



Inspire Policy Making with Territorial Evidence

SYNTHESIS REPORT //

DIGISER

Digital Innovation in Governance and Public
Service Provision

Report // August 2022

This Synthesis Report is conducted within the framework of the ESPON 2020 Cooperation Programme, partly financed by the European Regional Development Fund.

The ESPON EGTC is the Single Beneficiary of the ESPON 2020 Cooperation Programme. The Single Operation within the programme is implemented by the ESPON EGTC and co-financed by the European Regional Development Fund, the EU Member States, the United Kingdom and the Partner States, Iceland, Liechtenstein, Norway and Switzerland.

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Published on paper produced environmentally friendly

ISBN: 978-2-919816-68-2

Graphic design by BGRAPHIC, Denmark

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1 Introduction

Since the 1980's, there has been an increasing effort to modernize the public sector. Innovation and technology play an essential role in this transformation in a context where the public sector is increasingly submitted to intense pressures to address the challenges of our time. Public entities and governments see the gradual adoption of digital innovation as a contribution to promote higher quality in public service provision. Digital Innovation, and the way it can contribute to the practice of policy making, particularly in cities, is still a confusing field of research. In contrast with the traditional approaches, with traditional value chains, the value from digital innovation is created in a non-linear way in connected environments, management is shared across different departments and organisations and process must be dynamic and flexible.

New opportunities emerge, from digital technologies and capabilities, to create and deliver innovative public services in ways that **reduce cost and increase quality, proactiveness and citizen-centricity**. Nevertheless, these transformations imply that the public sector faces a set of **multi-level and cross-sectorial challenges** to implement digital innovation strategies. These challenges might start at the digitization level (one of the core elements of the digital innovation processes) but include, as well, other areas such as process management, capacity building or procurement.

It is important to clarify, at this stage that the usage of terms such as “digitisation”, “digitalisation”, “digital innovation” and “digital transformation” can often be confused or used interchangeably in different contexts. Nevertheless, each one of these terms refers to a specific concept, which needs to be clarified for the reader before moving forward. **“Digitisation”** consists in the conversion of analogue material into a digital format (Larsson & Viitaoja, 2017). On the other hand, “digitalisation” is related to the process in which a computer or digital technology is adopted or increased by a stakeholder (Castells, 2010). It is important to underline that the term “digital innovation” may be a product, a process, or a business model that is embodied in or enabled by ICT, is perceived as new, and requires some significant changes in both adopters and providers. In this respect, digital innovation is the result of a process that requires profound organisational, behavioural and infrastructural transformations which are enabled by technologies. In this respect, digital innovation is the result of a process that requires profound organisational, behavioural and infrastructural transformations which are enabled by technologies. The last term, “digital transformation” describes the combined effects that several digital innovations (both radical changes and incremental ones) can create in government operations, internal and external processes, and structures, to achieve greater openness and collaboration, including a more customer-driven perspective and requiring far-reaching and cross-cutting organisational change in addition to the implementation of digital technologies (Cochoy, Hagberg, McIntyre, & Sörum, 2017). The implementation of “digital transformation” requires, therefore, a set of aligned strategies and projects promoting an integrated perspective. Despite the willingness and efforts of governments and public institutions, in implementing strategies for digital transformation, the results do not always match the original goals. Instead of promoting profound transformations, public institutions frequently do not fundamentally reshape their own way of working, often leading to a multiplication of “digital” profiles at various levels. **Data sharing between governmental levels**, for example, is still often limited in scope, and even in the eye of increasing public distrust in institutions, the ‘transparency switch’ is insufficiently used out of a variety of considerations. Although many public administrations are increasingly finding their role as a digital “platform of trust” for their citizens most are still defining the right way to address data and service ecosystems as engines for economic growth. This is clear in the case of the still small-scale adoption of the vast potential of **shared and interoperable digital tools and real-time data as capabilities for swift and decisive policy making**.

Over the centuries, cities have been frequently, at the forefront of transformation. In Europe **cities are home to 75% of EU citizens** and are important centres of economic activity, knowledge creation, generation of innovation and test beds for new technologies. There are several elements that contribute to the importance of cities in the digital innovation transformation process: buying power, having a close relationship with citizens and being transversal.

To support the Digital Transition in Europe, the EU launched the **European Green Deal and Europe Fit for the Digital Age**, a twin initiative, which links green and digital transition. The goal is to promote climate neutral and digital enabled solutions to address the new challenges faced. The vision for the EU's digital decade includes 4 cardinal points: skills, government, infrastructure and Business. This **Digital compass 2030**, establishes the path namely toward the digitalisation of public services. With the aim of having 100%

of the key public services online by 2030, the digital compass ensures that digital will contribute in a positive way to improve citizens quality of life while reducing the resources spent. At the same time, in what concerns the green deal, several initiatives and plans are being implemented (e.g., EU zero pollution action plan, EU climate adaptation strategy or climate Neutral smart cities). These initiatives have a dedicated strategy on how digital tools and usage of data can help achieve the green goals. The Urban Agenda¹, an European coordinated approach, designed to address the EU and national policies and legislation of the urban dimension (with 14 partnerships in specific themes) also contributes to the digital transition as one of their verticals. This topic is addressed in a transversal way, identifying approaches, processes and tools that can be developed and adopted by cities in this transformation. To make sure to address all the dimensions of the digital transition, we also need to consider the EU work on Territorial Cohesion² which focuses on “strengthening its economic, social and territorial cohesion, for an overall harmonious development”. All these initiatives are linked to ensure common and joint effort in the path towards a sustainable digital transition.

As part of the **Digital Europe programme**, the EU is promoting the creation of **European Data Spaces**. Having the aim of connecting presently fragmented and disconnected data ecosystems, these data spaces will create a safe and trusted interoperable IT environment for data processing. With the aim at boosting the efforts that cities make to find digital solutions to address grand and interconnected challenges (including urban mobility, energy efficiency, and digital public services, while ensuring environmental sustainability in line with the European Green Deal), the **Living.in.EU movement** aims at pointing out an “‘European Way’ where digital solutions help to create places where people enjoy living and working. By understanding the importance of community-led data-driven solutions and the potential of collaborative approaches, OASC, for example, is connecting cities with the aim of creating and implementing **Minimal Interoperability Mechanisms (MIMs)**. The MIMs contribute to the creation of the European Single Market by providing a common technical ground for the procurement and deployment of urban data platforms and end-to-end solutions in cities.

In this report we start by contextualising the Grand Challenges faced by the public sector, particularly in the digital field, as well as the state of the art of digital innovation in Europe, identifying the main initiatives undertaken. In chapter 2, we present the framework used in the DIGISER study with a focus on the tools implemented: the Digital Public Service Value Index (DPSV), the case studies and key main challenges that were identified within the project. Chapter 3 suggests a set of Policies, based on the DPSV, the case studies and literature review, to support the cities’ path towards Digital Innovation. The main conclusions of the project are summarised in the last chapter of the report and the findings can be further explored in the annexes to this report.

¹ the 14 partnerships developed within the Urban agenda can be consulted at <https://futurium.ec.europa.eu/en/urban-agenda>

² https://ec.europa.eu/regional_policy/en/policy/what/territorial-cohesion/

2 Digital transformation in European Cities: an overview

While large-scale statistics bodies (e.g., Eurostat, OECD) have started to measure the impact and governance of digital transformation on a national level, data on local levels is scarce. Existing initiatives are therefore not able to measure the complex relation between digital transformation and its impact on innovative governance and public services delivered by local and regional public administrations. DIGISER aims to close this gap, working alongside European partners in a variety of initiatives such as Living-in.eu and the LORDI initiative, the 100 Intelligent Cities Challenge, the Connecting Europe Facility, among others. DIGISER's ambition is to better understand the potential and limitations of existing approaches for gathering data, monitoring and measuring the extent and the impacts of digital transformation at the local level.

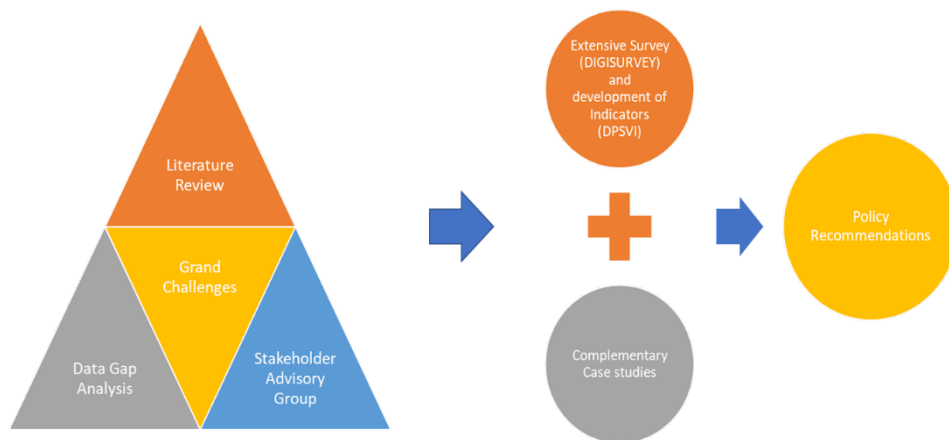


Figure 1 - Research framework

Within this context, DIGISER analyses the transformation of the public sector and its service provision through digital innovation while taking into consideration the diversity of the European territory in terms of socio-economic, cultural, and environmental endowments in different cities, municipalities, and regions.

The project has collected and analysed extensive sets of data from across European local public authorities through (1) DIGISER survey, to collect primary data on the spread of digital innovation in European public authorities, (2) Case Studies interviews and data processing exercise underpinning a deep-dive analysis of ten European cities, (3) Advisory Group sessions, and (4) literature review on the topic.

The DIGISER research team developed, as shown in the figure below, a set of indicators capable of capturing and synthetically assessing the performance of cities in the digital transition along with their ability to drive this transition towards the creation of public value. This work resulted in the development of the Digital Public Service Value Index (DPSVI), that has been used on one hand to assess and provide in-depth feedback to individual cities that took part in the study, and on the other hand to identify the main trends, strengths, weaknesses, and average performances of European cities throughout the digital transformation of public service delivery.

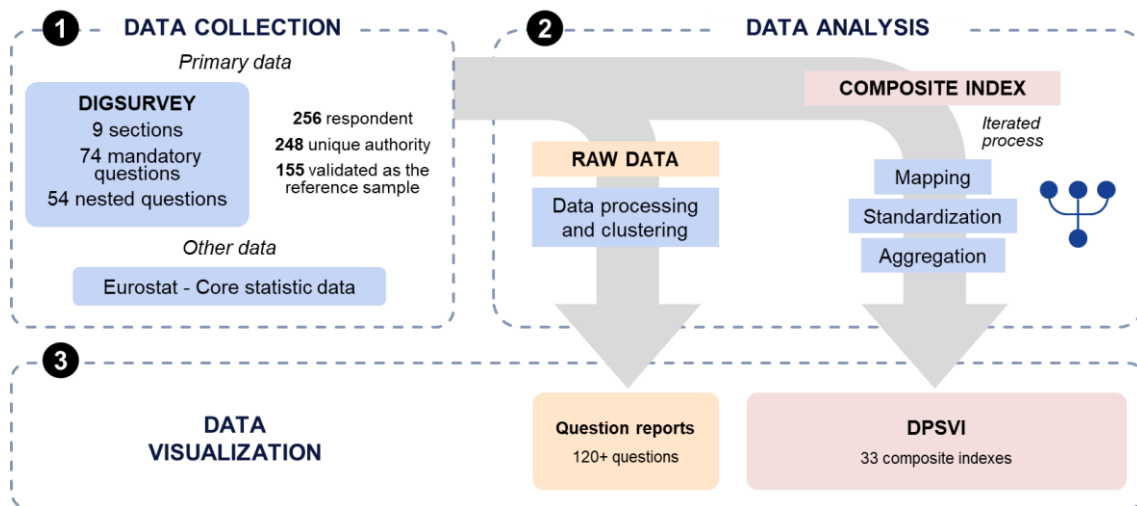


Figure 2 - DPSVI Methodology

The challenges related to the adoption of digital innovation in the public sector are numerous. The main question that regroups all these challenges, identified in this study lifetime, can be summarised into: how to change government to meet the 21st century needs and expectations through digital innovation? Based on this question and aiming at covering the main challenges faced by European cities in this domain, the DIGISER study has identified four key areas as presenting major challenges to achieve digital transformation in public authorities. These relate to:

- **changing the government structure:** The capacity to guide government systems and work culture determines the ability to enable digital transformation within and between organizations. Standards and provision of data management are key in the development of public policies. The challenge is to shift from a hierarchical structure with silos to a horizontal structure, stimulating the (re)use of data between departments.
- **Building Government capacity:** Skills and capacities have a broad impact in the service provision. The abilities, working conditions, resources and motivation of public servants are key to ensure the efficiency of public services. Ideally this issue needs to be solved within the organizations instead of systematically turning to subcontracting.
- **Changing government processes, service design and delivery:** Changing the focus from optimizing what already exists and started investing in how to achieve better results and public services has become a challenge for public entities. Civic activities and engagement, together with design service, have a high impact on the perception of the public services. Reporting of issues in the city, or ensuring that there is a significant sample of users to test a new solution in a real-world environment can be some of the elements associated with this challenge.
- **Scaling governments and markets to take full advantage of the digital revolution:** Collaboration, multi-level integration, scaling and adoption of developed and tested solutions and building standardized and inclusive markets are key elements to support local service delivery. This is characterized, by e.g. the need for sharing solutions, the importance of cities collaboration network, and the importance of global challenges in local policy making.

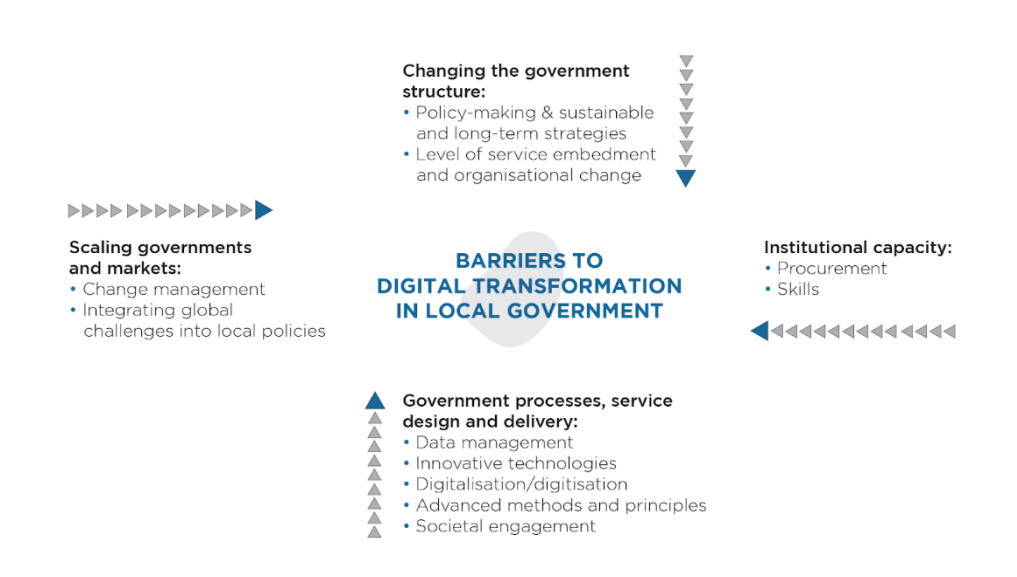


Figure 3 - Major challenges in digital transformation in local government

From the analysis undertaken, we can conclude that a growing list of major European cities such as Aarhus, Poznan, Rotterdam, Helsinki, Thessaloniki, and Ljubljana, are already deploying advanced systems such as IoT infrastructure and big data analytics as part of their smart city strategies. However, there remain hundreds of small and medium sized cities and towns in Europe for which the most advanced digital innovation adopted is a basic website.

How would you describe the level of digitalisation of services provided by the public authority in the following service areas?

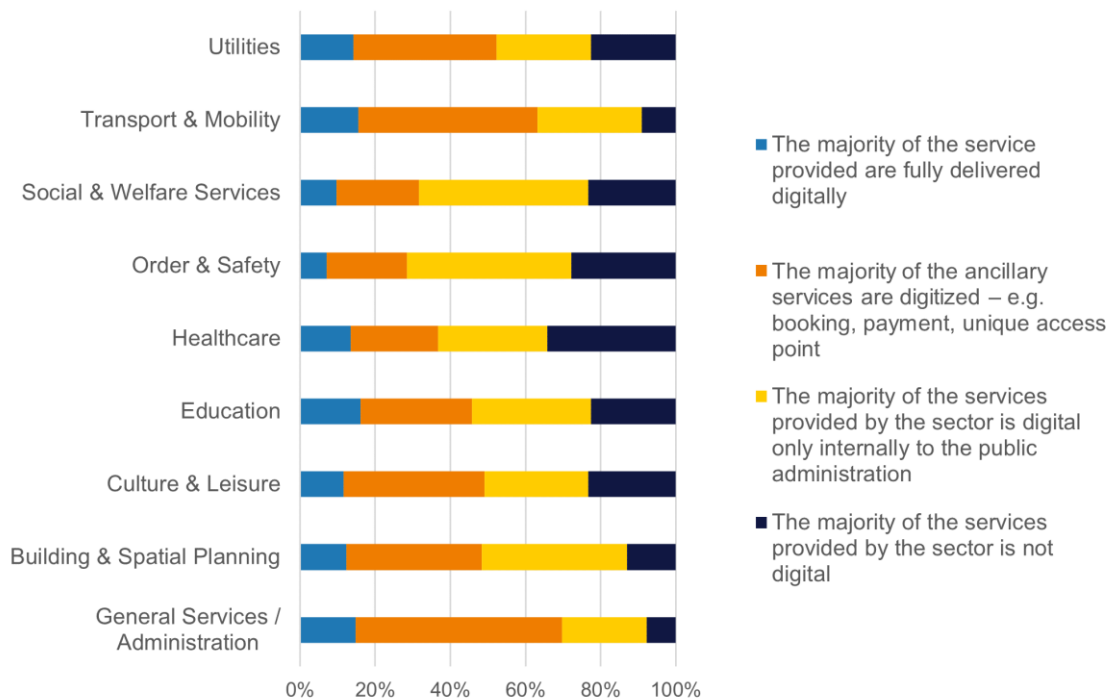


Figure 4 - Digital innovation in service areas

Public authorities need to develop and implement a **long-term digital vision and an adaptable framework of actions**, namely by ensuring that the city's digital infrastructure design is agile and allows for onboarding of new innovations. Evidence from Case Studies such as Porto, Aarhus, and Helsinki points to the central

role of dedicated digital teams in to implement digital strategies coherently. As found in the Milan Case Study, focussing on policies consistent with **long-term impact and productivity-unlocking strategies**, e.g., those relating to interoperable systems and scalable solutions, provides cities with opportunities for incremental innovation as they improve upon existing solutions and add new capabilities technologies. In fact, globally we found that public authorities rank high on having an innovation strategy and access to skilled labour. However, this is not reflected in the tendency to **experiment with advanced technology** where only about 30% of public authorities in the panel consider experimenting with AI and IoT systems. This number drops even further in what concerns tools such as blockchain and wearables.

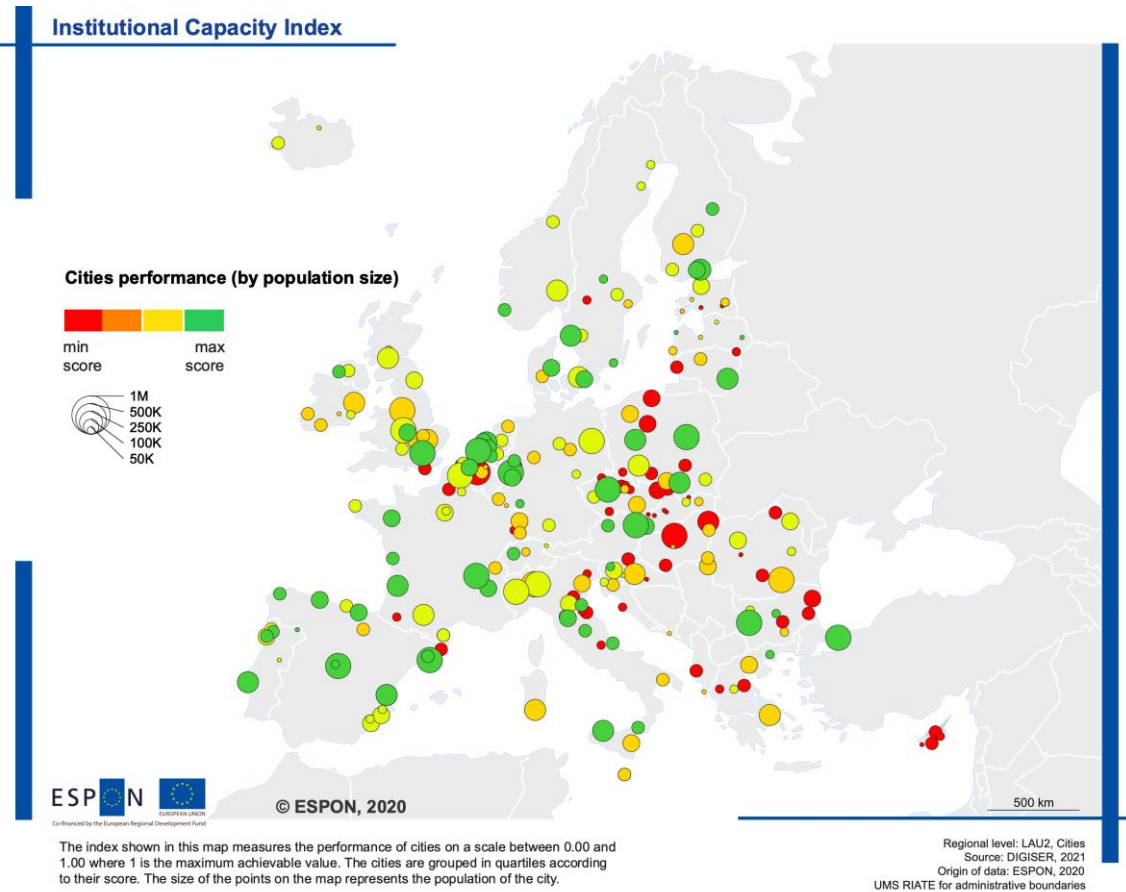
Breaking silos within the government structure and creating a cross-sectoral approach, is essential in this transformation, and, for example, data management policies can play a pivotal role by requiring inter-departmental and cross-organizational data use and re-use. According to our findings, public authorities managing cities with larger populations are more likely to encourage the use and re-use of data across stakeholder interactions. The smaller towns and cities need to improve these processes. The creation of partnerships or the promotion of networks can be useful to **improve data use capacity in smaller cities**, to leverage the power of scale and the capacity of larger peers, many of whom retain long-term partnerships with technical specialists in the private sector.

This capacity for data use and re-use by stakeholders as well as citizen participation in data initiatives or the facilitation of networks for exchanging solutions across authorities, can be measured by the Service embedment - which refers to the scale of adoption of digital innovation by the public authority and its partners as well as the extent to which it is driving change in the organisation and in the broader city. According to our study, the service embedment levels are stronger in bigger public authorities with at least 250K in population. Even though service embedment impact is stronger on the local area and within the organisation, there is weakness in what concerns the sharing of solutions across organisations which can be solved by promoting a **networked approach** (between cities, cities and regions, countries or at European level, promoting a multilevel governance exchange) tackling common challenges and sharing experiences. In fact, survey data also shows that **belonging to networks of cities has one of the strongest positive effects on a public authority's digital transformation**. Partner networks that specifically have capital cities among members are more likely to be up to date with the type of technologies needed by public authorities. Capital cities are more likely to be **originators of digital innovation solutions (35% capital cities versus 29% non-capital cities)** and to **co-develop digital solutions with other public authorities**.

Local policy should be harmonised and aligned with higher governmental level policy when possible and relevant. In fact, implemented policies have an impact at different levels of government. A multilevel governance approach can ensure this alignment through networks or by setting up intergovernmental exchange and interoperability strategies. This multilevel relation is relevant in different fields and optimising synergies between local, regional, national and EU level can be particularly important in topics such as funding. For example, **joint procurement** between public authorities offers a viable solution for funding issues. Indeed, survey results show that about 30% of cities have used alternatives to standard **procurement procedures**, including within EU and domestic funding schemes.

In this collaboration process to design innovative solutions, besides the multilevel network, the engagement of innovation ecosystems and citizens is particularly relevant in cities today. 72% of cities are directly involved in innovation ecosystems. Furthermore, over 70% of public authorities use platforms to engage citizens in public consultations, showing the increased need to implement co-creation processes.

Another general finding is that scale is more relevant than wealth. In fact, **large public authorities tend to benefit from economies of scale**. In the case of institutional capacity, for example, related to the skills and capacity challenge, it is better in larger public authorities with a population size of at least 500k, and in general it ranks highest in the Iberian Peninsula and the Baltics and lower in the Mediterranean and Eastern Europe. Over 65% of the larger public authorities with at least 500k residents have formally approved and published their digital innovation strategies compared to about 50% for less populated public authorities with 50k - 100k residents.



Map 1 - Institutional Capacity

The key challenge related to government processes, service design and delivery, is closely connected to data management. From the results of the survey, we can observe that most cities have data platforms, although the platform quality remains low in cities with under a million inhabitants. In general, **wealthier public authorities are better at data management**, nevertheless there is still a long way to go. For example, only 35% of public authorities report using or producing big data.

If on the one hand generic data platforms are largely adopted by cities, it is not the case with urban data platforms. In fact, currently, only 35% of public authorities operate or work with **urban data platforms**. This rate rises to 58% for capital cities but drops to 31% for non-capital cities. Clearly, this is one area where effective coordinated facilitation by national governments and the EU can help struggling public authorities to improve. Lack of adequate finance and limited institutional capacity are the top two key obstacles faced by public authorities related to digital transformation, so these should be considered critical for solving.

The engagement of innovation ecosystems and citizens is another key element in cities today. Over 70% of public authorities use platforms to engage citizens in public consultations, showing the increased need to implement co-creation processes. Regarding innovation ecosystems, 72% of public authorities are directly involved in them. It becomes clear that for the surveyed cities, they should actively engage themselves in innovation ecosystems to influence the emerging technologies that impact them. Capital cities are more likely to be **originators of digital innovation solutions (35% capital cities versus 29% non-capital cities)** and to **co-develop digital solutions with other public authorities**. Collaboration is key in the process of digital innovation and transformation and both local ecosystems and regional, national, or international networks largely improve the capacity for implementation. Finally, it is important to consider the context of the last few years and the timing of this study. The COVID-19 pandemic has significantly disrupted government programmes and meant that the public sector had to rapidly respond to large-scale social and economic shocks. In fact, according to the study, on the digital front, the pandemic worked as a digital-accelerator (as two of the DIGISER Case Studies, Magdeburg and Helsinki, mentioned) leading to more public authorities acquiring software licences for online communication platforms and ICT equipment such as laptops to enable staff to work remotely.

3 Summary policy recommendations

The study has developed policy recommendations for public authorities to address these challenges, with the aim of ultimately achieving digital transformation in their local areas and beyond. These recommendations are further developed into a handbook providing *guidance for policy intervention relevant for digital innovation*. A summary of these recommendations includes:

- **Implementing policies that are consistent with enabling a long-term digital vision.** Avoid populist short-term initiatives which are inconsistent with sustainability. Review existing policies for their impact on digital transformation. Where they pose barriers to digitalisation, mitigating steps should be adopted to address them.
- **Agility should be designed into digital infrastructure process** as part of the strategy to facilitate incremental improvements and to allow an efficient adoption of innovations across time. The **policy making mechanism should be evidence-based and responsive to stakeholder feedback** in a way that allows for emerging innovative solutions to be adopted in a timely manner. For example, policy should facilitate a **data management system that is flexible and as 'future-proof'** as possible.
- Local policies should be aligned with regional, national, and supranational policy priorities on digital transformation, e.g., the Digital Europe Programme to avoid policy contradictions. **Local policy should be harmonised and aligned with higher governmental level policy** when possible and relevant. For example, the national government may set data standards to facilitate intergovernmental data exchange and interoperability. **Public authorities should make use of EU programmes on digital matters**, including accessing EU guidance and funding to transform their digital services. Landmark objectives such as the UN's SDG on digital connectivity should feature in public authority visions and strategies.
- Public authorities should **actively participate in networks of cities and stakeholders** addressing common challenges to nurture and speed up the sharing of innovative solutions and ideas across organisations. **Participation in programmes and networks where feedback is shared** across cities, civic participants, and stakeholders such as businesses allows public authorities to learn about useful technology and allows citizens to influence the digital transformation process. **Cities could take part in EU assistance programmes on digital transformation** where information is often available on best practices. **Partner networks that have capital cities among members are more likely to be up to date with the type of technologies** needed by public authorities. Cities should join these networks to learn about the latest technologies.
- The **design of digital services should account for the variation in users' abilities** because a considerable section of citizens still lacks the skills needed to use digital services. If necessary, alternative access channels or training should be provided to vulnerable citizens or those lacking these skills. The city strategy should aim to **minimise complexity in the digital services** as part of the incentive structure to encourage the growth of digital government. This will increase the use of digital versions of the currently least popular services such as social and welfare services. **User concerns on digitalisation should be addressed, for example, on data protection and privacy.**
- Policy should proactively dismantle and disincentive the formation of silos around departmental **power centres**, in favour of more open organisational structures built around open data platforms with common standards that unlock productivity gains in the organisation. The **data strategy should enable data sharing and discourage data silos**, while at the same mitigating negative risks that may arise from easy access to data such as cyber security and threats to privacy.
- **A culture of being open to adopting digital innovation should be cultivated proactively** with the recruitment of digital skilled staff to develop digital services and influence the organisation towards a sustainable digital transformation.

Data on services usage should be analysed with resulting insights informing the design of digital systems that are attractive to citizens, public authority employees and other stakeholders. Cities must have ambition by aiming to implement a transformative digitalisation programme as opposed to digitisation which simply creates digital versions of existing services.

- Adopt technology such as e-procurement platforms to improve the efficiency and transparency of procurement processes. Adopt interoperable systems as part of a long-term strategy to facilitate future joint procurement and joint projects to reduce costs. Intergovernmental joint procurement can increase what public authorities can do individually. Where a public authority is resource-constrained and cannot afford to digitalise its procurement processes, it should **form partnerships with similarly positioned local authorities to form joint-procurement teams**. or out-source its

procurement to a higher government level which is likely to have the necessary resources. Outsourcing e-procurement activity to third-party platforms is another channel to reduce the cost.

- Having skilled employees is a key part of building institutional capacity, therefore, public authorities need to build an interdisciplinary ICT team of well-trained staff. led by a Chief Digital Officer who, with the support of the organisation's budget political leadership, coordinates the digitalisation process. Access to skilled staff is key to developing and deploying the right digital strategy and helps the organisation identify useful innovations. Where financial constraints limit the organisation's capacity to access to skilled workers as is often the in small rural towns, **ICT tasks to functions should be coordinated at usually better resourced regional or higher government level.** Before a public authority embarks on a major digitalisation project, **small-scale pilot projects should be run to test different strategies** until a refined strategy is developed to guide the organisation towards achieving its objectives. Local authorities should **proactively engage stakeholders in the ecosystem of technology innovation** as a co-creator and a testing ground for applicable start-up innovations. Public-private partnerships, technology incubators, and coding hubs offer opportunities for cities to engage stakeholders from outside the organisation to co-create solutions to pressing tech problems. Societal engagement can be used to crowd-source solutions via these avenues.
- Governments should integrate into their operation's innovative technologies such as IoT and AI to improve their own efficiency as well as the quality and range of the services they offer. The **digital twin tool is part of the smart city of the future**; therefore, the public authorities with complex needs will likely benefit from building one.
- The huge amounts of data being generated require public authorities to improve their capacity to handle such data, e.g., via use of big data analytics systems. **Collaboration on exploiting data also needs to improve through promotion of open data principles and practices**, promoting minimum interoperability mechanisms and standards on data accessibility.
- Strategic rationale should drive what technologies are prioritised. **Systemically impactful technologies such as 5G should be prioritised** for deployment because they can unlock many other innovations relying on real-time access to huge amounts of data.
- The **uneven spread of digitalisation through government service areas should be addressed with targeted policies** designed to incentivise adoption and to create measurable results rather than a generic one size fits all approach. Where users still choose to access offline services when digital versions are available, public authorities need to determine the underlying reasons for this choice. For example, if it is simply a question of habit, incentives should be used to encourage use of online services.
- **Advanced principles** such as the once-only principle, along with the use of open-source software common (data) standards, **should be part of a public authority's long-term strategy and vision on digitalisation.** Steps should be taken by public authority strategists and technicians to avoid being overwhelmed by digitalisation. Technology should serve the people, not the other way around.
- City **strategies on societal engagement should be co-developed with input from the target of the engagement**, e.g., demographics that are commonly neglected. The strategy of managing the social engagement process should benefit both the organisation and stakeholders. The framework for city-stakeholder **interaction should allow for a mechanism through which feedback flows** both ways to inform policy. Social media offers cities channels to publicise their services on offer, so cities should use this medium to amplify their messaging.

4 Bibliography

Castells, M. (2010). *The rise of the network society: the information age: economy, society and culture*. Chichester, UK: Wiley-Blackwell.

Cochoy, F., Hagberg, J., McIntyre, M. P., & Sörum, N. (2017). Digitalizing consumption: introduction. Em F. Cochoy, J. Hagberg, N. Sörum, & M. P. McIntyre, *Digitalizing consumption: : how devices shape consumer culture* (pp. 1-19). London, UK: Routledge.

Larsson, A., & Viitaoja, Y. (2017). Building customer loyalty in digital banking? A study of bank staff's perspectives on the challenges of digital CRM and loyalty. *International Journal of Bank Marketing*, 6(35), pp. 858–877.



Co-financed by the European Regional Development Fund

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ESPON 2022

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