

A new perspective on
INNOVATION
PROCUREMENT

– making innovation procurement
a key driver of innovation policy priorities

WHITE PAPER, FEBRUARY 2025

Authors: Lina Svensberg, Compare/DigitalWell Arena, Kjell Håkan Närfelt, Vinnova

Introduction

Public procurement accounts for approximately 14% of the EU's GDP, presenting significant opportunities to stimulate transformative change (Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs 2025). Despite its potential, innovation procurement often falls short in driving systemic change and is sometimes referred to as "the sleeping giant" of transformative innovation policy (Monteiro 2024).

This white paper explores the implications of introducing a new perspective on procurement and especially innovation procurement. This new perspective is inspired by investment logic and treats procurement as a tool to drive the directionality of innovation processes towards innovations that meet certain innovation policy priorities, e.g. given in missions and transformative innovation policy objectives.

The paper describes and examines the new perspective and its implications on the design of innovation procurement processes and their implementation. The paper also shares some key lessons learned from implementing and applying the new perspective in public procurement. The aim is to provide actionable insights for policymakers, practitioners, and public sector innovation leaders on how to unlock the full potential of public procurement as a transformative tool for innovation policy.

The missing perspective

Innovation procurement is dominated by a traditional procurement perspective. Thus, innovation procurement is seen as a normal procurement buying innovative solutions. Since a traditional procurement process is used, scalability of the procured product in terms of customers/markets and businesses (i.e. scalability in the business model) is not part of the assessment criteria even though some innovation procurement processes are based on functional requirements and coordinated procurements gathering several public customers.

Given that the policy objective is to stimulate and drive competitiveness, renewal and growth based on innovation development targeting unmet societal needs, the consequence of this approach to innovation procurement is the following:

- The cost of an innovation is determined by the market. If the innovation only has a single or a few customers, these customers must cover the whole development and maintenance cost of the innovation.
- Moreover, an innovative solution that is not subject to competition becomes obsolete quite quickly. In the normal procurement case, the responsibility to improve the performance of the innovative solution is in the hands of the customer. Customers – especially public ones - do not normally have the capability, nor the mission to improve the performance of the innovative solution in the same pace as similar or substitute solutions that are subject to competitive market conditions.
- An innovation that has a market potential and societal value beyond the procuring organisation(s) gets confined in the procuring organisation since the procurer has no incentives to scale the solution on the market, nor does the supplier if the procurement

criteria do not include the supplier's willingness and ability to scale the solution on the market. Procurement driving innovation development hampers this aspect even more due to requirements to own the IP that has been developed through the procurement.

Hence, how do you use innovation procurement to get around these drawbacks? The first aspect is to view innovation procurement as an innovation policy tool that is used to drive demand of innovations in a certain direction that is prioritized, e.g. addressing the climate challenge or some aspect of it. The second aspect is to acknowledge that we need to drive and nudge the innovation process through procurement initiatives and not anchor the approach on the traditional procurement process. The consequence of these two points of departure is that the design of the procurement approach should be based on venture development logic and investment logic:

- The process that is driven by procurement initiatives is based on venture development taking innovation development from problem/solution-fit through product/market-fit towards efficiency and scaling of the business. Procurement can be used in one or more of these phases depending on the objective of the public policy initiative where procurement is used. It could comprise pre-commercial procurement in the very early phases, product/market-fit validation by becoming an early-stage venture client, etc.
- In the interaction with suppliers, the procurement process utilises an investment logic. This has the following implications:
 1. It is implemented as an open process with many contestants where "losers" (those not fulfilling assessment criteria) are eliminated and potential winners are retained (those that seem to be able to become winners) (Rodrik 2008)
 2. Assessment criteria include assessing the entrepreneurial team's/firm's ability and willingness to scale the business given the market potential, scalability of the business model, competitiveness etc. developed and validated by the firm participating in the procurement process.
 3. Procurement is done using the "affordable loss"-principle. This principle recognises that most things fail in innovation development. Investments live on outliers. That is, each phase of the procurement process is limited with respect to the amount spent based on the uncertainty and risk in that stage of the innovation process. (Sarasvathy 2001)
 4. The ability to attract resources (capital, talent, partners etc) to cover and manage scaling is also determining the attractiveness of firms/ventures taking part in the contest.

The above approach is, in our opinion, the missing perspective of innovation procurement.

Investment logic

Traditional approaches to procurement are based on assessing (i) the ability of the solution to meet the requirements stated in the procurement documentation (ii) the ability of the supplier to deliver the solution within the budget and time promised in the quotation/tender. Hence, this approach does not support the missing perspective on procurement given in this paper. Instead, another approach needs to be applied in implementing the missing perspective, namely investment logic.

Investment logic denotes an approach to funding inspired by how venture capitals fund ventures. Hence, this approach is designed to manage uncertainty and risk associated with innovation development. Using investment logic, the ability of the supplier to scale the solutions on the market becomes a focal point in assessing the tender – of course together with the assessment of the solution's potential to meet the needs of the procurer(s).

Thus, market potential, the scalability of the business model, the ability to attract additional resource for scaling beyond the procurement budget become key aspects in assessing suppliers. Since success cannot be determined ex-ante, investment logic also implies a stage gate funding process based on uncertainties and affordable loss principles. This means that each stage is driven by reduced risks and uncertainties and hence, each stage allows the procurer to increase its funding/"investment in the solution". Moreover, suppliers that do not seem to be able to succeed on the market are eliminated at each stage, and potential "winners"/"scalers" are kept in the procurement process.

Venture development logic

By venture development logic, we denote an approach to innovation development that represents an established approach to successful venture development. It basically covers four phases that any new business or venture must go through:

1. **Problem/Solution Fit:** Developing and validating that you have a competitive solution to a sufficient large and interesting customer problem
2. **Product/Market Fit:** Developing and validating that you have a scalable business model and a sales process that works and generates revenues
3. **Efficiency:** Developing and validating the growth engine, i.e. that the business model is profitable under scaling conditions. This phase can be seen as an extension of product/market fit finding a balance between revenue drivers and cost drivers in the business model under scaling conditions
4. **Scaling:** Stepping on the gas pedal and scale your business on the market

These phases represent maturity steps focusing on reducing risks and uncertainties in a systematic way but there are of course iterations between them – that is, you should not jump ahead in developing your business/venture, e.g you should not skip validating Problem/Solution-Fit and directly enter Product/Market Fit. However, passing e.g. Problem/Solution-Fit does not guarantee that you do not have to re-visit your validated Problem/Solution-fit at a later stage – hence the approach is not linear in that sense. Venture development is always an iterative experimentally driven learning process based on the interactions and lessons learned you make on a competitive and dynamic market of customers and competitors.

Innovation and procurement

Procurement processes normally are based on predictability, regardless of if it is based on a specification of a function/need (functional procurement) or a specification of product properties. Bids are then evaluated against those pre-defined criteria. Innovation on the other hand is an inherently unpredictable process, where success can't be analysed and determined ex-ante.

This difference leads to several key implications for procurement:

- Costly efforts to create detailed specifications before the procurement process starts does not have to take place. Instead, the procurer initiates an interactive procurement driven with potential solution suppliers where the “specification” of the solution emerges through open iterative development phases with several potential suppliers. The suppliers are reduced in steps/phases using the principle of “eliminating losers and retaining potential winners” presented earlier.
- The principles of public procurement—equal treatment, transparency, proportionality, mutual recognition, and non-discrimination—provide a clear framework for structuring interactions between buyers and suppliers throughout the entire innovation process. This aligns with broader OECD recommendations emphasizing the importance of human-centred service design, ensuring that procurement processes are not only compliant with legal frameworks but also designed to enhance user experiences, foster trust in public institutions, and drive policy objectives (OECD 2024). Adhering to these principles not only ensures fairness and transparency but also facilitates a seamless transition to formal procurement processes that may arise during the innovation journey. This approach allows public sector actors to maintain compliance while fostering iterative collaboration and co-creation.
- During the stepwise elimination of “losers”, the procurement process allows requirements, properties and functionality of the desired solution to change and adapt to the learnings of the innovation development process according to the principle given in the chapter on the missing perspective. The learnings include having the procurement make necessary adaptations to facilitate and stimulate scalability of the solution on the market. The implication of this is that the desired solution is allowed to evolve due to the interaction with the innovation in its different shapes (slideware, mock-up, prototype, MVP etc). This applies to both users and suppliers.
- Complex and unpredictable innovation processes require methodologies and principles tailored to uncertainty. One such principle is affordable loss, which limits investments to manageable amounts at each stage. Unlike traditional planning, which relies on predicting outcomes, affordable loss encourages early experimentation and iterative learning. By embracing affordable loss, public sector innovation leaders can initiate small, manageable experiments, refine solutions through iteration, and mitigate risks without delaying progress. This principle is essential for integrating innovation and procurement, supporting effective decision-making under uncertainty while maintaining momentum in the innovation process.

Rethinking innovation procurement

The Demand Acceleration Framework (DAF) was developed to guide the design of demand-side innovation processes, integrating public procurement. Grounded in investment logic, the framework integrates scalability perspectives throughout the entire process, ensuring that solutions are not only implementable but also market ready. The framework, rooted in practical experience, provides a structured yet flexible approach to navigating uncertainty and fostering solutions that can scale effectively.

The framework consists of:

Four core values:

1. **Innovation means embracing complexity and uncertainty** - Links to Effectuation - (Sarasvathy 2001)
2. **Innovation is not limited by supply but by demand** - Links to 3rd generation innovation policy (Schot and Steinmuller 2018, Grillitsch et al 2019)
3. **Procurement has the potential to become an essential instrument in driving transformative change towards a sustainable society** - links to public procurement as an innovation policy tool (Edler and Georghiou 2007, Edquist and Zabala-Iturrigagoitia 2012)
4. **The 5 principles of public procurement** - non-discrimination, equal treatment, proportionality, transparency and mutual recognition are based on sound business practices and should guide all interaction between public buyers and suppliers (European Court of Auditors 2023)

Four guiding principles:

1. **Non-predictive control of the process**
Navigating uncertainty requires processes designed for unpredictability
2. **Iterative interactive-based processes**
Needs, requirements and solutions change as users and suppliers interact with innovations in its different shapes
3. **Innovation driven procurement, not procurement driven innovation**
When integrating innovation and procurement, the process must follow innovation logic, but also comply with the basic principles of public procurement
4. **Scalability beyond the first customer**
Scalability increases shared value for buyers, suppliers, and society. Designing a sustainable business-development oriented innovation process is essential.

Case applications of the Demand Acceleration Framework

The Demand Acceleration Framework has gained significant traction in Sweden, demonstrating its potential to align innovation-centric procurement with scalability goals. For example, the first process under the framework led to the successful development and scaling of ViroteaED, a VR-based solution for training healthcare professionals, from one municipality to 12 public organizations within its first year.

Building on this success, three additional procurement processes and two market dialogue programs were implemented in 2024, focusing on areas such as circularity of waste-water, lowering carbon emissions of public consumption and digital guidance for cognitive impartment, among other things. These initiatives highlight the adaptability of the framework to diverse contexts and its ability to foster market-ready solutions. Although it is too early to measure the full market impact of these initiatives, the early results are promising and have resulted in significant interest. While it is early to assess full market impact, initial results are promising, generating significant interest.

Insights from demand-driven innovation processes integrating public procurement

The integration of public procurement with demand-driven innovation processes presents both significant opportunities and unique challenges. Through practical application and experimentation with the Demand Acceleration Framework, we have identified key insights that highlight the conditions, principles, and methodologies necessary to drive scalable and impactful innovation. These insights aim to guide public sector actors, policymakers, and practitioners in navigating the complexities of innovation procurement while fostering transformative outcomes.

Insight 1: Innovation processes where public buyers and suppliers meet should align with procurement principles

One of the key challenges in innovation-centric procurement is aligning innovation processes with public procurement principles. During the earliest phases of an innovation process, it is often unclear whether a procurement will eventually take place. Despite this uncertainty, it is crucial to establish conditions that ensure compliance with procurement principles from the outset. The Demand Acceleration Framework emphasizes that all interactions between potential public buyers and suppliers should align with these principles to prevent unfair competitive advantages that could hinder future participation.

For example, involving procurement officers early on and taking actions like publishing RFIs (Requests for Information) can enable exploratory discussions without committing to a formal procurement. However, initiating from an innovation process often clashes with internal procurement procedures, which typically assume that procurement-related activities, such as publishing RFIs or engaging procurement officers, only begin after a formal decision to initiate a procurement process has been made. To address these challenges, it is essential to distinguish between:

1. **Procurement principles** – Foundational values like equal treatment, transparency, and proportionality, which guide interactions between public buyers and suppliers.
2. **Procurement legislation** – The legal framework that governs procurement activities.
3. **Interpretation of procurement legislation** – Often shaped more by perception and practice than actual legal constraints, leading to risk-averse behaviors.
4. **Internal procurement processes** – Organization-specific workflows, frequently more restrictive than necessary, designed to ensure compliance but often reinforcing rigid interpretations.

A statement like “the process is not aligned with procurement” can have vastly different implications depending on whether it refers to internal processes, legal frameworks, or fundamental procurement principles. In many cases, internal processes impose unnecessary restrictions, reinforcing the perception that procurement law itself is rigid—when in reality, the main barriers often stem from procurement culture and practice rather than legal constraints.

As stated in ISO 37106:2018, the International Organization for Standardization's guidance on operating models for sustainable cities and communities:

"There is a perception that there are barriers rooted in the legislative framework for procurement. However, this is not primarily the case: smart, outcomes-based procurement can be compatible with the fundamental premise of international law on public procurement, which states that authorities should specify outcomes, not technological solutions, in their procurement. The key barriers are rooted much more in procurement culture and practice, which can and should be tackled at city level."

This misalignment fuels what Warren Smith, Director of Insight, Innovation and Impact at Posterity Global and co-leader of the UN International Telecommunication Union (ITU) 'United for Smart Sustainable Cities' (U4SSC) Working Group on 'Intergenerational Procurement for People-Centred Cities' describes as "procurement folklore"—the informal, often unquestioned narratives within procurement teams that reinforce risk-averse behaviors and maintain the status quo. As a result, innovation-driven procurement efforts frequently encounter resistance, not due to formal legal limitations, but because institutional habits prioritize procedural compliance over strategic outcomes.

Despite this, many innovation processes involving public buyers and companies fail to align with public procurement principles. For example, inviting specific suppliers or focusing activities on local companies or startups often conflicts with principles like equal treatment. This tension frequently arises in publicly funded innovation projects, such as those supported by the European Regional Development Fund (ERDF), which are designed to support specific segments like regional businesses or SMEs. While these projects align with development goals, they can inadvertently conflict with procurement principles, resulting in procedural misalignment and leaving many initiatives stranded in the so-called "pilot graveyard."

Insight 2: The need for a new intermediary role

Intermediaries play a critical role in these demand-side innovation processes integrating public procurement. They assist public buyers in evaluating the market potential of needs, solutions, and suppliers, as well as designing procurement processes that foster scalability. These responsibilities fall outside the scope, and also often outside the expertise of public buyers.

Traditional intermediaries like incubators, science parks, and clusters are not suited to the role of integrating scalability into public procurement. Their mandates are typically tied to supporting specific segments, such as regional companies or SMEs, and their funding and success metrics are often linked to these groups. In some cases, they even hold ownership stakes in the companies they support. These inherent ties align their interests with particular groups, making it impossible for them to maintain the neutrality required to comply with core public procurement principles like equal treatment and non-discrimination.

To address this gap, a new intermediary role is emerging—one that works directly with the public sector and complements traditional intermediaries. These public sector-focused intermediaries must possess a deep understanding of innovation, entrepreneurship, and procurement principles. Crucially, they must operate with complete neutrality, ensuring alignment with procurement principles while fostering scalability and transformative outcomes.

Insight 3 – Re-thinking innovation management in the public sector

The integration of procurement into innovation processes highlights a broader need to rethink the paradigm and scope of innovation management in the public sector. Public sector innovation management play a key role in fostering innovation processes that result in solutions both implemented within the public sector and scaled to broader markets. However, their challenges and responsibilities differ significantly from those of private sector suppliers.

Unlike suppliers, whose innovation management focuses on developing scalable products to gain market share, generate profit, and build brand value, public sector innovation managers navigate a distinct set of challenges and responsibilities:

- Strategically allocate time and resources to renew operations while contributing to broader business development goals.
- Conduct market dialogues to understand the market landscape and identify ways to address both organizational needs and wider business development.
- Drive procurement initiatives that foster innovation processes in companies, aligning them with prioritized societal goals—responsibilities beyond the scope of a supplier's innovation management.
- Align innovation processes with procurement principles to ensure compliance, transparency, and readiness for market engagement.
- Foster cross-department collaboration to bridge the gap between innovation and procurement teams.
- Design and manage processes that embrace uncertainty, facilitating iterative development, active supplier engagement, and scalability.

To succeed in this role, public sector innovation leaders need a solid understanding of innovation processes, procurement principles, and startup methodologies. However, current training programs often fall short, focusing heavily on design methodologies and internal organizational processes.

Conclusions

To fully harness the potential of public procurement as a transformative tool, we must shift from a procurement-centric to an innovation-centric approach. This transformation requires embedding scalability and market perspectives into procurement processes, ensuring that innovative solutions not only meet immediate public sector needs but also grow to deliver broader societal impact.

Innovation procurement instruments, such as PCP and PPI, are valuable tools within an innovation-centric framework but must be reimagined as part of a larger system that prioritizes scalability, iterative learning, and market engagement. Other procurement instruments, including approaches inspired by partnering, can also be integrated into innovation-centric processes, as demonstrated in Demand Acceleration Framework initiatives.

By adopting innovation-centric procurement processes, public procurement can evolve from a compliance-driven function into a strategic instrument for sustainable transformation. The sleeping giant of innovation procurement must —and can —be awakened.

References List

Academic References

- Edler, J., & Georghiou, L. (2007). *Public procurement and innovation—Resurrecting the demand side*. *Research Policy*, 36(7), 949-963.
- Edquist, C., & Zabala-Iturriagoitia, J. M. (2012). *Public procurement for innovation as mission-oriented innovation policy*. *Research Policy*, 41, 1757-1769.
- Grillitsch, M., Hansen, T., Coenen, L., Miörner, J., & Moodysson, J. (2019). *Innovation policy for system-wide transformation: The case of strategic innovation programmes (SIPs) in Sweden*. *Research Policy*, 48(4), 1048-1061.
- Monteiro, B., Hlacs, A., & Boéchat, P. (2024). *Public procurement for public sector innovation: Facilitating innovators' access to innovation procurement*. OECD Working Papers on Public Governance, No. 80, OECD Publishing. <https://doi.org/10.1787/9aad76b7-en>
- Rodrik, D. (2008). *Industrial policy: Don't ask why, ask how*. *Middle East Development Journal, Economic Research Forum*, 1-29.
- Sarasvathy, S. (2001). *Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency*. *The Academy of Management Review*, 26(2), 243-263.
- Schot, J., & Steinmueller, W. (2018). *Three frames for innovation policy: R&D, systems of innovation and transformative change*. *Research Policy*, 47(9), 1554-1567.

Institutional & Policy Reports

- European Commission. (2025). *Public procurement in the EU*. Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs. Available at: https://single-market-economy.ec.europa.eu/single-market/public-procurement_en
- European Court of Auditors. (2023). *Public procurement in the EU*. Publications Office of the European Union. https://www.eca.europa.eu/ECAPublications/SR-2023-28/SR-2023-28_EN.pdf
- International Organization for Standardization (ISO). (2021). *Sustainable cities and communities – Guidance on establishing smart city operating models for sustainable communities* (ISO standard no. 37106:2018). Available at: <https://www.iso.org/standard/82854.html>
- OECD. (2024). *Recommendation on human-centred public administrative services*. OECD Publishing. <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0503>
- Svensberg, L. (2024). *Demand acceleration: 90% innovation – 10% procurement*. DigitalWell Arena. Available at: <https://digitalwellarena.se/digitalwell-demand-accelerator/>