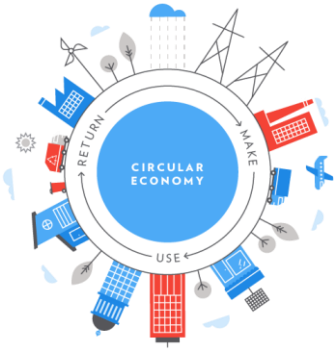
URBAN AGENDA FOR THE EU

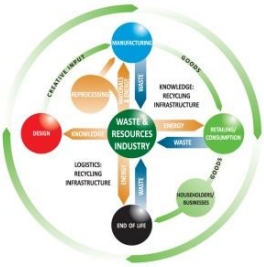
Circular Economy

ACTION PLAN, PART 2

*** The Pact of Amsterdam states that the Action Plan "can be regarded as non-binding". Therefore, the actions presented in this Action Plan are not compulsory. ***

Date 12.07.2018





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1 INTRODUCTION

During the Dutch Presidency of the EU in the first half of 2016 the **Pact of Amsterdam** was adopted by EU Ministers responsible for Territorial Cohesion and/or Urban Matters. The Pact strives to involve Urban Authorities in achieving Better Regulation, Better Funding and Better Knowledge.[1] The relevance of this involvement is highlighted by the statistic that cities and urban areas now house more than 70% of all Europeans.

Cities are the drivers of innovation and the economy but also the battleground for many of the societal struggles of the 21st century, as emphasised in the United Nations agreements both the New Urban Agenda [2] and the 2030 Agenda on Sustainable Development[3]. The **Urban Agenda for the EU** helps to ensure that these facts are acknowledged and reflected by EU legislation, funding and knowledge sharing.

Cities play an essential role in the development of a circular economy; they act as enablers of potential measures by which they can influence both the consumers and the businesses. Moreover, overall governance, enabling businesses, public procurement, consumption and resource management are the themes that would all have a bearing upon the development of circular economy concepts within cities.

1.1 Objectives

The Partnership on Circular Economy has looked into the whole circle, starting with the extraction of raw materials to design, production, transportation, consumption and, finally, the recycling of waste with residues for final disposal.

[1] http://ec.europa.eu/regional_policy/sources/policy/themes/urban-development/agenda/pact-of-amsterdam.pdf
[2] https://unhabitat.org/new-urban-agenda-adopted-at-habitat-iii/
[3] http://www.un.org/sustainabledevelopment/development-agenda/

Figure 1 Closing the loop – An EU Action Plan for the Circular Economy (source: DG Environment, October 2016)

However, given time and resource constraints, this scope had to be limited, and the Partnership has focused on the parts of the circle which are most relevant to cities and which they have the greatest potential to influence. To choose among several potential topics and actions, a set of criteria have functioned as guidelines in their screening and evaluation:

- Cities' needs – the urban dimension clearly reflect cities' needs;[4]
- Fit the concept of the Circular Economy – as put forward by the Commission in the Circular Economy Package on 02.12.2015;[5]
- Potential for improvement – give the greatest potential for improvements in relation to Better Regulation, Better Funding and Better Knowledge;
- Reality check – are feasible and can be realistically implemented;
- Expertise – it is possible for the Partnership to mobilise the necessary expertise needed;
- Added value – that add unique value to this Partnership, and cannot, or are not, being undertaken easily by other partnerships/initiatives, stakeholders, etc.

In the Orientation stage, the following themes have been selected by the Partnership:

- Circular consumption;
- Urban resource management;
- Circular business enablers and drivers;
- Governance.

[4] ESPON, Interact, Interreg Europe and URBACT – Pathways to a circular economy in cities and regions. Policy brief addressed to policy makers from European cities and regions, October 2016

[5] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Closing the loop - An EU action plan for the Circular Economy, December 2015

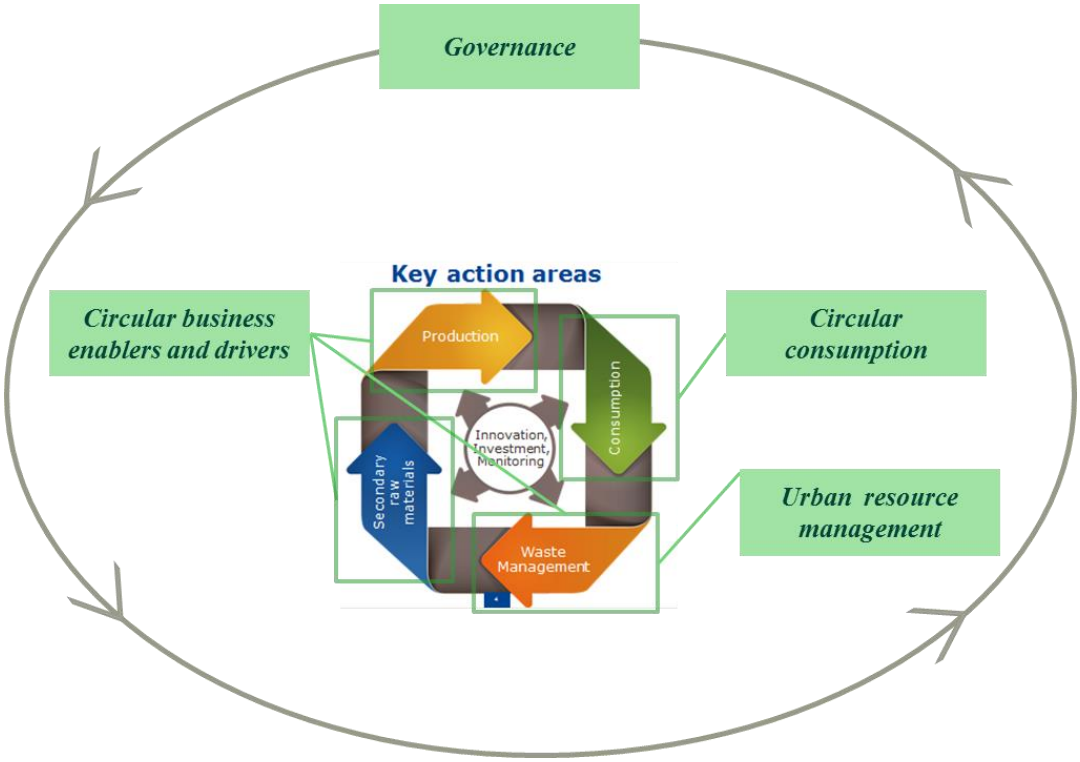

Figure 2 Scope of the Partnership

By choosing the themes mentioned above, the Partnership covered most of the relevant circular economy aspects from a city perspective. The Partnership on Circular Economy has not elaborated an overall plan for introducing the circular economy at a city level, but has rather focused on specific actions and recommendations that would fit into already existing plans for most cities.

1.2 Governance of the Partnership

The City of Oslo is the Coordinator of the Partnership of Circular Economy. The Technical Secretariat provided by Ecorys (and funded by DG REGIO of the European Commission) has been operating from the beginning of the work of the Partnership.

1.3 Members

The Circular Economy Partnership consists of six urban authorities, namely the City of Oslo, The Hague, Prato, Porto, Kaunas and Flanders region. The partners which are EU Member States are Finland, Poland, Slovenia and Greece. The European Commission (DG REGIO, DG ENV, DG CLIMA, DG RTD, DG GROW), the Council of European Municipalities and Regions (CEMR), EUROCITIES, URBACT, the European Investment Bank (EIB) and the Association of Cities and Regions for sustainable Resource management (ACR+) are also partners. A full list of partners and their involvement is included in Annex 1.

1.4 Background information used

Each partner submitted an expert nomination to the different topics to be investigated. As a result, the Partnership could rely on several experts to provide input to developing both scoping fiches and actions. In addition, the Partnership has received input from external stakeholders. However, most of the stocktaking was done by the partners themselves. This means that some aspects of the circular economy had to be left out due to a lack of knowledge within the Partnership. The circular economy is a broad topic and it would have been impossible for the Partnership to cover all of the possible bottlenecks that cities might face in the introduction of a circular economy in their cities.

The Partnership has not carried out new studies during our work. Several reports from projects or studies by others have been identified and made available for the partners. A list of relevant reports and studies is available in Annex 2 to this plan.

1.5 Working method of the Partnership

By 31.05.2018, the Partnership had organised eight Partnership meetings. For 2018, an additional two meetings are planned. The Partnership has also organised one workshop during the Cities Forum in Rotterdam on the 27th November 2017, and a parallel session during EU Green Week in May 2018. In addition to this, the Partnership has discussed some of the draft actions with the members of EUROCITIES Working Group on Waste and interested members at the EUROCITIES annual meeting. In May, the Partnership also co-organised a workshop on urban bio-resources during EU Green Week together with EUROCITIES, Municipal Waste Europe, European Composting Network and the City of Oslo.

So far, the working method of the Partnership has consisted of four main steps:

First step – Orientation paper

The initial phase of the Partnership was the orientation stage. During the first Partnership meeting, the Orientation Paper was sketched out, providing direction and focus for the Partnership. It was in the Orientation paper[6] that the six criteria and the four main themes were agreed upon. The Orientation paper has been discussed and acknowledged by the Urban Development Group and the Director's General meeting on Urban Matters in the spring of 2017 during the Estonian Presidency.

Second step - scoping fiches

Each of the different themes was discussed in a separate Partnership meeting. The Partnership invited external experts to provide their input to the discussion. For each topic, interested partners created a working group to identify bottlenecks and possible actions to reduce the barriers. Partners involved local experts to participate in the work, and the outcome of the work was organised into 11 scoping fiches. The first topics were discussed in the second Partnership meeting, and the last

[6] https://ec.europa.eu/futurium/en/circular-economy/circular-economy-orientation-paper

theme at the sixth meeting. As a result, the different topics developed separate timeframes for further work. In Annex 3 a list of all the themes and scoping fiches are included.

Third step – selection of possible actions

For each scoping fiche, a session during a Partnership meeting was dedicated to a discussion between all partners on the following points:

- Does the scoping fiche reflect the discussion put forward in the working groups?
- Do the proposed actions reflect the scoping fiche and identified barriers?
- Discuss the actions according to criteria set by the Partnership (see page 5 in this Action Plan).

Based on these discussions, a list of actions was formulated. To reduce the amount of actions, all partners voted on what they considered to be the most important action and the outcome of the votes formed the basis for the draft action list. Each partner nominated themselves for further work to elaborate the actions.

Fourth step – decision on final actions

After the eight meeting of the Partnership, the following list of actions was compiled. However, some of the actions needed more time to be developed. This resulted in two separate processes with regards to the action plan. The Partnership decided to put forward an Action plan in two parts. Thus, the Action plan will have a Part 1, consisting of 8 actions that were put out for public consultation in February[7], and Part 2 for public consultation in July. The allocation of actions per public consultation session is included in the table below.

Table 1 List of actions	**Related theme**	**Part 1/ Part 2**
Better Regulation		
Help make **waste legislation** support the circular economy in cities	Urban Resource Management, Governance, Circular business enablers and drivers	Part 1
Help make **water legislation** support the circular economy in cities	Urban Resource Management	Part 1
Analyse the regulatory obstacles and drivers for boosting an **urban circular bioeconomy**	**Urban Resource Management, Governance, Circular business enablers and drivers**	**Part 2**
Better Funding		
Prepare a **Circular City Funding Guide** to assist cities in accessing funding for circular economy projects	Governance	Part 1
Mainstream the circular economy as an eligible area into the **post 2020 Cohesion Policy and**	Governance	Part 1

[7] The Action Plan – Part I can be found here: https://ec.europa.eu/futurium/en/circular-economy/actions

corresponding Funds		
Better Knowledge		
Prepare a blueprint for a **Circular City Portal**	Urban Resource Management, Governance, Circular business enablers and drivers, Consumption	Part 1
Promote **Urban Resource Centres** for waste prevention, re-use and recycling	Urban Resource Management, Governance, Circular business enablers and drivers, Consumption	Part 1
Develop a **Circular Resource Management Roadmap** for cities	Urban Resource Management, Governance, Circular business enablers and drivers	Part 1
Develop a **Collaborative Economy Knowledge Pack** for cities	Governance, Circular business enablers and drivers, Consumption	Part 1
Manage the **re-use of buildings and spaces** in a Circular Economy	**Urban Resource Management**	**Part 2**
Develop **City Indicators** for a Circular Economy	**Governance**	**Part 2**
Develop a **"Pay-as-you-throw"-toolkit** with coaching	**Urban Resource Management, Governance, Consumption**	**Part 2**

More information on the four actions of Part 2 is included in Chapter 2.

1.6 The plan for a circular economy in cities

The actions presented in part I and part II are concrete actions to realise a city where residents and entrepreneurs do not think in terms of waste, but in terms of resources with permanent economic and social value. A city where Urban Resource Centres are social and economic hubs for residents and enterprises to meet each other and collaborate on Circular Resource Management. European legislation entices local authorities, companies and investors to make the most of all types of waste, and also water. The knowledge and experience from other cities is shared with others through an interactive Circular City Portal. With post 2020 cohesion policy having explicit reference to Circular Economy, it will be easier for local authorities to access funding for investments into circular infrastructure and new knowledge. There are also accessible tools that guide the city through the different funding possibilities and also assist funders that are interesting and directing their funds to investments in the circular transition.

2 ACTIONS

2.1 Better Regulation

The Urban Agenda for the EU focuses on a more effective and coherent implementation of existing EU policies, legislation and instruments. Drawing on the general principles of Better Regulation, EU legislation should be designed so that it achieves the objectives at minimum cost without imposing unnecessary legislative burdens. In this sense the Urban Agenda for the EU will contribute to the Better Regulation Agenda. The Urban Agenda for the EU will not initiate new regulation, but will be regarded as an informal contribution to the design of future and revision of existing EU regulation, in order for it to better reflect urban needs, practices and responsibilities. It recognises the need to avoid potential bottlenecks and minimise administrative burdens for Urban Authorities.[8]

2.1.1 *Analyse of the regulatory obstacles and drivers for boosting an **urban circular bioeconomy***

This action will analyse the regulatory aspects (including potential obstacles and drivers) of the main EU legislations influencing the production of biobased products (e.g. biobased chemicals, plastics, fertilisers, feed ingredients, etc.) from the organic fraction of municipal solid waste (OFMSW) and/or urban wastewater sludge (UWWS).

What is the specific problem?

Cities are geographical and economic areas with a high concentration of biowaste flows: they produce about 1.3 billion tonnes of solid waste annually, of which roughly 50% is organic.[9] On the one hand, urban biowaste poses economic, social and environmental challenges to cities agendas: e.g. its management is costly and it is still too often landfilled causing GHG emissions and potential hazards to the human health and the environment. Moreover, its recycling (when applied)[10] is generally limited to compost and biogas. On the other hand, emerging biobased technologies can help to turn these challenges into opportunities: the OFMSW and UWWS contain valuable substances that urban waste-based biorefineries can process into high-value biowaste-based products such as chemicals, plastics, fertilisers, feed ingredients, etc. These innovative value chains can have several economic, social and environmental benefits:

- Generating new local jobs;

[8] Urban Agenda for the EU – Pact of Amsterdam, Article 5.1
[9] World Economic Forum (2017) *Project MainStreaming - Urban Biocycles*.
[10] The percentage of municipal waste recycled (including urban biowaste) is still limited within the EU – with significant difference among Member States and regions: http://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Municipal_waste_treatment,_EU-28,_(kg_per_capita).png

- Improving the sustainability of local waste management schemes (e.g. reducing landfilling of biowaste);
- Helping to preserve natural resources and contribute to resources security: urban biowaste and wastewater sludge are a secondary feedstock available all-year round in significant quantities and without conflicts with land use and food production; the extraction of valuable substances from this feedstock contributes to reduce their imports from outside the EU, including critical materials;
- Supporting industrial symbiosis between the waste and wastewater management sectors and the biobased industries producing chemicals, fertilisers, plastics, feed ingredients, etc.;
- Providing significant local contributions to achieve EU targets in the policy fields of circular economy, bioeconomy, reindustrialisation, sustainable growth and GHG emissions reduction (e.g. contributing to achieve climate mitigation targets by reducing landfilling and keeping stored in new products the carbon contained in urban biowaste), urban-rural cooperation, production of renewable energy; etc.

Nevertheless, as pointed out by experts to the Partnership, some technical, regulatory, financial and social aspects are challenging the development of the value chain for bioresources. For example:

- some biowaste-based processes are not achieving yet a commercial Technology Readiness Level (TRL)[11] and its upgrade is often costly;
- further research is needed to assess the presence of hazardous substances in some biowaste-based products;
- some elements of the EU regulation on waste, chemicals, wastewater, fertilisers and other policy areas are perceived as regulatory obstacles for the production of urban biowaste-based products;
- the policy and political discussion on regulatory obstacles and drivers is still limited;
- the creation of a market for biowaste-based products faces some concerns among consumers due to their origin;
- there is a significant knowledge gap among urban and regional policy-makers on the potentials and challenges of this value chain;
- etc.

How do existing EU policies/legislations/instruments contribute?

The Partnership has identified several EU policies and initiatives that can support the implementation of an urban circular bioeconomy. For example:

- The new EU regulation on waste should lead to an increase of the amount of (urban) bio-waste available also for biorefining. According to the new Waste Framework Directive, by 31 December 2023 biowaste shall either be separated and recycled at source or collected

[11] https://ec.europa.eu/research/participants/portal/desktop/en/support/faqs/faq-2890.html

separately. The directive wants also to reduce landfilling and promote the use of materials produced from bio-waste;

- the Bioeconomy Strategy, among the actions on 'reinforced policy interaction and stakeholder engagement' suggests to 'enhance short chain, local economic activities and urban-rural and coastal interlinkages to cater for the increasing demands for regional and diversified food and non-food products';[12]
- the Covenant of Mayors for Climate and Energy[13] provides to EU cities a political and policy framework to reduce GHG emissions in their waste sectors.

Nonetheless, as mentioned above, the Partnership has identified some EU regulatory areas that can affect the development of this value chain. For example, according to the Nordic Council of Ministers, 'a precondition for a more circular economy is a more efficient use of resources and the utilisation of waste as a resource. However, the existing regulation of waste does not always promote this as its primary aim is to ensure safe waste handling'[14] – innovative biowaste-based technologies should therefore demonstrate to be safe for our health and the environment, while producing/extracting more from biowastes. Moreover, subsidies for energy uses of biomass do not facilitate the use of urban biowaste for producing the high-value biobased chemicals and materials. Furthermore, the climate mitigation potentials of this value chain are not formally recognised by the EU regulatory framework for climate mitigation, etc.

Which action is needed?

Policy- and decision-makers should be provided with information on regulatory aspects for boosting an urban circular bioeconomy in EU cities, with special reference to the producing of urban biowaste-based products.[15] This action aims at providing an analysis of the main EU legislations influencing the development of the value chain producing high-value biobased products (such as biobased chemicals, fertilisers, plastics, feed ingredients, etc.) from the OFMSW and UWWS.

Which partners?

Action leader: City of Oslo
Participants: DG RTD, Porto, Europa Decentraal, Finland and Greece

Which timeline?

During the first half of 2018, the Partnership launched a survey on EU regulatory obstacles and drivers for producing urban biowaste-based products addressing experts from cities, industries and

[12] http://ec.europa.eu/research/bioeconomy/index.cfm?pg=policy&lib=strategy , p.44.
[13] http://www.covenantofmayors.eu/about/covenant-of-mayors_en.html
[14] Nordi Council of Ministers (2017) *Barriers for utilisation of biowaste, Analysis of institutional barriers for using biowaste as a resource*, p.5.
[15] The technical, financial and social obstacles mentioned above are tackled by other initiatives, such as the Horizon 2020 and BBI JU projects EMBRACED, PERCAL, RES URBIS and URBIOFIN.

academia. Together with several other stakeholders the Partnership also organized a workshop on the topic in Brussels in May 2018, discussing the barriers and solutions towards a bio-economy. The replies of the survey will be analysed during the summer providing the basis for a survey report to be delivered by the end of 2018.

2.2 Better Knowledge

The Urban Agenda for the EU will contribute to enhancing the knowledge base on urban issues and exchange of best practices and knowledge. Reliable data is important for portraying the diversity of structures and tasks of Urban Authorities, for evidence-based urban policy making, as well as for providing tailor-made solutions to major challenges. Knowledge on how Urban Areas evolve is fragmented and successful experiences can be better exploited. Initiatives taken in this context will be in accordance with the relevant EU legislation on data protection, the re-use of public sector information and the promotion of big, linked and open data.[16]

2.2.1 *Manage the re-use of buildings and spaces in a circular economy*

The Partnership will define a robust and comprehensive framework to develop and implement solutions for urban circular re-use of space and buildings as a part of a strategy for better urban management and a transition towards circular economy. There is an important potential to reduce the use of land in an urban context. Such actions will also contribute to enhance more attractive, healthy and sustainable urban environments.

What is the specific problem?

The urban re-use of buildings and spaces facilitates the protection of historic urban landscapes, cultural heritage and existing buildings in general. Most of the buildings that will be here in 2050 are already built, and they will need refurbishment and retrofitting in order to achieve carbon reduction targets. Improvements and continuous maintenance of existing buildings are necessary in order to allow circular management and to avoid the creation of waste. Adequate use of the existing building stock is also needed.

Economic crises, financial market instability, de-industrialization and political changes often lead to the collapse of the former intended use of a building and leave buildings and spaces in a city abandoned. Often, the process of redeveloping an abandoned space takes time, leaving central buildings and spaces in a city empty for several years. It could be the high cost of environmental remediation and redevelopment, political opposition and protests against unwanted projects context, the lengthy processes of approving plans and restoration projects, or even due to poor economic interest in certain areas.

"Empty spaces" and abandoned or underused buildings could be: former factories and unused industrial buildings, construction sites, slaughterhouses; former schools and kindergartens, railway

[16] Urban Agenda for the EU – Pact of Amsterdam, Article 5.2

stations, monasteries; abandoned cinemas, theatres, shopping centres, hotels, offices; abandoned buildings owned by public or "public" bodies and companies; public works not completed, incomplete or terminated and never activated; property objects of bankruptcy; closed communal spaces (e.g. neighbourhood offices and other property spaces, etc.); former public housing, barracks; "ghost city", villages, etc.

Temporary use of empty buildings/spaces is a practice in urbanism aiming to revitalize urban areas, especially abandoned and decaying buildings. This aims to protect the landscape and cultural heritage, applying criteria for the maintenance of the territory and restoration of historical and non-historical centres. It is a circular model that goes far beyond the simple enhancement of spaces but is based on knowledge and sustainability. Enabling temporary use of buildings/spaces requires securing the premises used, with “basic” interventions like the removal of debris, a minimum structural consolidation, the installation of fire protection systems, the equipment or the restoration of basic infrastructures. The new inserted functions could need the architectural support for their completion. The quality and cost of architectural interventions are commensurate with the type and duration of temporary reuse of the property and can therefore be divided into different levels.

The main barriers for local authorities for an increased re-use of vacant buildings and spaces are typically related to legislation and knowledge issues. It is a new model in which urban authorities must identify the abandoned / underutilised space or building and create the conditions for temporary reuse or permanent transformation.

Cities need to equip themselves with a real and concrete strategy of urban re-use management of abandoned buildings and spaces, which vary according to each of the types listed above. There are different levels of an urban authority which may set the stage for temporary reuse, such as:

“Level 0" provides the insertion of interior, exterior and temporary exhibits, that are easy to remove, the use of recycled materials or fully recyclable, basic infrastructure and furniture;

“Level 1" provides primary stable infrastructure plant (light, electricity, water, sanitation) in addition to the interior, exterior and temporary exhibits, that are easy to remove and the reuse of waste materials or completely recyclable;

“Level 2" includes in addition to the provision of primary stable infrastructure plant (light, electricity, water, sanitation), the installation of architectural permanent light structures but always structurally independent from the building (Mural facade, site-specific public art projects, mezzanines, spaces “box in the box”, container) [17].

In this new circular vision of the city, an abandoned building needs to be seen as a resource, and demolishing should be avoided. In this sense innovative forms of urban management at local level

[17] http://www.temporiuso.org/?page_id=1620

are necessary to promote a transition towards a circular city and society, with a particular attention to boost employment, start-ups and new business models.

What is the added value for cities to implement reconversion actions for buildings and empty spaces?

1. Stopping the consumption of land and redevelop urban areas of the city otherwise degraded;
2. To get out of the logic of large public works and enter a new "smart" logic with "low impact" works that re-use space without upsetting the local area, with a focus of investment more on software than hardware;
3. Developing a new model of urban management of a “circular city” in the logic of “urban re-use management”;
4. Boosting employment and the emergence of new start-ups and business models focused on temporary reuse.

The problem of under managed spaces in the contemporary city is increasingly discussed, investigated and analysed, yet the term lacks conceptual clarity and definition. Furthermore, the functional aspects, the morphology and the opportunities of these spaces have not been clearly articulated. If lost spaces are voids within the urban fabric empty of meaning, lacking clear functions, where time seems to have stood still, they are spaces which lie in wait for something. So, they can be considered as opportunities waiting to happen, opportunities that urban planning has to recognise and develop in an urban regeneration point of view.

Instead of waiting with an empty space, which can also be taxed by the municipality, temporary use of space can offer several advantages. It allows various community members to obtain the space for their social, cultural, or other needs, under often more favourable terms. The property owner often has less requirements than in the case of a normal lease: they do not have to maintain the spaces and can cancel the use at a much shorter notice. Additionally, temporary users can use the space at no or symbolical cost, and often maintain the spaces themselves.

Such an approach is perceived as win-win for both property owners who get tax benefits and users and a wider city community who get new content and vitality in those spaces. Moreover, buildings are less prone to decay because they are in use. Furthermore, such use is intrinsically bottom-up driven with, for example, a co-creation process by citizens and can demonstrate needs in a city which would otherwise be left undiscovered.

Therefore, temporary use is a powerful tool to make our cities "future proof". Since the concept of temporary use is interacting with many other urban dynamics it creates the right environment for social innovation to develop. The concept of temporary use is conceived as the use of vacant buildings and land by urban pioneers, entrepreneurs and bottom-up initiatives, often resulting in facing various societal challenges and in creating possibilities for social innovation to develop in cities.

How do existing EU policies/legislations/instruments contribute?

In the absence of a European regulation on temporary use, it is necessary to increase collaboration and strengthen knowledge. In this context, the UA Partnership on Sustainable Land Use is investigating regulatory and funding aspects of underutilised spaces/buildings and collaboration could be an opportunity for maximizing the potential of this action. In the context of the current Action Plan, the focus will therefore be on “Better Knowledge”.

Which action is needed?

The real challenge for an urban authority is to move from “urban planning” to a new model of “urban re-use management”, where the city's planning moves towards city management: how the functional transition of the city is developed towards new, innovative functions at a social level.

In the above context of defining strategies for urban re-use of buildings and spaces, we believe there is a need for an Urban Agency acting as a facilitator in the functional transition of parts of the city, which can have the dual objective of:

- Managing the public buildings included in the urban reuse program;
- Connecting the potential demand for new functions with private property (private to private match), following diversified models for public and private buildings.

How to implement the action?

The main output of this action will be to develop a handbook on Managing the re-use of buildings and spaces in a circular economy, in order to give an instrument and knowledge to implement better urban model strategy based on the principle of Urban Reuse Management. This handbook will also contain Terms of Reference for the above mentioned Urban Agency.

This approach, focused on urban circular reuse, is characterised by the definition of a shared vision, the strong commitments of city governors, the increase of knowledge, capacities and awareness among citizens.

1) Knowledge, capacities and awareness

Definition of a model for an urban authority on “Managing the re-use of buildings and spaces in a circular economy”. A shared vision is the precondition for ensuring the implementation of new policies and the creation of new designed urban context where an Urban Agency acting as facilitators in the functional transition of parts of the city.

2) Commitments of city governors

Governance and institutions provide the framework for urban authority and stakeholders to work together on solutions and strategies at the building, neighbourhood, metro and catchment scales, integrating reuse of in the city’s services and design. Policy makers and governors define master plans and provide incentives to unlock the synergies across sectors in order to define the rules that allow the temporary reuse of abandoned spaces and areas.

The handbook “Managing the re-use of buildings and spaces in a circular economy” will be set as follows:

1. Premise
2. The urban circular reuse mapping of spaces and buildings;
3. The “Urban Agency” model for urban authority;
4. Urban communication strategy at support of urban circular changing;
5. Good practices at European level;
6. Conclusions

Within the handbook it will be explained which **project phases** to go through when developing an urban reuse agency:

Phase 1: *Verification of the stock of buildings and spaces* not used at urban level in the different analyses: property (private, public, NGO, etc.) and building type (industrial, residential, school, military building, stations, etc.). In this phase an archive of unused buildings will be elaborated - inventory of empty buildings of the city (heritage map). In this analysis the criteria and a reusability score must be identified first. The elements for the formation of a database in the form of a due diligence on unused buildings must include these themes: geo-location, quantitative elements, graphs, images, properties, typology, reusability coefficient.

Phase 2: *Definition of the Urban Agency model* on the reuse that acts on the urban scale as a facilitation structure between the offer of existing public and private spaces and buildings ready for reuse and the demand for private / public space. The role of the Agency in relation to the application can be twofold:

- on the one hand it can convey and collect the existing demand within the city;
- on the other hand, the function of the Agency may be to create the demand for the use of empty spaces based on urban strategies for economic development, social cohesion and cultural policies.

Phase 3: *Definition of diversified reuse strategies* according to public or private property status:

Phase 4: *Establishment and implementation of the urban reuse agency.*

Phase 5: (transversal to all phases): *Establishment of a communication office and activities.*

Expected results	Indicators
1. Creation of an archive of unused buildings;	• Mapping of the stock of buildings not used at urban level and classification by type and property; • Criteria and reusability scores created.
2. Creation and definition of a model of Urban Reuse Agency;	• Collected requests existing within the city; • Periodic updates of the stock of buildings;

	• Plan for re-use of buildings and spaces created.
3. Creation and definition of a diversified reuse strategy according to the type and the building;	• National / European legislation analysis on public property strategies; • good practices recorded; • Economic models to evaluate the effectiveness and socio-economic convenience of making available publicly owned properties to identified private operators; • Incentives (tax, waste tax, VAT, etc.) aimed at facilitating the private sector to make the property available in the defined inventory; • Business models able to activate defined private-private economic relationships.
4. Creation and commissioning of an urban reuse agency.	• Public notice for the identification of the implementing entity; • Set up urban agency.

Which partners?

Action leader: Prato

Participants: ACR+, URBACT, EUROCITIES, DG ENV, DG REGIO, Slovenia, Oslo, Finland, OVAM, Porto, Poland, Greece.

The Partnership will also seek to involve the Partnership on Sustainable Land Use in the development and implementation of this action.

Which timeline?

22.06.2018	Action Sheet Finalised	City of Prato
15.09.2018	Incorporate feedback from public feedback	City of Prato
20.09.2018	Final action plan	City of Oslo
30.09.2018	Final Handbook available	City of Prato
Before 31.10.2018	Necessary funding available to implement the pilot action of Urban Agency	Action Group

2.2.2 *Develop City Indicators for Circular Economy*

The EU Commission launched in January 2018 a monitoring framework for the circular economy. The indicators proposed by the Commission will help EU Member States to develop a circular economy strategy, and to report on the progress of the work towards a circular economy for the EU area. Through the work of implementing circular economy on city level, cities have experienced the need of indicators for monitoring and to report on their work. The Partnership of Circular Economy has identified the lack of such indicators as a main bottleneck for cities in implementing a Circular Economy strategy.

What is the specific problem?

During the work with the topic of Governance and the Action "Prepare a blueprint for a Circular City Portal" [18], the need for indicators of monitoring circular economy is identified. There are several initiatives for developing indicators for use in cities. However, none are as yet fully developed and ready to be used by cities.

The Partnership notes that a strategy for a transition towards a circular economy will need a set of indicators to monitor this transition. Most cities will start a process by developing a strategy, set targets and develop measuring indicators.

In the report Circular City Governance (Jan Junker et al, Radboud University, Nijmegen April 2018) writes:

> *Within the better knowledge domain, it is worth noting that monitoring and evaluation systems to measure progress of circular developments are lacking. A well-functioning monitoring and evaluation system that ensures feedback to strategy and planning can be considered as a crucial support tool for circular transitions and paramount for effective learning by doing. This leads to a recommendation of an action on develop (guidance on) monitoring and evaluation frameworks for circular city transitions.*

The OECD has launched a proposal for a project on The Economics and Governance of Circular Economy in Cities, where indicators for monitoring will be an essential part of the project.

The EUROCITIES Task Force on Circular Economy has identified the lack of indicators as a main challenge for cities and has also proposed to establish necessary indicators.

The Partnership repeats the old quote: What is not measured, will never be done. The need for indicators to measure progress towards a circular economy is essential for the EU, Member States and on EU level. A set of indicators are essential for implementation of Circular Economy on city level.

[18] The Action Plan – Part I can be found here: https://ec.europa.eu/futurium/en/circular-economy/actions

Similarly, the Urban Agenda Partnership on Circular Economy should take an active role in the development of city indicators for a circular economy. We propose to form a consortium to develop these indicators and ensure that this work has an impactful effect for cities transitioning towards a circular economy on the ground.

How do existing EU policies/legislations/instruments contribute?

The Commission has launched the following initiatives:

- Communication from the Commission to the European Parliament on a monitoring framework for the circular economy, 16.01.2018. This communication is a part of the Commission Circular Economy Strategy. The Communication proposes a set of 10 indicators for Member States to report on their progress towards a circular economy.
- The circular economy monitoring framework draws upon and complements the existing Resource Efficiency Scoreboard and Raw Materials Scoreboard, which were developed in recent years by the Commission. The 10 indicators are developed for Member States reporting to the EU and some of them are not transferrable to a city level. As most economic activity takes place in cities, a monitoring framework with a set of indicators specific to cities is needed to fulfil the European circular economy strategy.
- The European Green Capital Award, wherein the selection of a city awarded with the title of European Green Capital is assessed on the basis of twelve environmental indicators:
    - Climate Change: Mitigation
    - Climate Change: Adaptation
    - Sustainable Urban Mobility
    - Sustainable Land Use
    - Nature and Biodiversity
    - Air Quality
    - Noise
    - Waste
    - Water
    - Green Growth and Eco-innovation
    - Energy Performance
    - Governance

Which action is needed?

Several European cities have a dedicated strategy for a circular economy, but the management system to measure and evaluate the progress is not operational. There are several efforts made at the national level, but there is still no organised initiative to develop indicators fit for measuring the circular economic transition at a local level.

Policy makers and city managers face an array of sustainability indicator frameworks. However, it is important to also have indicators guiding circular economy decisions and strategies. The Partnership will aim to develop (guidance on) monitoring and evaluation frameworks (indicators) for

circular city transitions. The guidance will be an important tool for cities in their work to establish and implement a strategy for circular economy.

It is important to stress that different cities will have different goals and ambitions. Indicators must therefore be able to take into account different geographical, cultural and institutional differences. The Partnership suggests to develop a guidance with a set of indicators suitable to measure circular performance, leaving it for the cities to decide which indicators are most relevant for them.

For the development of this action we propose the following phases:

Phase 1– Workshop and establishment of consortium
1) Initiate dialogue with stakeholders on the topic of circular city indicators
2) Organise a workshop to discuss the organization and scope of a consortium
3) Establish a consortium for the development of circular city indicators
4) Identify funding opportunities for a project on city indicators
5) Decide on scope of the project

Phase 2 – Make a guidance document with proposals for city indicators on a transition towards a Circular Economy
6) Identify and agree on a set of indicators (input indicators, process indicators, performance indicators – both qualitative and quantitative)
7) Disseminate information about the guidance document at a Partnership seminar in the spring of 2019

How to implement the action?
The development will be done in cooperation with other stakeholders already engaged in the work for this action, like the OECD, ACR+ and EUROCITIES among others. The role of the Partnership will be to seek financial support for the development and to secure that the outcome will be available and distributed to all relevant users, for instance through the Circular City Portal.

There is a risk that several sets of monitoring systems (indicators) could be developed at the same time. As the indicators will be used in different cities under different political, legal and governmental circumstances, the monitoring system will be adapted to each city's need; hence a common and identical monitoring system will not be possible. Several monitoring systems operating at the same time is not expected to hinder cities in working towards a circular economy.

Without necessary funding, the action will be difficult for the Partnership to implement. The guidance will need to reflect ongoing processes within the Commission, seek knowledge of work initiated in cities and will need to have competence for governance at a local level, the availability of statistics and methodology for measuring flows of materials, work creation, etc. The Partnership and its partners do not have all the needed knowledge and will depend on financial funding to contract the necessary competences. Hence, ensuring both funding and the access to knowledge are the main challenges for this action.

Which partners?

Action leader: City of Oslo

Partners: OVAM, Slovenia, EUROCITIES, ACR+, Kaunas, Greece, EIB, Finland

Relevant Partners: OECD, DG ENV

The Partnership will in addition include other stakeholders in the action as needed.

Which timeline?

Phase	Activity	Timeline
Phase 1	Workshop and establishment of consortium • Arrange workshop with stakeholders to discuss the scope and organization of the consortium Project and financing • Funding and resources for the project should be addressed parallel to Phase 1	September – November 2018
Phase 2	Make a guidance document on city indicators for Circular Economy • First set of indicators ready for discussion in December 2018 • Indicators discussed by the partnership within February 2019 • Indicators presented on CE partnership seminar within June 2019	November – June 2019

2.2.3 *Circular Economy Financial Incentives - Develop a "Pay-as-you-throw" toolkit with coaching*

Develop a "Pay-as-you-throw" (PAYT) toolkit as support for cities, connecting stakeholders in need of knowledge with experts with experience in a taskforce that can provide support and coaching to municipalities. Through the implementation of this action, the Partnership aim to make it easier for cities to set the right price level and monitoring systems so PAYT can be installed for maximum effectiveness.

What is the specific problem

The transition towards a circular economy requires a shift from a linear consumption-based model towards a more services-oriented model, where value is kept in a product while ownership is of lesser importance than the ability to derive use from the product. This can be done by fiscal and financial stimuli. In principle, the (lack of) development of circular practices can partly be seen as a matter of economics and price points. Economic rationale implies that the least effort option is exercised and so, changing the price points changes the options that are chosen by market and

civil actors. Government actors have two options at their disposal: increasing the price of least favoured options and decreasing the price of most favoured options. The task at hand is to modify the current price trend into the desired price trend, as shown below.

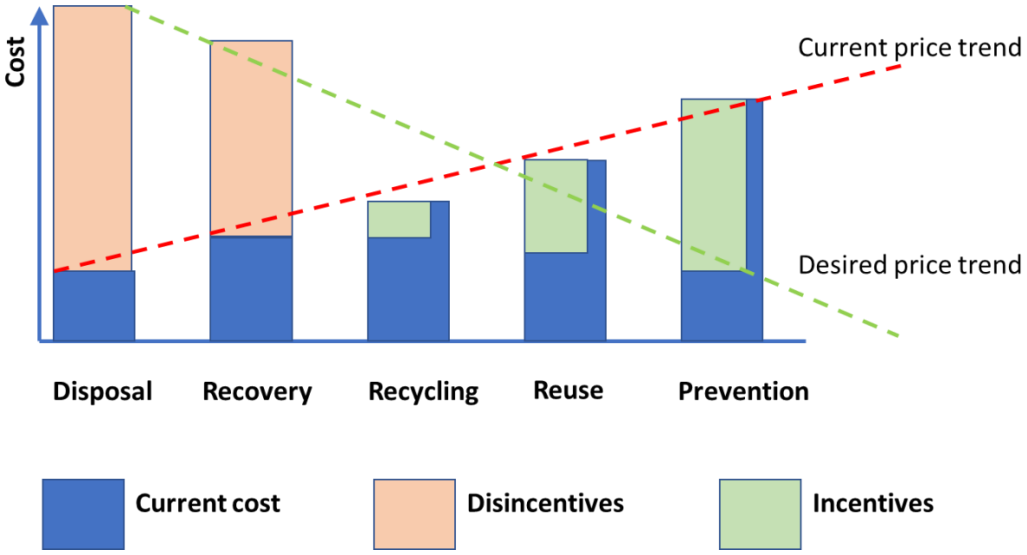

Figure 3 – The mechanism of financial incentives for a circular economy

As visible in the diagram, one can impose financial disincentives on disposal and recovery while incentivising recycling, reuse and prevention. Common measures of doing so are through taxes, levies and subsidies, which make least preferred options more expensive than the preferred options. Market actors should then rationally change their behaviour towards the desired options.

The Partnership has chosen three common and effective instruments to influence the price points, which will be explained in detail in their respective sections below:

Table 2 – Measures, mandates and targets

Measure	*Mandate*	*Target*
*Modifying the Value Added Tax (**VAT**) of services that recycle, reuse or prevent waste, or of products and materials that incorporate recycled, reused parts or are reused as a whole*	*EU Member States and EU*	*Consumers, producers*
*Implementing Extended Producer Responsibility (**EPR**). The extended producer responsibility ensures that market parties that generate waste streams (packaging, electronics, tyres, …) pay for adequate infrastructure to collect and recycle the stream*	*Member States*	*Consumers, producers*
*Introducing Pay As You Throw (**PAYT**) schemes, that charge citizens a levy for generating waste either per unit volume or weight.*	*Municipalities*	*Consumers*

The measures above cover the full chain of stakeholders (producers, consumers and governments) and all governance levels necessary. A complicating factor with waste legislation is that waste is primarily a municipal problem, while both producer responsibility and (tax) legislation are usually set at the national or European level.

Indeed, only an intelligent mix of these measures applied in close collaboration with all stakeholders can make a complementary framework that delivers the necessary incentives. The current situation varies between different materials and value chains, also based on regulatory obstacles, safety requirements and local conditions. We acknowledge that VAT, EPR and PAYT are not at all new instruments; the question is how to apply them correctly, considering the full system of products, materials and services in a circular economy.

How do existing EU policies/legislation contributes?

The review of VAT, EPR and PAYT gathered important knowledge and possible actions for all levels of government, for public, private as well as civil actors, and for multiple waste streams and waste hierarchy options.

Directive 2006/112/EU[19] on the common system of value added tax regulates and establishes the common system of value added tax (VAT) between the EU Member States. The Directive provides Member States with the opportunity to use a reduced VAT rate for small repair services: bicycles, shoes, leatherwear, clothes and linen (the full list of possibilities is in the Annex III of the Directive).

Several EU Member States have used the opportunity of differentiating VAT to promote environmental purposes.

Directive 2008/98/EC[20] has underlined the importance of economic instruments:

> *In order to contribute to achieving the objectives laid down in this Directive, Member States should make use of economic instruments and other measures to provide incentives for the application of the waste hierarchy such as those indicated in Annex IVa, which includes, inter alia, landfill and incineration charges,* ***pay as you throw schemes****,* ***extended producer responsibility schemes****, facilitation of food donation, and incentives for local authorities,* ***or other appropriate instruments and measures****.*

Article 8 describes the use of Extended Producer Responsibility in Member States.

> *Annex IV a: Examples of economic instruments and other measures to provide incentives for the application of the waste hierarchy referred to in article 4:*
> *2. 'Pay-as-you-throw' systems that charge waste producers on the basis of the actual amount of waste generated and provide incentives for separation at source of recyclable waste and for reduction of mixed waste;*

Which action is needed?

[19] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32006L0112
[20] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32008L0098

Following an in-depth analysis of the three aforementioned methods of circular economy incentives for urban authorities, **PAYT** was deemed to be the most effective option for source separation and an essential first step to produce clean streams. By offering door-to-door collection and electronically tracking residual waste and recycling citywide, the scheme could increase recycling by relevant percentage. PAYT system rewards people and business who separate waste and penalises those who do not.

Added value of action:

• The whole community benefits from the improvements in waste collection;
• Better health and safety standards because streets are cleaner;
• A fair system because people pay according to the amount of waste they generate and how they separate it;
• More jobs in the recycling sector;
• Less non-recyclable waste, so fewer collections – saving on fuel and labour costs.

PAYT schemes are the only scheme under review that is fully within the mandate of municipalities. It works by charging citizens a fee for each amount of waste they produce, thus imposing costs on wasteful behaviour. Most often PAYT schemes are applied for residual waste. This generates an incentive to reduce residual waste, and one option to do so is by separating the recyclable waste at the source. The income from PAYT then partly pays for the separate collection and/or processing of the separated waste streams.
Two general variants exist:

1. **Volume based taxation**, often implemented by using pre-paid garbage bags, bins of different sizes or differentiating the fee based on the collection frequency.
2. **Weight based taxation** systems require significantly investment in both time and money to setup infrastructure for weighing and administration.

PAYT success factors

Several studies have been performed to investigate the success factors for a PAYT implementation. Although each case is different and there is no "one size fits all" solution, the studies identify some important factors for a successful implementation of a PAYT system:

1. **Type of fee structure -** Weight based PAYT generally outperform volume based PAYT systems. However, the implementation of weight based systems can require a higher investment in cost and time to create the proper infrastructure.
2. **Infrastructure -** An extensive infrastructure to collect the recyclable waste streams needs to be in place – this can be financed through the PAYT income.
3. **Quality of fraction and separate collection -** Separate collection of waste fractions leads to higher recycling rates. Also, due to increasing requirements for the quality of the recycled materials it becomes more important to separate the waste fractions.
4. **Collection system -** Door-to-door collection systems result in highest capture rates and yields of recyclables. Door-to-door collection is more applicable to rural areas, whereas in municipal areas with multi-story housing central collection points are often used.

5. **Environmental awareness and informing citizens -** High level of environmental awareness among the households is important, both to increase commitment as well as reduce the risk of illegal dumping.
6. **Alignment with other measures -** PAYT schemes need to be aligned with EPR systems in the country.
7. **Fee structure -** The fee of the PAYT system needs to reflect the true cost of waste management. Thought needs to be given how to cover the cost of the system, also in the long run when residual waste streams go down in volume.
8. **Cross-financing -** Cross-finance the recyclable waste streams by applying a fee to the residual waste, and do not apply variable charges to the recyclable waste stream.

PAYT barriers

1. **Spill-over effects and waste crime.** In areas where regional coordination is not very strong, introduction of PAYT schemes may result in:
    a. Illegal disposal of waste (although this effect is disputed);
    b. Avoidance of charges by travelling to areas without PAYT schemes;
    c. Cost avoidance by polluting recyclable streams with residual waste. This then urges the separated streams to incur high costs for inspection of quality while it deteriorates much of the streams to low quality recyclables.

Effects A and B are generally found to be **small** in comparison to the overall positive effect of introducing the PAYT scheme, in particular when environmental awareness under citizens is high.

2. **Worries about the costs to local authorities and households.** In the case of Luxembourg, the organization representing the cities and communes (Syvicol) was concerned that those costs had not been considered properly and objected to a model of charging from central government. One additional motivation for such objections are **discriminatory effects** on low-income households. If one hypothesises that low income households tend to use more disposable / short lifespan products that generate more waste, this causes them to they pay more with PAYT schemes in place, placing them in a positive feedback loop of poverty - waste – PAYT fees.
3. **Ensuring enough revenue to cover the cost of the scheme.** Because PAYT schemes use a marginal tariff on the disposed waste, the income from the scheme can go down when the scheme is successful. It is therefore necessary to find a way to ensure stable revenues for the service provider, for example by using a fixed component in combination with the variable component.
4. **Guidance required from national legislation**. Local municipal authorities are helped when the national government gives guidance how to design and rate the level of a PAYT waste charge. Different countries take different approaches to this, with Denmark, France, Italy and the Netherlands giving guidance in national legislation, while Germany and Belgium complement the national legislation with regional or federal states' specific regulation[i].
5. **Lack of recycling infrastructure expansions.** The introduction of a PAYT system should always be accompanied by proper infrastructure to collect the recyclable waste streams.
6. **Limited outreach to consumers about how to change purchasing habits**. As also noted earlier, it is important to increase social and environmental awareness under citizens.

7. **Charging of a separate fee for recycling**. The idea is to stimulate citizens to hand in recyclable waste separately. It is therefore better to cross-finance the recyclable waste streams with the taxes on residual waste, instead of taxing the recyclable waste streams.
8. **For weight-based PAYT systems, setting up a data collection system for billing, accounting and system optimization purposes can be a complex and challenging task**.
9. **Cost avoidance by polluting recyclable streams with residual waste.** This then urges the separated streams to incur high costs for inspection of quality while it deteriorates much of the streams to low quality recyclables.

Finally, while PAYT schemes are effective to motivate citizens to separate at the source and finance the infrastructure for separate collection and, they are only one step towards a circular economy. PAYT schemes usually do not cover material recovery or recycling operations, i.e. the loop is not closed.

How to implement the action?

Develop a PAYT a toolkit as support for cities, connecting stakeholders in need of knowledge with experts with experience through the taskforce mentioned above. Provide guidelines, workshops and consequently make it easier for cities to set the right price level and monitoring systems so PAYT can be installed for maximum effectiveness.

The toolkit as support for cities will define:

1. Analysis of application cases

1.1 Success factors

1.2 Criticalities and barriers to the implementation of a system of punctual pricing

2. Economic and financial elements of PAYT application

3. External factors that influence the system

3.1 Recycling and recovery infrastructures

3.2 Development and diffusion of a complex EPR system

3.3 Social involvement and education and training of citizens

4 Tools and practical supports available to municipalities

Which partners?

Action leader: Prato

Participants: Oslo, Poland, Finland, Greece, Porto, The Hague, ACR+

Which timeline?

Date	Activity	Responsible
22.06.2018	Action Sheet Finalized	City of Prato
31.07.2018	Choose of experts and partners to	City of Prato

	develop Toolkit	
15.09.2018	Incorporate feedback from public feedback	City of Prato
20.09.2018	Final action plan	City of Oslo
15.10.2018	First draft of tookit	City of Prato
31.10.2018	Feedback on the draft of Toolkit	Patnership
30.11.2018	Final draft of Toolkit	City of Prato
15.12.2018	Feedback on the draft of Toolkit	Patnership
31.12.2018	Final Toolkit available	

3 GOOD POLICIES, GOVERNANCE AND PRACTICES (RECOMMENDATIONS)

Recommendations are intended to suggest good policies, good governance or good practice examples which could be used for inspiration. The below recommendations have been developed during and throughout the eight Partnership meetings that took place in the period January 2017 – May 2018. Some of these have been considered as Actions, others have been conceived as recommendations from the start. All recommendations have the aim to contribute to the uptake of the circular economy within an urban context.

3.1 EU level

The Partnership recommend the European Commission to:

1. *Look into the possibilities of using Directive 2006/112/EU on Value Added Tax (VAT) as a measure to reduce waste* by specifically boosting reuse and repair routes, to retain value of products as long as possible. This is the primary category of the waste hierarchy and therefore deserves serious attention.
2. *Use EPR as a means to set up and maintain cost-effective material processing routes* that put costs at the polluter and can incentivise eco-design, while making sure that demand for the secondary material exists or is created.

3.2 Member State level

1) *Review of VAT on repair services.* Member States are encouraged to review their VAT legislation, with the aim to incentive the uptake of the circular economy in cities. In particular, the use of repair and similar services is to be promoted, e.g. through lowering the VAT rates on such services. In this respect, the recent VAT reform in Sweden is considered as an example, which deserves to be monitored and promoted.

3.3 City level

1) *A need to review municipal fees.* Cities are encouraged to review municipal fee structures and provide through these incentives to the circular economy, in particular with regard to re-use and recycling of goods and the promotion of services (including repair).

4 LINKS WITH OTHER COMMITMENTS

Article 12 of the Pact of Amsterdam[21] requests that Urban Partnerships consider in their work the relevance of a range of cross-cutting issues (listed as 12.1 to 12.11). After all, the complexity of urban challenges requires integrating different policy aspects to avoid contradictory consequences and make interventions in Urban Areas more effective. It is understood that competences and responsibilities differ amongst participants and that the EU does not have competences on some of these issues.

First of all, it should be acknowledged that the topic of the circular economy is itself inherently cross-cutting, and that working on this topic entails promoting cooperation across silos and sectors. Taking that into account, the Partnership on Circular Economy acknowledges to have established connections with the cross-cutting topics as highlighted in the Pact. In particular, it wishes to underline the importance and relevance of following themes:

12.1 Effective urban governance, including citizens participation and new models of governance.
The circular economy promotes new business models and stakeholder engagement. In particular the Actions on City Indicators and Re-use of Buildings and Spaces address the topic of urban governance.

12.2 Governance across administrative boundaries and inter-municipal cooperation: urban-rural, urban-urban and cross-border cooperation.
Although cities are driving forward the circular economy, it is acknowledged that effective markets for resources and waste require cooperation across municipal boundaries. However, none of the four above mentioned actions directly address this issue.

12.3 Sound and strategic urban planning (link with regional planning, including 'research and innovation smart specialisation strategies' (RIS3), and balanced territorial development), with a place-based and people-based approach.
The Partnership actively promotes sustainable urban planning, and the action on the Re-use of Buildings and Spaces specifically support this.

12.4 Integrated and participatory approach.
The Partnership actively promotes an integrated and holistic approach, and has thereto installed from the beginning a specific working group on governance issues.

12.5 Innovative approaches, including Smart Cities.

[21] http://ec.europa.eu/regional_policy/sources/policy/themes/urban-development/agenda/pact-of-amsterdam.pdf

The Action Plan strongly promotes innovative approaches, and has applied these in particular in Action “Circular Economy Financial Incentives – Develop a “Pay-as-you-throw”-toolkit” will look at how use the technology and innovation to establish effective “Pay-as-you-throw” – schemes.

12.6 Impact on societal change, including behavioural change, promoting, among other things, equal access to information, gender equality and women empowerment.
The Action Plan has taken forward several actions that promote such change, the action on “Re-use of Buildings and spaces” in particular.

12.8 Urban regeneration, including social, economic, environmental, spatial and cultural aspects, also linked to the brownfield redevelopment with the objective of limiting greenfield consumption.
The Partnership is preparing an action on the Re-use of Buildings and Spaces.

12.10 Provision of adequate public services of general interest (within the meaning of Article 14 TFEU in conjunction with Protocol Number 26).
The Action Plan acknowledges this notion.

12.11 International dimension: link with the New Urban Agenda (Habitat III) of the UN (to be agreed upon), the Sustainable Development Goals (SDGs, 2030 Agenda on Sustainable Development) of the UN and the Paris Agreement on climate change of December 2015.
See section below.

A more detailed overview on which of the Partnerships’ Actions contribute to the above cross-cutting issues is provided in Annex 4 of the Action Plan.

4.1 New Urban Agenda and Sustainable Development Goals

The Urban Agenda for the EU is part of the EUs commitment to both the New Urban Agenda (Habitat III) and the 2030 Agenda for Sustainable Development. The actions addressed in this Action Plan are in accordance and correspond with the set commitments and goals in these international agreements. The circular economy is a topic that touches upon several of the world’s critical challenges, both in relation to the social, economic and environmental issues. The following sections will provide an insight into how this Action Plan corresponds with both the New Urban Agenda and the 2030 Agenda for Sustainable Development.

4.1.1 *New Urban Agenda (Habitat III)*

The New Urban Agenda was adopted at the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in Quito, Ecuador on 20th of October, 2016. It was endorsed by the United General Assembly on 23rd of December 2016.

The New Urban Agenda represents a paradigm shift and offers a new model of urban development that is able to integrate all facets of sustainable development to promote equity, welfare and shared prosperity. The five main pillars of implementation include: national urban policies, urban legislation and regulations, urban planning and design, local economy and municipal finance, and local implementation.

The New Urban Agenda incorporates a new recognition of the correlation between good urbanisation and development. It underlines the linkages between good urbanization and job creation, livelihood opportunities, and improved quality of life, which should be included in every urban renewal policy and strategy. This further highlights the connection between the New Urban Agenda and the 2030 Agenda for Sustainable Development, especially Goal 11 on sustainable cities and communities.

Based on this a series of commitments is documented covering many different aspects of urban policies. Those commitments which are most related to the theme Circular Economy are listed below, with references to the correspondence with our Partnership:

45. We commit ourselves to developing vibrant, sustainable and inclusive urban economies, building on endogenous potential, competitive advantages, cultural heritage and local resources, as well as resource-efficient and resilient infrastructure, promoting sustainable and inclusive industrial development and sustainable consumption and production patterns and fostering an enabling environment for businesses and innovation, as well as livelihoods.

63. We recognize that cities and human settlements face unprecedented threats from unsustainable consumption and production patterns, loss of biodiversity, pressure on ecosystems, pollution, natural and human-made disasters, and climate change and its related risks, undermining the efforts to end poverty in all its forms and dimensions and to achieve sustainable development. Given cities' demographic trends and their central role in the global economy, in the mitigation and adaptation efforts related to climate change, and in the use of resources and ecosystems, the way they are planned, financed, developed, built, governed and managed has a direct impact on sustainability and resilience well beyond urban boundaries.

65. We commit ourselves to facilitating the sustainable management of natural resources in cities and human settlements in a manner that protects and improves the urban ecosystem and environmental services, reduces greenhouse gas emissions and air pollution and promotes disaster risk reduction and management, by supporting the development of disaster risk reduction strategies and periodical assessments of disaster risk caused by natural and human-made hazards, including standards for risk levels, while fostering sustainable economic development and protecting the well-being and quality of life of all persons through environmentally sound urban and territorial planning, infrastructure and basic services.

71. We commit ourselves to strengthening the sustainable management of resources, including land, water (oceans, seas and fresh water), energy, materials, forests and food, with particular

attention to the environmentally sound management and minimization of all waste, hazardous chemicals, including air and short-lived climate pollutants, greenhouse gases and noise, and in a way that considers urban-rural linkages, functional supply and value chains vis-à-vis environmental impact and sustainability and that strives to transition to a circular economy while facilitating ecosystem conservation, regeneration, restoration and resilience in the face of new and emerging challenges.

Links with the Partnership: The overall work of the Partnership is supportive to these general commitments.

70. We commit ourselves to supporting local provision of goods and basic services and leveraging the proximity of resources, recognizing that heavy reliance on distant sources of energy, water, food and materials can pose sustainability challenges, including vulnerability to service supply disruptions, and that local provision can facilitate inhabitants' access to resources.

74. We commit ourselves to promoting environmentally sound waste management and to substantially reducing waste generation by reducing, re-using and recycling waste, minimizing landfills and converting waste to energy when waste cannot be recycled or when this choice delivers the best environmental outcome. We further commit ourselves to reducing marine pollution through improved waste and wastewater management in coastal areas.

Links with the Partnership: Urban Resource Management has been a central theme in our Partnership. These commitments are closely linked to several of our action derived from the work on this topic. In this Action plan, the action addressing the urban circular bioeconomy is especially relevant for the aforementioned commitments.

44. We recognize that urban form, infrastructure and building design are among the greatest drivers of cost and resource efficiencies, through the benefits of economy of scale and agglomeration and by fostering energy efficiency, renewable energy, resilience, productivity, environmental protection and sustainable growth in the urban economy.

49. We commit ourselves to supporting territorial systems that integrate urban and rural functions into the national and subnational spatial frameworks and the systems of cities and human settlements, thus promoting sustainable management and use of natural resources and land, ensuring reliable supply and value chains that connect urban and rural supply and demand to foster equitable regional development across the urban-rural continuum and fill social, economic and territorial gaps.

51. We commit ourselves to promoting the development of urban spatial frameworks, including urban planning and design instruments that support sustainable management and use of natural resources and land, appropriate compactness and density, polycentrism and mixed uses, through infill or planned urban extension strategies, as applicable, to trigger economies of scale and

agglomeration, strengthen food system planning and enhance resource efficiency, urban resilience and environmental sustainability.

53. We commit ourselves to promoting safe, inclusive, accessible, green and quality public spaces as drivers of social and economic development, in order to sustainably leverage their potential to generate increased social and economic value, including property value, and to facilitate business and public and private investments and livelihood opportunities for all.

69. We commit ourselves to preserving and promoting the ecological and social function of land, including coastal areas that support cities and human settlements, and to fostering ecosystem-based solutions to ensure sustainable consumption and production patterns, so that the ecosystem's regenerative capacity is not exceeded. We also commit ourselves to promoting sustainable land use, combining urban extensions with adequate densities and compactness to prevent and contain urban sprawl, as well as preventing unnecessary land-use change and the loss of productive land and fragile and important ecosystems.

Links with the Partnership: Within the topic of Urban Resource Management and Circular Consumption, spatial planning and urban infrastructure have been emphasised. All actions are supportive either directly or indirectly to sustainable urban planning and resource management, the action "Manage the **re-use of buildings and spaces** in a circular economy" addresses urban planning and circular and sustainable urban management directly.

47. We commit ourselves to taking appropriate steps to strengthen national, subnational and local institutions to support local economic development, fostering integration, cooperation, coordination and dialogue across levels of government and functional areas and relevant stakeholders.

48. We encourage effective participation and collaboration among all relevant stakeholders, including local governments, the private sector and civil society, women, organizations representing youth, as well as those representing persons with disabilities, indigenous peoples, professionals, academic institutions, trade unions, employers' organizations, migrant associations and cultural associations, in order to identify opportunities for urban economic development and identify and address existing and emerging challenges.

81. We recognize that the realization of the transformative commitments set out in the New Urban Agenda will require enabling policy frameworks at the national, subnational and local levels, integrated by participatory planning and management of urban spatial development and effective means of implementation, complemented by international cooperation as well as efforts in capacity development, including the sharing of best practices, policies and programmes among Governments at all levels.

88. We will ensure coherence between goals and measures of sectoral policies, inter alia, rural development, land use, food security and nutrition, management of natural resources, provision of public services, water and sanitation, health, environment, energy, housing and mobility policies, at

different levels and scales of political administration, across administrative borders and considering the appropriate functional areas, in order to strengthen integrated approaches to urbanization and implement integrated urban and territorial planning strategies that factor them in.

91. We will support local governments in determining their own administrative and management structures, in line with national legislation and policies, as appropriate, in order to adapt to local needs. We will encourage appropriate regulatory frameworks and support to local governments in partnering with communities, civil society and the private sector to develop and manage basic services and infrastructure, ensuring that the public interest is preserved and concise goals, responsibilities and accountability mechanisms are clearly defined.

Links with the Partnership: Most relevant and supportive to these commitments is the action on the Circular City Indicators, which places a special focus on governance in a Circular Economy, working with measuring and monitoring across different sectors.

60. We commit ourselves to sustaining and supporting urban economies to transition progressively to higher productivity through high-value-added sectors, by promoting diversification, technological upgrading, research and innovation, including the creation of quality, decent and productive jobs, including through the promotion of cultural and creative industries, sustainable tourism, performing arts and heritage conservation activities, among others.

66. We commit ourselves to adopting a smart-city approach that makes use of opportunities from digitalization, clean energy and technologies, as well as innovative transport technologies, thus providing options for inhabitants to make more environmentally friendly choices and boost sustainable economic growth and enabling cities to improve their service delivery.

122. We will support decentralized decision-making on waste disposal to promote universal access to sustainable waste management systems. We will support the promotion of extended producer responsibility schemes that include waste generators and producers in the financing of urban waste management systems reduce the hazards and socioeconomic impacts of waste streams and increase recycling rates through better product design.

134. We will support appropriate policies and capacities that enable subnational and local governments to register and expand their potential revenue base, for example, through multipurpose cadastres, local taxes, fees and service charges, in line with national policies, while ensuring that women and girls, children and youth, older persons, persons with disabilities, indigenous peoples and local communities, and poor households are not disproportionately affected.

Links with the Partnership: The Partnership's work on the action "Develop a "Pay-as-you-throw"-toolkit with coaching" directly supports the aforementioned commitments.

4.1.2 *New Urban Agenda and the 2030 Agenda for Sustainable Development*

In 2015, countries adopted the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals. Governments, businesses and civil society together with the United Nations are mobilizing efforts to achieve the Sustainable Development Agenda within 2030. The Agenda calls for action by all countries to improve the lives of people everywhere. The Urban Agenda for the EU will contribute to the implementation of the UN 2030 Agenda for Sustainability in several ways. The most central is Goal 11 'Make cities inclusive, safe, resilient and sustainable', and the twelve different partnerships all intersect with the ambitions and targets of the various Sustainable Development Goals (SDGs).

The SDGs call for action to promote prosperity while protecting the planet. They recognize that ending poverty must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection.

Several of the SDGs are relevant and correspond with the agreed actions within the Partnership on Circular Economy. The most relevant goals and targets are listed below, with a reference to the correspondence with our Partnership:

Goal 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

- *8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.*
- *8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead.*

Links with the Partnership: As the concept of the circular economy concerns the decoupling of economic growth and economic degradation, these targets are generally promoted in all actions put forward.

Goal 9 Build resilient infrastructure, promote sustainable industrialization and foster innovation

- *9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities*
- *9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and*

substantially increasing the number of research and development workers per 1 million people and public and private research and development spending

Links with the Partnership: The overall work of the Partnership corresponds with Goal 9, as upgraded infrastructure, innovative technology and industrial processes are key in a circular economy. Specifically, the work on the barriers to the urban bioeconomy address the need for new technological advancements which are more resource optimal and sustainable, enabling bio-resources to be re-used and recycled in cities.

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

- *11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries*

- *11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management*

Links with the Partnership: This Goal is central to the work in all Urban Agenda Partnerships as it emphasizes the cities role in achieving sustainable development. The Partnership on Circular Economy has a clear city perspective when addressing the barriers in a transition to a circular economy, and place a special focus on the environmental impacts of cities. All of the actions put forward in this action plan, support this goal.

Goal 12. Ensure sustainable consumption and production patterns

- *12.2 By 2030, achieve the sustainable management and efficient use of natural resources*
- *12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment*
- *12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and re-use*
- *12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature*

Links with the Partnership: This Goal is central in all actions proposed by the Partnership. The main goal of making the transition from a linear to a circular economy is to achieve sustainable and efficient use of natural resources. Therefore, this is at the core of all actions put forward in this action plan.

17 Strengthen the means of implementation and revitalize the global partnership for sustainable development

- *17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and*

financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries

Links with the Partnership: This Goal is central to the work in the Urban Agenda Partnership as a whole and emphasizes the need for partnerships to achieve the sustainable development goals. This is the core concept of the EU Urban Agenda as it brings together stakeholders from both local, national and international level to work together to find common solutions to the barriers identified for cities in transitioning into a circular economy.

A more detailed overview on which of the Partnerships' Actions contribute to the above cross-cutting issues is provided in Annex 4 of the Action Plan. Conclusion is that several of the actions strongly support the SDGs, mainly Goal 8, 9, 11, 12 and 17.

ANNEXES

Annex 1: List of members and involvement

Partner	Topic leader	Action leader	Member of Action Working Group
City of Oslo	• Circular Public Procurement[22], • Bio-resources, • Waste prevention and Circular Consumption, • Food waste prevention	• Analyse the regulatory obstacles and drivers for boosting an **urban circular bioeconomy** • Promote **Urban Resource Centres** for waste prevention, re-use and recycling • Develop City Indicators for a Circular Economy	• Waste legislation • Water legislation • Circular City Portal • Roadmap for Circular Resource Management in cities • Manage the re-use of buildings and spaces in a circular economy • Develop a "**Pay-as-you-throw"-toolkit** with coaching
City of Prato	• Water as a Resource • Sustainable buildings	• Develop a "**Pay-as-you-throw"-toolkit** with coaching • Help make **water legislation** support the circular economy in cities • Manage the **re-use of buildings and spaces** in a circular economy	• Waste legislation • Roadmap for Circular Resource Management in cities
City of Porto	• Industrial symbiosis		• Analyse the regulatory obstacles and drivers for boosting an **urban circular bioeconomy** • Roadmap for Circular Resource Management in cities

[22] The theme of Circular Public Procurement was transferred to the Partnership on Public Procurement in September 2017

			• Develop a "**Pay-as-you-throw"-toolkit** with coaching • Urban Resource Centres • Manage the re-use of buildings and spaces in a circular economy
City of Kaunas	• Eco-design		• Circular City Portal • Roadmap for Circular Resource Management in cities • Develop City Indicators for a Circular Economy
City of The Hague	• Collaborative economy • Urban Resource Management	• Help make **waste legislation** support the circular economy in cities • Roadmap for **Circular Resource Management** in cities • Develop a **Collaborative Economy Knowledge Pack** for cities	• Urban Resource Centres • Develop a "**Pay-as-you-throw"-toolkit** with coaching
OVAM (Flanders)	• Governance	• Prepare a blueprint for a **Circular City Portal**	• Circular City Funding Guide • Mainstream the circular economy into the post 2020 Cohesion Policy and corresponding Funds • Develop City Indicators for a Circular Economy • Manage the **re-use of buildings and spaces** in a circular economy
Finland			• Roadmap for Circular Resource

			Management in cities • Develop City Indicators for a Circular Economy • Manage **the re-use of buildings and spaces** in a circular economy • Analyse the regulatory obstacles and drivers for boosting an **urban circular bioeconomy** • Develop a "**Pay-as-you-throw"-toolkit** with coaching
Slovenia	• Governance	• Prepare a blueprint for a **Circular City Portal**	• Circular City Funding Guide • Roadmap for Circular Resource Management in cities • Manage the **re-use of buildings and spaces** in a circular economy • Develop City Indicators for a Circular Economy
Poland			• Waste legislation • Develop a "**Pay-as-you-throw"-toolkit** with coaching • Circular City Portal • Roadmap for Circular Resource Management in cities • Manage the **re-use of buildings and spaces** in a circular economy
Greece		• Mainstream the circular	• Develop a "**Pay-as-**

		economy as an eligible area into the **post 2020 Cohesion Policy and corresponding Funds**	**you-throw"-toolkit** with coaching • Circular City Portal • Analyse the regulatory obstacles and drivers for boosting an **urban circular bioeconomy** • Urban Resource Centres • Collaborative Economy Knowledge Pack • Manage the **re-use of buildings and spaces** in a circular economy • Develop City Indicators for a Circular Economy
European Investment Bank	• Governance	• Prepare a **Circular City Funding Guide** to assist cities in accessing funding for circular economy projects	• Mainstream the circular economy into the post 2020 Cohesion Policy and corresponding Funds • Circular City Portal • Roadmap for Circular Resource Management in cities • Develop City Indicators for a Circular Economy
EUROCITIES		•	• Waste legislation • Circular City Portal • Roadmap for Circular Resource Management in cities • Develop City Indicators for a Circular Economy • Manage the **re-use**

			of buildings and spaces in a circular economy
CEMR			• Waste legislation • Mainstream the circular economy into the post 2020 Cohesion Policy and corresponding Funds • Circular City Portal • Urban Resource Centres • Roadmap for Circular Resource Management in cities
URBACT			• Circular City Portal • Roadmap for Circular Resource Management in cities • Collaborative Economy Knowledge Pack • Manage the **re-use of buildings and spaces** in a circular economy
ACR+ (from September 2017)			• Circular City Funding Guide • Urban Resource Centres • Circular City Portal • Develop City Indicators for a Circular Economy • Manage the **re-use of buildings and spaces** in a circular economy • Develop a "**Pay-as-you-throw"-toolkit** with coaching
DG Regional			• Circular City Funding

and Urban Policy			Guide • Mainstream the circular economy into the post 2020 Cohesion Policy and corresponding Funds • Manage the **re-use of buildings and spaces** in a circular economy
DG Environment			• Waste legislation • Circular City Funding Guide • Circular City Portal • Water legislation • Manage the **re-use of buildings and spaces** in a circular economy
DG Research and development	• Bio-resources	• Analyse the regulatory obstacles and drivers for boosting an **urban circular bioeconomy**	• Circular City Funding Guide
DG CLIMA			• Water legislation

Annex 2: List of relevant studies

Report/Study	Author	Topic	Link
Regulatory barriers for the Circular Economy	Technopolis Group	Regulation in the Circular Economy	http://ec.europa.eu/DocsRoom/documents/19742
Bridge! Better EU regulation for local and regional authorities	Europa Decentraal	Regulation	https://europadecentraal.nl/bridge-english/
Perspective study: Governance for C2C	C2C Network	Governance	http://www.c2c-centre.com/library-item/perspective-study-governance-c2c
Cities in the Circular Economy	Ellen MacArthur Foundation	Circular Cities	https://www.ellenmacarthurfoundation.org/publications/
Executive Briefing: BS 8001 – a new standard for Circular Economy	BSI	Circular Economy standard	https://www.bsigroup.com/en-GB/standards/benefits-of-using-standards
Circular Economy in Cities Around the World – a selection of case studies	Patrick Lindner, Cynthia Mooij, Heather Rogers	Circular Cities	http://www.europarl.europa.eu/RegData/etudes/STUD/2017/602065/IPOL_STU(2017)602065_EN.pdf
Circular by design – Products in the Circular Economy	European Environment Agency	Eco-design and circular products	https://www.eea.europa.eu/publications/circular-by-design
Rethinking Economic Incentives for separate collection	Zero Waste Europe	Waste management	https://www.zerowasteeurope.eu/wp-content/uploads/2017/07/Rethinking-economic-incentives2.pdf
Environmental taxation and EU environmental policies	European Environment Agency	Taxation and regulation	https://www.eea.europa.eu/publications/environmental-taxation-and-eu-environmental-policies
Beyond the Circular Economy Package – Maintaining momentum on Resource Efficiency	Aldersgate group	Resource Efficiency	http://www.aldersgategroup.org.uk/latest#business-needs-long-term-support-to-deliver-324bn-circular-economy-opportunity

UIA second Call for Proposals: Policy trends from the proposals under the topic of circular economy	Reka Soos, Urban Innovative Action	Trends in Circular Economy	http://www.uia-initiative.eu/sites/default/files/2017-10/UIACall2_policytrends_circular%20economy.pdf
In-depth report: Indicators for Sustainable Cities	Science for Environment Policy	City Indicators	http://ec.europa.eu/environment/integration/research/newsalert/pdf/indicators_for_sustainable_cities_IR12_en.pdf
Circular City Governance: An explorative research study into current barriers and governance practices in circular city transitions in Europe	Jan Jonker and Naomi Montenegro Navarro, Radboud Universty, Nijmegen 2018	Governance	
Pay-As-You-Throw schemes in the Benelux countries	Daniel Card (Eunomia) and Jean-Pierre Schweitzer (IEEP)	Economic Incentives	https://ieep.eu/uploads/articles/attachments/84782562-17b9-4a16-b496-95dca4183fcf/BE-NL-LU%20PAYT%20final.pdf?v=63680923242
"Cross-analysis of 'Pay-As-You-Throw' schemes in selected EU municipalities (executive summary)",	Jean-Jacques Dohogne, Lisa Labriga and Giuliana Longworth	Economic Incentives	Available upon request: http://www.acrplus.org/index.php/en/news/acr-news/723-payt-report-now-available

Annex 3: List of themes, topics and actions

Theme	Topic/Scoping fiche	Action
Governance	Governance	Prepare a blueprint for a **Circular City Portal**
		Develop a **"Pay-as-you-throw"-toolkit** with coaching
		City Indicators for a Circular Economy
		Mainstream the circular economy as an eligible area **into the post 2020 Cohesion Policy** and corresponding Funds
		Prepare a **Circular City Funding Guide** to assist cities in accessing funding for circular economy projects
Urban Resource Management	Urban Resource Efficiency	Help make **waste legislation** support the circular economy in cities
		Develop a '**Circular Resource Management' roadmap** for cities
	Bio-Resources	Analyse the regulatory obstacles and drivers for boosting an **urban circular bioeconomy**
	Water as a Resource	Help make **water legislation** support the circular economy in cities
	Sustainable Buildings	Manage the **re-use of buildings and spaces** in a circular economy
Circular Consumption	Waste prevention and Circular Consumption	Promote **Urban Resource Centres** for waste prevention, re-use and recycling
	Food Waste Prevention	Prepare a blueprint for a **Circular City Portal**
	Collaborative Economy	Develop a **Collaborative Economy Knowledge Pack** for cities
Circular Business enablers and drivers	Industrial Symbiosis and innovative business models	Develop a '**Circular Resource Management' roadmap** for cities
	Circular Public Procurement	*Transferred to Partnership on Public Procurement*
	Eco-Design	*Transferred to topic on governance, waste prevention and industrial symbiosis.*

Annex 4: List of actions in Action plan, part 2 and their correspondence with international commitment

Action	Cross-Cutting issues (as referenced in the Pact of Amsterdam)	New Urban Agenda	2030 Agenda for Sustainable Development
Better Regulation			
Help make **waste legislation** support the circular economy in cities	12.9. 12.11	Section: 45., 63., 71., 65., 70., 72., 73., 74.	Goal 11 (11.3, 11.6), Goal 12 (12.2, 12.4, 12.5, 12.8), Goal 17 (17.16)
Help make **water legislation** support the circular economy in cities	12.2, 12.5, 12.9. 12.11	Section: 45., 63., 71., 65., 70., 72., 73., 74.	Goal 6 (6.3), Goal 11 (11.3, 11.6), Goal 12 (12.2, 12.4, 12.5, 12.8), Goal 17 (17.16)
Analyse the regulatory obstacles and drivers for boosting an **urban circular bioeconomy**	12.5, 12.11	45, 63, 65, 70, 71, 74.	Goal 8 (8.3, 8.4), Goal 9 (9.4, 9.5), Goal 11 (11.3, 11. 6), Goal 12 (12.2, 12.4, 12.5, 12.8), Goal 17 (17.16)
Better Funding			
Prepare a **Circular City Funding Guide** to assist cities in accessing funding for circular economy projects	12.11	Section: 45., 63., 71., 56., 58., 60.	Goal 8 (8.3, 8.4), Goal 9 (9.4, 9.5), Goal 11 (11.3, 11.6), Goal 9 (9.4, 9.5), Goal 12 (12.2, 12.4, 12.5, 12.8), Goal 17 (17.16)
Mainstream the circular economy as an eligible area into the **post 2020 Cohesion Policy and corresponding Funds**	12.11	Section: 45., 63., 71., 56., 58., 60.	Goal 8 (8.3, 8.4), Goal 9 (9.4, 9.5), Goal 11 (11.3, 11.6), Goal 9 (9.4, 9.5), Goal 12 (12.2, 12.4, 12.5, 12.8), Goal 17 (17.16)
Better Knowledge			
Prepare a blueprint for a **Circular City Portal**	12.2, 12.5, 12.6, 12.11	Section: 45., 63., 71., 47., 48.	Goal 11 (11.3, 11.6), Goal 12 (12.2, 12.4, 12.5, 12.8), Goal 17 (17.16)

Promote **Urban Resource Centres** for waste prevention, re-use and recycling	12.1, 12.3, 12.4, 12.5, 12.8, 12.11	Section: 45., 63., 71., 53., 47., 48., 66., 65., 70., 72., 73., 74.	Goal 8 (8.3, 8.4), Goal 11 (11.3, 11.6), Goal 12 (12.2, 12.4, 12.5, 12.8), Goal 17 (17.16)
Develop a **Circular Resource Management Roadmap** for cities	12.1, 12.5, 12.11	Section: 45., 63., 71., 65., 70., 72., 73., 74.	Goal 9 (9.4, 9.5), Goal 11 (11.3, 11.6), Goal 12 (12.2, 12.4, 12.5, 12.8), Goal 17 (17.16)
Develop a **Collaborative Economy Knowledge Pack** for cities	12.1, 12.5, 12.11	Section: 45., 63., 71.,66.	Goal 11 (11.3, 11.6), Goal 12 (12.2, 12.4, 12.5, 12.8), Goal 17 (17.16)
Manage the **re-use of buildings and spaces** in a Circular Economy	12.1, 12.3, 12.6, 12.8, 12.11	44, 45,49, 51, 53, 63, 65, 69, 71.	Goal 8 (8.3, 8.4), Goal 9 (9.4, 9.5), Goal 11 (11.3, 11. 6), Goal 12 (12.2, 12.4, 12.5, 12.8), Goal 17 (17.16)
City Indicators for a Circular Economy	12.1, 12.2, 12.11	45, 47, 48, 63, 65, 71, 81, 88, 91.	Goal 8 (8.3, 8.4), Goal 9 (9.4, 9.5), Goal 11 (11.3, 11. 6), Goal 12 (12.2, 12.4, 12.5, 12.8), Goal 17 (17.16)
Develop a «Pay**-as-you-throw"-toolkit** with coaching	12.5, 12.11	45, 60, 63, 65, 66, 71, 122, 134.	Goal 8 (8.3, 8.4), Goal 9 (9.4, 9.5), Goal 11 (11.3, 11. 6), Goal 12 (12.2, 12.4, 12.5, 12.8), Goal 17 (17.16)