European Parliament

Social approach to the transition to smart cities

The 'smart transition' is a reality across cities and communities of all sizes and latitudes and has been for decades. However, the pace has increased in recent years, largely owing to the speed of the digital transition, to which it is closely linked, and the deployment of new ways of working and learning hastened by the COVID-19 pandemic, which rely heavily on digital tools. Another factor that has accelerated this process is the recognition of the need to build a more inclusive and connected society, where civic and social engagement overcomes any physical distance. However, no transformation comes without costs. The main study explores the impacts of the smart transition on cities and in particular on their citizens. This briefing summarises the policy measures identified in the study that would allow the European Union to help cities mitigate risks inherent in the smart transition and promote practices that allow for a socially responsible transition.

1. Brief summary of the study findings

The study on a social approach to the transition to smart cities identifies 48 risks that are particularly common in a smart city transition, and which were clustered under six core macro-challenges and two cross-cutting ones: privacy, surveillance, cybersecurity and safety aspects; data loss, inaccuracy, lack of reliability and interoperability issues; digital inequality and exclusion; financial (or other) burdens on authorities and service providers; economic damage and inequalities; lack of trust or approval in the service and/or service provider; loss of human contact and isolation through remote care, work, training and shopping; and potential dependency on private technology providers and vendor lock-in.

The study then maps best practices across cities that tackle these challenges. It identifies 27 successful cases, which are affordable and most importantly can be replicated by other cities. Nevertheless, issues relating to **capitalisation, standardisation of evaluation approaches and scalability** of these solutions persist and more needs to be done to promote solution uptake and effective knowledge capitalisation.

2. Policy options in the transition to smart cities

Based on the insights gathered through the research conducted, a set of policy options were developed to inform EU policy design and legislation. These options were also designed considering current policy initiatives and the legislative framework at the EU level, to ensure they could be fine-tuned and implemented within the existing context. A short summary of each of the six policy options is presented below. Further information on these, as well as findings from the research carried out, can be found in the main study.

2.1 Set up a supervisory body for certification and quality assurance of the digital infrastructure in cities

In line with recent proposals on cybersecurity certifications and existing ones for compliance with the General Data Protection Regulation (GDPR), new certification could be developed specifically for digital infrastructure and smart city products and solutions.

As for the telecom sector, a **supervisory body could be established to certify the resilience of the digital infrastructure in cities according to defined standards.** This could also be complemented by audits on cybersecurity, data protection, and data quality. Such a body could provide base tests, against which providers of smart city solutions could advertise. Such base testing and certification would **increase the understanding a proposed solution's adequacy** to tackle a city's need.

The preferred avenue to create such a body would be through a **bottom-up and collaborative approach, seeking common standards** across cities and regional authorities rather than imposing them top-down. This could help improve the relevance and applicability of the provisions and create buy-in. The body should include representatives of the Member States and local officials. It would operate across the EU, to reduce the risk of regulatory fragmentation.

2.2 Strengthen the role of national contact points to further link EU and local realities, support capitalisation and upscaling

To connect smaller, less digitalised cities and communities to European networks, initiatives, and funded projects, this policy option proposes to increase investment in the use of national contact points, to **help raise awareness of initiatives and opportunities at EU level**, as well as adopting and promoting practices, solutions and ideas from the local level, thus facilitating top-down and bottom-up sharing. Their role could be particularly important in bringing **grassroots initiatives from local groups or even individuals** to light that have proven valuable at local level and deserve to be promoted. Eliminating linguistic barriers and providing information across programmes, they could facilitate the involvement of all EU territories, reducing exclusion and inequalities in smaller cities and peripheral areas. In the framework of the upcoming European urban initiative (EUI), one of the core tasks of its network of contact points may be to further advance knowledge sharing in the domain of socially inclusive smart cities. One option could be to **set up a dedicated workstream (or function) to focus on themes related to socially responsible smart transition**.

As part of its focus on knowledge capitalisation, the study recognises the value of the EUI designing a special capitalisation activity aiming to **identify and bridge lessons across the many domains relevant to smart transition** (from employment to environment to digital).

2.3 Set up helpdesks for less-digitalised cities

Digital helpdesks could be established to support smaller, newly connected and less-digitalised cities, whose officials might lack the necessary digital literacy and funding to adopt digital solutions. Support would be needed in, for instance, identifying first steps and facilitating the prioritisation of solutions to be implemented being mindful of constrained budgets. Ideally, **hands-on technical support could be provided to requesting cities**, both on technical aspects but also on methodologies and approaches to **engage and involve citizens, and set up and manage multi-stakeholder partnerships** (including academia, private sector, etc.). Such support could be offered under two different pillars, responding to specific needs. Under pillar one, city officials from EU cities which already implemented smart solutions could offer **mentoring and coaching**. They could, for example, share their expertise in how to support these innovations politically, **include citizens in the decision-making processes**, and discuss lessons learned from an administrative standpoint. Under pillar two, a pool of **experts and technical advisers could provide hands-on support in the implementation of smart solutions**, via demonstrations, guidelines, and the developments of plans for the incremental uptake of different

smart solutions. The proposed helpdesks could, after an initial assessment of needs of the interested city, manage the matchmaking between the city and an expert with the specific technical skills required.

2.4 Reinforce capacity-building of public administrations to strengthen digital skills and promote capitalisation through peer-to peer exchanges

Digital competences and life-long learning remain a priority for public administrations' capacity-building, especially in less-developed regions and municipalities. While valuable instruments, **often external advice and traditional technical assistance support is not sufficient to create lasting competences.** In addition, some **issues cannot be tackled only at city level, but require a synergetic action across more cities.** This policy option proposes the **inclusion, in technical assistance programmes, of more twinning of local public administrations and peer-to-peer exchanges**, replicating an exercise already experimented in programmes such as international urban and regional cooperation or 'TAIEX-REGIO Peer2Peer'.

The use of **Erasmus+** for staff exchange between public administrations could also be promoted with a **special focus on small cities and cross-border regions** where administrations need to learn to work in synergy. To be successful, such a scheme would need to **provide clear incentives to local administrations and staff** to join the programme, for example labels of recognition for hosting cities.

2.5 Research and provide further evidence on the benefits and costs associated with remote working and service provision in cities

The COVID-19 pandemic is accelerating profound societal changes across the EU, including in the way people work and live in the city. Discussions are ongoing in virtually every Member State on how to regulate 'smart working'. While research is flourishing on the impact of COVID-19 on industry, supply chains and trade, among other things, more research is needed to understand the local dimension, i.e. the impact of COVID-19 on cities and their spaces. **Comparative studies across Member States** (e.g. ESPON targeted analyses) could be launched to provide initial insights into the risks, mitigation measures, and successful approaches experimented across EU cities since 2020. Such research could assist in understanding **how the urban space has or could be redesigned and organised** to accommodate these new trends (such as smart working) and how they could be regulated.

2.6 Create a knowledge platform for best practices to support replicability and scale-up of inclusive smart city solutions

To support free exchange of knowledge of socially inclusive smart city solutions and practices, it is proposed to create a multilingual and interactive platform or catalogue for best practices. The platform could include and expand upon best practices and relevant information for replicability, including from existing repositories such as the European Commission's Directorate-General for Research and Innovation (DG RTD) yearly mapping repository, the EU missions knowledge portfolio, and the urban agenda, urban innovative actions (URBACT) and the EUI future knowledge-sharing platform (KESP). The platform could be freely accessible in all EU official languages, to ensure that even smaller local authorities across the EU can benefit. **Cities that implement an instance of best practice from the platform could provide feedback**, including any refinement and possible further developments introduced, creating a feedback loop that enriches the value of the platform itself and consolidates such good practice. The platform could be used both by city officials, and companies and individuals/community representatives who have a solution to offer (a prior quality check should be performed before upload). Furthermore, **this platform could be used by local users as a first step in**

understanding what possible solutions could address their needs. For that reason, the platform should include specific parameters to facilitate catalogue searches.

3. Strategic reflections looking ahead

Beyond the specific policy options presented, the study also highlights some final points:

Networks and programmes that promote and enable the exchange of knowledge and allow cities to work together are greatly appreciated by their representatives and there is a need to further build on initiatives such as the urban agenda, whose second phase is about to begin, or URBACT, which is about to launch its fourth iteration. However, the challenge is to **better engage small and medium-sized cities** (generally considered as having between 50 000 and 500 000 inhabitants) across the EU. For that, adequate funding, capacity-building and ad hoc expert support (including overcoming language barriers) is needed.

While concepts like smart communities and people-centred smart cities have started to emerge, **citizens are not yet protagonists of the transition**. Priority should be placed on tackling the vast inequalities that still exist in terms of access to services, and digital literacy – and there EU, national and local institutions should take responsibility. **Participatory approaches**, such as in the context of the 100 smart cities mission and the Bauhaus initiative, where residents can make their voice heard and several stakeholders from **civil society and private sectors co-design solutions** which are fit for the urban space, could be encouraged.

Finally, as for the 'just transition', a **more holistic approach, which ensures that no one is left behind** should be promoted. Policy guidance at EU level, funding schemes and capitalisation activities should take this as guiding principle. The launch of the new programming period and design or reiteration of programmes and initiatives dedicated to cities could provide the right opportunity to embed some of these perspectives and ideas and turn them into action.

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