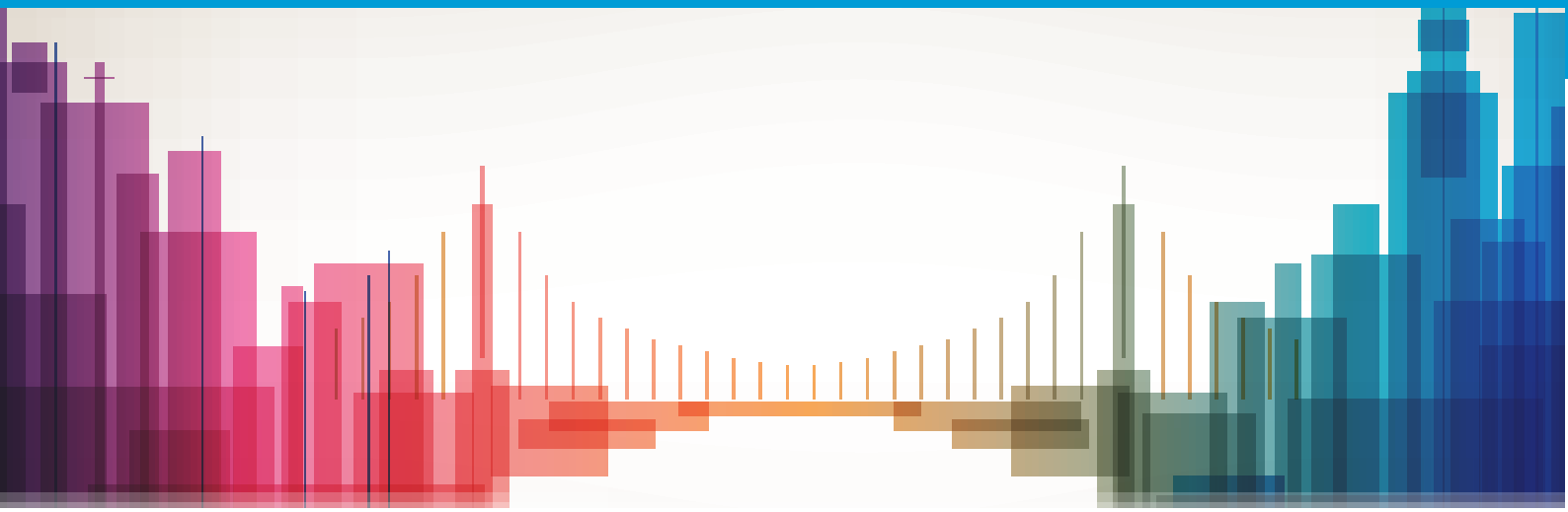
Procurement guidelines for smart sustainable cities



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unesco

UN environment programme

UNEP FINANCE INITIATIVE

United Nations Framework Convention on Climate Change

unitar United Nations Institute for Training and Research

UNFPA

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UNJSPF United Nations Joint Staff Pension Fund

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WORLD METEOROLOGICAL ORGANIZATION





Procurement guidelines for smart sustainable cities

Foreword

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Disclaimer

The opinions expressed in this publication are those of the authors and do not necessarily represent the views of their respective organizations or U4SSC members. In line with the U4SSC principles, this report does not promote the adoption and use of Smart City technology. It advocates for policies encouraging responsible use of information and communications technologies (ICTs) that contribute to the economic, environmental and social sustainability as well as the advancement of the 2030 Agenda for Sustainable Development.

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Abbreviations and acronyms

Abbreviation	Full form
AI	Artificial intelligence
AUD	Australian Dollar
CIO	Chief Information Officer
CO_2	Carbon dioxide
CRPD	Convention on the Rights of Persons with Disabilities
DGCP	Dirección General de Contrataciones Públicas
DOP	Dominican Peso
DPI	Digital Public Infrastructure
GDS	Government Digital Service
GESI	Gender Equality and Social Inclusion
GHG	Greenhouse Gas
GovTech	Government Technology
ICTs	Information and Communication Technologies
ISO	International Organization for Standardization
ISO/IEC	International Organization for Standardization / International Electrotechnical Commission
ITU	International Telecommunication Union
ITU-T	ITU Telecommunication Standardization Sector
KPI	Key Performance Indicator
MEAL	Monitoring, Evaluation, Assessment and Learning
MIMs	Minimal Interoperability Mechanisms
OECD	Organisation for Economic Co-operation and Development
RAM	Readiness Assessment Methodology
SDG	Sustainable Development Goal
SME	Small and Medium Enterprise
SOGI	Sexual Orientation and Gender Identity
UAI	Universidad Adolfo Ibáñez
UK	United Kingdom
UN	United Nations
UNEP	United Nations Environment Programme
UNITAR-SCYCLE	United Nations Institute for Training and Research – Sustainable Cycles Programme
USD	United States Dollar
U4SSC	United for Smart Sustainable Cities
WHO	World Health Organization

Executive summary

Cities are increasingly being reshaped by digital technologies, data platforms and connected public services. In this context, public procurement is no longer merely a procedural or administrative function, but a strategic lever for shaping service delivery, strengthening public institutions and ensuring that digital investment generates wider public value.

For smart sustainable cities, procurement decisions are not confined to the present. Choices about systems, standards, data, suppliers and service models can influence how cities operate for years to come. Poorly designed procurement can create fragmented systems, supplier dependency, inaccessible services, weak accountability and costs that are passed on to future administrations and communities.

Intergenerational procurement responds to this challenge by placing long-term public value at the centre of digital, data and technology procurement. It supports the transparent, participatory and anticipatory acquisition and governance of digital and data-enabled technologies, balancing the needs of present and future generations while applying lifecycle, ecological and wellbeing-based criteria.

This report provides practical steps for moving from technology demand to public value outcomes. It explains how public authorities can define needs before specifying solutions, engage users and suppliers early, estimate whole-life costs, develop clear and proportionate requirements, evaluate bids fairly, and manage delivery beyond contract award. In doing so, it offers an accessible reference for city leaders, CIOs, procurement teams, service owners and public officials involved in smart sustainable city transformation.

Who should use this report?

This report is intended for:

- city leaders and senior public officials;
- national and local policymakers;
- procurement authorities and public sector leadership teams;
- CIOs, digital transformation and innovation teams;
- officials responsible for infrastructure, service delivery, data and civic engagement; and
- advisers and partners supporting smart sustainable city transformation.

How can this report help?

- define city needs in terms of outcomes and public value;
- apply practical procurement steps from planning to contract closure;

- strengthen transparency, accessibility, inclusion and accountability;
- reduce lifecycle, interoperability and supplier lock-in risks;
- improve the procurement of digital, data and technology products, services and capabilities; and
- use public procurement to support more sustainable, inclusive and future-ready cities.



1 Introduction and the case for smart procurement

1.1 From procurement to commissioning

In smart sustainable cities, procurement decisions influence not only what is purchased, but also how services are designed, delivered and improved. This is particularly significant in the procurement of digital systems and services, where choices made at an early stage may shape service delivery and public outcomes over time.

Traditional procurement has often relied on detailed technical specifications and the purchase of predefined systems. Where excessive detail is fixed at the outset, the range of possible outcomes may be unnecessarily constrained, and the result may be little more than the replacement of one technical solution with another without adequately addressing the underlying problem. Procurement-led approaches may also lose sight of user needs in favour of highly functional specifications. For this reason, it is important to define the problem to be solved before designing the solution, to understand user needs, and to define outcomes rather than specifying solutions.

Commissioning is broader than traditional procurement. It includes outcome-based approaches, market development, collaboration across organizational boundaries, and service delivery models that adopt a whole-systems perspective. It also places greater emphasis on user-centred and inclusive design, multidisciplinary working, openness and collaboration, and continued attention during delivery. Procurement does not end when the contract is awarded, and contractual terms alone do not ensure that outcomes will be achieved. In this sense, commissioning provides a more appropriate basis for the procurement of technology-enabled public services over time.

1.2 Leveraging urban transformation: Why intergenerational procurement matters

Smart sustainable cities are intended to meet the needs of present and future generations. In this context, procurement decisions should be considered not only in sight of immediate purchasing requirements, but also in terms of the longer-term conditions they create for public governance and service delivery. This is particularly important where cities rely on digital systems, shared data and external suppliers in the provision of public services.

Intergenerational procurement is defined by U4SSC as "the transparent, participatory and anticipatory acquisition and governance of digital and data-enabled technologies that balances the needs of present and future generations. It applies lifecycle, ecological, and wellbeing-based criteria to generate long-term public value within planetary boundaries."

This concept is significant because procurement decisions taken today may shape the ability of future administrations and communities to govern, maintain and adapt public systems and services. Current work on intergenerational procurement for people-centred cities has highlighted the importance of long-term governance, the needs of present and future generations, lifecycle considerations, and standards and vendor neutrality.

These considerations are especially relevant in the procurement of technology-enabled services. Procurement choices may affect whether systems remain interoperable, whether authorities retain meaningful exit options, whether dependency on a single supplier can be avoided, and whether data and technology can be transferred at contract closure without disruption to public services. In this way, such choices may influence not only current delivery arrangements, but also institutional continuity and future administrative flexibility.

Intergenerational procurement, therefore, places public procurement within a longer-term perspective. It highlights the importance of continuity, adaptability and public control in safeguarding the public interest over time.

1.3 The 2030 Agenda and beyond: Sustainability, inclusion, accessibility, transparency

The 2030 Agenda for Sustainable Development remains the central global framework for advancing inclusive, equitable and sustainable development.[1] Public procurement is one of the practical means through which these objectives can be translated into delivery. In smart sustainable cities, procurement can support positive economic, social, cultural and environmental outcomes, while also strengthening integrity in public expenditure, promoting social value for money and contributing to long-term public value.

Recent official reporting reinforces the continued importance of this agenda:

- The Sustainable Development Goals Report 2025 identifies digital transformation as one of six priority transitions for accelerating progress across the Goals.[2]
- The Organisation for Economic Co-operation and Development (OECD) Digital Government Outlook 2026 notes that procurement support for AI remains limited: only 21 of 36 OECD countries provide central support for procuring AI goods and services, underscoring the need for stronger public capabilities to manage digital procurement and lifecycle risks.[3]
- UNESCO's AI Readiness Assessment Methodology (RAM) Meta-Analysis found that only 18 per cent of the Member States analysed reported laws or policies regulating the procurement of AI-enabled systems, indicating that AI-specific public procurement frameworks remain at an early stage.[4]

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1 United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. https://sdgs.un.org/2030agenda

2 United Nations Department of Economic and Social Affairs, Statistics Division. (2025). *The Sustainable Development Goals Report 2025*. United Nations. https://unstats.un.org/sdgs/report/2025/

3 Organisation for Economic Co-operation and Development. (2026). *Digital Government Outlook 2026: From foundations to transformational impact*. OECD Publishing. https://doi.org/10.1787/0496b2bc-en

4 United Nations Educational, Scientific and Cultural Organization. (2026). *RAM meta-analysis*. Global AI Ethics and Governance Observatory. https://www.unesco.org/ethics-ai/en/node/351

- UNITAR-SCYCLE's E-waste Statistics Guidelines Third Edition 2026 provides updated methodologies for measuring e-waste across the full electronics lifecycle, and notes that global e-waste is projected to exceed 80 million tonnes annually by 2030.[5]
- UNEP Global Status Report for Buildings and Construction 2025–2026 reports that buildings and construction account for around 37 per cent of global CO2 emissions and nearly 50 per cent of global material extraction, highlighting the need for climate-resilient and resource-efficient urban development.[6]

Together, these findings underline the need for procurement arrangements that support digital transformation, resource efficiency, climate resilience and long-term public value.

Climate-responsible procurement addresses both mitigation – reducing lifecycle greenhouse gas emissions and resource use – and adaptation and resilience – ensuring that procured assets, systems and services remain safe, reliable and effective under current and reasonably foreseeable climate hazards.[7]

Inclusion, accessibility and transparency remain central to this agenda. Digital information, products and services should be usable by all intended users, regardless of gender, age, ability or location. Accessibility should, therefore, be reflected in procurement requirements and standards from the outset. Transparency likewise depends not only on disclosure, but also on disclosure in forms that are open, accessible and usable in practice, including the publication of contract information in digital and machine-readable formats, subject to legitimate confidentiality limits.

International attention to implementation by 2030 and beyond also remains active across United Nations processes. This continuing attention can be seen, for example, in:

- The annual *High-level Political Forum on Sustainable Development*,[8] which remains the United Nations platform for follow-up and review of the 2030 Agenda. The 2026 Forum will include in-depth reviews of Goals 6, 7, 9, 13 and 17.

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5 Lysaght, O., Forti, V., Bel, G., Bottausci, S., Schubert, M., Yamamoto, T., Shyla, H., Blepp, M., Cenni, F., de Linde, S., Escobar Ocampo, D., Iattoni, G., Khwamsawat, K., Kuehr, R., Korajčević, S., Ngumba, L., Magpantay, E., Martínez, L. H., Menton, N.,… Baldé, C. P. (2026). *E-waste statistics: Guidelines on classifications, reporting and indicators* (3rd ed.). UNITAR-SCYCLE. https://doi.org/10.5281/zenodo.18328494

6 United Nations Environment Programme, & Global Alliance for Buildings and Construction. (2026). *Building fast. Falling short. As climate risks rise and cities grow, we must rethink how we build to create better lives for all: Global Status Report for Buildings and Construction 2025-2026*. United Nations Environment Programme. https://wedocs.unep.org/handle/20.500.11822/49531

7 United Nations Office for Project Services. (2025). *Climate strategy 2025-2029*. https://content.unops.org/publications/UNOPS_Climate_Strategy_2025.pdf

8 United Nations Department of Economic and Social Affairs. (2025). *2026 HLPF thematic review concept note: SDGs 6, 7, 9, 13 and 17*. https://sdgs.un.org/sites/default/files/2025-12/2026%20HLPF%20thematic%20review%20concept%20note%206th%20Dec.pdf

- The *2027 SDG Summit*, which will provide the next quadrennial opportunity for heads of state and government to review progress on the 2030 Agenda. Preparations are being supported by the forthcoming *Global Sustainable Development Report 2027*.[9]

Against this background, embedding sustainability, inclusion, accessibility and transparency in procurement can help ensure that public expenditure supports not only immediate delivery, but also long-term public value and stronger institutional foundations for the years ahead.

2 Defining City Needs in Smart Sustainable Procurement

2.1 Key urban challenges influencing procurement

Urban environments are shaped by roads, housing, digital public infrastructure (DPI), transport networks and public services. At the same time, cities are increasingly confronted with interrelated challenges, including environmental crises, corruption, rigid institutional cultures, digital skills gaps and growing e-waste. These pressures require procurement to move beyond a narrow administrative function and to be recognized as a strategic, data-driven lever for change. Embedding user-centred, design-led and inclusive approaches into procurement can help cities respond more effectively to complex and evolving urban challenges. Without such an approach, procurement decisions taken today may perpetuate social exclusion, environmental harm and financial vulnerability for present and future generations. Consequently, intergenerational procurement is essential to support smart sustainable city transformation, stimulate the urban circular economy, and advance inclusion and accessibility.

[9] United Nations Department of Economic and Social Affairs. *Global Sustainable Development Report 2027*. https://sdgs.un.org/gsdr2027

Figure 1: UN Sustainable Development Goals (SDGs) (Source: Adobe Stock)



In progressing towards the Sustainable Development Goals (SDGs), notably SDG 10 (Reduced Inequalities), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action) and SDG 16 (Peace, Justice and Strong Institutions), intergenerational procurement can provide cities with a practical guiding framework. Article 9 of the United Nations Convention on the Rights of Persons with Disabilities (CRPD) requires accessibility to be addressed across transportation, the built environment and ICTs, including information, communications and other services, including electronic services. It also requires that accessibility be considered at the earliest stages of the design and development of ICTs. One practical way to advance this objective is for governments to include accessibility as a mandatory requirement when procuring ICTs. Furthermore, intergenerational procurement supports the implementation of broader international commitments, including the UN Pact for the Future and the economic systems transformation objectives set out in the United Nations Roadmap for Eradicating Poverty Beyond Growth.[10]

[10] New Economies for Eradicating Poverty. *Intergenerational public procurement*. https://www.neep-poverty.org/roadmap-for-eradicating-poverty-beyond-growth/economic-systems-transformation/intergenerational-public-procurement/

2.2 From technology demand to public value outcomes

The delivery of technology is evolving, requiring governments to move away from prescribing specific technical solutions and instead focus on defining the outcomes that best serve users, citizens and businesses. By simplifying procurement documentation and avoiding unnecessarily complex technical specifications, smart sustainable procurement enables cities to concentrate on the most effective and efficient means of delivering public value. This outcome-oriented approach helps ensure that technology and shared data are deployed in ways that support diverse and changing urban needs.

In the context of public-sector digital transformation, procurement should not be understood only as the acquisition of individual technologies. It should also be seen as a means of strengthening the core systems, shared platforms and institutional capabilities through which governments deliver public services. The GovTech approach is relevant in this regard, as it frames digital transformation as a citizen-centric, whole-of-government and efficiency-oriented model of public sector modernization. The World Bank GovTech Maturity Index 2025 identifies systems such as Human Resources Management Information Systems and e-procurement systems among its 17 core government systems indicators. In parallel, international standards and frameworks, including Recommendation ITU-T Y.4904 "Smart sustainable cities maturity model"[11], Recommendation ITU-T Y.4906 "Assessment framework for digital transformation of sectors in smart cities"[12], ISO 37106, ISO/IEC 30182 and Minimal Interoperability Mechanisms (MIMs)[13], provide guidance on the implementation of urban operations and procurement. Public procurement can, therefore, be leveraged as one of the most flexible and far-reaching policy instruments available to governments. Increasingly, the "power of the purse" is being used to advance policy objectives and to support the achievement of long-term social, cultural, environmental and economic public outcomes.

2.3 Building institutional capability and capacity

Building institutional capability and capacity requires a multidimensional approach. The civil service workforce is fundamental to public sector success, and digital maturity depends on having the right people in the right roles with the right skills. At the same time, horizontal and whole-of-government approaches are equally important. By fostering nationally convened communities of professional practice, smart sustainable procurement can bring together practitioners to exchange experience, identify areas where additional support is needed, assist less mature entities, and share lessons on what works and what does not.

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[11] International Telecommunication Union. (2019). *Recommendation ITU-T Y.4904 "Smart sustainable cities maturity model"*. https://www.itu.int/rec/T-REC-Y.4904/en

[12] International Telecommunication Union. (2019). *Recommendation ITU-T Y.4906 "Assessment framework for digital transformation of sectors in smart cities"*. https://www.itu.int/rec/T-REC-Y.4906/en

[13] International Telecommunication Union. (2024). Recommendation ITU-T Y.4505 "Minimal interoperability mechanisms for smart and sustainable cities and communities". https://www.itu.int/rec/T-REC-Y.4505-202408-I/en

According to the OECD Digital Government Policy Framework, a mature digital government should be digital by design, data-driven, government as a platform, open by default, user-driven and proactive. However, many government systems still lack explicit mandates, processes and accountability mechanisms to meaningfully plan for, monitor and evaluate intergenerational and well-being impacts. Governance arrangements shaped by short electoral cycles, annual budgeting processes and siloed responsibilities often reinforce short-term decision-making and limit adaptive learning across the full public investment lifecycle. In this context, building curated communities of professionals at the national level, and where relevant across country contexts, can support the diffusion of knowledge, strengthen alignment and agency across institutions, and enable more mature entities to support those at earlier stages of development. This compounding effect, combined with fit-for-purpose skills and collaborative partnerships, can help governments and public institutions build the internal capability needed to sustain digital transformation.

3 Practical steps to take towards smart sustainable procurement

3.1 Planning

Planning defines the need, the intended outcomes, the likely delivery model and the conditions for effective competition.[14] It also shapes how procurement will support accessibility, value for money and delivery over time.

Apply a proportionate climate lens. During planning, authorities should screen whether a procurement is climate-material because of its expected lifecycle emissions or resource use, its lifespan or criticality, or its exposure to present and future climate hazards.[15] Where material, the resulting baseline, risks and intended outcomes should be carried through market engagement, requirements, evaluation, contract performance, change control and closure.[16,17] Requirements should be proportionate, contract-related, measurable and supported by verifiable evidence.[18]

[14] Cabinet Office. (2023). *The digital, data and technology playbook*. GOV.UK. https://www.gov.uk/government/publications/the-digital-data-and-technology-playbook

[15] International Organization for Standardization. (2021). Adaptation to climate change—Guidelines on vulnerability, impacts and risk assessment (ISO Standard No. 14091:2021). https://www.iso.org/standard/68508.html

[16] United Nations Office for Disaster Risk Reduction. (2022). *Principles for resilient infrastructure*. https://www.undrr.org/publication/principles-resilient-infrastructure

[17] United Nations Office for Disaster Risk Reduction. (2023). *Handbook for implementing the principles for resilient infrastructure*. https://www.undrr.org/publication/handbook-implementing-principles-resilient-infrastructure

[18] World Bank. (2019). *Guidance on sustainable procurement*. https://thedocs.worldbank.org/en/doc/788731479395390605-0290022019/Guidance-on-Sustainable-Procurement

3.1.1 Work as a team

Why it's important

- Planning affects requirements, budget, risk and delivery; consequently, it should not be handled by one function alone.
- A multidisciplinary team helps authorities make earlier and better-informed decisions.

What it means

- Planning should involve the functions needed for the procurement, such as commercial, digital, legal, finance, operational and accessibility expertise.
- Senior stakeholders should be involved early, and previous procurement experience should be used to inform the new process.

Table 1: Dos and don'ts – Work as a team

Do		Don't	
✓	Involve a mix of commercial, digital, legal, finance and service expertise from the start.	×	Do not leave a high-value or high-risk procurement to one individual.
✓	Engage senior stakeholders before requirements are fixed.	×	Do not bring in key expertise only after the main decisions have been made.
✓	Use lessons from earlier procurements to improve planning.	×	Do not treat team formation as a procedural step only.
✓	Include people who understand the service and its users.	×	Do not separate commercial planning from delivery needs.
✓	Include climate, environmental or resilience expertise where initial screening identifies material impacts or risks.		

3.1.2 Understand user needs

Why it's important

- Understanding user needs clearly helps authorities define the problem before the solution.
- It also supports accessibility, inclusion and better long-term value.

What it means

- User needs should guide the scope, outcomes, and requirements of the procurement.
- Evidence may come from user research, service data, operational feedback and engagement with affected groups.

Table 2: Dos and don'ts – Understand user needs

Do		Don't	
✓	Test assumptions about users before drafting requirements.	✗	Do not begin with a fixed solution before confirming the need.
✓	Use research, service data and operational evidence together.	✗	Do not rely only on internal assumptions about what users need.
✓	Include users with different needs and abilities where relevant.	✗	Do not treat accessibility as a final-stage check.
✓	Use user evidence to shape outcomes and requirements.	✗	Do not collect user data without consent or a clear purpose.

3.1.3 Share information early

Why it's important

- Early engagement helps authorities assess market capability before formal competition begins.
- It can improve requirements and widen participation.

What it means

- Authorities should engage the market early enough to test assumptions and refine the requirement before tender documents are issued.
- Engagement should be open and transparent and should reach a diverse range of suppliers where possible.

Table 3: Dos and don'ts – Share information early

Do		Don't	
✓	Be transparent about the need, the process and the likely timetable.	✗	Do not share material information with one supplier and not others.
✓	Engage a diverse range of suppliers early enough to test the requirement.	✗	Do not shape the requirement around a preferred bidder or incumbent.
✓	Use early engagement to improve outcomes, market understanding and procurement design.	✗	Do not wait until publication to start understanding market capability.
✓	Consider E-consultation processes, where appropriate, to support transparency, inclusiveness and evidence-based procurement planning.	✗	Do not conduct consultation processes in a manner that undermines procedural fairness, equal access to information or the objective assessment of stakeholder input.
✓	Inform the public about the procurement strategy where appropriate.	✗	Do not let informal engagement weaken equal treatment or transparency.
✓	Use early market engagement to test feasible low-emission, resource-efficient and climate-resilient options, together with the quality and comparability of the evidence suppliers can provide.	✗	Do not set climate requirements without first considering market capability and the likely burden on smaller suppliers.

3.1.4 Define outcomes

Why it's important

- Outcome-based planning keeps attention on the change the procurement is meant to deliver.
- It also supports stronger evaluation and contract management later.

What it means

- Outcomes should be based on evidence from the organization, end users and, where relevant, early market insight.
- They should be realistic and measurable enough to guide procurement and delivery.
- Where relevant, outcomes should include measurable climate resilience, resource-efficiency and emissions-reduction objectives alongside service delivery outcomes.

Table 4: Dos and don'ts – Define outcomes

Do		Don't	
✓	Base outcomes on research with the organization, end users and suppliers.	✗	Do not write outcomes as a disguised preference for a particular solution.
✓	Make outcomes realistic for suppliers to deliver.	✗	Do not include outcomes that are too vague or too broad to guide delivery.
✓	Ensure outcomes are measurable enough to support evaluation and contract management.	✗	Do not confuse technical inputs with the public value to be achieved.
✓	Use outcomes to keep the procurement focused on service improvement and delivery results.	✗	Do not leave outcome-setting disconnected from commercial and contractual decisions.
✓	Where climate is material, define measurable mitigation and resilience outcomes against a stated baseline, such as lifecycle emissions, energy or water intensity, equipment life, or continuity under identified hazards.	✗	Do not use broad aspirations such as "low-carbon" or "climate-resilient" without defining the intended performance and how it will be assessed.

3.1.5 Estimate costs

Why it's important

- Cost estimation is needed to confirm affordability and support effective competition.
- The relevant measure is not only upfront price, but whole-life cost and quality over time.

What it means

- Authorities should estimate costs before committing to the route to market, using available data, benchmarking and should-cost analysis where appropriate.
- Costing should cover full lifecycle costs, not just the initial transaction.

Table 5: Dos and don'ts – Estimate costs

Do		Don't	
✓	Forecast likely cost before money is committed.	✗	Do not rely only on the lowest upfront price.
✓	Assess whole-life cost, including operation, transition and exit.	✗	Do not ignore switching, decommissioning or support costs.
✓	Use procurement data and benchmarking to inform estimates.	✗	Do not allow long delays between estimating costs and going to market.
✓	Share budget information where this supports transparency and fair competition.	✗	Do not treat cost estimation as separate from delivery model decisions.
✓	Include relevant lifecycle energy, water, materials, maintenance, adaptation, decommissioning and end-of-life costs. Where an approved methodology exists, consider the cost of greenhouse gas (GHG) emissions or other environmental externalities.[19]	✗	Do not exclude foreseeable adaptation, disruption or end-of-life costs merely because they fall outside the initial purchasing budget.

3.1.6 Use digital buying tools

Why it's important

- Digital buying tools can reduce administrative burden and improve transparency.[20]
- They are most effective when they support end-to-end processes and usable data.

What it means

- Authorities should use or expand tools such as e-procurement systems, supplier databases, digital frameworks and online catalogues where these improve efficiency and visibility.
- Tools should be selected with user needs, interoperability, security, maintainability and future scalability in mind.

[19] World Bank. (2021). *Green public procurement: An overview of green reforms in country procurement systems*. https://hdl.handle.net/10986/36508

[20] Organisation for Economic Co-operation and Development. (2025). *Digital transformation of public procurement. OECD Publishing*. https://doi.org/10.1787/79651651-en

Table 6: Dos and don'ts – Use digital buying tools

Do		Don't	
✓	Use digital tools to support faster and more transparent procurement.	✗	Do not digitize poor processes without improving them.
✓	Choose tools that can interoperate with other systems and data flows.	✗	Do not select tools that lock the authority into one provider over the long term.
✓	Train staff and inform suppliers how to use new systems.	✗	Do not assume new tools will work well without support and onboarding.
✓	Use digital tools across planning, tendering and contract administration where possible.	✗	Do not treat data quality and interoperability as secondary issues.

3.1.7 Simplify contracts

Why it's important

- Contracts shape the transition from procurement to delivery, so unnecessary complexity can create delay and discourage participation.
- Clearer drafting supports accessibility, more consistent interpretation and more workable contract management.

What it means

- Contracts should be designed for the goods or services being bought, rather than copied from unrelated categories without adjustment.
- Language should be clear, inclusive and accessible, and legal wording should be explained where it cannot be avoided.

Table 7: Dos and don'ts – Simplify contracts

Do		Don't	
✓	Use plain language and explain essential legal wording.	✗	Do not rely on dense or overly controlling language where clearer drafting is possible.
✓	Design contracts around the service or technology being bought.	✗	Do not recycle contract terms that do not fit the requirement.
✓	Use framework agreements where they genuinely support faster and repeat buying.	✗	Do not make participation harder through unnecessary contractual complexity.
✓	Publish contracts openly where lawful and appropriate.	✗	Do not use language that is biased, inaccessible or discouraging.

3.1.8 Choose an approach

Why it's important

- Once needs, outcomes and costs are clearer, authorities still need to decide whether procurement is the correct route and, if so, which approach best supports delivery.
- That decision affects competition, flexibility, capability and long-term value for money.

What it means

- Authorities should consider whether the need is best met through in-house delivery, an external supplier, a combined approach or an existing arrangement (e.g., re-using DPI).[21]
- The procurement route should fit the delivery model and support fair competition.

Table 8: Dos and don'ts – Choose an approach

Do		Don't	
✓	Consider whether procurement is the best route to meet the need.	✗	Do not assume that buying from the market is always the right answer.
✓	Compare build, buy and combined approaches against capability, cost and outcomes.	✗	Do not choose an approach without considering contractual and delivery implications.
✓	Consider aggregated buying or existing arrangements where they offer better value.	✗	Do not treat direct award as the default option.
✓	Use open competition where it best supports transparency and competition.	✗	Do not separate procedure choice from the wider commercial and delivery strategy.

3.2 Informing the market

Informing the market turns planning decisions into clear and open competition. At this stage, authorities need to communicate requirements, evaluation criteria, the route for supplier questions and the timetable for award.

3.2.1 Write requirements

Why it's important

- Clear requirements help suppliers understand the need and propose an appropriate solution.

[21] Government Digital Service. (2023). *Define your purchasing strategy*. GOV.UK. https://www.gov.uk/guidance/define-your-purchasing-strategy

- Poorly drafted requirements can narrow competition or favour a particular supplier.

What it means

- Requirements should give suppliers enough information, but no more than necessary.
- They should be proportionate and based on outcomes, user needs and essential delivery conditions, not overly prescriptive nor on a preferred product or provider.

Table 9: Dos and don'ts – Write requirements

Do		Don't	
✓	State the problem, users and outcomes clearly.	✗	Do not draft requirements that only one supplier can realistically meet.
✓	Include essential skills, standards, timing and budget conditions.	✗	Do not ask for unnecessary technical standards or excessive experience.
✓	Use plain, inclusive language and explain technical terms where they are necessary.	✗	Do not rely on jargon, unexplained acronyms or gendered wording.
✓	Include practical details on payment, handover and supplier questions.	✗	Do not overload the specification with irrelevant detail.
✓	Translate material climate outcomes into proportionate performance requirements, covering, where relevant, lifecycle GHG emissions, energy and resource efficiency, durability, repairability, reuse, e-waste and performance under identified climate hazards. State the required methodology, boundaries, data and verification evidence.	✗	Do not rely on unverifiable environmental claims, generic supplier pledges or a named label without permitting equivalent evidence.

3.2.2 Write evaluation criteria

Why it's important

- Suppliers need to know how their bids will be assessed.
- Clear criteria support fairness, objectivity and value for money.

What it means

- Criteria should be objective, proportionate and linked to the outcomes of the procurement.[22]

[22] Organisation for Economic Co-operation and Development. (2025). *Implementing the OECD Recommendation on Public Procurement in OECD and partner countries: 2020–2024 report*. OECD Publishing. https://www.oecd.org/en/publications/implementing-the-oecd-recommendation-on-public-procurement-in-oecd-and-partner-countries_02a46a58-en.html

- They should normally cover price or cost, technical merit, relevant skills and experience, and delivery assurance where relevant.
- They may also consider climate resilience, resource-efficiency and emissions-reduction where these are relevant to procurement objectives.

Table 10: Dos and don'ts – Write evaluation criteria

Do		Don't	
✓	Publish the full evaluation criteria and explain how they will be applied.	✗	Do not use vague or overly subjective criteria.
✓	Set weightings that reflect cost, quality and delivery factors.	✗	Do not rely on price alone where quality matters.
✓	Use whole-life cost and quality thresholds where needed.	✗	Do not use criteria unrelated to the contract.
✓	Assess technical merit through clear factors.	✗	Do not change criteria after publication.
✓	Use climate criteria where they will differentiate solutions and influence contract outcomes. Publish the baseline, scoring method, weightings and evidence required, and normalise comparisons using an appropriate functional unit.[23]	✗	Do not award credit for general corporate commitments that are not linked to delivery of the contract.

3.2.3 Advertise the opportunity

Why it's important

- Open advertising helps ensure transparency, equal treatment and competition.
- It also helps a wider range of suppliers identify and prepare for the opportunity.

What it means

- Opportunities should be advertised openly and in a way that is accessible to the market, including smaller suppliers where relevant.
- Suppliers should be given enough information and enough time to prepare a response.

[23] World Bank. (2025). *Procurement guidance: Evaluating bids and proposals – including use of rated criteria for procurement of goods, works, and non-consulting services*. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099325208202512194

Table 11: Dos and don'ts – Advertise the opportunity

Do		Don't	
✓	Advertise opportunities widely and make free procurement information available.	✗	Do not limit visibility in a way that restricts fair competition.
✓	Include deadlines, response format and supporting documents.	✗	Do not omit key information that suppliers need to decide whether to bid.
✓	Allow enough time for credible responses.	✗	Do not set deadlines that are too short.
✓	Restrict information only where clearly justified.	✗	Do not withhold information without a clear justification and time limit.

3.2.4 Answer supplier questions

Why it's important

- Supplier questions help clarify the opportunity before evaluation starts.
- Clear answers support openness and help suppliers decide whether and how to bid.

What it means

- Suppliers should be able to ask questions easily and receive answers in time to act on them.
- Questions and answers should be shared fairly across the market, without revealing commercially sensitive information.

Table 12: Dos and don'ts – Answer supplier questions

Do		Don't	
✓	Provide a clear route for supplier questions.	✗	Do not make clarification difficult.
✓	Reply within the stated timetable.	✗	Do not leave material questions unanswered too late.
✓	Publish questions and answers for all suppliers.	✗	Do not reveal identities or sensitive information.
✓	Extend deadlines where clarification is delayed.	✗	Do not allow some suppliers to gain an unfair advantage.

3.3 Evaluation and award

Evaluation and award cover shortlisting suppliers, assessing bids against the published criteria and awarding the contract in a fair and transparent manner. At this stage, authorities should apply the published rules consistently, avoid bias and keep a clear record of decisions.

3.3.1 Shortlist suppliers

Why it's important

- Shortlisting helps ensure that only suppliers who meet minimum standards move forward.
- It can make the process more efficient, but it should not be used to limit competition unfairly.

What it means

- Shortlisting criteria should be objective, proportionate, and applied equally to all suppliers.
- They may cover relevant skills and experience, technical standards, financial standing and the ability to meet essential delivery conditions.

Table 13: Dos and don'ts – Evaluation and award

Do		Don't	
✓	Use a clear and consistent scoring method.	✖	Do not reduce competition without justification.
✓	Set minimum standards that are proportionate to the contract.	✖	Do not favour known or incumbent suppliers.
✓	Keep a record of shortlisting decisions.	✖	Do not set thresholds higher than necessary.
✓	Notify unsuccessful suppliers clearly.	✖	Do not shortlist suppliers that cannot meet essential requirements.

3.3.2 Evaluate suppliers

Why it's important

- Evaluation is the point at which authorities compare bids and identify the most suitable supplier.
- The process should be fair, objective and based on the criteria and methods already published.

What it means

- Bids should be assessed using a consistent format, a clear scoring method and an evaluation team with the right skills.
- Clarifications may be needed, but suppliers should not be allowed to change the substance of their proposals after submission.

Table 14: Dos and don'ts – Evaluate suppliers

Do		Don't	
✓	Evaluate all bids against the published criteria.	✗	Do not use new or unpublished criteria.
✓	Use a balanced evaluation team and record score.	✗	Do not select a supplier based on personal preference.
✓	Require bids in a consistent format.	✗	Do not review bids before the deadline.
✓	Seek clarification where needed and document it.	✗	Do not allow substantive changes after submission.
✓	Evaluate the bids' evidenced lifecycle emissions, resource-efficiency and resilience performance against the published baseline, criteria and verification method, where these factors are material.	✗	Do not evaluate bids solely on short-term cost considerations where broader public value objectives are relevant.

3.3.3 Award the contract

Why it's important

- Award decisions should be communicated clearly to successful and unsuccessful suppliers.
- Transparent award decisions build trust, support accountability and improve future competition.

What it means

- Authorities should notify suppliers of the result, allow time for questions before signature, and provide useful feedback to unsuccessful bidders.
- Core requirements and essential contract terms should not be renegotiated at award stage.

Table 15: Dos and don'ts – Award the contract

Do		Don't	
✓	Notify the successful supplier and publish the decision where appropriate.	✗	Do not renegotiate essential contract terms after competition.
✓	Allow time for questions before signature.	✗	Do not change the scope at award stage.
✓	Give clear feedback to unsuccessful suppliers.	✗	Do not disclose unnecessary details about other bids.
✓	Confirm dates, payments and deliverables clearly.	✗	Do not create avoidable lock-in at contract award.
✓	Carry evaluated climate commitments, baselines, targets, reporting requirements and verification arrangements into the signed contract.		

3.4 Managing delivery

Managing delivery covers supplier relationships, day-to-day delivery, contract changes and contract closure. After award, the focus shifts from selecting a supplier to ensuring that outcomes are delivered in practice.

3.4.1 Manage supplier relationships

Why it's important

- Strong supplier relationships support trust, continuous improvement and better risk management during delivery.
- They also reduce the risk of poor performance, lock-in and avoidable disputes.

What it means

- Problems should be addressed early through discussion, not only through formal contract enforcement.
- Authorities should create space for supplier feedback, continuous improvement and collaboration during delivery.

Table 16: Dos and don'ts – Manage supplier relationship

Do		Don't	
✓	Resolve issues early through discussion and collaboration.	✗	Do not rely on contract enforcement as the first response to delivery problems.
✓	Allow suppliers to suggest improvements and provide feedback.	✗	Do not end a contract early without following an improvement process.
✓	Involve suppliers in planning and delivery discussions where useful.	✗	Do not become over-dependent on one supplier.
✓	Use flexible arrangements that support outcomes over time.	✗	Do not allow relationship management to weaken accountability.

3.4.2 Manage supplier delivery

Why it's important

- Delivery management ensures that roles, milestones and performance expectations are clear from the start.
- It also helps authorities monitor progress and address issues before delivery is affected.

What it means

- Authorities and suppliers should agree roles, ways of working, milestones, performance measures and collaboration tools at the start of the contract.
- Monitoring should be proportionate to the value and complexity of the contract and should not rely on one person alone for major projects.

Table 17: Dos and don'ts – Manage supplier delivery

Do		Don't	
✓	Define roles and responsibilities at the start of the project.	✗	Do not leave delivery responsibilities unclear.
✓	Agree where and how the supplier will work with the authority.	✗	Do not rely on informal arrangements for key delivery decisions.
✓	Set shared milestones and explain how they will be assessed.	✗	Do not monitor high-value projects through one person alone.
✓	Review progress regularly and update the exit plan during delivery.	✗	Do not wait until the end of the contract to think about transition.
✓	Monitor agreed climate KPIs against the contract baseline and require evidence at proportionate intervals. Each KPI should identify the measure, target, owner, reporting frequency, calculation method and response to underperformance.	✗	Do not treat commitments made during evaluation as non-binding narrative once delivery begins.

3.4.3 Manage contract changes

Why it's important

- Contract changes are often necessary, especially in complex technology projects.
- They need to be controlled carefully to protect value for money, legality and fair competition.

What it means

- Changes should stay within the contract's terms, preserve the intended outcomes and be assessed for delivery, budget and user impact.
- Material changes beyond the original scope should trigger a new buying process rather than informal contract expansion.

Table 18: Dos and don'ts – Manage contract changes

Do		Don't	
✓	Assess the risks created by any contract change.	✗	Do not allow changes that go well beyond the original scope.
✓	Agree changes in writing with the supplier.	✗	Do not make material changes informally.
✓	Keep an audit trail of contract changes.	✗	Do not ignore the impact of changes on budget, users or services.
✓	Restart procurement where requirements change fundamentally.	✗	Do not use contract changes to avoid fair competition.
✓	Reassess climate risks, lifecycle emissions and resource-efficiency implications when a change affects scope, design, location, volumes, service levels, technology or contract duration.	✗	Do not approve changes that materially weaken agreed climate performance without recording the justification and mitigation.

3.4.4 Close the contract

Why it's important

- Contract closure helps authorities confirm that deliverables have been received, payments completed and handover issues addressed.
- It also creates a formal opportunity to review lessons learned and support continuity of service.

What it means

- Closure should be planned before the contract end date and should cover acceptance, payment, data transfer, archiving and feedback.
- Where a new supplier takes over, transition should be managed early enough to avoid disruption.

Table 19: Dos and don'ts – Close the contract

Do		Don't	
✓	Plan contract closure well in advance.	✗	Do not close a contract without considering service continuity.
✓	Ensure data and technology can be transferred to the authority or a new supplier.	✗	Do not leave handover arrangements until the final stage.
✓	Review the buying process and the delivery phase at the end of the contract.	✗	Do not treat contract closure as an administrative formality only.
✓	Capture lessons to inform future procurements.	✗	Do not finish the contract without confirming what was delivered and what was needed.
✓	Compare actual or final forecast performance with the baseline and targets; complete reuse, redeployment, take-back, recycling and e-waste obligations; and record residual climate risks and adaptation actions for the successor arrangement.[24]	✗	Do not close the contract without capturing climate-performance data and lessons learned to inform future procurements.

4 Practical case studies: Solutions in action

The following case studies show how public procurement can be used to advance different policy objectives through concrete institutional design.

[24] Organisation for Economic Co-operation and Development. (2024). *Harnessing public procurement for the green transition: Good practices in OECD countries*. OECD Publishing. https://doi.org/10.1787/e551f448-en

4.1 Australia: Indigenous procurement policy reform

Figure 2: Supporting Indigenous participation in public procurement (Source: Adobe Stock)



Overview

Australia's Indigenous Procurement Policy was introduced to address the limited participation of Indigenous businesses in Commonwealth procurement. Public purchasing had not translated into sufficient opportunities for Indigenous enterprises and over time, a second problem became more visible: ensuring that the economic benefits created through public purchasing were flowing to genuine Indigenous businesses, rather than being captured through formal compliance alone.[25]

The approach

- **Annual procurement targets**: The policy set annual targets for the number and value of contracts awarded to Indigenous businesses by the Commonwealth and each portfolio. From 2025-26, targets were set at 3 per cent of eligible procurement, rising by 0.25 percentage points each year to 4 per cent in 2029-30.
- **Reserved and mandatory opportunities**: The policy introduced a Mandatory Set-Aside for procurements delivered in remote Australia, and for domestic procurements valued at between AUD 80 000 and AUD 200 000. It also applies mandatory Indigenous participation requirements to contracts valued at AUD 7.5 million or more in specified sectors.
- **Stronger eligibility rules**: From 1 July 2026, businesses accessing the policy must be at least 51 per cent First Nations-owned and controlled, or be registered with the Office of the

[25] National Indigenous Australians Agency. (2025). *Indigenous Procurement Policy*. Australian Government. https://www.niaa.gov.au/resource-centre/indigenous-procurement-policy

Registrar of Indigenous Corporations. The reform also places greater emphasis on transparency in performance and participation outcomes.

The results

- **Substantial growth in Indigenous contracting**: Since 2015, and as of February 2026, the policy has generated more than AUD 13.5 billion in contracting opportunities for Indigenous businesses, involving more than 86 000 contracts awarded to more than 4 700 Indigenous businesses.
- **Continued procurement activity**: In 2024–25, over 1 200 Indigenous businesses won 13 144 new contracts worth AUD 1.6 billion as of September 2025.
- **Performance above target**: The Commonwealth and all portfolios exceeded their 2024-25 targets for the number and value of contracts awarded to Indigenous businesses.

Challenges and next steps

The next phase of reform is focused on implementation quality as much as participation levels. The central task is to apply the strengthened ownership and control criteria, maintain transparency around portfolio performance, and ensure that procurement benefits continue to reach genuine Indigenous businesses in practice.

4.2 Dominican Republic: Women-owned businesses

Figure 3: Including women in public procurement



Overview

In the Dominican Republic, public procurement was used to address persistent gender disparities in access to government contracts. In the early 2000s, procurement spending went almost exclusively to men, and many women entrepreneurs, particularly those running small family businesses, saw government contracting as inaccessible and not worth the effort required to compete.[26]

The approach

- **Targeted access measures**: From 2012, the Dirección General de Contrataciones Públicas (DGCP) introduced measures aimed at women-owned businesses, including supplier registration, a target that 5 per cent of government contracts should go exclusively to women-owned businesses, and events and workshops on public procurement.
- **Direct outreach to potential suppliers**: Procurement fairs were organized across the country to identify where women-owned businesses were located and to engage directly with women entrepreneurs on procurement opportunities.
- **Capacity-building and confidence-building support**: Follow-up measures included e-procurement training, interview and presentation workshops, and a public lottery to strengthen confidence in the fairness of the process.

The results

- **A larger pool of women suppliers**: Between 2012 and 2017, the number of women suppliers on the DGCP database increased from 2 000 to 15 000.
- **Broader participation across sectors and regions**: Women-owned businesses were represented across sectors including agriculture, services, mining, research, engineering and technology; and registrations extended to more remote provinces.
- **A measurable increase in contract awards to women**: By 2019, women received 20 per cent of government contracts, with a total value of DOP 20 billion, or about USD 350 million. Gender markers in procurement data also made it possible to track contract awards more accurately.

Challenges and next steps

A continuing challenge was to ensure that preferential access reflected genuine women's ownership or majority participation rather than nominal compliance. This was addressed through supervision of supplier registration and the use of disaggregated procurement data. The Dominican Republic also began sharing its experience with neighbouring countries, including El Salvador and Costa Rica.

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[26] International Telecommunication Union. (2023). *Procurement guidelines for smart sustainable cities (U4SSC deliverable).* https://www.itu.int/en/publications/Documents/tsb/2023-U4SSC-Procurement-guidelines-for-SSC/index.html

4.3 Chile: Procuring AI responsibly

Figure 4: Procuring AI in the public sector (Source: Adobe Stock)



Overview

Chile's approach to AI procurement developed in response to a growing practical challenge. Public authorities were beginning to adopt AI tools and capabilities, but procurement systems were not always well equipped to assess risks related to data quality, bias, transparency and implementation. At the same time, AI was not always procured through clearly defined, standalone contracts, but often through broader software purchases or tools with embedded AI functionality. Chile responded by developing a more structured approach to procuring AI in the public sector.[27]

The approach

- **National AI policy and action plan**: Chile published a national AI policy in 2021, setting out principles for the use of AI in the public sector. An accompanying action plan included measures to strengthen the regulatory framework, build institutional capacity and improve procurement processes for AI.
- **Procurement guidance for AI systems**: In December 2023, Chile issued a directive on procuring AI. The guidance covers the full procurement lifecycle, including problem definition, assessment of whether AI is appropriate, and the management of implementation and contract risks.

[27] Open Contracting Partnership. (2025). *Best practices in procuring AI: Lessons from Chile*. https://www.open-contracting.org/2025/09/09/best-practices-in-procuring-ai-lessons-from-chile/

- **Pilot projects and standard bidding documents**: ChileCompra, working with GobLab UAI, tested this approach through two pilot procurements and used the lessons to develop standard bidding documents for AI and data science projects.

The results

- **Clearer guidance for public buyers**: Public authorities now have more structured guidance on how to approach AI procurement, including key questions to consider when defining needs, assessing solutions and managing risks.
- **Integration of policy and procurement practice**: AI policy objectives, including governance, ethics and public value, are more directly reflected in procurement processes.
- **Practical tools for implementation**: Standard bidding documents and lessons from pilot projects provide concrete tools that can be used by procurement teams when buying AI-related services.

Challenges and next steps

Chile's experience highlights the importance of building institutional capacity to support AI procurement. Public authorities need the skills to assess whether AI is appropriate, understand data-related risks and manage implementation effectively. As AI is increasingly acquired through broader software and platform purchases, procurement systems will need to continue adapting to ensure effective oversight and risk management.

5 Intergenerational smart sustainable procurement – key performance indicators

5.1 Gender equality and social inclusion (GESI) in ICT procurement

The following initial set of key performance indicators (KPIs) draws on work undertaken by the UK GDS Global Digital Marketplace Programme team[28] in collaboration with Oxford Insights, with support from relevant U4SSC and OECD thematic groups.

These quantitative KPIs have since been expanded by Oxford Insights in collaboration with the Open Contracting Partnership, to include a qualitative framework of KPIs GESI in public procurement.[29] Collectively, these can be used to assess maturity and define incremental actions to take for improvement throughout the public spending lifecycle.

[28] Government Digital Service. *Global Digital Marketplace*. https://gds.blog.gov.uk/category/global-digital-marketplace/

[29] George, S., & Kendall, J. (2021). *Gender equality and social inclusion in public procurement: Qualitative framework*. Oxford Insights. https://oxfordinsights.com/wp-content/uploads/2023/10/GenderEqualitySocialInclusionPublic_31.pdf

Table 20: GESI KPIs in ICT Procurement Table

Category 1 – Data	
Indicator 1- General Government Data	Sub-indicator 1- SME Ownership in the country Sub-indicator 2- Disabilities in the population
Indicator 2- Government Procurement Data	Sub-indicator 3- Procurement team composition Sub-indicator 4- Data on who owns the companies that bid Sub-indicator 5- Data on who runs the companies that bid Sub-indicator 6- Data on who runs the companies that win Sub-indicator 7- Data on who owns the companies that win
Category 2 – Policy	
Indicator 3- Procurement Law, Policy and Practice	Sub-Indicator 8- Does the government mention GESI factors in their procurement law? Sub-Indicator 9- Does the government actively procure for GESI friendly ICT goods/ services? Sub-Indicator 10- Do they have certification models? Sub-Indicator 11- Does the government provide financial (or other) assistance for the certification process? Sub-Indicator 12- Are there reserved procurement opportunities for the above certified models? Sub-Indicator 13- Are there reserved procurement opportunities for SMEs? Sub-Indicator 14- Do tenders require suppliers to demonstrate commitment to the local community?

Category 2 – Policy	
Indicator 3- Procurement Law, Policy and Practice	Sub-Indicator 15- Do tenders require bidders to demonstrate commitment to GESI in the project? Sub-Indicator 16- Do governments/departments include award clauses relating to GESI practices in the supplier company? Sub-Indicator 17- Are there pre-market engagement events? Sub-Indicator 18- Is there a procurement strategy/roadmap? Sub-Indicator 19- Does the government evaluate the success of these laws/ policies/ practices?
Indicator 4- Anti-Discrimination Policy and Law	Sub-Indicator 20- Does the government have laws protecting against discrimination in general? Sub-Indicator 21- Does the government have laws protecting against discrimination based on Disability, Gender, SOGI and Race/Ethnicity?

Category 3 – Government	
Indicator 5- Quotas	Sub-Indicator 22- Does the country employ the use of quotas in government employment generally for Disability, Gender, SOGI and Race/ Ethnicity? Sub-Indicator 23- Does the government employ the use of quotas in government procurement teams for: Disability, Gender, SOGI and Race/ Ethnicity? Sub-Indicator 24- Does the government have procurement quotas?
Indicator 6- Training	Sub-Indicator 25- Does the government require training around Disability, Gender, SOGI and Race/Ethnicity? Sub-Indicator 26- Does the government empower people at all levels to engage in GESI practices/how?

Category 3 – Government	
Indicator 7- Initiatives	Sub-Indicator 27- Does the government have initiatives supporting the creation of SMEs run by socially excluded groups in the ICT sector? Sub-Indicator 28- Are there cross-governmental working groups on GESI best practices?

Further details on the development and application of the quantitative KPI framework for GESI in ICT procurement are available in the following resources:

- GESI in ICT Procurement – Discovery Report
- GESI in ICT Procurement – Measurement, Evaluation, Assessment and Learning (MEAL) Indicator Framework
- GESI MEAL Indicator Framework – User Guide

5.2 Wellbeing indicators

Wellbeing indicators support the assessment of an outcome-oriented procurement approach. The following KPIs can be used to assess maturity, track progress, and define incremental wellbeing indicators throughout the intergenerational procurement process, in alignment with the U4SSC Collection Methodology for KPIs for Smart Sustainable Cities.

Table 21: Wellbeing KPIs in Intergenerational Procurement

Category 1 – Food system resilience and local supply	
Indicator 1- Local food production	Sub-indicator 1- Share of food supplied from within 100 km of the urban area Sub-indicator 2- Share of relevant public food procurement demand that can be met through local supply chains Sub-indicator 3- Use of tender specifications or award criteria that support fresh, local, seasonal, and resilient food sourcing Sub-indicator 4- Monitoring supplier diversity and continuity of local food supply for schools, hospitals, and other public institutions

Category 2 – Health information continuity accessibility	
Indicator 2- Electronic health records	Sub-indicator 1- Population coverage of complete electronic health records Sub-indicator 2- Interoperable access to records across relevant health providers Sub-indicator 3- Inclusion of privacy, consent, retention, and cybersecurity requirements in procured digital health systems Sub-indicator 4- Inclusion of accessibility, interoperability, and service continuity requirements in digital health procurement

Category 3 – Equitable access to green public space	
Indicator 3- Green area accessibility	Sub-indicator 1- Share of inhabitants living within 300 m of a publicly accessible green space of at least 0.5 ha Sub-indicator 2- Distribution of green space access across neighborhoods and at-risk or underserved communities Sub-indicator 3- Use of procurement requirements for inclusive design, universal accessibility, and safe maintenance in green space projects and services

Category 4 – Safe drinking water quality	
Indicator 4- Drinking water quality	Sub-indicator 1- Coverage of households or service areas by an audited Water Safety Plan Sub-indicator 2- Share of drinking water samples compliant with WHO guidelines Sub-indicator 3- Procurement of testing, monitoring, treatment, and laboratory services that support water quality assurance Sub-indicator 4- Independent surveillance, reporting, and contract monitoring mechanisms for drinking water quality

5.3 Climate mitigation, resource efficiency and resilience

Climate indicators should be applied proportionately to procurements with material emissions, resource-efficiency or climate-resilience implications. Indicators should use a stated baseline,

scope, functional unit, calculation method and reporting period so that supplier commitments and actual performance can be compared consistently.[30,31] City authorities should use a relevant subset rather than applying every indicator to every procurement.

Table 22: Climate KPIs in Intergenerational Procurement

Category 1 – Climate integration	
Indicator 1- Application of the climate lens	Sub-indicator 1- Percentage of priority procurements screened for lifecycle emissions, resource impacts and climate risks before requirements are finalized Sub-indicator 2- Percentage of climate-material contracts containing at least one measurable climate KPI and verification method
Category 2 – Mitigation performance	
Indicator 2- Lifecycle GHG emissions	Sub-indicator 1- Forecast and actual lifecycle emissions in tCO_2e per relevant functional unit Sub-indicator 2- Percentage change against the procurement baseline or benchmark Sub-indicator 3- Difference between evaluated and delivered performance
Category 3 – Resource efficiency and circularity	
Indicator 3- Energy, water and material performance	Sub-indicator 1- Energy, water or material intensity per functional unit; expected service life Sub-indicator 2- Percentage of products or materials reused, repaired, refurbished, recycled or recovered Sub-indicator 3- Percentage of relevant ICT equipment subject to verified take-back or e-waste arrangements

30 United Nations Environment Programme. (2022). *SDG indicator 12.7.1: SPP index calculation methodology & guidelines* (Version 6). https://wedocs.unep.org/handle/20.500.11822/37332

31 United Nations Environment Programme. (2021). *Sustainable public procurement: How to "wake the sleeping giant!" Introducing the United Nations Environment Programme's approach* (2nd ed.). https://wedocs.unep.org/handle/20.500.11822/37045

Category 4 – Adaptation and resilience	
Indicator 4- Climate-risk and service-continuity performance	Sub-indicator 1- Percentage of climate-material procurements supported by a present and future climate-risk assessment Sub-indicator 2- Percentage of agreed adaptation measures completed Sub-indicator 3- Achievement of service-continuity, recovery or reliability thresholds under the identified climate hazards Sub-indicator 4- Residual high risks transferred at closure

Authorities should select recognised methods appropriate to the procurement category. Examples include ISO 14067 for product carbon footprints[32], ISO 14091 for climate-risk assessment[15], ITU-T L.1410 for lifecycle assessment of ICT goods, networks and services[33], and ITU-T L.1061 for circular procurement of ICT equipment[34]. The method, system boundary, assumptions, data sources, functional unit and verification expectations should be stated in the procurement documents.

6 Conclusion

The challenges facing cities are increasingly interconnected and long term in character. Climate pressures, inequality, digital dependency, institutional fragmentation, corruption risks and growing demands for better public services all place new expectations on public procurement. In this context, procurement can no longer be treated only as a procedural or administrative activity. It should be understood as a strategic public function that helps shape how cities govern, deliver services and create public value over time.

As cities become more reliant on digital systems, shared data and external suppliers, the consequences of procurement decisions extend well beyond the point of contract award. Decisions taken today may influence interoperability, accessibility, competition, supplier dependency, public trust and the capacity of future administrations to adapt and respond to changing needs. Intergenerational procurement, therefore, provides an important framework for ensuring that procurement decisions support not only present delivery, but also long-term continuity, resilience and wellbeing within planetary boundaries.

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32 International Organization for Standardization. (2018). *Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification* (ISO Standard No. 14067:2018). https://www.iso.org/standard/71206.html

33 International Telecommunication Union. (2024). *Methodology for environmental life cycle assessments of information and communication technology goods, networks and services* (Recommendation ITU-T L.1410). https://www.itu.int/rec/T-REC-L.1410-202411-I/en

34 International Telecommunication Union. (2023). *Circular public procurement of information and communication technologies* (Recommendation ITU-T L.1061). https://www.itu.int/rec/T-REC-L.1061/en

This report has shown that intergenerational procurement is closely linked to better public outcomes. It supports a shift away from prescribing narrow technical solutions and towards defining needs, outcomes and long-term public value more clearly. It also reinforces the importance of user-centred and inclusive design, transparency, accessibility, whole-of-government capability, and fit-for-purpose digital and procurement systems. These are not separate concerns. Together, they form the institutional conditions through which procurement can support more effective, equitable and sustainable urban transformation.

The practical guidance set out in this deliverable also underlines that good procurement depends on decisions taken across the full public spending lifecycle. Planning, market engagement, evaluation, award and delivery management all affect whether procurement achieves its intended public value outcomes. Where climate impacts or risks are material, the relevant baselines, mitigation and resilience outcomes should also be carried through these stages and supported by proportionate, measurable and verifiable requirements. Stronger multidisciplinary working, earlier engagement with users and suppliers, clearer and proportionate requirements, better cost estimation, improved contract design and more effective delivery management, can all contribute to stronger performance, reduced risk and positive wellbeing impacts for communities.

The case studies included in this report further demonstrate that procurement can be used to advance wider public objectives when institutional design is clear and implementation is sustained. They show that public procurement can strengthen transparency, widen participation, support underrepresented groups, improve public trust and help governments align spending with broader policy goals. In parallel, the KPI sections on gender equality and social inclusion, wellbeing, and climate mitigation, resource efficiency and resilience highlight the importance of measuring maturity, tracking progress and identifying practical areas for continuous improvement.

Another important aspect of intergenerational smart sustainable procurement is the close relationship between public procurement and corruption risks. Public procurement is one of the most significant areas of government activity, shaping the delivery of infrastructure, public services and digital transformation projects that directly affect everyday life. At the same time, because procurement processes often involve large public expenditures, complex procedures and continuous interaction between public authorities and private actors, they are widely recognized as one of the areas most vulnerable to corruption, conflicts of interest, misuse of resources and weak governance practices.[35]

The impact of corruption in procurement extends far beyond financial losses. It can reduce the quality and reliability of public services, delay or weaken infrastructure projects, discourage fair competition, undermine innovation and erode public trust in institutions. In some cases, poor procurement governance may even create risks for public safety, wellbeing and environmental sustainability. For this reason, recent international governance and anti-corruption discussions

[35] Transparency International. (2026). *Corruption Perceptions Index 2025: Decline in leadership undermining global fight against corruption*. https://www.transparency.org/en/press/corruption-perceptions-index-2025-decline-leadership-undermining-global-fight

increasingly emphasize the need for transparent, accountable and data-driven procurement systems, supported by effective oversight, risk management mechanisms, institutional cooperation and meaningful civic participation.

Within this context, intergenerational procurement is not only concerned with efficiency and technological innovation, but also with ensuring integrity, fairness and long-term accountability in public decision-making. Strengthening transparency and reducing corruption risks are, therefore, essential elements for creating procurement systems capable of delivering sustainable public value, protecting democratic trust and supporting resilient and inclusive urban development.[36]

To move forward on smart sustainable city transformation, cities and public authorities need procurement arrangements that are outcome-oriented, interoperable, inclusive and capable of protecting the public interest across generations. This requires not only better rules and tools, but also stronger public institutions, professional capability, collaborative cultures and a clearer understanding of procurement as a lever for long-term governance and public value.

[36] United Nations, Conference of the States Parties to the United Nations Convention against Corruption. (2023). *Promoting transparency and integrity in public procurement in support of the 2030 Agenda for Sustainable Development*. https://www.unodc.org/documents/treaties/UNCAC/COSP/session10/resolutions/L-documents/2325383E_L.13_Rev.1.pdf



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