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This policy is considered foundational to the G20 Global Smart Cities Alliance policy roadmap. Supplementary content can be found on the alliance website for practical support in adopting and implementing the policy.

How to use this policy

This policy document can be used by procurers and purchasers in public bodies to guide their approach to innovation-friendly procurement. The aim is to unlock the potential of procurement to bring about innovation and a whole range of potential economic, social and environmental impacts. It lays out a set of principles along with practical examples that can direct the user in terms of:

Process and method
Prerequisites and planning
Execution and operation

These guidelines were developed by the Taskforce on Innovation Procurement led by the World Economic Forum’s G20 Global Smart Cities Alliance in collaboration with the Connected Places Catapult. The taskforce provided input on relevant policies that are being tried and tested by cities. These policies were agreed upon to uphold the most relevant practices to help cities reach their innovation-friendly procurement goals.

Background

An underused lever for innovation and economic growth

Cities and other subnational governments worldwide are estimated to have procured more than $6 trillion of goods and services in 2021, amounting to 8% of world GDP. This represents a huge market and a significant lever that public authorities can use to create and shape markets and solve key challenges more rapidly and cost-effectively.

The UK government’s national Innovation Strategy identifies public procurement as a powerful tool for catalysing the innovation economy, both in sparking new products and by providing the commercial funding that enables businesses to scale.

The OECD (2017) further supports public procurement as a strategic instrument that can be used by government to promote innovation, facilitate diversity of thought and address societal challenges. Procurement-based innovation has the added benefit of leveraging existing spending, rather than requiring additional public resources to drive strategic outcomes.

Research even suggests that procurement-based innovation initiatives are more effective than grants in stimulating private sector investment in R&D. In support of these findings, the European Union has provided a tailor-made procurement procedure, the Innovation Partnership.
The intersection of procurement as a tool for innovation stimulus and for driving social value objectives (such as equitable economic growth or inclusion) further amplifies its power as a tool for driving urban, regional and national strategic outcomes. Public sector-sponsored innovation challenges, such as the Smart Belfast Urban Innovation Framework and the Economic Commission for Europe, also support the need for innovation-enhancing procurement as a tool to solve societal problems and steer markets towards innovative solutions. Procurement, when properly utilized, can attract innovative firms and mobilize regional innovation ecosystems, delivering jobs, investment and opportunity.

However, despite the potential to drive strategic outcomes, in many places public procurement is largely under-exploited as a mechanism for sparking and scaling innovation. Many public sector leaders are battling to navigate processes and dismantle cultures that stifle innovation in their organizations and across the sector. Even organizations that understand the need for innovation often do not see how procurement can enable creative ambitions and there are (mis)perceptions that legislation restricts innovative practice and discourages collaboration with innovators.

Public procurement is characterized by “a low appetite for risk and experimentation” due to “the overall culture, expertise and incentive structure of the public sector”. As a result, input from procurement teams is often held off until the last possible moment, reducing the scope to harness its potential.

**Tackling barriers**

City leaders in the EU, the UK and United States and elsewhere all have access to innovation-friendly procurement procedures though national legislation. Despite this, awareness of the tools available is the greatest hurdle to the adoption of best practice by city authorities.

The second biggest hurdle to adoption is the challenge of overturning long-developed customs and methods. With technology developing rapidly it can be challenging for decision-makers to stay up to date with potential solutions and assess the viability of what suppliers are promising. With budgets under pressure and public scrutiny constant, untested products or services pose a risk. The upshot is a lack of confidence among city authorities to engage the market and invest in new solutions. Cities risk being unable to respond to residents’ needs if they fail to adopt new policies, processes and technologies.

Several cities and regions have established expert centres to tackle these barriers by promoting the available tools, upskilling and empowering public sector decision-makers to be confident, effective customers of innovation. These include KEINO (Competence Centre for Sustainable and Innovative Public Procurement) in Finland, CivVic in Australia and the Innovation Procurement Empowerment Centre (IPEC) in the UK. Such centres need to be accessible and promoted as in-house expertise.

Public sector leaders are not alone in perceiving procurement to be a barrier to innovation. Many private sector organizations are wary of bidding for work with the public sector due to negative experiences or perceptions that public procurement processes are burdensome, slow, overly complex and biased towards large established providers. This perception harms residents, staff and budgets with higher costs and less effective solutions.

For many businesses, uncertainty over the ownership of intellectual property arising from public sector innovation projects is cited as a barrier to engagement in collaborations. In some circumstances this is a problem of perception; in several countries, IP is clearly protected in public procurement of innovation. Similar approaches could be introduced to the procurement policy frameworks of cities elsewhere, removing a barrier to productivity public-private collaboration.

In this context, innovation can be defined as the commercial or industrial application of something new—a new product, process, or method of production; a new market or source of supply; a new form of commercial, business, or financial organization. Additionally, there are a number of mechanisms and procedures which may be described as innovation-friendly, but the common thread is a challenge-based open procurement process that ties innovation activities to commercial contracts.

**A low appetite for risk and experimentation**

Procuring agencies inculcate a highly risk-adverse attitude to innovative solutions and tend to favour an approach that is primarily concerned with cost-effectiveness and statistical efficiency. This approach is very much to the detriment of the innovative content of procurement tenders.

As a result, procurement practices, through excessive caution and a lack of imagination, become an impediment to innovation. “Process has taken over purpose.” To drive action, the value of change across budgetary, resources and quality needs to be demonstrated to government leaders.

The major barriers are not legislative. In many countries, legal routes exist to access innovative procurement methods. What follows is a set of principles designed to encourage behavioural change to exploit underused tools and methods that already exist in organizations.
Model policy

This section introduces the guiding principles of the model policy for innovation-friendly procurement. These principles are sub-divided into three categories: process and method; prerequisites and planning; execution and operation.

1

Process and method

1.1

Focus on purpose over process

To encourage innovation in procurement, the focus needs to shift from the process to the purpose; to the “what” rather than the “how”15. City governments should move away from specifying the type of solutions and aim to determine the outcomes that would best fit users’ goals16. Improved procurement may aid the development of entirely bespoke processes that can encourage officials in commissioning something that really meets the needs of communities17.

Example actions:

- With every challenging issue (irrespective of size or complexity), create a mission-focused problem statement with the right context.18

1.2

Invest in understanding user needs and identifying desired outcomes

Procurement-led approaches often lose sight of user needs in favour of highly functional specifications. It is essential to embed a user-centred, inclusive, design-led, data-driven approach to procurement where the context is fully understood19. City officials should take time to properly understand user needs and reflect on what it is exactly they are going to procure based on the problem that needs to be solved, since the best solution may not necessarily yet exist in the market20. Conducting the relevant research and acquiring additional user information will enhance procurement mechanisms, test assumptions about users, ensure there is a valid need for the procurement, identify the ideal outcomes and can make services better value21.

Example actions:

- Having a human-centred design approach by bringing in end users, stakeholders, partners, colleagues and others to define the problem and then working through the solution through dialogue, testing and iteration22.

1.3

Embrace a flexible methodology and agile working

Allowing for greater flexibility in market engagement and being open to new procurement methodologies is essential to achieving a desirable outcome. A focus on outcomes sought rather than prescriptive requirements allows for more creative solutions that can often lead to an improved quality of products and services23. Validating novel solutions is likely to require additional testing and dialogue with potential suppliers. Traditional procurement methods are rigid. Agile procurement provides a way to learn while keeping both an efficient process and the focus on users’ needs24.
1.4 Example actions:

– Using a two-step Request for Qualification/Request for Proposal may seem lengthier but, in many cases, can accelerate the process where stakeholders need to see options before deciding what the best fit for the final ask may be.

– Being able to adjust steps, such as a longer demonstration or pilot, may help in getting the best result.

1.5 Being realistic about the procurement environment and available knowledge

The traditional procurement process assumes that the buyer is expert in both their own needs and the state of the art in terms of solutions. In our fast-moving world, it is too high a bar to expect local officials to have deep subject-matter expertise in all the areas of technology relevant to their services. This can result in prejudicing what may or may not be currently possible by innovative suppliers. It can also increase the risk of being oversold on the capabilities of a solution. There are many ways to access independent technical expertise to support cities in identifying and evaluating innovative solutions. These partners – whether in local universities, national innovation agencies, or consultancies – can help officials to be clear in laying out their needs and realistic on what is possible.

Example actions:

– A significant lesson in the Smarter Belfast project was recognizing the importance of the relationship between public innovation and public procurement. The public sector’s traditional approach to procurement can sometimes present a barrier to innovation, which by its nature can be difficult to predict in terms of success. It is essential, therefore, to find ways to address these tensions in order to work with procurement experts in city councils.

2 Prerequisites and planning

2.1 Make time to foster cultural change and empower peers

Transforming public procurement requires a deep cultural change, moving away from a least-cost orientation to a value-based mindset and scaling up good practices. Extensive training may be required to upskill commercial departments and encourage the expected cultural change, alongside very real leadership, in the procurement space. Without this support, procurement teams will be unfamiliar with the opportunities provided by new procedures and may fail to take advantage of the increased flexibility and revert to traditional methods.

Example actions:

– Strong political and organizational leadership that encourages ideation, supports innovative proposals and overcomes fear of change.

– Involving well-trained procurement specialists who are familiar with legally compliant procedures and are engaged in project planning from the start.
2.2 Identify the right opportunities for innovation – and the right tools for the task.

City councils have access to a variety of mechanisms for undertaking innovation-friendly procurements, each suited to different types of service need and the anticipated maturity of solutions. Procurement teams need to identify which tenders are suitable for an innovation-friendly process (since not all are) and which process is best suited to facilitate innovation. New skills will be needed within these teams to guide service managers and suppliers through these new procurement processes. Identifying the right tools, acquiring the relevant skills and assembling the ideal team are all essential elements of taking full advantage of an opportunity to conduct innovation-friendly procurement.

Example actions:

- The use of technology scanning and pre-market consultations with suppliers to encourage them to offer innovative solutions.
- Create or use an existing decision support tool to steer you towards the right tool for the task.
- Be an intelligent client and don’t fall for the hype. Create a training programme so colleagues across your company can ask the right questions when innovators come up with their solutions. This knowledge and curiosity will help achieve better outcomes and identify the right opportunities for innovation.

2.3 Assemble a diverse multi-disciplinary team of change-makers

A narrow perspective limits innovation, efficiency and effectiveness. Assembling a diverse multi-disciplinary team brings together varied skills and experiences right from the start of the commissioning process.

Example actions:

- Include colleagues with a diverse mix of skills, experience and backgrounds.
- Ask about past procurements and any lessons learned.
- Consult stakeholders and decision-makers as early as possible. Ensuring buy-in from key internal stakeholders from the start can help in successfully scaling and realizing benefits later.
- Diversity of thought and removing bias is key. Far too often, the loud voices who think they have all the answers dominate this space, and while they have a role, they need to be able to listen to others.

3 Execution and operation

3.1 Reach beyond traditional suppliers with creative communication

Because procurement is a public exercise, city governments often assume that the right suppliers will find council contract opportunities organically. However, it is not the case that innovative companies will necessarily be familiar with where to find public tenders or how their solutions might be applicable to city services.
To ensure a good volume of high-quality bids, it is essential that city councils invest in engagement with existing and potential suppliers. Ongoing and tailored communication increases response rates and competition. While care must be taken to ensure no unfair advantage be given to any one potential supplier, proactive engagement with the market – including regular market research and open dialogue with suppliers – will ensure the best possible firms are aware of your needs and can respond to them when opportunities are published.

**Example actions:**

- Create an innovators database with whom you can proactively share calls.
- Scout far and wide and talk to companies and people outside the usual suspects. There are excellent organizations that can help in accessing innovators from around the world.
- Create a clear multi-channel communications plan.
- Attend industry events to meet innovators.

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### 3.2 Be candid and accessible about your needs and expectations when engaging suppliers

Traditional procurement processes may act as an information barrier by preventing additional meetings and questions that may benefit the buyer in identifying the ideal supplier. In pursuit of transparency and fairness to the market, the procurement process is sometimes warped when stakeholders are left without the requisite information to make an informed decision because asking one provider for more information is deemed unfair. Making things more communicative reduces friction and can enhance transparency and prevent duplication of effort. It also encourages better understanding of the outcome required. An iterative process where feedback can be incorporated early is key and can help in understanding potential solutions. In fact, sharing information about planned procurements can encourage innovation and interest from suppliers, attract more bids and help build better relationships.

**Example actions:**

- Decide which information must be collected and shared, and which market players must be contacted.
- Choose the best format for the consultation and prepare the necessary human and material resources.
- Share information as early as possible, which gives time to review and reflect on innovative solutions before a budget has been set for a future procurement.
- Maintain a record of the consultation process and ensure equal treatment.

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### 3.3 Treat suppliers as trusted partners in developing solutions

It is possible to reduce duplicated efforts and increase innovation by working collaboratively both within and outside government. Maintain communication with suppliers and industry groups and build useful, healthy relationships. Just as the city government is learning about the technology area, the provider is also learning about the city government and its needs. Structuring both the procurement and the eventual contract/relationship as a partnership will allow for an outcome that continues to be beneficial for the government.
Example actions:

- Commissioning teams and contractual processes that work in close partnership with suppliers to regularly identify and address opportunities for innovative improvements.

- Encouragement of bids from small enterprises through supplier qualification questionnaires and tender evaluation criteria.

3.4 Lower barriers to entry by providing templates or example bids

To make the procurement process simpler and reduce barriers to entry for all parties, it is important to have a pre-designed standard template for companies to elaborate on how to report and measure progress. Standardized templates can ensure accountability and unify reporting criteria. It is also important to highlight that procurers can use templates from peer institutions or governments, especially if there is an overlap in procurement principles and desired outcomes.

Example actions:

- Creation of standardized templates for companies. (e.g., related to reporting on key performance indicators, measuring public acceptance or intellectual property rights).

3.5 Use data to monitor and evaluate success and identify further innovation opportunities

Transforming public procurement needs to be underpinned by data and robust scientific analysis. Basic procurement data – such as what is procured, by whom and from whom, and by what procedure – is often fragmented or even entirely missing from the public domain. Tender or contract award notices rarely store information on bidding parties that did not win the contract, but such information could provide an important counterfactual to measuring the impact of public procurement. Gathering evidence and data to quantify the impact of innovation procurement can strengthen best practice lessons and support public sector leaders seeking new ways of delivering public services.

Example actions:

- Identifying and making a record of potential vendors, their solutions and pricing range to improve knowledge of the market and reduce information asymmetries for future procurements.
Contributors

Lead authors

Zain Bari
Economist, Impact Assessment, Connected Places Catapult

Sam Markey
Ecosystem Director – Place Leadership, Connected Places Catapult

Taskforce members

Ivan Castano
Ruta N Corporation, Medellin

Lisa Cawley
Managing Director – Health and Public Service, Accenture

Simon Collison
Director, West Midlands Regional Economic Development Institute (WMREDI)

Joan Enric Ricart Costa
Carl Schreder Professor of Strategic Management, University of Navarra

Anna Majo Crespo
Director of Strategic Sectors and Innovation, Barcelona Activa/Barcelona City Council

Zöe Fitzgerald
Head of City-Business Engagement, C40

Renske Martijnse-Hartikka
Senior Project Manager Smart Mobility, Forum Virium Helsinki

Rory Linehan
Director of Engagement, Global Infrastructure Hub

Andre Kwok Ka Ming
Founder, Good City Foundation

Marina de Castro Rodrigues
Sustainability Coordinator, AEGE

Bàrbara Mayoral Santamaria
Senior Technician in Business Innovation, Barcelona Activa/Barcelona City Council

Rikesh Shah
Head of Innovation Procurement Empowerment Centre, Connected Places Catapult

Elvira Uyarra
Director, Manchester Institute of Innovation Research

Andrew Watkins
President and Chief Operating Officer, Marketplace.city

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John Davies
International Trade Adviser, Department for Business and Trade, UK Government

Jennifer Holmes
Managing Director, Global Cities, Transportation and Infrastructure Lead, Accenture

Warren Smith
Partner, Curshaw
About the G20 Global Smart Cities Alliance

The G20 Global Smart Cities Alliance accelerates the responsible adoption of technology to advance urban transformation goals. Established in June 2019, the alliance unites municipal, regional and national governments, private sector partners and cities’ residents on a shared set of principles for the responsible and ethical use of smart city technologies. The World Economic Forum, the international organization for public-private cooperation, serves as secretariat for the alliance.
Endnotes


4. Supported by Connected Places Catapult, Belfast City Council created the Smart Belfast Urban Innovation Framework as a mechanism to communicate the city council’s and its partners’ innovation needs to the market. Some 47 challenges were run, awarding a total of £10 million in public contracts to 200 innovative firms.


The World Economic Forum, committed to improving the state of the world, is the International Organization for Public-Private Cooperation.

The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas.