Public Innovation
Building capacity in
Europe's city governments

LSE**Cities**

Contents

Foreword

Cities are on the frontlines of the world's toughest issues – and the Government Innovation Program at Bloomberg Philanthropies is dedicated to ensuring that cities are equipped with the tools and strategies they need to tackle today's challenges and those on the horizon. Central to this mission is fostering a spirit of ambitious problem-solving, where cities both embrace bold solutions and actively seek collaboration with residents and diverse stakeholders to co-create the future.

Imagine a city that openly shares challenges and invites collective efforts to overcome them. In such a place, data-driven experimentation becomes second nature, and rapid prototyping with iterative testing enables continuous improvement. Failure is embraced not as a setback, but as a stepping-stone to scaling solutions that work. Collaboration and adaptability turn these challenges into opportunities, ultimately improving the quality of life for all residents.

In an increasingly complex world, solutions must come faster, from more diverse places, and with greater sustainability. This is at the heart of public innovation in cities: developing the capacity for systematic, lasting problem-solving. Over the past decade, we have identified five key areas that equip cities to be more effective problem solvers:

Leadership: Great city leaders who have a clear vision and create the space and capacity to implement solutions with and for residents.
Organisational capacity: Cities equipped to apply innovative approaches to effectively address local and global challenges.
Ideas: Cities that access, adapt and implement solutions to critical problems that have been proven to work elsewhere.
Networks: Cities that actively connect and collaborate with peers and public innovators to share knowledge, co-create solutions, and unite their voices to influence policy and improve the lives of residents.
Resources: Cities ready to secure funding, leverage current knowledge and best practices to implement effective solutions.

We are excited to partner with LSE Cities on this report, which provides a timely snapshot of where European cities stand in terms of innovation capacity – what is working and where gaps remain. While European cities have made remarkable progress, the need for new approaches to address both long-standing and emerging challenges remains urgent, and I encourage everyone to read this report and join us on the journey to further build the innovation capacity of cities for the benefit of their residents.

James Anderson, Head of Government Innovation Programs, Bloomberg Philanthropies

Foreword

Innovation in the public sector is not just about adopting new tools or technologies – it is fundamentally political. It requires leadership, ambitious visions for the future and mission-oriented approaches that build alliances across all sectors of society. As the 2024 Eurocities Pulse Mayors Survey shows, European cities face significant challenges, particularly in addressing top priorities like housing and climate action.[1] Innovating how cities operate and promoting public creativity are essential to ensure that we can tackle these challenges and move forward together for a better quality of life for all.

In recent years, a new wave of city leaders emerging across Europe, from all sorts of backgrounds, are united in their quest to develop new approaches to government. These individuals have committed their careers – and in some cases left their previous careers – to work for 'their' cities, driven by the desire to make a direct and meaningful impact on the lives of their fellow citizens. They recognise the innovation potential within their cities and are eager to apply their expertise to help realise it.

This report highlights the ways in which European city administrations are working to promote innovation. It is a unique source of knowledge that I am sure will inspire many city makers. From harnessing citizen engagement to enhancing policy effectiveness, cities are leading the charge. However, it's clear that not all cities have the same capacity to innovate, and many face common challenges – such as limited resources, rigid human resource structures and insufficient long-term strategies. At Eurocities, we believe these challenges are best addressed through collective learning and cooperation. That's why Eurocities offers city leaders and officers the tools they need to tackle today's complex problems, from leveraging data through digital twins to scaling social innovation.

As the Eurocities Pulse Surveys emphasise, the EU is a major enabler of city government innovation. EU funding is identified as the most common source of support for local administrations in this area, and it's vital that this support continues to evolve to meet cities' changing needs. Networks like Eurocities are essential for ensuring cities have a voice in shaping EU programmes and policies. By fostering ongoing dialogue between cities and the EU, we can build creative, future-ready bureaucracies capable of addressing today's 'wicked problems', and those of tomorrow.

André Sobczak, Secretary General,
Eurocities

Preface

With nearly three-quarters of Europeans living in urban areas, Europe's city governments play an outsized role in shaping the future of the continent and ensuring the well-being of its residents. Europe's municipal authorities face large and fast-moving challenges which demand radically new ways of working.

Yet, where organisations in the business sector can draw on a wide field of experts and institutions to guide their innovation journeys, European city governments get little support.

Of course, public sector innovation differs in important respects from its private sector counterpart. For private companies, innovation can be existential – those that don't innovate risk going out of business. City governments, by contrast, have to attend first and foremost to democratic principles like transparency, fairness and accountability. But these differences only strengthen the case for focusing on the unique challenges and opportunities of city government innovation.

It is against this background that LSE Cities has collaborated with Bloomberg Philanthropies, given its long-standing commitment to developing the field of government innovation and building a support structure for city government innovation worldwide.

This report looks at how European city governments are approaching innovation and what help they need to build their innovation capacity.

The picture that emerges is inevitably a mixed one. Some cities are finding it easier to build up their innovation capacity than others, and some capabilities are proving easier to develop than others.

Altogether, this report makes for a heartening read. It shows that many European city governments recognise the importance of creativity, experimentation and evaluation in their work and want to strengthen efforts in this area. Investment in supporting European cities in their innovation journeys could bring huge benefits.

LSE Cities and Bloomberg Philanthropies have been collaborating on researching and supporting cities, and in particular European cities, for over a decade now, and this report represents a milestone in our growing partnership.

We thank the many people and organisations who have contributed to this report and give special thanks to Eurocities for opening their networks and providing expert insight and guidance, and to our partners at Bloomberg Philanthropies, with special thanks to James Anderson and Claudia Juech for their thought leadership. We look forward to working with them and other partners as we expand and deepen our work in Europe.

Ricky Burdett, Director of LSE Cities,
London School of Economics and Political Science

Summary

Cities across Europe, like those around the world, are grappling with unprecedented challenges – whether addressing the climate crisis, managing disruptive technologies, fostering more inclusive economies, or supporting rapidly ageing populations. The scale and urgency of these challenges mean cities are confronted, as perhaps never before, with the need to innovate. Public sector innovation – from mission-driven policies to citizens' assemblies or new cross-sector leadership roles – is increasingly being recognised as a necessity rather than a 'nice-to-have'.

But innovation in city governments does not happen by magic. City governments must build up their innovation muscles – their capacity to generate new ideas, test them and learn the lessons.

Building on work by the Organisation for Economic Co-operation and Development (OECD) and others, this report identifies four key components that make up a city's capacity to innovate:

– leadership capabilities

– organisational capabilities

– analytical capabilities

– partnership capabilities

This report describes how European cities are working to build their innovation capacity across these four components.

Our analysis is based on a survey of 65 European cities and in-depth interviews with municipal officers and innovation experts in seven case-study cities. It shows that city governments across Europe, in all their diversity, are open to innovation and rich in ideas and experimental approaches. And we find that Europe's city governments appear particularly strong in leadership and partnership capabilities.

We also identify areas where cities need to further build their capacity to innovate (see analytical framework on page 14).

European cities have invested significantly in digitalising processes and services and deepening partnerships with business and civic stakeholders. However, there is an opportunity to take these efforts further by strengthening internal organisational capabilities – with long-term dedicated funding, roles and skills supporting innovation – and embracing more ambitious approaches to governance, institutional structures, finance, procurement and political economy. Cities could benefit from conceptualising success in new ways and adopting mission-oriented strategies that seek to marshal their public, private and civic resources around their most pressing challenges.

In terms of external support, the EU has emerged as a key and valued partner in providing innovation funding and expertise. But cities would welcome sustained support that not only addresses specific policy challenges but also strengthens the long-term innovation capacity of city governments.

More generally, while European cities benefit from some very effective city agencies and networks, there is an opportunity to develop more tailored, long-term external support systems that help city governments build the core capabilities needed for sustained innovation. By investing in such a support infrastructure, Europe's cities can unlock even greater potential for addressing their most critical challenges and driving transformative change.

Capabilities	Findings	Action points for city governments
Leadership capabilities	Leadership capabilities underpin government innovation capacity. Our respondents identified the vision and drive of mayors, deputy mayors and senior officers as the single most important enabler of innovative working in city government. At the same time, few cities have established formal strategies focused on government rather than economic innovation, or appointed senior innovation officers, and there is little internal or external support to help city leaders develop their innovation capabilities.	– Build innovation capabilities of senior leaders – Ensure cities have a clear, strategic approach to innovation, which goes beyond support for the innovation economy and focuses on building municipal innovation capacity
Organisational capabilities	Municipal officers perceive a lack of organisational capabilities – including dedicated long-term funding, innovation expertise, and a supportive workplace culture – as the biggest barrier to building innovation capacity. These capabilities can be particularly hard to develop but they are also particularly high impact.	– Establish dedicated, long-term funding to support municipal innovation and the scaling up of successful innovation approaches – Remove barriers to and support the recruitment, development and retention of innovation expertise – Build an organisational culture that embeds innovation at all levels of city government
Analytical capabilities	European cities have been strengthening their analytical and in particular their data capabilities in recent years, often in partnership with universities, the private sector, and civic groups and/or with the support of the EU and city networks. But they are not making full use of some effective innovation tools and techniques, such as behavioural science and foresight methods, exploring new approaches to finance and procurement or taking a robust approach to evaluating their innovation work.	– Collaborate across departments and with partners to develop shared standards for data use and integrate city-wide data – Develop expertise in the full range of innovation methods, including approaches based on behavioural science and foresight techniques – Explore innovative approaches to finance and procurement – Ensure that innovation work is properly evaluated and learning embedded into practice
Partnership capabilities	European cities have developed strong partnership capabilities. But they should continue to experiment with new governance models, institutions and innovative forms of citizen participation.	– Foster partnerships with universities, think tanks and other research institutions, not only to support the knowledge economy but also drive municipal innovation – Explore the creation of new cross-sector institutions able to unite different stakeholders to tackle critical challenges – Invest in strengthening existing civic infrastructure, as well as forging new forums for civic collaboration and democratic innovation

1. Why do European city governments need innovation capacity?

The job of leading a European city in the 2020s is both daunting and an exciting one. City governments are expected to tackle both residents' day-to-day concerns – housing, transport, congestion, pollution, health and care services, schooling, public safety and the public realm – and long-term, strategic priorities, including climate action and nature recovery, reversing rising economic inequalities, supporting an ageing population and preparing for the disruptions that artificial intelligence (AI) and other new technologies will bring. Yet most European city governments have limited fiscal and administrative capacity and lack critical legal powers.[2] Furthermore, city governments must address these issues against a backdrop of increased political polarisation and volatility.[3]

As the last few years have demonstrated, challenges can combine in unexpected ways, meaning that city governments must also learn how to manage complex emergencies or 'poly-crises'.[4] Today's transversal challenges are not easily addressed by 'business as usual' city governments.

But these challenges also bring opportunities. A transition to a low-carbon economy is a chance to create healthier, more liveable and equitable cities. More strategic, preventative approaches in areas like urban design, transport, childcare and education or public health services can dramatically improve life chances and living standards and lessen demands on public services.[5][6][7] New technologies offer the potential for public sector productivity gains, more responsive municipal services and increased citizen engagement in and satisfaction with government.[8][9] And new approaches to public finance and procurement could unlock increased investment in urban priorities.

But whether we dwell on the negative or the positive, Europe's city governments can't rely on established ways of doing things.[10] They will need to innovate.

It's against this background that we have seen, both among experts in urban government and city leaders, a growing interest in public innovation. Thirty years ago, innovation was largely seen as something that mattered to the private sector. It was widely assumed that both the need and ability to innovate were qualities found mainly among businesses, which are under constant competitive pressure to re-invent their cultures, processes and products. But that has changed; a new generation of researchers, urban leaders and activists are building a field of public innovation. In particular, city government innovation draws on insights from the business world, public sector and civil society while recognising the distinct values, constraints and opportunities of democratic government.

The good news is that Europe's municipalities have a long history of urban innovation. For example, the region's cities have led the way in promoting more liveable, sustainable and inclusive forms of urbanism through investing in high-density, mixed-use development and affordable housing, public transport, active travel, public realm improvements and social infrastructure. More recently, many of them are experimenting with new ways of engaging and empowering residents and community groups, such as through citizens' assemblies. These democratic innovations build on powerful legacies of civic creativity and engagement in European cities – from neighbourhood forums and social centres to citizen movements protecting historic districts and community infrastructure in cities across the continent. And yet, as our research demonstrates, there is more city governments could do to connect with and learn from inventive partners and citizens to put innovation at the centre of their work.

Some might question whether it makes sense for every city to prioritise innovation. Perhaps it would be sensible for most cities to focus their limited resources on the basics of public administration, through optimising existing ways of doing things, while adopting and adapting innovations developed

and tested elsewhere. It is certainly true that cities need to keep focusing on strengthening established processes – especially as following rules and procedures is fundamental to good government and essential to ensuring fairness and accountability. But we argue that the capacity to innovate is another requirement of good government:

- No two cities are the same and all cities will need to develop diverse ways of addressing contextually specific challenges and opportunities.
- The capabilities that enable a city to innovate also enable it to learn and adapt – adaptation and innovation exist on a continuum.
- Innovation and democracy are closely aligned – innovation allows city governments to carve their paths in line with the values and ambitions of their citizens.[11]
- OECD and Bloomberg research finds that cities that invest in innovation have higher resident satisfaction and better resident outcomes.[12]

As we will see, Europe's city leaders are strongly convinced of the need to innovate. 87% of European city mayors who participated in the 2024 Eurocities Pulse Mayors Survey agreed that "My city will have to innovate because otherwise we will not have enough resources to deliver on our priorities". Innovation is often framed as a way for cities to be more resilient to budget cuts. It has even been used as a justification for cost-cutting: innovative governments, it is argued, can do more with less. However, many proponents of government innovation now call for the exact opposite: innovation demands more investment in a strong and ambitious public sector and should offer creative tools for city governments to unleash resources to deliver on their priorities.

A great deal of research and writing on government innovation focuses on describing and classifying innovation itself. One widely cited study, for example, distinguishes between four types of public sector innovation:[13]

- product or service innovation (new public services or products)
- process innovation (either administrative, such as the creation of new management and working methods or technological, such as the deployment of new technologies to provide services to users and citizens) to improve quality and/or efficiency
- governance innovation (new forms of collective action to address specific societal problems)
- conceptual innovation (new concepts, frames of reference or paradigms that help to reposition the nature of specific problems as well as possible solutions)

Researchers have also identified an array of approaches that can support the public sector to innovate and meet its challenges, such as 'open innovation', citizen-powered innovation, user-centred or service design-generated innovation, innovation driven through applied behavioural science, and mission-driven change (see Appendix C for a glossary of innovation activities and methods). And we have also seen approaches that are specific to cities, such as tactical urbanism and experimental urbanism.[14] Finally, we have seen a huge body of writing describing and evaluating actual urban innovations.[15 16 17 18]

This sort of research and analysis can be extremely valuable in addressing specific innovation challenges. But it does not have very much to say about how a city government can build up its capacity to generate new solutions. This report, by contrast, is occupied with just this question. Employing a distinction made by James Anderson, Head of Government Innovation at Bloomberg Philanthropies, we are less interested in the 'what' as in 'What sort of innovation can help me address this specific challenge?' and more in the 'how' as in 'How can I build up the capacity of my city to innovate'.[19]

More specifically this report sets out to answer five questions:

1. What do we mean by innovation capacity in city government and why is it important?
2. How are European cities working to build their innovation capacity? In which areas are they stronger and where do they need to make the most progress?
3. Are there clear patterns when it comes to innovation capacity (for example, are cities building capacity in similar ways and are these patterns affected by variables like region or wealth levels?).
4. What are the main enablers of and barriers to building city government innovation capacity in Europe?
5. How can cities and those who support them build their capacity for government innovation?

While local or city government innovation capacity has not had the same attention from researchers as government innovation at the national level – let alone business or commercial innovation – there is now an important body of analysis on this topic. Our research draws, in particular, on a 2019 OECD study – the first systematic review of innovation capacity in city government, based on a survey of 89 cities around the world of which 15 are in Europe.[20]

In line with OECD's work, we define innovation capacity as the ability to develop and try new ways of solving problems.

Early on in this project we developed an analytical framework to structure our research and help cities that want to map and build their innovation capacity. We have continued to develop this, in conversations with experts and practitioners and in relation to our emerging research findings. Building on OECD and others,[21] we distinguish three types of capabilities that contribute to city government innovation capacity:

1. **Organisational capabilities.** These include the dedicated financial and human resources available to support innovation and the dedicated structures, teams, strategies, regulations and processes set up to facilitate innovation. The internal culture that enables a city government to harness innovative ideas and skills from across its workforce and financial resources can come from within a city's budgets or external sources.
2. **Analytical capabilities.** These include the ability to: access, generate, integrate and analyse data; keep abreast of research and practice relevant to innovation; undertake or commission qualitative research with citizens, service users and stakeholders; employ service design and similar techniques to support innovation; and evaluate and learn from the city's innovation capacity and related initiatives.
3. **Partnership capabilities.** These include working collaboratively with external partners in generating innovation, including other government and public sector partners, businesses, universities, not-for-profits, community groups, individual citizens and national and international city networks. Partnership working can take a wide range of forms, from regular meetings or workplace exchanges through shared information, strategies and projects, to the creation of new shared institutions.

Figure 1: Innovation capabilities.

Leadership capabilities	The ability of elected and appointed **city leaders** to place **public sector innovation at the top of the municipal agenda,** set strategic direction and support a creative culture.

+

Organisational capabilities	A city's ability to advance innovation through **dedicated budgets, hiring policy, staff expertise, organisational design** and **institutional culture.**
Analytical capabilities	A city's ability to marshal data, **qualitative research, design thinking** and other **creative methods** to inform decision-making and foster innovation.
Partnership capabilities	A city's ability to **collaborate with external partners** to generate and implement innovative solutions.

The OECD framework includes 'political and managerial leadership' as an element of organisational capability. But we understand this as a factor that exists above organisational, analytical and partnership capabilities, with the power to shape all three. Indeed, leadership capabilities can be pivotal in building and sustaining a city's overall innovation capacity, suggesting that developing these capabilities is a particularly effective way of strengthening a city's capacity to innovate. For this reason, we identify leadership as a distinct fourth component of public innovation capacity:

4. **Leadership capabilities.** These include the commitment of city leaders to public sector innovation and their ability to inspire their administration and to provide strategic direction. Leadership can come from elected politicians, and/or senior officers.

We also identify a factor that is more external to city government: the **city's broader culture of innovation**. Some cities have a relatively developed innovation 'context' that will support their government's capacity to innovate. This is likely to be true of cities with developed knowledge and creative economies, highly educated populations and civically engaged universities and research institutes. Among our case study cities, local leaders in Leuven (page 31) and Cluj-Napoca (page 41) emphasise the vital contribution of local universities to their cities' innovation efforts. But it might equally be true of a city with a strong civic culture, including citizen bodies and community groups that demand and contribute to innovation – as we heard from city interviewees in Bologna (page 25). This is not to say that municipal governments that lack these supporting attributes can't develop a strong innovative capacity, but it will likely be harder for them to do so.

There is arguably only a limited amount that a municipal government can do in the short run to strengthen the background innovation culture of a city. But it can work to create a more innovative culture over time.

As figure 2 illustrates, a city can have strengths in one, some, or all four innovation capabilities. For example, provided that the leadership is in place: cities that are strong in organisational and analytical capabilities will score well on developing evidence-based innovation (including the evaluation of innovation outcomes). Cities that are strong on organisational and partnership capabilities, will perform well on participatory government and co-innovation. Cities that are strong on analytical and partnership capabilities will perform well on innovation driven by open government, data sharing and transparency. Cities that are strong in all dimensions will be best placed to score well in the round and fully harness their potential to innovate.

Figure 2: City government innovation capacity – analytical framework.

City's culture of innovation

Leadership capabilities

Organisational capabilities

Evidence-based policy capabilities

Participatory governance capabilities

Maximum capacity

Analytical capabilities

Open government capabilities

Partnership capabilities
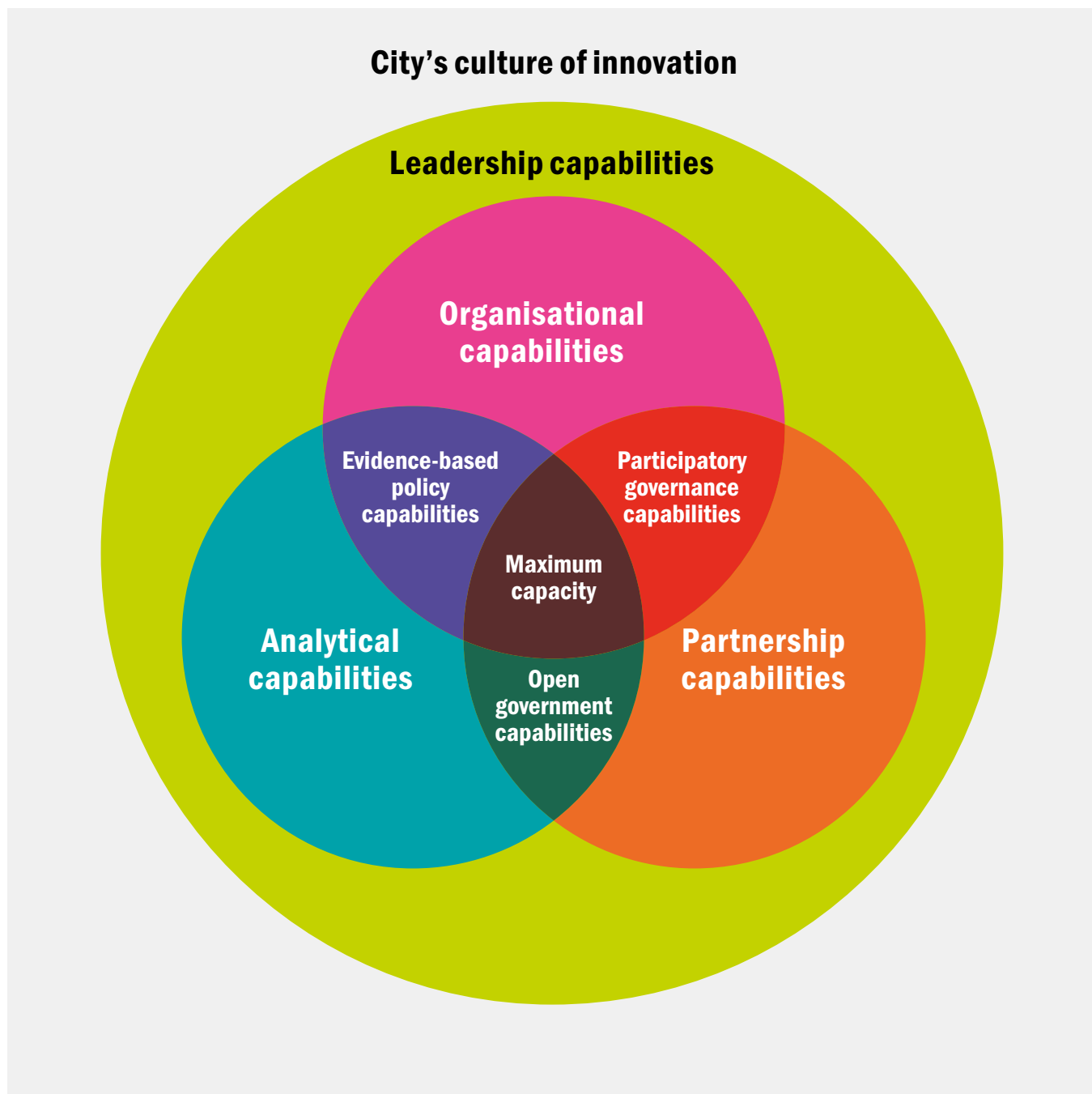
2. The state of city government innovation capacity in Europe

Having set out what we mean by innovation capacity and why it matters, this section explores innovation capacity in Europe's cities. It draws on:

- **a new Eurocities Pulse survey,** designed by LSE Cities and Eurocities and targeting municipal officers responsible for overseeing innovation efforts in their administrations. 65 cities responded to the survey, representing over 63 million residents across 27 countries, and ranging in size from small cities below 100,000 inhabitants to major metropolises with more than 10 million (for example, London and Istanbul). Our sample encompasses 53 (82%) EU cities and 12 (18%) non-EU cities. See figure 3 and Appendix B for more details on respondent cities.
- **the annual Eurocities Pulse Mayors Survey.** There are currently two iterations of this survey (2023 and 2024). The last iteration included questions on innovation capacity that in some cases matched questions from the new Eurocities Pulse survey for municipal officers, allowing us to compare the views of municipal innovation officers with their political leaders. A total of 92 mayors from across Europe responded to the latest survey, representing over 150 million people across 30 countries.
- **20 in-depth interviews** with municipal officers (usually those leading innovation teams or innovation capacity building initiatives) and representatives of their partner organisations (such as local universities) in seven case study cities: Bologna, Cluj Napoca, Espoo, Istanbul, Leuven, London and Vienna.

As mentioned previously, this research builds on work developed by the Organisation for Economic Co-operation and Development (OECD) and Bloomberg Philanthropies that aimed to understand how and why city governments around the globe were investing in public sector innovation, and to what extent these investments were improving outcomes and well-being for residents.[22][23][24] In the years since the OECD conducted its surveys (2018–20), Europe's cities have faced new or intensified challenges, including the COVID-19 pandemic, Russia's war against Ukraine, a sharp jump in energy prices and a squeeze on living standards, and the ever-growing urgency of the climate crisis. At the same time, the EU has ramped up its commitment to urban innovation with a number of new initiatives, including the Urban Innovative Action Programme (part of the European Urban Initiative), the EU Mission for 100 Climate-Neutral and Smart Cities and the New European Bauhaus.[25][26][27] Our new survey updates and adjusts the original OECD/Bloomberg questions to better reflect this unique context, while still retaining enough continuity to enable a comparative analysis of results.

More details about the research on which this report is based can be found in Appendix A.

2.1 How is innovation capacity organised within city government?

In this section, we explore the various approaches that European city governments are taking to conceptualising, funding and organising innovation capacity within their administrations. The elements that we examine here fall broadly under the 'organisational capabilities' component of our analytical framework.

Figure 3: The 65 cities that responded to the Eurocities Pulse Survey on innovation capacity (showing which have a formal innovation strategy and which do not).

Yes

No

Reykjavík

Turku
Espoo
Helsinki
Oslo
Stockholm
Tallinn
Linköping
Gothenburg
Kungsbacka
Riga
Glasgow
Vilnius
Belfast
Gdańsk
Preston
Limerick
Warszaw
Wolverhampton
Utrecht
Łódź
Bristol
Enschede
London
Leipzig
Ghent
Chemnitz
Kraków
Leuven
Mainz
Pilsen
Mannheim
Heidelberg
Brno
Paris
Munich
Bratislava
Vienna
Nantes
Cluj-Napoca
Galaţi
Milan
Turin
Bologna
Bucharest
Florence
Marseille
Arezzo
Bilbao
Pristina
Sofia
Braga
Rubí
Tirana
Istanbul
Porto
Barcelona
Fuenlabrada
Naples
Lisbon
Izmir
Alicante
Athens
Malaga

Formal innovation strategies

The OECD research suggests that developing and adopting a formal innovation strategy can be a highly effective way of grounding and giving direction to a city's innovation efforts.[28] Just over half of the cities in our sample (34 in number, 52%) indicated that they have a formal strategy in place (figure 3 displays this data). This is the same figure as in the 2018 OECD global survey, suggesting that cities are making slow progress in developing formal innovation strategies.[29]

Our survey did not explicitly assess the scope or quality of these strategies. But we did invite respondents to provide a link to them, and the 23 cities that shared a link reveal marked differences in what they understand as a formal strategy. None of the documents shared appear to be exclusively dedicated to comprehensive strategies aimed at building public sector innovation capacity. While some cities such as Reykjavik or Vienna do have strategies that cover building city government innovation capacity, these are rare. Most were not focused at all on what we would understand as city government innovation, but on developing knowledge and innovation economies. Others are focused on tackling important but specific policy challenges such as the drive to net zero (for example, the Glasgow Innovation Action Plan or Porto Innovation Hub).[30][31]

Where strategy documents focus on city government innovation (as opposed to supporting the broader innovation economy), these are predominantly directed quite narrowly towards the modernisation and digitalisation of processes and services. Sometimes this might include a particular thematic focus such as encouraging the development of open data (for example, in Heidelberg, Pilsen, Istanbul) or data security (for example, Leipzig 2035), or the use of the city as a test bed for innovative solution (for example, Barcelona InnovAcció 2030) and to a lesser extent, civil society. [32][33]

Few had a clearly articulated and formalised approach to strengthening capacity across their administration. According to de Vries and colleagues' classification of types of innovation (see page 8), city governments are focusing more on service and process innovation than governance or conceptual innovation.[34]

There are also significant differences in terms of the framing of these strategies, with some cities having clearly defined targets and measurable performance indicators (for example, Istanbul 2030 Smart City Strategic Plan), and others pointing towards more loosely defined, qualitative objectives (for example, Fuenlabrada Urban Agenda which aims to promote more open government and collaborative decision-making).[35]

Some cities such as Bologna and Cluj-Napoca said that while they may not have a formalised approach or a specific document that captures their vision for building innovation capacity, that does not mean that the subject is less of a priority for their administration. These cities tend to think of innovation more as a matter of informal culture than formal strategies and direct their efforts on developing and sustaining this culture.

Approach to building innovation capacity

As well as asking cities about innovation strategies, we asked whether they adopt a cross-cutting, organisation-wide approach to building innovation capacity, or instead think about innovation capacity in relation to individual departments, policy sectors or specific challenges. More than half (37 out of 65) reported approaching innovation at an organisation-wide level. A third of cities, by contrast, said they take a sectoral approach, with efforts focused on specific departments or policy domains.

A handful of cities describe themselves as combining a cross-cutting and a sectoral approach (Oslo, Barcelona, Nantes and Mannheim) or moving from a sectoral to an organisation-wide approach (Bratislava). Others, like Cluj-Napoca and Florence, said that rather than approaching innovation capacity holistically or in specific domains, they are putting the emphasis on building their capacity through collaboration with external stakeholders.

However, as shown in figure 4, more than two-thirds (67%) of cities that have a formal strategy approach innovation at a cross-cutting organisational level and just 15% think about it at a sectoral level. Cities without a formal strategy seem less likely to think about innovation capacity holistically – further evidence,

perhaps, of the positive benefits of establishing a formal strategy.

There are no significant differences in these approaches between smaller and larger cities in our sample. Southern European cities more frequently indicated that they think about innovation in a cross-cutting way, while Eastern and Western European cities seem to be quite evenly split between those where innovation remains a sectoral focus and those with a more cross-cutting approach.

Innovation teams

Just as adopting a formal innovation strategy can help build a city's innovation capacity, so can the creation of a dedicated innovation team – a group of people tasked with supporting innovation activities within the city administration (OECD 2019; see also figure 7 where a strong innovation team is identified as the fourth most important supporting factor).

More than a third of the cities in our survey indicated that they have a separate department or other body dedicated exclusively to innovation, and only four cities said they don't have an innovation team at all. Many cities have cross-departmental task groups or innovation staff dispersed across the administration – for example, interviewees from our case-study city of Istanbul explained that, to support their innovative cross-city open-data platform, they appointed a data officer to sit in each major department (page 35). Several cities that selected 'other' also indicated that they have a mixed approach that includes a combination of task groups and more centralised innovation leadership (for example, Espoo, Oslo, Stockholm and Barcelona).

In an interesting variant on establishing an internal innovation team, some cities have established city-owned innovation companies (Mannheim, Helsinki, Limerick) or innovation-focused non-profits (Porto) that promote municipal innovation. Bologna has paired up with the local university to establish a private foundation to drive its strategic urban transformation projects and implement radical resident engagement efforts (see case study on page 25). Nantes has a unique approach that combines a department exclusively dedicated to internal innovation alongside a second department focused on economic and academic innovation, as well as a cross-cutting innovation group dedicated to sharing innovative actions between departments.

Figure 4. How does your city administration approach innovation capacity?

Cities with a formal strategy

Other
18%

In specific domains
15%

Holistically, cutting across domains
67%

Cities without a formal strategy

Other
3%

In specific domains
52%

Holistically, cutting across domains
45%
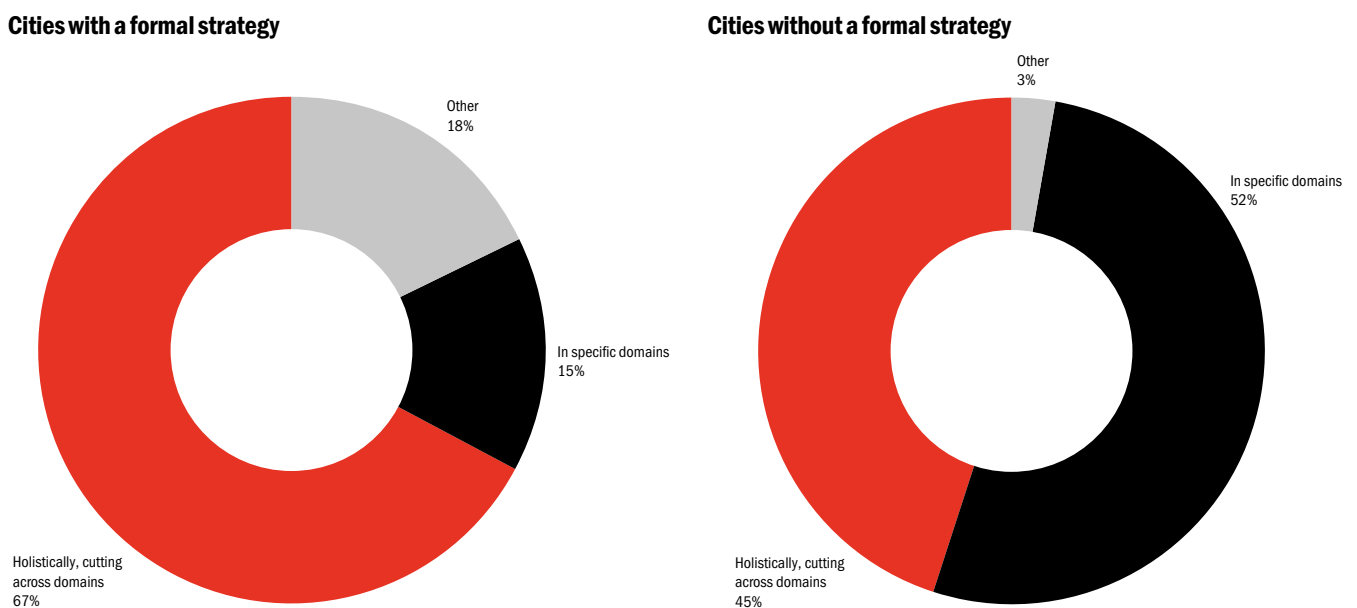
Figure 5: Does your city have an innovation team? If yes, where does it sit within the administration?

In a dedicated department/body	23
In task groups from different departments	10
Other	10
Dotted throughout the administration	8
In the mayor's office	5
In the city manager's office	5
No innovation team	4
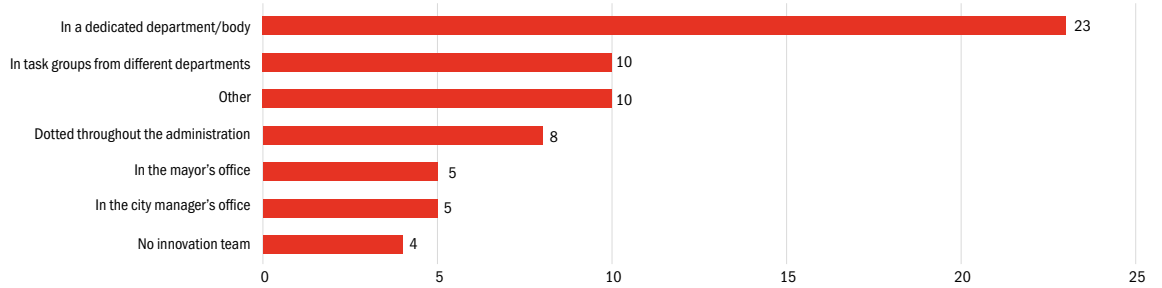
Figure 6: How many innovation-focused staff work in your city administration in total?

More than 15	22
Between 10 and 15	8
Between 5 and 10	14
Less than 5	10
No dedicated staff	5
Other	6
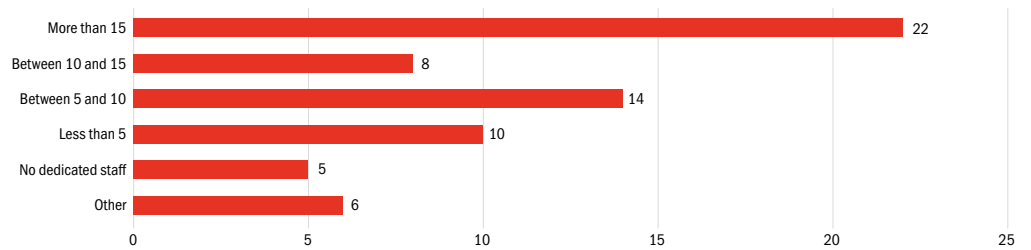
Innovation-related staff

OECD's 2018 global survey found that 9% of city administrations had no staff dedicated to innovation, 29% had less than five staff working on innovation and only 20% of cities had more than 10 staff. Our survey found that a similar proportion had no dedicated innovation staff (8%) but a much higher proportion (46%) had more than 10 staff. This indicates that investment in innovation staff is on the rise in city governments more generally, or that Europe invests disproportionately in innovation staff or, most likely, some combination of both.

The number of innovation-focused staff in city administrations appears to be only weakly correlated with city size or wealth (measured in gross domestic product (GDP) per capita at NUTS 3 level). This means that other factors such as leadership capabilities may explain the variation we see in overall innovation staff numbers.

Vienna, Austria

Population
1.9 million (2022)

GDP per capita
€56,600

Official language
German

Mayor
Michael Ludwig
since 2018 (directly elected, no term limit)

Building cultures of innovation

For Vienna's innovation unit, building capacity means investing in developing the innovative mindsets and skillsets of municipal officers. In 2021, the city launched 'Innovation Management in the Municipal Administration', a bi-annual call to support innovative projects pitched by employees. Around it, training opportunities, networks and forums have been developed, seeking to embed a culture of innovation among employees.

Vienna's innovation approach

In 2016, Vienna set out its new Strategy for Economy and Innovation which identified 10 fields of strategic action to respond to major challenges of the coming decade. 'Innovative Urban Administration' was highlighted as one of these 10 key fields, following extensive consultation within the municipality and partners. The desire to prioritise public innovation was clear; less clear at the time was who was going to drive this agenda forward. A municipal officer who leads innovation management at the city council told us that the economic development department ended up taking on the cause of government innovation simply because "there was nobody taking it up immediately': ... it's not that we are the centre of innovation, ... but we started to take [up] the subject of innovation and to test and find out more." A few years on, the council has set up the Innovation Management Coordination Office (IMCO), with a dedicated budget to "support [innovation] more systematically within the city administration."

The IMCO focused on shifting city-government cultural norms and mindsets. A leader within the unit told us that there are many opportunities to learn about innovation methods and tools if you are an interested employee, so "it's not so much the knowledge [about innovation] that is missing ... it's still really the attitude in people's minds." They told us about the need for new attitudes to working across departmental silos and accepting failure. Innovation, another employee said is, "still seen as somehow a separate entity from everyday business. It's something you take special care of, but not everyone has to worry about." Unpacking the barriers to mainstreaming innovation into everyday working means attending carefully to a range of cultural forces – from habit ("oftentimes we hear: 'we've always done it that way, it worked that way, so why change the way we do it'") to the specificities of urban context: "General Viennese culture is not that conducive to an innovative culture. In Vienna we're proud of our history ... stirring hunger for the future [is] not always easy."

Vienna's Innovation Management funding call for staff

As part of its drive to foster a culture of innovation, Vienna's city government has launched a bi-annual call for new project ideas from municipal staff, with 1.5 million euros made available for projects (excluding staff costs), but, arguably more importantly, interested applicants are supported by the city to develop their skills and working practices in preparation for pitching their ideas to a jury. Applicants are offered workshops to build cross-departmental teams and develop

their ideas in a space designed, according to a representative of the IMCO, so they can "speak openly [...] with courage." They are then provided with pitch training from external partners, which builds their skills in compelling communication. This training can provide "a really valuable eye opener" (in one participant's words) and has lasting impacts given "most employees at the public administration are not used to promoting their own ideas."

Projects that have been supported range from new uses of artificial intelligence (AI) to detect fraud to embedding digital humanism in technological transformation or youth democratic engagement programmes. Each of these initiatives contributes to building the municipality's innovation capacity, but the structural mechanism of the call is crucial for supporting a wider cultural shift in the long term. New formats are being developed around the call to 'create a network of people who have done this'. The half-yearly Culture4Innovation event, for example, is a space to bring together municipal officers with political leaders, to share learnings and support scaling of successfully funded projects.

Lessons for building innovation capacity:

1. Focus on innovation culture.
Cultural change can feel like a nebulous aim, hard to make concrete and put into practice, but Vienna's administration is convinced that shifting working cultures is fundamental to mainstreaming innovation. In the pitch trainings, staff from different departments meet and encounter new perspectives, from each other and from the start-up world beyond the municipality: the clashing of ideas, languages and habits creates space for new cultural norms to emerge. Themed events, such as the Innovation Conference Vienna held on 'failure culture', can make this process even more tangible. Failure can be a challenging topic for public employees, working under the gaze of politicians who are reluctant to admit squandering public resources. Yet, this conference gives space to learn from projects that go wrong, which is fundamental to public sector

innovation. Time is spent debating and workshopping failure, which allows employees to develop new perspectives on complex and often unspoken questions with the power to reshape their ways of working.

> "This is not about 'marketing' it is about continually learning and growing. Still, a lot of departments within the administration wouldn't dare to speak about their problems, but by addressing [failure] and showing and supporting those who are willing to do so, we are trying to make a step in the right direction."
>
> Head of research technology and innovation, Department for Economic Affairs, Labour and Statistics, Vienna.

2. Connect those who are already leading mindset shifts.
Vienna's administration has been shaped by both top-down and bottom-up commitments to government innovation. Politicians backed government innovation as a priority in the 2016 strategy, but it took individuals and department heads to proactively lead changes in daily working practices.

One council officer told us, "the next step [is] to integrate that innovation community a little bit more ... there are a lot of people within the city that know we need to change ... but that is not on a coordinated level." Some departments might naturally be leading mindset shifts (for example, those working on climate action across policy domains or those pioneering digital transformations which are always new: "When your task is to transform something, you cannot feel like, we have done it before [...] you need to approach [it] with a fresh and new mind." These individuals who are already committed to government innovation can coordinate networks across the council by working "like a spider in the centre of the web and see[ing] which strings are vibrating and which you have to pull." But it also takes structural support and mechanisms like the Innovation Management funding call to provide useful examples.

3. Focus on delivering resident outcomes early.
City government employees pointed out the differences between start-up cultures and those found in city governments. Pitching ideas in the private sector can sometimes rely on a beguiling narrative alone: "They say 'invest in me and we'll create results'", but in public service, understandably, given the pressures of limited resources and the fundamental need for accountability to residents, innovative projects have the pressure of showing 'the flesh of results' upfront.

The Innovation Management funding call is alert to this: it manages to simultaneously pursue long-term, hard-to-quantify cultural change and deliver a range of distinct projects with tangible short-term resident outcomes.

What's next?

Municipal staff find cross-departmental exchange on innovation valuable. One argued that bi-annual calls and semi-regular events and conferences need to be scheduled more regularly "to exchange more in-depth ideas" going forwards.

The leadership of the IMCO echoed this, setting out the need to bring more visibility to its work. For example, by multiplying opportunities to bring political leaders into dialogue with municipal officers championing innovation. In the longer-term, they will strengthen the alignment between political and operational structures that are responsible for innovation and build support for scaling up investment in capacity building.

2.2 Building innovation capacity: enablers and barriers

In this section, we explore the key enablers and barriers that cities identify as most important in building their innovation capabilities. Taken together, these factors can be regarded as the 'determinants of city innovation capacity' – the main reasons why some city governments have more capacity to innovate than others.

Enablers of innovation capacity

When asked to identify the most important supporting factors of innovation capacity in their administration, respondents ranked leadership capabilities as the cornerstone. As illustrated by our analytical framework (see figure 2 on page 14), leadership underpins all other innovation capabilities. Without the strong commitment of political and administrative leaders to public sector innovation, as well as their ability to inspire and provide strategic direction, any organisational, analytical and partnering strengths that cities may have will not be exploited to their full extent.

Survey respondents identified organisational capabilities, in the form of dedicated staff, teams and funding, as the second most important style of enabler, below leadership, but above either analytical or partnership capabilities. However, as we will see, cities say they are stronger precisely in analytical and partnership capabilities, and weakest in organisational ones. These findings hold true for all regions and wealth levels. Interviewees in our case study cities, notably Leuven, Espoo and Istanbul (pages 31, 45, 35), all emphasised the critical role that leaders play in driving innovation. Several said that future leadership changes could pose a threat to the continuation of innovation projects. The Eurocities Pulse Mayors Survey casts further light on the importance of leadership as an enabling factor. Mayors identify a 'focus on innovation capacity' as the second most important strategy in achieving their aims, after additional funding. And 87% of mayors 'strongly' or 'partially agree' that their city will have to innovate because otherwise they will not have enough resources to deliver their priorities (Eurocities 2024). These striking findings help explain why leaders have played such a positive role in supporting innovation in Europe's city governments.

Figure 7: How important have the following factors been in supporting innovation capacity in your city administration? (categorised according to type of innovation capability (see figure 1 on page 12).
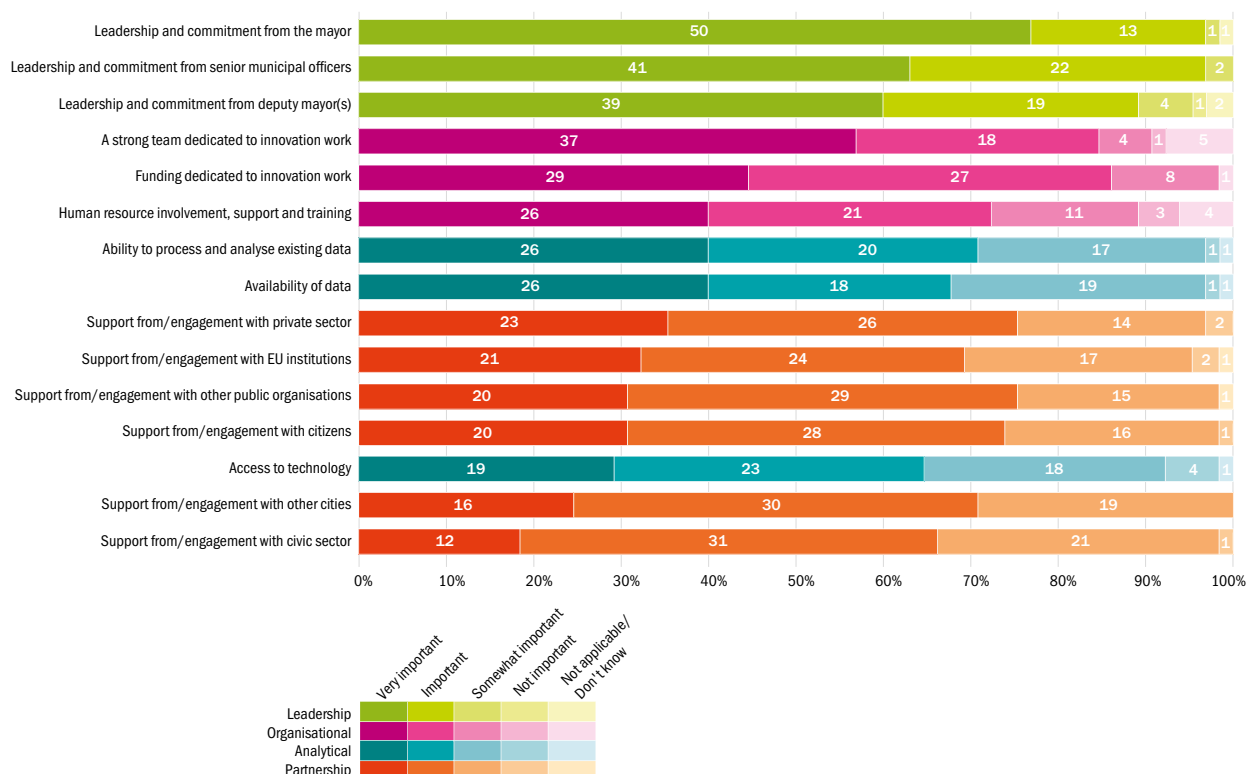
Figure 8: What are the most important strategies for mayors to achieve their priorities? (Eurocities Pulse Mayors Survey 2024).

Legend: Top 1 strategy, Top 2 strategy, Top 3 strategy

- Sourcing additional central government/EU funding for my city — 94%
- Focus on innovation capacity to implement new, cutting-edge solutions — 60%
- Establish better ways to cooperate with central government and the EU — 53%
- More competences transferred from central level — 40%
- Develop the technical skills and capacity of city staff — 28%
- Maximise networking and mutual learning opportunities with other cities — 22%
- other — 1%

Barriers to innovation capacity

Cities report that the main barriers are related to organisational capabilities – including lack of dedicated funding, inadequate skills and knowledge, and rigid human resources (HR) rules that work against hiring or rewarding staff with innovation skills. Our case study city Leuven established the non-profit Leuven 2030 to drive its climate transformation agenda, in part because the model offers a workaround to the constraints of typical municipality role profiles, and enables recruitment of innovation skillsets (see page 31). Respondents also ranked the lack of leadership from top municipal officers relatively high (lack of leadership from elected politicians seems less of an issue). By contrast, partnership and analytical capabilities are not regarded as significant barriers.

Our survey suggests some regional variation in perceptions of barriers. For example, in Southern Europe the biggest challenges are around HR, not funding. In Northern Europe, the lack of leadership/commitment from senior officers emerges as the main barrier. And the lack of data is a more serious issue in Eastern Europe. Recognising that smaller cities in the region lack the staff and skills to implement best data practices, Istanbul is supporting its neighbouring cities to develop capacity via the cross-city B40 open data platform (see Istanbul case study page 35). These regional differences are just another helpful reminder that efforts to build innovation capacity in European cities must respond to local context.

Figure 9: What are the biggest challenges or barriers your city administration faces when it comes to increasing its innovation capacity?

Total

Challenge	Percentage
Lack of funding dedicated to innovation work	48%
Inadequate innovation skills and knowledge across the administration	37%
Rigid human resources rules	34%
Lack of leadership/commitment from senior municipal officers	32%
Innovation work impacted by election cycles	23%
Lack of access to/unavailability of data	22%
Innovation capacity has not been a priority for elected officials	22%
Absence of a strong team dedicated to innovation work	22%
Lack of skills/resources to process and analyse existing data	14%
Difficult access to technology	14%
Lack of support from/engagement with private sector	5%
Lack of support from/engagement with EU institutions	3%
Other	3%
Lack of support from/engagement with other public organisations	3%
Lack of support from/engagement with citizens	2%

Northern Europe

Challenge	Percentage
Lack of funding dedicated to innovation work	50%
Inadequate innovation skills and knowledge across the administration	40%
Rigid human resources rules	20%
Lack of leadership/commitment from senior municipal officers	55%
Innovation work impacted by election cycles	15%
Lack of access to/unavailability of data	20%
Innovation capacity has not been a priority for elected officials	30%
Absence of a strong team dedicated to innovation work	35%
Lack of skills/resources to process and analyse existing data	5%
Difficult access to technology	10%
Lack of support from/engagement with private sector	0%
Lack of support from/engagement with EU institutions	0%
Other	5%
Lack of support from/engagement with other public organisations	5%
Lack of support from/engagement with citizens	5%

Eastern Europe

Challenge	Percentage
Lack of funding dedicated to innovation work	62%
Inadequate innovation skills and knowledge across the administration	23%
Rigid human resources rules	31%
Lack of leadership/commitment from senior municipal officers	23%
Innovation work impacted by election cycles	8%
Lack of access to/unavailability of data	38%
Innovation capacity has not been a priority for elected officials	31%
Absence of a strong team dedicated to innovation work	23%
Lack of skills/resources to process and analyse existing data	31%
Difficult access to technology	8%
Lack of support from/engagement with private sector	0%
Lack of support from/engagement with EU institutions	0%
Other	0%
Lack of support from/engagement with other public organisations	0%
Lack of support from/engagement with citizens	0%

Western Europe

Challenge	Percentage
Lack of funding dedicated to innovation work	50%
Inadequate innovation skills and knowledge across the administration	43%
Rigid human resources rules	21%
Lack of leadership/commitment from senior municipal officers	29%
Innovation work impacted by election cycles	29%
Lack of access to/unavailability of data	21%
Innovation capacity has not been a priority for elected officials	14%
Absence of a strong team dedicated to innovation work	7%
Lack of skills/resources to process and analyse existing data	14%
Difficult access to technology	21%
Lack of support from/engagement with private sector	21%
Lack of support from/engagement with EU institutions	0%
Other	7%
Lack of support from/engagement with other public organisations	0%
Lack of support from/engagement with citizens	0%

Southern Europe

Challenge	Percentage
Lack of funding dedicated to innovation work	33%
Inadequate innovation skills and knowledge across the administration	39%
Rigid human resources rules	61%
Lack of leadership/commitment from senior municipal officers	17%
Innovation work impacted by election cycles	39%
Lack of access to/unavailability of data	11%
Innovation capacity has not been a priority for elected officials	11%
Absence of a strong team dedicated to innovation work	17%
Lack of skills/resources to process and analyse existing data	11%
Difficult access to technology	17%
Lack of support from/engagement with private sector	0%
Lack of support from/engagement with EU institutions	11%
Other	0%
Lack of support from/engagement with other public organisations	6%
Lack of support from/engagement with citizens	0%

Legend:
- Leadership
- Organisational
- Analytical
- Partnership

Bologna, Italy

Population

390,000 (2022)

GDP per capita

€42,327

Official language

Italian

Mayor

Matteo Lepore
since 2021 (directly elected, no term limit)

Fostering co-production with residents

Bologna's Fondazione IU Rusconi Ghigi (IU) is an independent foundation established to deliver strategic urban transformation projects on behalf of the municipality. In partnership with the IU, the municipality has pioneered new civic participation methods to engage residents in the co-production of public policy and programmes.

Bologna's innovation approach

In 2018, then-Mayor Virginia Merola, together with the University of Bologna, established IU, an independent foundation tasked with better engaging citizens in the design and execution of major transformation programmes. Each year the municipality's senior leadership engages the foundation to deliver specific strategic projects.

The foundation is an evolution of the pre-existing Urban Center Bologna, a longstanding platform for civil society collaboration on urban issues, and builds on years of participation experiments.[36] In 2014, the municipality established regulation that allowed residents and civil society groups to sign formal collaboration pacts with the city. The effort helped cut red tape and create shared responsibility for local regeneration projects.

The foundation is eager to delineate its approach from the private sector or a tech-centric vision of innovation.

"We speak about the collaborative city against this smart city approach. A collaborative city is made in the relationships between the public administration and the third sector, civil society, co-operatives and it makes the administration a shared place."

Head of civic imagination department, Bologna.

Bologna for civic imagination

The foundation has departments responsible for regeneration projects, cultural projects, proximity and design (a form of hyper-local human-centred design), civic imagination and digital innovation. Under its proximity and design department, the IU has established a 'lab' in each of the city's six districts. Each lab houses two to three staff from the municipality and two to three from the IU. These staff work together to build a deep understanding of the needs of each neighbourhood, using that knowledge to facilitate citizens' input on new projects.

For example, the IU led a recent participatory process to determine the design of the city's new tramline. Similarly, in 2023 the neighbourhood labs informed the foundation's development of a digital twin to map the city's mobility and energy sectors, supporting data-driven decision-making and modelling the impact of sustainability interventions. The IU is now facilitating civic engagement around the municipality's new schools regeneration programme.

Lessons for building innovation capacity:

1. Use a partnership model to work around rigid HR and funding constraints. Italian public sector role profiles are fixed at the national level. Before the IU, the municipality struggled to recruit for skills outside of classic profiles (like administrative, engineer, architect, IT and lawyer). As a private foundation, the IU can hire outside these rigid roles to bring in new and flexible skillsets. The IU can apply for European and other types of regional funding more complicated to access for the municipality. This flexibility prevents the city from having to outsource key responsibilities to external consultancies. The IU can embed and build on learning from each project. Over time, the influx of new skills in the foundation has also led to cross-pollination of skills with the municipalities' existing staff. "We are seeing enhanced skills across both organisations."

> "The Italian public sector would win the Guinness World Record for inflexible bureaucracy … If you need someone with skills related to urban regeneration or urban innovation that go beyond technical [skills] – namely how to engage citizens and so on – you won't find them through your formal recruitment competitions."
>
> Deputy mayor, Bologna.

2. The city's participation efforts are supported by a long history of local activism. Bologna has a history of civic culture and innovation. It was the first municipality in Europe to offer citizens free internet access in the 90s and is recognised as one of the most progressive cities in Italy – as typified by the mayor's recent move to grant honorary citizenship to any child born in Bologna. The IU's leadership notes that certain segments of society have always been very proactive about engaging in local policy. Bottom-up pressure continues to push Bologna's city leaders to make robust civic participation part of their operating mode.

> "Bologna is unique because we have a lot of educators, a very engaged learning community and they work like activists. They believe a lot in their mission."
>
> Head of civic imagination department, Bologna.

3. To build effective relationships, the IU dedicates resources to open-ended research.

'Proximity' is a key principle cutting across the IU's strategy and projects. The foundation sees citizen engagement at the neighbourhood level as key to its attempts to foster trust and participation. Crucially, a good portion of staff time is invested in the discovery and exploration of residents' needs. Within the six district labs, staff go out into the community and undertake 'listening' activities. These district staff are a fixture at local community events and happenings, even those where the municipality and IU do not have an active agenda. They develop the expertise to design citizen engagement processes that respect hyper-local preferences about when, where and how to engage. Their presence ensures the city is not just communicating its goals 'out' to the community, but investing in long-term, context-specific relationships that go beyond a one-off participation process.

What's next?

In the context of political polarisation across Europe, complex challenges like the climate crisis are generating new kinds of conflict. A municipal officer described how these conflicts leave them "really sandwiched sometimes" between groups contesting the inherent trade-offs climate mitigation and adaptation measures demand.

In 2022, Bologna was selected as one of the EU's 100 Climate-Neutral and Smart Cities by 2030. IU has been helping the city to engage local partners in the new mission and build awareness in local districts. The municipality also recently launched a new alliance at national level bringing together enterprise, the third sector and activist communities to collaborate on how to achieve a just transition. The IU will organise the alliance's second annual forum in early December 2024. The process will put the IU's philosophy to the test: will the city's years of investment in civic engagement help it deal with the polarisation that is hampering progress on climate actions in other cities across the continent?

2.3 Innovation areas and activities

This section explores policy areas where cities are directing their innovation efforts and the types of methods that they are using and appear most comfortable with.

Policy areas

As we have seen, many European cities in our sample have established cross-cutting innovation teams. But our survey shows some clear patterns when it comes to where cities are directing their efforts (see figure 10). First, city governments have been focusing on digitalising their internal processes and public services. Second, they have been concentrating on climate action, economic development and mobility or transport.

Resources are limited so it makes sense for a city government to focus innovation efforts on some challenges but not others. Especially as some of the top policy areas in figure 10 align with mayoral priorities as revealed by the Eurocities Pulse Mayors Survey.[37] However, cities are paying little attention to areas such as housing, social inclusion, migration integration and community safety, even though these are often of high concern to citizens, especially from poorer or vulnerable communities.

Hardly any cities are taking innovative approaches to procuring goods and services – even though procurement is used to advance a range of important objectives, including supporting small and diverse-led local businesses and social enterprises, fostering 'community wealth building', promoting good employment and other business standards, and supporting environmental sustainability.

Figure 10: Which of these policy areas have been the main focus of your city administration's innovation work?
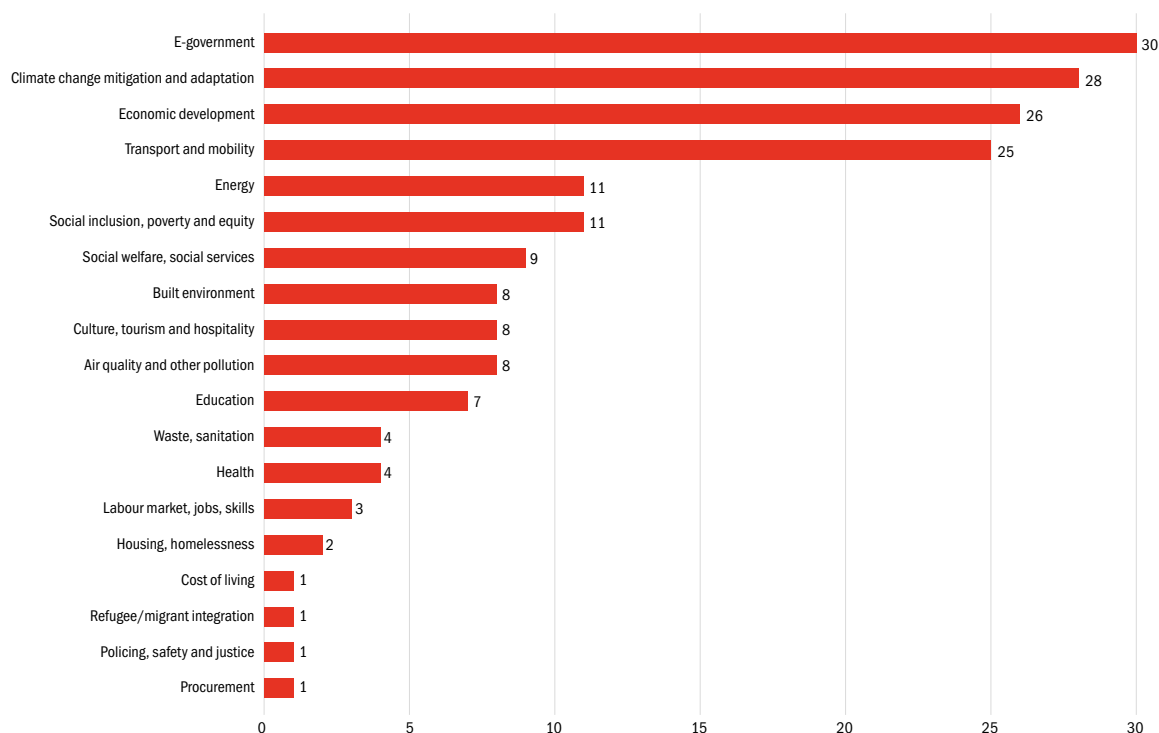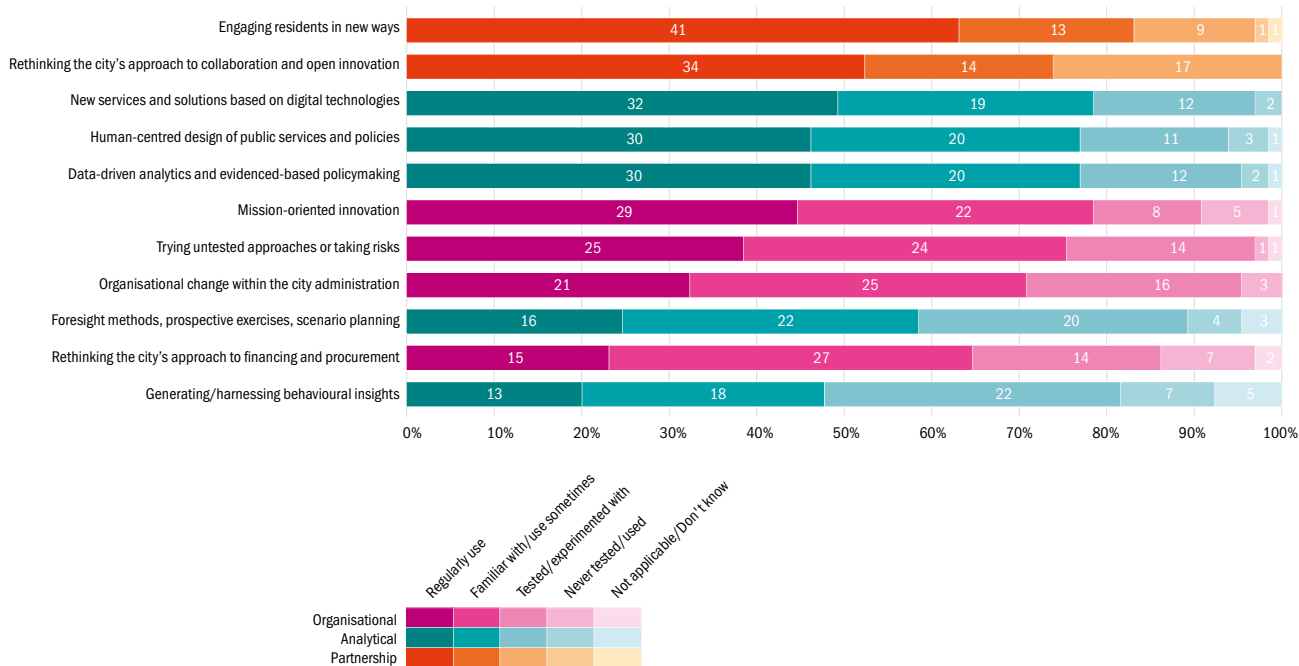
Figure 11: How often does your city administration use the following innovation activities?

	Regularly use	Familiar with/use sometimes	Tested/experimented with	Never tested/used	Not applicable/Don't know
Organisational					
Analytical					
Partnership					

Familiarity with different innovation approaches and methods

As mentioned in the introduction, an array of approaches and methods have been developed to help advance government innovation. Our survey shows that European cities make wider use of some than others (figure 11).

Cities are more familiar with innovation activities that build on their partnership capabilities, namely, through a strong focus on engaging residents in new ways of collaboration and open innovation. This is followed by activities that build on analytical capabilities, with a strong focus on developing new services and solutions based on digital technologies, deploying human-centred design approaches that foreground the experiences of residents and their environment,[38] and using more data-driven analytics and evidence to inform the policymaking process. In comparison, respondents report a lower prevalence of activities that rely more heavily on organisational capabilities, including mission-oriented innovation, trying untested approaches and taking risks, and reforming organisational structures.

Cities reported limited use of foresight methods and scenario planning, and only 20% regularly use behavioural science insights. This suggests a need for further support to help them take full advantage of these potentially powerful tools. Responses also confirm that cities are investing less in innovative approaches to procurement as well as financing.

Cross-referencing these responses with the data on the existence/inexistence of formal innovation strategies (see figure 3), we find that, as already suggested by OECD (2019), cities with a strategy tend to be more familiar with a wider range of innovation activities (see figure 12). There are two possible explanations for this: either adopting a formal innovation strategy encourages cities to employ a broader range of methods, or cities experimenting with different methods across departments eventually recognise the benefits of establishing a coherent strategy.

Figure 12: Innovation activities for cities with and without formal innovation strategies.

Cities with a formal strategy

Activity	Regularly use	Familiar with/use sometimes	Tested/experimented with	Never tested/used	Not applicable/Don't know
Engaging residents in new ways	26	4	3	1	
New services and solutions based on digital technologies	21	9	4	1	
Human-centred design of public services and policies	19	11	3		
Rethinking the city's approach to collaboration and open innovation	18	9	7		
Trying untested approaches or taking risks	18	11	5		
Mission-oriented innovation	17	14	2	1	
Data-driven analytics and evidenced-based policymaking	17	13	3	1	
Organisational change within the city administration	14	13	6	1	
Foresight methods, prospective exercises, scenario planning	11	15	7	1	
Rethinking the city's approach to financing and procurement	11	14	7	1	1
Generating/harnessing behavioural insights	9	11	7	4	3

Cities without a formal strategy

Activity	Regularly use	Familiar with/use sometimes	Tested/experimented with	Never tested/used	Not applicable/Don't know
Rethinking the city's approach to collaboration and open innovation	16	5	10		
Engaging residents in new ways	15	9	6	1	
Data-driven analytics and evidenced-based policymaking	13	7	9	2	
Mission-oriented innovation	12	8	6	4	1
Human-centred design of public services and policies	11	9	8	3	
New services and solutions based on digital technologies	11	10	8	2	2
Organisational change within the city administration	7	12	10	2	
Trying untested approaches or taking risks	7	13	9	1	1
Foresight methods, prospective exercises, scenario planning	5	7	13	4	2
Generating/harnessing behavioural insights	4	7	15	3	2
Rethinking the city's approach to financing and procurement	4	13	7	6	1

Legend categories: Regularly use · Familiar with/use sometimes · Tested/experimented with · Never tested/used · Not applicable/Don't know

Colour groups: Organisational · Analytical · Partnership

Need for support with innovation activities and methods

In addition to asking how frequently cities use specific innovation activities or methods, the Eurocities Pulse Mayors Survey asked mayors about the innovation methods they believe their city would benefit from the most. Cross-referencing these two surveys reveals some marked differences between officers and political leaders.

Looking at the results in figure 13, municipal officers mostly value innovation training that strengthens organisational capabilities, including training in mission-oriented innovation (43%); rethinking approaches to financing and procurement (37%) and organisational change (35%). Political leaders, by contrast, place greater emphasis on building a team's analytical capabilities, such as through data-driven analytics (59%) and new services based on digital technologies (46%). Mayors also prize innovative approaches that foreground resident experiences, including the use of human-centred public service design (43%) and engaging residents in new ways (28%). This suggests some disconnection (or complementarity) between technical and political priorities when it comes to capacity building that warrants further exploration. As the public face of city government, mayors may prioritise improving resident experience and tools that help with tough decisions, whereas technical staff may prioritise capacity building to enhance internal processes.

Figure 13: Which types of training in innovation methods would your city administration benefit from the most?

Category	Organisational / Analytical / Partnership
Mission-oriented innovation	43% / 26%
Rethinking the city's approach to financing and procurement	37% / 27%
Rethinking the city's approach to collaboration and open innovation	37% / 20%
Organisational change within the city administration	35% / 19%
Data-driven analytics and evidenced-based policymaking	32% / 59%
Trying untested approaches or taking risks	26% / 7%
New services and solutions based on digital technologies	25% / 46%
Foresight methods, prospective exercises, scenario planning	20% / 24%
Human-centred design of public services and policies	18% / 43%
Engaging residents in new ways	15% / 28%
Generating/harnessing behavioural insights	11% / 15%

Organisational   Analytical   Partnership

Eurocities Pulse survey for municipal officers
Eurocities Pulse Mayors survey

Leuven, Belgium

Population
266,000 (2022)

GDP per capita
€38,500

Official language
Dutch

Mayor
Mohamed Ridouani
since 2018 (appointed by the regional government, no term limit)

Building coalitions around climate missions

In 2014, the Flemish city of Leuven established the non-profit Leuven 2030 to drive its ambitious mission to achieve climate neutrality. This innovative model was established to ensure collaboration between knowledge institutions, local government, business and citizens.

Leuven's innovation approach

In 2013, under the guidance of (then) deputy mayor for education, sustainability, economy and urban development, Mohamed Ridouani, the city invited local university KU Leuven to map out scenarios for how Leuven might achieve net zero – and the findings emphasised the need for all sectors to come together to drive change.

> "Long-term agendas like climate neutrality do not have a natural owner within society."
>
> Director, Leuven 2030.

To bridge that gap, the city launched Leuven 2030, a non-profit that brings together more than 600 local businesses, universities and civil society groups in an innovative governance structure to coordinate collective action on sustainability.

In its first few years, Leuven 2030 established its governance model. The membership of key groups gathered data on Leuven's emissions and environmental conditions such as air quality and launched pilot projects including a new circulation plan for the city centre, a celebrity-driven campaign to get residents to switch to green-energy suppliers, and a project to hold local businesses accountable for reducing the emissions of non-residential buildings.

Leuven's roadmap to 2050

In 2019, Leuven 2030 published a roadmap to 2050, outlining the city's long-term vision for achieving neutrality and the steps each sector would need to take to get there. The roadmap sets out an ambitious vision for green energy, the transport sector, emissions-neutral building projects, and green spaces, as well as circular economy projects to reduce consumption and waste. It also puts social justice top of the agenda for Leuven's climate transition and foregrounds the involvement of young people in new projects.

Today, Leuven 2030 is bringing its members together to develop concrete projects that deliver on the roadmap. Members are working collaboratively to deliver more than 86 experimental projects and Leuven 2030 helps these projects find public funding and private finance.

One such project has been the development of a new heat network under the city's historic central market. The project required careful diplomacy to secure the support of local businesses and those concerned about threats to the area's many listed properties. Leuven 2030 worked to build buy-in for a neighbourhood-based energy strategy and in 2023 secured European subsidies to support the rollout.

Lessons for building innovation capacity:

1. To cultivate shared responsibility, share power. Leuven 2030's governance structure is radically participatory and supports the distribution of decision-making. The board is composed of 18 directors, organised into six trios representing citizens, business, civil society, knowledge institutions, local government and supra-governmental organisations. The board of directors meets every three months to debate strategy and work through roadblocks. Meetings provide a 'safe environment' to debate nuanced issues. Twice a year, key decisions are brought to the General Assembly for debate. The project's director emphasises that they constantly innovate to get the governance right.

"Each year we tweak it, and Leuven 2030 evolves rapidly, new iterations of mandates, responsibilities, communication and decision flows. There's no silver bullet, you have to iterate."
Director, Leuven 2030.

2. Make use of positions "not inside but not outside" government. Leuven 2030's headquarters is based within the municipality's central office, which has facilitated easy communication with peers within the city administration and helped to build support internally. It has also helped them operate as a neutral organisation building trust and communicating with the whole city ecosystem.

"It's an enriching environment, with a feeling of shared responsibility, community and ownership. The model creates sustained engagement. Board members have important responsibility, and it's not a free ride."
Director, Leuven 2030.

3. Recognise the importance of place. Staff say that Leuven is a city with a rich and progressive civic culture, thanks in part to its large student population (60,000 out of 100,000 inhabitants) and strong knowledge economy (home to KU Leuven, one of the most prestigious universities in Belgium). Leuven's scale may also be a key factor: as a small city, the physical proximity between various institutions and citizens has been credited as a big facilitator of collaboration.

"There is almost no mental nor real life distance between us as civil servants and the local communities – be it citizens, citizen committees, cultural or sports sector, companies, creatives, university… we are challenged daily by the context and in interactions. No ivory tower here. Everything is close and our key institutions are highly networked."
Head of economics and trade, Leuven.

4. Create space for new skillsets. Leuven 2030 has a modest team of eight people working full time, and operates on a mix of funding from city government and diverse local partners, including universities, hospitals, energy companies, banks and building firms. It also benefits from European Commission subsidies, but these fluctuate each year. As one team member says, "We are small, lean, mean, empowering other parties to take leadership as much as possible." The team have skill sets that are different and complementary to those traditionally seen in local government.

"We have lots of team members with 'process' skills – how to build trust between partners, how to put things within complex discussion, build partner relationships, engage people."
Director, Leuven 2030.

Leaders can drive a culture of innovation, even without a formal strategy or infrastructure. Mayor Mohamed Ridouani (who, having launched Leuven 2030 as deputy mayor, was appointed to the top job in 2018) is committed to supporting ideas, experimentation and "working lean", as the municipality's chief executive puts it. His staff note that the mayor is great at listening and it helps that he's studied innovation and leadership. Perhaps surprisingly, the city has a manifesto rather than a formal innovation strategy and its administration is light on approval structures, affording lots of freedom to line managers, department heads and directors to take decisions independently.
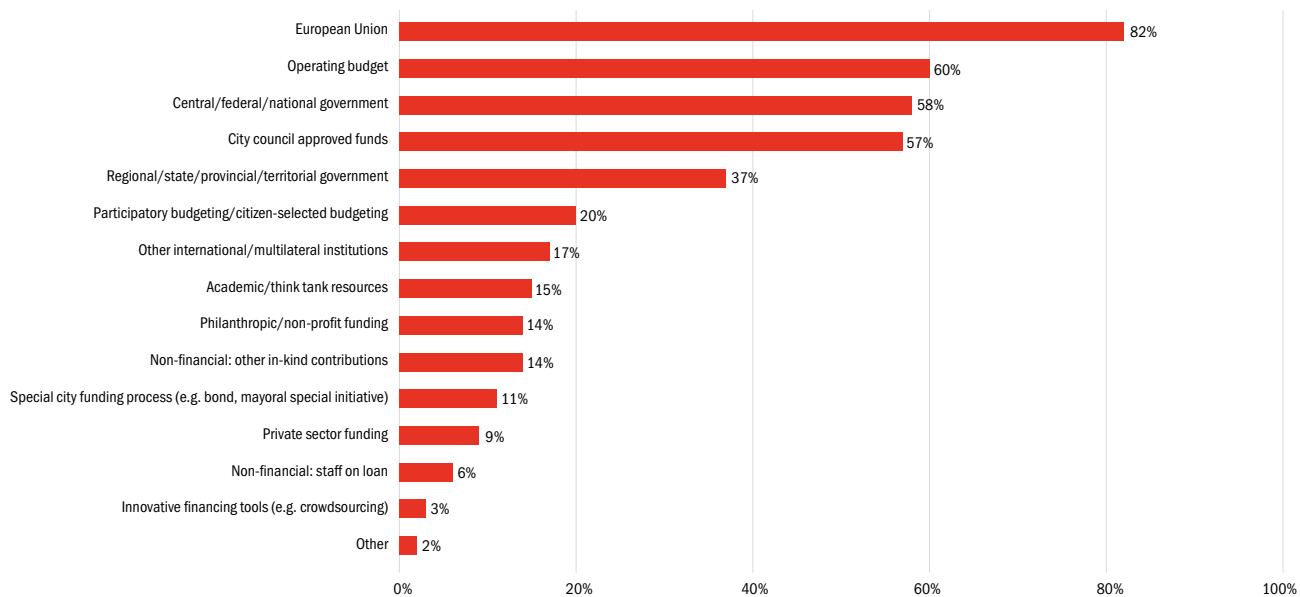
"During my time in city government, the space for staff to be daring and autonomous in the way they work has grown."
Director, Leuven 2030

What's next?

In 2022 Leuven was one of the 100 cities chosen by the European Commission for the mission '100 Climate-Neutral and Smart Cities by 2030'. With this mission, Europe supports the selected cities with expertise, funding and other resources. Leuven 2030 are just beginning to see the benefits of this selection, which they acknowledge brings increased credibility to the effort internally and with international partners.

Figure 14: If your city administration receives funding that supports your capacity to innovate, where does this funding come from?

Source	Percentage
European Union	82%
Operating budget	60%
Central/federal/national government	58%
City council approved funds	57%
Regional/state/provincial/territorial government	37%
Participatory budgeting/citizen-selected budgeting	20%
Other international/multilateral institutions	17%
Academic/think tank resources	15%
Philanthropic/non-profit funding	14%
Non-financial: other in-kind contributions	14%
Special city funding process (e.g. bond, mayoral special initiative)	11%
Private sector funding	9%
Non-financial: staff on loan	6%
Innovative financing tools (e.g. crowdsourcing)	3%
Other	2%

2.4 Funding to support innovation capacity

We have seen that European cities identify the existence of innovation funding as a leading enabler in building innovation capacity (figure 7), while a lack of funding dedicated to innovation work topped the list of barriers (figure 9). This section investigates the sources of funding for building government innovation capacity looking, in particular, to the role of the EU – a major funder across the continent.

The importance of dedicated funding to support innovation capacity

When asked about the availability of funding, 71% of cities reported that their municipal budget included funds to support innovation work – lower than the 80% recorded in the OECD survey (OECD 2021). The leading source of this funding is the EU: 82% of the cities that have funds to support their innovation capacity say that (at least some of) this comes from the EU. Leuven, for instance, partially relies on EU funds to sustain the non-profit Leuven 2030, which drives the city's climate mission and helps scale innovative climate projects (page 31). The other most common funding sources are the cities' normal operating budgets, central government and special funds approved by the city councils.

Cities in southern and eastern parts of Europe appear to get more support from the EU than their counterparts in the north and west. This isn't surprising as we would expect to see wealthier cities depending less on external sources. However, the relative importance of EU financial support for cities above versus below the sample's median GDP per capita is not as pronounced as the east-south versus west-north divide.

A total of 22 cities provided further qualitative details on innovation funding, including examples of specific EU initiatives that had helped them address innovation challenges, while also pointing to the limitations of this funding. First, considerable time and effort can go into trying to secure funding, sometimes successfully, sometimes not. Second, it often comes with stringent terms, requiring, for instance, matched funding from other sources. Third, respondents noted that while EU and other funding can help cities experiment and establish a 'proof of concept' it rarely enables the scaling up of promising innovations. As explained by the respondent from Leuven, it is one thing to get funding for the 'next cool idea', quite another to get funding to sustain an innovation project for the long term. In so far as cities have managed to secure funding for taking innovations to scale, it has often come from regional government, not the EU.

Finally, very little funding for municipal innovation comes from the business or not-for-profit sectors. Only two cities (Barcelona and Belfast) mentioned private-sector funding, mainly in the form of in-kind support for innovation projects. And there was hardly any mention of innovative funding mechanisms such as bonds and municipal investment funds.[39]

EU support for city innovation activities

As we have seen, the cities in our survey identify the EU as the most important funder of municipal innovation activity, even above city governments' own resources and despite the fact that 12 of the cities in our sample come from non-member states.

We also asked city administrators about their views on EU innovation funding programmes and how these could be strengthened. The great majority see some value in EU funding for innovation, with only 4% reporting that the costs of participating in EU programmes outweigh the benefits. However, views as to the value of EU support for municipal innovation vary widely, with around a quarter fully affirming its value, another third reporting that EU support is helpful but only when matched by city funding, and 28% saying it is only partly helpful because it does not tend to address the specific needs of the city.

When it comes to strengthening EU funding, cities want to see more bespoke support, more support for long-term capacity needs, and closer alignment between innovation funds – often quite short-term and modest – and larger EU funding programmes. So far, the EU's attempts to bridge this gap by linking innovation-focused programmes (like Horizon Europe and the European Urban Initiative) with long-term investment schemes (like the European Regional Development Fund) have had limited success.

Figure 15: If your city can access EU initiatives supporting innovation capacity, do you generally find the support to be aligned with the needs of your administration?

- Not really, the cost to participate can feel higher than the return on investment — 4%
- I don't know — 3%
- Not applicable — 3%
- Yes, EU initiatives increase my city administration's capacity to innovate — 34%
- Partially, because EU initiatives often do not directly address the specific issues faced by my city — 28%
- Yes, EU initiatives deliver some benefits and an incentive to build innovation capacity, but they must be complemented by strong local investments — 28%

Figure 16: If your city can access EU initiatives supporting innovation capacity, how do you think these should evolve to respond to your needs?

- They should provide more tailored and long-term advisory support — 55%
- They should be better linked with other EU funding schemes — 51%
- EU initiatives should provide me with a regulatory sandbox — 45%
- They should focus more on developing capacity building schemes — 37%
- They should provide concrete operational tools — 35%
- They should enable us to develop new temporary positions in the city or hire consultants — 25%
- They should better target specialists and talented individuals in the city — 25%
- The focus on cutting-edge issues is too advanced – support should target more basic issues — 14%

Legend: Top 1 option, Top 2 option, Top 3 option

Istanbul, Turkey

Population

15.7 million

GDP per capita

€15,372

Official language

Turkish

Mayor

Ekrem İmamoğlu
since 2019 (directly elected, no term limit)

Supporting open data across the city and beyond it

In 2021, Istanbul helped found the B40 cities network, a platform for cooperation between more than 20 cities in the Balkan region. As part of the network, Istanbul has established a new cross-city open data platform. The municipality is taking a leadership role to help other cities in the region mainstream best practices around open data and data-driven decision-making.

Istanbul's innovation approach

Istanbul's municipal ecosystem encompasses 32 companies and more than 90,000 staff serving a population of over 16 million. Over the past decade, the municipality has made large investments in its capacity to use technology to support residents. In 2016, the city established a 'smart city department', tasked with increasing the quality of life for citizens by enhancing technological infrastructure. The department has focused on democratising data access and promoting transparency. In 2020, the city launched an open data platform on which it publishes anonymised data from across its departments.

The city's data team produces forecasts and simulations using local datasets, for example, to predict traffic flow changes during the school break. It also makes data accessible to researchers and citizens. Among the datasets most in demand among partners are those focused on mobility. Now in its fourth year, the platform has had over five million visitors to date. To contribute data to the platform, the city established open data and smart city governance managers within each city department who are responsible for cleaning and sharing datasets.

Istanbul's B40 Open Data Platform

In 2021, cities across the Balkans founded the B40 network, which comprises 23 members to date, including Istanbul, Sofia, Athens, Bucharest, Zagreb and Skopje. Cities in the network meet twice a year in person, with cities taking it in turn to host. At the first major meeting, participating mayors identified data capacity as a common priority, and established a Smart Cities and Digital Transformation Working Group. Tech and IT leaders from each participating city gathered to brainstorm collaboration opportunities and agreed on creating a shared, cross-city, open data platform as a first project.

In 2022, the network launched the B40 Open Data Portal. The platform is hosted by Istanbul Metropolitan Municipality and serves as a common data repository for cities within the network. Istanbul city government, by far the biggest in the network, supports other cities in gathering, cleaning and translating data. It provides a shared policy framework to guide cities on best practices in data sharing. The portal offers a low-resource path for cities that are new to the practice to start opening up their datasets.

The portal provides easy access to data published by member cities, drawing on data from city departments and city subsidiaries. It allows users to review and compare datasets from across multiple cities in

the region. To date, it hosts more than 640 datasets from 12 cities, in four languages and representing nine data categories (mobility, environment, security, economy, energy, life, governance, society and IT) and six data formats.

Lessons for building innovation capacity:

1. The platform's success relies on mayoral buy-in. Mayors are the main sponsors of the B40 network and their leadership was crucial to getting the platform off the ground.

"This is very important for us because if they don't buy this idea in their mind, then we can't realise it. We are lucky because our mayor [has been interested in this] for five years and knows how to get people interested in open data."
Chief innovation officer, Istanbul.

2. Smaller, resource-limited cities face high barriers to learning and adopting new data practices. The scale of cities in the B40 network is extremely varied: while Istanbul has upwards of 16 million residents, others in the network have as few as 30,000. In line with scale, smaller cities' resources and priorities are different, and it can be hard to justify investing in long-term capacity building. Istanbul colleagues admit it remains a struggle for some of these smaller cities to engage in the platform. While they want to give better services to their residents, smaller cities often don't have technical or innovation staff with the remit to work on data. While this poses an ongoing challenge, it also speaks to the value of the new collective platform.

"We want to carry [smaller cities] on our shoulders. Istanbul is trying to show them the benefits of these types of practices."
Chief innovation officer, Istanbul.

3. Location data has emerged as a critical complement. Recently, the city kicked off development of a digital twin. Istanbul lies on a major fault line, and the city is already using its digital twin to assist with disaster planning and map out first aid response scenarios. Going forward they plan to use it to support the development of new transport infrastructure. They are advocating for the value of the twin with other cities in the group.

"All municipal services are based on some real-life coordinates. If I don't know where the buses stop, what can I do with my mobility data?"
Chief innovation officer, Istanbul.

What's next?

Istanbul recently launched a new series of hackathons to promote the Open Data Platform and to encourage solution and idea sharing between B40 cities. In a context of ongoing tension between national and regional governments, Istanbul is determined to demonstrate how cities can work independently of national government to build collective capacity and drive regional collaboration and best practices.

2.5 Data and collaboration

At the start of this report, we identified four core capabilities – leadership, organisational, analytical and partnership – that shape a city's innovation capacity. Our survey findings suggest that cities recognise leadership and organisational capabilities as particularly important, with the latter presenting the greatest challenge. In light of this, we have primarily focused on what our survey reveals about the building blocks of organisational capabilities, such as the availability of dedicated innovation staff, innovation funding and use of innovation methods.

In this section, we look in more detail at what our survey tells us about data and collaboration, which are key for analytical and partnership capabilities.

Use of data and analytics

We asked cities to rank the challenges they face in using data and analytics to support innovation. Overall, the greatest challenges are cities' ability to access and integrate data across organisations and policy areas, followed by a lack of resources (staff capacity and funding).

Data challenges are more prevalent in Eastern and Southern Europe, where many cities still face difficulties with both data availability and the capacity to process the data they do have. Meanwhile, in the north and west, the biggest issue is data sharing and compatibility across agencies and sectors. We also note, as already seen, that cities make little use of some powerful analytical tools including behavioural science and foresight methods. So while the situation is not as critical as for organisational capabilities, there is still plenty of room for improvement in European city governments in relation to analytical capabilities to harness the power of data.

Figure 17: How challenging are the following factors when it comes to optimising your city administration's use of data and analytics to support innovation work?
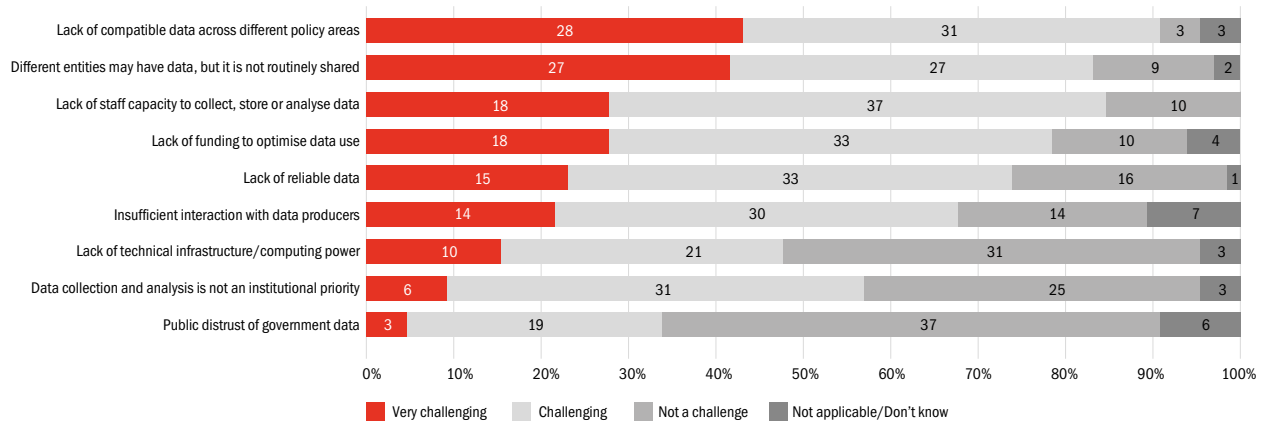
London, UK

Population
9 million (2020)

GDP per capita
€67,532

Official language
English

Mayor
Sadiq Khan
since 2016 (directly elected, no term limit)

Taking a tech-agnostic approach to digital innovation

Since 2019, the London Office of Technology and Innovation (LOTI) has supported boroughs across London to share data and strengthen innovation. Today, LOTI is increasingly focusing on collaborative, cross-borough service design responding to the city's most intractable problems – from homelessness to the climate crisis and the need to reform social care. Their latest pan-London scaling of an Internet of Things (IoT) initiative demonstrates how LOTI grounds digital solutions in resident needs and holistic system change.

London's innovation approach

London's nine-million-plus population, spread across 32 boroughs and the City of London, calls for innovation capacity at scale. LOTI responds to this as a 'city-regional' innovation office working across borough boundaries. As a representative told us, LOTI started life "behind-the-scenes … fixing the plumbing" by, for example, joining up datasets and providing a network for borough-level chief innovation officers and chief digital officers. Since early 2023, however, LOTI has evolved as an active innovation partner working practically with councils on service delivery – focusing on listening to officers working on the ground in boroughs and defining strategic priorities in response.

LOTI's approach to building innovation capacity is holistic: innovative problem-solving, relying on people, technology, data and processes, so capacity needs to develop across those arenas.

"Digital transformation initiatives in the public sector fail because people think digital just means technology. If all we're changing is technology and data and bolting it onto the same old ways of working, that is the most superficial level of innovation."
LOTI director.

London's InnOvaTe Programme

Between 2021 and 2023, five south-London boroughs piloted the InnOvaTe Programme to test how IoT-enabled sensors could be used to help solve cross-borough challenges. The pilot began with an eight-week design thinking programme in which council officers identified their most pressing challenges, from flood prevention, air quality to fly-tipping. IoT interventions were then designed and tested to inform council responses to these issues. These interventions meant investing in new data-driven decision-making processes and training officers in frontline services "where innovation really hasn't [yet] come into play." Independent evaluation from the University of Essex measured and reported publicly on the impact of each intervention.

In 2024 the programme was expanded across London, focusing initially on one use case: detecting damp and mould in social housing. LOTI tested a framework for collaboration which harnesses the experience of the teams involved in the pilot, prevents data silos and unnecessary duplication, and

fosters IoT adoption across the city by sharing knowledge and speeding up procurement. Up to 200 sensors are being rolled out in 18 boroughs, to feed into a pan-London data platform which will inform public health, retrofitting and housing policy. This platform, rooted in shared data standards and ethics, aims to allow policymakers to analyse challenges as they unfold across the city (for example, by identifying trends in fuel poverty or types of housing stock vulnerable to damp and mould throughout London), anticipating future resident needs and designing responses to them.

> "The concept has already been tested … the standards have been set… so we're not in this space where we're a theatre of pilots, we're actually getting into the scale space."
> Chief digital officer, London.

Lessons for building innovation capacity:

1. Focus on resident outcomes. LOTI's IoT work is 'outcome-driven' (and data-enabled), rather than 'data-driven'. Its outcomes-based methodology focuses on resident realities rather than on the latest 'smart city' technologies. One LOTI representative told us that, over the past decade, they've felt "massively underwhelmed, quite sceptical, borderline cynical" about past smart city initiatives, so it has been refreshing to see how recent London IoT initiatives approach digital technology pragmatically as the means rather than the ends of innovation. In the Pan-London IoT Declaration, LOTI and its partners set out their aim not to chase trends in technology markets, but to lobby providers to offer the flexible tools and services they need. This focus on outcomes also helps LOTI to forge collaborations with different actors who may disagree about methods and approaches but recognise shared goals.

> "Let's start with resident problems. Let's be completely tech agnostic."
> LOTI director.

2. Bring together coalitions of the willing. LOTI, based at London Councils (a collective representing London boroughs), has been able to convene a growing number of boroughs since it was launched. Initially, 15 boroughs joined, showing commitment to LOTI's work by paying a membership fee, and, as the value of LOTI's work building innovation capacity has become clearer, that number has risen to 28. Similarly, LOTI's pan-London IoT work began with an invitation to members to take part and growing numbers have been expressing interest since. This approach to collaboration follows LOTI's spirit of being "relentlessly pragmatic", starting where there is existing interest and low-hanging fruit.

> "We've worked through creating FOMO [fear of missing out], essentially."
> LOTI director.

3. Build public trust. LOTI's work is founded on shared standards of openness, transparency and ethics – expressed in guides like the 'Emerging Tech Charter' and the 'London Data Charter'. The Pan-London IoT Declaration commits the project to be "open about the technology used, including why and how it is used, what decisions will be made with it and who is making those decisions." Investing in trust-building with the public, the project shares case studies and lessons learnt (both from successes and failures) in easily accessible online public spaces. One lesson learnt during the initial InnOvaTe pilot was that trust can easily collapse around digital innovation in public space: a conspiracy theory gathered force around an IoT intervention in parks which led to members of the public vandalising sensors and rejecting the intervention. This highlights the need for government innovation capacity to be built holistically, prioritising softer skills like narrative-building and communications alongside data science and technology.

What next?

With practical work now underway to deploy IoT sensors at scale across multiple boroughs, LOTI intends to explore other IoT-enabled use cases that might benefit residents.
A particular area of interest is building richer data that can support the city's net-zero goals and adaptation to the climate crisis. With its focus on holistic innovation, LOTI plans to combine the use of new technologies like IoT with more rigorous design thinking and service design to ensure that innovation in technology is matched with equal innovation in the service models and ways of working it is applied to. To this end, LOTI will be piloting the use of a local authority sandbox – a place where new technologies and service models can be tested and evaluated on realistic mock-ups of key local government service areas.

Collaboration for innovation capacity

The cities we surveyed find it relatively easy to collaborate with other public sector, private, not-for-profit and community partners in driving change. This reflects the relatively strong 'civic' culture characteristic of many European cities – or at least those that responded to our survey – with long-established city governments and civic institutions, including universities, business groups, citizen organisations and national and international city networks.

Respondents identified universities and think tanks as their most important partners in building innovation capacity. Almost all of our case study cities (including Leuven, Bologna, Cluj-Napoca, London and Espoo) made explicit reference to the vital contribution that university partnerships have made to their innovation efforts, often by offering research and expertise in critical domains. These partnerships are followed in importance by partnerships with other cities and city networks, the private sector, and the EU (once again, we should recall here that 12 out of 65 cities in our sample are from outside the EU). Sixteen of our survey cities also provided qualitative examples of partnerships that have been particularly impactful. These tended to single out the importance of universities and cross-cutting networks that bring established businesses, start-ups, universities, not-for-profits and other public sector organisations together around a single or limited set of goals (for example, net zero). Our case studies also highlight the importance of partnerships with businesses and civic groups.

Figure 18: How important has collaboration with the following stakeholders been in building innovation capacity in your city administration?
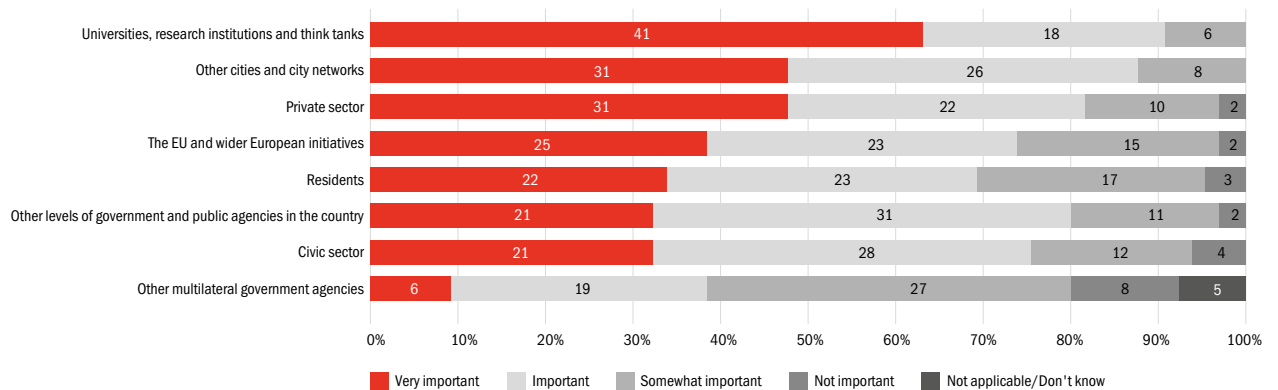
Cluj-Napoca, Romania

Population
286,600 (2021)

GDP per capita
€24,830 (2023)

Official language
Romanian

Mayor
Emil Boc
since 2004 (directly elected,
no term limit)

Collaborating with universities and neighbouring cities

In Cluj-Napoca, public sector innovation has developed organically through close collaborations between the municipality and six local universities. Over nearly two decades, partnerships have been strengthened and gradually formalised around a series of shared goals and projects. Most recently, universities have been pivotal in supporting the development of the 'Rural-Urban Hub' – a new initiative convening an ecosystem of neighbouring municipalities, civil society and businesses around the aim of fighting depopulation and reducing inequalities between Cluj-Napoca and its rural areas.

Cluj-Napoca's innovation approach

In 2007, the recently elected mayor of Cluj-Napoca (who also happened to be a university professor) asked local universities to participate in developing a new city strategy. At that time, there was "a lot of distrust between civil society and our local government", but the process of co-designing the city strategy was pivotal: "for the first time [city government, civil society and universities] realised that perhaps there is common ground. Perhaps there are ways to innovate together." Six hundred people came together in working groups addressing different sectors of the city; this meant "a lot of public meetings, a lot of debates, a lot of quarrelling about different things, but also a lot of collaboration." The city government realised that "the role of public administration

is not necessarily to be the main actor. It should ... steer things in the right direction ... facilitate, create frameworks to help different community stakeholders to do their thing, but not necessarily to tell them how to do it."

Since then, innovative approaches to governance have developed organically through collaboration with the universities and wider civil society. What began as ad-hoc partnerships, often rooted in personal contacts of municipal officers, has become a "very dense network of interaction [where] there are so many nodes and points of contact", and ever-multiplying joint proposals for projects in diverse policy areas. Across the administration, collaborations have "become more formalised", for example, the new education hub which connects all university, school and lifelong learning organisations as innovation partners to the administration. As a municipal officer told us, Cluj-Napoca's administration has gradually grown in confidence and, "being surrounded by all these layers of expertise from universities and from the ecosystem, we started to understand that what we are doing can be labelled [as government innovation] and put in this framework." However, in practice, the label of 'government innovation' is rarely used, and they do not have a dedicated innovation team, something that is seen as a potential advantage – if no one is specifically tasked with delivering innovation, then it becomes everyone's task.

> **"The city now is a giant experimental lab, where ideas are tested and refined by the partnership between the city and the university."**
> Professor of public management and strategy, Babeș-Bolyai University.

Cluj-Napoca's Rural-Urban Hub

Recently, the university-city government partnership has been instrumental in catalysing a broadening of the public innovation ecosystem beyond the boundaries of Cluj-Napoca. The Rural-Urban Hub, inspired in part by the EU's prioritisation of cohesion between rural and urban territories, is a new collaboration between Cluj-Napoca's administration and several neighbouring municipalities and local stakeholders. Together, they solve shared problems, especially focusing on the population brain drain and uneven development of the region.

Romanian local government is strong but very fragmented, which caused some legislative complications. As one senior officer said, "We didn't want to challenge the Constitution of Romania […] but the Constitution does not forbid you to do pilot projects." As public administrations, she continued, "We need to look for what the law does not forbid: if it's not forbidden, it's allowed." With the guidance of experts at the university, the Rural-Urban Hub launched as a pilot, flying 'under the radar' until it had gained widespread support. The university and city administrations established a co-design process with a wide range of partners in the area, tackling key challenges and solutions, while aiming "to create a balance … an equal relationship with the people in the rural area, and with the people in the university." During discussions about how new transport links and digital infrastructure could benefit the areas around Cluj, there was space for critical questioning of proposals, "empowering the administration and the [local] people to ask, 'What should we say no to?'" For example, the hub has resisted proposals to build on a natural area and instead invited European youth camps to the site to observe pollination.

Lessons for building innovation capacity:

1. Develop an ecosystem (not an 'ego-system'). Individual leaders have been fundamental to building innovation capacity in Cluj-Napoca. One city officer noted that partnerships are founded on personal relationships and trust building, "people talking to people, not institutions to institutions", and mayor Boc and his team provided political leadership without which government innovation might never have taken off in Cluj-Napoca. However, over time, the momentum behind government innovation has relied on the development of a wider collaborative culture, identifying "common goal[s] with a buzz", setting aside personal egos and being open to the unexpected. This ecosystem feeds a virtuous cycle where new partners are open to collaboration (despite limitations of funding and workload) because they know that the municipality is committed in the long term.

> "I'm always thinking 'OK, should I do this? [collaborative project with the municipality]'. Definitely, because I know that it's not just a one-time thing, it's part of a broader a process."
>
> Head of the department of public administration and management, Babeș-Bolyai University.

2. Be open to international networks, research and best practices. Another cultural shift that has bolstered the resilience of Cluj-Napoca's innovation ecosystem is the 'international opening' that has flourished in the city. A city officer observed how Cluj-Napoca is "willing to engage with other municipalities and host international events" that bring the latest approaches to government innovation to the heart of debates within the administration. The EU funding and support that Cluj-Napoca received in 2015 with the European Youth Capital brought a new energy to the administration, and the Rural-Urban Hub is inspired by the new European innovation agenda and cohesion policies. Collaborations with the universities and private sector stakeholders with international outlooks have equally helped city staff to recognise the value of different kinds of expertise and data. One professor noted, "overall they are a lot more open to what's being done in other places."

3. Learn from failure and confront limitations. In 2020, Cluj-Napoca narrowly missed out on being awarded the European Capital of Culture. The administration was riding high on the success of its year as Youth Capital, so this rejection, according to a senior city officer, "was a very hard shock." However, ultimately "it had a good effect because it really put us collectively in a perspective that: it's not about getting acknowledged or the label, it's about the work." They still had the people, energy and plans for the year and so went ahead with a celebration of culture without the title or funding. Lessons can be learned from accepting failures and the inevitability of uncertainty. "To say 'I don't know' is one of the greatest powers of a public servant", one municipal officer reminds us, because you're not unafraid of being exposed and open to collaborative discovery.

What next?

Everyone we interviewed in Cluj-Napoca identified how fundamental the leadership of Emil Boc, the city's long-term mayor, has been in the development of the municipality's innovation capacity. In the coming years, one university professor told us, the real test of the partnership will come "when mayor Boc leaves office. My hope is that what has started because of him [the organisation] has gained enough maturity to survive this test." Others within the ecosystem are increasingly confident that this level of maturity has been reached. As one municipal officer told us, the city government and its partners "will keep going with the same approach, no matter who is in charge."

2.6 Innovation outcomes

Finally, we asked our cities to reflect on their experience of building innovation capacity and supporting municipal innovation. Although only a few cities take a wholly negative view of their innovation efforts and the majority report doing at least moderately well (figure 19), this assessment appears to be based on relatively weak foundations. Only 21% of surveyed cities systematically and comprehensively assess both their innovation strategy and programme outcomes, with a large majority (63%) evaluating only some elements of their strategy or outcomes and a further 15% suggesting they either do not currently engage in any form of evaluation or consider it too early to do so. In Espoo, city interviewees noted a growing need for robust evaluation of mission-led work and youth engagement efforts. Municipal officers hope that impact metrics will help secure the city's long-term investment in these practices, which they see as vulnerable to funding and leadership changes (page 45).

We also asked both mayors and innovation officers about areas where innovation is most successful. There was broad alignment in responses, with some notable exceptions. Interestingly, both groups judge that innovative approaches are helping anticipate and manage future challenges, even though an earlier question suggested that cities are making little use of foresight methods. Municipal officers were more likely to report that innovation was helping them engage and collaborate with more diverse stakeholders (58% against 23%) but less likely to report that it was generating new sources of revenue or resources for the city – indeed, only 3% reported it was helping in this area, against 21% of mayors.

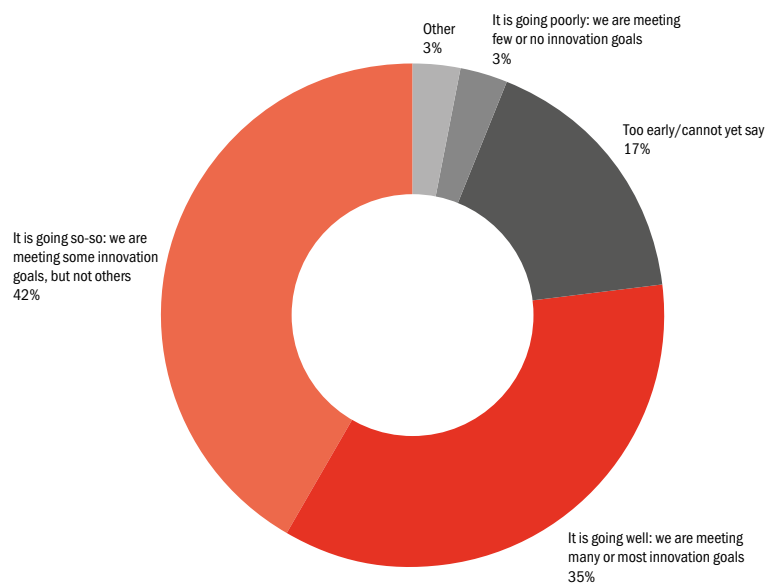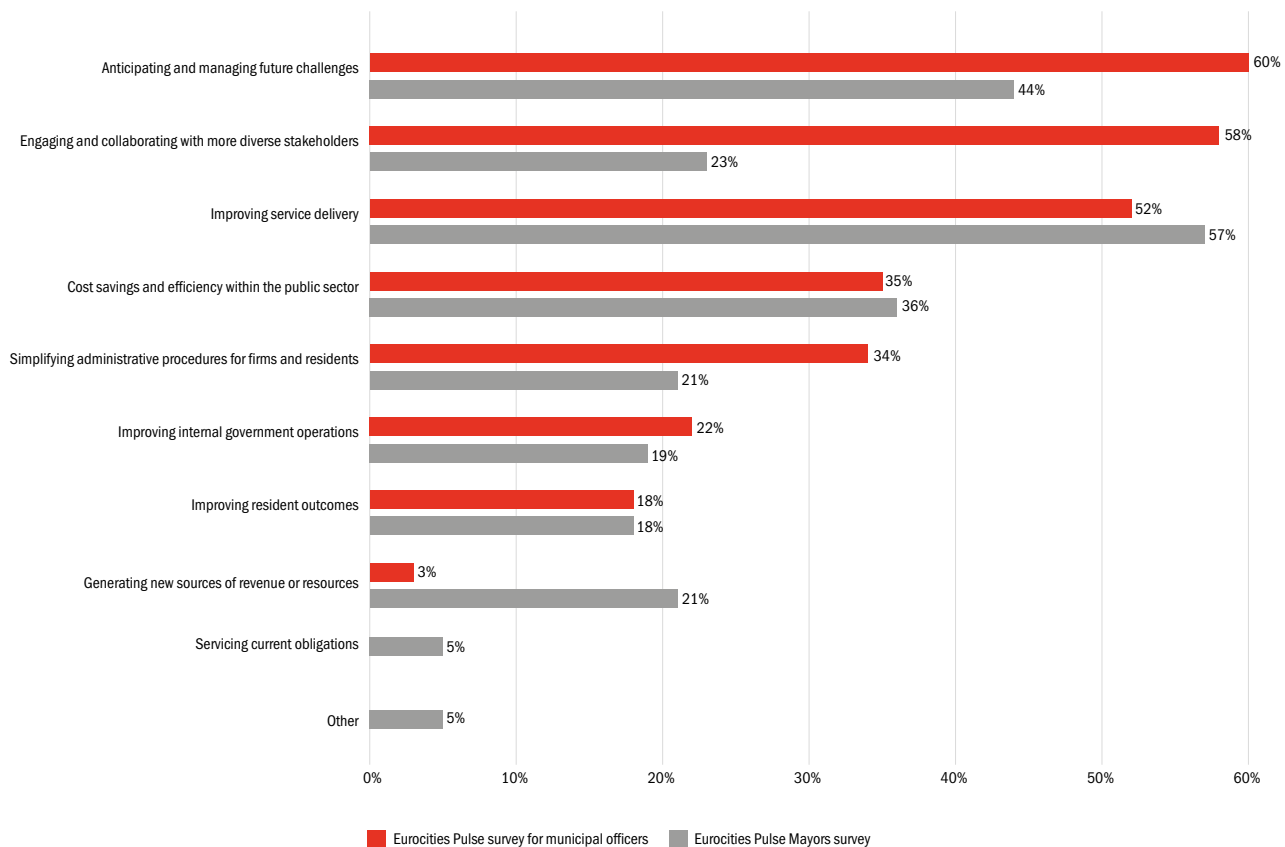**Figure 19: How is your city administration doing in meeting its innovation goals?**

Other
3%

It is going poorly: we are meeting few or no innovation goals
3%

Too early/cannot yet say
17%

It is going so-so: we are meeting some innovation goals, but not others
42%

It is going well: we are meeting many or most innovation goals
35%

Figure 20: What is innovation helping your city administration do better?

Anticipating and managing future challenges
- Eurocities Pulse survey for municipal officers: 60%
- Eurocities Pulse Mayors survey: 44%

Engaging and collaborating with more diverse stakeholders
- Eurocities Pulse survey for municipal officers: 58%
- Eurocities Pulse Mayors survey: 23%

Improving service delivery
- Eurocities Pulse survey for municipal officers: 52%
- Eurocities Pulse Mayors survey: 57%

Cost savings and efficiency within the public sector
- Eurocities Pulse survey for municipal officers: 35%
- Eurocities Pulse Mayors survey: 36%

Simplifying administrative procedures for firms and residents
- Eurocities Pulse survey for municipal officers: 34%
- Eurocities Pulse Mayors survey: 21%

Improving internal government operations
- Eurocities Pulse survey for municipal officers: 22%
- Eurocities Pulse Mayors survey: 19%

Improving resident outcomes
- Eurocities Pulse survey for municipal officers: 18%
- Eurocities Pulse Mayors survey: 18%

Generating new sources of revenue or resources
- Eurocities Pulse survey for municipal officers: 3%
- Eurocities Pulse Mayors survey: 21%

Servicing current obligations
- Eurocities Pulse Mayors survey: 5%

Other
- Eurocities Pulse Mayors survey: 5%

Legend:
- Eurocities Pulse survey for municipal officers
- Eurocities Pulse Mayors survey

Espoo, Finland

Population
300,000 (2022)

GDP per capita
€57,700 (Uusimaa region)

Official language
Finnish

Mayor
Jukka Mäkelä
since 2011 (directly elected, no term limit)

Problem-solving with local students

Espoo's government has long experimented with innovative working to tackle the city's most pressing transversal challenges. Its cross-departmental development programmes have been running for 11 years, bringing together officers from across the municipality and external partners – especially universities – to identify and trial solutions for the city. External partners have been instrumental in strengthening innovation capacity within city government; over the past eight years, for example, Espoo has pioneered problem-solving collaborations with local university students.

Espoo's innovation approach

The Espoo story is a strategy document guiding Espoo's overall trajectory and tied to four cross-administrative development programmes, which focus on overarching topics like health and sustainability. Each of these development programmes operates as a cooperation platform for municipal officers and partners from across the city to collaboratively identify and frame key problems, design pilot projects, and explore pathways to shore up innovation outcomes in the long term. Partnerships with external institutions are in the DNA of Espoo's city government – as one municipal officer said, "that's maybe the Espoo way, we never do anything alone. If we have an idea for a project, we always go to a research centre or a university or a company." The cross-administrative development programmes ensure that these collaborations do not just meet the ad-hoc needs of particular projects, but instead are structurally embedded in the overarching priorities of the city government over time.

For municipal officers, taking part in cross-administrative development programmes means encountering diverse perspectives and approaches, and broadening views of what innovation outcomes look like. As the director of economic development at Espoo put it, the cross-departmental programmes "teach people to speak the language of others, whether … across the political aisle or the divide between politicians and civil servants, or just [across] the functions in the city."

Collaborative learning with young people

A central outcome of Espoo's innovation capacity building is greater collaboration within City Hall and with partners beyond it. The creative potential of these collaborations is seen in the administration's record of working with young people, on the topics addressed by the cross-administrative development programmes. In 2022, Espoo led an international cohort of 26 European cities in the Future Mentors Programme, which pioneered reverse mentoring (where young people guide city leaders to understand the perspectives of future generations). Alongside this, Espoo routinely hires young people on summer work placements (approximately 800 per year), and brings municipal officers into university courses to work alongside students on city challenges.

Espoo's city government and the Department of Design at Aalto University have, for example, been working for eight years on a Designing for Services course, which responds to four or five key challenges facing the city each year. These challenges range from ensuring that cultural spaces are inclusive to meeting the needs of Espoo's growing multicultural and non-Finnish-speaking population. Students work alongside municipal officers to design and test applications, platforms and policy solutions to these challenges. Attention is paid to making sure that the students and officers are working as equal partners – the classroom exists as "a network … so nobody's leading it. We had to make a very new kind of structure for it."

Lessons for building innovation capacity:

1. Embrace the perspectives of young residents. Espoo's municipal officers find young residents fantastic collaborators. One saying, "they're super smart, they're fast, and (which is really important) they are super kind. There's always understanding." It has been crucial to nurture mutual respect and appreciation of the different kinds of creativity and expertise that emerge in dialogues between young people and municipal officers. The students taking part in Designing for Services are taken seriously, "they really do very heavy lifting work", and their lack of exposure to the current constraints of governance institutions helps them to think outside the box. Widening the horizon of what municipal officers imagine to be possible is crucial if city governments are going to anticipate and manage future challenges, and young people can help. One municipal officer struggled to respond to the students' ideas initially:

> "All the time, I had to say, 'Oh, this is not possible'. But then it was possible. It just hurts the brain! The students keep on saying, 'But what if?' And, in the end, they had really nice solutions."
>
> Senior advisor, economic development.

2. Share learning across the administration. Officers are aware of how helpful collaboration with young people can be, but some are frustrated that it is only ever those officers directly participating in programmes "who learn from the students – it takes time to get that innovation and learning to other places in the city organisation". However, a co-creation network will extend across the administration to improve the way "information will flow around the city organisation".

3. Strengthen relations with similar international cities. International initiatives like the EU's Future Mentors Programme have been valuable as vehicles for bringing together diverse coalitions of cities to build capacity for innovation. More routinely, however, Espoo finds it most useful to exchange with cities that have similar profiles, contexts and innovation outcomes in mind.

> "We look to other Nordic cities because we have a similar cultural and legislative framework, so [we are] often benchmarking other Nordics or northern European cities. I think we have often looked to the Netherlands specifically."
>
> Director of economic development, Espoo.

What next?

Innovation capacity-building tools may be long established in Espoo, but, as one department head put it, "the problem is that [innovation capacity building through eg, the cross-administrative development programmes] hasn't been scaled up … It does push forward a lot of good things, but it could do a lot more … if it had the proper resources and a bigger mandate". One way they advocate for the scaling up of innovation capacity is by improving monitoring and evaluation and telling the story of innovation better internally: "There's a lot of stuff going on, but I just don't think there's an overall view on it. Like we don't have any metrics out to see: are we doing well on this or not?" Anecdotally, for example, the outcomes of the collaborations with young people have been very valuable – one officer tells us "there [are] lots of things that we are still doing" which were imagined in the first Designing for Services courses seven or eight years ago. But going forward, the municipal officers interviewed say they are working to make monitoring and evaluation more robust and comprehensive, and prioritising investment in internal communications around innovation outcomes.

3. Conclusions

Some clear patterns, insights and action points emerge from this research.

Firstly, Europe's urban governments are alive to the need for innovation. Almost all administrations recognise the importance of pursuing innovative solutions to city challenges.

We have seen that many cities' innovation efforts are focused primarily on supporting the development of the 'innovation economy' rather than on internal government innovation. However, our case studies reveal that though cities often begin their innovation journey by targeting private-sector urban innovation ecosystems, the focus can gradually shift to include, or prioritise, innovation within the city government.

The majority of cities report that innovation is adding value. However, only a third of cities describe innovation efforts as going well, with a larger proportion describing progress as "so-so". There is a long way to go before innovation capacity is embedded as a cornerstone of European city government.

Our research has illuminated trends across each of the four capabilities set out in our analytical framework.

Leadership capabilities

As illustrated by our analytical framework (figure 2 on page 14) and confirmed by our respondents (figure 7 on page 22), leadership capability can make or break city government innovation, shaping all other innovation capabilities. Mayors and elected leaders, in particular, play a crucial role in motivating their teams to develop their innovation capacity, adopt new problem-solving approaches, and foster a culture of innovation. Encouragingly, European cities are already well-positioned in this area – mayors recognise the value of innovation and appear committed to it, and municipal innovation officers describe their political leaders as highly supportive. However, city leaders would benefit from more systematic support in developing their innovation leadership skills.

Organisational capabilities

Municipal officers view organisational capabilities – dedicated funding, structures, expertise and cultures – as particularly important to city government innovation. But they also feel that these capabilities are those most in need of further development. Cities often struggle to recruit or grow expertise in innovation, in part because of rigid HR and remuneration rules. Even once they establish dedicated teams, budgetary constraints limit opportunities for staff development, as innovation funding tends to be short-term and project-based. This focus on immediate projects leaves less room to invest in longer-term outcomes, such as staff training or cultural shifts. However, despite these challenges, cities have a clear appetite for strengthening organisational capabilities, recognising them as the key enablers of innovation capacity and identifying this as the area where they would most welcome training and support.

Analytical capabilities

Innovation officers see leadership and organisational capabilities as key drivers of innovation capacity, placing less emphasis on analytical capabilities like data use. Our analysis shows that European cities have made notable strides in collecting and using data, qualitative research, and staying current with research and best practices in innovation. However, only a handful of cities are taking a systematic approach to evaluating their innovation work, and there is still great potential for growth, particularly in leveraging innovative approaches to finance, procurement, behavioural science, and foresight methods.

Partnership capabilities

European cities are particularly confident in their partnership capabilities, which may explain why they see these as less of a priority for building innovation capacity compared to leadership, organisational or analytical capabilities. Most cities report working well with academic, business and civic partners, with many establishing mission-oriented partnerships to tackle urgent but complex challenges such as the climate crisis. Universities have emerged as a particularly important category of partner. Academic research and innovation can be a valuable resource for city governments, and trends towards policy-driven working in many fields of academia are generating increasing numbers of willing university partners. Transnational partnerships are also vital – from city networks like B40 or Eurocities facilitating peer exchange to EU initiatives that support innovation capacity building (especially crucial in Southern and Eastern Europe). Finally, European cities seem relatively confident in their ability to engage and work with citizens, with officers reporting "engaging residents in new ways" as their most widely used innovation method. Many of our case study cities, which are at the forefront of innovation, have demonstrated a deep commitment to strengthening citizen participation.

Scale of ambition

Our survey reveals a strong appetite for building innovation capacity in Europe's city governments. That said, many efforts remain limited in scope, often focused on refining internal processes and municipal services rather than embracing more radical changes, such as rethinking governance structures or funding models. While mission-led approaches – targeting long-term, transformational goals like 'moonshots' – are gaining interest, many municipal officers feel underprepared. When asked which innovation methods they most wanted training on, 'missions' ranked at the top, highlighting a desire to tackle bigger challenges in new ways.

The need for more external support

While cities we surveyed identify some external sources of support (particularly from the EU for those within the Union) there are few organisations or programmes specifically focused on helping cities build their innovation capacity. This is in marked contrast to the national picture, where state leaders and governments can draw on a wide range of international and national institutions and programmes to support their innovation efforts. In light of this, we call on the EU, national and regional governments, and city networks to strengthen municipal innovation capacity with dedicated programmes, research and funds.

Action points for city governments

City leaders who want to build their city's innovation capacity should:

Leadership capabilities

- Use their public platforms to champion innovation and emphasise that it extends beyond start-ups and the knowledge economy – that local government can find new, more creative and democratic ways of working, and lead bold transformations
- Establish a clear, agreed strategy to build their city's innovation capacity

City governments that want to build their city's innovation capacity should:

Organisational capabilities

- Prioritise developing organisational capabilities, as these tend to be high impact yet where cities struggle most
- Provide long-term, dedicated funding to support innovation
- Recruit, retain, and promote staff with specialist innovation skills and create teams able to support innovation across the organisation
- Foster a culture that is open to new ideas and values innovation

Analytical capabilities

- Take a broad view of the analytical capabilities they need by investing in data but also qualitative research, service design, and other innovation methods
- Ensure that innovation efforts are evaluated, and lessons are communicated across the administration to promote continuous improvement

Partnership capabilities

- Continue to strengthen partnerships and develop deeper collaborations with universities, non-profits, and businesses
- Invest in their ability to pursue new forms of governance, civic engagement, and citizen-centred innovation

Endnotes

1. The Eurocities Pulse Mayors Survey is the flagship annual survey carried out across the broad membership of Eurocities, which brings together most of the major European cities, representing over 150 million people all over Europe. For more information, see: monitor.eurocities.eu/eurocities-pulse-mayors-survey.

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Appendix A: Reflections on the research methodology

This report aims to open a conversation about the subject of city innovation rather than providing definitive answers to these complex challenges. Although the geographical distribution of cities that responded to the survey is excellent, our dataset is not a statistically representative sample of European cities, and the overall number of responses is too low for more advanced statistical analyses or fine-grained data disaggregation. By jointly considering the survey data with the qualitative data gathered from about 20 interviews in seven case-study cities, this report shows the commonalities and differences between cities in their capabilities and approaches to public sector innovation and what that tells us about the sort of support cities need to strengthen their innovation capacity. The work is primarily based on the expert opinions of city employees and the assessment of what they consider important.

The survey on government innovation capacity in European cities was developed collaboratively by LSE Cities and Eurocities, building on the original survey by the Organisation for Economic Co-operation and Development. In addition to the standalone technical survey aimed at senior innovation leaders, we also developed a dedicated section of innovation-related questions aimed at political leaders as part of the Eurocities Pulse Mayors Survey (Eurocities 2024).

Response rate and geographic distribution

The survey ran from November 2023 to March 2024, and was distributed to 267 cities through direct email outreach, and also shared on social media. The targeted cities included all Eurocities members, as well as other European cities that are part of LSE Cities and Bloomberg Philanthropies' networks. Representatives from 65 cities responded to the survey (a response rate of 24%). Collectively, these cities represent over 63 million residents across 27 countries and range in size from small cities below 100,000 inhabitants (for example, Arezzo, Rubí) to major metropolises with more than 10 million (for example, London, Istanbul). There was a very good geographic balance of responses, with 22% from Western Europe, 31% from Northern Europe, 28% from Southern Europe and 20% from Eastern Europe. For a full list of cities see Appendix B.

Respondent profile

The survey was targeted to ensure that it was directed to chief innovation officers or equivalent individuals leading innovation work in their city administration. However, since not all cities have these roles a certain degree of flexibility was essential. Respondents were asked to provide their job title and department, and a brief description of how their role supports the city's innovation efforts. An analysis of these descriptions reveals stark differences between cities: only about 40% of the job descriptions focused specifically on government innovation. Even among this group, most are mainly or exclusively focused on digital transformation and tech-based solutions. A further 25% also touched on those issues, but indicated that their job is primarily about facilitating city-wide innovation – typically, this means working with and attracting/supporting start-ups and tech-based investments. Most (71%) of the respondents' roles have a cross-sectoral remit – including all of the ones that have a specific focus on government innovation. Economic development is the second most common sectoral focus. The vast majority (85%) of respondents are civil servants/public administrators. About 11% are political posts (for example, deputy mayors with responsibility for innovation), and 5% are from arms-length units (for example, companies or associations (co)owned by the city).

Appendix B: The 65 cities that responded to the Eurocities Pulse survey.

City	Country
Tirana	Albania
Vienna	Austria
Ghent	Belgium
Leuven	Belgium
Sofia	Bulgaria
Brno	Czech Republic
Pilsen	Czech Republic
Tallinn	Estonia
Espoo	Finland
Helsinki	Finland
Turku	Finland
Paris	France
Nantes	France
Marseille	France
Chemnitz	Germany
Mannheim	Germany
Mainz	Germany
Leipzig	Germany
Munich	Germany
Heidelberg	Germany
Athens	Greece
Reykjavík	Iceland
Limerick	Ireland
Arezzo	Italy
Bologna	Italy
Florence	Italy
Milan	Italy
Turin	Italy
Naples	Italy
Pristina	Kosovo
Riga	Latvia
Vilnius	Lithuania

City	Country
Utrecht	Netherlands
Enschede	Netherlands
Skopje	North Macedonia
Oslo	Norway
Gdańsk	Poland
Kraków	Poland
Łódź	Poland
Warsaw	Poland
Braga	Portugal
Porto	Portugal
Lisbon	Portugal
Bucharest	Romania
Cluj-Napoca	Romania
Galați	Romania
Bratislava	Slovakia
Alicante	Spain
Barcelona	Spain
Bilbao	Spain
Fuenlabrada	Spain
Malaga	Spain
Rubí	Spain
Gothenburg	Sweden
Kungsbacka	Sweden
Linköping	Sweden
Stockholm	Sweden
Istanbul	Turkey
Izmir	Turkey
London	United Kingdom
Belfast	United Kingdom
Wolverhampton	United Kingdom
Preston	United Kingdom
Bristol	United Kingdom
Glasgow	United Kingdom

Appendix C: Glossary of innovation activities and methods

Organisational capabilities

– Trying untested approaches or taking risks (for example, piloting or prototyping new programmes or models to address city challenges).

– Organisational change within the city administration (for example, integrated working/breaking down departmental silos; new internal performance management; staff training and capacity building on innovative tools or techniques).

– Rethinking the city's approach to financing and procurement (for example, new funding sources; social impact bonds; subnational pooled financing mechanisms; debt-for-climate swaps; emergency funding frameworks; reforms to contracting and procurement).

– Mission-oriented innovation (for example, concrete organisational targets linked to a challenge that frames and stimulates transformative change).

Analytical capabilities

– Data-driven analytics and evidenced-based policy making (for example, big data, data mining, data visualisation and analytics).

– Developing new services and solutions based on digital technologies (for example, artificial intelligence, machine learning, use of drones or smart sensors).

– Foresight methods, prospective exercises, scenario planning (for example, horizon scanning, forecasting).

– Generating/harnessing behavioural insights and techniques to inform policy development and effective delivery (for example, 'nudging', uncovering social and mental barriers to change).

Partnership capabilities

– Rethinking the city's approach to collaboration and open innovation (for example, partnerships with new actors; proactive interaction with academia, industry and the public; collaboration across levels of government and with neighbouring jurisdictions).

– Engaging residents in new ways (for example, via digital technologies, co-creation, ethnography, citizens' assemblies).

– Human-centred design of public services and policy interventions (for example, prioritising the end user at each stage of the design process and conducting research about users to understand how best to meet their needs).

LSE Cities

LSE Cities is an international centre at the London School of Economics and Political Science (LSE) that carries out research, graduate and executive education, advisory, and engagement activities in London and abroad. It studies how people and cities interact in a rapidly urbanising world, focusing on how the physical form and design of cities impacts on society, culture and the environment. Extending LSE's century-old commitment to the understanding of urban society, LSE Cities investigates how complex urban systems are responding to the pressures of growth, change and globalisation with new infrastructures of design and governance that both complement and threaten social and environmental equity.

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