parking

more convenient for employees, extended the bicycle parking facilities and started on infrastructure development to modernise the pavement for pedestrians between the main entrance of their site and the tram stop where employees get off.

Employers are also committed to design and implement mobility awareness-raising campaigns to promote sustainable mobility. Most of the campaigns have focused on innovations related to smaller infrastructural investments as well as rental schemes, but some partners plan to launch a larger awareness-raising campaign when the project's app is launched. Some of these activities had been disrupted by the COVID-19 pandemic. SASMob promised to introduce Telework Deals at participating employers. These deals support home-working arrangements and flexible working habits. Due to the COVID-19 lockdown, partners were forced to move their workforce to home-working. Even though this shift created challenges for some employers, especially those who have a large manufacturing workforce, many of the partners 'overfulfilled' their promise to raise home working by 5%. The variety of employers within the SASMob project gave the opportunity to compare different sectors and their readiness for homeworking. Some companies adapted to the new situation by investing in laptops for the children of employees, others allowed their staff to take home their monitors.

SASMob Response

SASMob RESPONSE is a data management process to analyse complex urban mobility behaviour through data collected by smart phone applications. According to the leader of the technical project, in the development phase the biggest challenge has been to address the EU's GDPR requirements, as the system tracks and records the movement of people. Sensors have been installed at important city locations – such as the Belvarosi [Inner city] Bridge – and on public transport vehicles. Since data analysis is carried out locally, the amount of data to be transferred to the central data managing platform is reduced. The team worked out a system whereby only non-personal, statistical data is forwarded to the centre, thus ensuring that the monitoring system complies with the GDPR requirements. Three types of sensors were deployed on the bridge in Szeged and data is collected and analysed daily. The research team has experimented with different types of sensors for public transport as well as the measurement of traffic at stationary objects, such as the Belvarosi [Inner city] Bridge. The system automatically counts passengers on trolleybuses and traffic (cars, cyclists and pedestrians) crossing the Belvarosi [Inner city] Bridge. The research team had to design and test the sensors and adapt the software used for picture/photo editing. The new IT URBAN sensors analyse camera images about the passing vehicles, bicycles and pedestrians and WIFI signals from smart phones. The system integrates information from WIFI and cameras in order to provide passenger level traffic monitoring. The real innovation is that only the numbers are transmitted to keep the data anonymous and communication costs low. Free WIFI hotspots were made available on public transport vehicles that allow tracking of a significant share of smartphones – by anonymised ID – and organise trips into flows, i.e. extract origin-destination data and even multimodal trip chains.

Project partners at the University of Szeged have identified the corridors where sensors will be placed and once all the sensors are installed these will be given to the Municipality of Szeged. The system is up and running and is currently being tested and improved. A software environment was created to collect, process, share and archive the data. According to the Software Development Department of the University of Szeged it was a challenge to create a system that is able to take at least four images on a 100-dollar sensor. During the project, the sensors have been developed from an initial prototype and a technical readiness level of 2 to a technical readiness level of 7, where the sensors are working on an operational level. Data is being collected and will be available later on a publicly-available URL. The team experimented with the design of the systems and created a monitoring system from ready-made parts, which makes the new mobility tool sustainable as the price will be lower than similar devices available on the market.

13.6.3 Achievements against project targets

According to project's application form the main outputs of the project include the following.

Project outputs:	
Target (application)	**Achieved to date**
Framework of SASMob Employers' Mobility Pledge	• All documents related to the Pledge had been completed before the signatures of the Pledges with Employers.
Signed mobility pledge contracts	• 7 employers signed the contracts in January 2019, since then a total of 12 further employers signed a declaration of intent to join the framework. It is planned that there will be a total of 16 contracts signed by the end of the project.
Short task-specific course material to train employer-based mobility managers	• Completed.
Creation of IT Urban	• All the documentation has been completed.
Data summaries on mobility structures and changing mobility habits to create urban responses	• All the documentation has been completed.
Methodology for consultation scheme to involve New Employers in SASMob Pledge	• Completed in 2019.
Finetuned SASMob Framework	• Fine-tuning is in progress according to plans.
Commute Deal at Smart Alliance Partners	• Companies' Mobility Plans and the mobility recommendations have been completed.
Telework Deal at Smart Alliance Partners	• Development of plans and recommendations are ongoing.
IT JOB extended with at least 4 different modules	• Testing and development are ongoing.
Mobility awareness raising campaigns	• Ongoing.
Employee profiles describing different personal attitudes towards sustainable mobility	• The activity is ongoing and the follow up surveys are planned for the end of 2020.
Innovative, integrative ticketing scheme for public transport system	• The ticketing scheme development has been started and is ongoing.
Solution toolbox	• A solution toolbox will be prepared summarizing the tools tested, focusing especially on data requirements and decision-making processes. The toolbox will be worded and developed after the completion of activities to summarise learning.
Comprehensive set of 19 indicators analysed	• Ongoing.
Company profile structure	• Ongoing.
Annual mobility certification	• Ongoing, but the project promoter asked for a modification and instead of the originally planned two events only one of these events will be

Project outputs:	
	completed.
Mobility service desk	• Ongoing. This activity will ensure the sustainability of the project objectives and results and as such has not started.
Open Data Platform	• The platform development has started, the collection and analysis of input data is ongoing.
Intelligent and Responsive Transport System Business Case document	• This was due to be completed in September 2020.

WP4: Framework Model for Smart Alliance for Sustainable Mobility (SASMob)

One of the main outputs of WP4 has been the creation of the **Framework for the Employers' Mobility Pledge** and the signature of the **Mobility Pledge contracts** with the partner employers. The SASMob Pledge is an alliance of the Municipality of Szeged and the 7 participating employers including the Mayor's Office. Employers include both public and private organisations, covering different sectors (industry, IT, education, health, public service) with a total of over 5,000 employees. Another 12 employers have expressed their willingness to join the scheme and signed the declaration of intent. The Municipality of Szeged plans to approach another 4 employers to extend the total of new partners to 16 by the end of the project.

Besides the partnerships, within WP4 the SASMob project's technological innovation has also been started and is on track towards completion. The first **IT URBAN** sensors have been installed on the Belvarosi [Inner-city] Bridge during February 2019. While the first prototype is being piloted, engineers and IT experts are building the second version, which will also include solar panels, so that the sensor will not require energy supply and will be self-reliable and thus, could be installed anywhere.

WP5: Employers' Integrated Telework and Commuter Deals

Mobility managers have been appointed at every employer and they formed the SASMob mobility working group. Employer-based surveys have been conducted according to plans. Engagement with the survey was very high: within the municipality response rate reached 50%, while smaller employers achieved nearly 80% response rates. The response rates exceeded all expectations with more than 1,500 completed questionnaires. Companies' Mobility Plans and the mobility recommendations have been completed, but the Telework Deals are still ongoing. Due to the COVID-19 pandemic regulation of telework (home working) at partner companies has been affected and, in many cases, changed drastically. As a result, the documentation of this activity is still ongoing.

The other main output of WP5 has been the application **IT JOB**, which is a web-based platform and a mobile application that serves as a mobility management tool. The app that will support mobility has not been completed due to general delays and most recently due to the pandemic-caused lockdown. The app's main functions are currently being tested by the mobility managers. Partners from employers reported frustration about the extended delays in relation to the development of the app but were hopeful about the piloting phase. Partners reported that according to the current plans the app is being tested by mobility managers and the developer company and will be introduced late this year or early next year.

The **mobility awareness campaigns** have started but were seriously disrupted by the COVID-19 lockdown and partners reported that although activities were planned to resume

in September 2020, depending on the health crisis further delays may be necessary. The first bike-to-work campaigns have been completed at the partner employers. The planned carpool promotion has been postponed due to the pandemic as the idea of carpooling is against current health guidelines and internal communication at several employers. The municipality is exploring different options.

Employee profiles describe different personal attitudes towards sustainable mobility, based on employee surveys. The first survey was carried out at the beginning of the project with employees of participating employers. The second survey was planned for early 2020 but had to be postponed due to the COVID-19 crisis as it affected mobility patterns drastically.

WP6: Developing and testing City-wide transport service innovation response to detected employers' needs

One of the outstanding outputs from WP6 is the **analysis of 19 indicators**. This activity is partially based on the household survey that was planned for the spring/summer of 2020 but will only be carried out in Spring 2021 due to the pandemic. All the other outputs in WP6 are based on activities that had to be postponed due to the lockdown measures and will be carried out in the coming months.

Company profile structure - Mobilissimus assisted by Szeged will create company profiles using the employee profiles created in WP5. This activity has not been started as the preparatory activities were postponed due to the pandemic.

Annual mobility certification – The Municipality of Szeged will hand out Annual Mobility Certifications to the best-performing employers participating in SASMob. This output is ongoing, but the project promoter asked for a modification and instead of the originally planned two only one of these events will be completed.

Mobility Service Desk – Szeged, together with Szeged Transportation Company will set up a permanent consultation and advisory service desk to reach out to new employers who are interested in and considering joining the pledge. This desk will make all information available online regarding the process of taking the pledge and provide personalized advice for interested parties using the consultation protocol developed under WP4. The output is meant to provide sustainability of the results and is ongoing.

Open Data Platform - An Open Data Platform will be made available to the public exploring traffic/transport data and further economic, passenger behaviour and other relevant field data. The platform development has started, the collection and analysis of input data is ongoing.

Intelligent and Responsive Transport System Business case development – this output is a document that provides valid, evidence based and convincing arguments for other cities across Europe to introduce the system. The output is carried out according to plans and will be completed in 2020.

13.6.4 Sustainability and scaling-up of the project at local level

Sustainability of the project will be maintained by employers and partners as well as the Municipality of Szeged. Employers who signed the project pledge are committed to maintain and sustain the achieved results, many will transfer the mobility pledges to other company sites. Many of them invested in mobility-related infrastructure which will be sustained without larger further investments. Schemes such as the bike rental and bike servicing systems will also be maintained by the project partners. When the IT app is introduced, project partners plan to promote its usage to increase awareness for sustainable mobility.

The sensors that are being installed in the city will be sustained and used for data analysis by the Municipality. The project partnership is committed to scale up the project by extending the network of employers. Employers will sustain and scale up the achievements by transferring the newly introduced systems to other corporate units within Hungary. According to the survey most of the project activities will continue beyond the period of UIA funding.

13.6.5 Transfer and replication of the project elsewhere in Europe

Knowledge transfer and dissemination will happen at different levels and with different stakeholders. However, these are still in progress as the project is ongoing. Mobilissimus, for instance, participated in the Interreg CE LOWCARB project workshop in Koprivnica (January 2020), where their representative presented the SASMob project to provide feedback to recommendations for company-based mobility planning. The project's results are also promoted through Civitas. Civitas is a network of cities dedicated to cleaner and better transport in Europe. Currently, Szeged is the National Network Manager of the Hungarian speaking Civitas network "Magyar CIVINET", which promotes the exchange of best practices in Hungarian. In April 2020, Mobilissimus organized a stakeholder meeting titled the SASMob – Magyar CIVINET webinar, where employers who participated in the SASMob Pledge, shared their experiences about the radical change in mobility patterns caused by the pandemic, and their experiences on shifting to teleworking (home-working).

Through the University of Szeged, knowledge transfer will be carried out via academic conferences and scientific publications. The University is also working on a new project, in which the developed IT infrastructure system – whose know-how has now been completed - will be developed for marketization and production. The participating employers disseminate their results through their internal corporate networks and partners. Many of them mentioned that they are planning to sustain their newly-developed mobility systems and infrastructure and the piloted promotion schemes will be transferred internally within the companies to different sites and factories. The Municipality of Szeged plans to disseminate results through the expansion of the employer cooperation, as well as the integration of the new mobility system into the city's mobility planning.

13.6.6 Summary of key outputs and results (according to study typology)

Key outputs and results (related to case study activities)	
Outputs	**Achieved**
New services, products, processes	• The prototype of the innovative and complex traffic monitoring system (IT URBAN) has been installed on the Belvarosi [Inner city] bridge (ongoing). • Data management process to analyse the complex urban mobility behaviour through data collected by smart phone applications (SASMob Response) • App supporting the implementation of mobility plans (ongoing) • Employers created and introduced their mobility plans based on guidance from the Regional Environmental Centre.
Partnerships created	• New partnership between employers and the municipality in the city of Szeged
Experience gained	• Experiences in communication and collaboration with employers in project implementation • Experience in workplace mobility planning measures
Knowledge produced	• Knowledge of mobility-focused IT development process • Knowledge and experience of employers' mobility

Key outputs and results (related to case study activities)	
Outputs	**Achieved**
	management practices – how mobility management can be integrated into company structures and performances, policies, etc. • Knowledge of potential barriers and challenges to Commute and Telework Deals implementation. • Cross-sector cooperation between businesses and the City of Szeged
Results: local level	
Identifiable effect on urban issues faced at local level	• Local employees have better awareness about sustainable mobility. • Local employees have better access to sustainable mobility solutions, like bike rental, cycling servicing, cycles, scooters, ticket machines, better accessibility of offices etc. • More optimal provision of urban mobility services and better information to users and commuters • Businesses receive tools to co-design and tailor innovative solutions to facilitate sustainable and healthy commuting for their employees.
Sustainability of partnership working	• Employers and the municipality of Szeged continue to work together, while the number of partners is also increasing.
Innovations scaled up	• Scaling up is evident at partner organisations, as many employers plan to extend their mobility schemes to different plants and sites. • Scaling up activities are evident through Civitas as well as in the Municipality's future planning. • The University of Szeged is working on the marketization of the system of sensors.

13.7 Project implementation

The project has been implemented according to plan, however with some delays. Delays have been caused mostly due to three issues; the complexity and delay to public procurement, delays in relation to the development of the IT Job app and the outbreak of the COVID-19 pandemic. Public procurement was challenging as the infrastructural procurements took longer than expected and the internal approval processes were time-consuming. According to the staff at the University of Szeged, public procurement for these very innovative systems is a complex process, which meant some procurements were delayed. There were considerable delays related to the mobility application, which further delayed employers making the app available for their employees. Nevertheless, it is now in the pilot and testing phase, whereby mobility managers are testing the functionality of the app and once they find it user friendly enough, it will be introduced to employees.

The project has experienced the non-predictable challenge of the loss of important partners and internal changes in organisational structures. So far, SASMob has managed these challenges well and the new partners are well integrated. All partners praised the partnership and how productive the collaboration has been between different types of cross-sectoral employers. It is also crucial that project managers within the different partner organisations developed good personal relationships. For example, during the monthly communication meetings partners visited each other's premises, learning about the work of the other partner organisations. The project promoter has requested an extension as some of the activities may be further delayed due to the pandemic.

13.8 UIA flexibility and administrative requirements

The project promoters and the project partners praised the UIA instrument for providing flexible funding, where innovation is not constrained by administrative burdens, and the project is allowed to be slightly modified if the innovation that is being introduced requires it. The project promoter highlighted that the UIA funding is most useful because it is narrow in focus but allows flexibility at the same time. According to the Municipality, it was very 'beneficial' that the innovation could be introduced through a mixture of infrastructural and soft elements. Employers appreciated that they could invest in the necessary equipment to promote sustainable transport modes and at the same time could also introduce soft changes such as the campaigns to promote a change in mentality.

The project promoter in the online survey stated that all aspects of UIA rules were 'very helpful'. These included the 50% advance payment of ERDF, simplified rules on State Aids, 20% budget flexibility, simplified cost options for certain categories of expenditure and the possibility of project changes. The project promoter indicated that UIA requirements were 'not burdensome at all'. In terms of support from UIA, the assistance from UIA Experts and the assistance and monitoring from the UIA Secretariat was indicated to be 'fairly helpful', while the 'contact and networking with other UIA projects' was stated to be 'very helpful'.

These survey results are in line with the interviews, whereby the project team reported particular satisfaction with the networking and knowledge sharing opportunities in the beginning of the project, including the UIA information day in Budapest where project staff could ask questions about how to prepare the project and how to plan the innovation. The team stated that it would be useful to have more opportunities to familiarise themselves with the programme. The UIA was seen as being 'different from other umbrella programmes'. The staff highlighted that the ex-ante evaluation was 'very useful' as they got a 'first glimpse on how the evaluation would go later'. The flexibility regarding the start date after signing the contract, as well as the selection process, were praised as being 'relatively smooth'. The project team claimed that the 'programme itself is pushing cities towards innovation', which was considered very useful and helpful.

13.9 Communication and media image

According to the application form, the communication strategy was designed to target local employers and citizens through city-wide public awareness events and actions. The aims were to:

- effectively reach the target groups of the project through tailored messages;

- demonstrate the viability of actions;

- provide visibility for sustainable mobility measures and support behaviour change using various online tools;

- get Szeged citizens involved in changing behaviour patterns and in the co-designing process of transport management;

- advocate for and disseminate the progress and results to a wide stakeholder group at national and EU level through events, presentations & papers.

SASMob operates a project website to communicate the project's achievements, including news items, photos and links to social media pages (LinkedIn and Facebook). The project website is fairly simple. It has the partners' names and logos listed, but there are no live links to the partners' websites, although several partners have a dedicated project page, which features the UIA project achievements. The project's Facebook page is live, listing all ongoing activities. It has 1,208 followers and 1,190 people 'like' the page. The project has a very good UIA page, which is informative and provides links to a project library with

detailed SASMob Journals that provide extensive information on the project's progress, achievements and challenges, other related EU projects and project news.

Overall, partners had mixed opinions about the project's core communication activities. While some partners perceived communication actions as 'intensive' and 'professional', others noted that the communication activities could be stronger. While the project communication activities have been managed professionally such as the 'Hackathon' and public events, partners felt that communication within the partnership as well as towards external citizens and stakeholders could be more intensively managed. Radio adverts were mentioned as one of the successful ways that were used to raise awareness of the project, but staff stated that the project is 'not as good' at city level communication. Some of the most successful campaigns were the Bike-to-work campaign and the public events related to city-wide events such as the 'Earth Day'. The project prepared and distributed free-of-charge bicycle maps to the residents of Szeged. Overall, the project's media features monthly press releases, media coverage of all public event participations, social media campaigns and posts on Facebook.

13.10 European Added Value

According to the survey, without the UIA funding only some activities of the SASMob project would have been implemented and the UIA funding was the main source of funding for the project. The survey stated that the EU funding provided the opportunity to test new ideas and staff appreciated the opportunity of being able to connect with other cities as part of an international network.

13.11 Complementarity with other EU programmes

The city has several state and EU-funded urban rehabilitation and infrastructure projects, which aim to improve public transport and transport infrastructure. The SASMob project builds on these infrastructural investments but introduces a new, innovative and soft approach to target behaviour change of employers, employees and the working-age population.

Complementarities with other funding:

- The project has synergies with the LOW CARB(CE) initiative[224], funded by Interreg. Low Carb is aimed at increasing the planning capacities of organisations and city governments to transition to low-carbon mobility and transportation. Within the Low Carb project, the Szeged Transport company is focusing on the development of company travel plans and the development of a CO_2 Trip Calculator. The Municipality of Szeged have signed the LOW-CARB Declaration. Similarly, to SASMob, LOW-CARB is not a large infrastructure project but is aimed at changing travel behaviour and providing the tools to shift mobility habits in a more sustainable direction.

- PROSPERITY Horizon 2020: expert support to develop Szeged Sustainable Urban Mobility Plans (Szeged is the National Network Manager of Hungarian CIVITAS Network): in progress.

- Szeged e-mobility strategy 2008: core parts are to be implemented in SASMob.

- Cohesion Fund financed complex public transport development programmes (100M€): renewal of tram/trolleybus system (4,8km construction, 18,3km reconstruction of tram track, expansion of the trolleybus network, introducing 9 new, low-floor trams and 13 trolleybuses, 8 B+R connections developed.

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[224] https://ec.europa.eu/regional_policy/en/projects/italy/improving-the-sustainability-of-urban-mobility-in-central-europe and https://www.interreg-central.eu/Content.Node/LOW-CARB.html

- New passenger information/traffic management system (2015): electronic displays in 100 stops, Transit Signal Priority (2016) introduced in 28 junctions.

Although the synergies between SASMob and the infrastructural investments listed above are not directly linked, the projects operate in the same city and serve the same target groups in complementary ways. Whereas Cohesion funds improve the city's infrastructure the SASMob project needs this infrastructure to become successful, as commuters who change their mobility habits will use the city's public transport system. There is a strong connection between these different types of investments, since mobility planning requires a direct connection between soft and hard (infrastructural) approaches. Besides the Municipality of Szeged, the city's public transport company is also very active in creating synergies between different EU-funded initiatives.

13.12 Lessons learned

- The main innovation in the SASMob project was the creation of a cross-sectoral (public and private) partnership, which has been very successful and very beneficial for the City. At the same time, the coordination and the unification of the common work processes takes a lot of effort and coordination.

- According to some partners the design and implementation of small investments were challenging (the design phase was delayed at some employers because of internal procurement procedures).

- According to one of the partners, some circumstances need to be taken into consideration during the planning phase, such as the heritage protection of municipality buildings or the need for mobile cycling storage facilities, as these could influence the procedures and investment costs.

- Companies have different profile-specific needs in terms of workplace mobility planning and have specific challenges that need to be addressed by mobility measures (e.g. companies with larger physical workforce find IT-related investments less useful but could benefit more from small infrastructure investments (such as company bikes for rent).

- Employers with mainly manual workers find it more difficult to fill in mobility surveys, introduce work from home schemes, keep in touch or promote the achievements of the project to their employees through e-mail, than companies with office staff.

- Companies with strong employer branding can be very successful in promoting more sustainable mobility modes in everyday commuting.

- Strong commitment from the employers is essential to the successful realization of hard and soft mobility measures.

13.13 List of interviews

Organisation	Role in project	Date of interview
Municipality of Szeged	Promoter (Project Managers)	23/07/2020
Municipality of Szeged	Promoter (Vice-Mayor)	28/07/2020
Mobilissimus kft.	Coordinating employers' mobility activities and promote the project, partner as well as leader of WP5	29/07/2020
Szegedi Környezetgazdálkodási Nkft. (SZKHT)	Employer – project partner Implements mobility plan	29/07/2020

Organisation	Role in project	Date of interview
Pick Szeged Ltd	Employer – project partner Implements mobility plan	30/07/2020
evosoft Hungary Ltd	Employer – project partner Implements mobility plan	30/07/2020
Deutsche Telekom IT Solutions	Employer – project partner Implements mobility plan	30/07/2020
University of Szeged (SZTE)	Leader of IT Urban system, employer organisation	30/07/2020

13.14 Documentary sources consulted

Documents / websites / YouTubes
https://www.uia-initiative.eu/en/uia-cities/szeged
The SASMOB Project Journal N° 1 - https://www.uia-initiative.eu/sites/default/files/2019-02/Szeged-Sasmob%20-%20Journal%201_0.pdf
The SASMob Project Journal N° 2 - https://www.uia-initiative.eu/sites/default/files/2019-06/Szeged_SASMOB_Journal2.pdf
The SASMob Project Journal N° 3 - https://www.uia-initiative.eu/sites/default/files/2020-05/Szeged_SASMOB_Journal.pdf
Zoom- in 1: Employers in action – co-designing mobility solutions results and remarks - https://www.uia-initiative.eu/sites/default/files/2019-03/Szeged_SASMob-ZOOM-in.pdf
SASMob szenzorok Szegeden a fenntartható közlekedés szolgálatában [SASMob censors in Szeged for sustainable transport] - https://www.youtube.com/watch?v=u31DmuXdB8c&t=30s
Lavish SASMob Bike Shelters in Rókusi körút, Right Next to the Phone Tower - https://www.uia-initiative.eu/en/news/lavish-sasmob-bike-shelters-rokusi-korut-right-next-phone-tower
SASMob surveys reveal patterns of workplace mobility - https://www.eltis.org/in-brief/news/sasmob-surveys-reveal-patterns-workplace-mobility
Kamerákkal, wifivel, tömegméréssel is méri Szeged, honnan, hova és hogyan közlekednek a városban utazók [Szeged is measuring with WIFI and cameras, from where and to where people in the city travel] – Varosi Kozlekedes (Urban Transport), July 2020
SASMob – Magyar Civinet Virtualis talalkozo a munkahelyi mobilitasrol [SASMob – Hungarian Civinet virtual meeting about workplace mobility] https://mobilissimus.hu/hirek/sasmob-magyar-civinet-virtualis-talalkozo-munkahelyi-mobilitasrol;
SASMob a koronavírus-járványban: sikeresen alkalmazkodtak a munkáltatók és a munkavállalók is [SASMob in the corona virus pandemic: Both employers and employees adapted successfully] https://szeged.hu/hirek/36024/sasmob-a-koronavirus-jarvanyban-sikeresen-alkalmazkodtak-a-munkaltatok-es-a-munkavallalok-is)

ADAPTATION TO CLIMATE CHANGE

14. RESILIO (AMSTERDAM, NETHERLANDS)

14.1 Key project facts

RESILIO	
Key facts	
Call	3
Acronym	RESILIO
Title	Resilience nEtwork of Smart Innovative cLImate-adapative rOoftops
Project Number	UIA03-093
Status	Ongoing
Duration	01/11/2018 - 31/10/2021
Topic	Adaptation to climate change
Member State	Netherlands
Number of partners	10
Main urban authority	City of Amsterdam
Other partners	• Infrastructure and (public) service provider: Waternet • Infrastructure and (public) service provider: Stadgenoot • Infrastructure and (public) service provider: De Alliantie • Infrastructure and (public) service provider: De Key • Higher education and research: Amsterdam University of Applied Sciences • Higher education and research: Institute for Environmental Studies (IVM), VU Amsterdam • SME: MetroPolder Company • SME: Consolidated • Other: Rooftop Revolution
Budget	
ERDF	€4.814m
Public co-financing	€0.570m
Private co-financing	€0.633m
Total	€6.018m

14.2 The city

The city of Amsterdam is located in the Western Netherlands and connected to the North Sea. It is the capital and the principal commercial and financial centre of the Netherlands, being the most populous city of the country with a population of 872,680 within the city proper, 1,380,872 in the urban area and 2,410,960 in the metropolitan area. The inner city is divided by its network of canals into some 90 "islands," and the municipality contains approximately 1,300 bridges and viaducts.

The city of Amsterdam is experiencing the effects of climate change: flash floods due to heavy rainfall, higher temperatures and increased droughts and the city is currently unable to cope. In Amsterdam, it can be up to 6°C warmer on hot days than in the rest of the country and rainwater is more difficult to drain through the buildings. Amsterdam has 12 km^2 of flat roofs - enough space for greenery and water storage to ensure a liveable city.

The RESILIO project aims to realize 10,000m^2 area of smart blue green roofs among the social housing roofs that are located across five neighbourhoods in Amsterdam: Kattenburg, Oosterpark, Indische Buurt, Slotermeer and Rivierenbuurt. Private homeowners from any part of Amsterdam can also have their own smart blue-

green roof installed. Most of the roofs are being installed on buildings owned by the social housing companies De Key, Stadgenoot and de Alliantie. A grant from the Municipality of Amsterdam is available from 2020 onwards to private building owners who wish to install blue green roofs.

14.3 Rationale for the project

The project aims to repurpose the rooftops of climate-vulnerable neighbourhoods of Amsterdam using both green and blue technology. Conventional green roofs use a drainage layer to provide lateral drainage and irrigation. Blue roof technology, however, aims to increase both the volume of water stored and control the amount of water released. With the RESILIO project, 10,000 m² of smart blue green roofs are being installed in different neighbourhoods across Amsterdam, where it rains more often and harder, as well as getting hotter year on year. The RESILIO project stores the excess of rainwater underneath a green layer of plants on the roof. The water can be retained or discharged with a smart valve connected to the weather forecast.

The 10,000 m^2 area of smart blue green roofs is expected to help the city adapt to climate change by reducing the impacts of heavy rain, urban heat island effect and drought, while improving building insulation, biodiversity and quality of life. The smart blue-green roofs have an interconnected system of water storage, which adapts the volume of water stored and delivered to the weather. In heavy rainfall, the water is collected, so that the sewer is not overloaded, and in drought, the water is released so that it can evaporate and the plants on the roof receive enough water. The roofs are able to collect excess rainwater and discharge this with a smart valve based on the weather forecast. In this way, wet feet on the street is prevented. The water and plants cool the roofs and the environment in the hottest and driest months of the year. The extra water allows plants to grow better and to remain green. This is good for the biodiversity of plants, birds and insects. These roofs help prepare the city for more extreme weather conditions due to climate change.

14.4 Objectives and intended effects

The RESILIO project aims to address critical urban climate challenges related to flooding, heat, water supply, energy consumption and urban liveability by repurposing the rooftops of climate-vulnerable neighbourhoods of Amsterdam. Interdisciplinary innovation (Technology, ICT, Governance, Business Modelling) will underpin the smart network of blue green rooftop rainwater buffer systems as they work in harmony to reduce climate change impacts on the city. Stakeholder-centric engagement is being employed to ensure the co-creation of mutual benefits for all actors involved.

The objectives are to:

- Create 10,000 m^2 of connected green blue rooftops;
- Support the City of Amsterdam reach its ambitious storm water management targets of 60mm of water storage per roof by providing 100-200mm of storage per roof on 25% of the roofs;
- Utilise dormant roof space as a tool for climate resilience, reducing heat stress and reducing energy for cooling and warming houses;
- Create, demonstrate and substantiate a scalable methodology (technical, governance, business case and policy) that can be replicated across Europe (and the world);
- Realise the co-benefits of hyper local water management;
- Empower citizens of all socioeconomic levels to engage with and contribute to resilient climate strategies.

The main intended effects are:

Short term:

- Five smart neighbourhood network pilot locations acting as functional smart rainwater buffers covering 10,000m^2 of roof space;

- An established monitoring plan to verify impacts in the realms of social, fiscal, hydrological, climate adaptive, energy saving studies;

- Additional 5600 cubic metres of water managed over one year without damage;

- Increase the city of Amsterdam's rainwater capacity;

- 1500 residents empowered to engage in climate resilience;

- Development of Smart Flow Control v.2019;

- Development of Water dashboard.

Long-term:

- One third of flat roofs in Amsterdam turned into blue green roofs resulting in:
    - reduction of urban heat due to more evaporation
    - reduction of energy consumption for heating and cooling
    - reduction of combined sewer overflows
    - reduction of urban flooding

- insight into the-long-term impacts of the above

- a greener city with more biodiversity

- happier and healthier citizens

- publications to establish a framework to replicate RESILIO

- 10 additional smart neighbourhood networks activated by 2025

- establishment of investment payback period for installation of smart blue green roofs.

14.5 Funding, partnership and other inputs

As well as the ERDF funding, the project budget featured public funding of €570,000 to be provided by the city of Amsterdam, the two higher education and research centres and one of the infrastructure and public service providers. The budgeted private funding of €633,000 was to be provided by the rest of the partnership.

Apart from the financial inputs, the partnership also brought considerable local influence, as it included a total of ten partners, with influence in different sectors. Among the partners there are four infrastructure and public service providers (e.g. water services provider), private enterprises including housing social companies and two higher education and research centres.[225]

14.6 Innovation process

14.6.1 Knowledge informing the innovations

RESILIO builds upon 5 years of smart blue green roof technology. RESILIO was born as an evolution and a scaled-up version of the first blue-green roof (Polderdak) which was installed in the summer of 2013 as an alternative way to store water on an area in Amsterdam (Oldschool Zuidas). Another example expanding knowledge was SmartRoof at

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[225] One of the private enterprises withdrawn from the partnership but is still involved in the project as a subcontractor.

Marineterrein, a scientific experiment that showed the cooling power of water retaining green roofs as well the enhanced biodiversity.

However, blue green roofs combined with integrated technology are new to Europe: within the IEE/LIFE/URBACT/CORDIS programmes, only a few projects are focussed on green roofs (e.g. CoolRoofs, SUREFIT, TURAS, Green roofsystems) and only on certain elements such as energy saving capacity or plant selection. There are no integrated water retention/green roof projects.

RainGrid in Toronto is the only similar reference project for Internet of Things (IoT) rainwater management. However, it uses private cisterns as 'stormwater smart grids', designed for private water management in the context of North-American style suburbs, not suitable for roofscapes in dense urban areas in Europe.

14.6.2 Experimentation

RESILIO's main innovation is the development of a network of innovative and smart roofs. It adds smart flow control mechanisms to existing blue green roof design and uses IoT to network the roofs across the neighbourhoods with city, weather and water data. This results in smart control of water retention/release, and optimisation of water buffer capacity versus water availability based on hyper local conditions.

RESILIO has already launched its first Innovation Lab which is a 450 m^2 roof located on the Benno Premsalahuis, a building of the Amsterdam University of Applied Science (HvA), and will serve as the experimentation site for innovation around the blue green roof system upgrades. A second roof is being designed to meet the target of 1000m^2 Innovation Lab. The VU Amsterdam University and the Amsterdam University of Applied Science (HvA) use the InnovationLab as part of their educational programs and conduct research on the effects of the roof, which has a capacity of rainwater storage of approximately 100mm. They work together with MetroPolder Company, who developed the roof. Experiments conducted on the roof include:

- Effectiveness of solar panels on green roofs. It is expected that the energy yield of the solar panels will be higher on green roofs than on traditional grey roofs. On the InnovationLab 4 test surfaces are set up, each with a different combination of layers (traditional grey layer, grey layer with a blue and a green layer on top, blue layer with white gravel and blue layer with native plants). The researchers expect solar panels to be cooled by the plants under the panels, which will absorb and evaporate the water underneath. Due to more hours of sunshine and stronger solar heat, this effect is expected to be more clearly measurable in summer.

- Cooling effect. Researchers are investigating the cooling effects of a blue-green roof on the floors directly under the roof of the building. This is useful information that could save energy costs for air conditioning during hot periods. It is expected that the temperature on a blue-green roof can be up to 40 °C degrees cooler than on a normal grey bitumen roof.

- Reuse of rainwater. Instead of using regular tap water, the rainwater that is collected in the blue gravel layer (reservoir) of the roof will be used to water the green layer of plants on the roofs. The researchers will investigate how much water is saved and also look into the effects of evaporation.

The Lab will also serve as a demonstration centre for RESILIO where communities can experience a physical model of the system and will be a space for interactive and informative events. The Lab will be connected to the academic partners' (AUAS and VU) curricula so that tutors can design interactive coursework for students using the Lab and its data for relevant studies. The Free University (situated at the Zuidas, native site of the Amsterdam Blue-green roofs) also carries a new blue-green roof on its Main Building,

created to fulfil its water management obligations at the Zuidas development and as a research site for students and staff.

14.6.3 Achievements against project targets

According to RESILIO's application form and the interview with the project manager, the main outputs of the project include the following.

Project outputs:	
Target (application)	**Achieved to date**
Optimised Blue Green Roof System	• 450m^2 of blue green roofs were installed
Innovation Lab	• Partly achieved
Robust, affordable and interconnected Smart Flow Control (SFC)	• Not yet achieved
ICT and data architecture	• MetroPolder is finalizing the construction and exhibition of the ICT system for smart Blue-Green roofs in the Innovation Lab
Final version of the Decision Support system implemented and tested	• Not yet achieved
A multi-stakeholder platform for knowledge sharing and governance of blue green roofs	• The Innovation Lab is connected to the academic partners' (AUAS and VU) curricula so that tutors can design interactive coursework for students using the Lab and its data for relevant studies.

The project just passed from the first phase of contractual arrangements to the second phase of scientific solution finalisation, procurement preparation, preparation of the cost-benefit analysis and communication. During the first year, the priority has been to agree the terms/protocols of partnership and the budgeting of the first roof construction. As these challenges are addressed, new ones will become a priority. In particular, in the second year of the project which just started, the project is expected to focus on the integrated approach with a particular aim to build a financial business case.

14.6.4 Sustainability and scaling-up of the project at local level

Amsterdam has 12 km^2 of roof surface that can be transformed and become part of the water buffer smart grid across the city. Realistically, scaling up starts by transforming clusters of roofs (such as on social housing, university buildings, business parks) of approximately 150,000 m^2 in areas with extra high vulnerability in 5 years. After the project, the blue-green roofs will be maintained by the housing associations for a minimum of 5 years. The intention is that the blue-green roofs will be permanent and will also be installed on many more roofs in the city. Project partners are investigating the best way to succeed in these aims.

Scaling up of RESILIO will be aimed at 4 levels: local (1), regional (2), national (3), EU (4):

- Customisation of the technical solutions developed will support building owners to realise blue green roofs in an efficient and affordable way (level 1,2);

- Raising the Energy Performance Certificate (EPC)value of blue green roofs enhancing the energy efficiency of a building will stimulate building owners to realise blue green roofs (level 1,2);

- New service providers will be activated by the water management platform (level 2,3);

- Cost-benefit analysis leading to business models will make blue green rooftop investment more profitable in the future (level 1,2, 3);

- The outcome of modelling cost-benefit analysis and citizen participation will facilitate the construction of blue green rooftops (level 1,2,3);

- Other roof owners will have an incentive to install blue green rooftops by the grant scheme (level 1);

- At the EU level (level 4), many European cities could see additional benefits because of the stronger impact due to other climate conditions. Within 5 years, more than 40 demonstration projects in EU cities could have started, and within 10 years, projects in over 100 cities.

14.6.5 Transfer and replication of the project elsewhere in Europe

The City of Amsterdam is aware that the project needs to be replicable and provide a financially viable example for future uptake. The aspiration is that this innovative project will one day become common practice. Transformative adaptation strategies, enhancing 'flexible' adaptive management and involving the private sector, combining technological solutions, ecosystem-based approaches and 'soft' measures are all required for successful replication.

The project manager is particularly proactive in approaching cities at this present stage to provide input on their own constraints and opportunities, whether these arise from climatic, organisational, governance or socioeconomic differences. To promote the project to other cities, the project is involved in at least one conference a year. For instance, the RESILIO project has been presented at the Amsterdam International Water Week. The intention is to present it there every year since it is a yearly event. The project manager highlighted that although at this stage it could be too early to think about transferability and replication of the project in other cities and that the key success factors will be shared in later stages of the project, the RESILIO project has the potential to be replicable and therefore the communication is essential since the beginning.

14.6.6 Summary of key outputs and results (according to study typology)

Key outputs and results (related to case study activities)	
Outputs	
New services, products, processes	• The construction of the ICT system of smart Blue-Green roofs in the Innovation Lab
Partnerships created	• Partnership agreement signed between 10 partners. Several partners are responsible for various work packages.
Experience gained	• Innovation Lab to engage with the housing association building residents and wider public.
Knowledge produced	• The higher education and research centres are using the InnovationLab as part of their educational programs and conduct research on the effects of the roof.
Results: local level	
Identifiable effect on urban issues faced at local level	• No tangible effects have been observed yet
Sustainability of partnership working	• No evidence yet

Key outputs and results (related to case study activities)	
Outputs	
Innovations scaled up	• No innovations have been scaled up yet

14.7 Project implementation

The project has completed one year since its kick-off and had carried out an initial review of the contract between the UA and UIA. After a small initial delay, the project's partners met at their steering group to accelerate the work and the project is now fully operational.

The UA has procured De Key rooftops and its implementation and completion are planned for 2021. The rooftops for De Alliantie and Stadgenoot are being built and completion is planned for the end of 2020. The housing association will communicate the works plan to the building residents and contractor companies will bid for the construction according to the procurement specifications.

There have been a few changes in project personnel which has caused some delays. However, according to project management, the project aims to catch up within a year. The problem that arises in their view is that a compressed procurement leaves less room for learning curves.

14.8 UIA flexibility and administrative requirements

According to the project manager, the workload demand by the UIA could be too burdensome in some aspects such as the ex-ante audit "this was a bureaucratic exercise not tailor-made to the professional organisation of the Capital City of Amsterdam. The first level controllers did not have any command of the Dutch language and most of our documents and administration are in Dutch".

The response to the on-line survey described all aspects (50% advance payment of ERDF, 20% budget flexibility, possibility to make project changes) as "fairly helpful", except for "Simplified cost options (flat rates, lump sums) for certain categories of expenditure", which they described as "very helpful" and for "simplified rules on State Aid", to which they answered, "Don't know".

The assistance from the UIA Experts and the contact and networking with other UIA projects was described as "very helpful" while assistance and monitoring from the UIA Secretariat was described as "fairly helpful".

14.9 Communication and media image

Despite the fact that the project is still in an early stage, extensive communication materials have been prepared. The project website is up and running and visitors can explore the idea and the partnership. This is informative for the residents in the housing associations where the interventions will take place. An activity that has given a lot of publicity to the project is the mobile miniature model of the smart blue-green roof that travels in the city sitting on a bike.

RESILIO was presented to water and city practitioners at the Amsterdam International Water Week (AIWW) and received extensive coverage and interest. The relationship with AIIW will be maintained as it offered an opportunity to link to other cities.

The European Environmental Agency composed a series of web articles on Best Practices in Nature-based Solutions and RESILIO was featured in the series.

14.10 European Added Value

There were no responses to the on-line survey on whether the project activities could have been implemented without EU funding. However, according to the project manager without the funding the project most probably would not have taken place. There was also no indication that the funding has as yet leveraged any further funding from private or institutional donors. There were no responses to the questions on added value of the EU initiative, and no indication of the main benefits received.

14.11 Complementarity with other EU programmes

The RESILIO project took place alongside a large sustainable urban development (SUD) strategy within the City of Amsterdam, running from 2014-2020 with a total ERDF contribution of €44,559,658. There was some thematic relevance between the RESILIO project and the SUD strategy, as the SUD thematic objective 4 (TO4) encompasses Low Carbon Economy, which relates to UIA topic Adaptation to climate change. However, the project manager reported no operational connection between the UIA project and the SUD strategy.

In addition, the City of Amsterdam has benefited from other EU-funded projects:

- City-Zen (FP7 programme). Between 2014 and 2018, approximately € 30 million were invested in innovative projects in the built environment, especially in the Nieuw-West district. Waternet (one of RESILIO's partners) together with the companies and the municipality worked closely together in City-Zen on innovative and sustainable solutions for energy issues. GEYSER (FP7 programme) In the spring of 2014, the international consortium GEYSER of 10 companies and universities started to find solutions for integrating data centres in sustainable energy networks and in smart cities. The University of Amsterdam and TU Delft as scientific institutions were closely involved in the project Geyser. ClairCity (Horizon 2020) In May 2016, an international consortium, led by the Dutch Trinomics, launched the ClairCity project to propose solutions to air pollution. Residents of 6 different cities, including Amsterdam, were involved in research into their individual impact on air quality and CO_2 emissions in cities. The project used innovative ways to get input from residents. Through apps and games, input is generated for the development of policies aimed at improving health related to air quality in cities.

- Urban Learning (Horizon 2020) was a European project on how to organize sustainable ambitions in area development. The goal was for these cities to learn from each other. This concerns how municipalities organize their processes internally, cooperate from planning to implementation and also how municipalities collaborate with other parties such as area owners, energy companies, developers and residents. It was about organising innovation in processes to improve cooperation between actors.

- RUMORE (Interreg) The project aims to improve the city-land connection and strengthens and helps start-up innovative SMEs. The participating regions exchange knowledge and experiences to learn from each other on how to achieve a more efficient and more circular organic chain and a lower ecological footprint. In terms of content, the focus is on innovative and valuable use of organic residual flows plus the development and marketing of new vegetable protein sources.

14.12 Lessons learned

The RESILIO project is still being implemented. However, some key lessons about the potential utility of the innovations, the type of issues that can arise and how to develop a response to the challenges are summarised below:

- The partnership involves a large number of partners, which could hinder a fruitful

collaboration. For instance, some disruption has been caused by the withdrawn of one partner (although is still connected to the project as a sub-contractor) and by changes in personnel in three cases, although to date, there has been effective cross-sectoral cooperation among partners. A project management structure with an agreement on the terms of cooperation and communications is key to ensure the successful commitment of all partners.

- One key upscaling challenge for the project is the breaking of traditional barriers in water governance. Traditionally, the Dutch perspective was a public-dominated water governance: the water authorities, municipalities and national government controlled the entire infrastructure (canals, pumps, discharge), located in the public domain. For privately-owned plots no further hard rules where set. A new balance in the public-private water governance model is required but the jurisdiction on this new governance domain is not yet defined.

- Future models (whether maintenance or construction based) will need to add value in the fields of climate change adaptation and mitigation, biodiversity and amenity. The cost-benefit analysis and business models designed by the academic project partners should shed light on how smart procurement and partnerships make room for such social return on investments.

14.13 List of interviews

Organisation	Role in project	Date of interview
City of Amsterdam	Project manager/ project promoter	07/07/2020
Rooftop Revolution	Project partner	23/09/2020
Amsterdam University of Applied Sciences- Hogeschool van Amsterdam	Project partner	24/09/2020
Institute for Environmental Studies- Instituut voor Milieuvraagstukken (IVM)	Project partner	24/09/2020

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HOUSING

15. CALICO (BRUSSELS, BELGIUM)

15.1 Key project facts

CALICO	
Key facts	
Call	3
Acronym	CALICO
Title	Care and Living in Community
Project Number	UIA03-109
Status	Ongoing
Duration	01/11/2018 - 31/10/2021
Topic	Housing
Member State	Belgium
Number of partners	8
Main urban authority	Brussels Capital Region
Other partners	• Regional public authority: Perspective.brussels (Brussels Planning Agency) • Higher education and research: Vrije Universiteit Brussel (VUB) • Interest groups including NGOs: Community Land Trust Brussels (CLTB) • Interest groups including NGOs: AngelaD • Interest groups including NGOs: Pass-ages • Interest groups including NGOs: EVA Bxl • Interest groups including NGOs: Public Utility Foundation Community Land Trust Brussels (PUF CLTB)
Budget	
ERDF	€5.000m
Public co-financing	€0.321m
Private co-financing	€0.929m
Total	€6.250m

15.2 The city

CALICO is based in the Brussels Capital Region. This region—comprised of 19 municipalities including the City of Brussels—has an estimated population of just over 2 million people, with a population density of 5,384 people per square kilometre.[226] Of this total, in 2019 there were approximately 46,184 recorded immigrants (24,829 male, 21,355 female),[227] and 158,669 people aged over 65 years (64,585 male, 94,084 female).[228] A large proportion of households in Brussels (46%) are comprised of one person.[229]

15.3 Rationale for the project

The project promoters identified two key issues facing Brussels, as well as other European cities: a housing crisis that significantly affects vulnerable groups, and an ageing population. More specifically, there is a lack of social housing that leads to individuals and families waiting up to 10 years to be allocated some form of housing, as well as a lack of quality in the available units. Due to increasing real estate prices and rent, 34% of the

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[226] https://worldpopulationreview.com/world-cities/brussels-population/
[227] http://ibsa.brussels/themes/population/mouvement-de-la-population
[228] http://ibsa.brussels/themes/population/structure-par-age
[229] http://ibsa.brussels/themes/population/menages

average Brussels household budget is spent on housing.[230] In 2019, there were 87,850 unemployed job seekers.[231] These unemployed individuals, and low-income families across the region, are often only able to afford homes in disadvantaged neighbourhoods; such areas are often considered dangerous, dirty, or undesirable, and in practice these residents are often excluded from critical decision-making processes that directly affect them.

Regarding the ageing population, there is a need to reform the belief that institutionalising the elderly is the best way for them to live the remainder of their lives, as this mindset leads to loneliness, cognitive decline and shorter lifespans. As noted above (see "The city"), women make up the majority of the population over 65 years, and indeed women are more susceptible to social isolation, poverty (due to jobs in which there is a gender pay gap, as well as a gap in pensions), and becoming single parents. Due to childcare responsibilities, women often find themselves taking part-time work, which means a lower income. In Brussels, 81% of part-time workers are women, and 83% of single-parent families have single mothers.

Although migrants do not make up a strong majority of the population, they still face discrimination in the private housing market. This can lead to precarious housing conditions, low-quality housing, and limited access to jobs.

Taken together, isolation, insecurity in employment and housing, and a lack of support resulting from systematic discrimination are significantly disempowering to these target groups.

CALICO is, as its title suggests, focused on community care within a secure housing situation. To combat the lack of social housing and increasing housing prices, Community Land Trust Brussels purchased land and common areas of the building site where 34 high-quality homes will be built in the municipality of Forest, thereby offsetting the market price of these new homes and reducing any financial strain on potential residents. These homes will be subdivided into three community-managed clusters: one co-housing cluster that will mix both rental and for sale housing units for low-income families, another one that will develop an intergenerational co-housing and one specifically for single mothers and older women. This intergenerational model encourages interaction between individuals of all ages and is intended to reduce residents' social isolation. In addition, there will be two common spaces (one open to the residents, the other one to the wider neighbourhood), as well as two facilities for people (both residents and other people from the neighbourhood) at the end of their lives and mothers who are ready to give birth. In addition, the facility has a consultation room for women who are interested in giving birth in the facility. The inclusion of migrants in this project's target group entails an intercultural focus as well.

With community care being facilitated in almost every aspect of the housing complex, this innovation should empower residents to look out for one another's wellbeing, learn from one another, and create a safe, nurturing environment.

15.4 Objectives and intended effects

The overall aim of the project was twofold: to provide affordable housing to multiple vulnerable groups in a gentrifying neighbourhood, with a focus on empowerment through community care; and to raise awareness of and make the case for community land trusts

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[230] http://ibsa.brussels/le-saviez-vous/34-du-budget-moyen-des-menages-bruxellois-est-consacre-au-logement
[231] http://ibsa.brussels/sites/default/files/publication/documents/35_apercu_conjoncturel_de_la_region_de_bruxelles_capitale_janvier_2020.pdf

(CLTs), community-led housing and community care as a mainstream option for urban social housing.

The objectives were to:

- Address the housing crisis in Brussels by developing a pilot project that tests out a community-led housing and care model in an affordable complex, and that focuses on vulnerable groups (older adults, single-parent families, low-income households and migrants);

- Have a positive impact on residents' quality of life, health, wellbeing, and self-efficacy, while increasing satisfaction with their living situation;

- Enable new interactions between informal, self-care and professional care services in the context of co-housing;

- Thoroughly analyse the impact of this model, compare the results from the three clusters, and derive key lessons for scaling up activities;

- Provide a success story for the community-led approach to housing;

- Improve social cohesion among different generations in urban neighbourhoods;

- Develop a new co-housing governance model;

- Increase involvement of different groups of residents in the decision-making processes for their new accommodation.

The main intended effects were:

- Improve the affordability, quality and satisfaction levels of residents' housing (measured by several scales, such as the standard housing condition indicators from the European Union Statistics on Income and Living Conditions, or against neighbourhood and regional statistics);

- Move a minimum of 80 people into the housing units;

- Increase quality of life, mastery, health and wellbeing among the target groups;

- Residents of the three clusters will have built supportive relationships;

- Improve conditions of end-of-life and giving birth by demonstrating the potential of integrating care facilities;

- The organisations involved in the project will have experienced several benefits from taking part in the project, such as sharpening their intergenerational and intercultural competences, and gaining insights on participatory social-action methodology;

- Target groups will be encouraged to participate in their neighbourhood and bolster social cohesion;

- Inspire the Brussels Capital Region to enable the development of similar projects in the future;

- Gender mainstreaming in housing will get more recognition. Set an example, or precedent, of focusing on gender in all aspects of its development.

15.5 Funding, partnership and other inputs

As well as the €5 million ERDF funding, the project budget featured public funding of €321,000 to be provided by Brussels Capital Region, Vrije Universiteit Brussel, Perspective.brussels, and others. The budgeted private funding of €929,000 was to be provided by AngelaD, Public Utility Foundation CLTB (PUF CLTB), Pass-ages and EVA Bxl.

Aside from funding, the partners play pivotal roles in the planning, design, and implementation of CALICO. PUF CLTB will become the owner of the CLT-purchased land, AngelaD is responsible for developing the housing cluster focusing on elderly women and single mothers, a series of gender-based governance and training tools for this cluster, and gender mainstreaming guidelines and training for all phases of the project. Meanwhile, Pass-ages will be responsible for developing one of the three clusters and managing the birth and end-of-life facility. EVA will lead the co-creation activities with future residents, while Vrije Universiteit Brussel will assist in developing the community-led care model, as well as dissemination of project results via academic papers and publications and conference presentations. Perspective.brussels is playing an advisory role regarding urban planning policy, healthcare and wellbeing of senior citizens especially, and scaling-up activities.

15.6 Innovation process

15.6.1 Knowledge informing the innovations

CALICO has been informed by a variety of similar projects carried out across the EU. For example, the Generations Block project in Helsinki includes rental housing for seniors and families, with communal areas to facilitate community care. Meanwhile, the birth and end-of-life facility was inspired by the Arche de Noé birth house in Namur (Belgium) and end-of-life facilities across Germany and the Netherlands. Based on the application form and stakeholder interviews, it is clear the project promoters conducted extensive research on the target populations, consulting studies and income figures to demonstrate how migrants, women, and the elderly are discriminated against in the housing market. As part of the project kick-off, the full team of CALICO project managers and partners manned stands in a private neighbourhood near the construction site. Throughout the day, they forged local contacts and generated interest among residents, and there was a subsequent neighbourhood meeting to spark the co-design aspect of the project.[232]

15.6.2 Experimentation

CALICO featured nine separate work packages (WPs), of which two were particularly important to the innovation tested in the project.

Providing permanently affordable housing (WP4): The Community Land Trust (CLT) housing model is innovative because it not only provides low- and moderate-income individuals with access to housing, but also ensures this housing is affordable by setting it on land trust-owned property. The homeowners are only paying a long-term lease, rather than the full market price of a home, and this property value is frozen so that the accommodation is perpetually affordable. In the midst of a multinational housing crisis, this model is proving to be a radical, yet operational, way to prevent homelessness, displacement, and exclusion in modern-day urban environments. Indeed, CALICO is not the only CLT project in Brussels; as part of the EU Interreg SHICC project,[233] which seeks to support CLTs around northwest Europe, there are already four completed CLT projects in Brussels, three under construction, and five planned.[234] This model is not necessarily new, as it has been widely adopted in the UK and US, but it is in recent years that European countries are recognising the appeal of CLTs and adopting them in various environments.[235] Still, interviewees from CLTB mentioned that the legal framework in most European countries does not allow for the formation of CLTs, so any lessons learned from CALICO will need to inform policymakers as well as cities in other countries, in order to develop more supportive legal and policy frameworks.

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[232] https://www.uia-initiative.eu/en/news/calico-project-meeting-future-neighbours
[233] https://www.nweurope.eu/projects/project-search/shicc-sustainable-housing-for-inclusive-and-cohesive-cities/
[234] https://cltb.be/fr/2020/04/15/rapport-annuel/
[235] https://www.uia-initiative.eu/en/news/calico-more-clt

Once CALICO was selected for UIA funding, project managers were able to establish resident selection criteria to ensure there was a balance between residents of all ages, and that the prioritised housing for elderly citizens was filled. According to interviewees, a slight difficulty was integrating a gender balance into the project. Since the housing crisis has been shown to disproportionately affect single mothers and older women, the three housing clusters were prioritised for women, meaning not much of an equal balance could be achieved in selecting residents. However, the project managers were still able to find male single parents, which was auspicious for eradicating the stigma that only women can be caregivers for children and the elderly.

The co-creation of a community care model (WP5): what distinguishes CALICO is its successive innovation is the combined end-of-life and birth facility, where individuals at the end of their lives have the chance to meet women in the latter stages of pregnancy, or those giving birth. This is a safe space intended to encourage intergenerational interactions, as well as demonstrate how all residents can provide care for individuals at different stages of life, and the unique challenges they may face. Through this community care, the project hopes to emancipate otherwise disenfranchised citizens by demonstrating how they can contribute to, and improve, one another's lives.

15.6.3 Achievements against project targets

According to the survey of projects, CALICO has been implemented mostly to plan so far and there has been no need to request major changes. Interviewees have elaborated further, mentioning that the birth and end-of-life facility has faced some complications in its construction; the buildings needed to be modified to ensure there were isolated spaces for giving birth and/or providing elderly residents with a tranquil space to reflect, but project managers needed to make sure they did not bypass any modification rules before altering the facility. The modification prices will not significantly impact the project budget or derail procedures, but interviewees have said the construction company is not open to discussions and has raised their prices.

Despite lockdowns in response to the COVID-19 pandemic, CALICO project partners were able to meet virtually for regular meetings, and interviews with prospective residents were completed before lockdown commenced; the selection process is still ongoing. The residents who have been selected are in close contact with the project management team.[236]

In terms of facilitating community care, the project team is working on a system that will allow volunteers, care professionals and inhabitants to collaborate within the project.

According to the project application form and website, the main outputs of the project include the following.

Project outputs:	
Target (application)	**Achieved to date**
• 34 adapted affordable housing units	• Land sale agreement signed in 2019 by CLTB. Construction began, with expected completion date now delayed to spring 2021. • Move-in delayed to summer 2021, and the legal solution for the sale of apartments is being fine-tuned.
• A birth and end-of-life facility	• Construction was halted due to COVID-19 lockdowns but should be completed by 2021.
• A group of residents managing the CLTB cluster	• Regular general assemblies of all residents have taken place every two months between

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236 https://www.uia-initiative.eu/en/news/calico-and-covid19

Project outputs:	
	December 2019 and August 2020.
• Project is known in the wider neighbourhood	• Outreach activities have taken place to generate excitement for the project, such as a street stall, presentations from project partners, and endorsement from the new Secretary of State of Housing leading to promotion within the government. • Currently working on a website to showcase the project's accomplishments
• Publication of a policy-oriented report, featuring a toolbox with approaches and best practices for governance	• Toolkit was included in the 2020 Groundwork for Evaluation and State-of-Play report.[237]

Within the 34 units, set to house a minimum of 80 people, the benefits of the birth and end-of-life facility have been outlined above. In the context of Brussels specifically, there is a prominent ageing population that may experience increased isolation, disdain and grief. Connection to young mothers and their infants can improve social skills, as well as mood and wellbeing, for the elderly, the mothers, and their families. Through the sharing of experiences and support, a community will be created, and only regenerated through residents coming and going over time.

These outputs are all key in furthering CALICO's mission to establish a sustainable community care-led housing facility. The output pertaining to ensuring the wider neighbourhood is aware of CALICO is especially important, as the residents are traditionally more excluded from day-to-day societal activities and privileges than others. With greater awareness, the intention is that the neighbourhood would not only be willing to have the housing facility close by, but also that its members would be willing to interact with the CALICO residents and welcome them into the wider community. With outreach efforts ongoing, including the development of a website, the hope is that residents both near and far from the site will take an interest in the project, and support its residents as they adapt to their new living situations.

Finally, the policy-oriented report is intended to ensure this project is scalable, and that any cities that replicate it understand what may need to change in their housing policies to adopt a CLT model, as well as how to manage and support a community care housing project at every level, from site management to resident mobility and recruitment.

15.6.4 Sustainability and scaling-up of the project at local level

In the application, project promoters stated that the main activities that will be scaled up will be the CLT model; the roles of authorities, academics, and civil society in promoting the development of CLT projects in Brussels; and the co-design aspect, involving residents not only in a project's development and planning, but also in advocating for the housing development as a positive force in urban environments. The CLT model involves shared ownership of land based on a financial agreement, in Brussels' case, between the CLTB and the Brussels Capital Region municipality. In terms of sustainability, the CLT model is ideal; by acquiring the land, CLTB is able to indefinitely freeze the property value, and rent the housing units at affordable prices to low-income groups with a guarantee that they will remain affordable.

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[237] https://www.uia-initiative.eu/sites/default/files/2020-05/Groundwork%20for%20evaluation%20and%20state-of-play.pdf

This activity was further confirmed in the online survey, where the project promoter confirmed that all activities will continue beyond the UIA funding period, using their own funds and other local, regional or national funding. Although the budget was not specified, the CLTB will continue to own the land and shell of the buildings, whilst the 34 housing units will continue to be owned and operated by two cooperatives.

Interviewees have mentioned that, after a recent election, the new regional Secretary of State of Housing is particularly enthusiastic about CALICO and willing to work with the partnership alongside other stakeholders to provide housing to vulnerable groups in a similar model across the Brussels Capital Region. One of the partners, Perspective.brussels, has set out 10 strategic development zones for future projects. According to interviewees from the organisation, these zones are former brownfields or areas that could be more socially inclusive, considering the significant demographic growth among the Brussels population in the past 20 years. These zones are defined as areas with high potential for regional development, but it is still too early to say whether a CALICO project could be established.

15.6.5 Transfer and replication of the project elsewhere in Europe

At the project outset, as specified in WP9: Closure and knowledge transfer, the key knowledge transfer activities were to draft the final qualitative report and participate in the Urban Development Network (UDN) to share any findings with other policymakers and organisations working in housing across Europe.

In other cities, it is important that urban authorities remove legal or administrative barriers, within reason, that may preclude the establishment of a CLT. Interviewees have pointed out that the legal framework in some European countries does not allow for the formation of CLTs, so Brussels is serving as an example of how to implement a successful CLT model, which can inform policymakers with the power to update national frameworks. With more supportive legal frameworks, local authorities can then provide the necessary resources to bring these projects to fruition and ensure that the model is well-integrated within existing housing programmes. In Brussels, CLTB can adapt its own projects based on CALICO's success factors, such as increasing the focus on gender and intergenerational activity.

In terms of knowledge transfer, the CALICO partnership has been highly active at conferences, from networking with other housing projects in other cities and countries to delivering presentations on the project and its objectives. The primary focus of these presentations has been the CLT model itself, advocating for its implementation and using CALICO as an example of good practice. One interviewee mentioned that the project team had the chance to exchange with other UIA projects, such as the one in Ghent (Belgium), or Yes We Rent! in Mataró (Spain). Beyond the UIA, representatives from a South Korean city also visited Brussels at the end of 2019 to understand how Brussels Housing operates. These activities have generated a significant amount of interest, and one interviewee mentioned a plan to host some regional events when the building is completed in 2021.

Given CALICO is still quite early in its project implementation, interviewees anticipate that more knowledge transfer and promotion in other cities will take place at later stages, and especially once the project has gleaned results and findings from its residents.

15.6.6 Summary of key outputs and results (according to study typology)

Key outputs and results (related to case study activities)	
Outputs	
New urban infrastructure and equipment	• 34 purpose-built housing units (due 2021)
New services, products, processes	• New housing services provided within purpose-built facilities (intended to host up to 80 residents, due 2021) • A combined birth and end-of-life facility
Partnerships created	• Connections between CLTB and NGOs • Connections between future residents and the project team, as well as with the wider neighbourhood
Experience gained	• Working with NGOs
Knowledge produced	• The efficacy of a Community Land Trust in providing housing for vulnerable groups • The benefits of intergenerational housing and community care.
Results: local level	
Identifiable effect on urban issues faced at local level	• Increased quality of life and wellbeing among residents, especially those in end-of-life or birth situations • Increased resident participation in the wider neighbourhood, bolstering social cohesion.
Sustainability of partnership working	• The intention is to sustain the partnership beyond the life of the UIA project and undertake further housing developments of a similar nature.
Innovations scaled up	• Too early to say, but clear potential and demonstrated interest

15.7 Project implementation

CALICO is being implemented according to plan, however, there have been significant hindrances to construction, so it is still too early to say whether or not the project will be completed on time. The original timeline set the completion of construction in December 2020, and move-in day for residents taking place in April 2021; however, due to the lockdown response to the COVID-19 pandemic, the construction deadline has been delayed to spring 2021, and the moving-in date postponed to later in 2021.

Encouragingly, CALICO has not needed to request any major changes to its original plan. The building site in the Forest municipality has remained the same, and the process of resident selection and communication has been consistent. The only alterations have been the delay to construction and move-in due to nationwide lockdown.

15.8 UIA flexibility and administrative requirements

Overall, the project promoters and partners have quite positive views of the UIA, stating it is an excellent source of support for urban initiatives aimed at helping and empowering others. The only area of improvement interviewees identified is the allotted duration. The project promoter reported that original timescale of three years for a project involving construction was not enough time. However, the project could benefit from an increase in the maximum duration of the implementation phase to four years, which can be applied

to projects from Call 3 onwards and the partnership now expects to achieve the majority of the intended outputs in this timeframe.

According to the online survey, the most burdensome aspect of initiating CALICO was the ex-ante audit, which was listed as "very burdensome". The project promoters felt the administrative burden as a whole was only slightly excessive, however it provided the team with useful insight into the administrative and financial demands involved in such a process, and better prepared them for a future audit. The other requirements that have proven burdensome are the annual progress reports and financial claims. This could be exacerbated by outstanding, unexpected work being done to adapt to Belgium's lockdown situation. An additional burden that interviewees identified was the application form is very long and complicated, and that it is difficult to understand how innovation is defined. Given innovativeness carries significant weight in reviewing applications, it should be clearly defined. Interviewees suggested that in the next UIA call, it would be more interesting to define innovation at the municipal scale, rather than solely at the EU level, as innovation will manifest in many different ways between different urban contexts.

In interviews, project managers have praised the support from the UIA Secretariat and the assigned UIA Expert. Comments have highlighted how easy it is to request support or guidance from the Secretariat, as well as the quality of help received especially in the implementation stage. If certain issues are too complex to explain via e-mail, they will arrange a phone call. The UIA expert herself remarked that UIA Experts across projects would benefit from being involved from the outset. This would avoid the additional burden on UIA Experts to catch up with how the project has changed within its initiation and implementation phases, and allot more time for the expert to really grasp the context in which the project operates so they can properly immerse themselves in the work. In addition, more time could be allotted for site visits, so that the UIA Experts can better comprehend the actual work taking place on the ground, beyond what is merely written on paper.

15.9 Communication and media image

From the outset, CALICO's communication efforts have been focused on disseminating the project primarily at the local level—via volunteers in the community centre and relevant actors in the project team's members' networks—the national level—via various charities representing the target groups (Flemish Advisory Board for Older People, Samenwonen, Habitat et Participation)—and the EU level (Housing Europe, Community Led Housing Network).

Regarding social media, the application states that digital communication will be performed via UIA communication channels such as the project's webpage, the UIA newsletter, and the project's social media channels, as well as those of the partner organisations. Communication material would focus on how the community care model works, project updates, and how people can get involved at different implementation phases. The CLTB newsletter, meanwhile, reaches over 2,000 people in Belgium, and the Interreg SHICC newsletter reaches 500 readers across Europe, so CALICO would certainly feature in these communications. On social media, the project is connected to European urban affairs projects and organisations such as URBACT.

According to interviewees, the CALICO project has not been extremely active in the media just yet, as it is still early days. There have been a few newspaper articles, a brochure, and an explainer video for a wider audience.[238] However, there has been some work taken to engage with the target groups and generate interest in the local neighbourhood (see "Knowledge informing the innovations" above for an example).

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[238] https://www.youtube.com/watch?v=lyjXh6Bkv0U&feature=emb_title

On the international level, Perspective.brussels has a strong communication team that is working on forging connections with European conferences and events where CALICO could present as a case study.

15.10 European Added Value

While there are similar initiatives taking place in the Brussels Capital Region, several interviewees on the project management team have asserted that EU funding and support has greatly benefited the Brussels Housing Administration, and demonstrated the wide variety of achievements made possible via EU funds. As demonstrated by CALICO and the other CLT-based housing programmes, the projects were able to move beyond just building economic facilities or schools for standard use. They were able to spark social initiatives, focusing on addressing the housing crisis in new, innovative ways.

In addition, the opportunity to present at European conferences has been highly advantageous for the CALICO project team—both the CLTB and the affiliate NGOs. At the URBACT-UIA web conference in April 2020, CALICO was the first project to present as a city cast on CLTs.[239] As mentioned above, it is still early days for the project, so being able to attend conferences and present the project's ideas and goals to other cities has already served as an excellent source of inspiration for other NGOs.

15.11 Complementarity with other EU programmes

CALICO complements another EU-funded project in Brussels (part of Interreg), that aims to disseminate the CLT model throughout northwest Europe. Led by Community Land Trust Bruxelles, the Sustainable Housing for Inclusive and Cohesive Cities (SHICC) project, started in 2017, has invested in four existing CLTs in London, Lille, Ghent and Brussels as pilot projects to prove that a community-led housing development and allocation model can sufficiently address the housing crisis.[240] Thus far, all four sites have demonstrated significant progress, and are now working to prove that community-led housing is a suitable model to adopt for rebuilding their respective cities' economies as the COVID-19 pandemic is gradually controlled.[241] This Interreg project has a total budget of €2.9m, of which €1.74 comes from EU funding.

In addition, Brussels Capital Region receives funding from its sustainable urban development (SUD) strategy, funded under ERDF Article 7.[242] Of the €192m budget for the programme, the EU has contributed €96m, in order to address five of the nine Thematic Objectives:

- TO1. Research & Innovation,
- TO3. Competitiveness of SMEs,
- TO4. Low-Carbon Economy,
- TO6. Environment Protection & Resource Efficiency, and
- TO9. Social Inclusion

Within this SUD strategy, TO9. Social Inclusion is most relevant to the CALICO project. With its focus on marginalised communities and integration both among residents and the

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[239] https://www.uia-initiative.eu/en/events/how-can-cities-build-alternative-communityled-housing-models-urbactuia-webconference

[240] https://www.nweurope.eu/projects/project-search/shicc-sustainable-housing-for-inclusive-and-cohesive-cities/

[241] https://mailchi.mp/communitylandtrusts/shicc-summer-newsletter-2020

[242] https://urban.jrc.ec.europa.eu/strat-board/#/factsheet?id=BE-009&fullscreen=yes

wider neighbourhood, social inclusion through housing provision is at the heart of the project's mission.

15.12 Lessons learned

Although the project is still technically at the beginning, or the construction phase, some key lessons have already been learned. One of the key lessons that stakeholders pointed out addresses the project partnership itself: due to a quick planning phase, there was not a sufficient amount of time to specify each partner's specific role and level of responsibility. However, the team was able to delegate after project initiation, but it was still important to note this lesson for future collaborations. Interviewees also mentioned there is significant added value from having a project team comprised of partners from different backgrounds, spheres of influence, and perspectives.

According to interviewees, there is a greater lesson learned from this project: innovations such as implementing a Community Land Trust and community care-based housing facility do not appear out of the blue. They arise from incremental citizen engagement, activism, and building a strong network of people continuously lobbying for the right to housing. It is this activity that creates a terrain for innovation; cities interested in implementing a CLT should examine the culture of activism among their populations.

15.13 List of interviews

Organisation	Role in project	Date of interview
Community Land Trust Brussels	Promoter	03/06/2020
Community Land Trust Brussels	Promoter	07/07/2020
Brussels Housing	Promoter	26/06/2020
Perspective.Brussels	Partner	17/07/2020
UIA	Expert	15/07/2020

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https://www.youtube.com/watch?v=lyjXh6Bkv0U&feature=emb_title
https://www.uia-initiative.eu/en/events/how-can-cities-build-alternative-communityled-housing-models-urbactuia-webconference

ANNEX 7: ANALYSIS OF ON-LINE SURVEYS

CONTENTS

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FIGURES

1. INTRODUCTION

1.1 Purpose of the survey

This report presents the findings from three on-line surveys undertaken with respect to the EU's Urban Innovative Actions (UIA). The surveys form part of a wider mid-term assessment covering the effectiveness, efficiency, relevance, coherence and EU added value of the UIA.

Three populations were targeted by the surveys:

- A closed sample of all applicants to the first four calls for proposals under the UIA, who were directly targeted by an email from the UIA Secretariat;

- A closed sample of Managing Authorities (MAs) for Cohesion Policy programmes in charge of ERDF urban development investments (ERDF Article 7), selected by DG REGIO, who were directly targeted by an email from CSES;

- An open survey available to any other interested individual or organisation, which was promoted via a newsflash from the UIA Secretariat to its list of contacts and via DG REGIO's communication tools, e.g. Inforegio, RegioFlash, UAEU Futurium newsletter, etc.

The surveys were launched on 4 May 2020 and results for this analysis were extracted on 8 June 2020.

1.2 Analysis of the survey results

The online questionnaires consisted of open and closed questions. The statistics stemming from the closed questions are presented here in the form of tables and charts. The answers to the open questions have been analysed and used to complement a number of quantitative answers. However, since many of the open questions were optional and since respondents' answers vary in terms of length, content, etc., the responses to open questions have been used exclusively in a qualitative way (with no statistics derived), in order to illustrate certain phenomena with more detail or to exemplify suggestions. Some quoted comments have been edited for reasons of grammar or spelling or translated from the source language (in a few cases respondents gave written comments in their own language). Some responses to open questions were not relevant to the questions covered by the survey and were therefore discarded.

All three surveys featured a considerable degree of routing based on respondents' answers. For example, after some initial questions about the application and selection process, successful applicants were routed to a series of questions about the implementation of their projects, whilst unsuccessful applicants answered questions about if or how they implemented their projects without UIA funding.

It should be noted that the sample of respondents to the open survey is self-selected (albeit after targeting by various communications) and is not necessarily representative of the full population of interested parties (e.g. cities, citizens, national or regional authorities). However, the results presented here offer a useful indicator as to the opinion of that wider population of interested cities and other stakeholders with an interest in urban development.

2. PROFILE OF RESPONDENTS

2.1 Volume and type of respondents

In all, 910 respondents fully or partially completed the survey (i.e. reached halfway at least). As with any survey of this type, a number of respondents chose only to complete part of the survey. Figure 2 shows that the majority (59%) completed the survey and 41% partially completed the survey.[243]
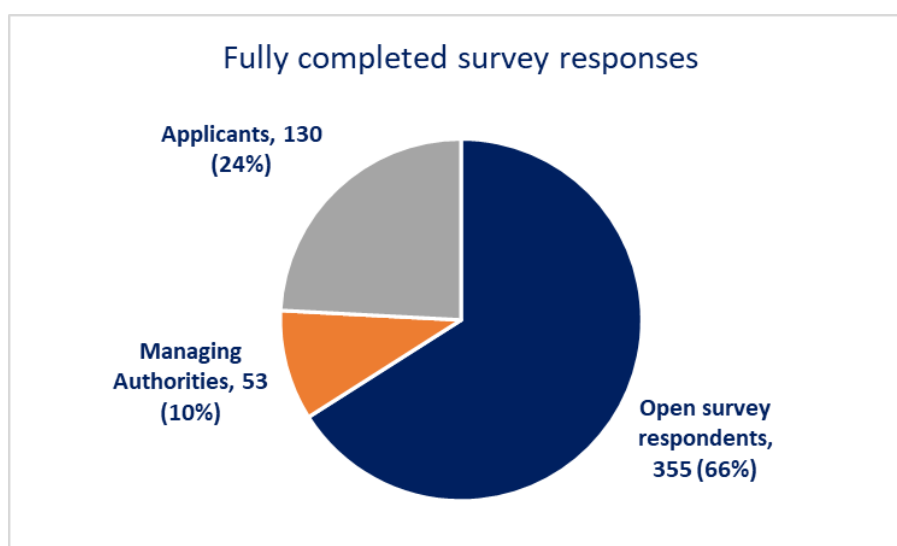
Figure 2: Volume of full and partial reponses to the surveys
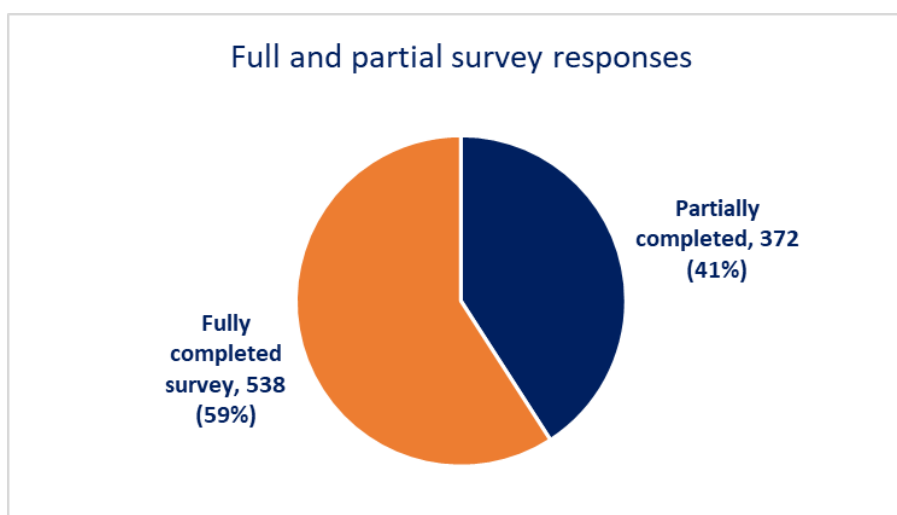
Source: Survey of UIA applicants, UIA survey of MAs, UIA open survey.

Some 538 respondents fully completed the surveys. Figure 3 presents the breakdown by survey.

**Figure 3: Volume of full reponses to each survey**

Source: Survey of UIA applicants, UIA survey of MAs, UIA open survey.

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[243] These figures exclude respondents who entered the survey but answered no questions or only a very few. Typically, many individuals will enter a survey as soon as they receive the invitation just to "have a look" but then exit the survey and return later to provide a complete (or reasonably complete) response.

In all, 236 respondents fully or partially completed the survey of UIA applicants. Of these, just over half (54%) had submitted at least one successful application, whilst just less than half (46%) had submitted only unsuccessful applications.

Figure 4: Successful and unsuccessul applicants responding to the survey
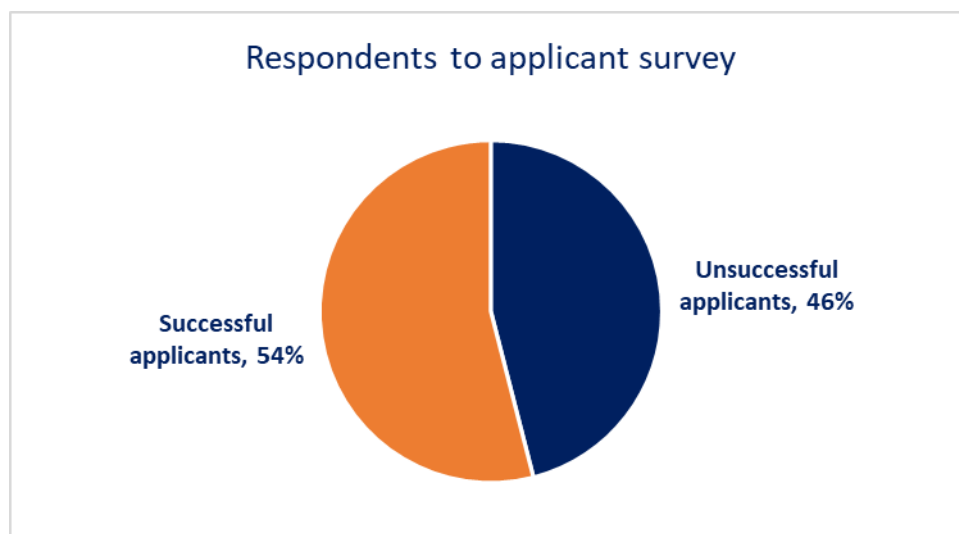
Source: Survey of UIA applicants

A diverse mix of organisations responded to the open survey. MAs entering the survey were offered the option to be redirected to the dedicated survey of MAs. Most choose to do so, but some chose to continue with the open survey.

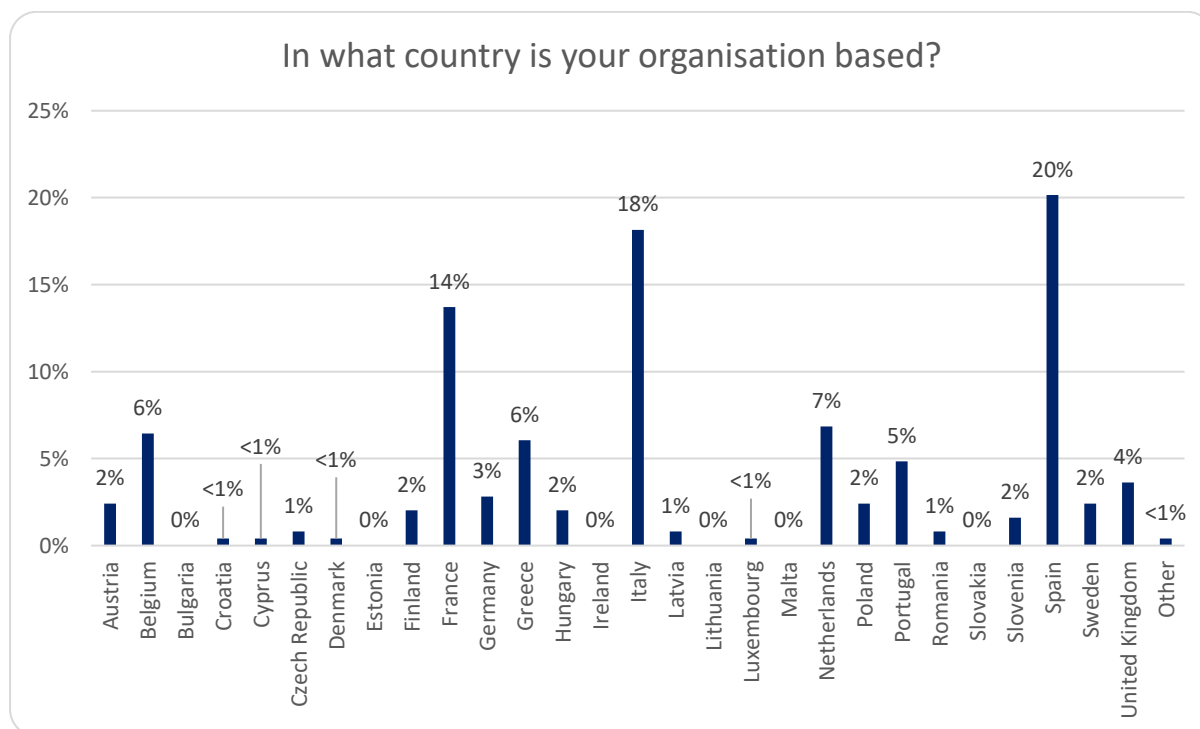**Figure 5: Responses to the open survey by type of organisation**
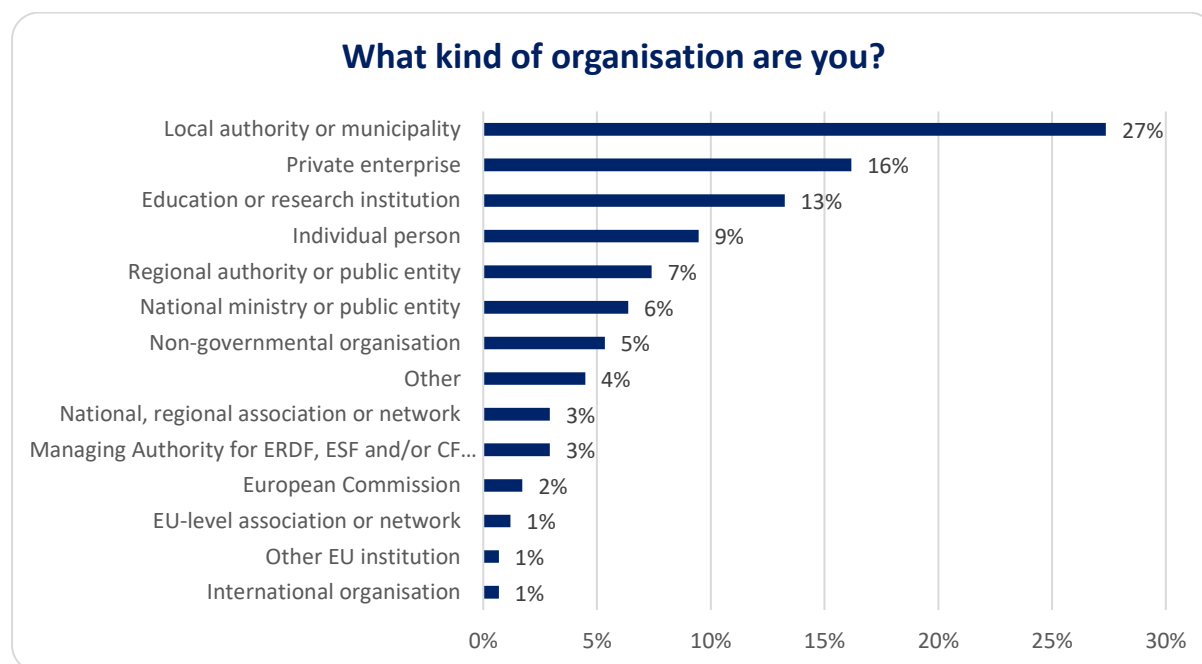
Source: UIA survey of MAs

2.2   Responses by Member State

The figures that follow illustrate the volume of responses to the three surveys by Member State.

- Applicant survey: the survey respondents are broadly representative of all applicants. They came from 18 Member States (compared to 26 Member States for all applicants). The three countries with most survey respondents were also the countries with most applications: Spain (20% of respondents, 19% of applicants), Italy (18% of respondents, 30% of applicants), France (14% of respondents, 6% of applicants).

- Open survey: survey respondents came from 26 Member States (not from Lithuania or Malta) plus "Other". Spain, Italy and France again accounted for most responses. But the responses were more evenly distribution across countries, with Spain and France featuring a small percentage than in the applicant survey.

- MA survey: the survey was sent to MAs in 27 Member States. In most Member States, the survey was sent to one MA. But in some Member States, the survey was sent to several MAs where sustainable urban development (SUD) strategies are covered by regional programmes: France (26), Poland (23), Italy (17), Germany (10), Portugal (9). Responses were received from all countries, except Sweden. Since most invited MAs chose to respond, the respondents closely reflect the invitation list, except that only 4 out of 26 invited MAs in France chose to respond.

Figure 6: Responses to the applicant survey by country
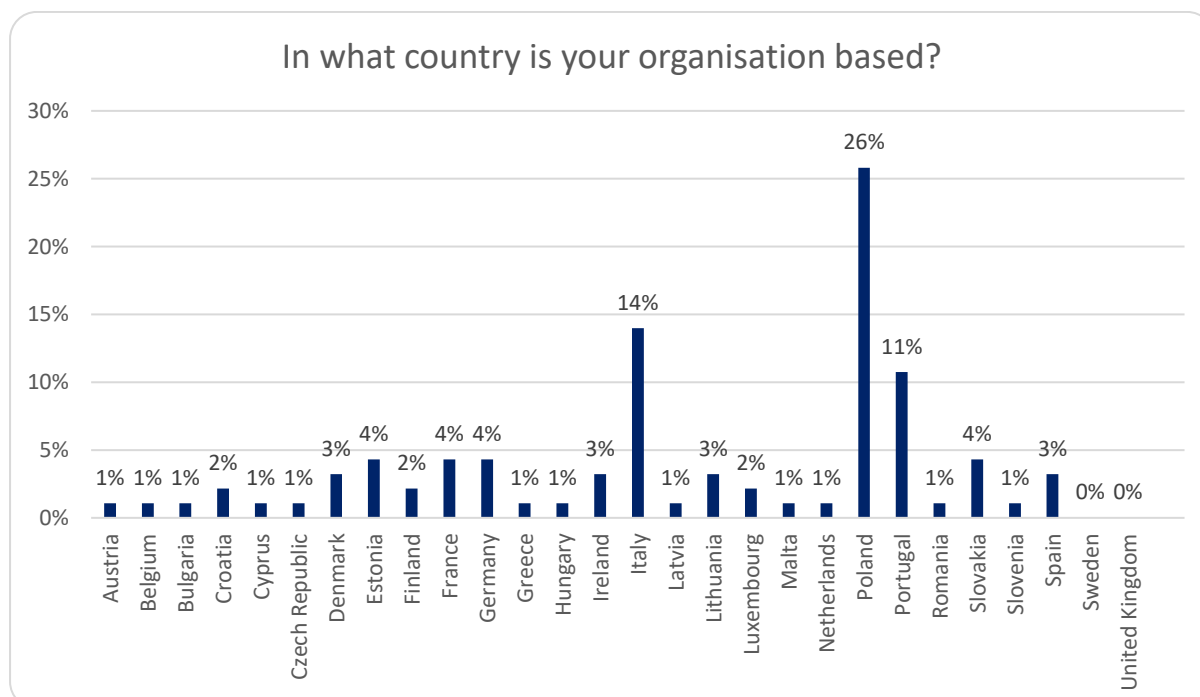

Source Survey of UIA applicants

Figure 7: Responses to the open survey by country
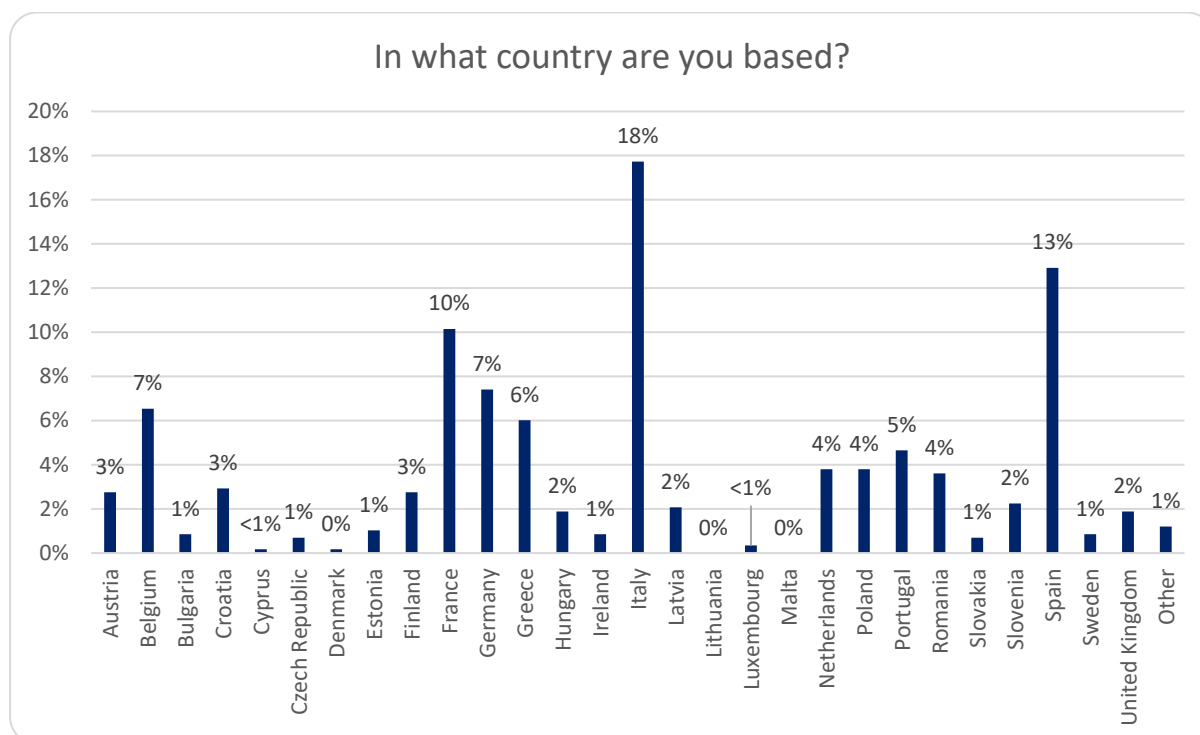
Source: UIA open survey

As noted above, the MA survey was sent to one MA in each country, except in France, Germany, Italy, Poland and Portugal, where it was sent to several MAs responsible for regional programmes.

**Figure 8: Responses to the MA survey by country**

Source: UIA survey of MAs

2.3 Respondent cities and their EU funding profile

2.3.1 Volume of replies from cities

Overall, the online surveys have attracted a significant interest from cities and other local authorities. across the EU. As shown in Figure 9, a total of 289 local authorities responded, of which 130 to the applicant survey and 159 to the open survey.

**Figure 9: Number of local authorities responding to the surveys**
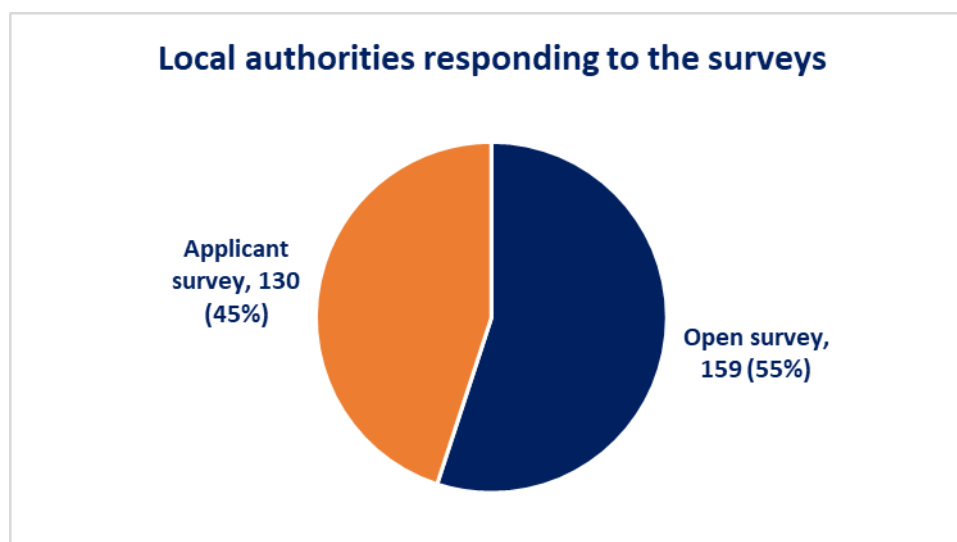
Source: Survey of UIA applicants, UIA open survey.

Of local authorities responding to the open survey, 60% were previous UIA applicants, of which 19% successful and 41% unsuccessful. In all, 77% had applied or considered applying (see Figure 10 below).

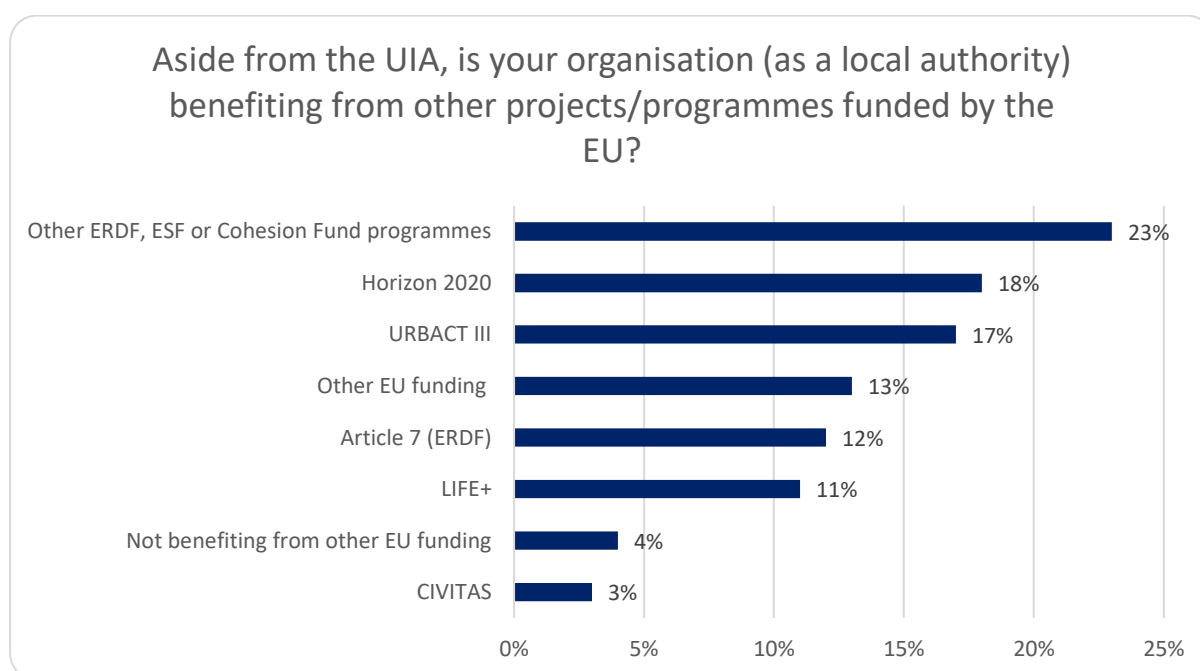**Figure 10: Profile of local authorities responding to the open survey**
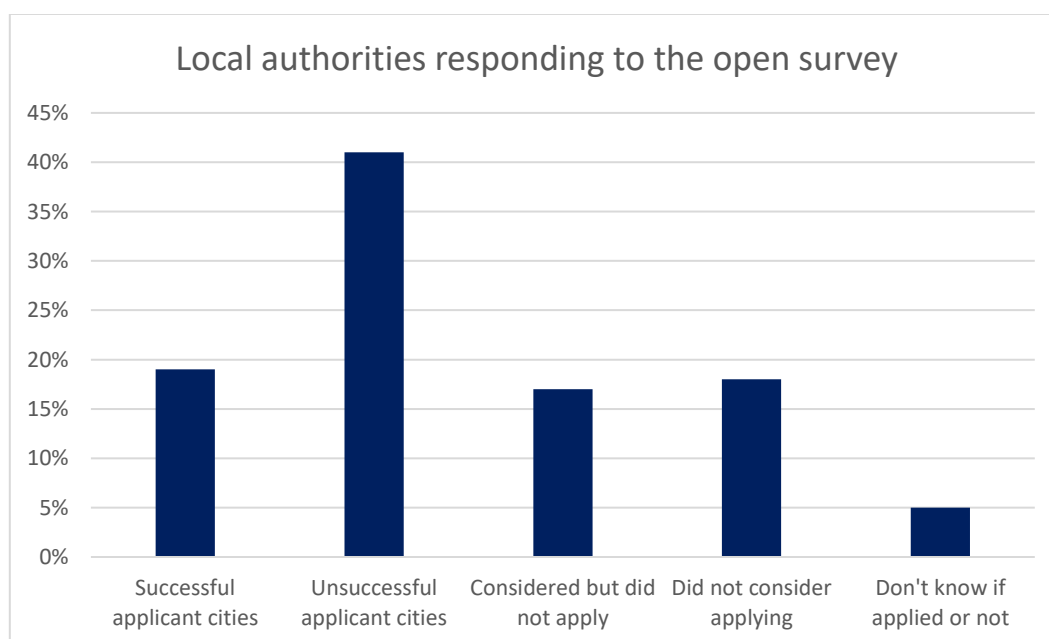
Source: UIA open survey

2.3.2 EU funding profile of cities responding

Cities responding to the applicant survey and the open survey were invited to state any forms of EU funding that they were benefiting from (other than the UIA). The most commonly-stated programmes were identical across both surveys. However, a smaller percentage of applicants reported that their cities were benefitting from each programme.

It is possible that the figure of 12% of UIA applicants who reported that their cities were benefitting Article 7 (ERDF) is an under-estimate. Data from the European Commission shows that of the 75 UIA projects, 52 (69%) are in cities that host a SUD strategy.[244] One possibility is that some individual respondents were either unaware of the SUDS in their cities or unaware that the SUD strategies were supported by Article 7 ERDF. Results presented by the profiles below should thus be seen as indicative.

Figure 11: EU funding profile of applicant cities

Source: Survey of UIA applicants

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[244] See 6.2.1 of the main report for this assessment study.

Figure 12: EU funding profile of cities responding to the open survey

Is your organisation (as a local authority) benefiting from other projects/programmes funded by the EU? (please tick all that apply)

Category	Percentage
Other ERDF, ESF or Cohesion Fund programmes	63%
Horizon 2020	45%
URBACT III	39%
Article 7 (ERDF)	33%
Other EU funding	28%
LIFE+	26%
CIVITAS	10%
Not benefitting from other EU funding.	7%
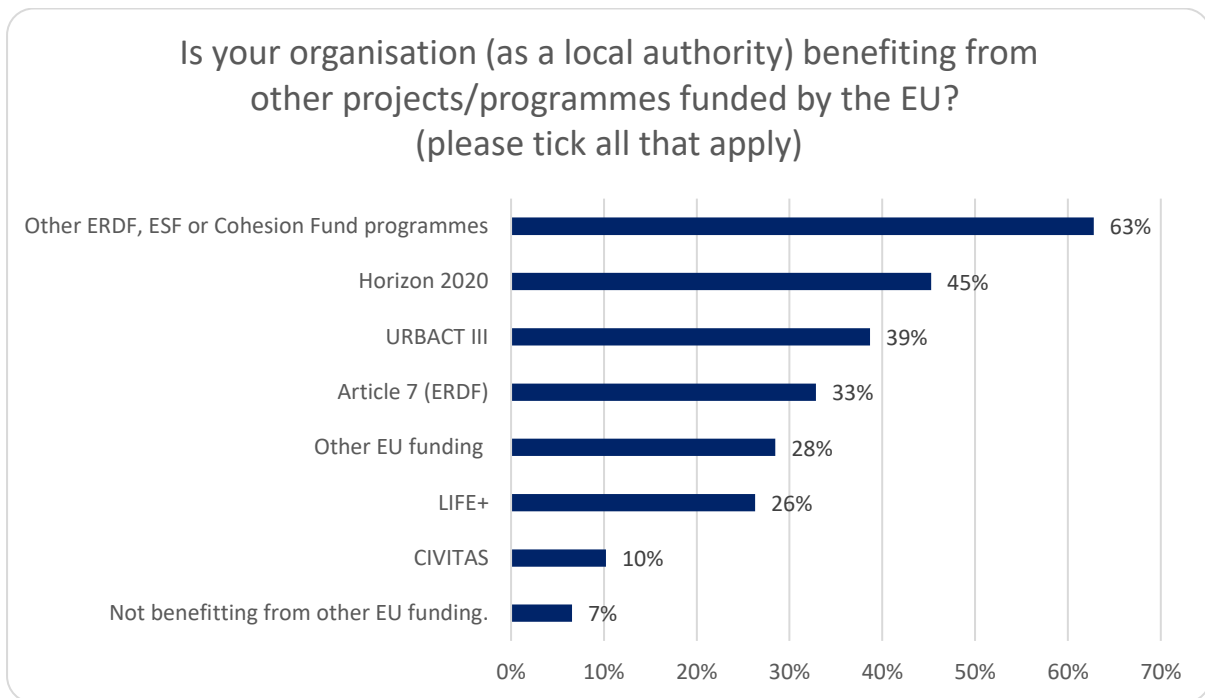
Source: UIA open survey

3. GENERAL OPINIONS ON THE EFFECTIVENESS, RELEVANCE AND COHERENCE OF THE UIA INITIATIVE

3.1 Effectiveness of UIA projects in general

3.1.1 How visible is the UIA?

The survey results suggest that **the UIA initiative mostly has reasonable visibility across the EU**:

- Nearly three quarters of applicants (74%) consider the initiative is fairly or very visible;

- A clear majority of open survey respondents (60%) consider the initiative is fairly or very visible;

- The majority of applicants (84%) were aware of UIA projects across the EU;

- The majority of open survey respondents (69%) were aware of UIA projects in their country and across the EU (although it should be noted that these respondents are not representative of cities and other stakeholders, etc., as they were reached by communication about the survey and sufficiently interested to respond);

- Most (88%) MAs have high awareness of projects in the territory covered by their programmes and 30% were aware of UIA projects across the EU (i.e. outside their own territory).

This positive result should be slightly qualified by the finding that the proportion of MAs saying they did not know how visible the UIA Initiative was (42%) exceeded the proportion saying it was fairly visible (35%) or very (3%) visible.

3.1.2 To what extent are projects considered innovative?

Across the three surveys, respondents were asked to state whether they considered the UIA to be innovative and to have a good chance to find new solutions to urban challenges. Overall, the survey respondents consider that:

- **UIA projects in their country are innovative**: some 64% of MAs consider UIA projects in the territory covered by their programmes to be very or fairly innovative, whilst 74% of open survey respondents consider UIA projects in their country to be very or fairly innovative (this question was not asked in the applicant survey).

- **UIA projects across the EU are innovative**: a high majority across all surveys consider that UIA projects are fairly innovative or very innovative (90% of applicants, 83% of MAs, 84% of open survey respondents); around one-third of respondents to each survey considered it was "very innovative".

- **UIA projects in their country have a good chance to find new solutions to urban challenges**; some 79% of MAs consider UIA projects in the territory covered by their programmes to have a good chance or a very good chance, whilst 80% of open survey respondents consider UIA projects in their country to have a good chance or a very good chance (this question was not asked in the applicant survey).

- **UIA projects across the EU have a good chance to find new solutions to urban challenges**; a high majority across all surveys consider that UIA projects have a good or very good chance (92% of applicants, 89% of MAs, 87% of open survey respondents); only one respondent to the open survey considered they had no chance (and none in the other two surveys).

3.1.3 Will UIA projects be scaled up across the EU?

The different stakeholders are mostly positive about the likelihood that innovations tested by UIA projects in general would be scaled up. Evidence from the different surveys showed that:

- A majority of projects (55%) believe that innovations tested by UIA projects in general are likely to be scaled up to a great extent or reasonable extent and only 1% thought not at all, although there is uncertainty with 10% reporting "don't know".

- A majority of stakeholders responding to the open survey (52%) believe that innovations tested by UIA projects are likely to be scaled up to a great extent or reasonable extent, with another 30% reporting to a modest extent.

- A majority of MAs (67%) believe that innovations tested by UIA projects are likely to be scaled up to a great extent or reasonable extent, with another 11% reporting to a modest extent.

3.1.4 Will projects be replicated in other cities?

The selection criterion on "Project's transferability and scaling up" included a focus on the extent to which projects would be transferable to other urban areas across Europe. On this point, the respondents to all three surveys were asked to asked to give their opinion on the potential for innovations in UIA projects in general to be replicated in other cities (i.e. projects were not commenting on their own potential for replication).

Replication is of interest to cities. The survey responses show the following:

- Cities' interest in learning from the experience of UIA projects: 99% of cities responding to the open survey would be interested to learn from UIA projects in their own country and 95% from cities in other countries.

- Cities' interest in replicating successful projects: 94% of applicant cities and 93% of cities responding to the open survey would be interested to replicate a successful UIA project from elsewhere; only 6% of national or regional bodies thought cities would not be interested.

Cities responding to the open survey were invited to suggest what could help them to replicate successful UIA innovations. A diversity of suggestions was offered, of which many simply related to better information or more funding (with no further explanation). However, from the more detailed suggestions, we can draw three main conclusions.

Some cities already report learning from or (to a lesser extent) replication of innovations tested by UIA projects. Of the cities responding to the open survey, 11 (9%) had already learned from or replicated elements of UIA projects elsewhere, although based on their subsequent explanation some of these were themselves UIA projects. When asked to explain their response, four cities mentioned general learning from UIA projects, but three cities gave concrete examples:

- Drawing on the experience of a Circular economy UIA project in order to tackle a problem with invasive species;

- Applying regeneration practices of a UIA project to the reuse of a decommissioned military barracks;

- Inspired by an Urban poverty UIA project to develop a restaurant linked to a nearby urban farm.

Some national or regional bodies already report learning from or (to a lesser extent) replication of innovations tested by UIA projects. Of those responding to the open survey, 16 (20%) had already learned from, scaled up or replicated UIA innovations. When asked to explain their response, the following concrete examples were offered, which related more to promotion rather than scaling up or replication as such:

- One national body had promoted at national and EU level a personal carbon trading scheme tested within the CitiCap project (Lahti, Finland);

- One national body had supported knowledge dissemination at national level by the two

Romanian UIA projects: SPIRE (Baia Mare), Cluj Future of Work (Cluj).

All types of survey respondent are positive about the potential for UIA projects to be replicated in other places. Overall, the survey respondents consider that innovations tested by UIA projects are:

- likely to be replicated in other territories in the same region: 68% of applicants consider this will happen to a reasonable or a great extent (the question was not asked in the other surveys).

- likely to be replicated in other territories in the same country: about than two-thirds consider this will be happen to a reasonable extent or to a great extent (68% of applicants, 82% of MAs, 65% of open survey respondents).

- likely to be replicated in other countries but to a lesser extent than in the same country: 45% of applicants, 63% of MAs and 47% of open survey respondents consider this will be happen to a reasonable extent or to a great extent; only 4% of open survey respondents considered this would not happen at all (and none in the other surveys).

3.1.5 What obstacles to replication do cities face?

Cities were asked (via the applicant survey and the open survey) what might be needed to facilitate replication and what would be the main obstacles they would face in replicating a successful UIA project from elsewhere. Other stakeholders were also asked to give their view on the obstacles to replication in cities.

To support replication, cities might welcome a more structured approach to knowledge transfer at programme level. It cannot be known whether respondents had already engaged with the existing knowledge transfer activities at EU or project level and some suggested things that are already available on the UIA website (e.g. database of UIA projects, project contact details). In any case, the UIA Initiative as a whole is in the early stages of its knowledge transfer phase (i.e. with projects under Calls 3 and 4 still in the early stage of implementation). Nonetheless, the comments as a whole suggest a demand from cities for a structured approach that might include:

- more in-depth information about innovations, lessons learned, success factors, etc., presented in a structured way, including but not only in a searchable online format;

- more in-depth information about the technical and organisational aspects of implementation;

- city visits and exchanges, which will allow UIA projects to be viewed in their local context;

- good practice workshops and presentations with a chance to interrogate projects on their experiences, problems faced, lessons learned, success factors, failures, costs, etc.

Cities might welcome a more structured approach to replication. Some mentioned that their small size, lack of capacity or institutional weaknesses meant that they might need more help than is currently available. Based on cities' suggestions, this might be support for a more structured approach (although less than for a structured approach to knowledge transfer). Such an approach might feature:

- support in "matchmaking", i.e. between UIA projects and replicator cities;

- funding stream(s) dedicated to the replication of UIA innovations in other cities;

- provision of guidance or technical assistance (e.g. consultants, experts) to support cities looking to replicate;

- thematic network with funding for replication.

The main obstacles to replication to relate to the practicalities or the broader context rather than to the inherent value in or potential for replication. Overall, the survey respondents consider that the following are the main obstacles:

- Lack of funding to replicate successful innovations: which was the obstacle most often cited by applicants (72%), cities responding to the open survey (63%), MAs (32%) and national/regional open survey respondents (41%).

- Differences in terms of institutional, legal and financial environments across the EU: the second most-cited obstacle by applicants (40%), cities responding to the open survey (35%) and MAs (27%), and the fourth most-cited by national/regional open survey respondents (18%).

- Lack of mechanisms to transfer knowledge: the third most-cited obstacle by applicants (19%) and cities responding to the open survey (29%), the second for national/regional open survey respondents (34%) and the fifth for MAs (15%).

The main obstacles do not relate to the inherent value in or potential for replication. The responses from cities show the following:
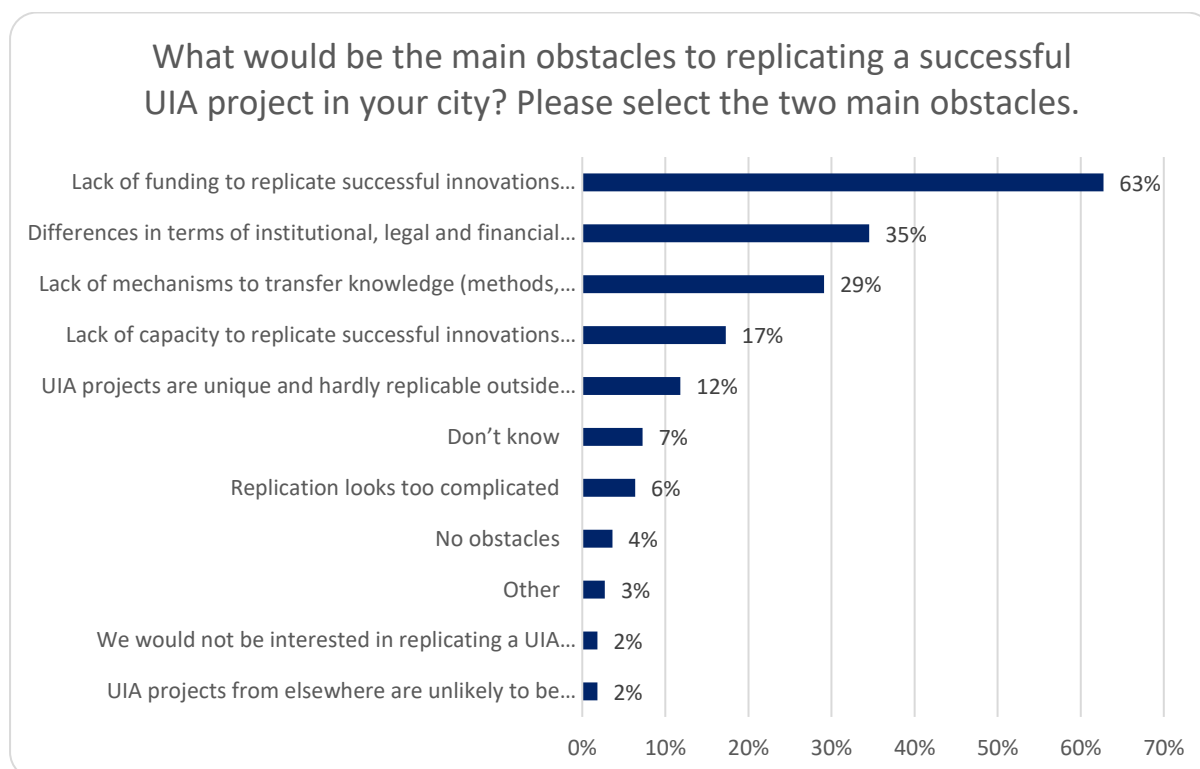
- Cities' perceptions of the relevance of UIA projects to them: only 5% of applicants and 2% of cities responding to the open survey considered that projects from elsewhere would not be relevant.

- Replicability of UIA projects outside of their local contexts: only 10% of applicants, and 12% of cities and 10% of national or regional bodies responding to the open survey considered that UIA projects from elsewhere would not be replicable.

- Little complication associated with replication: only 5% of applicants, 6% of cities, 11% of MAs and 4% of national/regional open survey respondents cited such complications as a main obstacle.

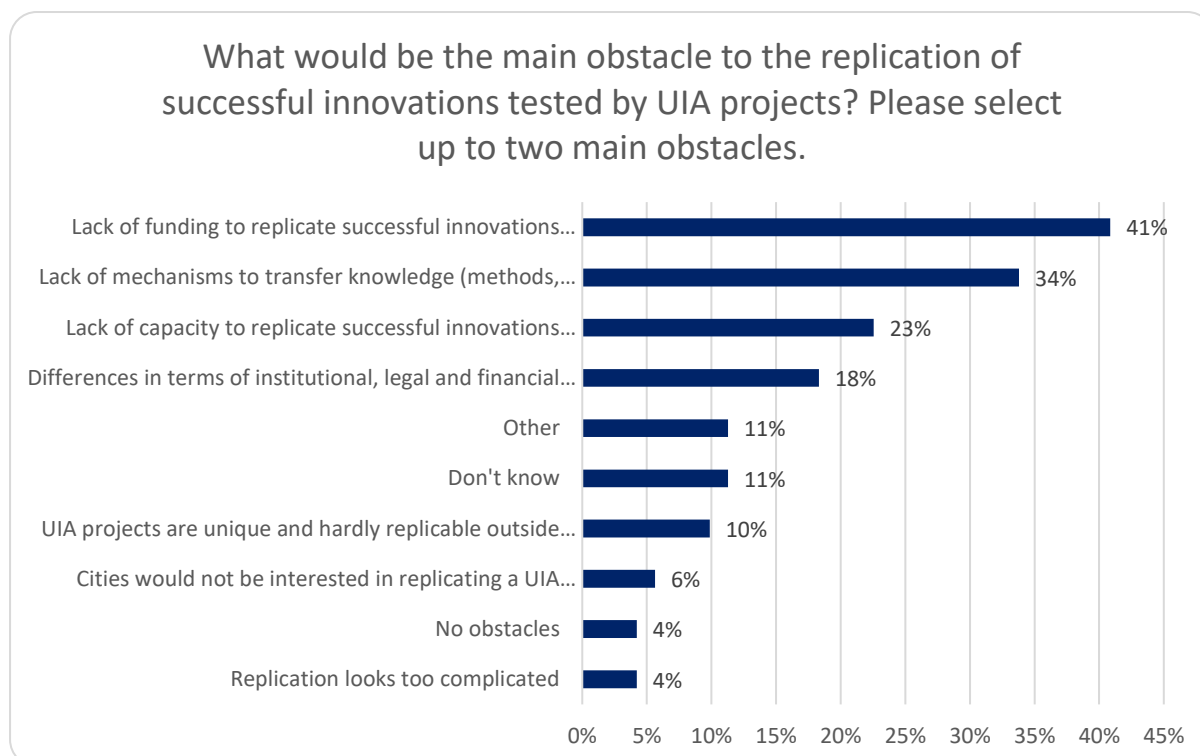**Figure 13: Replication obstacles reported by applicants**
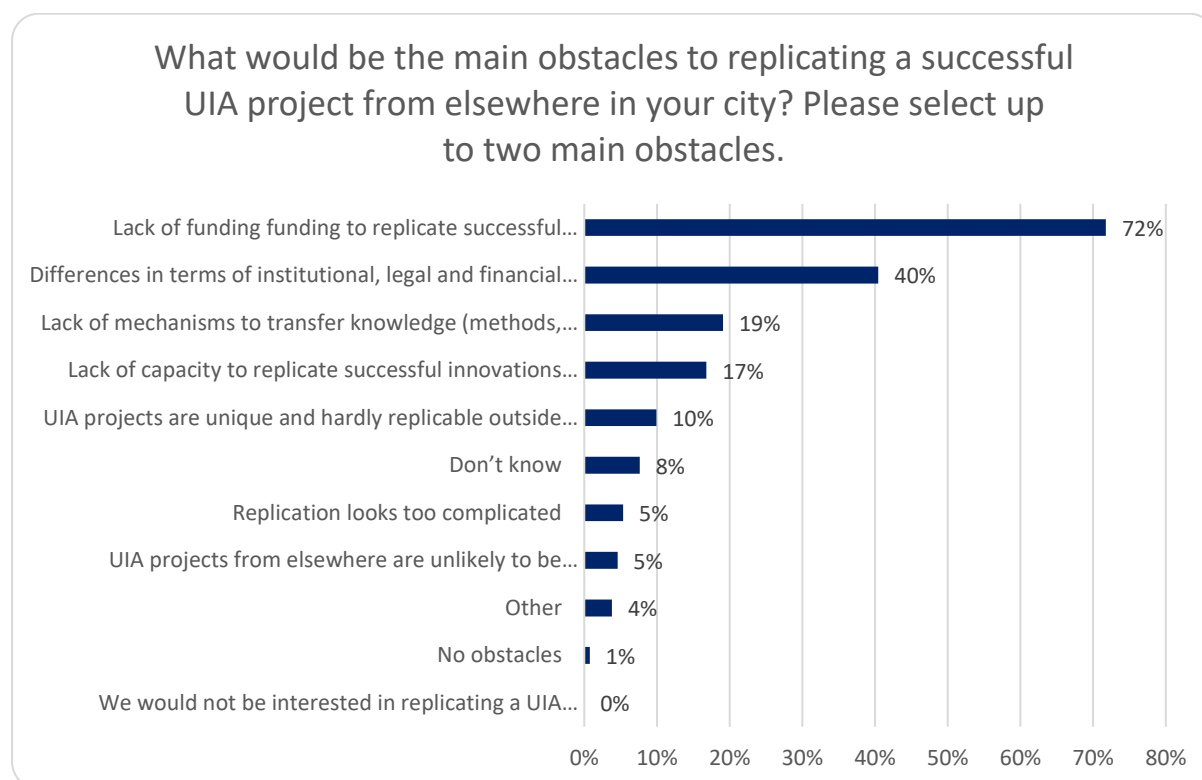
Source: Survey of UIA applicants

Figure 14: Replication obstacles reported by cities responding the open survey

What would be the main obstacles to replicating a successful UIA project in your city? Please select the two main obstacles.

Obstacle	%
Lack of funding to replicate successful innovations…	63%
Differences in terms of institutional, legal and financial…	35%
Lack of mechanisms to transfer knowledge (methods,…	29%
Lack of capacity to replicate successful innovations…	17%
UIA projects are unique and hardly replicable outside…	12%
Don't know	7%
Replication looks too complicated	6%
No obstacles	4%
Other	3%
We would not be interested in replicating a UIA…	2%
UIA projects from elsewhere are unlikely to be…	2%

Source: UIA open survey

Figure 15: Replication obstacles reported by national and regional bodies

What would be the main obstacle to the replication of successful innovations tested by UIA projects? Please select up to two main obstacles.

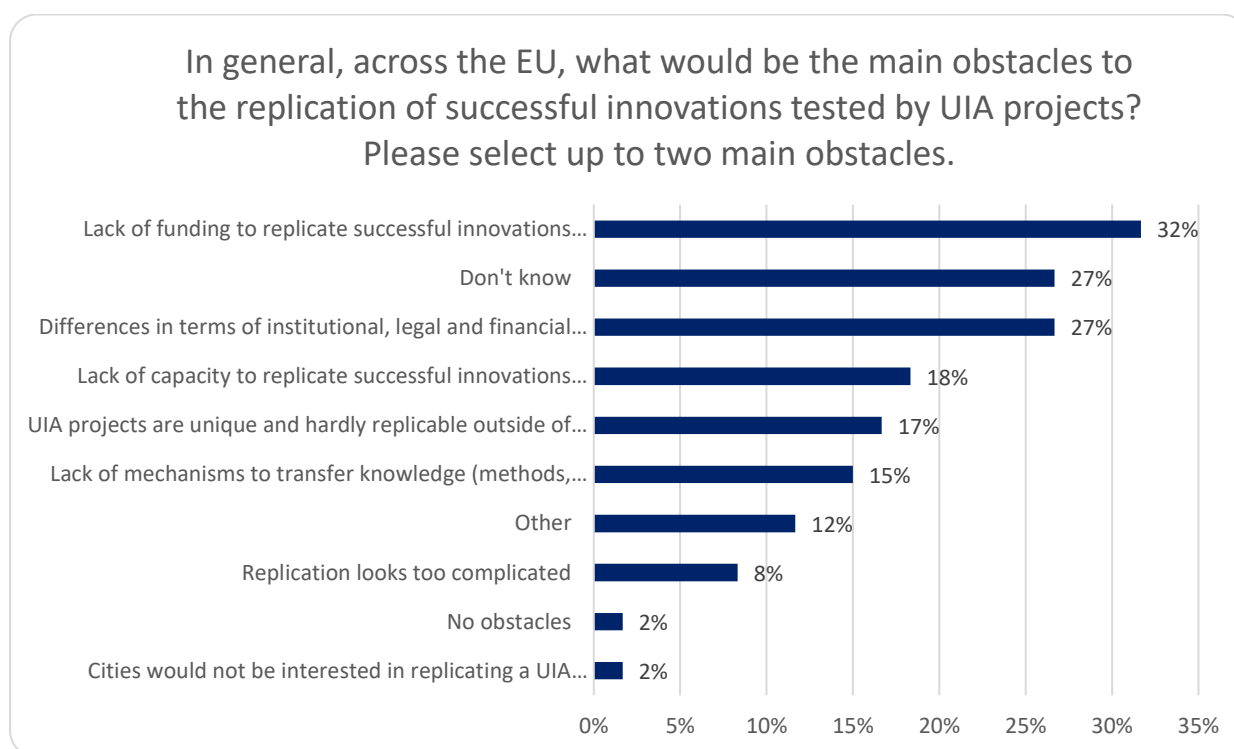| Obstacle	%
Lack of funding to replicate successful innovations…	41%
Lack of mechanisms to transfer knowledge (methods,…	34%
Lack of capacity to replicate successful innovations…	23%
Differences in terms of institutional, legal and financial…	18%
Other	11%
Don't know	11%
UIA projects are unique and hardly replicable outside…	10%
Cities would not be interested in replicating a UIA…	6%
No obstacles	4%
Replication looks too complicated	4%

Source: UIA open survey

There is limited consensus amongst MAs on the precise obstacles to replication, but MAs tend to highlight obstacles relating to the practicalities of replication rather than the inherent potential for replication. The survey results show that:

- the most commonly-reported obstacles was lack of funding, but a much smaller proportion of MAs view this as an obstacle compared to the proportion of applicants and other stakeholders (see section 3.1.4);

- after lack of funding, the most commonly-reported barriers were mostly practical ones, such as different institutional, legal and financial environments, lack of capacity in cities or lack of transfer mechanisms;

- only a small minority of MAs highlighted obstacles relating to the inherent value in or potential for replication, such as UIA projects not being replicable in other contexts, replication looking too complicated or cities not being interested;

- the limited consensus is reinforced by the fact that 27% of MAs did not know what the main obstacles were.

Figure 16: Replication obstacles reported by MAs

In general, across the EU, what would be the main obstacles to the replication of successful innovations tested by UIA projects? Please select up to two main obstacles.

Lack of funding to replicate successful innovations…	32%
Don't know	27%
Differences in terms of institutional, legal and financial…	27%
Lack of capacity to replicate successful innovations…	18%
UIA projects are unique and hardly replicable outside of…	17%
Lack of mechanisms to transfer knowledge (methods,…	15%
Other	12%
Replication looks too complicated	8%
No obstacles	2%
Cities would not be interested in replicating a UIA…	2%

Source: UIA survey of MAs

3.1.6 What funding sources offer a route to replicate successful UIA innovations?

UIA applicants and cities responding to the survey were asked what funding they might use to replicate a UIA project. There was a high degree of consistency between the responses, which allows a number of conclusions to be drawn.

Cities believe that mainstream Cohesion Policy programmes (e.g. ERDF, ESF) offer a potential means by which to replicate successful UIA projects. This was the second most popular response (after "Other local, regional or national"), attracting 57-59% of respondents to the surveys. This is consistent with the finding (in section 5.2.1)

that MAs are potentially open to supporting the replication of successful UIA projects with incentives or funding from their programmes.
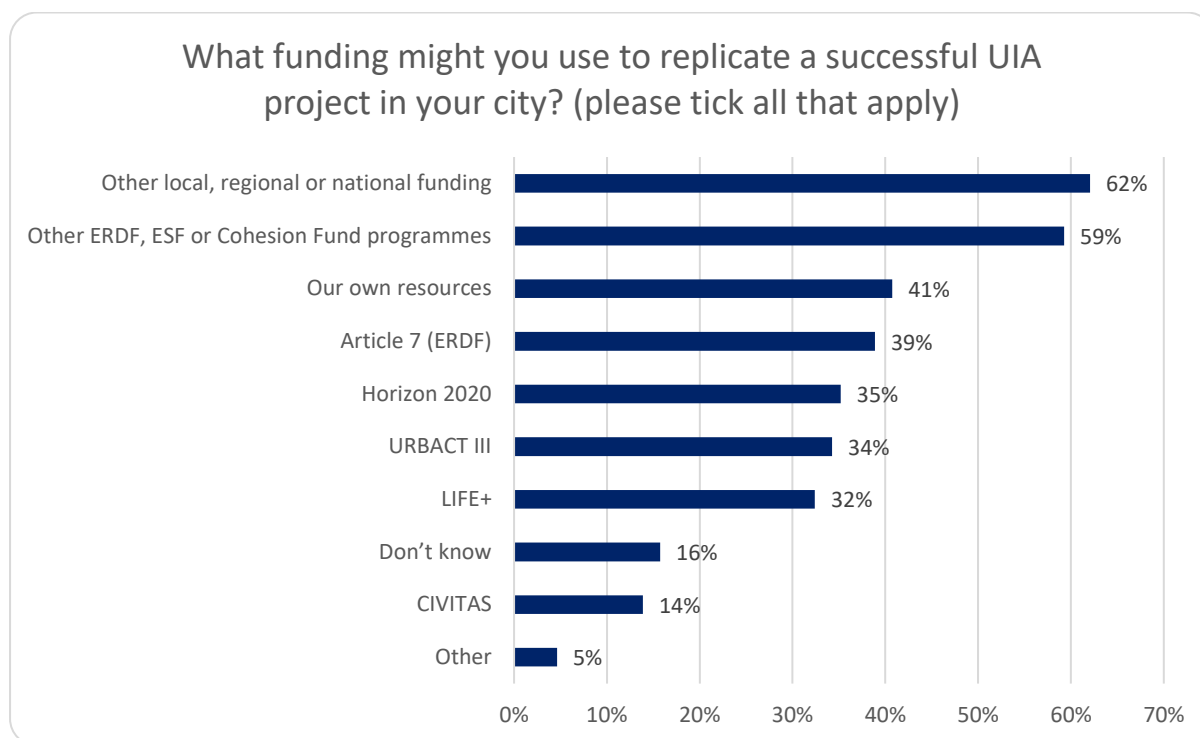
A range of other EU programmes also offer potential to support replication, albeit to a lesser extent than mainstream Cohesion Policy programmes. Article 7 ERDF, URBACT III and Horizon 2020 were all mentioned by at least 25% of respondents in both surveys. LIFE and CIVITAS were mentioned by a smaller number of respondents, perhaps reflecting their narrower focus on specific topics (respectively, environment and climate change, and urban mobility).

Cities are likely to combine two or more funding sources when replicating a UIA project. This is illustrated by the fact that, on average, each respondent selected more than three different funding sources. Perhaps the most likely scenario is that the majority of cities anticipate using EU funding of some sort, which will be combined with co-financing from their own resources and/or other local, regional or national funding.

Figure 17: Potential funding for replication (UIA applicants)
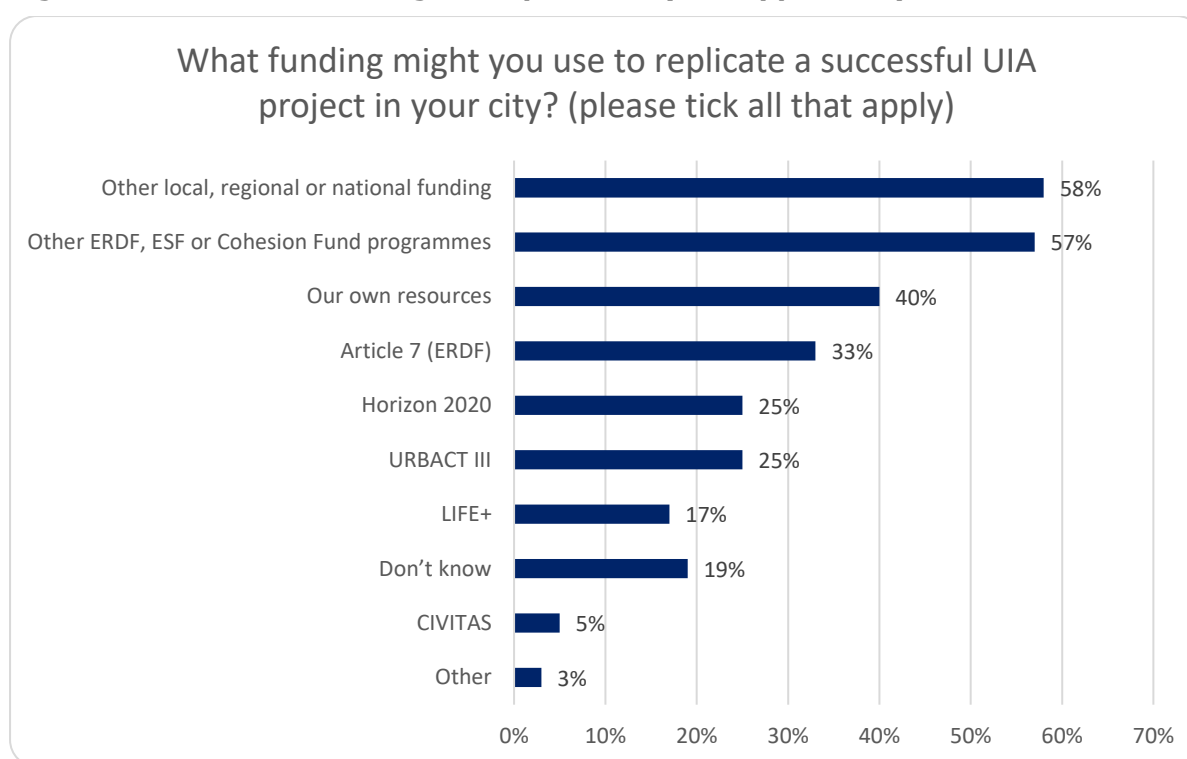
Source: Survey of UIA applicants

Figure 18: Potential funding for replication (cities responding to open survey)

What funding might you use to replicate a successful UIA project in your city? (please tick all that apply)

Category	Percentage
Other local, regional or national funding	62%
Other ERDF, ESF or Cohesion Fund programmes	59%
Our own resources	41%
Article 7 (ERDF)	39%
Horizon 2020	35%
URBACT III	34%
LIFE+	32%
Don't know	16%
CIVITAS	14%
Other	5%

Source: UIA open survey

3.1.7 Are regional and national bodies open to supporting scaling up and replication?

The view of cities regarding funding for replication are mostly supported by the views of national and regional bodies responding to the open survey.

National and regional bodies are open to the possibility of supporting the scaling up or replication of UIA projects and envisage using Cohesion Policy funding as well as national or regional funding for that purpose. A total of 84% such bodies responding to the survey reported that they would consider providing such support and only 2% said they would not. The single most reported source was EU Cohesion Policy programmes, with 82%. As with cities response (just described), national and regional bodies are likely to combine two or more funding sources when supporting replication.

National and regional bodies might also welcome a more structured approach to replication. Many bodies simply suggested better information about UIA innovations or more funding. But some suggestions related to a more structured approach that might feature:

* structured transfer of knowledge (echoing the suggestions from cities, described above);

* pre-prepared replication guidance and methodologies (e.g. guidelines for replication, practical methods and local models for replication);

* a structured way of finding companies willing to invest in technologies or other innovations;

* structured links to other programmes (e.g. Interreg) or capitalisation activities;

* EU funding stream(s) specifically for national or regional bodies to support replication.

**Figure 19: Funding that national or regional bodies might use to support replication**

What funding might you use to support the scaling up or replication of a successful UIA project from elsewhere in your region or country? (please tick all that apply)

ERDF, ESF or Cohesion Fund programmes	82%
Other regional or national funding	54%
Our own resources	37%
Don't know	8%
Other	4%
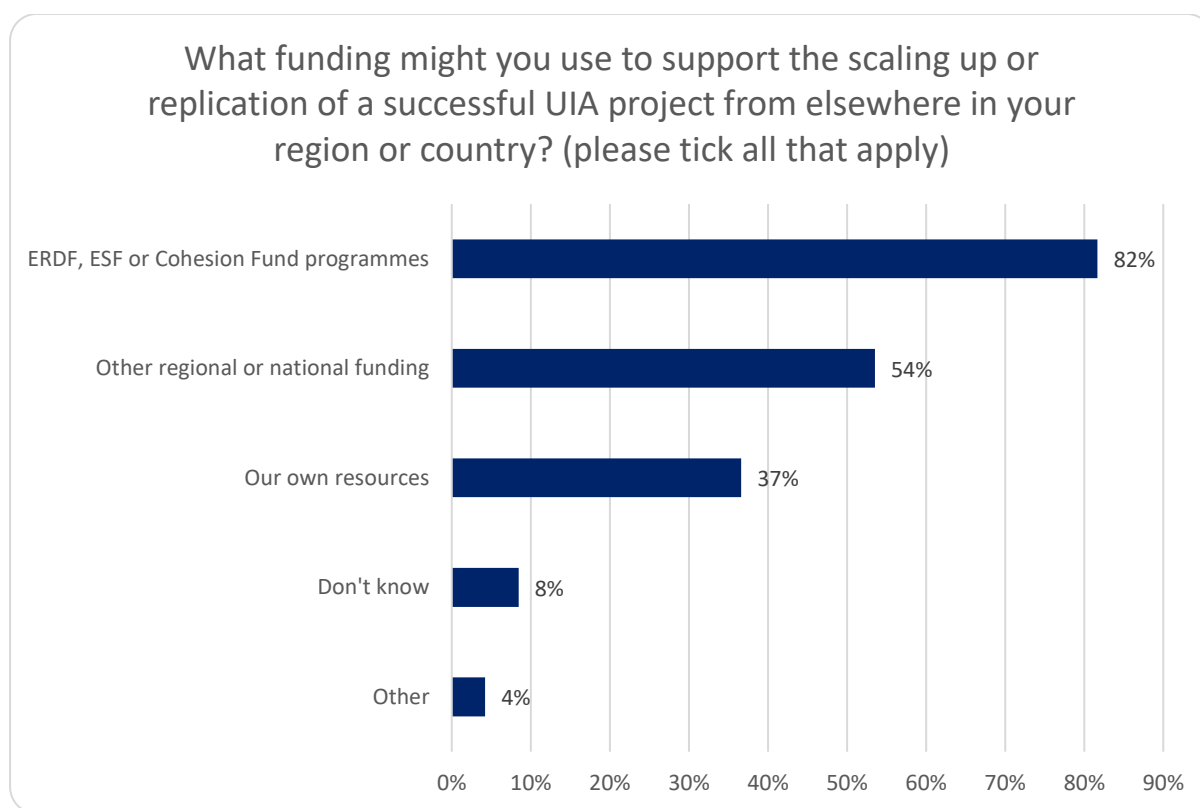
Source: UIA open survey

3.2   Relevance of topics

3.2.1 Are the UIA topics relevant to cities?

Respondents to the closed survey of applicants and the open survey of stakeholders were asked to comment on the relevance of the UIA topics to their cities.

The overwhelming majority of applicants and other stakeholders believe that the UIA topics are relevant to their city. Applicants were most positive with some 97% offering a favourable response, of which most (73%) indicated that the topics were very relevant. Stakeholders were strongly positive, with 88% offering a favourable response, of which most (59%) indicated that the topics were very relevant.

Figure 20: Overall relevance of UIA topics

Overall, how relevant to your city are the topics addressed by the UIA?
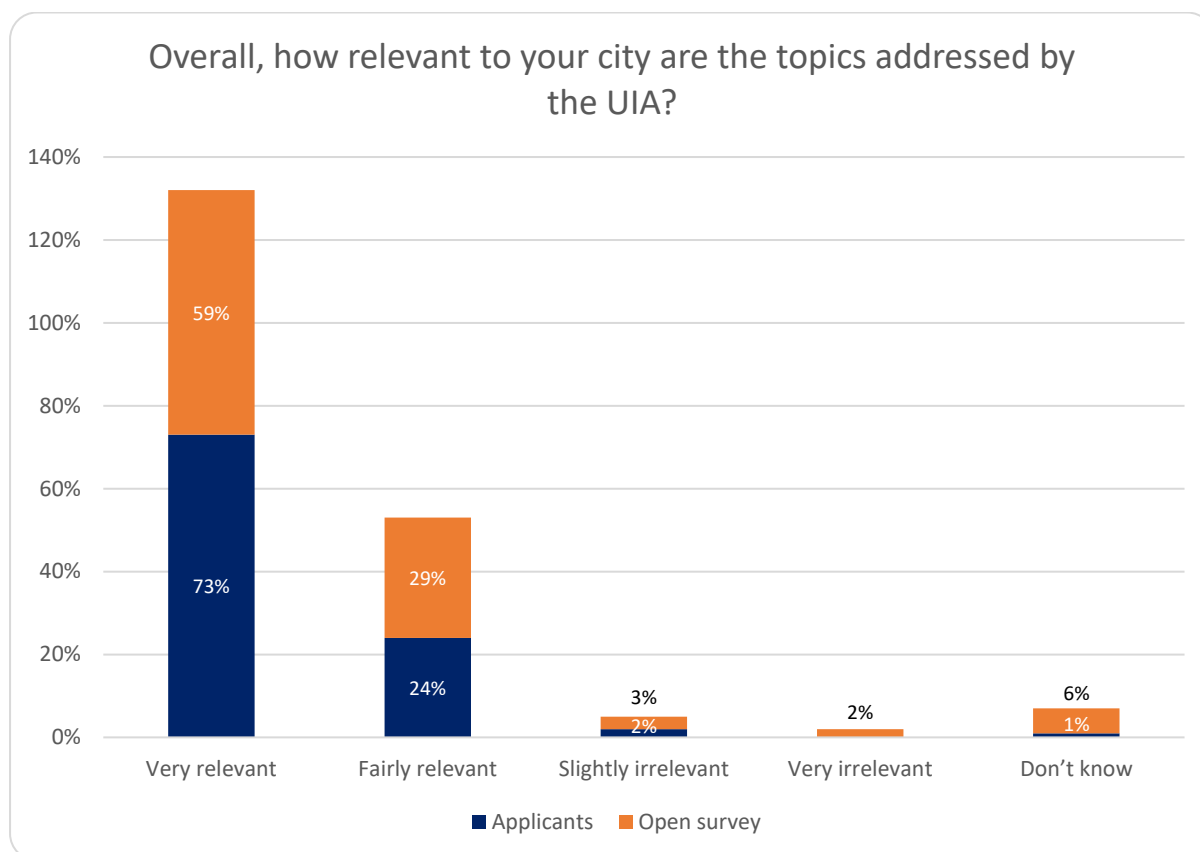
Source: Survey of UIA applicants and UIA open survey

The overwhelming majority of applicants (82%) are also aware that the UIA topics were aligned with those defined by the Urban Agenda for the European Union (UAEU). The same percentage of applicants was also familiar with the UAEU.

3.2.2 Which UIA topics are most relevant to cities?

Respondents to the closed survey of applicants and the open survey of other stakeholders were asked to highlight the UIA topics that were most relevant to their cities. Across both surveys, there was a consensus regarding the most relevant and the least relevant topics. In some cases, the survey responses were consistent with the volume of applications received for each topic, whereas in other cases they were inconsistent.

The most relevant topics are considered to be, first, Urban mobility and, second, Circular economy. These were selected by the highest percentage of respondents to the applicant survey and the open survey of other stakeholders. This is consistent with the volume of applications received for each topic, which was relatively high compared to some topics: 93 (Urban mobility) and 72 (Circular economy).

Adaptation to climate change and Jobs and skills in the local economy are also seen as very relevant, being selected by a majority of respondents to both surveys.

The least selected topic as relevant was Urban security by respondents to the applicant survey and the open survey. This is consistent with the number of applications received (21), which was the lowest of any topic out of the first four UIA calls.

"Social" topics tend to be considered less relevant than environmental topics. Housing, Urban poverty and Integration of migrants and refugees were three of the four

least relevant topics within the applicant survey and three of the five least relevant in the open survey of stakeholders. However, two of the topic attracted a high number of applications, albeit over two calls: Urban poverty (132) and Integration of migrants and refugees (91).

Figure 21: Relevance of individual UIA topics
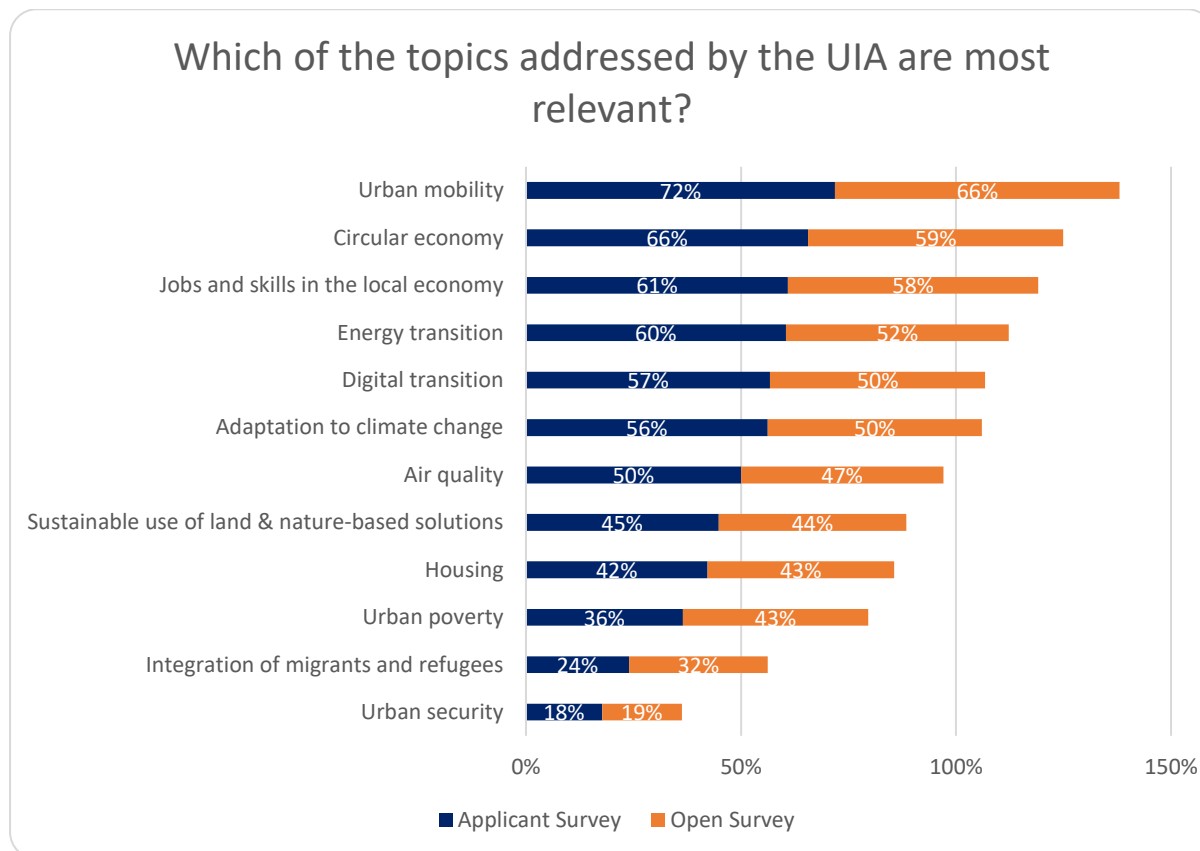
Source: Survey of UIA applicants and UIA open survey

3.2.3 Were any important topics not covered?

Survey respondents were invited to offer open comments on topics that should have been supported in previous calls. Unlike the question covered by Figure 21 above and Figure 52 and Figure 54 below, respondents were free to suggest any topic (or to offer no suggestion), rather than choosing from a closed list, so the responses presented in this sub-section are not necessarily representative of the views of all respondents.

Respondents offered various comments regarding topics that should have been covered in previous calls. Some of the topics mentioned were identical to or closely resembled topics that had been the subject of one or more UIA calls. In those cases, it may be that the respondents felt that the topic in question should have been included in more/all calls or were simply unaware that the topic had been included in previous calls. The topics mentioned were as follows:

- **Culture and cultural heritage**, including historic buildings and cultural industries (subsequently included in Call 5), was the most popular answer to the question (nine responses plus four respondent Managing Authority responses).

- **Digital transition**, (previously included in Call 4) including transition to the use of modern digital systems in administrative processes, and digital innovation, integration
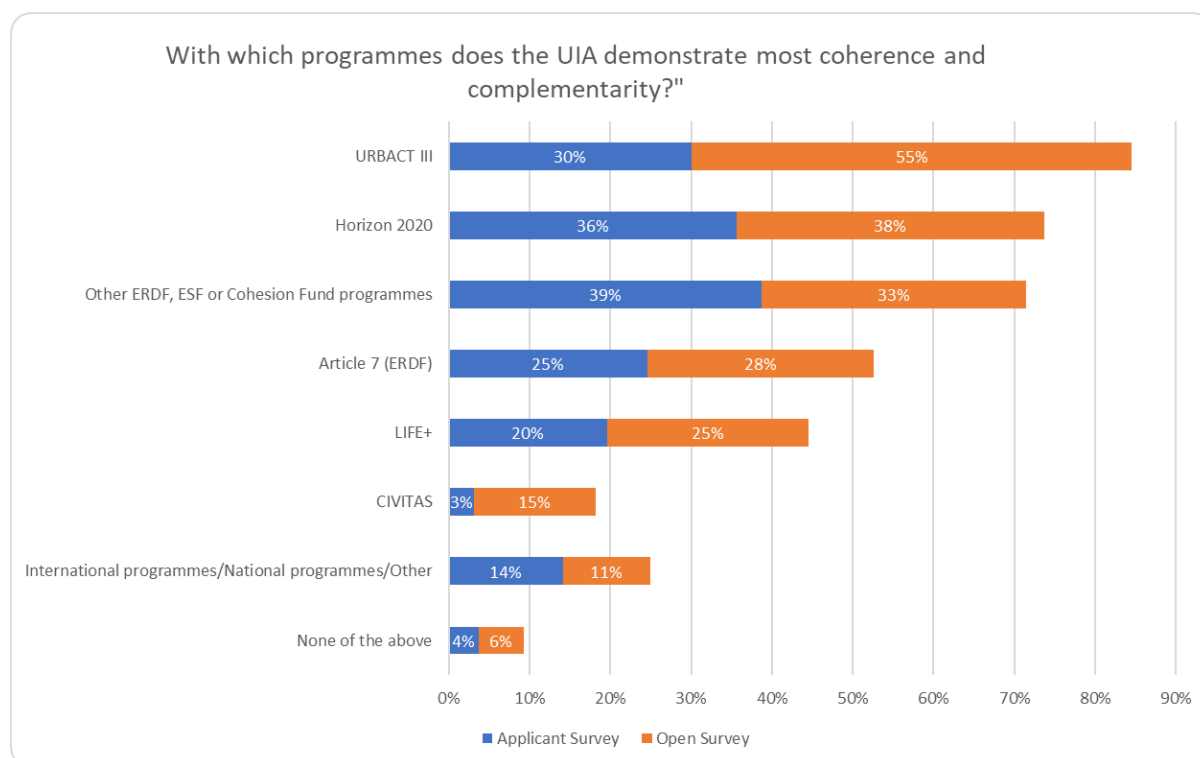
and skill development (eight responses).

- **Urban mobility**, (previously included in Call 2) transport, air mobility was a common response (seven responses).

- **Circular economy** (previously included in Calls 2 and 5) was also a strong emerging topic (four responses) alongside several interconnecting topics including: green economy (one response), energy efficiency (similar to the "Energy Transition" topic included in Call 1) (three responses), environmental protection (one response), sustainable land use and nature-based solutions (previously included in Call 4) (three responses), water and waste management (two responses).

- **Urban regeneration**, connected to inner city decay, better building management/ use, upgrading green/outdoor spaces (five responses, plus five Managing Authorities responses), and linking this to social inclusion and cohesion (2 MA responses).

- **Resilience** (four responses) with sustainability and sustainable development (5 responses).

- **Food systems and urban agriculture**, food sovereignty and local autonomy (three responses).

- **Social housing innovations for marginalised groups** (similar to the "Housing" topic included in Call 3) such as migrants and the elderly, as well as family friendly approaches (four responses).

- **Social inclusion and integration of marginalised groups** (similar to the "Integration of migrants and refugees" topic included in Calls 1 and 2) (three responses).

- **Cross-cutting topics** such as a combination of interlinked issues e.g. air quality (previously included in Calls 3 and 5) and land use (two responses).

- **Collaborative action and partnerships**, involvement of stakeholders including, for example business and university co-operation (three responses from applicants or other stakeholders). Partnerships, and integrated urban policies (two Managing Authority responses). Public/private partnerships suggested as one innovative way to transform urban spaces (two Managing Authorities responses). Participative co-design for collective choice in urban policies and processes (two Managing Authority responses).

3.3   Coherence with other programmes

3.3.1 Is the UIA coherent with and complementary to other EU programmes?

The UIA is perceived by stakeholders to demonstrate most coherence and complementarity with URBACT. Respondents to the applicant survey and open survey were asked to specify the programmes with which the UIA demonstrated most coherence and complementarity. As shown in the figure below, URBACT was the most-cited programme. Perhaps reflecting the innovative dimension of the UIA, the next most cited programme was Horizon 2020. More than one quarter of respondents believed that the UIA demonstrated most coherence and complementarity with other Cohesion Policy programmes or with Article 7 (ERDF).

Figure 22: Coherence and complementarity of UIA to other programmes

With which programmes does the UIA demonstrate most coherence and complementarity?"

Programme	Applicant Survey	Open Survey
URBACT III	30%	55%
Horizon 2020	36%	38%
Other ERDF, ESF or Cohesion Fund programmes	39%	33%
Article 7 (ERDF)	25%	28%
LIFE+	20%	25%
CIVITAS	3%	15%
International programmes/National programmes/Other	14%	11%
None of the above	4%	6%

Source: Survey of UIA applicants and UIA open survey

Applicants were asked to give open comments about the coherence and/or complementarity between projects funded by different sources of EU funding in their cities. The main ones included:

- URBACT (13 responses): "URBACT and UIA complement each other well. UIA misses the international learning element and URBACT allows the dissemination of best practices and results achieved with projects funded by UIA."

- Horizon 2020 (9 responses): "H2020 can bring complementary reflections in terms of innovation." "H2020 local impact is limited compared with the UIA because it remains too oriented towards research and innovation." "Complementarity between H2020 and UIA lies in the possibility of working on the same issues with consortiums of different scales, knowledge and impact."

- ERDF (7 responses): "UIA funding complements ERDF by investing in innovation, i.e. UIA resources and the required innovation benchmark have triggered investments that would otherwise not be risked, whereas ERDF projects would remain much more conservative."

- Interreg (7 responses): "Specific coherence with Interreg projects that work at cross-border or transnational level on similar topics but impacting on policy or developing pilot projects, not having enough resources to fully implement solutions at local level." "Interreg Europe develop Integrated Action Plans and knowledge sharing that could complement with the UIA initiatives."

- LIFE+ (6 responses): "Some UIA topics are very linked with LIFE+." "Complementarity of the LIFE+ programmes would allow a planning/programmatic view of the same topics."

- Other EU/ national/ regional funding: "Healthy overlap with other programmes." "UIA allows a more holistic and integrated approach than other programmes."

3.3.2 Is the UIA coherent with and complementary to other local interventions?

Local, regional and national stakeholders responding to the open survey were asked whether UIA projects in their country had complemented other urban development interventions.

Stakeholders mostly consider that UIA projects complement other urban development interventions. Half (50%) considered this was to true to a great or reasonable extent, whilst 19% thought to a modest extent. Only 1% thought not at all.

Figure 23: Complementarity of UIA projects with other urban development interventions

To what extent have UIA projects in your country complemented other urban development interventions?

- To a great extent
- To a reasonable extent
- To a modest extent
- Not at all
- Don't know
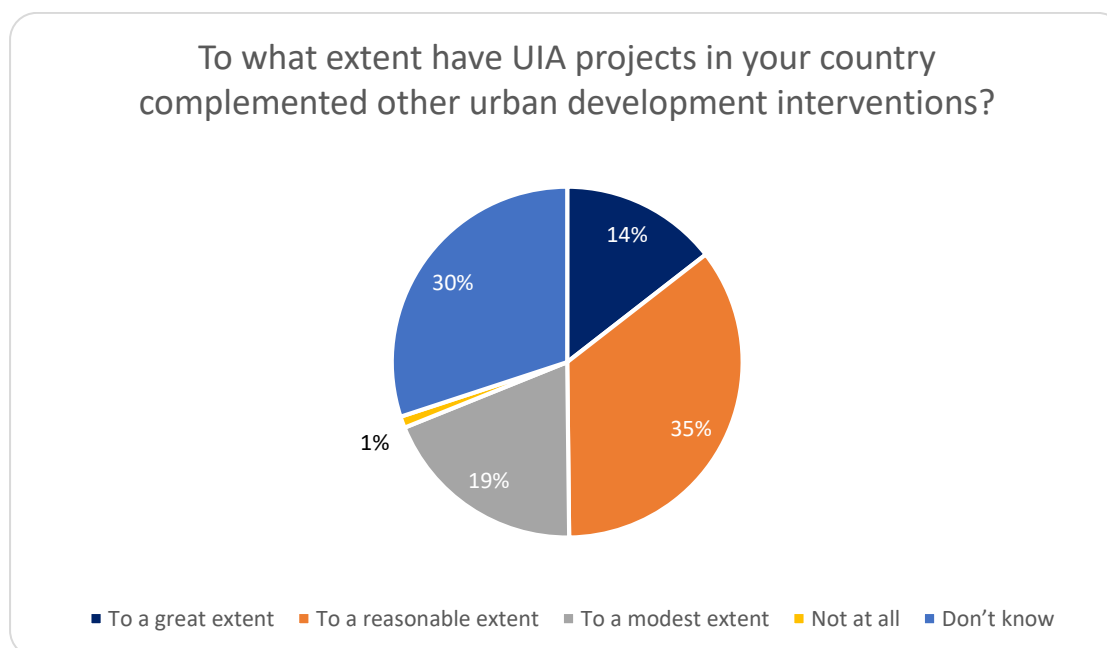
Source: UIA open survey

3.3.3 Could other programmes be an inspiration to improve the UIA?

Applicants and open survey respondents were asked to give comments in response to an open question about how other EU, national or international programmes could be an inspiration to improve the UIA. A wide diversity of responses was received, many of which were not informative, e.g. merely naming other programmes. Several respondents actually suggested that the UIA should be an inspiration for other programmes. Aside from those comments, the key points were as follows.

- Better definition of innovation, drawing on the examples of other programmes. One respondent stated: "The focus on innovation needs to be more strongly implemented by UIA. The definition of innovation used by UIA is rather weak and insufficiently ambitious. If UIA would take a closer look at what other programmes are supporting the innovative edge could be improved. Here, I am thinking of the UN Habitat programme. Closer links to all these types of programmes need to be nurtured to create synergies and much better complementarity".

- Incorporating a transnational dimension, e.g. drawing on Horizon 2020 or Interreg (particularly any innovative elements therein).

- Better geographic balance across all Member States, e.g. drawing on the example of URBACT.

- More structured dissemination and transfer of knowledge, e.g. drawing on the example of URBACT, or through a programme observatory gathering lessons learned.

- More central role for innovative companies or start-ups (perhaps as project promoters), e.g. drawing on Horizon 2020.
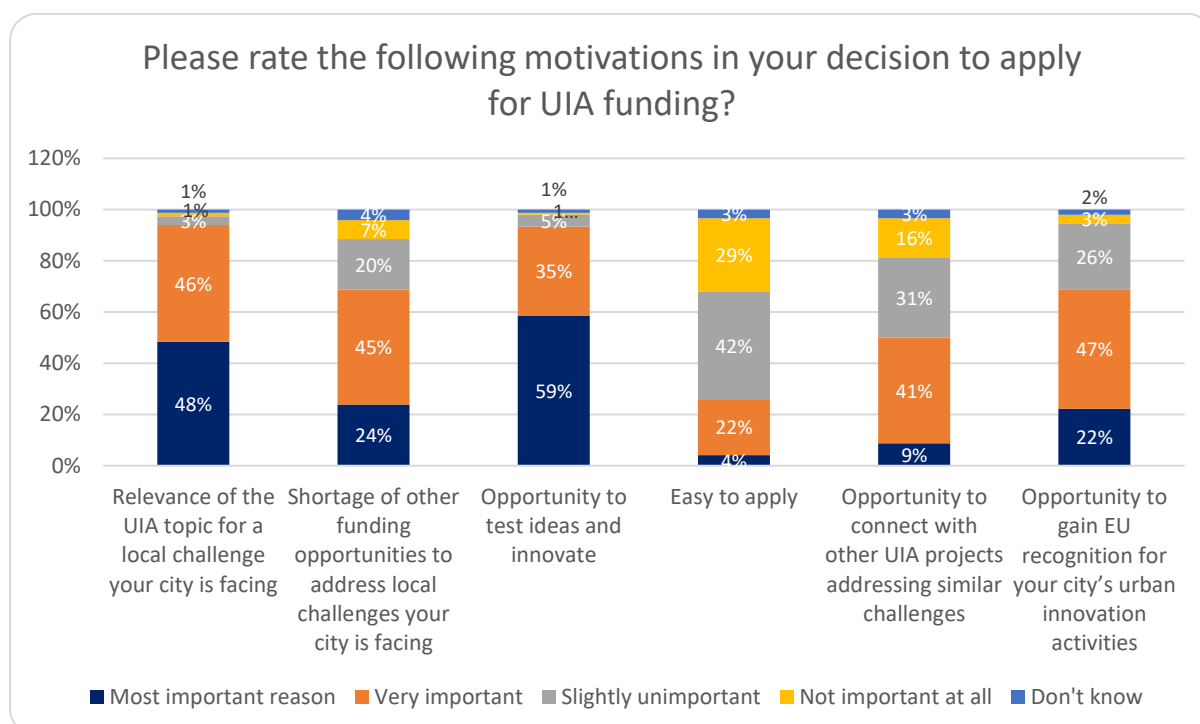
4. EFFECTIVENESS AND EFFICIENCY OF UIA DELIVERY PROCESS

4.1 Application process

4.1.1 What is the motivation to apply?

The opportunity to test ideas and innovate is the most relevant feature of the UIA for applicant cities. A total of 94% reported it as the most important reason (59%) or a very important reason (35%).

Figure 24: Motivations to apply for UIA funding

Please rate the following motivations in your decision to apply for UIA funding?

Legend: Most important reason · Very important · Slightly unimportant · Not important at all · Don't know

Source: Survey of UIA applicants

4.1.2 Are any cities deterred from applying?

As just described, the UIA has attracted a large number of applications from a significant proportion of the EU's cities. Notwithstanding this, the open survey asked any cities responding to give their reasons for deciding not to apply. A total of 24 in this situation offered an opinion. These cannot be considered as representative of the full population of non-applicant cities; since they were reached by a survey about the UIA and chose to complete it, they have some knowledge of and interest in the UIA (unlike cities that are unaware or uninterested). Nonetheless, their opinions can illustrate any potential barriers to applying. Four main findings emerge from their opinions.

There is no evidence that cities are deterred by the design of the UIA instrument. From the list of reasons, none selected "EU funding too small" or "Topics not relevant". Moreover, when asked to explain, none of the cities mentioned any reasons connected to the design of the UIA.

There is interest from cities with fewer than 50,000 inhabitants. Lack of eligibility due to city size was the single most stated reason for not applying. There is the possibility for association or groupings of urban authorities to submit a joint application, where the total population is 50,000. However, some cities are either unaware of this option or unable

or uninterested in taking it. For some cities, the need to co-operate with other authorities might aggravate the inherent challenges that already exist in forming a multi-sector project partnership. When invited to offer an open comment, one city reported that it had tried but failed to reach agreement with neighbouring towns. Another reported that co-operation with neighbouring authorities in the same conurbation had made progress but then been halted in the context of municipal elections. Beyond strict compliance with the eligibility rule, there may be more fundamental reasons linked to administrative capacity from smaller cities both to apply and or envisage having to cope with requirements of EU funding if selected (see Figure 25).

The preparation of a UIA application is no easy task for some cities. Indeed, barriers mentioned by at least 25% of respondents included lack of readiness, lack of capacity and inability to form a partnership. A small number (13%) are even unable to secure the 20% co-financing to match the ERDF.

For some cities, the perceived low chance of success and lack of capacity to handle the requirements linked to EU funding makes it hard to justify the administrative burden associated with applying. One in three of the respondents to this question were deterred by the low chance of success and 29% by the administrative burden to apply and capacity to handle EU funding if selected. This was reinforced by comments offered in relation to an open question. One respondent described the UIA has being "highly selective". Another reported: "As a city of 35,000, inhabitants we must compete with [the] biggest cities, with much more resources (human, material and economic)."

Figure 25: Cities reasons for not applying to the UIA
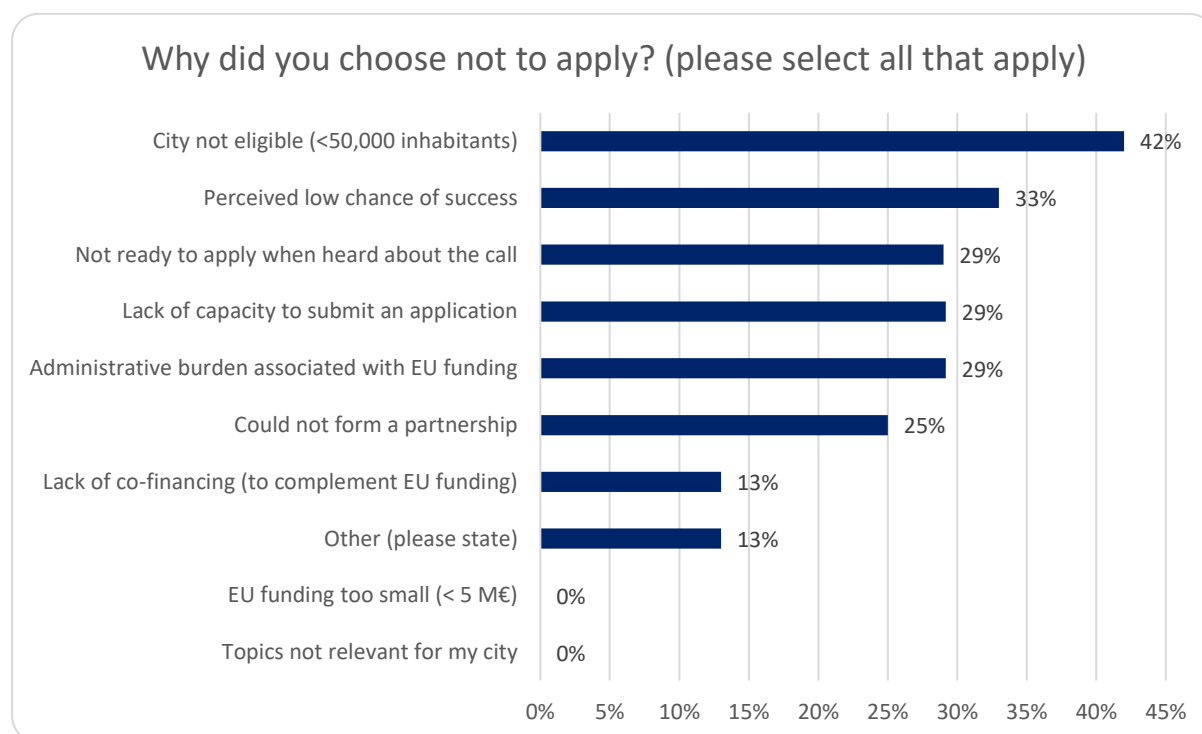
*Source: UIA open survey*

4.1.3 How efficient is the promotion of calls for proposals?

Analysis of the responses to the survey of applicants and analysis of programme data suggest a number of findings regarding the effectiveness of efforts to promote the calls for proposals and the UIA initiative in general.

Websites are the most important means by which potential applicants are reached. More than a third of applicants (35%) first heard about the possibility to apply for UIA funding from a website, most notably the UIA website (28%) together with the European Commission website (7%).

Potential applicants are reached by a diversity of channels. Seven different channels were mentioned by at least 5% of applicants responding to the survey. Moreover, some 11% reported "Other", which may encompass a diversity of channels in itself.

Figure 26: Sources of information about UIA funding
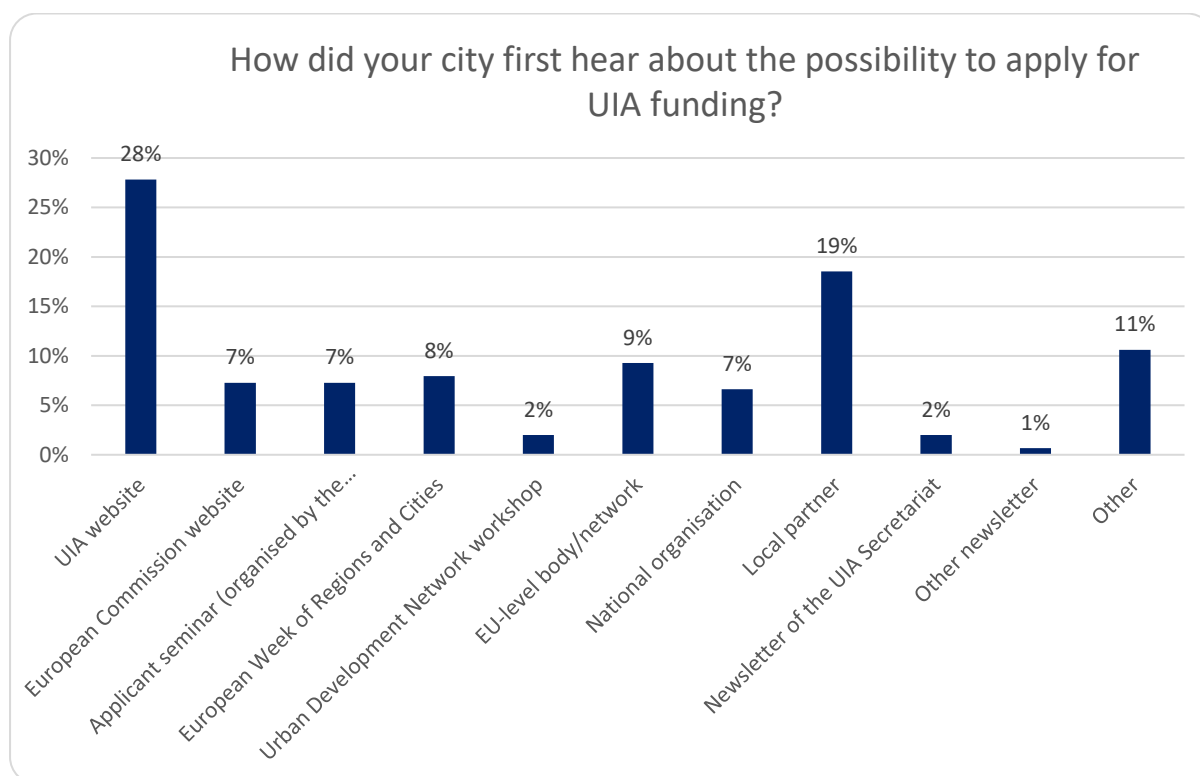
Source: Survey of UIA applicants

Applicants were invited to offer open comments about how to better promote the UIA calls for proposals. Of those that chose to offer a comment, more than one fifth felt the calls for applications were well advertised and did not require further promotion (as evidenced by the high volume of applications). Some of the most popular responses on how this could be done better include:

- **Sending emails** directly to municipalities, city institutions/organisations or though relevant EU delegations (eight responses).
- **Make use of social media and social networks**, as well as developing an email newsletter to circulate information (eight responses).
- **Promoting via existing EU-level meetings or EU networks of cities** such as the URBACT network (three responses).
- **Holding specific information webinars and events to disseminate information** potentially in national languages (six responses).
- **Sharing of experiences and best practice** in UIA projects through events (five responses).
- **Working through regional, local and national networks** including relevant

municipality associations and connections to other EU programmes (four responses).

- **Creating national points of contact** and offices in larger cities (three responses).

- **Use existing project cities and partners as points for referrals and information sharing** (two responses).

4.1.4 Are applicants satisfied with the application process?

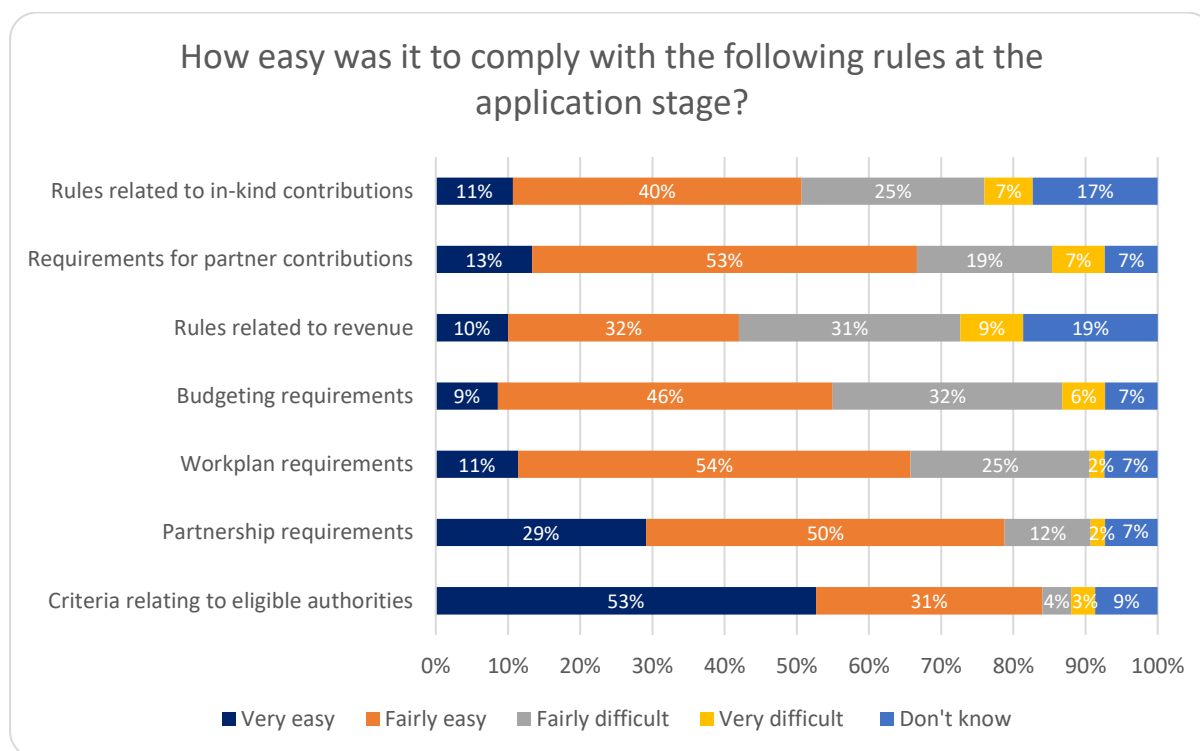Applicants were asked to provide an indication of their satisfaction with different elements of the application process.

There is a divergence of views regarding the overall difficulty of filling in the application form: a majority of applicants (54%) found it very easy (5%) or fairly easy (49%), whilst 41% found it fairly difficult (29%) or very difficult (12%).

There is a high level of satisfaction with certain elements of the application process, namely:

- Time period for submitting applications: considered to be sufficient by 64% of applicants.

- Description of topics: an overwhelming 98% of applicants found the descriptions of the topics "clear and useful".

- Clarity of rules: with 88% of applicants finding them clear and 8% not.

- Ease of complying with rules: more applicants found all rules easy to comply with than found them difficult; in all cases, those finding the rules easy constituted a majority of applicants, except for rules related to revenue (where 46% found it easy, compared to 40% difficult).

- Rules relating to eligibility of authorities and partnership requirements: found to be "very easy" or "fairly easy" to comply with by 84% and 82% of applicants, respectively.
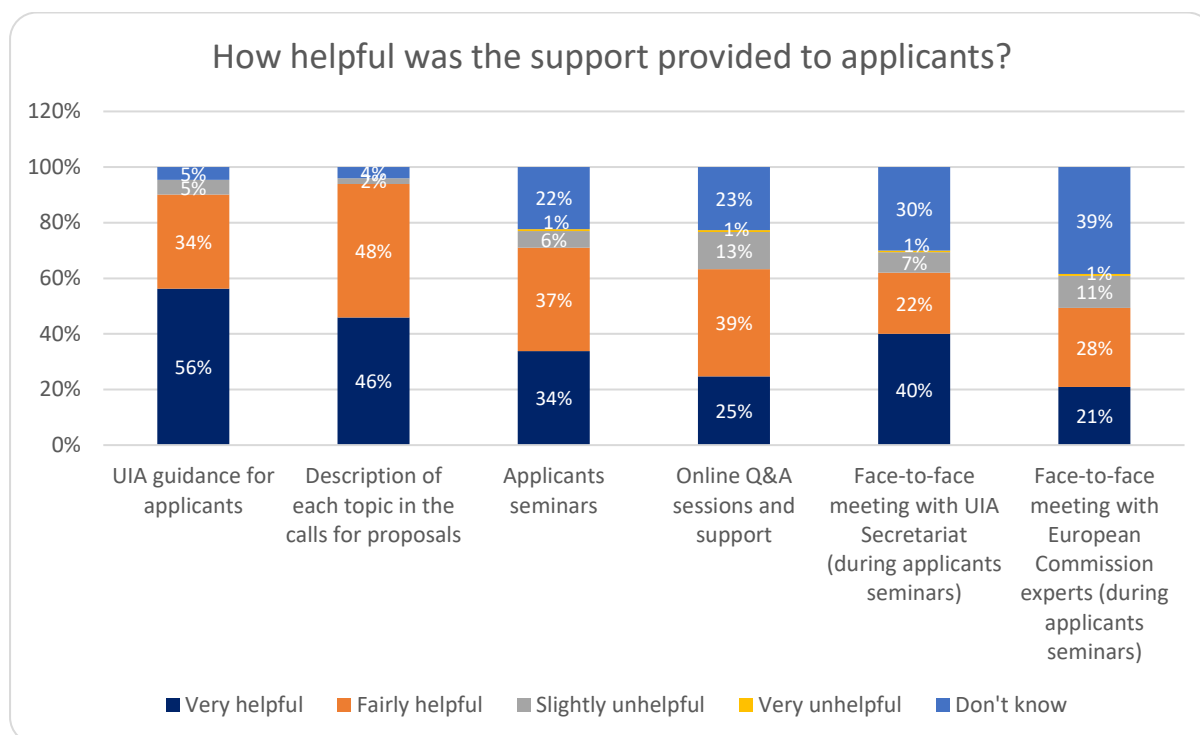
Some elements of the application process were (fairly or very) difficult for a significant number of applicants, albeit a minority: namely, rules related to revenue requirements (40%) or budgeting requirements (38%).

Figure 27: Ease of compliance with rules at application stage

How easy was it to comply with the following rules at the application stage?

	Very easy	Fairly easy	Fairly difficult	Very difficult	Don't know
Rules related to in-kind contributions	11%	40%	25%	7%	17%
Requirements for partner contributions	13%	53%	19%	7%	7%
Rules related to revenue	10%	32%	31%	9%	19%
Budgeting requirements	9%	46%	32%	6%	7%
Workplan requirements	11%	54%	25%	2%	7%
Partnership requirements	29%	50%	12%	2%	7%
Criteria relating to eligible authorities	53%	31%	4%	3%	9%

Source: Survey of UIA applicants

Applicants mostly find the different forms of support to be helpful, particularly the documentation (UIA guidance for applicants, description of topics). As shown in Figure 28, the guidance and topic description were found to be most helpful (with very few saying that they were unhelpful); this may in part because they were most accessible (i.e. being available online at any time). A significant number of applicants were not able to give a view on the seminars, on-line sessions or face-to-face meetings, perhaps because they had not accessed them (or the person completing the survey had not personally accessed them). Of those that gave view, the majority had found them helpful, although a significant number found them unhelpful.

Figure 28: Helpfulness of support provided to applicants

Source: Survey of UIA applicants

4.2 Selection process

4.2.1 Are applicants satisfied with the selection process?

Applicants were asked to provide an indication of their satisfaction with different elements of the selection process.

There is a high level of satisfaction with most elements of the selection process, namely:

- strategic assessment criteria: each considered to be clear and relevant (by at least 73% of applicants);

- operational assessment criteria: considered to be clear and relevant (85% of applicants);

- sequencing between strategic assessment and operational assessment: considered to be clear (77% of applicants);

- feedback received is helpful (80% of respondents);

- feedback on complaints: considered useful (5 out of 5 respondents that submitted complaints);

- additional feedback, if requested: considered useful (87% of those that requested);

- transparency of the selection process (69% of applicants).

A small majority of applicants consider that the application process is too long, i.e. 54%, although most of those (48%) found it only slightly too long and 38% found it was not too long.

Applicants agree that sufficient weight is given to the strategic assessment, but there is a divergence of views as to whether there should be a rebalancing in favour of the operational assessment. A majority (55%) believed the relative weights currently given to strategic and operational assessments are appropriate, but 34% feel that too much is given to strategic assessment. Only 1% felt that too much weight was given to operational assessment.

4.2.2 How could the application and selection process be improved?

Applicants were asked to choose from a shortlist of options (including "other") for improving the of the selection process, with the possibility to choose more than one option. The responses suggest the following findings:

- **There is little consensus on how best to improve the selection process.** None of the suggested options attracted more than 34% of respondents.

- **Only a minority (29%) of applicants believe that communication with applicants requires improvement.** This is consistent with early findings showing that applicants were generally satisfied with feedback on applications, feedback on complaints and additional feedback given in response to a specific request from applicants.

- **There is greater satisfaction with the operational assessment criteria and/or their weight than with strategic assessment criteria and/or their weight.** Again, this reinforces the earlier finding that 34% of applicants feel that too much weight is given to strategic assessment.

Figure 29: Improvements to the application and selection process
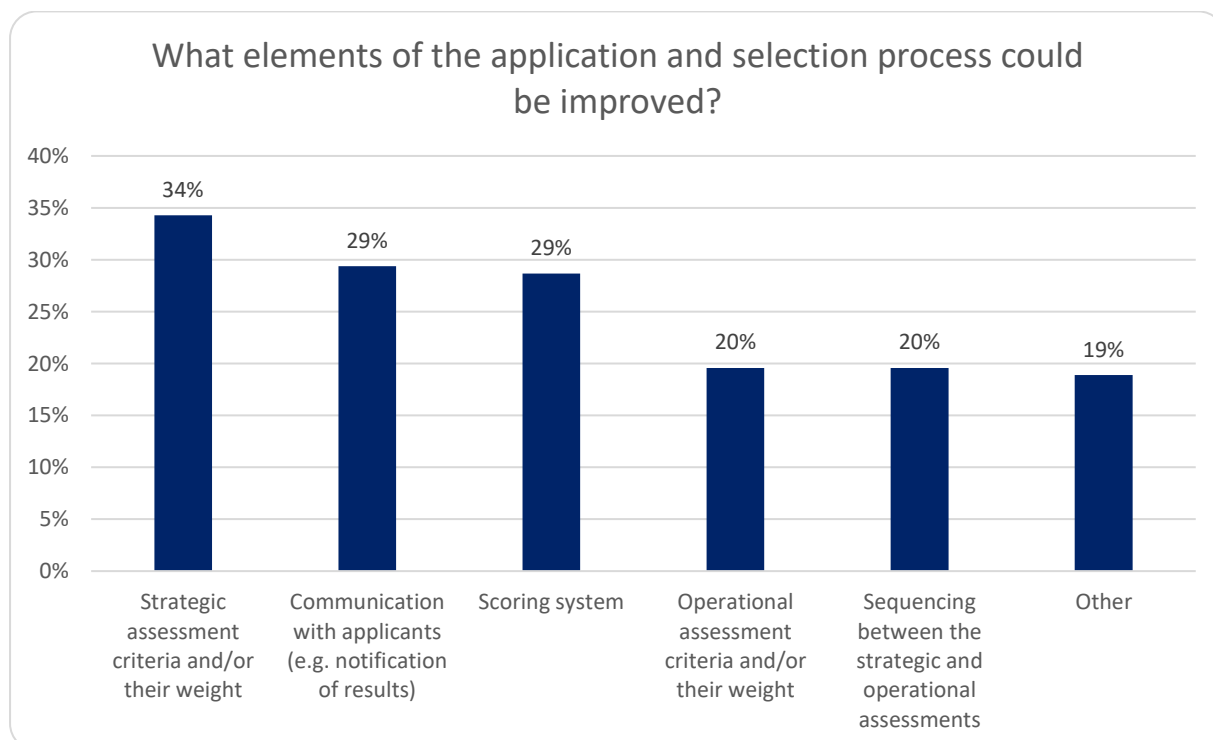
Source: Survey of UIA applicants

Applicants were also invited to offer open comments on possible improvements. Respondents were free to make suggestion (or indeed no suggestions), rather than choosing from a closed list of options. The responses here are therefore merely indicative, rather than being representative of the views of all applicants. Suggested improvements relate to:

Structure of the application form:

- Technical improvements to the application form i.e. simple budget template/builder, process for copying Excel spreadsheet into the online application form, increased space to complete questions, additional document upload capacity (five responses).

- Simplify the application form (five responses), with the following given as examples:

- Reducing complexity and detail requirement (four responses).

- Reducing the number of questions and length of form (two responses),

- Reduce duplication of questions from current or previous applications (two responses).

Application process:

- Introducing a two stage application process in which a concept note is put forward in the first round and a more detailed workplan/proposal is developed should the concept be accepted (seven respondents).

- Increase time allowed to complete application (three responses).

- Simplify the application process (four responses).

- Create opportunities to present the bid to evaluators at various stages, to be able to define and develop bids which have a higher chance of success (four responses).

- Speed up the assessment process (four respondents).

Rules, eligibility and selection criteria:

- Greater flexibility and reduce restrictions especially with regard to revenues presented in the application budget (two responses).

- Reduce rigid procedures and make restrictive innovation criteria more flexible which excludes potential applicants with limited capacity (two responses).

- Make evaluation criteria clearer and more transparent (four responses).

- Operational issues and strategic assessment equally weighted and evaluated (four responses).

Support for applicants

- Improved support and guidance through face to face meetings/workshops or phone support, clearer guidance notes, better communication on the evaluation process as well as detailed explanation of the UIA terminology used (five responses).

- Learning lessons from other bidding parties could improve the process (one response).

- Small and medium size cities have difficulty applying due to limited resources to employ a consultant (one response) and being unable to meet high innovation standards (one response).

- Support is needed to understand the innovation benchmark required, and that in some cases this was too high and created a sense of inventive programme design rather than serious policy advancement grounded in evidence (two responses).

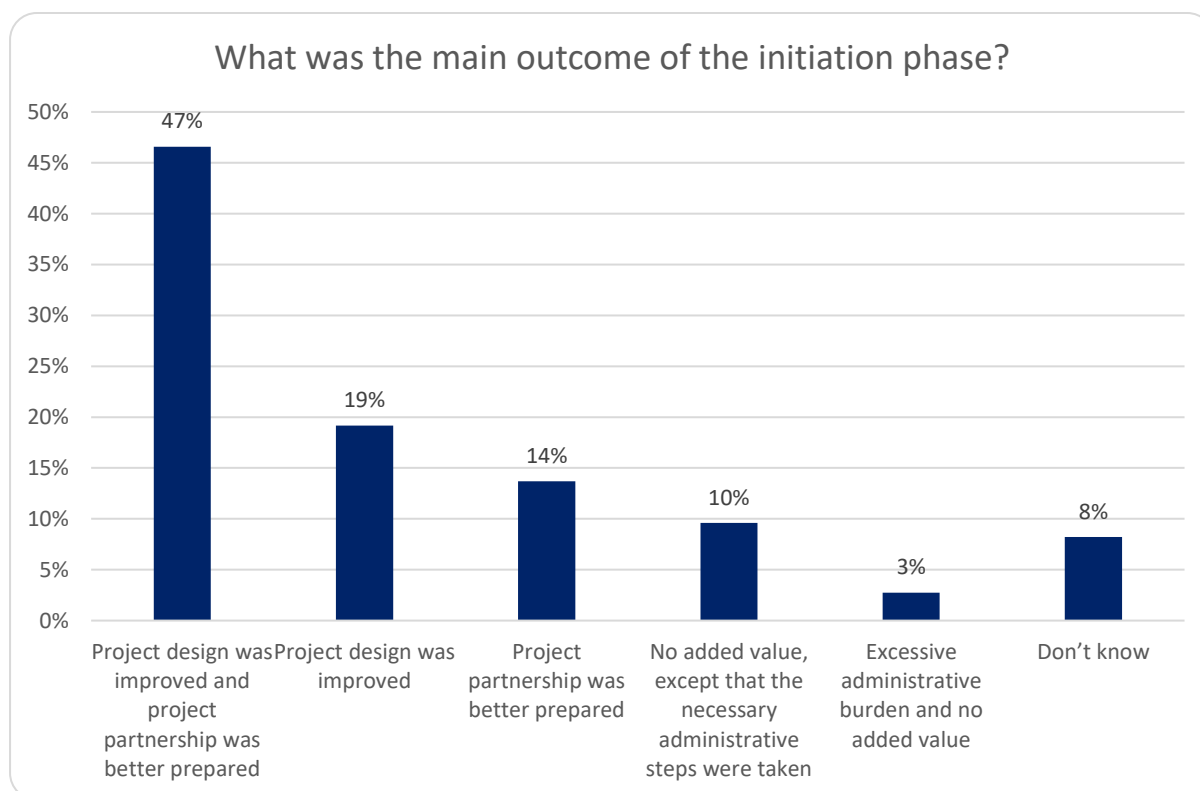## 4.3   Initiation phase

4.3.1 What is the impact of the initiation phase?

Applicants responding to the survey were asked a series of questions about the initiation phase. Their responses to these questions highlight a number of main findings.

Overall, the initiation phase is valued by projects and enables most to be ready to start their activities. This finding is based on the responses to specific survey questions:

- Only 47% of projects were ready to start implementing their project once they learnt it was selected; the others required the time offered by the initiation phase.

- Nearly all projects (95%) were able "mostly" or "fully" to properly inform the project beneficiaries about their roles, implementation rules and challenges thereof, and more than half of projects (53%) were able "fully".

- Three quarters of projects (75%) felt the length of the initiation phase (6 months) was about right and only 8% felt it was too short and 12%) felt it was too long.

- The initiation phase added value for the vast majority of projects (79%) in terms of better project design (19%), better prepared partnership (14%) or both (47%) (see Figure 30).

Figure 30: Outcomes of the initiation phase

Source: Survey of UIA applicants

Most projects (92%) did not change fundamentally during the initiation phase, although 52% did change slightly. However, the other 8% of respondents reported that their project changed fundamentally during the inception phase. This calls into question the operational readiness of those projects at application stage.

At the same time, it is clear that **the initiation phase does not solve every problem for every project**. Two main difficulties arise:

- During the implementation phase, more than three quarters of projects experienced issues (71%) that were not anticipated in the initiation phase, of which most (38%) experienced major issues.

- Nearly one in four projects (23%) is not ready to start activities until the subsidy contract is signed (see Figure 31).

Figure 31: Point at which projects started implementation
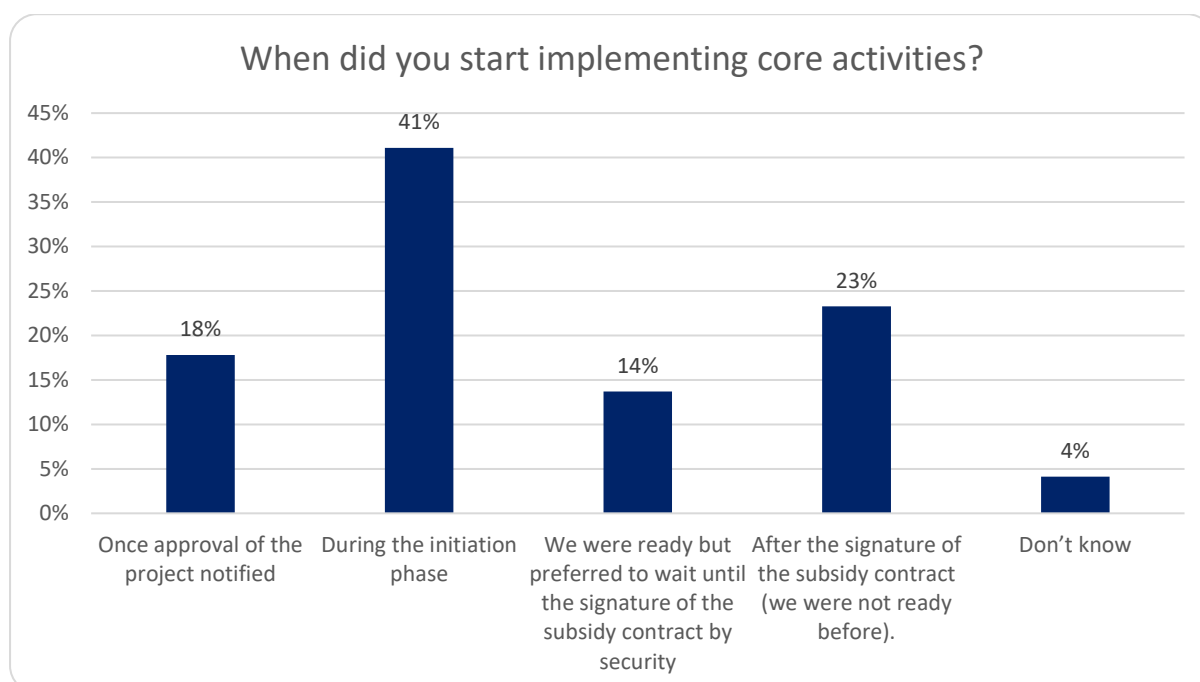
Source: Survey of UIA applicants

4.3.2 How satisfied are projects with the requirements of the initiation phase?

Projects were asked their opinions on the requirements of the initiation phase.

A majority of projects (60%) considered the administrative burden during the initiation phase to be excessive, although most found it slightly excessive (48%) rather than very excessive (12%).

Figure 32: Point at which projects started implementation

Overall, how heavy was the administrative burden of the initiation phase?

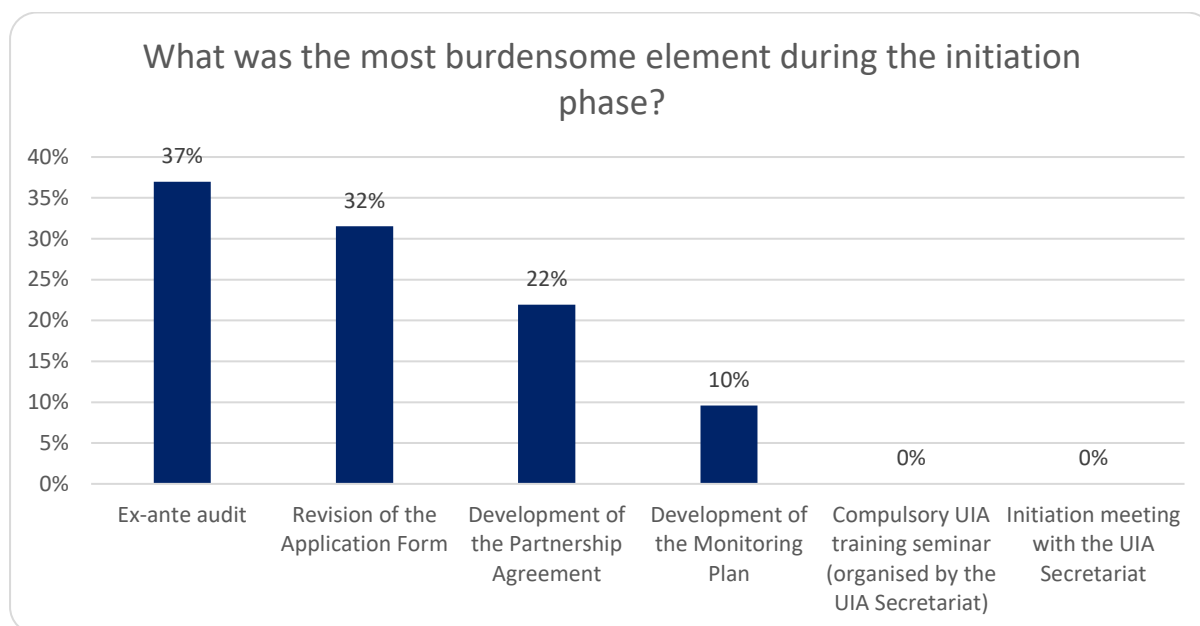| Category	Percentage
Very light	1%
Light	27%
Slightly excessive	48%
Very excessive	12%
Don't know	11%
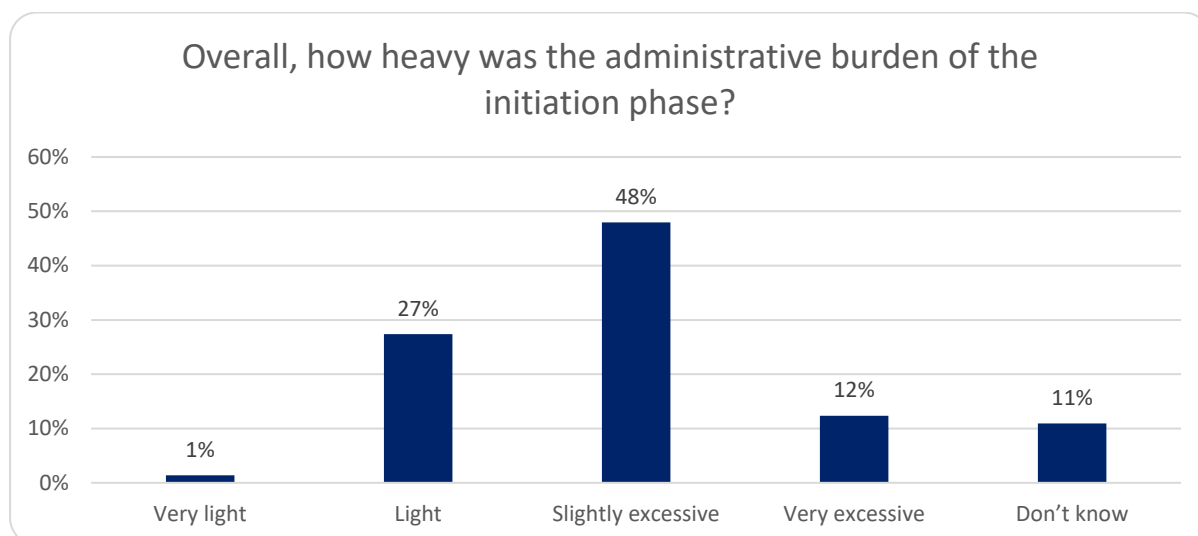
Source: Survey of UIA applicants

Projects' own assessment of the different requirements of the initiation phase show that:

- The revision of the application form is most helpful, although considered quite burdensome;

- The ex-ante audit is most burdensome, which is perhaps unsurprising as the primary purpose of the exercise is to ensure accountability for EU funding rather than to support the projects; nonetheless, a small number of projects (7%) still find it to be the most helpful element;

- The initiation meeting and compulsory UIA training seminar are both the most helpful for 18% of projects and were considered by none of the projects to be the most burdensome element.

Figure 33: Most helpful elements of the initiation phase

What was the most helpful element during the initiation phase?

Element	Percentage
Revision of the Application Form	48%
Compulsory UIA training seminar (organised by the UIA Secretariat)	18%
Initiation meeting with the UIA Secretariat	18%
Ex-ante audit	7%
Development of the Partnership Agreement	5%
Development of the Monitoring Plan	4%

Source: Survey of UIA applicants

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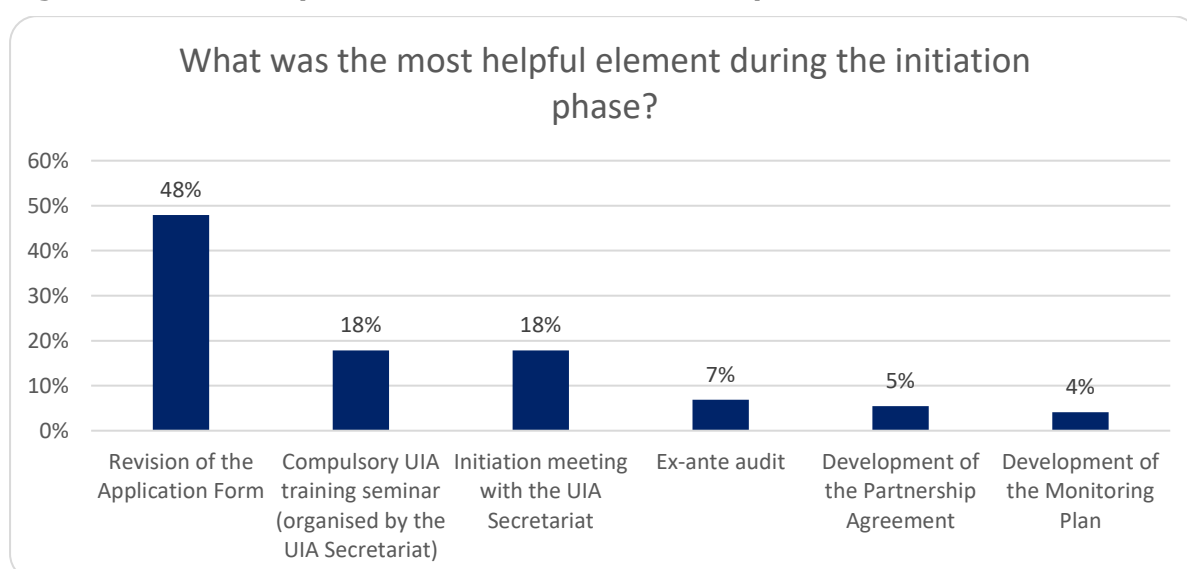
Figure 34: Most burdensome elements of the initiation phase

What was the most burdensome element during the initiation phase?

Element	Percentage
Ex-ante audit	37%
Revision of the Application Form	32%
Development of the Partnership Agreement	22%
Development of the Monitoring Plan	10%
Compulsory UIA training seminar (organised by the UIA Secretariat)	0%
Initiation meeting with the UIA Secretariat	0%

Source: Survey of UIA applicants

4.3.3 How could the initiation phase be improved?

Projects were invited to suggested ways to improve the initiation phase. Their open comments included:

- No changes necessary (5 respondents).
- Revision of the ex-ante audit, i.e. better preparation in advance, better feedback and better connection between the auditor's requests and the role of local authorities (3 respondents).
- Make the application form changes simpler (3 respondents).
- Better clarifying the associated risks.
- Shorter initiation phase, with some small advance payment.
- More flexibility, especially with the timeline.
- Prolongation of the initiation phase to not overlap with the implementation phase.

4.4   Implementation phase

4.4.1 What issues have projects faced during the implementation phase?

As noted above, some (71%) of projects experienced issues that were not anticipated in the initiation phase, of which most (38%) experienced major issues. Projects were asked to describe the main issues faced (in response to an open question). The main issues raised included:

- COVID-19 related issues (6 responses).
- Partnership issues, e.g. withdrawals of partners, ineligible partner (6 responses).
- Legal issues (5 responses).
- Issues relating to staff (e.g. contracts, change of rules on staff costs) (4 responses).
- Building sector issues (e.g. changing markets, building permits, delays) (3 responses).

- Technological challenges (e.g. development of apps).
- The initiation phase running in parallel with the implementation phase.

4.4.2 What has been the impact of changes to projects?

The UIA guidance recognises that projects may need to modify certain elements related to the implementation in order to adapt to new developments or circumstances. For that reason, standardised rules and conditions have been developed under which approved projects can undertake either a major change (relating to core or substantial elements of the project and having a significant impact on its implementation) or a minor change (adjustments to the project set-up, having no significant impact on project implementation). Major changes require a formal request to be submitted to the Secretariat as well as the approval of the relevant Initiative bodies.

Of projects requesting a major change, most (68%) report that changes have kept the project at the planned level of ambition and innovativeness. Of the projects responding to the survey, 28 had requested a major change. In five cases (18%), projects reported that the change allowed them to increase the level of ambition and innovativeness. In only two cases (7%) did the change result in a level of ambition and innovativeness below the planned level.

Figure 35: Impact of major changes to projects
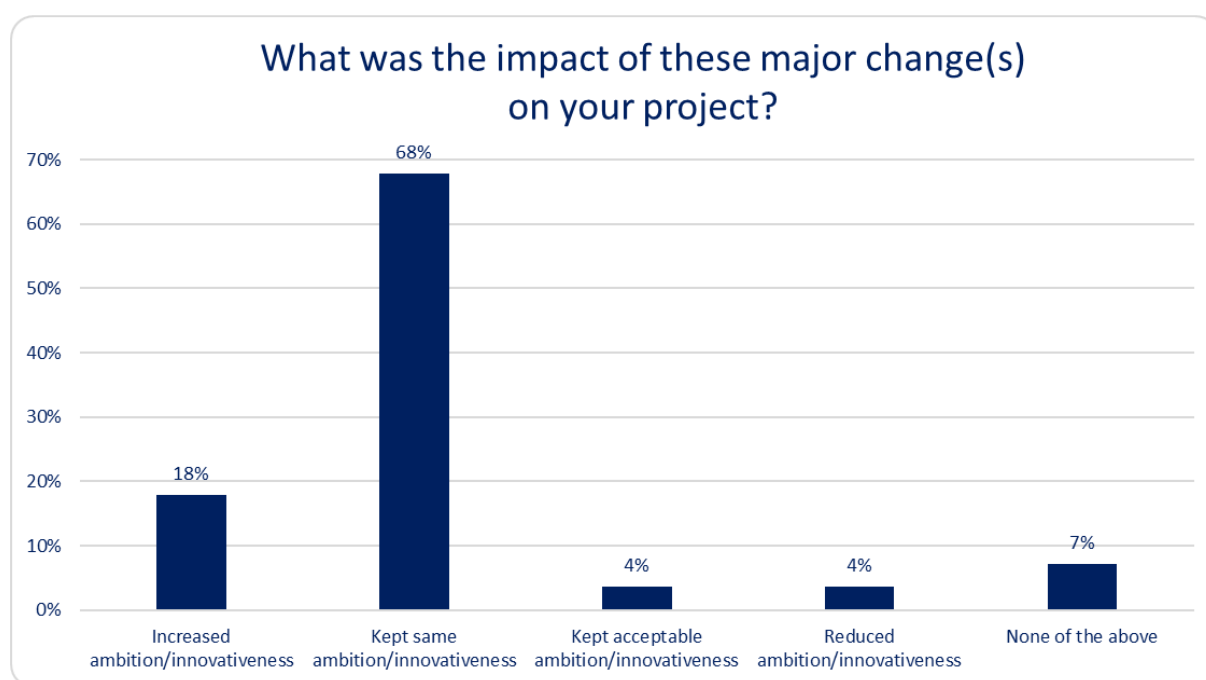
Source: Survey of UIA applicants

4.4.3 How efficient are the rules and requirements of the implementation phase?

Projects were asked a series of questions about the impact of different aspects of the rules and support relating to UIA funding. Their responses suggest a number of findings.

The specific design of the UIA rules are greatly appreciated. A majority of projects reported the advance payment of ERDF, budget flexibility, simplified cost options and possibility to make project changes to be "very helpful". A majority also reported that simplified rules on state aids were "very helpful" or "helpful" (Figure 36).

Monitoring by the Secretariat is not considered burdensome by most projects. Milestones reviews, site visits by the Secretariat and ad hoc meetings with the Secretariat are considered to be "not burdensome at all" by the majority of projects (after excluding "don't know" responses) (Figure 37).
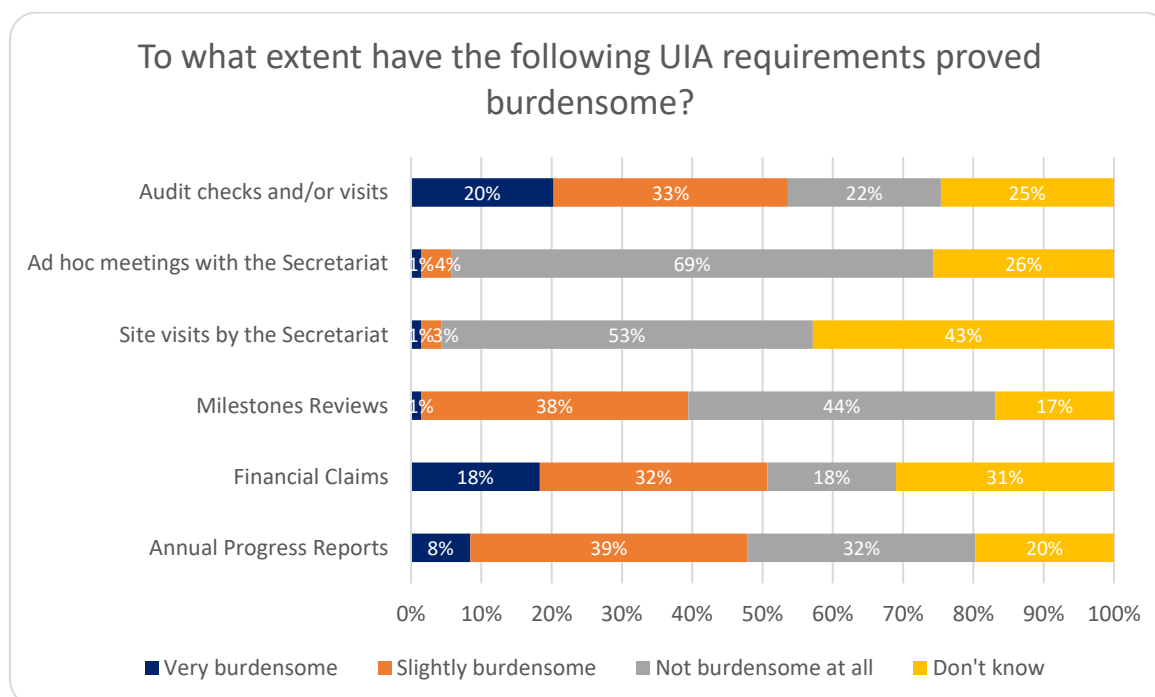
A majority of projects find the requirements related to reporting, claims and audit to be burdensome (once "don't know" responses are excluded; see Figure 38). Audit checks and visits were most often reported to be very or slightly burdensome, followed by financial claims and annual progress reports. Regarding the audit check, one project reported that "First level control has been a nightmare - a national company should have been commissioned to conduct it. It took us seven weeks to go through the audit and a big part of it was wasted on explaining to the auditors the differences between the French and the UK's payroll systems."

Figure 36: Helpfulness of UIA rules
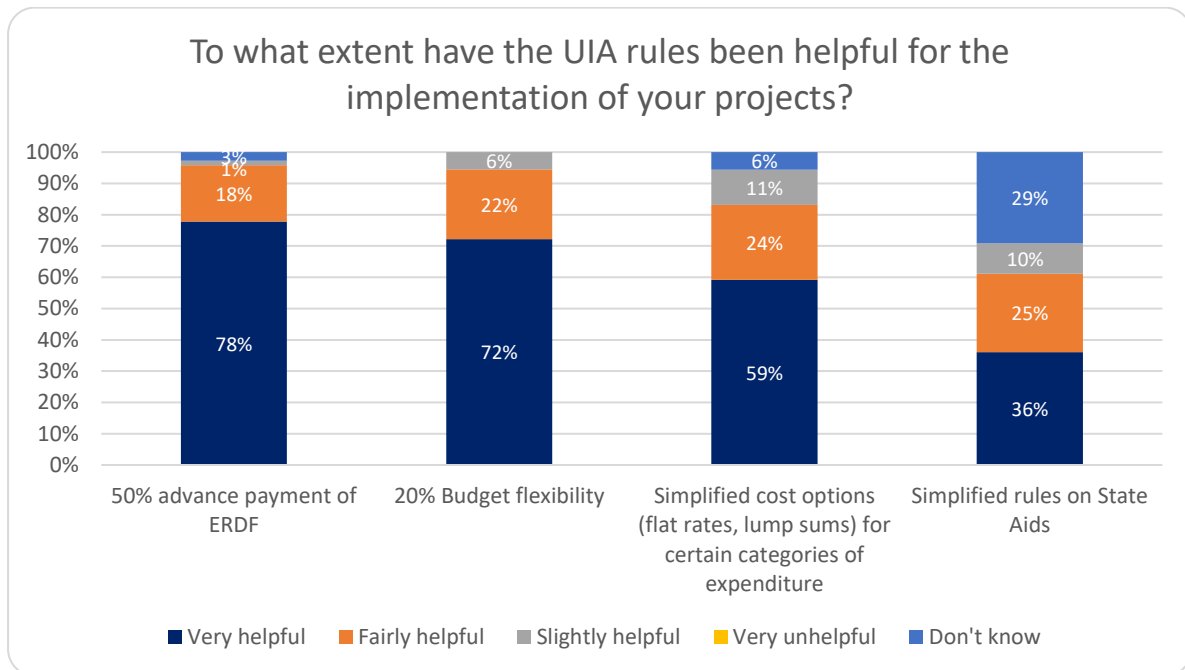
Source: Survey of UIA applicants

Figure 37: Burden associated with UIA rules

To what extent have the following UIA requirements proved burdensome?

	Very burdensome	Slightly burdensome	Not burdensome at all	Don't know
Audit checks and/or visits	20%	33%	22%	25%
Ad hoc meetings with the Secretariat	1%	4%	69%	26%
Site visits by the Secretariat	1%	3%	53%	43%
Milestones Reviews	1%	38%	44%	17%
Financial Claims	18%	32%	18%	31%
Annual Progress Reports	8%	39%	32%	20%

Source: Survey of UIA applicants

4.4.4 How useful is the support offered during the implementation phase?

Projects responding to the applicant survey were asked to rate the helpfulness of the support offered during the implementation phase.

All forms of support are considered to be fairly helpful or very helpful by at least two-thirds of projects. The most valued support is the assistance and monitoring from the UIA Secretariat, which 93% of projects found to be very helpful or fairly helpful. There is a divergence of views regarding the assistance from UIA Experts: although the majority of projects (68%) finds it helpful, 14% find it unhelpful (of which 6% very unhelpful) and 18% don't know. Similarly, although the majority of projects finds contact and networking with other UIA projects to be helpful, 14% find it unhelpful and 14% don't know.

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Figure 38: Helpfulness of support offered to projects

How helpful has the following support been?

- Very helpful
- Fairly helpful
- Slightly unhelpful
- Very unhelpful
- Don't know
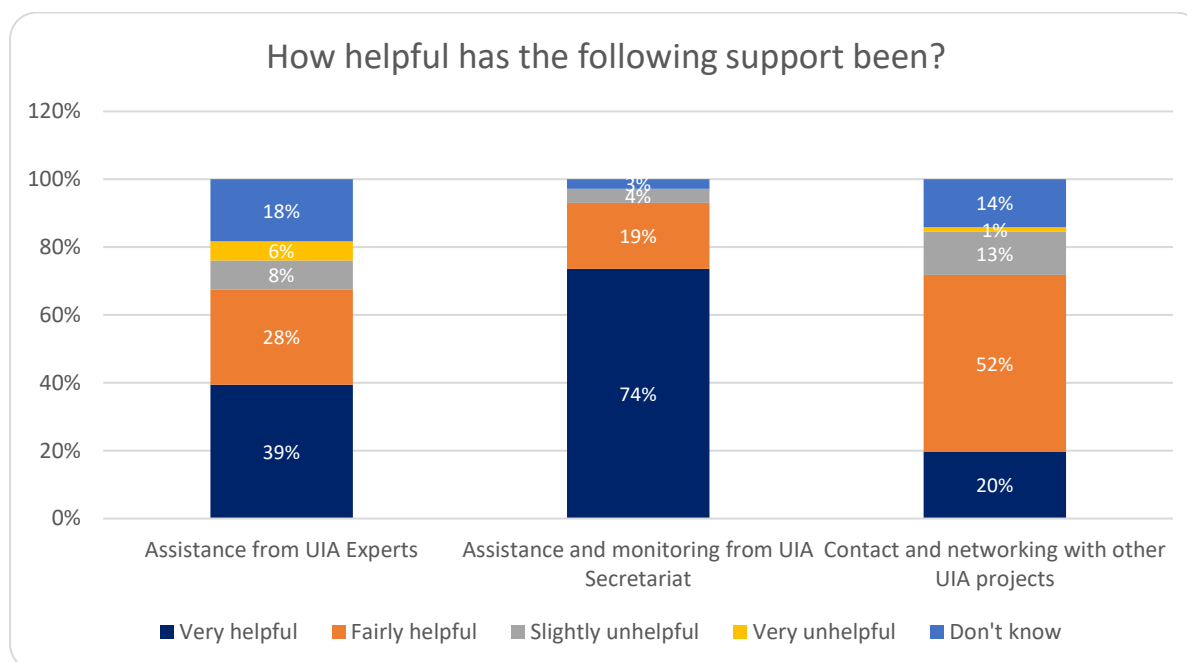
Source: Survey of UIA applicants

4.4.5 Will projects be successfully completed on time?

There is some uncertainty as to whether projects will achieve their intended outputs, as planned and on time. However, it should be noted that, at this point, only projects from Call 1 have completed their implementation, whilst projects from Call 4 are in the first year of their implementation. Evidence from the on-line survey shows that:

- Only a small percentage of promoters (15%) report that their projects are being implemented fully to plan, although nearly-two thirds of projects (64%) were being implemented mostly to plan; but 20% were being implemented differently to plan.

- More projects reported being behind schedule (40%) than on or ahead of schedule (29%), with the rest (31%) reporting that it was too early to say.

Figure 39: Implementation of projects to plan

Was/is your project being implemented according to the plan?

Category	Percentage
Fully	15%
Mostly	64%
Slightly different to the plan	19%
Very different to the plan	1%
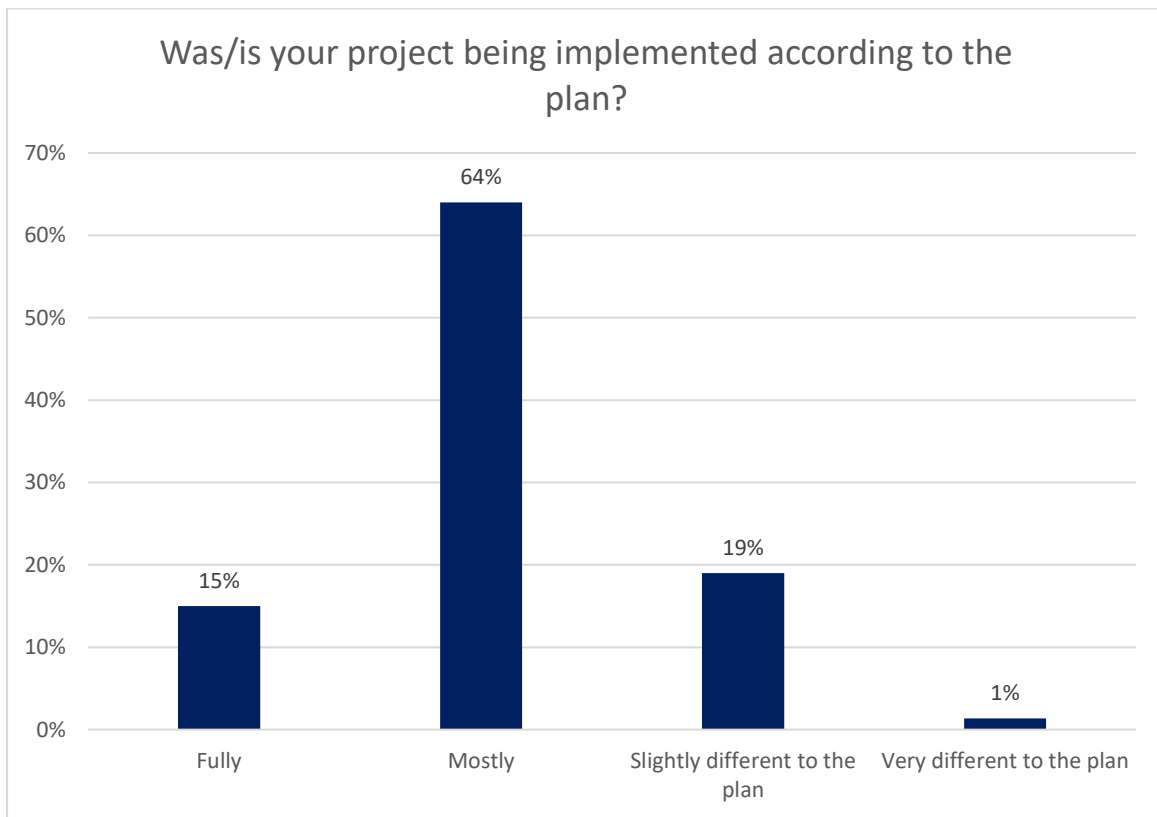
Source: Survey of UIA applicants

Figure 40: Implementation of projects to schedule

Was/will your project be completed on time?

Category	Percentage
Ahead of schedule	7%
On schedule	22%
Slightly behind schedule	32%
Far behind schedule	8%
Too early to say	31%
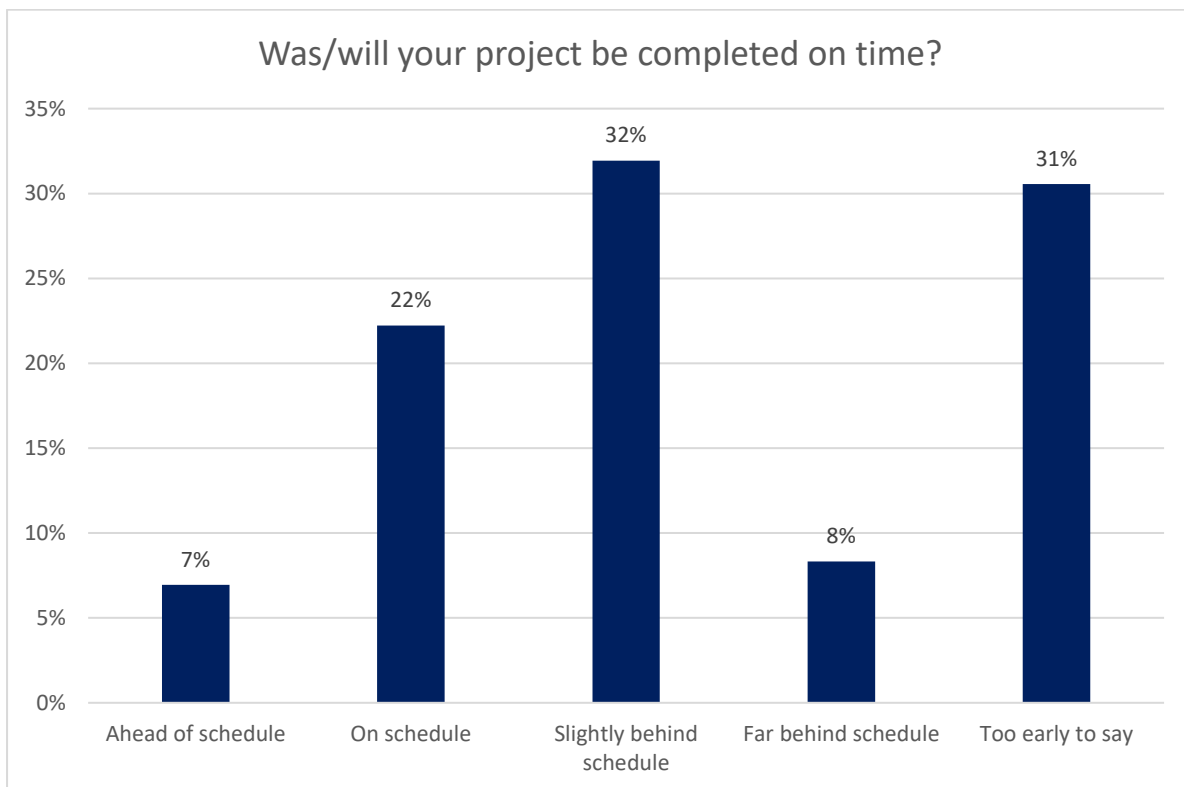
Source: Survey of UIA applicants

4.4.6 What are the risks to achievement?

The greatest risks to achieving intended outputs may be due to external circumstances rather than to any inherent difficulty within projects or linked to the design of the UIA instrument. Indeed, analysis of the challenges suggests that "adapting to changing circumstances" (25% of projects) and "other" (24%) have been the most challenging aspects of the implementation phase. When asked to offer an open comment on the main challenges and the reasons for being ahead of behind schedule, the most commonly-stated reason was the Coronavirus pandemic (stated by 18 projects who chose to give an open comment). Six projects also stated a time plan that was too ambitious.

Challenges related to external contracting and the legal and regulatory environment are faced by a considerable number of projects. Construction works and public procurement were each mentioned by 18% of projects as the most challenging. When asked to give an open comment, three projects reported that construction challenges related to difficulties in gaining permits, appointing contractors or recruiting staff. Severn projects offered open comments highlighted challenges arising from national legislation related to public procurement or environmental authorisations.

Challenges related to complying with rules linked to financing is most challenging for only a small proportion of projects, whether rules relating to the UIA (7%) or to other forms of co-financing (3%). However, complying with rules related to EU funding does remain challenging for a small number of projects, with four projects citing difficulties related to the rules and processes attached to EU funding, when giving an open comment on the challenges faced.

The "internal" functioning of projects does not appear to offer major challenges to implementation. Indeed, only 1% mentioned recruiting and retaining staff and none reported communication. When asked to offer an open comment, four projects mentioned internal management difficulties and delays, e.g. relating to recruitment.

"Engagement" has not proved the most challenging for many projects. Only 1% reported the engagement of target groups to be the greatest challenge. Some 3% reported engaging partners to be most challenging; when asked to offer a comment on the challenges faced, 3 projects mentioned that the innovative nature of the UIA required new ways of operating or a cultural change in the way that the partner organisations operate.

The level of ERDF funding is not a risk to achievement in most projects. The vast majority of projects responding to the survey (75%) consider that the ERDF funding is sufficient to achieve their objectives. Another 10% reported that it is more than sufficient.

Figure 41: Most challenging aspects of implementation
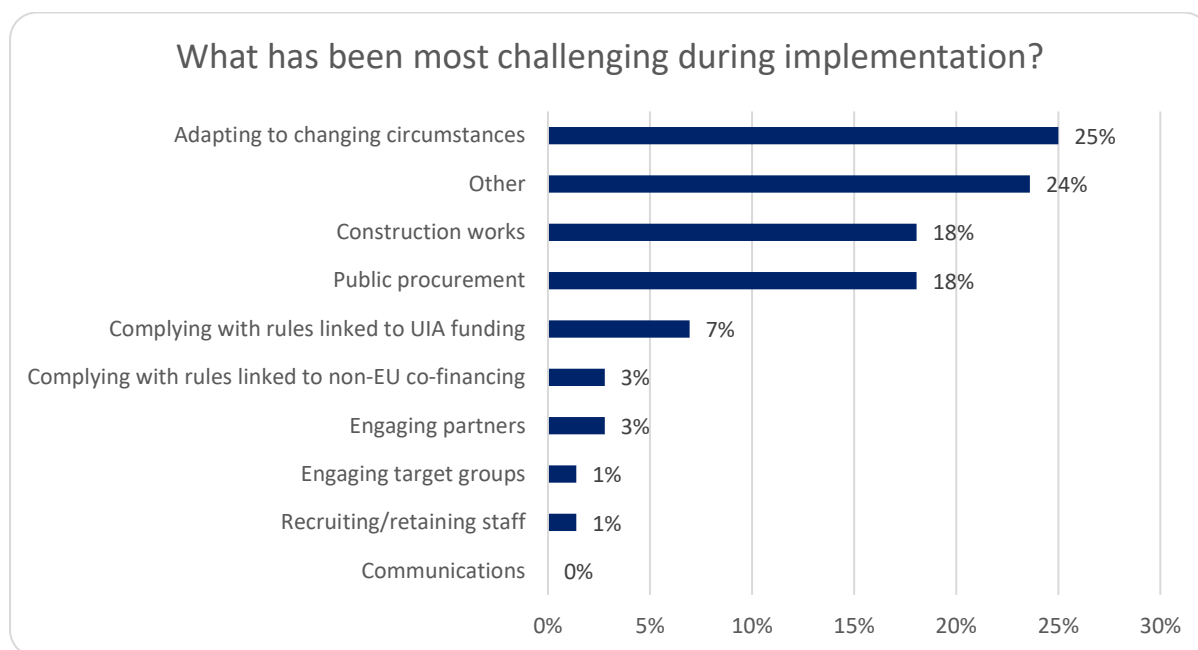
Source: Survey of UIA applicants

4.5   Sustainability, scaling up and knowledge transfer

4.5.1 Will projects be sustained?

A mixed picture emerges from the applicant survey regarding the views of projects on their sustainability:

- Only half of projects report that most (30%) or all (20%) of their activities will continue.

- 30% expect that only some activities will continue.

- 19% report that it is too early to tell.

- Only one project (1%) reported that none of its activities will continue.

Projects from Calls 1 and 2 were more able than those from Calls 3 and 4 to comment on the likely sustainability of their activities:

- All activities to continue: 22% (Calls 1 and 2) compared to 19% (Calls 3 and 4).

- Most activities to continue: 34% (Calls 1 and 2) compared to 28% (Calls 3 and 4).

- Some activities to continue: 38% (Calls 1 and 2) compared to 22% (Calls 3 and 4).

- No activities to continue: 3% (Calls 1 and 2) compared to 0% (Calls 3 and 4).

- Too early to say: 3% (Calls 1 and 2) compared to 31% (Calls 3 and 4).

Figure 42: Sustainability of project activities
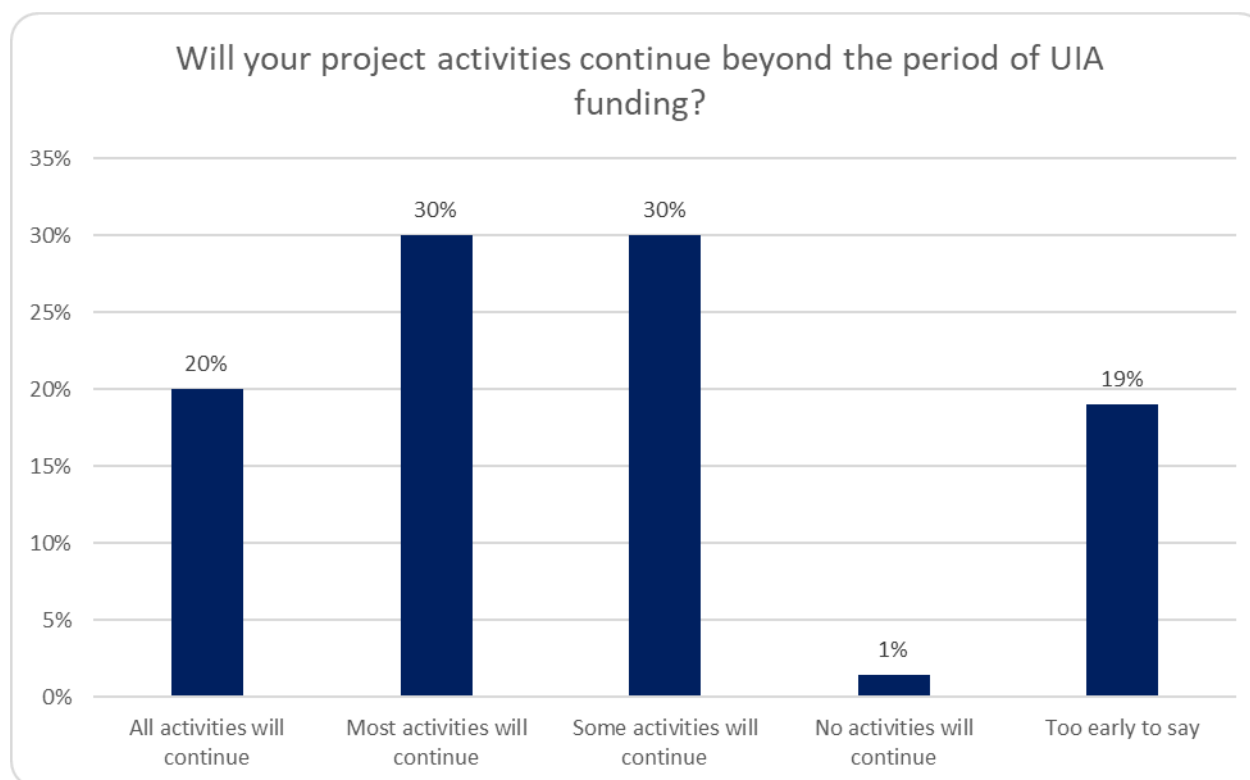
Source: Survey of UIA applicants

4.5.2 Will projects be scaled up?

One of the criterion of the strategic assessment was the "Project's transferability and scaling up". This accounted for 10% of the total score in the selection process. On this point, the projects were asked to give their opinion on the potential for scaling up of innovations tested by their own UIA projects, whilst all three surveys asked for opinions on the scaling up of UIA projects in general.

Fewer than half of projects reported that their experiencees would be scaled up, with projects in Calls 1 and 2 being no more positive about scaling up than those in Calls 3 and 4. The survey evidence shows that:

- Fewer than half of projects (46%) in Calls 1 and 2 and the same percentage in Calls 3 and 4 reported that their experiences would be scaled up.

- For half of projects (50%), it was too early to say (47% in Calls 1 and 2; 53% in Calls 3 and 4);

- Only one project in Call 1 reported that it would not be scaled up.

Figure 43: Sustainability of project activities
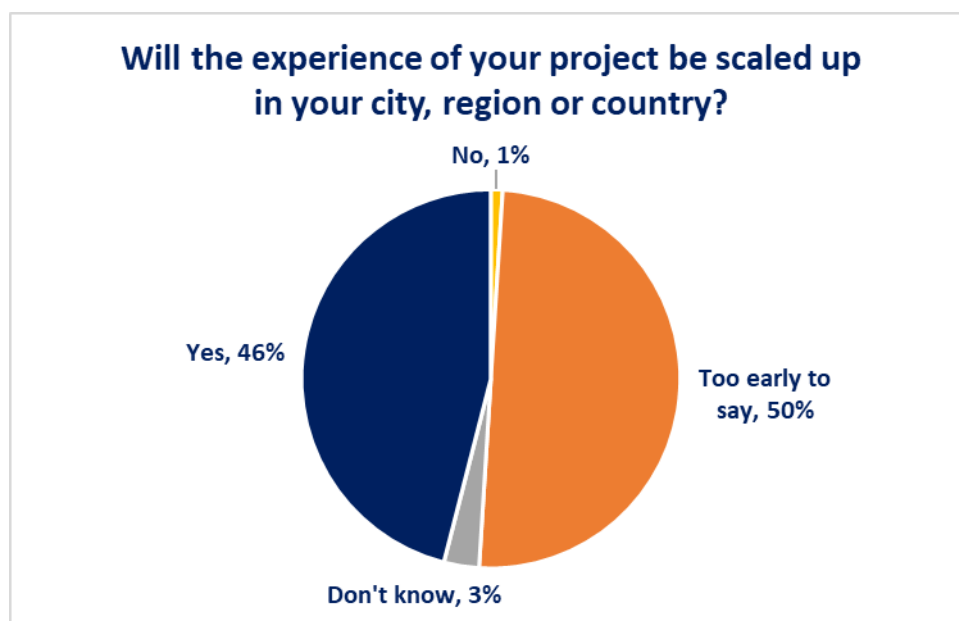
Source: Survey of UIA applicants

Funding for scaling up will come from a diversity of sources and in several cases will be sizeable (e.g. above €1m), although for many projects it is too early too say. The survey evidence shows that:

- A diversity of funds is proposed for scaling up, with non-EU sources of funding most common;

- Scaling up will involve combining at least two sources of funding for most projects;

- Where EU funding is to be used, this mostly consists of mainstream Cohesion Policy programmes, rather than Article 7;

- Those projects that were able to specify the indicative budget for scaling up stated a wide range of values: €20k, €400k, €1-2m, €1-10m, €2m, €3m, €10m and €15.5m.

Figure 44: Funds proposed for scaling up
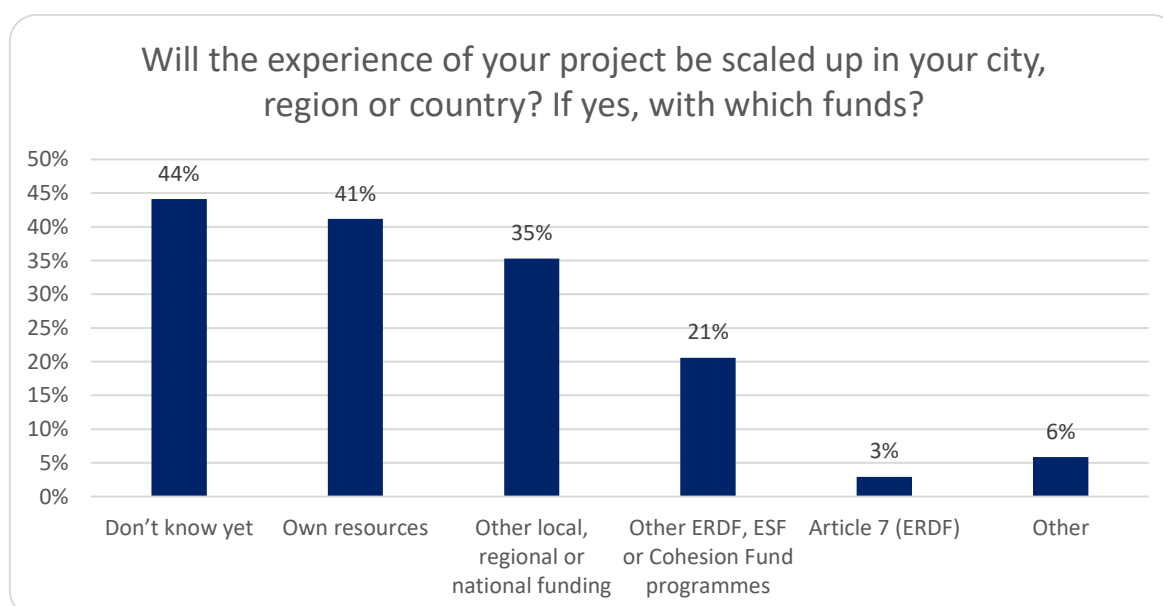
Source: Survey of UIA applicants

4.5.3 Will knowledge be transferred?

Selected projects were asked to comment on their proposals for knowledge transfer (taking into account that only projects in Calls 1 and 2 have yet reached the knowledge transfer phase).

Projects place a high value on knowledge transfer, particularly to other cities. The views of projects, as gathered by survey were as follows:

- Nearly all projects (93%) agreed that knowledge transfer is key to the success of their projects.

- Cities are considered by the vast majority of projects (80%) to be the main beneficiaries of knowledge generated by them.

- Some 14% of projects consider that policymakers at EU, national or regional level are the key beneficiaries of the knowledge generated by their projects.

- Cohesion Policy beneficiaries were considered as the most likely beneficiaries only by 1% of project.

Figure 45: Expected beneficiaries of knowledge generated by UIA projects
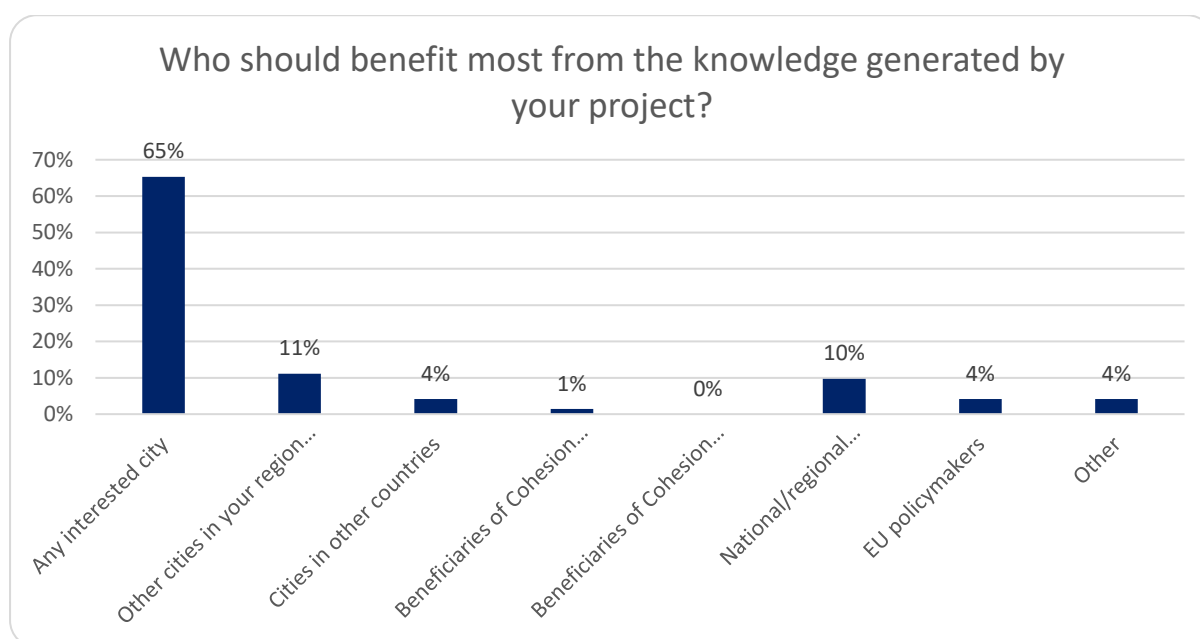
Source: Survey of UIA applicants

Of the projects that completed the survey, 32 were from the Calls 1 or 2. Of these, only 13 had a clear plan for knowledge transfer, although 17 intended to develop one in due course. Of the 13, six had fully and six partly implemented the plan.

Most projects are undertaking a mix of knowledge transfer activities, with a particular focus on reaching other actors in their city or region or cities elsewhere. For the 13 projects with plans:

- Knowledge transfer plans included a mix of activities including: websites, publications, organising events, presentations to events, and peer-to-peer activities.

- The main difficulty was lack of mechanisms to transfer knowledge (methods,

guidelines, frame to organise it with other cities).

- One project reported "insufficient time" and one reported "insufficient funding".
- Most knowledge transfer had been to other actors in their city and (to a lesser extent) to other actors in their region.
- More knowledge transfer had taken place to cities in other countries than in their own countries (perhaps due to networking between UIA projects and EU-level communication activities of the UIA Secretariat).

Figure 46: Activities within knowledge transfer plans
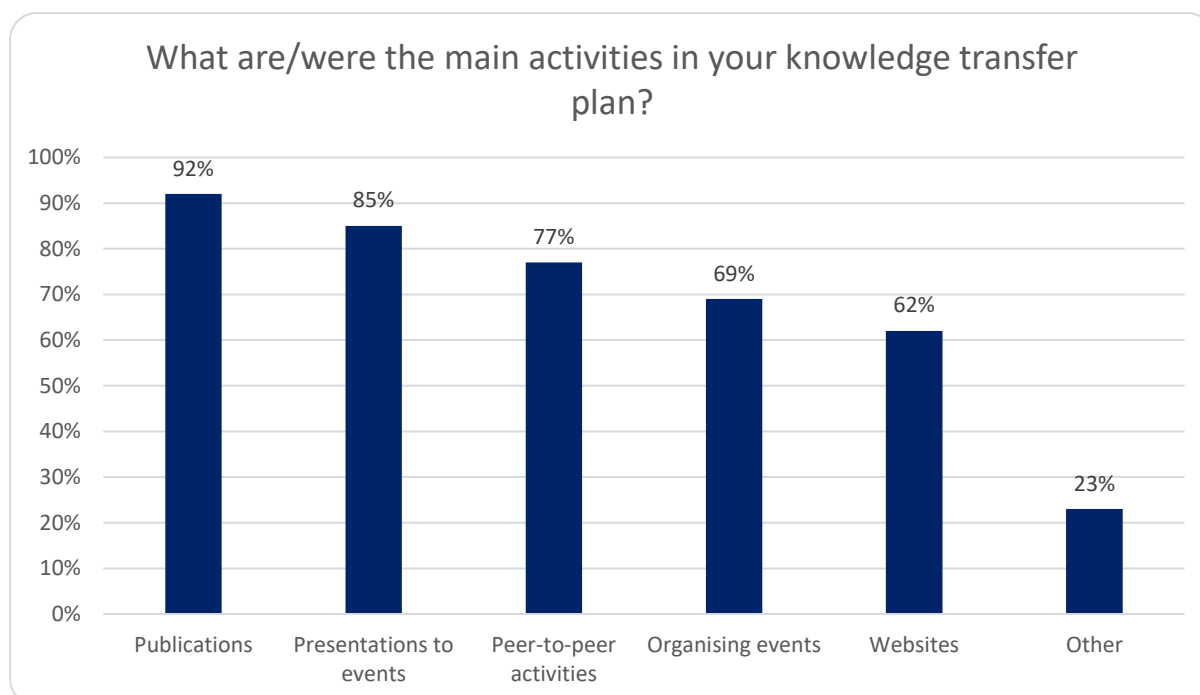
Source: Survey of UIA applicants

Those projects that are implementing knowledge transfer plans report some success in reaching target audiences, but particularly other actors in their city or region. Other cities (in the same or other countries) had been reached only to a lesser extent. Given that other cities are perhaps meant to be the main target group of knowledge transfer activities, this highlights the importance of the joint Knowledge Management Strategy (2020-2023) launched by the UIA Entrusted Entity and the European Commission.[245]

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[245] https://uia-initiative.eu/en/news/uia-knowledge-management-strategy

Figure 47: Audiences reached by knowledge transfer

To what extent has knowledge been transferred from your project to:

	To a great extent	To some extent	To a small extent	Not at all
Cities in other countries	17%	50%	33%	
Other cities in your country	8%	75%	17%	
Other actors in your region	50%	50%		
Other actors in your city	92%	8%		
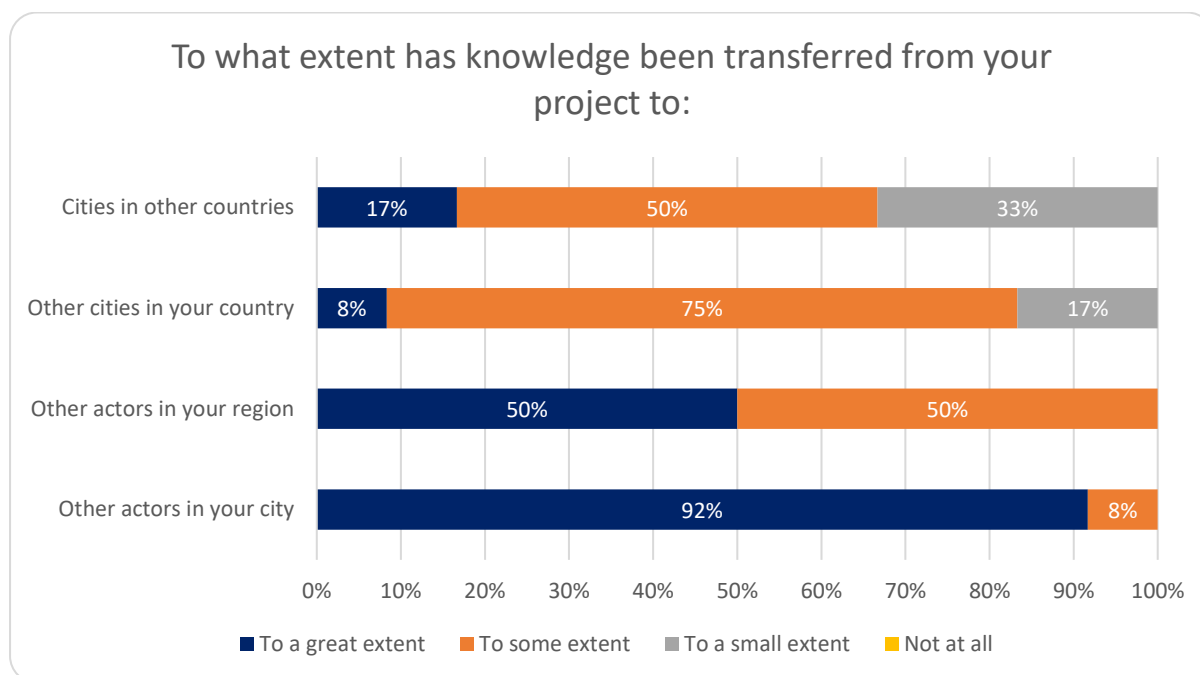
Source: Survey of UIA applicants

4.6   EU added value

4.6.1 (How) do unsuccessful applicants implement their activities without UIA funding?

Just fewer than half (46%) of the respondents to the survey of applicants had been unsuccessful in the UIA selection process. Unsuccessful applicants were asked whether they had implemented their projects without UIA funding and, if so, with what funding. The responses of these unsuccessful applicants suggest two main findings regards the likely consequences of discontinuing the UIA.

The vast majority of unsuccessful applications are not fully or mostly implemented without UIA funding. Only 8% of unsuccessful applicants reported that they had implemented all or most of their activities in the absence of UIA funding, although 55% had implemented some activities.

Figure 48: Extent of implementation without UIA funding
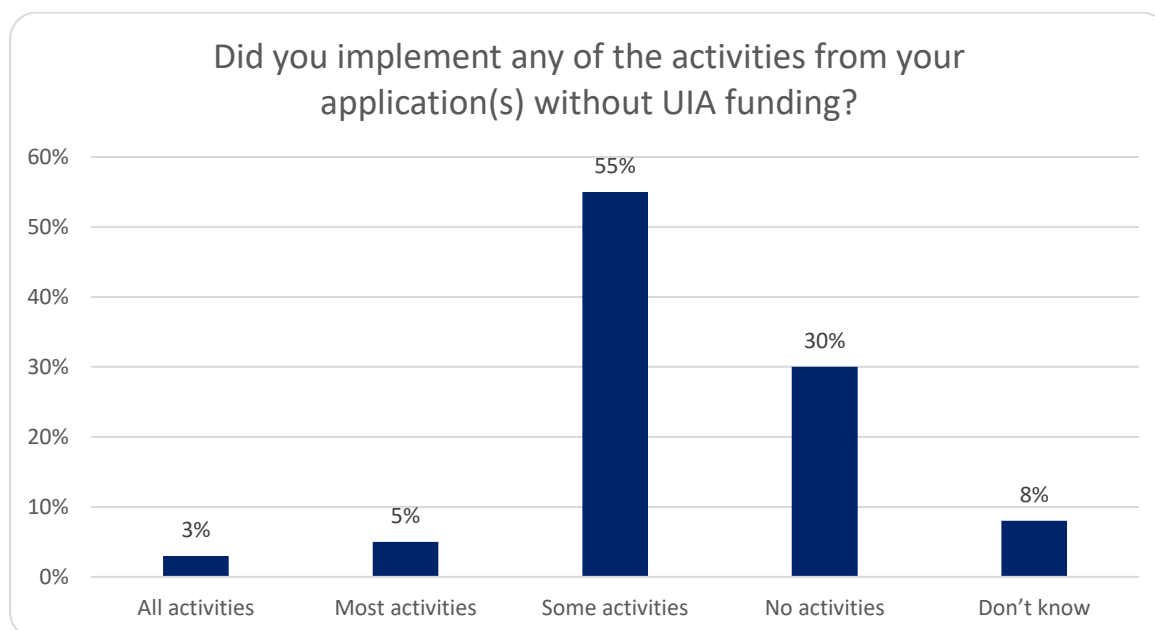
Source: Survey of UIA applicants

In the absence of UIA funding, potential applicant cities still rely on EU funding to test their innovations. Those unsuccessful applicants indicating that they had implemented at least some of their activities were asked to indicate the funding they had used. As shown in Figure 49, unsuccessful applicants had some success in securing EU funding from other Cohesion Policy (18%) programmes, Article 7 ERDF (15%), Horizon 2020 (10%) and URBACT (8%). Given that one source of EU funding would not usually be used to co-financing other EU funding within the same project, it might therefore be the case that 50% of unsuccessful applicants used EU funding to implement their innovations.

Figure 49: Funding used by unsuccessful UIA applicants to implement their projects
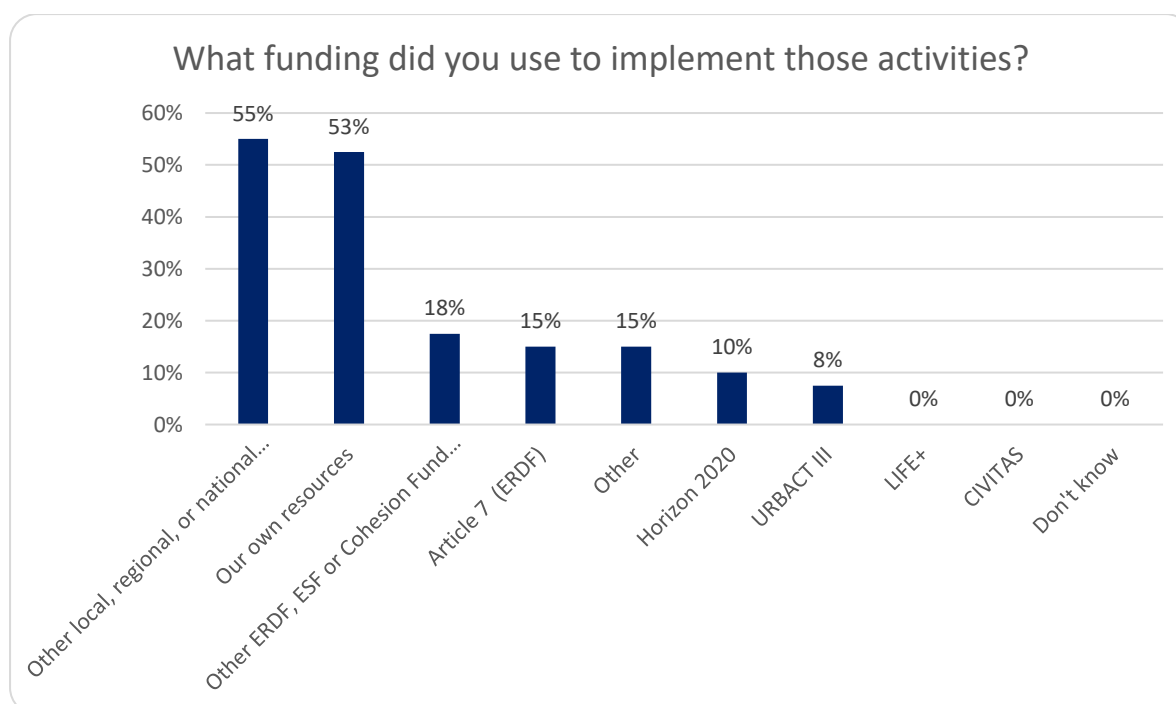
Source: Survey of UIA applicants

4.6.2 Would projects have taken place without UIA funding?

The survey responses suggest that the UIA has created EU added value:

- 35% of projects would not have implemented any activities and 58% only some activities without UIA funding;

- Only 3% of projects would have implemented most activities without UIA funding and none would have implemented all activities;

- The vast majority of projects (94%) reported that EU funding was the main source of funding for their projects.

4.6.3 What are the main benefits from being part of an EU initiative?

Projects were reported to specify the main benefit from being part of an EU initiative.

The main benefit of EU funding for UIA is "the opportunity to test new ideas", according to the overwhelming majority of projects (94%). This no doubt reflects the earlier findings about projects' satisfaction with the design of the UIA rules, i.e. advance payment of ERDF, budget flexibility, simplified cost options and possibility to make project changes. In this way, the design of the instrument appears to allow the possibility in a way that other funding sources perhaps do not.

In contrast, **only a tiny number of projects reported the main benefit was attracting other co-financing, learning from other UIA projects or gaining EU recognition for their city's urban innovation activities**, i.e. no more than 3% for any of these benefits.

When asked to give examples of EU added value, the following points were mentioned:

- Better knowledge of the EU Urban Agenda;

- UIA funding triggers investment that otherwise would be considered too risky, it enables to innovate;

- Greater citizen acceptance ;

- Connecting with other cities internationally;

- Visibility and the opportunity to create local networks;

- EU funding and the technical analysis.

Two projects gave negative comments about being part of an EU initiative:

- Weak connection between the EU and citizens (i.e. struggle to make citizens see the connection between local benefits of the UIA project and the EU);

- UIA logo risks distracting from the EU support for the project (i.e. better only to use the EU logo).

Figure 50: Main benefits of being part of an EU initiative
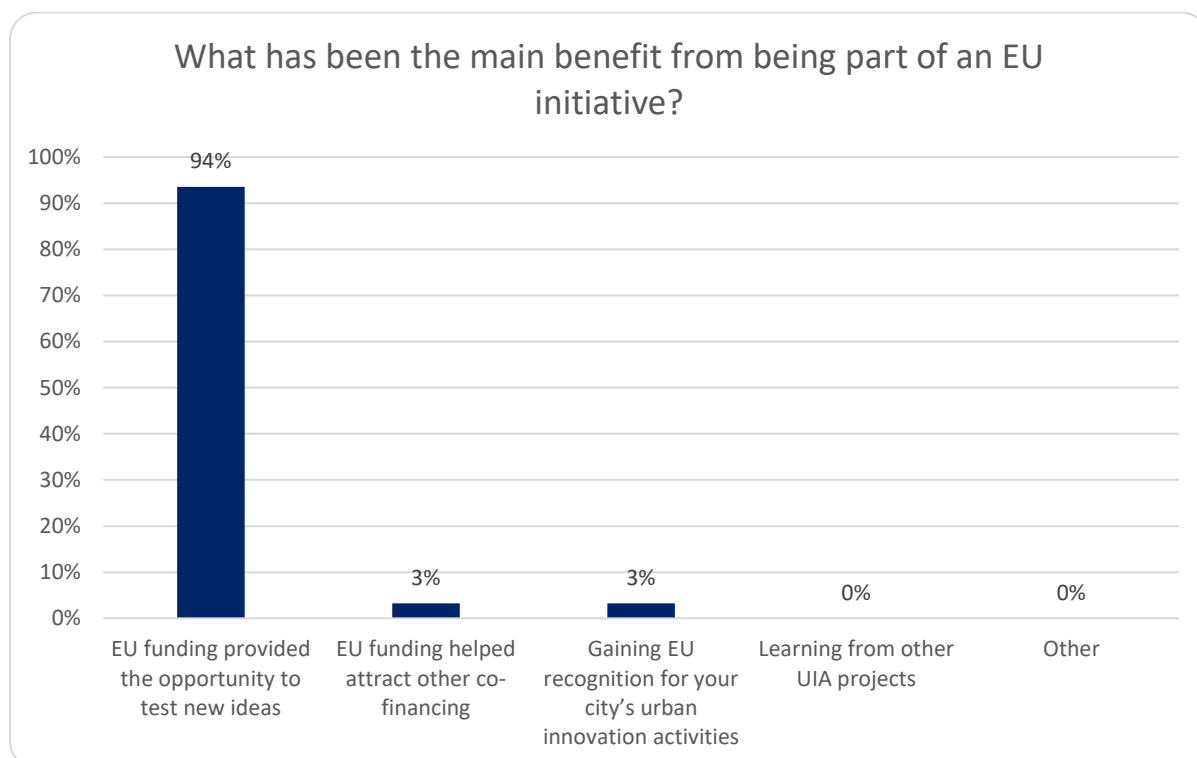
Source: Survey of UIA applicants

In response to an open question, projects were invited to describe any unintended effects from participating in a UIA project. The following effects were mentioned:

- Increased experience of project management, communication and technical aspects;
- Better working or co-operation within the city administration and with local stakeholders;
- Increased visibility and prestige for the city;
- Useful insights into policy challenges;
- Increased knowledge of and networking/partnerships with other EU cities;
- Better understanding of the Urban Agenda for the European Union.

5. COMPLEMENTARITY WITH AND ADDED VALUE FOR COHESION POLICY

5.1 UIA topics consistency with Cohesion policy programmes/SUD Strategies

5.1.1 Which topics are most consistent with Cohesion Policy programmes?

A majority of MAs believe that the UIA topics are consistent with the priorities of their programmes. Whilst three-quarters (75%) were broadly positive, most of those (57%) reported the UIA topics to be only "fairly consistent" with the priorities of their programmes.

Figure 51: Consistency of UIA topics with MAs' programmes

Overall, how consistent are the topics addressed by the UIA topics addressed by the UIA with the priorities of your programme(s)?
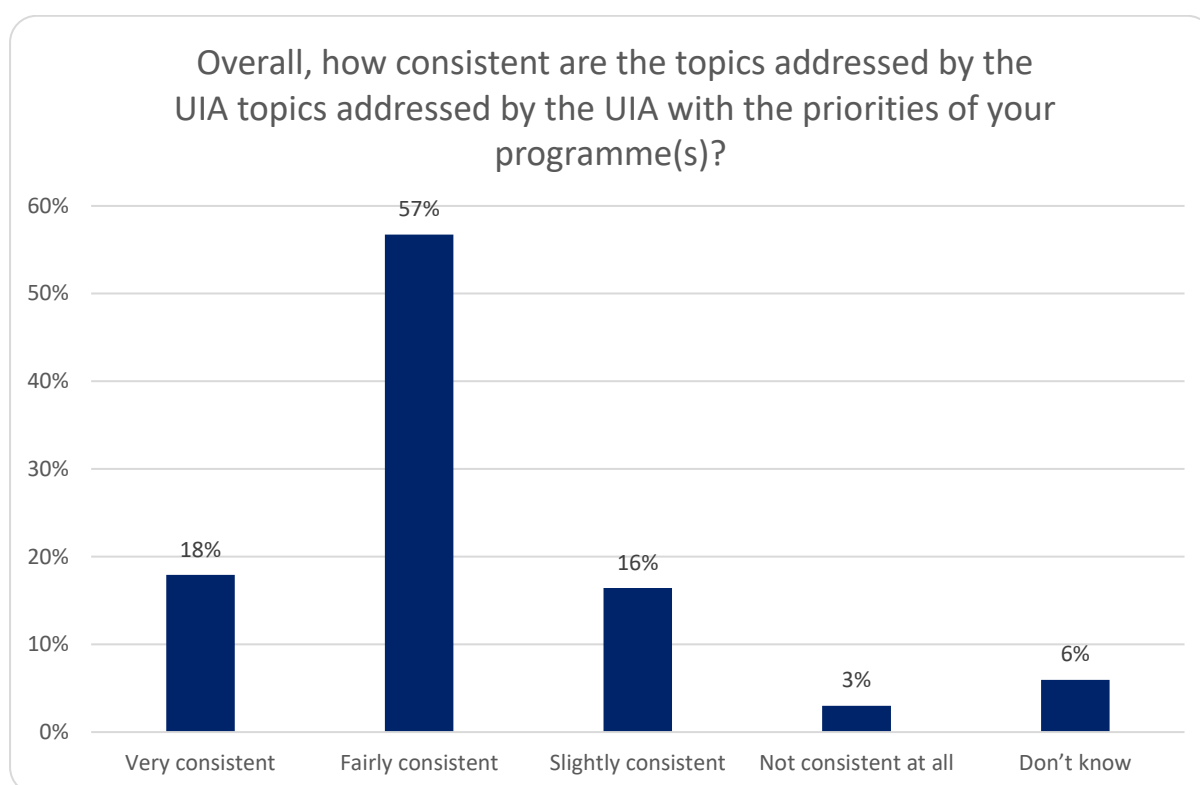
Source: UIA survey of MAs

MAs were asked to highlight the UIA topics that were most consistent with their programmes. There was some consistency with the questions on relevance of topics in the other two surveys (see section 3.2.2).

Urban mobility is the topic considered by MAs to be most consistent with their ESIF programmes. Indeed, this topic was selected by 70% of MAs, significantly more than for any other topic. This is consistent with the surveys of applicants and other stakeholders, where Urban mobility was considered to be most relevant topic.

The least relevant topics are considered to be, first, Integration of migrants and refugees and, second, Urban security. This is consistent with the surveys of applicants and other stakeholders, where these topics was considered to be two least relevant topics.

"Social" topics tend to be considered less consistent than other topics (except Urban security and Sustainable use of land and nature-based solutions). Urban poverty, Housing and Integration of migrants and refugees were three of the six least consistent

topics. Again, this is consistent with the surveys of applicants and other stakeholders, where these topics were considered amongst the least relevant topics. At the same time, this reflects the categories of MAs targeted by the closed survey, those being in charge of sustainable urban development strategies funded mostly by the ERDF and to a far lesser extent by the ESF.

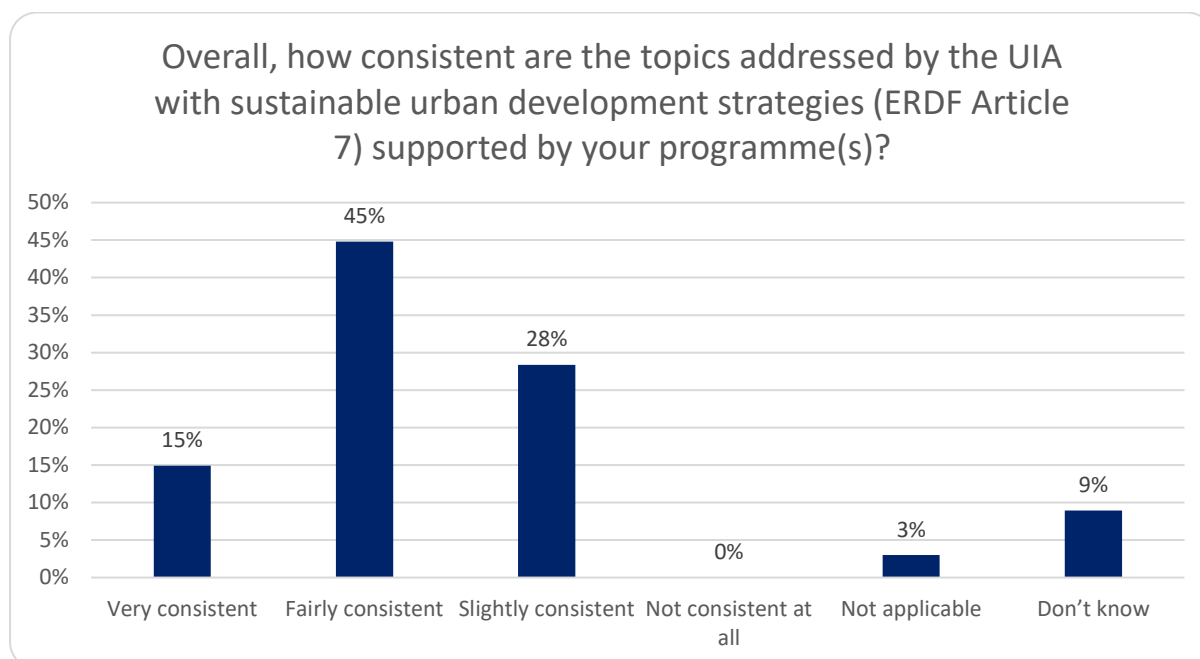**Figure 52: Most consistent topics with ESIF programmes**

Which of the topics addressed by the UIA are most consistent with the priorities of your programme(s)? (Tick the most consistent topic(s))

Topic	%
Urban mobility	70%
Jobs and skills in the local economy	51%
Energy transition	49%
Air quality	45%
Digital transition	40%
Adaptation to climate change	37%
Housing	30%
Urban poverty	28%
Circular economy	27%
Sustainable use of land & nature-based solutions	22%
Urban security	12%
Integration of migrants and refugees	7%

Source: UIA survey of MAs

5.1.2 How consistent are UIA topics with sustainable urban development strategies (Article 7)?

A selection of Managing Authorities (MAs) for ESIF programmes were invited to comment on the consistency of the UIA topics to sustainable urban development (SUD) strategies supported by ERDF Article 7.

A majority of MAs see the UIA topics as very or fairly consistent (60%), although this is a lower figure than for ESIF programmes (Figure 53).

Figure 53: Consistency of UIA topics with ERDF Article 7 strategies

Overall, how consistent are the topics addressed by the UIA with sustainable urban development strategies (ERDF Article 7) supported by your programme(s)?

Category	Percentage
Very consistent	15%
Fairly consistent	45%
Slightly consistent	28%
Not consistent at all	0%
Not applicable	3%
Don't know	9%

Source: UIA survey of MAs

MAs consider nearly all the UIA topics to be more relevant to their ESIF programmes than specifically to the SUD strategies therein. This may suggest a level of consistency and potential for scaling-up/replication of UIA projects that goes beyond SUD strategies in ESIF programmes. The exceptions are Urban Poverty, which is seen as more relevant to SUD strategies than to ESIF programmes and Integration of migrants and refugees, which is equally relevant (albeit least relevant of any topic).

Figure 54: Most consistent topics with ERDF Article 7 strategies

Which of the topics addressed by the UIA are most consistent with sustainable urban development strategies (ERDF Article 7) supported by your programme(s)? (Tick the most consistent topic(s))

Topic	Percentage
Urban mobility	69%
Jobs and skills in the local economy	40%
Urban poverty	33%
Air quality	31%
Energy transition	31%
Adaptation to climate change	28%
Housing	27%
Digital transition	21%
Circular economy	21%
Sustainable use of land & nature-based solutions	18%
Urban security	9%
Integration of migrants and refugees	7%

Source: UIA survey of MAs

5.2 Managing Authorities' support for scaling up and replication

5.2.1 Are MAs open to supporting scaling up and replication of UIA projects?

The majority of MAs consider that the UIA complements sustainable urban development strategies under ERDF Article 7. This reinforces the view of respondents to the other survey, discussed above. Of the respondents to the closed survey of MAs, 16 reported that UIA projects were being implemented in the territories covered by their programmes, of which 14 were aware of the purpose and content of those projects. Of these 14, 9 (65%) considered that UIA projects complemented interventions supported by ERDF Article 7 to a great or reasonable extent. Only two (14%) believed that the there was no complementarity at all.

Figure 55: Complementarity of UIA projects with Article 7
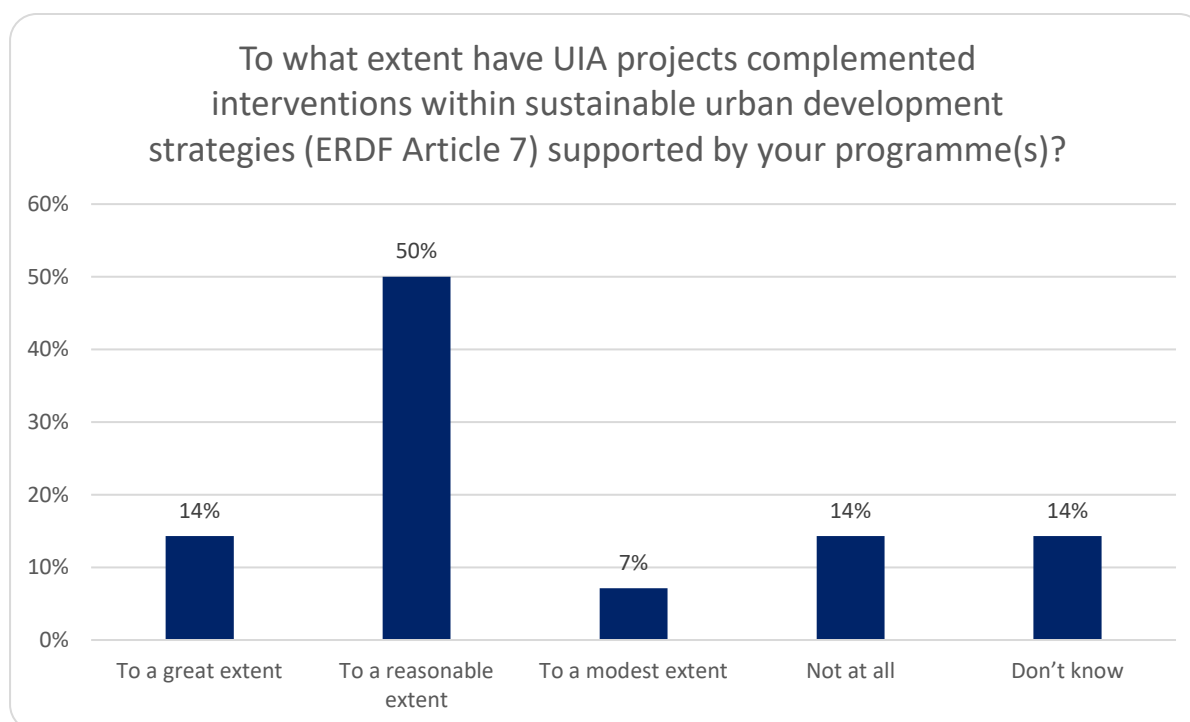
Source: UIA survey of MAs

MAs were positive about considering providing incentives/funding in their programme(s) to scale up successful UIA projects. When asked, the majority (56%) said they would consider it and none ruled it out, whilst just less than one third (31%) said it was too early to say.

Figure 56: Openness of MAs to support scaling up of UIA projects

Would you consider providing incentives/funding in your programme(s) to scale up successful UIA projects implemented in the territory covered by your programme(s)?

Response	Percentage
Yes: we are planning it	0%
Maybe, we would consider it	56%
Too early to say	31%
No	0%
Don't know	13%
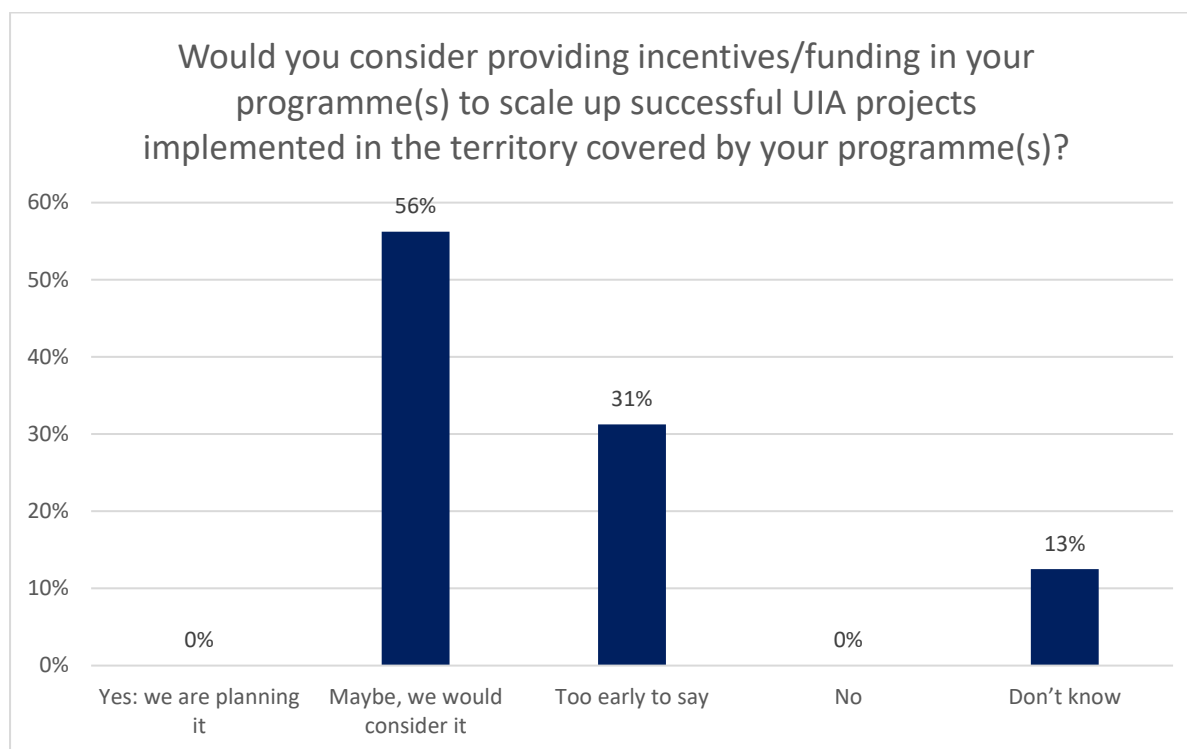
Source: UIA survey of MAs

MAs were invited to suggest the obstacles to scaling up successful UIA projects with funding from their programme(s). Responses were provided as open text comments by six MAs, as follows:

- Limited funding (4 respondents).

- Timing: too late to modify the strategy.

- Small size of cities in the territory covered by the MA's programme(s) and thus lack of finance [to adopt innovations from UIA projects].

- Lack of knowledge on "how and if" the results of UIA projects have been achieved, due to the MA not being involved in selection or monitoring of UIA projects.

- Lack of capacity within urban and regional authorities and heterogeneity and fragmentation of competences (both horizontal and vertical).

- Lack of an effective national and transnational network aimed at supporting processes of knowledge exchange and solutions adoption by cities.

One MA went on to report that it would be ready to explore the possibility to scale up UIA projects, for example, by disseminating the results of UIA projects via its national network of cities. However, to do this, the MA would require better knowledge of the projects, so it can know which ones would be relevant to the specific situation of its territory/territories.

Managing Authorities are uncertain but potentially open to supporting the replication of successful UIA projects with incentives or funding from their programmes. Only 5% explicitly ruled out such support while 40% of MAs would consider it and 3% were even planning it. However, 52% of MAs could not give a definitive view, of which most (30%) considered it was too early to say.

Figure 57: MAs' openness to supporting replication of successful UIA projects

Would you consider providing incentives/funding in your programme(s) to replicate successful UIA projects from elsewhere with funding from your programme(s)?
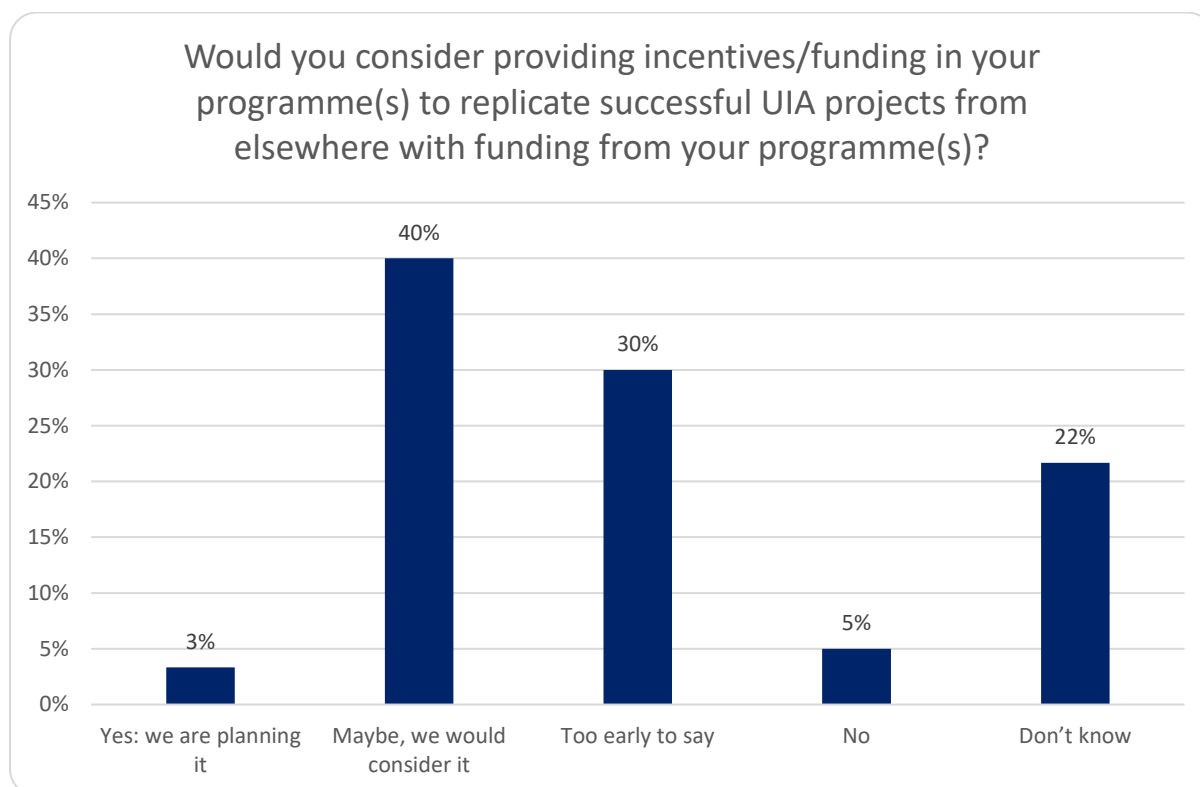
Source: UIA survey of MAs

MAs were invited to suggest the obstacles to replicating successful UIA projects with funding from their programme(s). Responses were provided as open text comments by 19 MAs, as follows:

- Insufficient funding in the current programmes (8 respondents), e.g. because funds have already been committed.

- Uncertainty about available funding or priorities for the 2021-27 period (2 respondents).

- UIA projects might not satisfy programme rules or eligibility criteria (2 respondents).

- MA's lack of knowledge about the UIA or need for more dialogue or information (3 respondents).

- State aid rules.

- Small size of cities in the territory covered by the MA's programme(s).

- Not a priority of the MA's programme(s).

- Risk that replication will not be successful in different contexts (i.e. national/local legislation, social environment, territorial characteristics, administrative capacity, level of innovation) (2 respondents).

Four MAs specifically stated that it might be possible for future programmes or under certain conditions. One suggested that replication should focus on specific elements within projects, rather than entire projects, with consideration given to how those elements would work in a different context. Another stated that it could apply its own expertise and resources to the process of transfer, having already support the transfer of innovative digital social services between different municipalities within the same metropolitan area.

The MA for the METRO operational programme in Italy reported that some cities had already attempted to integrate projects into their cities with support from the programme.

5.2.2 MA capacity building or knowledge transfer activities including UIA best practices

Only a small minority of MAs (15%) have organised activities on capacity building or knowledge transfer including UIA project best practices for ERDF Article 7 cities or other beneficiaries of their programme(s). However, there was some uncertainty, with 29% not knowing if they had organised such activities or not. MAs were invited to describe any activities they had organised on capacity building or knowledge transfer. These included:

- Seminar for all Article 7 projects in the Netherlands.

- Seminars to exchange experiences on the Urban Agenda for the EU, URBACT and the UIA in order to raise awareness among Intermediate Bodies.

- Seminars, training to improve administrative capacity.

- Bulletins.

- Presentation of best practice.

Figure 58: MAs' provision of capacity building or knowledge transfer activities
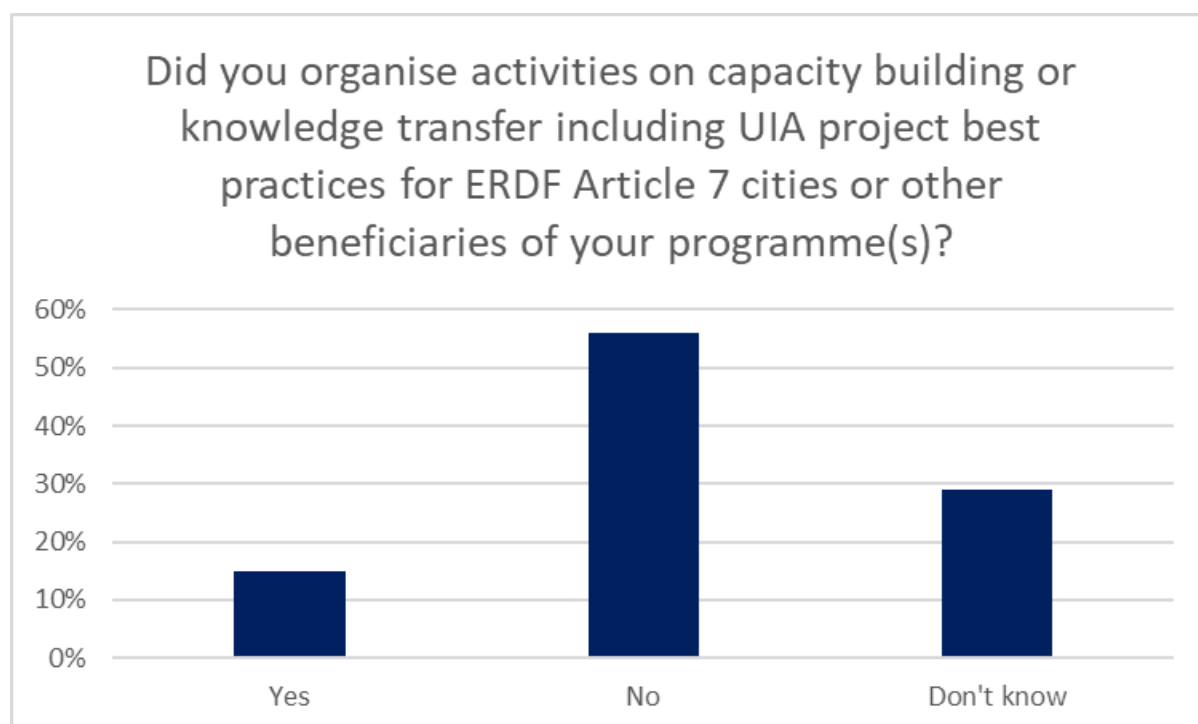
Source: UIA survey of MAs

MAs are potentially open to organising activities on capacity building or knowledge transfer including UIA project best practices but many are currently unsure. Only a tiny proportion of MAs (2%) specifically ruled out organising such activities, although only one fifth specifically said they would consider it. The majority (78%) were unsure, replying either "perhaps" or "don't know".

Figure 59: MAs' openness to capacity building or knowledge transfer activities
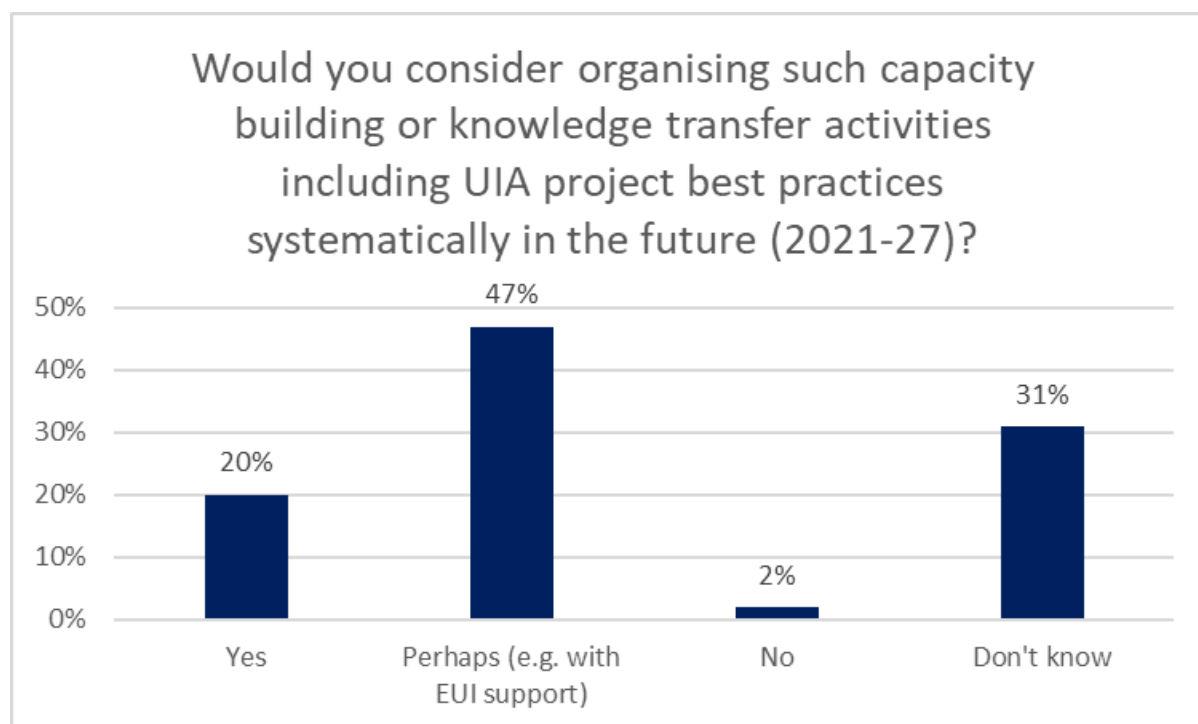
Source: UIA survey of MAs

MAs were also invited to describe the obstacles to organising capacity building or knowledge transfer via an open question (i.e. not a closed list of options). The obstacles mentioned by MAs included:

- Lack of time or resources (6 respondents).

- Lack of interest amongst cities (2 cities).

- Lack of information about UIA projects (2 respondents).

- Small size of cities in the territory covered by the MA's programme(s) (2 respondents).

- Not appropriate for the MA (i.e. should be undertaken by UIA projects or by national bodies responsible for urban policy) (2 respondents).

- Not a priority for the MA.

- Uncertainty about the next programming period.

- Lack of contact between "information points related to European funds" and the UIA Secretariat.

- Not an appropriate mechanism: needs to be "based on cooperation between institutions not on short workshops" or requires ex-ante evaluation to ensure relevance, i.e. to ensure knowledge transfer is based on real needs.

Of those responding, three MAs considered that there were no significant obstacles. For example, one stated that "capacity building and knowledge transfer are an easy exercise to be developed within the action of national coordination".

5.3   Cohesion Policy support for unsuccessful applications

MAs were asked whether unsuccessful UIA applicants had successfully applied to their programmes and whether they would envisage supporting such projects.

Cohesion Policy programmes remain an option for many unsuccessful UIA applicants, subject to the eligibility requirements and availability of funding. As noted in the previous sub-section, some unsuccessful applicants report accessing other Cohesion Policy funding to implement their activities. Five MAs reported that unsuccessful UIA applicants had sought funding from their programmes. Of these, two MAs reported that unsuccessful UIA applications have been or are planned to be funded by their programme(s). Of these, one was supporting two projects, and the other one project. One of these projects was reported by MAs to be implemented by the "House of Skills", a public-private partnership in the Amsterdam Metropolitan Area that is developing tools to better facilitate skills matching in the local labour market. (The other projects were not named.)

For the three MAs that had received applications but not funded them, the reason was insufficient funding. When asked to suggest the possible obstacles to funding such projects, MAs offered a range of responses (as text comments in response to an open question):

- Lack of funding: with two MAs reporting that their funding was already committed and two others reporting "limited funding"; this was also the reason given by two MAs reporting that unsuccessful UIA applicants had sought funding for their projects from their programmes.

- Ineligibility of UIA applications or limited relevance to programme objectives (five respondents).

- Timing of calls (1 respondent).

- State aid rules (1 respondent).

MAs are potentially open to supporting highly-rated but unsuccessful UIA applicants. As shown in the figure below, MAs that had received no applications from unsuccessful UIA applications were asked if they would envisage such support. Those MAs that were able to give a response were open to the idea, with 18% saying that would envisage support and another 26% reporting that they might subject to the conditions within their programme. Only 11% specifically ruled out such support. As noted above, two MAs reported that such applications had been successful. Three MAs reported that unsuccessful UIA applications had unsuccessfully applied for support from their programmes. Two reported that the main reason for not funding such projects was "insufficient funding".

Figure 60: MAs' openness to support unsuccessful UIA applications

Would you envisage funding under your programme(s) project proposals that were highly rated in the UIA application process but not selected (due to limited UIA funding)?
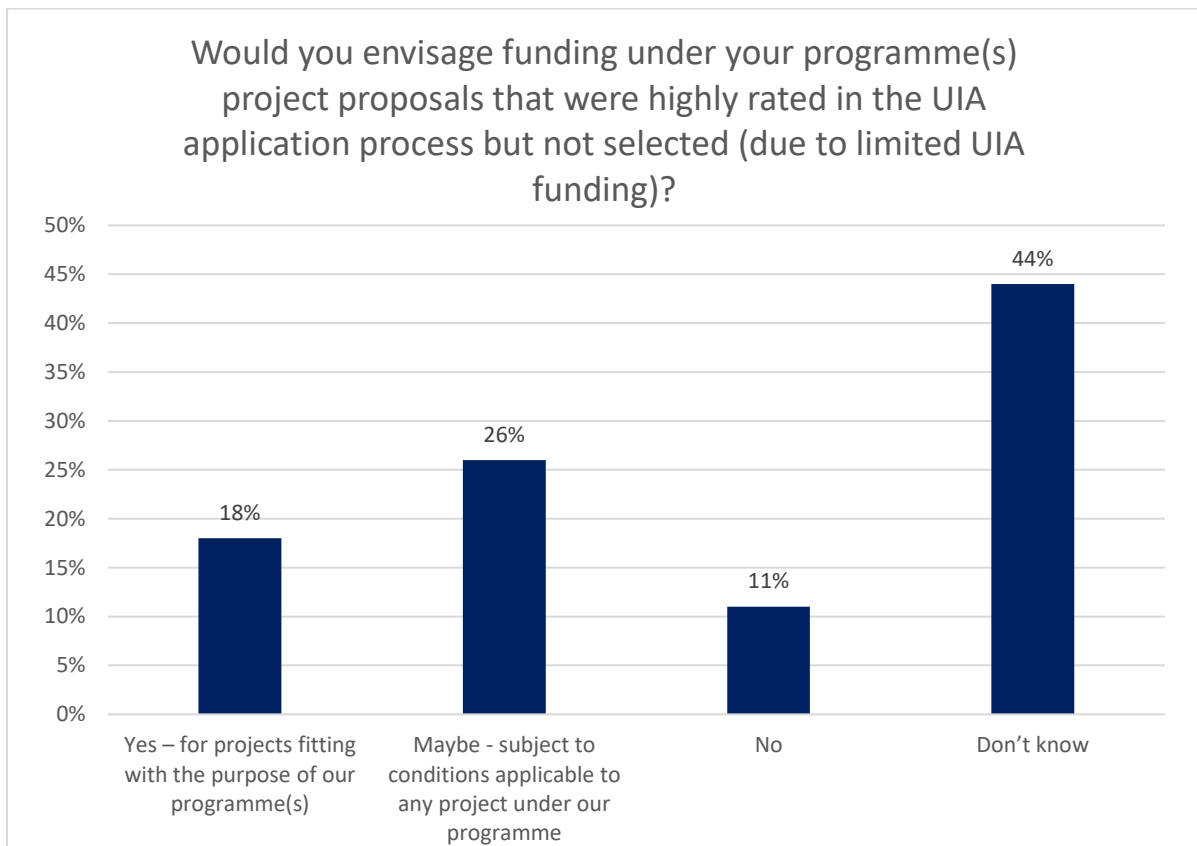
Source: UIA survey of MAs

6. POLICY RECOMMENDATIONS

The three surveys gathered evidence on stakeholders' views regarding the future of the UIA. This evidence is presented in this section.

6.1 Supporting for repeating the UIA

6.1.1 In what format should the UIA be repeated?

Survey respondents were asked their opinion on whether the UIA Initiative should be repeated after 2020 in the same format.

The majority of respondents (56%) believe that the UIA should continue in the same format, whilst one quarter (24%) felt it should continue in a different format. Applicants are particularly supportive of the current format. MAs were less certain, with half stating "don't know".

Figure 61: Future format of the UIA Initiative
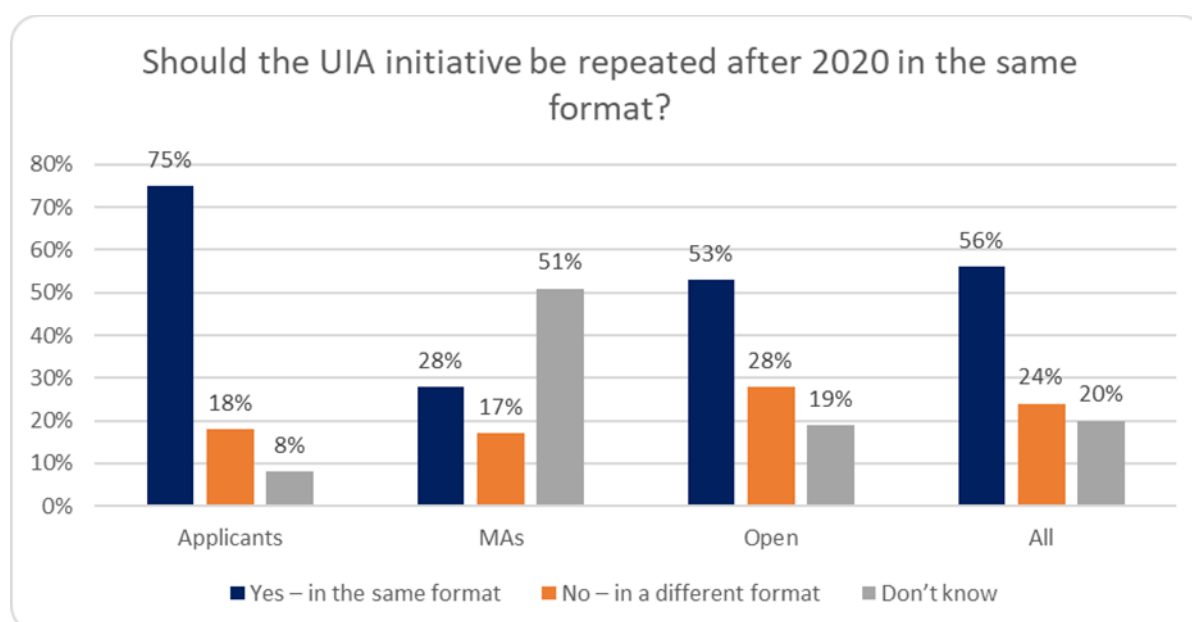
Source: Survey of UIA applicants, UIA open survey, UIA survey of MAs

Regarding the central objective, the most popular response was that this should continue to be the testing of innovative solutions, supported by 41% of all respondents. There was some support for widening the central objective to include both innovation and scaling up (22%) or innovating and replication (25%). Only a small minority (4%) rejected the testing of innovative solutions as a central objective.

Figure 62: Central objective of the UIA in the future
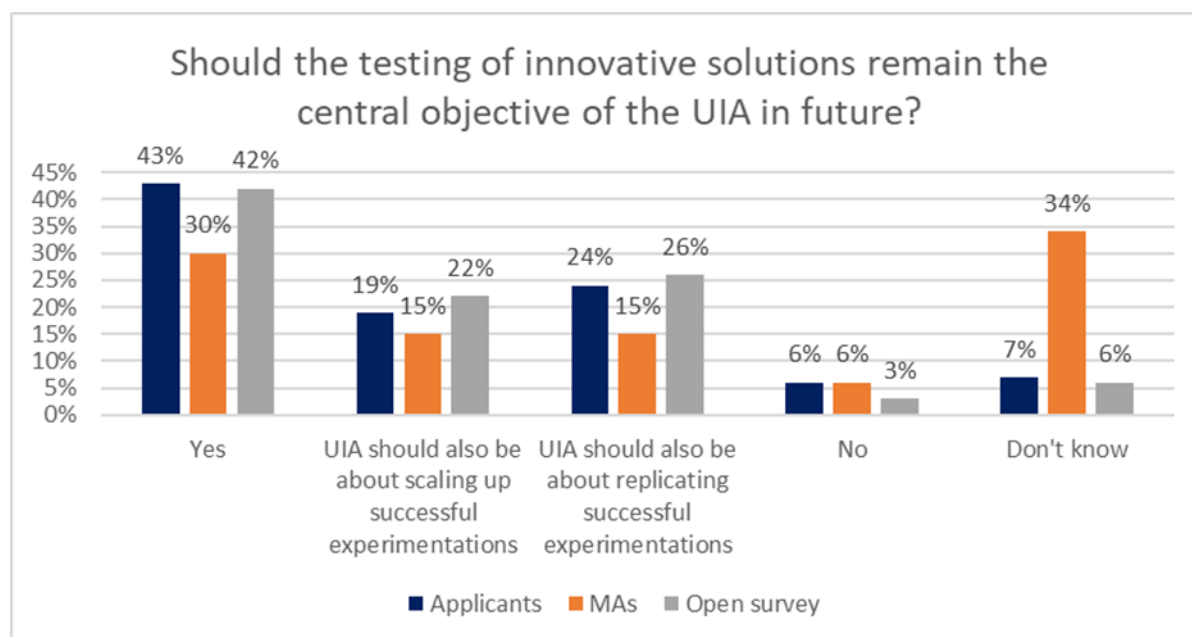
Source: Survey of UIA applicants, UIA open survey, UIA survey of MAs

Applicants and open survey respondents were asked about their support for a (closed) short-list of options on how the UIA initiative could be improved. The strongest support was for the following:

- **Increase time for implementation** (currently 3-4 years): supported by 43% of applicants (this option was not offered in the open survey); in contrast, fewer than 2% of applicants supported reducing the time for implementation.

- **Increase funding for knowledge transfer**: supported by 42% of applicants and 46% of open survey respondents.

- **Longer time to prepare applications**: supported by 36% of applicants and 41% of open survey respondents.

- **Increase time for knowledge transfer (currently 1 year)**: supported by 25% of applicants (this option was not offered in the open survey).

Most applicants (56%) and half of other stakeholders (50%) do not support any revision to the maximum funding per project (currently €5m). Amongst those favouring a change, there is a divergence of opinion, but more favour a reduction rather than an increase. Some 42% of open survey respondents and 16% of applicants supported reducing the minimum size to support more projects, whilst 11% of applicants and 7% of open survey respondents supported an increase.

Most applicants (72%) and half of other stakeholders (50%) do not support any revision to the minimum size of cities eligible to apply (currently 50,000 inhabitants). Amongst those favouring a change, there is a divergence of opinion. Some 38% of open survey respondents and 12% of applicants supported reducing the minimum size, whilst 16% of applicants and 12% of open survey respondents supported an increase.

Figure 63: Applicants' opinion on the minimum size of eligible cities (Applicant survey)

Should the minimum size of cities be revised? (currently 50,000 inhabitants)

- Increase minimum size of eligible cities
- No change
- Reduce minimum size of eligible cities
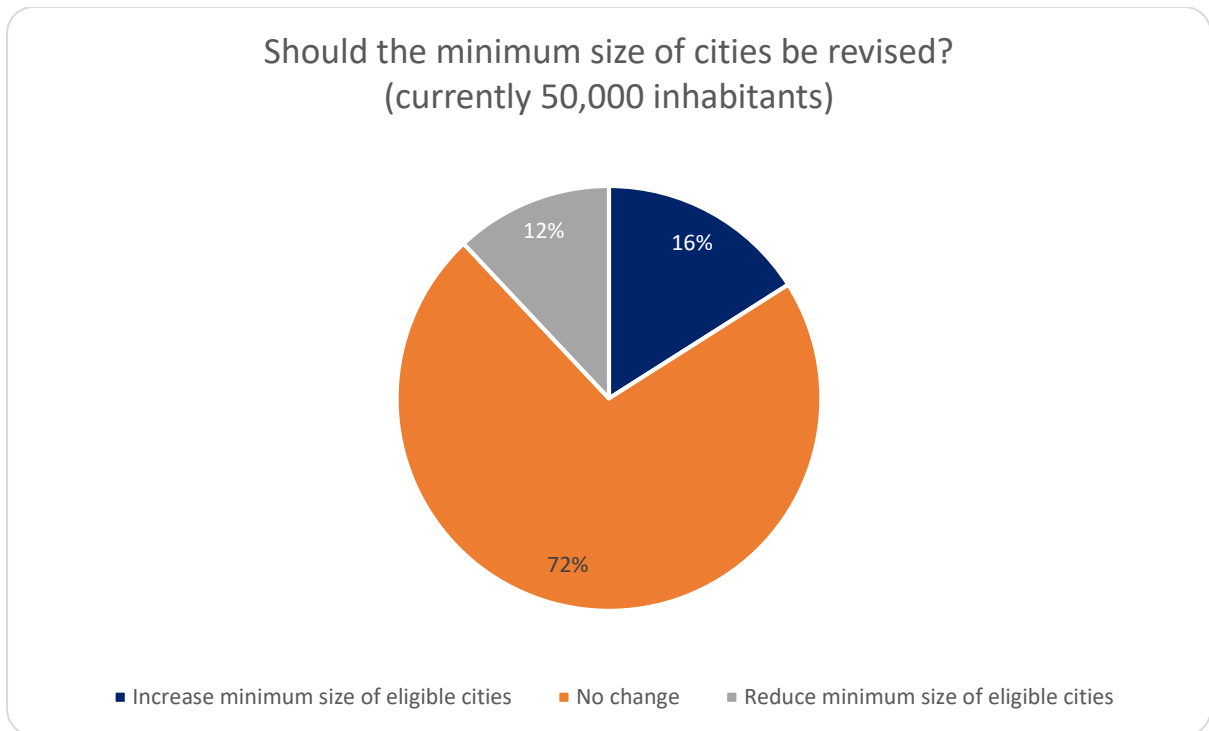
Source: Survey of UIA applicants

Figure 64: Stakeholders' opinion on the minimum size of eligible cities (Open survey)

Should the minimum size of cities be revised? (currently 50,000 inhabitants)

- Increase minimum size of eligible cities
- No change
- Reduce minimum size of eligible cities
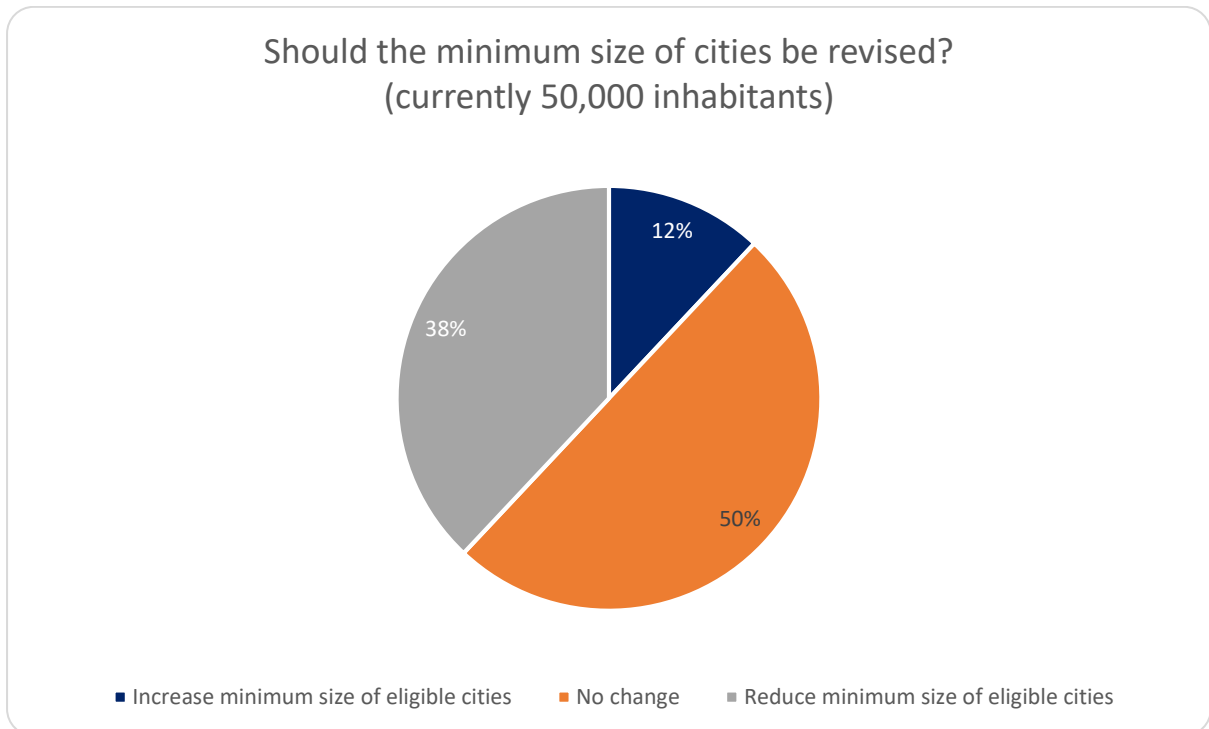
Source: UIA open survey

6.1.2 What should any future list of topics look like?

6.1.2.1 Length of topic list

Respondents to the closed survey of applicants and the open survey of other stakeholders were asked for their opinion on how long the list of topics should be in calls under any successor the UIA in 2021-27. Across both surveys, there was a consensus.

There is little support for shortening the list of topics covered by UIA calls. In both surveys, no more than 8% of respondents supported the options of either a shorter list or only one topic per call.

There is support for expanding the choice of topic available to cities. In both surveys, just short of half of respondents supported either lengthening the list or allowing cities a free choice of topic. Once "don't know" responses are removed, this becomes a majority amongst stakeholders responding to the open survey.

At the same time, retaining the same number of topics retains the support of a substantial minority of previous applicants and of other stakeholders. This option was the most popular individual option, being supported by 42% of applicants and 33% of open survey respondents.

Figure 65: Length of UIA topic list in 2021-27
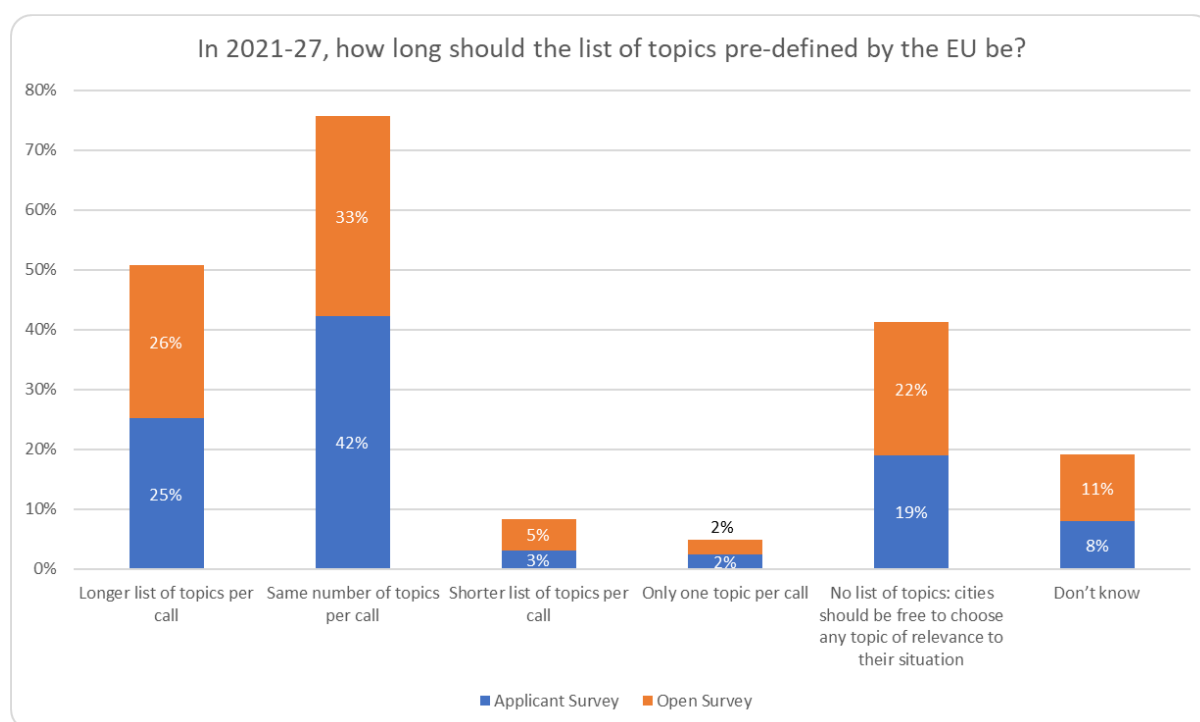
Source: Survey of UIA applicants and UIA open survey

6.1.2.2 Suggested topics

Survey respondents were invited to offer open comments on topics that should be supported in future. Again, respondents were free to suggest any topic, rather than choosing from a closed list, so the responses presented in this sub-section are not necessarily representative of the views of all respondents.

The most prevalent suggestions include:

- **Digital innovation** of processes including administrative processes and skills development (similar to the "Digital Transition" topic included in Calls 4 and 5) (seven responses).

- **Culture and cultural heritage** (previously included in Call 5) (four respondents).

- **Education** (without specifics) (two responses).

- **Urban food systems** including how to enhance local food production, increasing local food autonomy and improving food policies (five responses).

- **Healthy cities** in a holistic sense incorporating public health, economy and environment (three respondents), and health care (two responses).

- **Energy or environmental-related topics**, which are broadly similar to some of the current topics: nature-based solutions, energy efficiency, (all with two respondents) green economy, sustainability, emissions reduction, energy poverty (all with one response).

- **Civil protection**: emergency planning, pandemic response (one response each).

- **Tourism**: (two responses).

- **Other suggested topics mentioned**: elderly, telecoms, co-design and integrated approaches, brain drain, urban-rural relationships, (all with one response), education and training for people in deprived areas, attracting businesses to deprived areas and the role of the third sector and local associations (one Managing Authority response in each case).

6.1.2.3   Additional topics from the perspective of Cohesion Policy

MAs were asked whether new topics should be supported by the UIA from the perspective of i) future programmes (2021-27); and ii) priorities of new/revised sustainable urban strategies (2021-27). On these points, there was a divergence of views and some uncertainty.

Significantly more MAs favour keeping the same topics (44%) than favour adding new topics (29%) from the perspective of future programmes (2021-27). Once "Not applicable" and "Don't know" responses are removed, this becomes a majority of 60%.

About the same proportion of MAs favour keeping the same topics (37%) as favour adding new topics (35%) from the perspective of new/revised sustainable urban development strategies (2021-27). This may reflect different regional and national contexts, for example, around the extent to which the content of future SUD strategies and their respective programmes is already known.

Figure 66: MAs' opinions on support for new topics
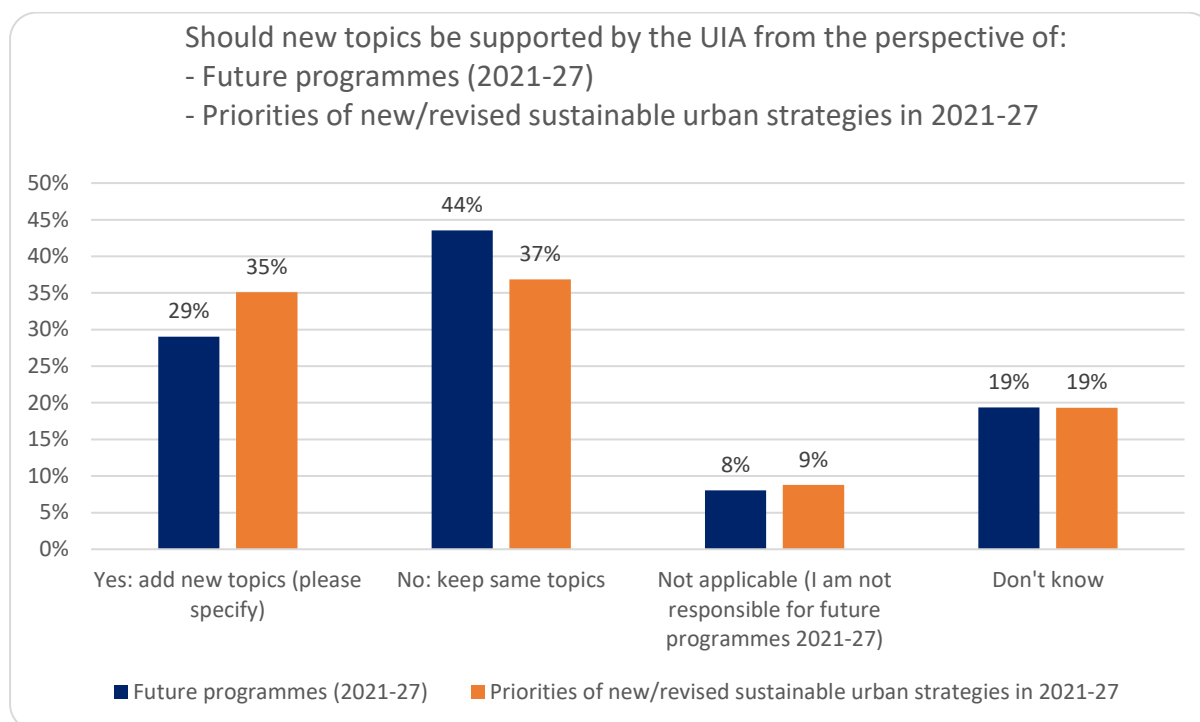
Source: UIA survey of MAs

6.2 Policy recommendations

6.2.1 What reforms could increase the added value of UIA for Cohesion Policy in the future?

There was strong support for all the policy recommendations that were offered regarding future actions to improve the added value for Cohesion Policy. A majority of respondents agreed with each recommendation within each survey and overall across all three surveys. Managing Authorities were less supportive than the respondents to the applicant survey or open survey, but a majority of MAs was nonetheless supportive of each recommendation. MAs were also least sure, with 12-24% responding "don't know" to each option.

Table 1: Stakeholders opinions on policy recommendations (all surveys)

Policy recommendation	Strongly Agree	Agree	Disagree	Strongly disagree	Don't know
Organise urban innovative actions calls for proposals by EU Cohesion policy objectives 2021-27	37%	44%	5%	1%	14%
Adapt urban innovative actions selection criteria to weight positively applicants linking the potential scaling up of their project once completed to funding possibilities under EU Cohesion Policy programmes	25%	49%	11%	2%	13%
Reinforce awareness-raising on urban innovative actions calls for	28%	53%	8%	1%	11%

Policy recommendation	Strongly Agree	Agree	Disagree	Strongly disagree	Don't know
proposals and projects via EU Cohesion Policy programmes channels					
Make knowledge transfer from UIA projects part of capacity building activities for cities and other entities benefiting from EU Cohesion Policy programmes	39%	46%	6%	0%	9%
Systematise the scaling-up and transfer of successful UIA projects with EU funding from Cohesion Policy programmes	37%	47%	5%	2%	9%

(n=524, 525, 525, 527, 523) *Source: Survey of UIA applicants, UIA open survey, UIA survey of MAs*

6.2.2 How can the added value of the UIA for Cohesion Policy be increased?

MAs are open to considering a range of policy recommendations to improve the added value of the UIA for Cohesion Policy in the future, including some that relate to the content of their operational programmes (OPs). The figures below shows that a majority of MAs supported all the options, although some 21-31% responded "don't know" to each option.

Table 2: MA opinions on policy recommendations

Policy recommendation	Strongly Agree	Agree	Disagree	Strongly disagree	Don't know
Reinforce awareness raising on UIA calls for proposals and projects via dedicated UIA national contact points	23%	47%	8%	2%	21%
Reinforce awareness raising on UIA calls for proposals and projects through systematic agenda points in programmes' Monitoring Committees	12%	41%	16%	0%	31%
Accommodate the content of 2021-27 programmes in a way to enable the funding of UIA projects' scaling up or replication	12%	46%	16%	2%	24%
Accommodate the content of 2021-27 programmes in a way to enable the funding of highly scored and thus high quality project proposals (not funded under UIA due to limited funding under the UIA calls, e.g. apply the "Seal of Excellence" quality label to UIA project proposals).	10%	44%	18%	4%	24%
Create incentives (e.g. bonus points) for the access to funding from EU Cohesion Policy programmes of UIA projects or	16%	36%	14%	4%	30%

Policy recommendation	Strongly Agree	Agree	Disagree	Strongly disagree	Don't know
well rated UIA project applications					

(n= 53, 49, 50, 50, 50). *Source: UIA survey of MAs*

6.3   Improvements

Respondents to the applicant survey were invited to offer open comments on how to improve the UIA in the future. Their responses included the following:

- National contact points for the UIA;
- More flexibility in the UIA rules, given the innovative nature of the projects;
- Stronger link to national programmes;
- Wider list of topics;
- Improve awareness of EU, national and regional policymakers, so that projects can be scaled up or replicated with mainstream Cohesion Policy funds or other funding;
- Better opportunities to get URBACT funding for scaling up.

*MAs offered open comm*ents, including the following:

- Integrate the UIA into normal ERDF programmes;
- link thematic calls under the UIA to the UAEU and the ERDF/ESF specific objectives;
- reward applicants supported by a national/regional body that will play a role in the dissemination of results or supported by a Managing Authority because it is a scaling-up of a project included in their own programme;
- send more information to Member States about the calls for proposals and about the results of projects;
- better coordination and communication with Member States.

Respondents to the open survey offered comments, including the following:

- Increase links to other EU initiatives and programmes, such as JPI Europe, Horizon, ESPON and URBACT; make more use of the URBACT National Contact Points to support the participation of cities in the UIA;
- Reinforce awareness and dissemination through the channels of the Cohesion Policy programmes;
- More webinars/events about how to apply in specific calls;
- Indicative timetable of the calls over the 2021-2027 period should be published;
- Transfer innovations to smaller cities that may not have the skills to apply for UIA;
- Improve incentives for MAs and Member States to adopt innovations into mainstream programmes.

ANNEX 8: ON-LINE SURVEY QUESTIONNAIRES

QUESTIONNAIRE FOR CLOSED SURVEY OF APPLICANTS

1. Information about the respondent

Question	Response
1. To enter the survey, you must express your agreement with the statement on data protection and privacy relating to this survey, which is available here. All survey data will be analysed anonymously and kept confidential. Your personal data will be kept only for the time necessary to fulfil the purpose of collection or further processing. We care about your data protection rights, so if you do not agree with the statement, you will exit the survey and no personal data will be collected.	• I AGREE with the statement on data protection and privacy relating to this survey • I DO NOT AGREE with the statement on data protection and privacy relating to this survey (EXIT SURVEY)
2. In what country is your organisation based?	• Austria • Belgium • Bulgaria • Croatia • Cyprus • Czech Republic • Denmark • Estonia • Finland • France • Germany • Greece • Hungary • Ireland • Italy • Latvia • Lithuania • Luxembourg • Malta • Netherlands • Poland • Portugal • Romania • Slovakia • Slovenia • Spain • Sweden • United Kingdom • Other (please state)
3. What city are you representing?	
4. To which calls did you apply? (see here for information on the calls) Please tick all that apply	• 1st call (Deadline 31/03/2016) • 2nd call (Deadline 14/04/2017) • 3rd call (Deadline 30/03/2018) • 4th call (Deadline 31/01/2019) • Did not apply to above calls

Question	Response
5. Thank you for your interest in this survey. This survey is only for applicants to the first four UIA calls for proposals. There is an open survey for non-applicants and others with an interest in the UIA. We would be pleased to receive your opinion via the open survey. Would you like to continue to the open survey?	• Yes – I would like to continue to the open survey • No – I would like to exit the survey
6. Aside from the UIA, is your organisation (as a local authority) benefiting from other projects/programmes funded by the EU? Please tick all that apply	• Article 7 (ERDF) • URBACT III • Other ERDF, ESF or Cohesion Fund programmes • Horizon 2020 • LIFE+ • CIVITAS • Not benefitting from other EU funding • Other EU funding (please state)
7. Please give the name (and if possible the CCI number) of the ERDF, ESF or Cohesion Fund programme(s) you are benefitting from.	

2. Topics, application and selection

Topics in UIA calls for proposals	
8. Overall, how relevant to your city are the topics addressed by the UIA?	• Very relevant • Fairly relevant • Slightly irrelevant • Very irrelevant • Don't know
9. Which of the topics addressed by the UIA are most relevant to your city?	• Urban poverty • Integration of migrants and refugees • Jobs and skills in the local economy • Energy transition • Circular economy • Urban mobility • Air quality • Adaptation to climate change • Housing • Digital transition • Sustainable use of land & nature-based solutions • Urban security
10. Are you familiar with the Urban Agenda for the EU (established by the "Pact of Amsterdam" in 2016)?	• Yes • No

Topics in UIA calls for proposals	
11. Did you know that UIA topics were aligned with those defined by the Urban Agenda for the EU?	• Yes • No
12. Did you find the descriptions of the topics (in the UIA calls you applied for) clear and useful to prepare your application?	• Yes • No • Don't know
13. Please explain why the descriptions of the topics was not clear and useful.	
14. What other topics would have been relevant to your city during the period when UIA calls were launched (2015-2019)?	
15. Are there additional topics where the EU should support cities to innovate in the future?	
16. In 2021-27, how long should the list of topics pre-defined by the EU be?	• Longer list of topics per call • Same number of topics per call • Shorter list of topics per call • Only one topic per call • No list of topics: cities should be free to choose any topic of relevance to their situation • Don't know
17. In your city, with which other programmes does the UIA demonstrate (or would have demonstrated if your application had been selected) most coherence and complementarity?	• Article 7 (ERDF) • URBACT III • Other ERDF, ESF or Cohesion Fund programmes • Horizon 2020 • LIFE+ • CIVITAS • None of the above • Don't know • International programmes /National programmes/Other (please specify)
18. Please explain how this coherence and/or complementarity between projects funded by different sources materialises in your city.	
19. In which way could other EU, national or international programmes be an inspiration to improve the UIA?	
Application process	
20. Please rate the following motivations in your decision to apply for UIA funding? • Relevance of the UIA topic for a local challenge your city is facing	• Most important reason • Very important • Slightly unimportant • Not important at all • Don't know

Topics in UIA calls for proposals	
• Shortage of other funding opportunities to address local challenges your city is facing • Opportunity to test ideas and innovate • Easy to apply • Opportunity to connect with other UIA projects addressing similar challenges • Opportunity to gain EU recognition for your city's urban innovation activities • Other (please state)	
21. How did your city first hear about the possibility to apply for UIA funding?	• UIA website • European Commission website • Applicant seminar (organised by the UIA Secretariat) • European Week of Regions and Cities • Urban Development Network workshop • EU-level body/network • National organisation • Local partner • Newsletter of the UIA Secretariat • Other newsletter (please specify in the box below) • Other (please specify in the box below)
22. How could the UIA calls for proposals be better promoted to possible applicants?	
23. How helpful was the support provided to applicants? • UIA guidance for applicants • Description of each topic in the calls for proposals • Applicants seminars • Online Q&A sessions and support • Face-to-face meeting with UIA Secretariat (during applicants seminars) • Face-to-face meeting with European Commission experts (during applicants seminars) • Other (Please state)	• Very helpful • Fairly helpful • Slightly unhelpful • Very unhelpful • Don't know
24. Did you find the application rules clear?	• Yes • No • Don't know
25. How easy was it to fill in the application form?	• Very easy • Fairly easy • Fairly difficult • Very difficult • Don't know
26. How easy was it to comply with the following rules at the application stage? (See the Guidance)	• Very easy • Fairly easy • Fairly difficult • Very difficult • Don't know

Topics in UIA calls for proposals	
• Criteria relating to eligible authorities (Section 1.4 of the Guidance) • Partnership requirements (Section 2.1 of the Guidance) • Workplan requirements (Section 2.2 of the Guidance) • Budgeting requirements (Section 4.2 of the Guidance) • Rules related to revenue (Section 4.5 of the Guidance) • Requirements for partner contributions (Section 4.5 of the Guidance) • Rules related to in-kind contributions (Section 4.5 of the Guidance)	
27. Was the time period for submitting applications sufficient?	• Yes • No • Don't know
28. How could the UIA application process be simplified?	

3. Selection process

Selection process	
29. How clear and relevant are the strategic assessment criteria and their weight? (section 3.2.2 of the [Guidance](#)) • Innovativeness (40%) • Partnership (15%) • Measurability of results and outputs (15%) • Transferability and scaling up (10%)	• Very clear and relevant • Clear and relevant • Slightly unclear and irrelevant • Very unclear and irrelevant • Don't know
30. How pertinent are the operational assessment criteria? (section 3.2.3 of the guidance) • Quality of workplan • Quality of management structures and procedures • Value for money • Coherence and proportionality of budget • Communication activities	• Very clear and relevant • Clear and relevant • Slightly unclear and irrelevant • Very unclear and irrelevant • Don't know
31. Are the relative weights given to strategic (80%) and operational (20%) assessments appropriate?	• Yes • No: too much given to strategic assessment • No: too much given to operational assessment • Don't know

Selection process	
32. Is the sequencing between strategic and operational assessment well understood as two different steps?	• Yes - very clear • Fairly clear • Slightly unclear • Very unclear • Don't know
33. When were you notified of the assessment on your application?	• After eligibility checks (project was not eligible). • After the strategic assessment (project was not short listed). • After the operational assessment (project was not selected). • At the end of the selection procedure (the project was selected).
34. How helpful was the feedback you received on your application?	• Very helpful • Fairly helpful • Slightly unhelpful • Very unhelpful • Don't know
35. Did you submit a complaint? (Section 3.3 of the Guidance)	• Yes, we submitted a complaint • No, we were satisfied with the feedback • No, we did not see any point in submitting a complaint • No, we did not understand the complaints process • No, we were unaware of the possibility to complain • Other (please specify)
36. Was the feedback on your complaint useful?	• Yes • No (please explain) • Don't know
37. Did you request additional feedback on your application and was it useful?	• Additional feedback was useful • Additional feedback was NOT useful • Did not seek additional feedback • Don't know
38. How transparent was the selection procedure overall? Please elaborate further on your response if you wish to do so.	• Very transparent • Fairly transparent • Fairly opaque • Very opaque • Don't know
39. What is your assessment of the length of the selection procedure?	• Not too long • Slightly too long • Far too long • Don't know
40. What elements of the application and selection process could be improved?	• Strategic assessment criteria and/or their weight • Operational assessment criteria and/or their weight • Sequencing between the strategic and operational assessments • Scoring system

Selection process	
	• Communication with applicants (e.g. notification of results) • Other (please state)
41. Please explain how the application and selection process could be improved	

4. Outcome of applications

Question	Response
42. Were any of your application(s) to the Urban Innovative Actions successful?	• Yes • No
43. Please state the name of your UIA project.	
44. Did you implement any of the activities from your application(s) without UIA funding?	• All activities • Most activities • Some activities • No activities • Don't know
45. What funding did you use to implement those activities? Please tick all that apply.	• Article 7 (ERDF) • URBACT III • Other ERDF, ESF or Cohesion Fund programmes • Horizon 2020 • LIFE+ • CIVITAS • Our own resources • Other local, regional or national funding • Don't know • Other (please state)
46. Please give the name (and if possible the CCI number) of the programme(s) in question.	

5. Initiation phase (Section 6.1 of the guidance document)

Question	Response
47. Were you ready to start implementing your project once you learnt it was selected?	• Yes • No • Don't know
48. When did you start implementing core activities?	• Once approval of the project notified • During the initiation phase

Question	Response
	• We were ready but preferred to wait until the signature of the subsidy contract by security • After the signature of the subsidy contract (we were not ready before). • Don't know
49. Have you encountered issues during project implementation that were not anticipated in the initiation phase?	• Yes - major issues • Yes – minor issues • No issues that were not anticipated • Don't know
Please comment on your response	
50. Were you able to properly inform your project beneficiaries about their roles, implementation rules and challenges thereof?	• Fully • Mostly • Slightly • Not at all • Don't know
51. What was the most helpful element during the initiation phase?	• Revision of the Application Form • Compulsory UIA training seminar (organised by the UIA Secretariat) • Initiation meeting with the UIA Secretariat • Development of the Monitoring Plan • Development of the Partnership Agreement • Ex-ante audit • Other (please state)
Please explain	
52. What was the most burdensome element during the initiation phase?	• Revision of the Application Form • Compulsory UIA training seminar (organised by the UIA Secretariat) • Initiation meeting with the UIA Secretariat • Development of the Monitoring Plan • Development of the Partnership Agreement • Ex-ante audit • Other (please state)
Please explain	
53. Was the initiation phase (6-months) the right length of time?	• Too short • About right • Too long • Don't know
Please explain	
54. Did your project change during the initiation phase?	• Yes – fundamentally • Yes – slightly • No
55. What was the main outcome of the initiation phase?	• Project design was improved and project partnership was better prepared • Project design was improved

Question	Response
	• Project partnership was better prepared • No added value, except that the necessary administrative steps were taken • Excessive administrative burden and no added value • Don't know
56. Overall, how heavy was the administrative burden of the initiation phase?	• Very light • Light • Slightly excessive • Very excessive • Don't know
57. How could the initiation phase be improved?	

6. Implementation

Question	Response
58. Was/is your project being implemented according to the plan?	• Fully • Mostly • Slightly different to the plan • Very different to the plan
59. Did you request a major change to your project?	• Yes – request(s) approved • Yes – request(s) declined • Yes – waiting for decision • No
60. What would you say about the impact of these major change(s) on your project?	• Change(s) allowed to increase the level of ambition/ innovativeness • Change was necessary to keep the project at the planned level of ambition/innovativeness • Change was necessary to keep the project at an acceptable level of ambition/innovativeness • Change was necessary to allow the project to be completed with reduced ambition/innovativeness • None of the above (Please specify)
61. Was/will your project be completed on time?	• Ahead of schedule • On schedule • Slightly behind schedule • Far behind schedule • Too early to say
62. What has been most challenging during implementation?	• Public procurement • Construction works • Recruiting/retaining staff • Engaging partners • Engaging target groups • Communications

Question	Response
	• Complying with rules linked to UIA funding • Complying with rules linked to non-EU co-financing • Adapting to changing circumstances • Other (please specify)
63. Please explain the main challenge(s) and the reasons for being ahead of or behind schedule.	
64. To what extent have the UIA rules been helpful for the implementation of your projects? • 50% advance payment of ERDF • Simplified rules on State Aids • 20% Budget flexibility • Simplified cost options (flat rates, lump sums) for certain categories of expenditure • Possibility to make project changes • Other (please specify)	• Very helpful • Fairly helpful • Slightly unhelpful • Very unhelpful • Don't know
65. To what extent have the following UIA requirements proved burdensome? • Annual Progress Reports • Financial Claims • Milestones Reviews • Site visits by the Secretariat • Ad hoc meetings with the Secretariat • Audit checks and/or visits • Other (please specify)	• Very burdensome • Slightly burdensome • Not burdensome at all • Don't know
66. How helpful has the following support been? • Assistance from UIA Experts • Assistance and monitoring from UIA Secretariat • Contact and networking with other UIA projects • Other (please specify)	• Very helpful • Fairly helpful • Slightly unhelpful • Very unhelpful • Don't know
67. Is the funding from the ERDF received under the UIA sufficient to achieve your objectives?	• More than sufficient • Sufficient • Slightly insufficient • Very insufficient • Don't know

7. Sustainability

Question	Response
68. Will your project activities continue beyond the period of UIA funding?	• All activities will continue • Most activities will continue • Some activities will continue • No activities will continue

Question	Response
	• Too early to say • Don't know
69. Will the experience of your project be scaled up in your city, region or country?	• Yes • No • Too early to say • Don't know
70. If yes, with which funds?	• Article 7 (ERDF) • Other ERDF, ESF or Cohesion Fund programmes • Own resources • Other local, regional or national funding • Other (please specify) • Don't know yet
71. What is the indicative budget foreseen for scaling-up the project? (EURO)	

8. Knowledge transfer

Question	Response
72. Do you agree that knowledge transfer is key to the success of your project?	• Strongly agree • Agree • Disagree • Strongly disagree
73. Who should benefit most from the knowledge generated by your project?	• Any interested city • Other cities in your region or country • Cities in other countries • Beneficiaries of Cohesion Policy in your region or country • Beneficiaries of Cohesion Policy in other countries • National/regional policymakers • EU policymakers • Other (please specify)
74. Under which call did you receive UIA funding?	• 1st call (Deadline 31/03/2016) • 2nd call (Deadline 14/04/2017) • 3rd call (Deadline 30/03/2018) • 4th call (Deadline 31/01/2019)
75. Do you have a clear plan for knowledge transfer?	• Yes • Not yet but will have • No
76. How far has the knowledge transfer plan been implemented?	• Fully • Partly • Not started yet
77. What are/were the main activities in your knowledge transfer plan? Please tick all that apply.	• Websites • Publications • Organising events • Presentations to events • Peer-to-peer activities • Other (please state)

Question	Response
78. What are the main obstacles to the transfer of your UIA experience and/or replicability of your project elsewhere in Europe? Please select up to three main obstacles.	• Lack of mechanisms to transfer knowledge (methods, guidelines, frame to organise it with other cities) • Lack of experience in knowledge transfer • Insufficient funding under the UIA to transfer knowledge • Insufficient time and resources to transfer knowledge • Unclear who are/should be the target audiences/cities • Target audiences/cities not receptive • Limited motivation amongst project partners to transfer knowledge to other cities • Differences in terms of institutional, legal and financial environments across the EU • Our project is unique and hardly replicable outside of local context • No obstacles faced • Other (specify)
79. To what extent has knowledge been transferred from your project to: • Other actors in your city • Other actors in your region • Other cities in your country • Cities in other countries	• To a great extent • To some extent • To a small extent • Not at all • Don't know
Please explain your response or provide examples.	

9. EU added value

Question	Response
80. Would your UIA project activities have been implemented without EU funding?	• All activities • Most activities • Some activities • No activities • Don't know
81. Has EU funding been the main source of funding for your UIA project?	• Yes • No
82. What has been the main benefit from being part of an EU initiative?	• EU funding provided the opportunity to test new ideas • EU funding helped attract other co-financing • Learning from other UIA projects • Gaining EU recognition for your city's urban innovation activities • Other (please state)

Question	Response
83. Please specify any unintended effects from participating in a UIA project.	
84. Would you like to comment on the added value offered by EU funding for your UIA project?	

10. UIA projects across the EU

Question	Response
85. How visible is the UIA initiative to urban actors across the EU?	• Very visible • Fairly visible • Not visible at all • Don't know
86. How could the visibility of the UIA initiative and UIA projects be improved?	
87. Are you aware of UIA projects across the EU?	• Yes • No
88. Would you say that UIA projects (in general, across the EU) are innovative?	• Very innovative • Fairly innovative • Slightly innovative • Not innovative at all • Don't know
89. Would you say that the UIA projects (in general across the EU) have a good chance to find new solutions to urban challenges?	• Very good chance • Good chance • Low chance • Not chance at all • Don't know
90. In general across the EU, to what extent are the innovations tested by UIA projects likely to be scaled up in the same city or region once completed?	• To a great extent • To a reasonable extent • To a modest extent • Not at all • Don't know
91. In general across the EU, to what extent are the innovations tested by UIA projects likely to be replicated in other territories: • In the same country • In other countries	• To a great extent • To a reasonable extent • To a modest extent • Not at all • Don't know
92. Would you be interested in replicating a successful UIA project from elsewhere in your city?	• Yes (if the innovations are relevant to our situation) • No • Don't know
93. What funding might you use to replicate a successful UIA project from elsewhere in your city? Please tick all that apply.	• Article 7 (ERDF) • URBACT III • Other ERDF, ESF or Cohesion Fund programmes • Horizon 2020 • LIFE+ • CIVITAS

Question	Response
	• Our own resources • Other local, regional or national funding • Don't know • Other (please specify)
94. What would be the main obstacles to replicating a successful UIA project from elsewhere in your city? Please select the two main obstacles.	• UIA projects are unique and hardly replicable outside of local context • UIA projects from elsewhere are unlikely to be relevant to our city • Replication looks too complicated • Lack of mechanisms to transfer knowledge (methods, guidelines, frame to organise it with other cities) • Lack of funding to replicate successful innovations tested by UIA projects • Lack of capacity to replicate successful innovations tested by UIA projects • We would not be interested in replicating a UIA project from elsewhere • Differences in terms of institutional, legal and financial environments across the EU • No obstacles • Don't know • Other (please state)

11. Policy recommendations

Question	Response
95. Should the UIA initiative be repeated after 2020 in the same format?	• Yes – in the same format • No – in a different format • Don't know
96. How could the UIA initiative be improved? Please tick all that apply.	• Longer time to prepare applications • Increase minimum size of cities eligible to apply (> 50,000 inhabitants) • Reduce minimum size of cities eligible to apply (< 50,000 inhabitants) • Support fewer projects but increase maximum funding per project (currently €5m) • Support more projects but reduce maximum funding per project (currently €5m) • Discontinue the initiation phase • Increase time for implementation (currently 3-4 years) • Reduce time for implementation (currently 3-4 years) • Increase funding for knowledge transfer • Decrease funding for knowledge transfer • Increase time for knowledge transfer (currently 1 year) • Reduce time for knowledge transfer (currently 1 year)

Question	Response
	• No improvements needed • Other (please state)
97. Should the testing of innovative solutions remain the central objective of the UIA in the future?	• Yes • No, UIA should also be about scaling up successful experimentations; • No, UIA should also be about replicating successful experimentations in other cities • No, other (specify) • Don't know
98. What could be done to improve the added value of urban innovative actions for EU Cohesion Policy in the future? • Organise urban innovative actions calls for proposals by EU Cohesion policy objectives 2021-27 • Adapt urban innovative actions selection criteria to weight positively applicants linking the potential scaling up of their project once completed to funding possibilities under EU Cohesion policy programmes • Reinforce awareness-raising on urban innovative actions calls for proposals and projects via EU Cohesion Policy programmes channels • Make knowledge transfer from UIA projects part of capacity building activities for cities and other entities benefiting from EU Cohesion Policy programmes • Systematise the scaling-up and replication of successful UIA projects with EU funding from Cohesion Policy programmes	• Strongly agree • Agree • Disagree • Strongly disagree • Don't know
99. Please offer any comments on the future of the UIA and how it could be improved.	
100. Would you be happy to participate in a telephone interview to discuss your opinion of the UIA in more detail? If so, please provide your email address.	

QUESTIONNAIRE FOR SURVEY OF MANAGING AUTHORITIES

1. Information about the respondent

Question	Response
1. To enter the survey, you must express your agreement with the statement on data protection and privacy relating to this survey, which is available here. All survey data will be analysed anonymously and kept confidential. Your personal data will be kept for the time necessary to fulfil the purpose of collection or further processing. We care about data protection rights, so if you do not agree with the statement, you will exit the survey and no personal data will be collected.	• I AGREE with the statement on data protection and privacy relating to this survey • I DO NOT AGREE with the statement on data protection and privacy relating to this survey (EXIT SURVEY)
2. In what country is your organisation based?	• Austria • Belgium • Bulgaria • Croatia • Cyprus • Czech Republic • Denmark • Estonia • Finland • France • Germany • Greece • Hungary • Ireland • Italy • Latvia • Lithuania • Luxembourg • Malta • Netherlands • Poland • Portugal • Romania • Slovakia • Slovenia • Spain • Sweden • United Kingdom
3. What is the name of your organisation?	
4. Please provide the name(s) and CCI number(s) of the programme(s) you are responsible for.	

2. Relevance of UIA topics to your programme(s)

Question	Response	Note to survey manager
5. To what extent are you familiar with the UIA?	• Very familiar • Fairly familiar • Slightly familiar • Not at all	Only one response possible
6. Overall, how consistent are the topics addressed by the UIA with the priorities of your programme(s)?	• Very consistent • Fairly consistent • Slightly consistent • Not consistent at all • Don't know	Mandatory question Only one response possible
7. Which of the topic(s) addressed by the UIA are most consistent with the priorities of your programme(s)? Please tick the most consistent topic(s).	• Urban poverty • Integration of migrants and refugees • Jobs and skills in the local economy • Energy transition • Circular economy • Urban mobility • Air quality • Adaptation to climate change • Housing • Digital transition • Sustainable use of land & nature-based solutions • Urban security	Mandatory question Multiple responses possible
8. Overall, how consistent are the topics addressed by the UIA with sustainable urban development strategies (ERDF Article 7) supported by your programme(s)?	• Very consistent • Fairly consistent • Slightly consistent • Not consistent at all • Not applicable • Don't know	All respondents Only one response possible
9. Which of the topics addressed by the UIA are most consistent with sustainable urban development strategies (ERDF Article 7) supported by your programme(s)? Please tick the most consistent topic(s).	• Urban poverty • Integration of migrants and refugees • Jobs and skills in the local economy • Energy transition • Circular economy • Urban mobility • Air quality • Adaptation to climate change • Housing • Digital transition • Sustainable use of land & nature-based solutions • Urban security	Mandatory question Multiple responses possible
10. What other topics would have been relevant during the period when UIA calls were launched (2015-2019) from the perspective of your		Optional question Text box response

Question	Response	Note to survey manager
programme(s) or sustainable urban strategies supported by it?		
11. Should new topics be supported by Urban Innovative Actions from the perspective of: • Future programmes (2021-27) • Priorities of new/revised sustainable urban strategies in 2021-27	• Yes: add new topics (please specify) • No: keep same topics • Not applicable (I am not responsible for future programmes 2021-27) • Don't know	Grid matrix allowing separate response for each option Only one response possible for each bullet Text box for "Yes: add new topics"
If answered yes above, please specify new topics here:		Optional question Text box response

3. UIA projects in the territory covered by your programme(s)

Question	Response
12. How many UIA projects are being implemented in the territory covered by your programme(s)?	• 3 or more • 2 • 1 • 0 • Don't know
13. Are you aware of the purpose and content of UIA project(s) implemented in the territory covered by your programme(s)?	• Yes • No
14. Would you say that the UIA projects in the territory covered by your programme(s) are innovative?	• Very innovative • Fairly innovative • Slightly innovative • Not innovative at all • Don't know
15. Would you say that UIA projects in the territory covered by your programme(s) have a good chance to find new solutions to urban challenges?	• Very good chance • Good chance • Low chance • No chance at all • Don't know
16. To what extent have these UIA projects complemented interventions within sustainable urban development strategies (ERDF Article 7)supported by your programme(s)?	• To a great extent • To a reasonable extent • To a modest extent • Not at all • Don't know
17. Would you consider providing incentives/funding in your	• Yes: we are planning it • Maybe, we would consider it

Question	Response
programme(s) to scale up successful UIA projects implemented in the territory covered by your programme(s)?	• Too early to say • No • Don't know
18. What could be the obstacles to scaling up successful UIA projects with funding from your programme(s)?	

4. UIA added value

Supporting unsuccessful UIA applications with funding from your programme(s)

Question	Response
19. Did any unsuccessful applicants to the UIA seek funding for their projects from your programme(s)?	• Yes • No • Don't know
20. How many unsuccessful UIA applications have been or are planned to be funded by your programme(s)?	• 3 or more • 2 • 1 • 0
21. Please specify which UIA application(s) have been funded/are planned to be funded and the budget(s) allocated under your programme(s).	
22. What were the main reasons for not funding such projects?	• Proposed activities were not eligible under our programme(s) • Application(s) were not of sufficient quality • Insufficient funding under the programme(s) • Other (please specify)
23. Would you envisage funding under your programme(s) project proposals that were highly rated in the UIA application process but not selected for UIA funding (due to limited funding under the UIA call)?	• Yes – for projects fitting with the purpose of our programme(s) • Maybe - subject to conditions applicable to any project under our programme • No • Don't know
24. What would be the main obstacles to funding such projects under your programme(s) ?	

UIA projects across the EU

Question	Response
25. How visible is the UIA initiative to urban actors across the EU?	• Very visible • Fairly visible • Not visible at all • Don't know
26. How could the visibility of the UIA initiative and UIA projects be improved?	
27. Are you aware of UIA projects elsewhere in the EU (i.e. in other countries than yours)?	• Yes • No
28. Would you say that UIA projects (in general, across the EU) are innovative?	• Very innovative • Fairly Innovative • Slightly innovative • Not innovative at all • Don't know
29. Would you say that the UIA projects (in general across the EU) have a good chance to find new solutions to urban challenges?	• Very good chance • Good chance • Low chance • Not chance at all • Don't know
30. In general across the EU, to what extent are the innovations tested by UIA projects likely to be scaled up in the same city or region once completed?	• To a great extent • To a reasonable extent • To a modest extent • Not at all • Don't know
31. In general across the EU, to what extent are the innovations tested by UIA projects likely to be replicated in other territories: • In the same country • In other countries	• To a great extent • To a reasonable extent • To a modest extent • Not at all • Don't know
32. Would you consider providing incentives/funding in your programme(s) to replicate successful UIA projects from elsewhere with funding from your programme(s)?	• Yes: we are planning it • Maybe, we would consider it • Too early to say • No • Don't know
33. What could be the obstacles to supporting replication with funding from your programme(s)?	
34. In general, across the EU, what would be the main obstacles to the replication of successful innovations tested by UIA projects? Please select up to two main obstacles.	• UIA projects are unique and hardly replicable outside of local context • Replication looks too complicated • Lack of mechanisms to transfer knowledge (methods, guidelines, frame to organise it with other cities) • Lack of funding to replicate successful innovations tested by UIA projects

Question	Response
	• Lack of capacity to replicate successful innovations tested by UIA projects • Cities would not be interested in replicating a UIA project from elsewhere • Differences in terms of institutional, legal and financial environments across the EU • No obstacles • Don't know • Other (please specify)

Support for capacity-building and knowledge transfer

Question	Response
35. As a Managing Authority, did you organise activities on capacity building or knowledge transfer including UIA project best practices for ERDF Article 7 cities or other beneficiaries of your programme(s) (e.g. awareness raising, peer-to-peer exchanges, seminars, other technical assistance activity)?	• Yes • No • Don't know
36. Please describe those activities.	
37. Would you consider organising such capacity building or knowledge transfer activities including UIA project best practices systematically in the future (2021-27)? For example, with support from the European Urban Initiative 2021-27	• Yes • Perhaps (e.g. with support from the EUI) • No • Don't know
38. What would be the obstacles to organising such activities?	

5. Policy recommendations

Question	Response
39. Should the UIA initiative be repeated after 2020 in the same format?	• Yes – in the same format • No – in a different format • Don't know
40. Should the testing of innovative solutions remain the central objective of the UIA in the future?	• Yes • No, UIA should also be about scaling up successful experimentations; • No, UIA should also be about replicating successful experimentations in other cities • No, other (please specify) • Don't know
41. What could be done to improve the added value of urban innovative actions for EU Cohesion policy in the future? • Organise urban innovative actions calls for proposals by <u>EU Cohesion policy objectives 2021-27</u> • Adapt urban innovative actions selection criteria to weight positively applicants linking the potential scaling up of their project once completed to funding possibilities under EU Cohesion policy programmes • Reinforce awareness-raising on urban innovative actions calls for proposals and projects via EU Cohesion Policy programmes channels • Make knowledge transfer from UIA projects part of capacity building activities for cities and other entities benefiting from EU Cohesion Policy programmes • Systematise the scaling-up and replication of successful UIA projects with EU funding from Cohesion Policy programmes	• Strongly agree • Agree • Disagree • Strongly disagree • Don't know
42. Should the following actions be taken to improve the added value of urban innovative actions for EU Cohesion Policy in the future? • Reinforce awareness raising on UIA calls for proposals and projects via dedicated UIA national contact points • Reinforce awareness raising on UIA calls for proposals and projects through systematic agenda points in programmes' Monitoring Committees	• Strongly agree • Agree • Disagree • Strongly disagree • Don't know

Question	Response
• Accommodate the content of 2021-27 programmes in a way to enable the funding of UIA projects' scaling up or replication • Accommodate the content of 2021-27 programmes in a way to enable the funding of highly scored and thus high quality project proposals (not funded under UIA due to limited funding under the UIA calls, e.g. apply the "Seal of Excellence" quality label to UIA project proposals) • Create incentives (e.g. bonus points) for the access to funding from EU Cohesion Policy programmes of UIA projects or well rated UIA project applications	
43. Please offer any comments on the future of the UIA and how it could be improved.	
44. Would you be happy to participate in a telephone interview to discuss your opinion of the UIA in more detail? If so, please provide your email address.	
Thank you for your participation in the survey. Your input will help us produce a well-informed UIA assessment study scheduled to be published in Autumn 2020.	

QUESTIONNAIRE FOR OPEN SURVEY

1. Information about the respondent

Question	Response
45. To enter the survey, you must express your agreement with the statement on data protection and privacy relating to this survey, which is available here. All survey data will be analysed anonymously and kept confidential. Your personal data will be kept for the time necessary to fulfil the purpose of collection or further processing. We care about your data protection rights. If you do not agree with the statement, you will exit the survey and no personal data will be collected.	• I AGREE with the statement on data protection and privacy relating to this survey • I DO NOT AGREE with the statement on data protection and privacy relating to this survey (EXIT SURVEY)
46. In what country are you based?	• Austria • Belgium • Bulgaria • Croatia • Cyprus • Czech Republic • Denmark • Estonia • Finland • France • Germany • Greece • Hungary • Ireland • Italy • Latvia • Lithuania • Luxembourg • Malta • Netherlands • Poland • Portugal • Romania • Slovakia • Slovenia • Spain • Sweden • United Kingdom • Other (please state)
47. What is the name of your organisation?	

Question	Response
48. What kind of organisation are you?	• International organisation • European Commission • Other EU institution • EU-level association or network • Managing Authority for ERDF, ESF and/or CF programme(s) • National ministry or public entity • National, regional association or network • Regional authority or public entity • Local authority or municipality • Education or research institution • Non-governmental organisation • Private enterprise • Individual person • Other (please state)
Thank you for your interest in this survey. There is a dedicated survey for Managing Authorities responsible for Cohesion Policy programmes. To continue to the survey of Managing Authorities, please click here. To exit the survey, click "Next" below.	

2. Decision to apply to the UIA (Local authority or municipality)

Question	Response
49. As a local authority, have you previously applied to the UIA?	• Yes • No • Don't know
50. Was your application successful?	• Yes • No • Don't know
51. Please give the name of your UIA project.	
52. As a local authority, have you considered submitting a UIA project application but chosen not to?	• Yes • No • Don't know
53. Why did you choose not to apply.	• City not eligible (<50,000 inhabitants) • Topics not relevant for my city

Question	Response
Please select all that apply	- Not ready to apply when heard about the call - Could not form a partnership - Lack of co-financing (to complement EU funding) - Lack of capacity to submit an application - Administrative burden associated with EU funding - Perceived low chance of success - EU funding too small (< 5 M€) - Other (please state)
54. Please explain your response	
55. Is your organisation (as a local authority) benefiting from other projects/programmes funded by the EU? Please tick all that apply	- Article 7 (ERDF) - URBACT III - Other ERDF, ESF or Cohesion Fund programmes - Horizon 2020 - LIFE+ - CIVITAS - Other EU funding (please state) - Not benefitting from other EU funding.
56. Please give the name and (if possible the CCI number) of the ERDF, ESF or Cohesion Fund programme(s) you are benefitting from.	

3. Knowledge transfer and replication (Local authority or municipality)

Question	Response
57. As a local authority, would you be interested to learn from the experience of UIA projects implemented? • In your country • In other countries	- Yes – definitely - Yes – if the projects are relevant to our situation - No - Don't know
58. As a local authority, would you be interested to replicate successful innovations tested by UIA projects?	- Yes – if the innovations are relevant to our situation - No - Don't know
59. What funding might you use to replicate a successful UIA project in your city? Please tick all that apply.	- Article 7 (ERDF) - URBACT III - Other ERDF, ESF or Cohesion Fund programmes - Horizon 2020

Question	Response
	• LIFE+ • CIVITAS • Our own resources • Other local, regional or national funding • Don't know • Other (please state)
60. As a local authority, have you already learned from or replicated successful innovations tested by UIA projects?	• Yes • No • Don't know
61. Please provide further details	
62. What could help your organisation to replicate successful innovations tested by UIA projects?	
63. What would be the main obstacles to replicating a successful UIA project in your city? Please select the two main obstacles.	• UIA projects are unique and hardly replicable outside of local context • UIA projects from elsewhere are unlikely to be relevant to our city • Replication looks too complicated • Lack of mechanisms to transfer knowledge (methods, guidelines, frame to organise it with other cities) • Lack of funding to replicate successful innovations tested by UIA projects • Lack of capacity to replicate successful innovations tested by UIA projects • We would not be interested in replicating a UIA project from elsewhere • Differences in terms of institutional, legal and financial environments across the EU • No obstacles • Don't know • Other (please state)

4. Knowledge transfer and replication (Regional/National)

Question	Response
64. As a national or regional body, would you consider providing support to scale up or replicate (in your region or country) any successful UIA projects?	• Yes – if the innovations are relevant to our situation • No • Don't know
65. What funding might you use to support the scaling up or replication of a successful UIA project from elsewhere in your region or country? Please tick all that apply.	• ERDF, ESF or Cohesion Fund programmes • Our own resources • Other regional or national funding • Other (please specify) • Don't know

Question	Response
66. As a national or regional body, have you already learned from or scaled up or replicated successful innovations tested by UIA projects (in your country or elsewhere)?	• Yes • No • Don't know
67. Please provide further details	
68. What could help your organisation to support the replication (in your region or country) of successful UIA projects from other countries?	
69. What would be the main obstacle to the replication of successful innovations tested by UIA projects? Please select up to two main obstacles.	• UIA projects are unique and hardly replicable outside of local context • Replication looks too complicated • Lack of mechanisms to transfer knowledge (methods, guidelines, frame to organise it with other cities) • Lack of funding to replicate successful innovations tested by UIA project • Lack of capacity to replicate successful innovations tested by UIA projects • Cities would not be interested in replicating a UIA project from elsewhere • Differences in terms of institutional, legal and financial environments across the EU • No obstacles • Other (please specify) • Don't know

5. UIA projects in your country

Question	Response
70. Are you aware of any UIA projects implemented in your country?	• Yes, there is/are UIA project(s) • No, there is no UIA project • Not aware if there is a UIA project
71. To what extent have UIA projects in your country complemented other urban development interventions?	• To a great extent • To a reasonable extent • To a modest extent • Not at all • Don't know
Please provide further details if you wish.	
72. Would you say that the UIA projects in your country are innovative?	• Very innovative • Fairly Innovative • Slightly innovative

Question	Response
	• Not innovative at all • Don't know
73. Would you say that UIA projects in your country have a good chance to find new solutions to urban challenges?	• Very good chance • Good chance • Low chance • Not chance at all • Don't know
74. Please offer any comments about the effectiveness of UIA projects in your country.	

6. UIA projects across the EU

Question	Response
75. How visible is the UIA initiative and UIA projects to urban actors across the EU?	• Very visible • Fairly visible • Not visible at all • Don't know
76. How could the visibility of the UIA initiative and UIA projects be improved?	
77. Are you aware of UIA projects in general across the EU (i.e. also in other countries than yours)?	• Yes • No
78. Would you say that UIA projects (in general, across the EU) are innovative?	• Very innovative • Fairly Innovative • Slightly innovative • Not innovative at all • Don't know
79. Would you say that the UIA projects (in general, across the EU) have a good chance to find new solutions to urban challenges?	• Very good chance • Good chance • Low chance • Not chance at all • Don't know
80. In general across the EU, to what extent are the innovations tested by UIA projects likely to be scaled up in the same city or region once completed?	• To a great extent • To a reasonable extent • To a modest extent • Not at all • Don't know
81. In general across the EU, to what extent are the innovations tested by UIA projects likely to be replicated in other territories: • In the same country • In other countries	• To a great extent • To a reasonable extent • To a modest extent • Not at all • Don't know
82. Please offer any comments about the effectiveness of UIA projects across the EU.	

7. Relevance of the UIA and coherence with other EU/national/international programmes

Question	Response
83. Overall, how relevant are the topics addressed by the UIA to cities in the EU?	• Very relevant • Fairly relevant • Slightly irrelevant • Very irrelevant • Don't know
84. Which of the topics addressed by the UIA are most relevant to cities in the EU? Please tick the most relevant topic(s).	• Urban poverty • Integration of migrants and refugees • Jobs and skills in the local economy • Energy transition • Circular economy • Urban mobility • Air quality • Adaptation to climate change • Housing • Digital transition • Sustainable use of land & nature-based solutions • Urban security
85. What other topics would have been relevant during the period when UIA calls were launched (2015-2019)?	
86. Are there additional topics where the EU should support cities to innovate in the future?	
87. In 2021-27, how long should the list of topics pre-defined by the EU be?	• Longer list of topics per call • Same number of topics per call • Shorter list of topics per call • Only one topic per call • No list: cities should be free to choose any topic of relevance to their situation • Don't know
88. With which programmes does the UIA demonstrate most coherence and complementarity?	• Article 7 (ERDF) • URBACT III • Other ERDF, ESF or Cohesion Fund programmes • Horizon 2020 • LIFE+ • CIVITAS • None of the above • International programmes/National programmes/Other (please specify)
89. In which way could other EU, national or international programmes be an inspiration to improve the UIA?	

8. Policy recommendations

Question	Response
90. Should the UIA initiative be repeated after 2020 in the same format?	• Yes – in the same format • No – in a different format • Don't know
91. How could the UIA initiative be improved? Please tick all that apply.	• Longer time to prepare applications • Increase minimum size of cities eligible to apply (> 50,000 inhabitants) • Reduce minimum size of cities eligible to apply (< 50 000 inhabitants) • Support fewer projects but increase maximum funding per project (currently €5m) • Support more projects but reduce maximum funding per project (currently €5m) • Increase funding for knowledge transfer • Decrease funding for knowledge transfer • No improvements needed • Don't know • Other (please state)
92. Should the testing of innovative solutions remain the central objective of the UIA in the future?	• Yes • No, UIA should also be about scaling up successful experimentations • No, UIA should also be about replicating successful experimentations in other cities • No, other (specify) • Don't know
93. What could be done to improve the added value of urban innovative actions for EU Cohesion Policy in the future? • Organise urban innovative actions calls for proposals by EU Cohesion policy objectives 2021-27 • Adapt urban innovative actions selection criteria to weight positively applicants linking the potential scaling up of their project once completed to funding possibilities under EU Cohesion policy programmes. • Reinforce awareness-raising on urban innovative actions calls for proposals and projects via EU Cohesion Policy programmes channels • Make knowledge transfer from UIA projects part of capacity building activities for cities	• Strongly agree • Agree • Disagree • Strongly disagree • Don't know

Question	Response
and other entities benefiting from EU Cohesion Policy programmes • Systematise the scaling-up and transfer of successful UIA projects with EU funding from Cohesion Policy programmes	
94. Please offer any comments on the future of the UIA and how it could be improved.	
95. Would you be happy to participate in a telephone interview to discuss your opinion of the UIA in more detail? If so, please provide your email address.	
Thank you for your participation in the survey. Your input will help us produce a well-informed UIA assessment study scheduled to be published in Autumn 2020.	