

**URBAN AGENDA for the European Union  
Partnership for Digital Transition  
ORIENTATION PAPER**



*\*\*\* As the EU Urban Agenda has no legal basis and as participation is voluntary, the actions presented in this Orientation Paper are not compulsory. They are recommendations. \*\**

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# 1. PARTNERSHIP COMPOSITION

## 1.1 Partnership members

*The partnership consists of:*

### **Member States**

1. Estonia (coordinator)
2. Croatia
3. Germany
4. Hungary
5. Romania
6. Spain

### **Cities**

7. Oulu (coordinator)
8. Sofia (coordinator)
9. Eindhoven
10. Hamburg
11. Helsingborg
12. Lisbon
13. Lyon
14. Rome
15. Association of Municipalities and Towns of Slovenia / SOS

### **Other Members**

16. CEMR
17. EUROCITIES
18. DG REGIO
19. DG CONNECT
20. URBACT (observer)
21. Committee of the Regions ( Stakeholder)

## 2. OBJECTIVES OF THE PARTNERSHIP

### 2.1 Presentation of the issue(s)

#### A. What is already done (existing strategies, policies, legislation, funding instruments, working groups, networks, projects, databases, etc.);

There are several EU level strategies and legislation adopted to foster transition into fully functioning digital society, government and economy in the EU.

- **The European Commission's Digital Agenda** forms one of the seven pillars of the Europe 2020 Strategy which sets objectives for the growth of the European Union (EU) by 2020. The Digital Agenda's main objective is to develop a digital single market in order to generate smart, sustainable and inclusive growth in Europe, and it is made up of seven pillars.
- **Digital Single Market Strategy for Europe**, adopted by the European Commission in May 2015, aims at maximising the growth potential of the digital economy. Strategy underlines the necessity to digitalise industries and production in the EU and to ensure that EU citizens and businesses benefit from digitalisation by getting access to digital services such as modernised e-government, e-health, e-energy and e-transport across EU.
- **EU eGovernment Action Plan 2016-2020**, adopted by European Commission in April 2016, sets out a long-term vision for open, efficient and inclusive public administrations, providing borderless, personalized, user-friendly, end-to-end digital public services to all citizens and businesses in the EU. The action plan includes a series of principles and priorities that should guide EU and national interventions in e-government development and identifies a list of impactful actions in the field that can be further complemented with additional actions over its lifetime.
- **Urban Agenda for the EU**, adopted by the Pact of Amsterdam in May 2016, sets digital transition as one of the key priorities to be implemented in EU urban authorities, requiring integrated action at the EU level by multi-level cooperation to enforce.
- **European agenda for the collaborative economy**, adopted by European Commission in June 2016, on how to encourage the development of new and innovative services.
- **European Smart Cities Initiatives**. The future of European cities can only be smart. The European Commission supports the development and has initiated the EIP on Smart Cities and Communities and funds a number of Smart City Lighthouse projects. Progress on the digital transition is an essential pillar for the next steps towards

smarter cities and societies. Without a well planned and executed digital transition there will be no smart cities.

A number of EU and national regulatory instruments are already in place regarding **privacy** protection for data collected on individuals and the conditions, under which these are shared, including between public bodies within each MS, at EU level and beyond, such as:

- Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 - **processing and free movement of personal data**
- eIDAS: Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on **electronic identification and trust services for electronic transactions** in the internal market

There are mechanisms at EU level available to fund initial investments by cities and partnerships they sponsor in the digitization of urban infrastructures: Horizon 2020 for innovation, the Connecting Europe Facility (CEF) Telecom programme, the funding mechanisms available through regional policy programmes, and loans and other financial instruments available through the EIB.

Many urban authorities in EU have adopted their own Smart City strategies and numerous projects across EU are implemented under this theme.

## **B. What are the problems, solutions and potentials; Why is it relevant for the EU Urban Agenda and for cities and their citizens?;**

There are still large differences between EU cities as regards digitalising urban policies and local public services offered to citizens. Some of the core problems include:

- Unequal access to fast internet connection
- No or limited state-built ICT infrastructure upon which to develop local digital services (digital identity/ authentication and authorisation system, interoperability architecture)
- No or partial national legal framework regulating the generation, use and storage of personal data
- De-facto technical interoperability between national/local registers/ICT systems – data simply does not move
- De-facto locked-in situations with specific vendors, limiting the development of new digital components due to uncompetitive and high price levels
- Varying level of digital competence and appropriate organizational structures in city administrations and urban institutions

Smart cities are the future's networked activity hubs, playing a key role in the societal and economic development. The future city is a place/hub/platform, to which people,

companies etc. link their activities and find themselves all they need, be it employers/employees, services, social interaction etc. With the help of digitalization it is possible to create tools for this development, making future cities functional and people-centric environments.

### **C. The partnership focus;**

The partnership focuses on the topics related to urban policies which affect citizens and businesses most directly and which have the capacity to offer the highest growth potential for EU urban areas. The partnership wishes to work on the topics where digitalisation can have the most profound effect in transforming:

1. Urban governance,
2. Quality and fulfilment of life of its citizens and
3. The most advantageous business and growth opportunities for the businesses.

The partnership has chosen to analyse the topics of Future Health and social care services and Future learning & skills development as these areas of life concern every individual and the municipal level has very often clear responsibilities on these subjects. Digitalisation on the topics of eGovernment and Urban Planning can have a significant effect on transforming urban governance to fit the 21<sup>st</sup> century's needs. Analysing the possibilities that are becoming available by fostering 5G and other Key Enabling Technologies can trigger new business growth in EU urban areas. The creation of digital services to enhance the competitiveness of enterprises and improving the quality of life of people is at the core of the focus of the partnership.

All EU citizens use healthcare services either directly provided by the municipality or used in the municipality; elderly, disadvantaged and people with special needs use social services usually provided by the municipal level. All citizens use at least some of the public services offered by urban authorities.

All EU citizens have benefitted from the education sector and more and more, will benefit from its e-learning facilities as they are developed and implemented. Lifelong, digital, learning will become more and more important as people will have more varied careers and will need to keep up, in particular, their digital skills to remain competitive on the job market.

Civil society should be strongly involved in shaping the digitalisation of cities (co-creation, design thinking, prosumers, participation especially in the development of the goals of data strategies and smart city strategies).

Businesses in the EU will receive a necessary growth boost from using new innovative technologies, new business models and open data to develop their products and services and access new markets, increasing growth in the EU. Urban authorities as well as all other administrative levels in the EU could achieve significant time and financial savings and

increase their efficiency by digitalising their everyday procedures and public services they offer and developing modern, also cross-border services based on open data.

The influence of digitalisation on the competitiveness of the economies of different countries, social welfare and governance can be hardly over-estimated. The individual digitalisation processes in each of the topics under focus of the partnership will contribute to the overall digital transition in urban areas. They will greatly benefit from a single European framework and hence support and be supported by and the building of a digital single market in the EU which will increase the Union's growth perspective.

## 2.2 Scope of the Partnership – some issues may not be covered

The partnership focuses on five vertical themes: Future Health and social care services, eGovernment, Urban Planning, Future learning & skills development, and 5G / other KETs. Two horizontal enabler themes are cross-cutting the verticals: Data & Standardization and Business Models. The objective is to provide better public services to urban citizens, new innovations and create business opportunities for European cities.

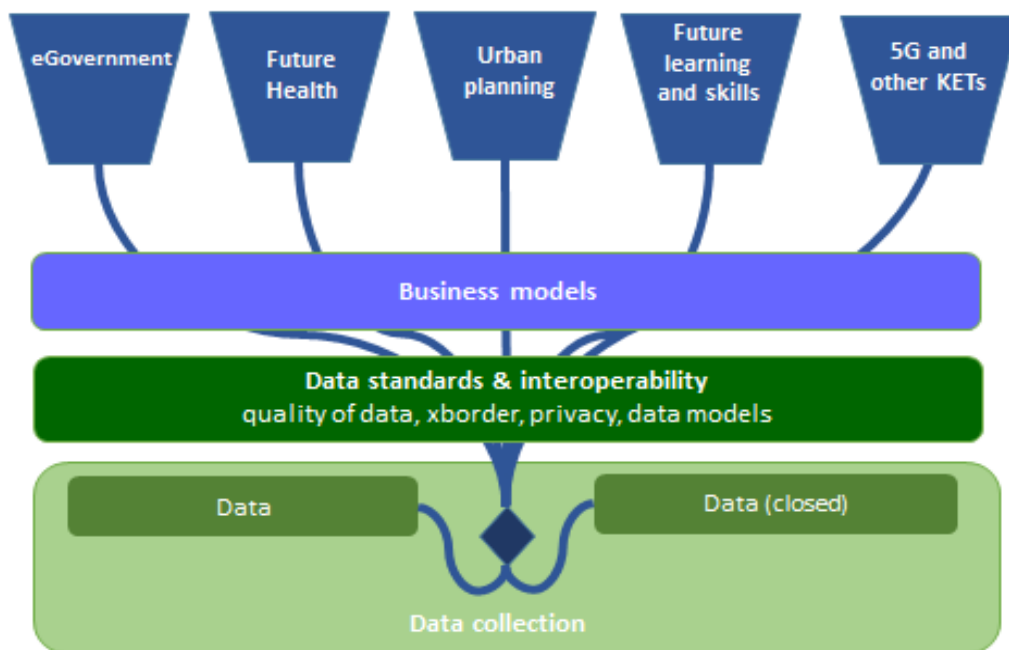
It is essential that the digital transition in Europe will be based on sound prerequisites that put the interest of the citizen first. Whether it is about creating safeguards for privacy, offering transparent alternatives for the dominant US-based platforms (like Facebook, Uber, AirBnB etc.), avoiding vendor lock-in and loss of control of data, etc., it is vital that the European Union, in a joint effort supported by this Urban Agenda partnership on Digital Transition, creates European alternatives that take account of those concerns.

### **Vertical content themes:**

- *Future Health and social care services*
- *eGovernment*
- *Urban Planning*
- *Future learning and skills development*
- *5G and other key enabling technologies (incl. Urban Platforms)*

### **Horizontal enabler themes:**

- *Data, standardization and interoperability as horizontal enablers*
- *New business models accelerating urban growth*



Scope of the Digital Transition: Vertical themes and horizontal enablers

## 2.3 Vertical content themes

### 2.3.1 Future Health and social care services

Through the EU Urban Agenda, national governments, cities, European institutions and other stakeholders will be working together for a sustainable, innovative and economically powerful Europe that offers a good quality of life. A well thought through and efficiently implemented process of digital transition in the healthcare and social services sector will contribute to guaranteeing the right service, at the right time for the right person. The integration of healthcare and social services is already in place, since it enhances cost-management, customer-orientation and quality.

Another important focus is to bring the main stakeholders in the EU to work together to:

- a) promote innovations and businesses in the area of human driven health and social care and
- b) to overcome regulatory and privacy concerns on the human driven data.

Applying an e-health model of health and social care in European cities can bring significant cost savings to the public health and social care system and new business models for European enterprises towards EU single market.

Digitalization of public services and extensive changes in operating practices need legislative amendments and deregulation to advance. Data management strategies are



missing in many EU MS slowing down the development of new innovations and advancing European digital single market. Health sector is one prominent example - only 13 % of MS have a national policy or strategy regulating the use of big data in health sector, and only 9% have a national policy or strategy regulating the use of big data by private companies.

In data-led health care, the special focus should be on free Flow of Data: Clarifying emerging issues of data ownership, access and liability, encouraging access to public data; a legal regime fit for an efficient and fair access to, usage and exchange of data. There is a lack of data governance in EU. A lack of data privacy and security laws is considered to be the top barrier to adopting big data for healthcare.

Advancing the process creating a EU framework for generation and collection, ownership, needs based use, sharing, privacy, cyber security and duty of care of electronic health records (EHR) and personal healthcare records would enable eventual business models that would benefit of combining EHR and personal health care data for providing preventive care, and wellbeing management of citizens.

The adoption of cloud technologies and mobile devices to generate, access, and manage personal health data (like fitness trackers, specialised personal medical monitoring devices, mobile phones equipped with various sensors) is spreading. This data (often called also wellbeing data to distinguish it from medical records) is regulated by the data use policies of the companies developing the applications. This is vast amount of data that citizens voluntarily agree to be stored and present to respective companies which is kept while they use the service. Numerous initiatives for platform, data, and application interoperability exists however no specific EU level rules exists for personal healthcare data.

The current status quo will be disrupted, as the new General Data Protection Regulation (GDPR) will come into force in the EU in May 2018. Companies will meet new challenges, as adapting GDPR requires substantial financial and human resources, as well as new technological solutions.

At the same time continuing growth in data and especially personal data is paving the way for data-driven business solutions. There are however several challenges yet to be addressed in secure end-to-end management and coordination of data. Furthermore, GDPR gives more fine-grained control to the individual on personal data and more responsibilities to organizations. Solving these challenges requires research and development of a software architecture that is designed for secure data management and coordination from ground up. Currently, personal data is a fragmented in a number of commercial actors' applications.

EU level health and social care polices of local governments could vastly benefit from studying EU level data management solutions, like unique human-centred data management, which is called MyData.

Health- and social care policies of local governments could also vastly benefit from matching properly anonymized health data with other sources of digital information, for

example using geographically referenced mobility and air pollution to drive preventive programs or personalised advice to its citizens.

### **New knowledge**

Currently eHealth and mHealth are recognized tools to promote the necessary patient oriented digital transformation in healthcare. Information exchange, individual patient specific care and quality and efficiency improvements require the use of medical informatics. Until recently, medical personnel, especially medical doctors have not received the necessary skills in their formal education. First wave of digitalization (D1) gave us the basic electronic medical records and connectivity. The concept of care is changing. The second wave of digitalization (D2) is here. eHealth / mHealth is a tool to change the process of care and renew the roles of patient and health care personnel. There is need to receive more support from IOT devices and break the barriers of distance.

### **2.3.2 eGovernment**

**The cross-cutting issues include: Good urban governance (e.g. focus on metropolitan governance, innovation, good regulation, good coordination, citizen participation and involvement of civil society, business sector and other urban stakeholders)**

Digitalization of public services has been a strategic goal for governments and smart cities for years. The initial focus of actions covered the transformation of services to eServices including the automatization of internal processes. Today, digitalization is understood more widely as a phenomenon, a transformation that heavily modernizes organizations and public policies. Digital transformation is a process of profound and radical change that directs organizations and their governance processes in a new direction and takes them to an entirely different level of effectiveness.

The Introduction of eGovernment, if implemented with an aim to increase accessibility and transparency, allows all spheres of administration, including local authorities to work faster, cheaper, more inclusively and more transparently than when using traditional “paper” based administrative processes. E-services and e-solutions save time and money for both public authorities and citizens by cutting down bureaucratic waste and making the administration more effective. eGovernment also offers the potential to break down barriers between officials and the people they serve.

It is essential to ensure that the process of accessing and using e-services must be made easy and accessible. It is expected to become a normal practice that everyday location-based public services will also be offered digitally. Availability of electronic interface between urban administration and citizens with integrated e-solutions for public services makes the citizen more as a partner in the civic process and enhances openness and trust in urban administration.

Prerequisites for a functioning eGovernment at state, regional and municipal level include the availability of enabling technologies such as fast nationwide internet connections,

legalised digital identities or other authentication and authorisation methods, an interoperability architecture between various public registers and service providers-, the availability of, and access to, Open Data, a legal framework covering the use, generation and storage of personal data, national and urban authorities' willingness or legal basis to implement the once-only principle and no legacy policy on old systems.

Besides the basics of eGovernment outlined above, today citizens expect also open government / management: use of Open Data, API's and data models that enable human-centric mobile and eServices. Public services are expected to be accessible and easy to use also on various mobile devices. Today, in the theme of e-Government the main themes cover openness (open data, open government, open innovation), interoperability (API's, data models, avoiding city silos) and innovative human-centric eServices (IOT, robotics, cloud, mobile, wireless, usability). The key question is how to transform "smart city governments" in a way that radically reform city's functions a new modern level. Agile and open cooperation with private sector and start-ups as well as with civil society to enable new innovative solutions is essential here.

For example, from one side, the city could provide personalised actionable information and services for every citizen (for example air pollution alert targeted to the individuals' precise location, or transiting public transport for feeder lines from fixed routes to on demand door-to-door), from other side, via the same platform the city could enable, ask, or require citizens to make available their sensor data for use in improving urban life, thus adding up to millions of additional data gathering points for its network.

More timely and easier citizens participation is vital for shaping the future of our cities in this includes digitalization – civil society should be stronger involved in the development of the goals of data and smart city strategies.

Today, much better transparency of administration is also expected, incl. possibilities to log on to e-applications to see what elected council members are doing with draft legislation or check who in the administration has reviewed the individual's government-held records and data.

Developing mandates, best practices or regulations which would help cities to design their services based on data acquisition models would help less digitalised cities throughout EU to gain speed and decrease digital inequality. Cities could consider large scale digital data acquisition and the establishment of an analytics platform to be part of the standard urban digital services.

Successful digital services and platforms work globally (Über, Airbnb, etc.). In order to develop scalable digital platforms, interoperability between European Smart cities is crucial. Interoperability is advanced through active partnership in order to identify areas where regulation is needed. Prevention of abuse must be built into all systems, which can directly affect the decision making as robots can be harnessed to transmit messages and to raise an important issue, even though it would not otherwise be.

The European Commission has already introduced several EU-wide initiatives and actions (some based on requests from Member States), for example introducing the “Once only principle” and requesting e-signature, electronic procurement and e-invoicing to become compulsory for administrations. The implementation of these principles should trickle down to the local level.

- 1) The partnership will analyse how these principles are likely be implemented at the local government level:** are there any obstacles hindering or entirely blocking the implementation and how to overcome these, how much readjustment is required at local government level in EU to effectively implement these.
- 2) The partnership takes into account that the current digitalization level among EU urban administrations/local government level varies significantly – there are advanced authorities and also those who are just starting – and situation analysis and proposed future steps will be proposed for both. The partnership will carry out the mapping exercise of the current level of digitalization in European cities to properly understand the circumstances at hand.**
- 3) The partnership will also investigate and utilize the work of Geant ([www.geant.org](http://www.geant.org)) and Edugain networks where relevant.**

The partnership will also analyse the effect of eGovernance on citizen level: which benefits citizens´ appreciate and what are the accompanying fears related to further digitalization of public services, paying special attention to possible privacy concerns and how to overcome these.

From the software security point of view, a new and more transparent administration and possibility of citizens to give their opinions and directly participate in decision making processes gives challenges. In social media there is a phenomena of professional trolls pushing their ideas through. This is now going even deeper where misinformation is fed to the system. This can be a danger for sound and democratic decision making at local level based on proper information and in a diligent course of consideration. Cities have a strong role to play in strengthen such democratic values at local level.

### **2.3.3 Urban Planning**

Urban territories today generate vast amounts of data. Urban data gathering and analytics frameworks that help cities collect, organize, extract and analyse data enable the transition towards smart cities and support planning and decision making. One example is the ability to generate data on different aspects of city life and combine these data sets such as urban mobility, population and household statistics, healthcare data, criminal statistics, building monitoring, and obtain insights via geospatial models that help improve overall decision making, while allowing for micro targeting of specific issues related to very small groups of people and down to a city block level. The development of business models to fund, design, implement and run such platforms is a desirable outcome.

When smart city strategies are brought to implementation through practical actions, these will have an impact on spatial planning and development processes. A successful Smart City Strategy seamlessly integrates purpose driven, thematic, strategic planning (e.g. for low carbon development, human wellbeing or smart specialization), urban design and place managing. New, agile cross-sectorial operational models that integrate physical development and digitalization need to be formed locally.

Developing mandates, presenting best practices and explaining existing or developing new regulations that would help cities to design their services based on data acquisition models will help less digitalised cities throughout the EU to gain speed and decrease digital inequality. Cities could consider large scale digital data acquisition and analytics platforms to be part of the standard urban digital services.

On the one hand, the city could provide personalised actionable information and services for every citizen (for example air pollution or road slipperiness alerts targeted to the individuals' precise location, or transforming public transport for feeder lines from fixed routes to on demand door-to-door). On the other hand, via the same platform the city could enable, ask, or require citizens to make available their sensor data to be used for improving citizens' lives, thus adding up to millions of additional data gathering points for its network.

As digitalization is considered a means to explore and exploit new opportunities arising within the urban environment, the spatial planning procedures should be re-evaluated from the viewpoints of enabling open innovation and service provision. Here, context-based digital solutions should be provided for/by innovation ecosystems, and these solutions are: individual based, stakeholder group based, place based or community based.

In particular, ICT infrastructure and digital platform planning should be integrated with urban spatial planning, in order to ensure that the prerequisites for building and applying diverse digital solutions in the urban environment are taken into account. These are:

- Design models / processes / regulation (e.g. construction permits) needed how future smart cities design its ubiquitous ICT-infrastructure including fiber optics, sensors, wireless, etc. to make city as a open IOT and innovation platform.
- Urban data (geographic information, buildings), as open data that are used to create virtual reality and 3D applications for example to facilitate the participation of citizens in dialogue on town planning decisions.

The legislative and institutional frameworks of EU MSs regarding spatial planning and licensing vary significantly. Similarly, differences exist across the EU in the use of ICT as a contributor to fostering participation and informed decision making on urban development. Here, both the private and non-profit sectors are sometimes seen to be

forerunners, developing tools before the public sector is ready to implement the technologies available.

Applications such as 3D modelling, online planning platforms and integrated registers (buildings, land use, etc.) have the potential to strengthen stakeholder engagement and make planning and licencing processes more transparent and faster.

The institutional and legislative layout of making planning and licencing decisions will mostly remain for the MSs to regulate. Participation of national authorities can accelerate the application of best practices across EU and address the potential risks involved (digital divide, personal data) in an international forum.

### **2.3.4 Future learning and skills development**

European citizens live in a digital world, and the use of technologies such as instant messaging, video sharing, photo sharing, social network tools, podcasting and blogging are integrated into their lifestyles. The use of these technologies facilitates communication, collaboration, sharing and learning in informal settings with their peers, friends and family unbounded by time and location. In fact, students spend more time in such ‘informal’ settings than in ‘formal’ settings in the schools, universities and other educational institutions. One of the fundamental challenges for future learning is not only what they learn, but also how and when they learn. Digitalisation also shortens the life cycle of learned skills.

#### **New Skills and Life-Long-Learning**

In addition, in the face of economic pressures and demographic changes, the need for new skills have highlighted the role that adult learning will play in lifelong learning strategies. This contributes towards policies that seek to boost competitiveness, employability, social inclusion and active citizenship. Future learning will take place in a variety of environments both inside and outside formal education and training systems and at any age – lifelong learning.

Lifelong learning implies investing in people and knowledge; promoting the acquisition of basic digital skills, including digital literacy and broadening opportunities for innovative, more flexible forms of learning. The aim is to provide people of all ages with equal and open access to high-quality learning opportunities, and to a variety of learning experiences.

Digital cities must ensure support for primary schools to adopt 21<sup>st</sup> century learning skills, access to fast internet connections and modern cloud-based learning environments. Primary schools should be supported to extend learning outside the schools into museums, science centres and other cultural spaces to provide a seamless learning experience.

## Digital Inclusion

The digital divide is starting to emerge as a serious problem faced by the public. In the process of digitalizing services cities must put more efforts into equipping more people with basic digital skills through various lifelong learning initiatives and programs. Cities have the capability to manage and run community based programs in different sectors and can be the forerunners in providing support to lifelong learning opportunities for development of digital skills thus ensuring better quality of life and equal access to services and opportunities for their citizens.

Urban environments offer significant opportunities for informal, lifelong learning activities. For example, digital urban planning and design can be connected with informal learning experiences for citizens to include meaningful content about factors affecting their lives such as contextualized energy consumption data or sustainable development information. In addition, health services can be turned into informal learning experiences when citizens are successfully engaged to follow their lifestyle by using personal activity trackers and respective services provided by public and commercial stakeholders. Utilization of Big Data via appropriate pathways can also support informal, contextualized learning experiences.

## Addressing Access

Currently, access to internet networks or fixed broadband connections varies significantly across Europe. This unequal access limits the possibility for digitalized learning activities. Similarly, disparities exist across the EU in the use of mobile devices, cloud platforms and other emergent technologies as tools for (informal) learning and work. While young generations are forerunners in adopting these tools and technologies, the public education sector and other municipal stakeholders must adapt as well.

## Standardization

Overall, applications such as Open Public Area Wifi Networks, Virtual Reality, Augmented Reality, Mobile Learning, Big Data, Open Educational Resources (OER) have the potential to strengthen informal and formal learning activities across contexts in the future urban city.

In order to provide interoperable access to different learning resources (e.g. OERs), standardization of application interfaces and authorization methods should be enacted at both the national and European levels. Analysis of best practices and policy recommendations is necessary to implement planned or ongoing reforms related to digitalization in education.

Furthermore, the need exists to advance a European digital single market for education technology products and data.



### **2.3.5 5G and other KETs (incl. Urban Platforms)**

Urban Platforms should be developed in the future so that cities can function as open urban innovation platforms for digital transition through key enabling technologies. It is important to develop appropriate business models applicable to the various domains. The business model approach pays attention to ecosystemic value potential of the key enabling technologies and solutions.

#### **5G**

The new generation of wireless network technologies known as 5G is expected to connect billions of devices and objects to ultimately digitize different vertical sectors and the entire society. Policy makers in Europe and globally have recognized the importance of widespread deployment and timely take-up of very high capacity networks as being the key enabler for realizing the full economic and social benefits of the digital transformation. This development will be based on very dense deployments of 5G small cell networks in specific high demand (indoor) locations in urban areas to complement traditional outdoor macro cellular deployments offering generic mobile broadband.

Regulation of the future 5G based telecommunication market calls for new approaches for authorization of networks and services as well as other regulatory elements including (access regulation, pricing regulation, competition regulation, etc.). The currently highly regulated telecommunication market has led to decreasing revenues for traditional mobile network operators (MNOs) with high infrastructure investments which have faced severe competition from internet giants that operate on top of the infrastructure to provide services under looser regulatory regime.

A key regulatory area for the successful take up of 5G networks as the true enabler for digitalization across verticals is the authorization in terms of timely and guaranteed availability of spectrum licenses for testing/experimentation and ultimately the availability of local spectrum licenses for various entrant stakeholders wishing to deploy and operate commercial local small networks complementing incumbent MNOs' offerings.

Standardization is a key to growing markets and healthy ecosystems in all industries and in central role enabling the full exploitation of digitalization's possibilities. In addition to 5G it is essential to identify what else is needed to be standardized or is being standardized related to digitalisation. One example of these additional sectors is standardization of Virtual Reality (VR)/Augmented Reality (AR).

## **2.4 Horizontal enabler themes**

### **2.4.1 Data, standardization and interoperability**

Today's society and its service's highly rely on data that are processed in thousands of systems across public functions. In other words data is the key enabler for digital



transition. To make the data more valuable for cities it is crucial to recognize ownership of data and define the rules for abusing the data. This requires knowledge gained in the topic of clever licencing that enables new innovations and services while cities ensure that they do not lose control over their data. It is also important to recognize the risks related to opening and new ways to use data that must be considered in political level in order to make economically wise decisions.

The development of use of data in new level should be guided by data strategy and shared data models that should be spread across EU. This way cities could be engaged to open the same data set that would enable applications to be develop that work all over EU.

### **A city network**

Opening up public data and private data has the potential to offer raw material for companies and start-ups to make money with new apps and services. There have been activities in cities and governmental organizations to open their data and interfaces around Europe. However, in order to avoid cities to become silos where the applications cannot be used more widely requires coordinated collaboration with different stakeholders. Cities must harmonize the ways in which their data is opened and released and produce/publish shared recommendations to steer data opening in EU. In practical terms; cities need to act together in a network.

### **Common interfaces**

The development of common interfaces is a central part of supporting the use of open data as a resource for digitalization of cities' activities. To ensure that opened data is useful partner cities should build a joint vision that offers companies the potential to scale up their business across EU. It is important to ensure that partners and other cities are committed not only to opening up their data but also to encourage its commercial or re-use in general. This requires also investments in improving data quality.

Interoperability of data must be addressed during the partnership. An enhanced ability to combine different datasets together can help develop additional, more innovative and better products and services in and for cities. Mixing public data with commercial, civil society and citizen input data and sharing with those produced by other public agencies and/or cities holds considerable potential for public value creation. These aggregated city-to-city data sets could also be opened up to companies, communities and individual citizens for their various benefits.

### **Cross border data**

The digital single market requires that data crosses the borders - cross border data exchange should be enabled. Citizen-focused urban authorities and service-based information systems assume that the information systems are linked into a logical uniform unit, which support citizens and organisations. For that purpose, different organisations and information systems must be interoperable - have the ability to function together. It is important also to ensure the transnational availability of e-services to both entrepreneurs and citizens. For example, EU citizens should be able buy out when

necessity occurs, their medicines prescribed by a primary medical care level (often municipal) in another Member State's pharmacy. The cross-border inoperability of basic infrastructure of the services is the prerequisite for that purpose.

### **Privacy concerns**

To advance interoperability and widespread digital platforms, technical standards, appropriate legal frameworks and policies are needed. The topic can be approached from various viewpoints according to type of the data. Open data has different challenges compared for example for health or other private data that are regulated e.g. by privacy or security policies. The challenges to be addressed cover how to identify user, what kind of regulation or rules are needed to ensure security and privacy issues in order to create new innovative services or concepts. Privacy issues must be concerned: combining data from many sources can lead compromising security/privacy issues. Understanding must be gained.

Data utilization and distribution in a secure manner is a challenge that can be addressed through emerging technologies, such as blockchain and distributed ledger technologies. These, and also, from a regulatory perspective, the Audit Log, have potential for different uses. Open Data, API's and data models that enable human-centric mobile and eServices. Active partnership is needed to avoid that cities won't become "new silos" where the applications work only locally – the successful digital platforms will work in every city in the world, globally (interoperability). Development of common interfaces is a central part of supporting the use of open data as a tool for digitalization of cities activities.

Privacy issues must be addressed: combining many data sources can lead compromising security/privacy issues. A better understanding of the challenges must be gained.

### **A safe cyber environment**

The cyber environment and the opportunity to manage data within the environment safety, are in a digital economy, government and society as important as a secure physical environment. For the development of cyber security, the focus should be on shaping the legal space and on educating people and administrations and increasing their awareness. Authorities need a comprehensive system of security measures, consisting of different levels, to ensure cyber security at maximum level. Effective, well-working and novel cyber security solutions are essential. Supporting the development of enterprises that offer cyber security solutions is also one tool to improve the cyber security.

#### ***2.4.2 New business models accelerating urban growth***

The business model approach pays specific attention to new types of digital business opportunities arising from the urban context. Business models are tools to realize and implement urban digital transition through key enabling technologies and supportive data governance. Business models can foster innovation ecosystems that rely on public-private-people partnerships, value co-creation and ecosystemic value potential.

Cities will not develop new services or products themselves. They are, however, the keepers of a lot of (open) data. In order for the private sector to be interested to innovate and develop whatever new services or products, there needs to be a business model underneath. So, cities have the responsibility to ensure the balance between privacy and security on the one hand, and the potential for economically interesting business propositions on the other.

Therefore, business models should be developed for the urban context, so that cities can function as open urban innovation platforms and utilize their dynamic capabilities to foster urban growth in various domains, such as eGovernment, Seamless Learning and Future Health. The dynamic capabilities of urban platforms address key activities in terms of *sensing*, referring to identifying and assessing new opportunities, *seizing*, which refers to mobilizing resources to co-create and co-capture value from those opportunities, and *transforming*, which addresses the continuous renewal and growth of the ecosystem.

The business model approach captures the ecosystemic value potential of digital urban platforms through identifying the drivers for digital disruption, whether this disruption shakes existing systems and processes, and creates something completely new. It also allows to determine the scale and scope of the opportunities, i.e. do these opportunities relate only to specific domains or do they have the potential to be scaled up to cross-domain level within cities, nations or the EU as a whole.

Seizing these opportunities addresses the role of openness and collaboration in the strategic conduct and respective advantages/competences of the ecosystem players in a holistic manner. Only through this process can existing structures and value mechanisms be transformed to enable digital transition and urban growth. Urban platforms should be supported by complementary digital platform-based business models, and the sharing economy with innovative, peer-to-peer interaction and value co-creation.

For addressing the ecosystemic value potential of urban digital transition, five perspectives to business models can be established that enable simultaneous value provisioning and utilization in open urban innovation platforms:

- Connectivity for providing access to services within and between citizens, businesses and government
- Content in the form of any services provided by the ecosystem's stakeholders
- Context in the form of categorization of services in the smart city such as eHealth, eGovernment, eLearning, urban planning etc
- Commerce platforms that enable peer-to-peer service provisioning, utilization and interaction among stakeholders
- Opening the urban innovation platforms for developing and testing new innovations and products

Each perspective to business models helps to identify domain-specific value triggers, enablers and determinants for realizing the urban digital transition. The business model approach thus helps to identify also bottlenecks and gaps where better regulations might be needed or loosened and how to better direct funding to accelerate urban growth, and how to foster innovation systems and better knowledge at EU level as a whole.

## 2.5 General objective of the Partnership

The overall objective of the partnership is to foster digital transition across urban policies to provide better services to citizens and create new business opportunities in EU cities. This goal can be achieved only if enabling factors for digital transition in various sectors are included in EU policies and legislation. The partnership will perform the review of the current status quo and identify existing major hindrances to wider application of digital solutions, and propose necessary EU and Member States' level legislative, policy and financial proposals thereof to enable fostering digital transition at EU urban level. The exchange of best digitalisation practices across the EU will also be promoted.

## 2.6 Specific objective(s) of the Partnership

The partnership will analyse the effect on the following cross-cutting issues when addressing each topic under the thematic scope of the partnership:

### Cross-cutting issues

- Link to urban development goals and policy frameworks
- Good urban governance;
- Urban-rural, urban-urban and cross-border cooperation;
- Sound and strategic urban development and planning;
- Integrated approach;
- Innovative approaches;
- Impact on societal change, including behavioural change;
- Challenges and opportunities of small- and medium-sized cities;
- Urban regeneration;
- Adaptation to demographic change;
- Availability and quality of public services of general interest;
- International dimension (Habitat III and the Sustainable Development Goals).

### 2.6.1 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.”*

### 2.6.2 Better Funding

*“The Urban Agenda for the EU will contribute to identifying, supporting, integrating and improving traditional, innovative and user-friendly sources of funding for Urban Areas at the relevant institutional level, including from European structural and investment funds (ESIF) (in accordance with the legal and institutional structures already in place) in view of achieving effective implementation of interventions in Urban Areas. The Urban Agenda for the EU will not create new or increased EU funding aimed at higher allocations for Urban Authorities. However, it will draw from and convey lessons learned on how to improve funding opportunities for Urban Authorities across all EU policies and instruments, including Cohesion Policy.”<sup>1</sup>*

### 2.6.3 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 reuse of public sector information and the promotion of big, linked and open data.”<sup>2</sup>*

*[Link to existing and future urban knowledge (networks, databases, studies, mappings, etc.. It can also concern gaps in terms of knowledge (need for research, experimentation (e.g. through the Urban Innovative Actions), etc.).]*

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<sup>1</sup> Urban Agenda for the EU – Pact of Amsterdam, Article 5.2

<sup>2</sup> Urban Agenda for the EU – Pact of Amsterdam, Article 5.2

## 2.7 Conditions for meeting the above objectives

European cities' Living labs and testbeds are essential tools to advance digital transition and innovation in general, particularly in the urban context. By doing and experimenting in real-life innovation platforms and test environments, together with real users, it is possible to gain the knowledge and end-user perspective what is needed to progress in digital transition. Living labs as a tool includes also the aspect of co-creation and co-design. Living lab concept places citizen at the heart of the digital transition; citizens are the ones that deploy – or not - the new digital solutions, services and products.

### 2.7.1 Future Health and social care services

Future health will include at least two main line of developments based on digital solutions. First, MyData based new services will be taken in use, supported by such technologies and the next generation wireless networks, the cloud, internet of things and data analytics. MyData operators, for example, will be a new type of an actor in the emerging health service ecosystem. Second, Health care institutions, such as hospitals, will open up their facilities, processes and systems to external parties for collaborative development, as well as innovative procurement, which may result in considerable changes in the whole logic of health care service design and implementation.

	How to meet the objectives under the topic?
<b>Better Regulation - deregulation</b>	<p>European level data governance/strategy is needed to support eHealth strategies, which covers cross border data utilization and distribution issues (privacy, trust quality, digital identity, consent management, data ownership, etc). There is a lack of</p> <ul style="list-style-type: none"> <li>• Data privacy and security laws, data ownership</li> <li>• Standards regarding interoperability &amp; functionality</li> <li>• Data standardization (incl. quality &amp; access)</li> </ul> <p>Regulation of health data models for big data/mydata/open data with appropriate levels of transparency, and in an open source and open standards environment.</p> <ul style="list-style-type: none"> <li>• Actions for implementing EU General personal Data protection Regulation</li> <li>• Regulation for trusted personal data usage and for Big Data solutions for health and care- use of big data for improving health and care and innovative services/trusted digital eservices.</li> <li>• Regulation for Cybersecurity for health and care- new secure ways of data storage and safe exchange of data</li> </ul>



	<p>ensuring cybersecurity in future dynamic digital healthcare systems.</p> <ul style="list-style-type: none"> <li>• The partnership will identify possible challenges to use of data in health care deriving from the EU Privacy regulation</li> <li>• Creation of EU framework for generation, collection, ownership, needs-based use, sharing, privacy and security of EHR / PHR (i.e. electrical health records / personal health records)</li> <li>• Digital solutions for public services: advancing legislative amendments and deregulation and development of management strategies and policies</li> <li>• Enhancing the creation of policies for anonymized health data for use in preventive programs or personalised advice</li> </ul>
<b>Better Funding and Finance</b>	<p>Free flow of data in data led healthcare should be European level program and financed by H2020 and governmental funding programs</p> <ul style="list-style-type: none"> <li>• For R&amp;D targeted support for RD of new analytical methods</li> <li>• For SMEs innovation funding, education and support for data economy</li> <li>• For public sector more support for data governance and analytics is needed</li> <li>• Funding mechanisms should be in place to change the medical curriculum to support the digital transition in the medical professions</li> </ul>
<b>Better Knowledge</b>	<ul style="list-style-type: none"> <li>• Medical education should include new professions like digi doctors and dignurses, etc.</li> <li>• Specific focus on the data analytics/big data/open data/myData as a part of ehealth education</li> </ul>

### 2.7.2 eGovernment

	How to meet the objectives under the topic?
<b>Better Regulation - deregulation</b>	An important aspect of eGovernment is public procurement, the role of public purchase as a market is considerable as such, but its opening for collaborative innovation may be even more important in the longer run.

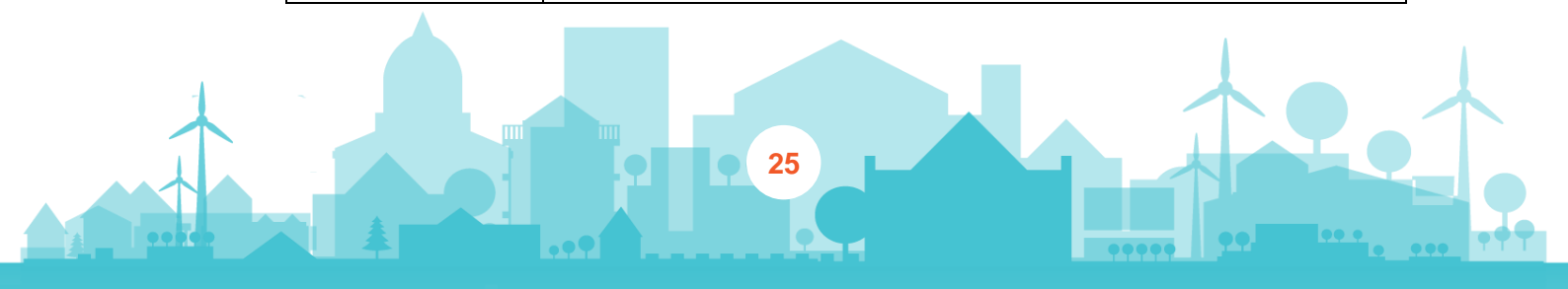
	<p>Life-time service agreements will increase the need to involve public purchasing bodies, private solution suppliers and people as individual end-users throughout the whole life-cycle.</p> <ul style="list-style-type: none"> <li>• Regulatory developments will give a boost to public-private-people partnerships.</li> <li>• Identifying existing obstacles in EU, national (and local, where relevant) legislation and practice which hinder wider uptake of digital solutions and availability of public services electronically</li> <li>• Identifying aspects which require elaborating legislative basis in EU, national or local law to foster eGovernance development</li> <li>• Proposing legal provisions at EU, national and local level to enforce eGovernance</li> <li>• Recommendations on how to implement effectively EU eGovernment Action Plan 2016-2020 at the local government level</li> <li>• Recommendations on how to improve EU eGovernment Action Plan 2016-2020 in directions of local public administration to ensure fast and effective implementation at cities' level</li> <li>• Proposing new actions at cities/ urban areas level to be included in the rolling EU eGovernment Action Plan</li> <li>• Key standards regarding interoperability &amp; functionality</li> <li>• Proposing eGovernment performance measurement framework (benchmarking) for urban authorities, with focus on key deliverables</li> </ul>
<p><b>Better Funding and Finance</b></p>	<ul style="list-style-type: none"> <li>• Identifying aspects related to financing which block faster digitalization processes and proposals to eliminate these</li> <li>• Identifying the existing bottlenecks and simplifying the rules for innovative public procurement related to services' digitalization</li> <li>• Financing proposals, possibly feeding into MFF debate</li> </ul>
<p><b>Better Knowledge</b></p>	<ul style="list-style-type: none"> <li>• Combining portfolio of good experiences of legislation which accelerates development of eGovernment</li> <li>• Defining and exchanging other best practices of implementing e-governance solutions in EU urban areas</li> </ul>





### 2.7.3 Urban Planning

	How to meet the objectives under the topic?
<b>Better Regulation</b> - deregulation	<ul style="list-style-type: none"> <li>• A spatial planning system integrates vertically the national, regional and local spatial development instruments. Horizontally, the instruments included in the spatial planning system integrate aspects of sustainability (environmental and societal (incl. economical and cultural)), in practice. At least every country has a spatial planning system of its own. A comprehensive comparison on the spatial planning systems in the European countries should be made, from the point of view of how diverse countries' systems embrace the integration of smart city strategies, land use planning and real estate development. This study would deliver valuable information on how smart city strategies are transmitted to implementation, as well as on the scalability of smart city solutions.</li> <li>• Legal obstacles in the implementation of innovative data gathering and analysis methods in the processes of spatial planning and decision making</li> <li>• Examining the possibilities for developing standards for linking data sets (sensorial data, big data), standards for integrating data bases with geo-positioning data stream for the purposes of urban planning</li> </ul>
<b>Better Funding and Finance</b>	<ul style="list-style-type: none"> <li>• Development of business models to fund, design, implement and run urban data platforms;</li> <li>• Simple rules for innovative public procurement for smart city solutions should be formulated.</li> <li>• Long term planning for ICT infrastructure investments and maintenance could be integrated with land use planning programming.</li> </ul>
<b>Better Knowledge</b>	<ul style="list-style-type: none"> <li>• In addition to advanced planning making use of such digital opportunities as virtual and augmented reality, it is important to equip smart urban areas with data gathering, analysis and deployment tool. This will not only help citizens to be involved in accessing, sharing and making use of data, but also pave a road to urban DevOps (Development and Operations) solutions towards real-time smart cities, where</li> <li>• Service demand, supply and consumption are connected to each other in a much dynamic manner that at present.</li> </ul>



	<ul style="list-style-type: none"> <li>Increased knowledge and shared understanding on shortcomings and pitfalls is needed for combining smart city and urban planning.</li> </ul>
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#### 2.7.4 Future learning and skills development

	How to meet the objectives under the topic?
<b>Better Regulation</b> - deregulation	<p>There is a lack of:</p> <ul style="list-style-type: none"> <li>Implementation</li> <li>Methods for learning analytics which support understanding how people learn</li> <li>Understanding of what are critical factors which influence learners' dropout rates in MOOCs and other online courses</li> <li>Suitable business models and pedagogical models for augmented, virtual reality or mixed reality learning which are being adopted in forthcoming years</li> </ul> <p>Similar to factors impacting e-health, regulation of student data models for big data/mydata/open data with appropriate levels of transparency, and in an open source and open standards environment.</p> <ul style="list-style-type: none"> <li>Actions for implementing EU General personal Data protection</li> <li>Regulation for trusted personal data usage and for Big Data solutions for school use of big data for improving services.</li> </ul>
<b>Better Funding and Finance</b>	<p>European level financed programs should be offered through H2020 and governmental funding mechanisms to:</p> <ul style="list-style-type: none"> <li>Support R&amp;D of new analytical methods</li> <li>Support early and advanced stage SME innovation funding</li> <li>Enable public school systems to purchase and test innovative solutions to improve services and decision-making.</li> </ul>



	<ul style="list-style-type: none"> <li>• Methodical and financial support for community based initiatives for development of basic digital skills, tackling the raising problem of digital divide.</li> <li>• Development of flexible models for supporting training opportunities and lifelong learning initiatives providing basic digital skills , offered by nongovernment organization, private business, etc.</li> </ul>
<b>Better Knowledge</b>	<ul style="list-style-type: none"> <li>• Pre-service and in-service teacher education should include development of digital competences as core subjects in the curriculum.</li> <li>• Technology enhanced learning will, in practice; connect people and institution to each other globally. In other words, it will provide for digital links to anywhere, any time. Gathering, sharing and use of data from many places through educational platforms is practical means to advance smart learning across areas.</li> </ul>

### 2.7.5 5G and other key enabling technologies

Development of 5G networks calls for a fresh look on regulations to promote competition, innovation and new services. It is extremely important to build and take in use piloting systems, including new technologies, solutions, services and enough many end-users, in order to tackle the opportunities and resolve the issues brought along with the pervasive horizontal enablers. In connection with this it is also necessary to interconnect different pilots to each other, in practice - which is at the same time a special opportunity for inter-regional and cross-border collaboration.

	<b>How to meet the objectives under the topic?</b>
<b>Better Regulation - deregulation</b>	<ul style="list-style-type: none"> <li>• Developing regulations/ proposing EU level legislative basis for enabling faster adoption and efficient use of key enabling technologies in smart cities (data ownership and privacy, spectrum licensing in 5G etc.</li> <li>• Proposing new spectrum authorization models (micro licensing) for granting local access rights for different stakeholders on a shared basis to deploy networks and offer services for vertical sectors' specific needs.</li> <li>• Develop enhanced access regulation to allow access to network infrastructure for those who do not have</li> </ul>



	<p>it for the establishment of local small cell 5G deployments operated by different stakeholders.</p> <ul style="list-style-type: none"> <li>• Pricing regulation and competition regulation to promote the emergence of new operators by guaranteeing connection to other operator networks with reasonable prices to ensure end-to-end connectivity from local 5G small cell deployments to the outside world.</li> </ul>
<b>Better Funding and Finance</b>	<ul style="list-style-type: none"> <li>• Encouragement of investments in 5G infrastructure for both new entrants as well as incumbent MNOs through stable regulatory regime for 5G</li> <li>• Boosting of the start-up business by opening the mobile connectivity market by allowing new entrant stakeholders for providing versatile services, which can positively contribute to competition, innovation and new services for the needs of different vertical sectors.</li> </ul>
<b>Better Knowledge</b>	<ul style="list-style-type: none"> <li>• Exchange of experience created through experiments with 5G test networks in different vertical use cases</li> </ul>

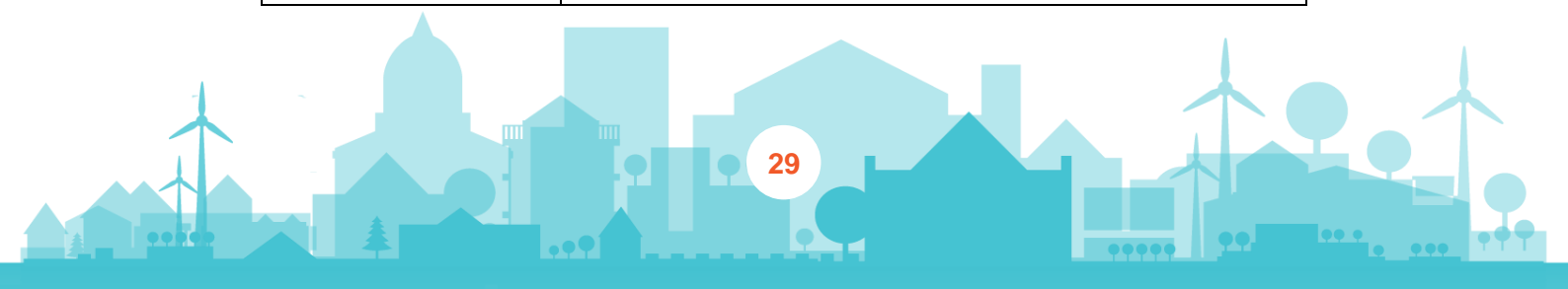
**Horizontal enabler themes:**

**2.7.6 Data, standardization and interoperability**

	<b>How to meet the objectives under the topic?</b>
<b>Better Regulation - deregulation</b>	<ul style="list-style-type: none"> <li>• Identifying the most obvious barriers to a greater use of public and private data from other sources and/or wider sharing of its own data by urban authorities</li> <li>• Exploring the reasons for which open data is as of yet not evenly adopted by EU municipalities and the extent to which barriers to adoption may be addressed and formulated as recommendations</li> <li>• Defining the needs and elaborating proposals for harmonizing the legal space (in particular privacy and security rules/standards) in order to favour wider up-take of Open Data across EU member states and regions. Thereby focusing to stronger balance between transparency and privacy, public interests and personal privacy</li> </ul>



	<ul style="list-style-type: none"> <li>• Making efforts to improving the security of Open/Big Data storage and exchange of which related to services digitalization, elaborating incentives for better managing the risks of Open/Big Data misuse</li> <li>• Limiting legal and other obstacles hampering interoperable use of different Open/Big Data across different registers and datasets (both within and across countries) aimed at developing urban public e-services and planning and their common service applications/platforms</li> <li>• Recommending changes and improvements concerning the PSI directive (Directive on the re-use of public sector information), its translation in national law, its application and any part of the ‘open data’ approach including the nature and extent of EC level support provided to contributors and users</li> <li>• Proposing of EU-wide framework, structure or mechanism to avoid the fragmented or unequal take-up of open data</li> </ul>
<p><b>Better Funding and Finance</b></p>	<ul style="list-style-type: none"> <li>• Analysing whether available EU funding instruments meet the need of favouring the release of open data for local public services development, elaborating proposals for improving the financial support system</li> <li>• Analysing the possibilities for lowering costs of generating, processing and releasing new Open Data usable for designing e-services/urban planning (related to data production and management, license fees etc.)</li> <li>• Demonstrating concrete examples of cost-efficiency achievements enabled by opening data for services digitalization.</li> </ul>
<p><b>Better Knowledge</b></p>	<ul style="list-style-type: none"> <li>• Raising awareness and skills of citizens and private sector on their possibilities and rights to access and reuse public Open Data for their personal or business acts (i.a designing new apps and services)</li> <li>• Defining and communicating the unused potentials and key challenges needed to be dealt with in order to promote the wider release and use of Open/Big Data needed for urban services’ digitalization (possibly as recommendations or guidelines to cities)</li> <li>• Analysis and use of existing open data platforms is also needed, as well as training and means to produce digital</li> </ul>



	<p>data to be shared. The emergence of many social media applications, but also such platforms as Wikipedia, are good examples of how open data creation, access and sharing proceed.</p>
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### 2.7.7 New business models for urban growth (incl. Urban Platforms)

	How to meet the objectives under the topic?
<p><b>Better Regulation</b> - deregulation</p>	<ul style="list-style-type: none"> <li>• The platform economy and sharing economies are emerging and growing, involving not only individuals and communities, but challenging existing businesses and providing new insights to public services. Developments of open urban innovation platforms may, however, also give a rise to new kind lock-ins. Moreover, there are various regulatory issues involved.</li> <li>• Developing regulations/ proposing EU level legislative basis for enabling faster adoption and efficient use of data and key enabling technologies in smart cities <ul style="list-style-type: none"> <li>- domain-specific regulations, e.g innovative purchasing and public procurement, big data and MyData regulations etc.</li> </ul> </li> <li>• Identifying and removing the obstacles for the adoption of innovative and scalable business models</li> <li>• Proposing legal provisions to increase digital technologies related entrepreneurship in EU</li> </ul>
<p><b>Better Funding and Finance</b></p>	<ul style="list-style-type: none"> <li>• Identifying ways of scaling and scoping for opportunities and for capturing the value of those opportunities in the urban context for providing <ul style="list-style-type: none"> <li>- Connection enabling</li> <li>- Content creation</li> <li>- Context specific and</li> <li>- Commerce platform utilizing</li> <li>- related smart city services and solutions</li> </ul> </li> <li>• Developing funding tools which can help companies to use urban innovation platforms in the innovation process/product development</li> </ul>
<p><b>Better Knowledge</b></p>	<ul style="list-style-type: none"> <li>• Building financially sustainable and long-term competitive business models and ecosystems for</li> </ul>

	<p>diffusing knowledge across smart city domains for breaking the silos to enable successful urban digital transition</p> <ul style="list-style-type: none"><li>• Building co-creation platforms and processes with relevant stakeholders both within domains and cross-domain level at national and EU-level to accelerate the diffusion of knowledge</li></ul>
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## 3. FUNCTIONING

### 3.1 Working arrangements

As agreed in the Partnerships Kick-off meeting 2/2017 seven subgroups will be formed early March 2017. The Subgroups are:

1. *Future health and social care*
  - *Co-chairing Eindhoven and Oulu*
  
2. *Urban Planning*
  - *Co-chairing Helsingborg/Hamburg (Sofia & Estonia)*
  
3. *eGovernment*
  - *Co-chairing Estonia and x*
  
4. *Future Learning& Skills Development*
  - *Co-chairing Sofia and Oulu*
  
5. *Data and Standards*
  - *Co-chairing Lyon and Oulu /Estonia*
  
6. *5G and other KETs*
  - *Co-chairing Eindhoven and Oulu*
  
7. *Business Models*
  - *Co-chairing Sofia and Oulu*

Working methods will include physical meetings, online tele-conferences/skype meetings and workshops as well as other online working procedures, e.g. online file sharing and working platforms. More detailed working arrangements shall be decided by each group.

Working plan template will be provided by the coordinators and technical secretariat.

Deadline for delivering the first draft version of Action Plan for each sub-group is 15<sup>th</sup> of September 2017.



## 3.2 Internal Communication

### 3.3 Role of the Secretariat

Support to the Individual Partnerships is delivered by a Project Managers and Junior Coordinators together with experts and support staff. For Digital Transition, the following persons are supporting the partnership:

- Project Manager: Walter Hulsker, partner at Ecorys with expertise in regional and urban policy and digital economy
- Junior Coordinator: Veronika Brantova, consultant and project manager at Ecorys with background in regional and urban economics and innovation policy.

The Tasks of the Technical secretariat are fivefold, namely:

- A. Support the coordinators
- B. Provide expertise to the Partnerships
- C. Outreach and Communication
- D. Reimburse travel costs
- E. Support the Commission

Tasks	Explanation
Support the coordinators	<ul style="list-style-type: none"> <li>• Assist coordinators in setting up the Partnerships</li> <li>• Organise mailing lists for each Partnership</li> <li>• Create and update a calendar of events</li> <li>• Assist the coordinators in organising meetings</li> <li>• Participate in all meetings and draft minutes</li> </ul>
Provide expertise to the Partnerships	<ul style="list-style-type: none"> <li>• External expert with EU experience on the topic</li> <li>• Analytical work, review documents, draft documents, etc.</li> <li>• Does not replace the expertise of members!</li> <li>• Only if needed!</li> <li>• Contract with the Secretariat</li> </ul>

<p>Outreach and Communication</p>	<ul style="list-style-type: none"> <li>• Prepare information material</li> <li>• Maintain the collaborative platform (website/Futurium)</li> <li>• Organise one-day workshop/ Partnership/ year</li> <li>• Assist coordinators in a workshop at the European Week of Regions and Cities (October)</li> </ul>
<p>Reimburse travel costs</p>	<ul style="list-style-type: none"> <li>• Reimbursing of costs is only applicable to cities and stakeholders (not to MSs and Coordinators)</li> <li>• Only done in exceptional cases</li> <li>• Has to be duly justified</li> <li>• The member is really needed (he has already contributed in the past)</li> <li>• The need for reimbursement is puntual and not structural</li> <li>• Has to be approved by the coordinators + COM</li> <li>• Not more than 5 travels / Partnership / year</li> </ul>
<p>Support the Commission</p>	<ul style="list-style-type: none"> <li>• Monitor the progress of each Partnership</li> <li>• Identify bottlenecks and improvement needed</li> <li>• Report back to the COM and to the UDG/ DGUM</li> <li>• Draft guidelines and templates (if needed)</li> <li>• Organise two coordinators' meetings per year</li> <li>• Provide assistance to the COM in managing UA</li> </ul>



## 4. WORK PLAN

Proceedings and results of the eleven other Urban Agenda for the EU themes will be closely followed through common working space/web site and communication with the coordinators of other partnerships. Also coordinators' meetings, organised by the European Commission twice a year will be utilized to make sure that there are no overlaps among the work done by Digital Transition partnership and other partnerships, especially the partnerships on Innovative and Responsible Public Procurement, Urban Mobility and Circular Economy.

Most interconnections are foreseen with the Public Procurement partnership, especially on the topic of innovation procurement, which is considered a horizontal enabler for further realization of the urban digital transition. The issue is important as, on the one hand, local authorities are important launching customers for tomorrow's digital solutions, while, on the other hand, the procurement of solutions brings important challenges concerning the potential of vendor lock in and how to avoid this and the ownership and privacy of data. Therefore, cooperation on this topic is foreseen with the the Public Procurement partnership.

Technical secretariat will follow closely the progress of all partnerships of the Urban Agenda for the EU and indicates where further interconnections with other partnerships exist.

### 4.1 Deliverables, milestones and timing

- Validation of the Orientation Paper: March 2017
- First draft Action Plan: January 2018
- Final Action Plan: September 2018

### 4.2 Next meetings

- Sub-group workshops/meetings 3-9/2017 (group decides)
- Partnership meeting in the summer 2017 (location & date tbc)

## ANNEX - CONTACT DETAILS OF PARTNERSHIP MEMBERS

TABLE 1: Partnership Contacts

Partner	Contact person	E-mail	Telephone
<b>Partnership Coordinators</b>			
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