# Methodology for the benchmarking of national policy frameworks for innovation procurement

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# 2. Methodology for benchmarking national policy frameworks for innovation procurement

## 2.1. Objectives and outputs

The objective of this 2024 benchmarking national policy frameworks for innovation procurement was to map the progress made in the 27 EU Member States, Norway, Switzerland and the UK on the implementation of policy measures to mainstream innovation procurement across all sectors of public interest. In order to conduct this analysis, the methodological approach presented in this document is based on a set of 10 indicators that enable an **evidence-based comparison of the national innovation procurement policy frameworks between all 30 countries.** This overall methodological approach with the 10 indicators, which was developed during the previous 2020 benchmarking in cooperation with the European Commission and in consultation with innovation procurement experts from the countries involved, was used again to enable **comparative assessment of national policy measures supportive of innovation procurement between the two benchmarking exercises**.

Compared to the 2020 benchmarking, some improvements were made also in the 2024 benchmarking:

- **The countries are now clustered in groups based on their distance from achieving a fully-fledged innovation procurement policy framework**. This made it easier to track how far countries still from deploying all the possible policy measures that they have at their disposal to incentivise innovation procurement. Using the same clustering approach for the policy framework benchmarking as for the investment benchmarking, makes it easier to make the correlation between the two, which enables to understand to what extent a more developed policy framework for innovation procurement is also fostering more investments in innovation procurement.
- Special attention was paid to collecting also additional evidence on whether national strategies and/or action plans are encouraging **the use of innovation procurement to accelerate the uptake and to reinforce EU strategic autonomy for those four technologies that are critical for EU economy security** (artificial intelligence, semiconductors, quantum computing and biotechnology).
- The methodology report of this 2024 benchmarking includes **a clarification for Indicator 10** to explain that the **sub-indicator on the use of market consultations** is calculated as a percentage of the number of TED based procurements in the country and not as a percentage of the number of prior information notices in the country.

The key findings of this benchmarking exercise, and the commonalities, disparities, trends of different indicators are available in following chapters.

## 2.2. Data collection approach

In order to collect the wide range of information necessary to inform on the set of indicators, the following methods were adopted:

- **Desk research**, between March 2023 and June 2023 to collect (preliminary) pieces of information on national policies and legislation, good practices, barriers, national and international studies, professional articles / literature and other relevant documents on policy mixes;
- **Survey**, addressed to the key national experts, to collect information on all policy indicators and on good practice case examples. The survey was available online on EU survey from May 2023 until June 2023. The national experts included officials from relevant ministries (public procurement, innovation, sectorial ministries), public procurement offices, ministries / agencies running funding programmes for innovation procurement, competence centres for innovation procurement, other individual experts on innovation procurement. The full survey questionnaire is provided in Annex I.
- **Follow-up interviews**, during May 2023 aimed at checking and validating the survey replies and gathering further insights to be added in the country reports. In some cases, follow-up interviews were used to provide support and instructions to key national experts on how to fill in the survey. The follow-up interviews were held with 10 out of 30 countries involved in the benchmarking.

- **Additional desk research**, between September and December 2023 to further verify all information collected, and to collect additional materials to complete the country reports and develop the good practice case examples.[1]
- **Additional stakeholder engagement,** between October and November 2023 (mostly in the form of e-mail communication) aimed at collecting feedback on the country reports and additional evidence on good practice case examples. This type of engagement was aimed at the national experts who provided the relevant information for the country reports to receive their confirmation that all information was addressed and duly presented in the country reports.
- **Information from the EU Single Market Scoreboard:** For Indicator 10, there are also some sub-indicators that are based on the information from the EU Single Market Scoreboard (more info in section 1.16).

The combination of all this information formed the base for scoring and ranking the countries performance on the different indicators. The use of different data collection methods was considered to be particularly beneficial, as it allowed to **triangulate data** and address the methodological challenges emerged during the study. The key obstacles consisted of missing, partial and incomplete replies, significant delays in the completion of the surveys and difficulties in identifying the right contact point to whom to address the requests, especially in those countries where there is no dedicated policy for innovation procurement yet. These challenges were mitigated through a long process of **extending the stakeholder engagement and desk research.** National contact points have been regularly contacted through follow-up interviews to collect missing information and to check its accuracy.

Following this approach, the 2024 innovation procurement policy framework benchmarking was compiled based on the most recent available data: Indicators 1 to 10 reflect the status of the countries' policies that support innovation procurement at the end of 2023. The part of indicator 10 that uses data from the most recent EU single market scoreboard that provides data for the year 2022. This allows consistency between the benchmarking of national policy framework for innovation procurement and the data from the benchmarking of national investments on innovation procurement (see chapters 3 and 4) using the most recently available tender / procurement expenditure data from 2022.

## 2.3. Analysis and benchmarking approach

The approach for benchmarking countries' policy frameworks for innovation procurement was based on an **integrated analysis** and a **compound indicator**.

A set of **ten indicators** was used to cover all the relevant aspects of a mature and structured policy framework for innovation procurement. The current state of the innovation procurement policy framework in each country was then mapped according to this common approach, which allows to **analyse in detail strengths and weaknesses** of all countries and to **compare them according to common criteria**. The output of the analysis allows to distinguish different maturity levels in the development of the national innovation procurement policy frameworks across countries and the level of advancement compared to the previous benchmarking.

## 2.4. Overview of the policy indicators

The 2024 benchmarking used the **same ten indicators** that were developed in the first 2020 benchmarking to assess policy frameworks for innovation procurement. With the only exception of Indicator 3, all indicators are multi-dimensional, meaning that they are composed of a set of sub-indicators. The following table provides an **overview of all indicators with their respective sub-indicators**. A detailed explanation and breakdown of each indicator and sub-indicator is presented from Sections 2.7 to 2.16.

**Table 1. Overview of policy indicators and sub-indicators**

| | Indicators | Sub-indicators |
|---|---|---|
| 1 | **Definitions** | Innovation procurement |
| | | R&D procurement |
| | | PCP |
| | | PPI |
| 2 | **Horizontal policies** | R&D policy |

[1] As far as Switzerland is concerned, all information was collected solely through desk research. It was not provided or validated by Swiss national ministries / public institutions, which chose not to participate in the survey.

| Table 1. Overview of policy indicators and sub-indicators | | |
|---|---|---|
| | **Indicators** | **Sub-indicators** |
| | | Innovation policy |
| | | Public procurement policy |
| | | Competition policy |
| | | Economic and financial policy |
| | | Entrepreneurship policy |
| | | Regional/urban policy |
| **3** | **ICT policies** | - |
| **4** | **Sectoral policies** | Healthcare and social services |
| | | Public transport |
| | | General public services |
| | | Construction sector |
| | | Energy sector |
| | | Environment sector |
| | | Water sector |
| | | Public order, safety, security and defence |
| | | Postal sector |
| | | Education, recreation, culture and religion |
| **5** | **Action plan** | Coverage |
| | | Commitment to concrete actions |
| | | Dedicated resources |
| | | Definition of results |
| | | Clear timeline |
| | | Commitment of procurers |
| | | Definition of actors |
| | | Decision-making structure |
| | | Measures to pool demand |
| **6** | **Spending target** | Presence |
| | | Coverage |
| | | For all types of innovation procurement |
| | | Separated targets |
| | | Commitment |
| **7** | **Monitoring system** | Measurement |
| | | Evaluation |
| **8** | **Incentives** | Financial incentives |
| | | Personal incentives |
| **9** | **Capacity-building and assistance measures** | Central website |
| | | Good practices |
| | | Trainings and workshops |

| Table 1. Overview of policy indicators and sub-indicators | | |
|---|---|---|
| | **Indicators** | **Sub-indicators** |
| | | Handbooks and guidelines |
| | | Assistance to procurers |
| | | Template tender documents |
| | | Coordination/pre-approval |
| | | Networking |
| | | One-stop-shop/competence centre |
| **10** | **Innovation - friendly public procurement market** | Specific techniques to foster innovation in public procurement |
| | | Openness of the national public procurement market to innovations from across the EU single market |

*Source: Author's elaboration*

## 2.5. Innovation procurement policy index

For each country, the score for each indicator is calculated as the unweighted mathematical average of the score for all its sub-indicators. After that, the overall score is calculated as the **unweighted mathematical average of all ten indicators**. The equation to calculate the overall indicator is the following:

$$Index\ score = \frac{Ind1 + Ind2 + Ind3 + Ind4 + Ind5 + Ind6 + Ind7 + Ind8 + Ind9 + Ind10}{10}$$

where "Ind x" is the total score for indicator x.

Therefore, the overall score of each country summarises the results achieved by the country for all the 10 dimensions taken into account in the benchmarking and the overall scores of all countries allow to rank their respective performances. The higher the score, the higher the performance of the country.

Since it is an unweighted average, similar scores in different countries may point to similarly comprehensive innovation procurement policy frameworks, but this could be the result of a completely different mix of policy approaches. When looking at the total innovation procurement policy index score of different countries, it is, therefore, important to also observe results at a more granular level.

## 2.6. Performance clustering

The overall ranking is used to **cluster countries into 7 groups** according to the **comprehensiveness of their innovation procurement policy framework**.

An improvement compared to the previous 2020 benchmarking, is that the **clustering is not based on s-scores** that show the countries' distance from the 'average' performance across the 30 countries. In this 2024 benchmarking, the clusters are showing the countries' **distance from having deployed a fully-fledged innovation procurement policy framework (which corresponds to a total score of 100%)**. This enables to track countries' performance more accurately in terms of how well all the potential policy measures that are at a country's disposal to foster innovation procurement have in reality been mobilised. As this approach does not compare countries against a moving average that changes in every benchmarking but against a fixed number / objective that does not change over time, it also enables to track across different subsequent benchmarkings how well different countries have progressed over time. As the benchmarking of national investments in innovation procurement is using the same 7 groups, it also facilitates correlating the impacts of reinforcing the policy framework for innovation procurement on the investments in innovation procurement over time.

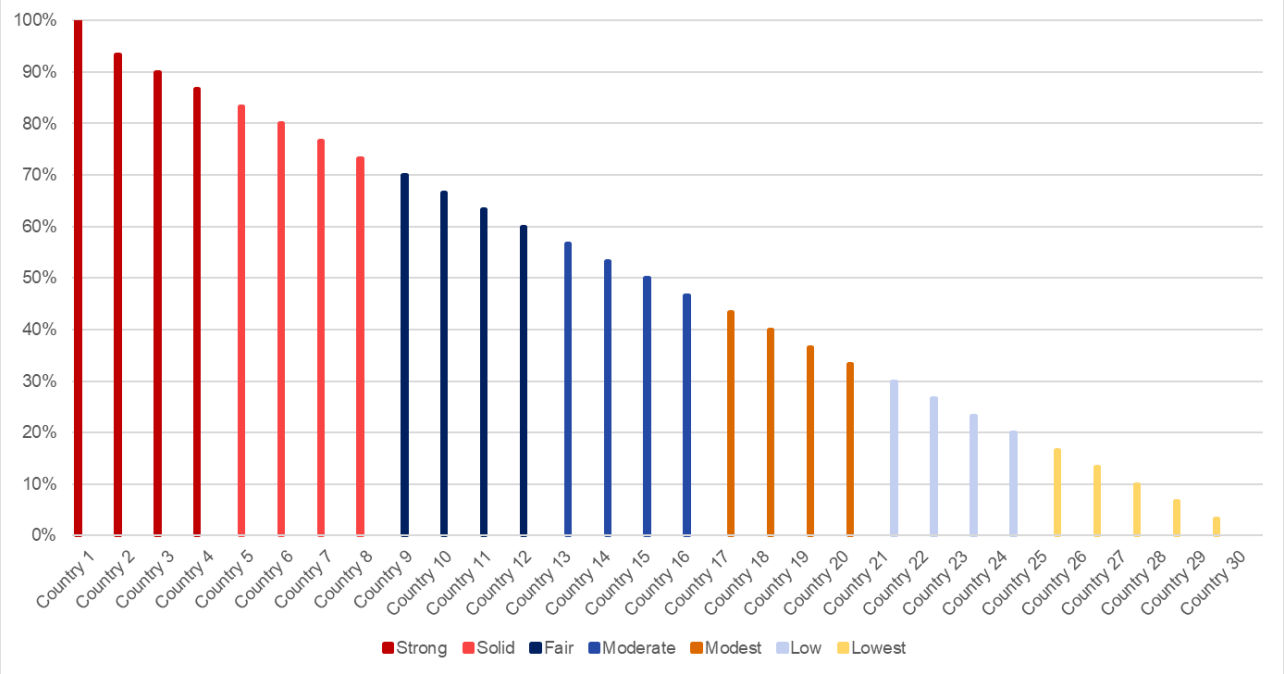
A description of the 7 groups is provided in the following table below.

| Table 2. Performance clusters | | |
|---|---|---|
| **Total score** | **Cluster** | **Description** |
| **75-100%** | Strong performers | The country has activated more than 75% of the policy measures that support innovation procurement, resulting in a policy framework for innovation procurement that is operating between three quarters to its full capacity. There is a mature and very well-structured policy framework for innovation procurement, in which there is a strong political commitment paired with most or all dimensions that are highly developed and interconnected, so that the comprehensive policy framework encourages in a holistic way the mainstreaming of innovation procurement across nearly all or all parts of the public sector in the country. |
| **65-75%** | Solid performers | The country has activated between 65% and 75% of the policy measures that support innovation procurement, resulting in a policy framework that is operating between two thirds and three quarters of its potential capacity. There is a well-structured policy framework for innovation procurement, characterised by a solid pollical commitment and many dimensions that are developed and interconnected, so that the policy framework encourages the wider spreading use of innovation procurement across many parts of the public sector in the country. |
| **55-65%** | Fair performers | The country has activated between 55% and 65% of the policy measures that support innovation procurement, resulting in a policy framework that is operating just above half but still below two thirds of its potential capacity. There is a structured policy framework for innovation procurement, characterised by a fair level of political commitment that enabled a number of dimensions of the policy framework to get well-developed, but others not yet, so that the policy framework encourages use of innovation procurement only across a number of parts of the public sector in the country. |
| **45-55%** | Moderate performers | The country has activated between 45% and 55% of the policy measures that support innovation procurement, resulting in a policy framework that is operating only at around half of its potential capacity. There is a reasonably structured policy framework for innovation procurement, in which, due to moderate political commitment, only few dimensions of the policy framework are well-developed and most have only been half-way developed. There is still only partial encouragement for innovation procurement across certain parts of the public sector in the country. |
| **35-45%** | Modest performers | The country has activated between 35% and 45% of the policy measures that support innovation procurement, resulting in a policy framework that is operating between one third and a bit below half of its capacity The policy framework for innovation procurement is still under development due to a modest political commitment and it only modestly encourages the use of innovation procurement across a few parts of the public sector in the country. The country still lacks a more mature and advanced political commitment that would enable to put in place a critical mass of well-developed policy measures that underpin a truly coherent policy framework. |
| **25-35%** | Low performers | The country has activated between 25% and 35% of the policy measures that support innovation procurement, resulting in a policy framework that is operating between only one quarter and one third of its capacity. The policy framework for innovation procurement is still in an emerging stage, characterised by a nascent and still fragmented political commitment that has resulted in only a few basic policy measures that only weakly support the use of innovation procurement in a scattered way across the country. |
| **0-25%** | Lowest performers | The country has activated less than 25% of the policy measures that support innovation procurement, resulting in a policy framework that is operating at below one quarter of its capacity. The policy framework for innovation procurement is at an early beginning or even still conceptual stage. There is a lack of political commitment and only very few or nearly no policy measures are put in place that encourage, at best, only scarcely the use of innovation procurement in a very limited part of the public sector in the country. |

*Source: Author's elaboration*

The overall scores of the countries clustered into the 7 performance groups according to their distance from achieving a 100% comprehensive innovation procurement policy framework is then listed and graphically represented.

**Figure 1. Overall ranking and clustering mock example**




*Source: Author's elaboration*

The following sections illustrate, **per each indicator**:

- What it tracks and how it is conceived from a methodological point of view;
- Their sub-indicators (and, in certain cases, their sub-sub-indicators), and how their scores are calculated.

Compared to the previous 2020 benchmarking, there have been no **updates to methodology sections** for any of the indicators below, except **in section 1.9 for indicator 3 (ICT policies) and in section 1.10 indicator 4 (sectoral policies)** – in which additional analysis shows to what extent national policies for strategic technologies encourage innovation procurement – and in **section 1.16 for indicator 10 (innovation friendly procurement market)** – in which the methodology for the sub-indicator on the use of preliminary market consultations was better clarified.

## 2.7. Indicator 1 – Official definition

A common understanding of what is meant by innovation procurement is an essential prerequisite to encourage the use of innovation procurement across a country. Therefore, this indicator reflects to what extent there is a clear official definition for Innovation Procurement, R&D procurement, Pre-Commercial Procurement (PCP) and Public Procurement of Innovative solution (PPI) in the country. In addition, the indicator takes into account the level of clarity, completeness and compliance of the national definitions with the EC definition.

Indicator 1 is composed of **four sub-indicators**:

I. Innovation procurement

II. R&D procurement

III. Pre-Commercial Procurement (PCP)

IV. Public Procurement of Innovative solutions (PPI)

Each sub-indicator receives a score based on three assessment criteria: (i) existence of an official definition, (ii) coverage, and (iii) coherence with the EU official definition.

### I. Innovation procurement

The total score for this sub-indicator is calculated as a result of a three-step approach.

**STEP 1: Existence of official definition**

The first step requires determining whether there is an official national definition for innovation procurement. This involves determining whether **the national legislation provides an official legal basis and/or full definition** for innovation procurement or whether the definition of innovation procurement is found **only in other official national documents outside of national legislation**. Under national legislation, only legal acts such as laws, decrees, resolutions etc. are considered (this can be not only legislation on public procurement but also, for example, legislation on research and innovation). Additional national official guidance (e.g. circulars, guidance documents) are not considered legislation but can still provide an official, generally accepted – although not legally binding - definition.

If **no legal basis** is available, the country automatically scores **0%**. Allocating above 0% scores in this step thus requires an understanding of what type of definitions have been introduced in the national legislation and in other official national documents (e.g. circulars, guidance documents). Some countries only provide a **definition of "innovation" in the context of public procurement** as defined in the EU public procurement directives (**legal basis to implement innovation procurement**), while other countries also include a **specific definition for "innovation procurement"**. Countries having included a definition **in national legislation** receive a higher score than countries having a definition **only in national guidance material** and those receive a higher score than those having no definition in legislation or guidance material but having **only a legal basis** for innovation procurement.

**STEP 2: Coverage**

This step takes into account the **coverage**: i.e. is the definition applied in the whole country or not (e.g. only in a certain region)? Is it applicable to all types of public procurers or not (e.g. only to procurers covered by one of the public procurement directives)? Is it applicable to all types of public procurement procedures or not (e.g. some countries do not define innovation in the general definitions section that enables procurers to call for innovation under any procurement procedure but only define this under the innovation partnership procedure)? Countries with a definition that applies in the whole country receive a higher score than countries with a definition that does not apply in the whole country (e.g. only in a certain region). Countries with a definition that applies to all types of public procurers receive a higher score than countries with a definition that applies to only certain types of procurers. Countries with a definition that applies to all types of public procurement procedures receive a higher score than countries with a definition that applies to only certain types of procurement procedures.

**STEP 3: Compliance with EU official definition**

Finally, the score takes into account the compliance with the definitions provided by the EU (i.e. is the national definition **in line with the EU definition**?). This includes the definitions in the EU public procurement Directives (definition of innovation) and in the EU guidance on innovation procurement[2] (definition of innovation procurement). Countries with an official definition that is in line with the EU definition receive a higher score than countries with an official definition that is not in line with the EU definition.

The table below presents the EU definitions of innovation and innovation procurement:

| **Table 1. Definition of innovation procurement** |
|---|
| **Innovation procurement** |
| *Innovation procurement is a public procurement in which a public procurer buys 'innovation'. As defined by the 2014 EU public procurement directives, 'innovation' means the implementation of a new or significantly improved product, service or process, including but not limited to production, building or construction processes, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations. This definition includes thus both **product innovation** (i.e. implementation of new or significantly improved goods or services, also including works such as building and construction works), **process innovation** (i.e. implementation of new or significantly improved production or delivery methods), **marketing innovation** (i.e. a new or significantly improved method to introduce an innovation into the market) and **organisational innovation** (i.e. an innovation in workplace organisation, business practices or external relations).* |

[2] C(2018) 3051 final, Commission Notice: Guidance on innovation procurement https://ec.europa.eu/docsroom/documents/29261

*Innovation covers thus both the research and development and the commercialisation / deployment of innovative solutions (products, services or works).* ***Innovation procurement*** *covers thus both* ***R&D procurements****,* ***public procurements of innovative solutions*** *and* ***public procurements that purchase a combination of both R&D and the resulting innovative solutions.***

*Indeed, according to the C(2018)3051 Commission guidance:*

*"Innovation procurement" refers to any procurement that has one or both of the following aspects:*

- *buying the process of innovation – research and development services – with (partial) outcomes;*
- *buying the outcomes of innovation created by others.*

*In the first instance, the public buyer buys the research and development of products, services or processes, which do not exist yet (for more info, see below section II 'R&D procurement'). The public buyer describes its need, prompting businesses and researchers to develop innovative products, services or processes to meet the need.*

*In the second instance, the public buyer, instead of buying off-the-shelf, acts as an early adopter and buys a product, service or process that is new to the market and contains substantially novel characteristics.* ***Early adopters refer to the first 20% customers on the market that are buying a new or significantly improved product, service or process****. This includes procurements of products, services or processes that have already been demonstrated on a small scale and may be nearly or already in small quantity on the market, but that have not been widely adopted by the market yet. This also includes existing solutions that are to be utilised in a new and innovative way (for more info, see below section III 'PPI procurement').*

### II. R&D procurement

The total score for this sub-indicator is calculated as a result of a three-step approach.

**STEP 1: Existence of official definition**

The first step requires determining whether there is an official national definition for R&D procurement. This involves determining whether **the national legislation provides an official legal basis and/or full definition** for R&D procurement or whether the definition of R&D procurement is found **only in other official national documents outside of national legislation**. Under national legislation is only considered legal acts such as laws, decrees, resolutions etc. Additional national official guidance (e.g. circulars, guidance documents) are not considered legislation but can still provide an official, generally accepted - although not legally binding - definition.

If **no legal basis** is available, the country automatically scores **0%**. Allocating above 0% scores in this step thus requires an understanding of what type of definitions have been introduced in the national legislation and in other official national documents (e.g. circulars, guidance documents). Some countries only provide a **reference to the CPV codes for "R&D"** as defined in the EU public procurement directives (**legal basis to implement R&D procurement**), while other countries also include a **specific definition for "R&D" in the context of public procurement**. Countries included in the latter case receive a higher score compared to countries having included only the CPV codes. Countries having included a definition **in national legislation** receive a higher score than countries having a definition **only in national guidance material**.

**STEP 2: Coverage**

This step takes into account the **coverage**: i.e. is the definition applied in the whole country or not (e.g. only in a certain region)? Is it applicable to all types of public procurers or not (e.g. only to procurers covered by one of the public procurement directives)? Countries with a definition that applies in the whole country receive a higher score than countries with a definition that does not apply in the whole country (e.g. only in a certain region). Countries with a definition that applies to all types of public procurers receive a higher score than countries with a definition that applies to only certain types of procurers.

**STEP 3: Compliance with EU official definition**

Finally, the score takes into account the compliance with the R&D definition provided by the European Union (i.e. is the national definition **in line with the EU definition**?). R&D is defined in the EU public procurement directives as covering fundamental research, industrial research and experimental development in line with the EU R&D&I State aid rules which defines each of those three R&D categories in more detail. Countries with an official definition that is in line with the EU definition receive a higher score than countries with an official definition that is not in line with the EU definition. The table below presents the EU definition of R&D procurement:

| Table 4. Definition of R&D procurement |
|---|
| **R&D procurement** |
| *An R&D procurement is a public procurement of **Research and Development (R&D) services, works or supplies**. According to the EU public procurement directives, research and development covers fundamental research, applied research and experimental development. Public procurement directive 2009/81/EC explains in more detail each of these three R&D categories:*<br>❑ ***Fundamental research** consists in experimental or theoretical work undertaken mainly with a view to acquiring new knowledge regarding the underlying foundation of phenomena and observable facts, without any particular application or use in view.*<br>❑ ***Applied research** also consists of original work undertaken with a view to acquiring new knowledge. However, it is directed primarily towards a particular practical end or objective.*<br>❑ ***Experimental development** consists in work based on existing knowledge obtained from research and/or practical experience with a view to initiating the manufacture of new materials, products or devices, establishing new processes, systems and services or considerably improving those that already exist. Experimental development may include the realisation of technological demonstrators, i.e. devices demonstrating the performance of a new concept or a new technology in a relevant or representative environment. Research and development does not include the making and qualification of pre-production prototypes, tools and industrial engineering, industrial design or manufacture. Experimental development may according to the WTO Government Procurement Agreement continue up to original development of a first product or service and this may include limited production or supply in order to incorporate the results of field testing and to demonstrate that the product or service is suitable for production or supply in quantity to acceptable quality standards (i.e. R&D contracts may include the production or supply of limited volumes of solutions resulting from field testing). However, as also highlighted in the EU public procurement directives, it does not extend to quantity production or supply (i.e. the production or supply of commercial volumes of solutions) to establish commercial viability or to recover research and development costs.* |

### III. Pre-Commercial Procurement (PCP)

The total score for this sub-indicator is calculated as a result of a three-step approach.

**STEP 1: Existence of official definition**

The first step requires determining whether there is an official national definition for PCP procurement. This involves determining whether the national legislation **provides an official legal basis and/or full definition** for PCP or whether the definition of PCP is found **only in other official national documents outside of national legislation**. Under national legislation is only considered legal acts such as laws, decrees, resolutions etc. Additional national official guidance (e.g. circulars, guidance documents) are not considered legislation but can still provide an official, generally accepted - although not legally binding - definition.

If no legal basis is available, the country automatically scores 0%. Allocating above 0% scores in this step thus requires an understanding of what type of definitions have been introduced in the national legislation and in other official national documents (e.g. circulars, guidance documents). Some countries only provide **the legal basis to implement PCP (exemption from public procurement legislation for R&D services where the procurer does not reserve all the benefits of the R&D for himself)** as defined in the EU public procurement directives, while other countries also include a **specific definition for PCP**. Countries included in the latter case receive a higher score compared to countries having included only the legal basis/R&D exemption. Countries having included a definition **in national legislation** receive a higher score than countries having a definition **only in national guidance material**.

**STEP 2: Coverage**

This step takes into account the **coverage**: i.e. is the definition applied in the whole country or not (e.g. only in a certain region)? Is it applicable to all types of public procurers or not (e.g. only to procurers covered by one of the public procurement directives)? Countries with a definition that applies in the whole country receive a higher score than countries with a definition that does not apply in the whole country (e.g. only in a certain region). Countries with a definition that applies to all types of public procurers receive a higher score than countries with a definition that applies to only certain types of procurers.

**STEP 3: Compliance with EU official definition**

Finally, the score takes also take into account the **compliance with the PCP definition** provided by the European Union (i.e. whether the national definition is in line with the EU definition). As mentioned in the EU public procurement directives, PCP was originally defined in the PCP communication COM (2007) 799 final and since 2014 also in the EU R&D&I State aid rules (which also explain that PCP does not involve State aid when implemented correctly). Countries with an official definition that is in line with the EU definition receive a higher score than countries with an official definition that is not in line with the EU definition.

The table below presents the EU definition of pre-commercial procurement:

| **Table 5. Definition of PCP** |
|---|
| **PCP** |
| *Pre-Commercial Procurement (PCP) is a specific approach to implement a public procurement of R&D services that follows three principles defined in the European Commission's PCP communication (COM/799/2007) and the associated staff working document (SEC/2007/1668). The three principles are: competitive development in phases, sharing of IPR risks and benefits at market conditions (IPR ownership is allocated to the contractors and the procurer obtains usage and licensing rights) and separating the PCP from the subsequent purchase of commercial volumes of solutions. PCPs are exempted from the EU public procurement directives and WTO Government Procurement Agreement (GPA).*<br><br>*The 2014 R&D&I State aid framework defines that PCP does not a State aid when implemented correctly. It defines PCP as the public procurement of research and development services where the contracting authority or contracting entity does not reserve all the results and benefits of the contract exclusively for itself for use in the conduct of its own affairs but shares them with the providers under market conditions. The contract, the object of which falls within one or several categories of research and development defined in this framework (i.e. fundamental research, industrial research and experimental development), must be of limited duration and may include the development of prototypes or limited volumes of first products or services in the form of a test series. The purchase of commercial volumes of products or services must not be an object of the same contract.* |

### IV. Public Procurement of Innovative solutions (PPI)

The total score for this sub-indicator is calculated as a result of a three-step approach.

**STEP 1: Existence of official definition**

The first step requires determining whether there is an official national definition for PPI. This involves determining whether the national legislation **provides an official** legal basis **and/or full definition** for PPI or whether the definition of PPI is found **only in other official national documents outside of national legislation**. Under national legislation is only considered legal acts such as laws, decrees, resolutions etc. Additional national official guidance (e.g. circulars, guidance documents) are not considered legislation but can still provide an official, generally accepted - although not legally binding - definition.

If no legal basis is available, the country automatically scores 0%. Allocating above 0% scores in this step thus requires an understanding of what type of definitions have been introduced in the national legislation and in other official national documents (e.g. circulars, guidance documents). Some countries only provide **the legal basis to implement PPI (allowing procurers to award contracts and monitor contract performance not only based on price but also based on quality criteria that include innovative characteristics of a solution)** as defined in the EU public procurement directives, while other countries also include a **specific definition for PPI**. Countries included in the latter case receive a higher score compared to countries having included only the legal basis. Countries having included a definition **in national legislation** receive a higher score than countries having a definition **only in national guidance material**.

**STEP 2: Coverage**

This step takes into account the **coverage**: i.e. is the definition applied in the whole country or not (e.g. only in a certain region)? Is it applicable to all types of public procurers or not (e.g. only to procurers covered by one of the public procurement directives)? Countries with a definition that applies in the whole country receive a higher score than countries with a definition that does not apply in the whole country (e.g. only in a certain region). Countries with a definition that applies to all types of public procurers receive a higher score than countries with a definition that applies to only certain types of procurers.

**STEP 3: Compliance with EU official definition**

Finally, the score takes into account the **compliance with the PPI definition provided by the European Union** (i.e. is the national definition in line with the EU definition?). Countries with an official definition that is in line with the EU definition receive a higher score than countries with an official definition that is not in line with the EU definition.

The table below presents the EU definition of procurement of innovative solutions:

| **Table 6. Definition of PPI** |
|---|
| **PPI** |
| *Public procurement of innovative solutions happens when existing public procurement procedures (e.g. open, negotiated, competitive dialogue) are used to buy **innovative solutions (new or significantly improved products, services or works)** which are **not yet available on large scale commercial basis**: This includes procurements of products, services or processes that have already been demonstrated on a small scale and may be nearly or already in small quantity on the market, but that have not been widely adopted by the market yet. This also includes existing solutions that are to be utilised in a new and innovative way.*<br><br>*Public procurement of **innovative solutions** can therefore include the purchase of (one or more of the following):*<br>• *A **totally new** product, service, process, organisational or marketing method*<br>• *A **significant improvement** of an existing product, service, process, organisational method or marketing method,*<br>• *A **new / innovative combination** of existing products, services, processes, organisational or marketing methods,*<br>• *A **new / innovative use** of existing products, services, processes, organisational or marketing methods (e.g. use of an existing solution in an innovative way in another sector, in a new application field etc.)*<br><br>*In public procurements of innovative solutions, **the public procurer is an early adopter of innovative solutions.** Early adopters are typically referred to as **the first 20% of customers on the market that buy an innovative solution**. Early adopters can trigger wider deployment of innovative solutions, because their purchase signals to mass markets that there is a sufficient level of customer acceptance for the solutions.* |

The table below provides an overview of the **possible scores for each of the four sub-indicators (official definition for innovation procurement, R&D, PCP and PPI)** depending on whether there is only a legal basis for the type of innovation procurement in the country, or also an official definition in guidance documents or in the legislation, and whether the available definition applies across the whole country and to all types of procurers and whether it is in line with the EU definition or not.

**Table 2. Possible scores for each sub-indicator of indicator 1**

| ***Sub-indicators*** | *0%* | *15%* | *25%* | *35%* | *45%* | *50%* | *55%* | *70%* | *80%* | *85%* | *90%* | *100%* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Legal basis*** | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| ***Definition in guidance documents*** | N | N | N | N | Y | Y | Y | Y | / | / | / | / |
| ***Definition in legislation*** | N | N | N | N | N | N | N | N | Y | Y | Y | Y |
| ***Full coverage*** | N | N | Y | Y | N | Y | N | Y | N | Y | N | Y |
| ***Compliant with EU definition*** | N | N | N | Y | N | N | Y | Y | N | N | Y | Y |

*Notes: Y = "Yes"; N = "No"*

*Source: Author's elaboration*

The overall score of the indicator is calculated as the average of the score of each of the four sub-indicators (definition for innovation procurement, R&D procurement, PCP, PPI). Hence, the core equation of the "Official Definition Indicator" takes the following form:

$$Ind1\ score = \frac{subInd\ 1 + subInd\ 2\ + subInd\ 3 + subInd\ 4}{4}$$

where *subInd x* indicates the score of the sub-indicator x.

## 2.8. Indicator 2 – Horizontal policies

Innovation procurement does not happen in isolation but at the intersection with other policies and thus it flourishes more when it is actively supported by those policies. This indicator therefore reflects for each country to which extent innovation procurement has been incorporated as a strategic tool or objective with strategic importance in seven horizontal policy areas that define the surrounding ecosystem for innovation procurement.

Indicator 2 is composed by **seven sub-indicators** that take into account the extent to which the strategic importance of innovation procurement is endorsed by specific horizontal policy areas in the country:

I. **Public procurement policy**: Does the public procurement policy explicitly recognise the strategic importance of innovation procurement to improve the quality and efficiency of public services, and actively encourage public procurers to implement R&D procurements (including PCP) and public procurement of innovative solutions?

II. **Entrepreneurship policy**: Does the entrepreneurship policy explicitly recognise the strategic importance of innovation procurement to create business opportunities for entrepreneurs and boost the scaling-up of small companies, and does it actively support entrepreneurs that target public sector customers (e.g. provide training to entrepreneurs/start-ups/SMEs on how to successfully apply for innovation procurements, encourage financial investors to invest in entrepreneurs/start-ups/SMEs involved in innovation procurements)?

III. **Economic and financial policy**: Does the economic and or financial policy explicitly recognise the strategic importance of innovation procurement for economic growth and optimising financial sustainability of public services (to reinforce industrial competitiveness, public sector efficiency, job creation), and actively encourage innovation procurement (e.g. in economic reforms, in export / trade strategy, in tax incentive strategy, in financial policy with financial structures for public procurers that facilitate innovation procurement (e.g. enabling multi-annual financial planning of procurement budgets, cross-departmental financing and distributing the returns on investment of innovation procurements, crowdfunding for innovation procurement budgets etc.)?

IV. **Competition policy**: Is there a specific strategy for innovation procurement defined in the competition policy to ensure a transparent, non-discriminatory level playing field for all economic operators on the market?

V. **Regional/urban policy**: Does the regional/urban policy recognise the strategic importance of innovation procurement for regional/urban development, and does it foresee strategic measures to increase the use of R&D procurement (including PCP) and public procurement of innovative solutions?

   It should be noted that for bigger countries which have a regional division, the assessment takes into consideration, not just existence of a nationwide regional policy, but also of the existence of regional policy in each of the regions, that is supportive of innovation procurement. For such countries, 100% is awarded only if both the nationwide regional policy and each of the regional policies recognize importance of innovation procurement. 50% score is awarded if only some but not all regional policies in the country foster the use of innovation procurement in their respective regions.

VI. **R&D policy**: Is there a R&D policy that embeds with strategic importance - in addition to the classical supply side R&D policy - also a demand side R&D policy, which actively encourages public procurement of R&D, including PCP?

VII. **Innovation policy**: Is public procurement of innovative solutions (i.e. the public sector acting as early adopter for innovative solutions) embedded as a goal of strategic importance in the innovation policy?

The **scoring system** is based on the extent to which each horizontal policy explicitly promotes and recognises the strategic importance of innovation procurement in the achievement of the overall policy objectives.

- If innovation procurement is **not recognised as important** in the horizontal policy's strategy or action plan, the country automatically scores 0%. Allocating more than 0% requires that the horizontal policy's strategy or action plan explicitly endorses / promotes innovation procurement.
- If innovation procurement is only **included as an objective** in a horizontal policy's strategy or action plan which is **not applicable countrywide**, the country scores 50%.
- Conversely, if it is **promoted** in a horizontal policy's strategy or action plan that is **applicable in the whole country**, the country scores 100%.

If one country includes two or more policy areas under the same strategy, the score is provided to both sub-indicators. For example, if one country includes innovation and R&D under the same strategy, the score is provided to both policy areas.

The table below provides an overview of the possible scores for the "horizontal enabling policy" sub-indicators:

**Table 8. Possible scores for each sub-indicator of indicator 2**

| Sub-indicators | No | Yes, but not applicable countrywide | Yes, applicable countrywide |
|---|---|---|---|
| Public procurement policy | 0% | 50% | 100% |
| Entrepreneurship policy | 0% | 50% | 100% |
| Economic and Financial policy | 0% | 50% | 100% |
| Competition policy | 0% | 50% | 100% |
| Regional / Urban policy | 0% | 50% | 100% |
| R&D policy | 0% | 50% | 100% |
| Innovation policy | 0% | 50% | 100% |

*Source: Author's elaboration*

The overall score of the indicator is calculated as the average score of each horizontal policies sub-indicator. Hence, the core equation of the "Horizontal Policies Indicator" takes the following form:

$$Ind2\ score = \frac{subInd\ 1 + subInd\ 2\ + subInd\ 3 + subInd\ 4 + subInd\ 5 + subInd\ 6 + subInd\ 7}{7}$$

where *subInd x* indicates the score of the sub-indicator x.

## 2.9. Indicator 3 – ICT policies

As ICTs are catalysers for innovation and public sector modernisation, embedding innovation procurement as a strategic tool or objective in the digital / ICT policies in the country can be a particularly effective approach towards a widely-spread adoption of innovation procurement. The use of innovation procurement to accelerate the development and the uptake of strategic ICT technologies in the public sector is important to reinforce EU strategic autonomy. Therefore, this indicator reflects to which extent different national ICT policies foster the use of innovation procurement. This includes both **the overall national digital / ICT policy,** as well as **national policies for specific strategic ICT technologies** (in particular AI / robotics, quantum computing and semiconductors / chip technology, which have been agreed at EU level as strategic technologies that are critical for ensuring Europe's economic security).

This indicator takes into account the **extent to which innovation is embedded as a strategic priority in the ICT policies** in the country. The indicator does not have sub-indicators.

The score for the indicator can take one of three different levels depending on whether:

I. The country's ICT policies **do not recognise** innovation procurement in their strategic tools and priorities.

II. The country's ICT policies **partially or indirectly endorse** innovation procurement in their strategic tools/objectives.

III. The country's ICT policies **fully and directly endorse** innovation procurement in their strategic tools/objectives.

The table below shows the scores assigned to the three situations:

**Table 3. Possible scores for indicator 3**

| Indicator 3 possible scores | No | Yes, but only partially endorsed | Yes, fully endorsed |
|---|---|---|---|
| **ICT policies** | 0% | 50% | 100% |

*Source: Author's elaboration*

## 2.10. Indicator 4 – Sectoral policies

Public procurers in a specific sector (e.g. public transport) are more encouraged to undertake innovation procurement when innovation procurement is embedded as a strategic objective in the national policy frameworks and action plans that set the priorities for their specific sector (e.g. national strategy/action plan on transport/mobility). Therefore, this indicator reflects **to what extent innovation procurement is embedded as a strategic priority in sectoral policy frameworks and/or action plans** across the 10 sectors of public sector activity that are identified in the EU public procurement directives.[3]

The use of innovation procurement to accelerate the development and the uptake of strategic biotech technologies in the public sector is important to reinforce EU strategic autonomy, and in particular to enable Europe to complete its transformation to a bio-based economy (biotechnologies have been agreed at EU level as strategic technologies that are critical for ensuring Europe's economic security). Therefore, this indicator includes under sub-indicator VI (environmental sector) also information about whether the country's policies for biotechnology / bioeconomy encourage the use of innovation procurement.

Indicator 4 is composed of **ten sub-indicators** which cover the sectors identified by the EU public procurement directives:

I. **Healthcare and social services sector**

II. **Public transport sector**

III. **General public services, public administration, economic and financial affairs sector**

IV. **Construction sector**

V. **Energy sector**

VI. **Environment sector**

VII. **Water sector**

VIII. **Postal sector**

IX. **Public order, safety, security and defence sector**

X. **Education, recreation, culture and religion sector**

If innovation procurement is not recognised as strategic tool in the sectoral strategy or action plan of a sector, the country automatically scores 0% on the sub-indicator for that sector. Conversely, if innovation procurement is recognised as strategic priority, the country receives a score which depends on two other variables: (i) the country coverage and (ii) whether it is for all types of innovation procurement. Countries where innovation procurement is recognised as strategic countrywide receive a higher score compared to those where this is not the case (e.g. only in one region). Similarly, countries considering as strategic all types of innovation procurement (i.e. both R&D procurement and public procurement of innovative solutions) score higher compared to countries encouraging only one type of innovation procurement.

This results in the following **possible scores**:

- The sectoral policy **does not recognise or promote** innovation procurement as strategic tool to achieve the sectoral policy objectives. Then the score for the sub-indicator of that sectoral policy is 0%.
- The sectoral policy **endorses the strategic importance** of innovation procurement but **not across the whole country** (e.g. only at regional level) and **not for all types of innovation procurement** (e.g. only for some of them). In this case the score allocated to the sub-indicator of that sectoral policy is 25%.
- The sectoral policy **endorses the strategic importance** of innovation procurement **across the whole country** at national level but **not for all types of innovation procurement**. In this case the score allocated to the sub-indicator of that sectoral policy is 50%.

[3] The following 10 sectors are defined in the EU public procurement directives: (I) healthcare and social services; (II) public transport (such as railway, urban railway, tramway, trolleybus, bus services, airport and port related activities); (III) general public services, public administration (covering e-government), economic and financial affairs; (IV) construction, housing and community amenities; (V) energy (covering exploration, extraction, production, transport and distribution of energy such as electricity, gas, heat, oil, coal and other solid fuels); (VI) environment; (VII) water; (VIII) postal services; (IX) public order, safety, security and defence; (X) education, recreation, culture and religion

- The sectoral policy **endorses the strategic importance** of innovation procurement but **not across whole country** (e.g. at regional level) and **for all types of innovation procurement**. In this case the score allocated to this sub-indicator of that sectoral policy is 75%.
- The sectoral policy **endorses the strategic importance** of innovation procurement **across the whole country** and **for all types of innovation procurement**. In this case the score allocated to this sub-indicator of that sectoral policy is 100%.

If one country includes two or more sector policies under the same strategy or action plan, the score is given to both sub-indicators for all sectoral policies included. This case might happen in small countries which tend to implement umbrella strategies covering different sectors.

The table below provides the details of possible scores for each sub-indicator:

**Table 10. Possible scores for each sub-indicator of indicator 4**

| Indicator 4 - Sub-indicators possible scores | 0% | 25% | 50% | 75% | 100% |
|---|---|---|---|---|---|
| Recognised in the sector strategy/action plan | N | Y | Y | Y | Y |
| Coverage – recognised at national level | N | N | N | Y | Y |
| For all types of innovation procurement | N | N | Y | N | Y |

*Notes: Y = "Yes"; N="No"*

*Source: Author's elaboration*

The total score of the "sectoral policies" sub-indicator is than calculated as the average of the scores of each sub-indicator. Hence, the equation to calculate the score of the indicator takes the following form:

$$Ind4\ score = \frac{subInd\ 1 + subInd\ 2\ + subInd\ 3 + subInd\ 4 + subInd\ 5 + subInd\ 6 + subInd\ 7 + subInd\ 8 + sunInd\ 9 + subInd\ 10}{10}$$

where *subInd x* indicates the score of the sub-indicator x for sectoral policy x.

## 2.11. Indicator 5 – Action plan

This indicator is to assess to what extent policy ambitions for innovation procurement have been operationalised by each country through a dedicated action plan for innovation procurement. A dedicated action plan mobilises resources to implement specific measures that are not covered by other horizontal enabling policies (see indicator 2) or sectoral policies (see indicator 3 and 4) and to coordinate measures covered by different policies so that innovation procurement is implemented in a coordinated way across the country.

The list of **9 sub-indicators** used for indicator 5 is presented below:

I. **Coverage:** Is there a specific action plan for innovation procurement? If yes,

II. **Concrete actions**: Does the action plan commit to concrete actions to be implemented?

III. **Dedicated resources:** Does the action plan define which specific resources (material and budgets) will be used to implement each action?

IV. **Defined expectations**: Does the action plan clearly define expected results (possibly broken down in final results and intermediate milestones) for each action?

V. **Clear timeline:** Does the action plan define a clear timeline for implementation of the different actions?

VI. **Assigned actors:** Does the action plan define concrete actors to implement each action?

VII. **Commitment of key procurers:** Have the relevant key procurement organisations in the country committed and been mobilised to implement the action plan?

VIII. **Decision making structure:** Does the action plan define clear, lightweight decision-making structures for innovation procurements that require approval from procurers and/or policy makers from different levels of government (local, regional, national) and/or different sectors (e.g. health, energy, environment)?

IX. **Pooling of demand:** Does the action plan define concrete measures to pool demand among public (and possibly also private) procurers in the country (e.g. by creating fast/lightweight mechanisms for approving ad-hoc joint innovation procurements, by mandating specific entities such as associations of cities, central purchasing bodies to carry out regularly joint innovation procurements on behalf of a group)?

**The score of each sub-indicator depends on three factors**, namely

(i) whether it is **for all types of innovation procurement**

(ii) the **coverage across the country** (e.g. only applicable to some public procurers in certain sectors or at certain levels of government, only for some regions/cities) and

(iii) whether it is used to **mainstream innovation procurement at large scale**.

If the country has **not developed a dedicated action plan** to support and develop innovation procurement, the country automatically **scores 0%**. The same score is given to countries that have not developed a dedicated action plan for innovation procurement but refer to innovation procurement into other sectoral or horizontal action plans. Conversely, if a dedicated action plan has been developed, a score is given depending on the three variables above. The table below illustrates the scores that each sub-indicator can achieve.

**Table 11. Possible scores for each sub-indicator of indicator 5**

| Indicator 5: sub-indicators' possible scores | Score |
|---|---|
| Action plan covers only a subset of the different types of innovation procurement, is not applicable across the whole country and is not implemented for mainstreaming innovation procurement at large scale. | 25% |
| Action plan is for all types of innovation procurement but is not applicable across the whole country and is not yet implemented for mainstreaming innovation procurement at large scale. | 50% |
| Action plan is for all types of innovation procurement, is applied across the whole country but is not yet implemented for mainstreaming innovation procurement at large scale. | 75% |
| Action plan is for all types of innovation procurement, is applied across the whole country and is implemented for mainstreaming innovation procurement at large scale. | 100% |

*Source: Author's elaboration*

The total score on the indicator "dedicated action plan" is calculated as the average of the scores of each sub-indicator. Hence, the equation to calculate the score of the indicator takes the following form:

$$Ind5 = \frac{subInd\ 1 + subInd\ 2\ + subInd\ 3 + subInd\ 4 + subInd\ 5 + subInd\ 6 + subInd\ 7 + subInd\ 8 + sunInd\ 9}{9}$$

where *subInd x* indicates the score of the sub-indicator x.

## 2.12. Indicator 6 – Spending target

In the field of R&D and innovation, setting spending targets is a widely used approach to encourage investments. Over the past few years, several countries around Europe have set a specific spending target for innovation procurement as a percentage of the annual country public procurement expenditure that should go to innovation procurements. As explained in the definition of innovation procurement (see section 1.7 "Indicator 1: Definition") a healthy public procurement market needs **20% of public procurement expenditure to be invested in innovation procurement, consisting of 3% of R&D procurements and 17% of PPI procurements**. This indicator therefore tracks to what extent each country has defined and set specific quantitative spending targets for innovation procurement, and how far they are still away from the above ambition levels for innovation procurement spending that are needed to become an innovation-friendly public procurement market.

**Why does a healthy economy need 3% of R&D procurement and 17% of PPI procurement (and thus in total 20% of public procurement to be invested in innovation procurement)?**


***Figure 2: Rogers' original Innovation Adoption Curve***

According to Everet Rogers' original Innovation Adoption curve (1962), also called the Law of Innovation diffusion model[4], there are five types of customers and new products need to go from left to right through a Bell-shaped adoption curve to become mainstream products. If a new product does not find sufficient innovator type customers (more than 2,5%) that are willing to get involved in the development and testing of new solutions, it will later not find enough early adopters that are willing to be among the first ones on the market to deploy the solutions. The innovator type customers will typically also become early adopters, but there are not enough of them to help a product reach mass market adoption. If a product does not find sufficient early adopter type customers (more than 16%) the product will not be able to convince the early and late majority type customers (also called the pragmatics and conservative type customers) to buy the product. The percentages mentioned on Bell's curve come from the statistical Normal Gaussian distribution and were based on the modelling assumption that the transition between the different customer categories corresponded perfectly with standard deviations of respectively 1 and 2.

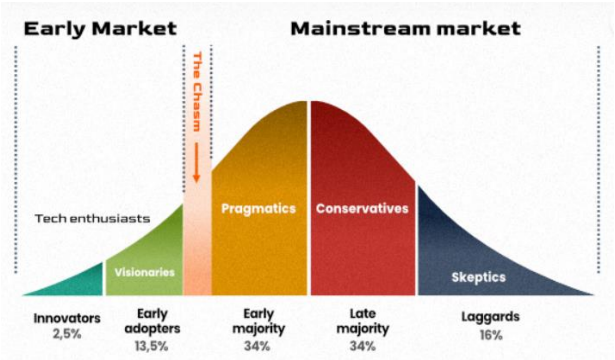



***Figure 3: Geoffrey Moore's adjusted Bell curve***

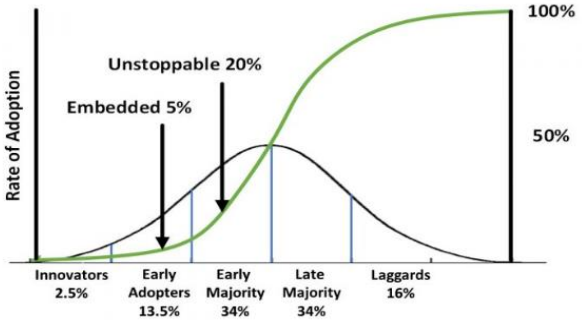


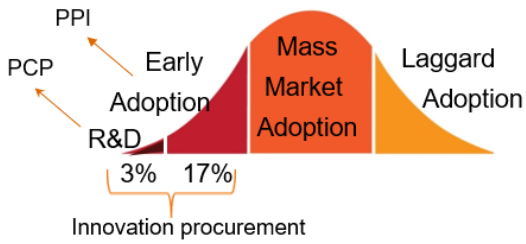

***Figure 4: Malcolm Gladwell's adjusted Bell curve***

However, later analysis of companies' actual sales results across different sectors showed that in practice these theoretical values are a bit too low because there is a 'small' chasm between the innovator and early adopter type customers and a 'bigger' chasm between the early adopters and mainstream market customers. New products need to cross these chasms to be really purchased by the next category of customers[5]: It was thus found that **new products need to cross the theoretical 2,5% and 16% tipping points with a certain margin to really cross these chasms**. This led to the adjusted insight that - especially in conservative markets - a new product needs 20% of early market type customers before it will really get widely diffused and it becomes a mainstream product that is also adopted by the majority of the more conservative customers on the market[6]. The adjusted Bell curve explains that **the change that is kickstarted by innovator type customers starts triggering early adopters around 3% but it is only really embedded in their organisation at 5%, and a product's transition to mainstream market adoption is only unstoppable at 20%**.

[4] Everet M. Rogers, Diffusions of Innovaions, 5th Edition (New York, Free Press, 2003, p281). For more info online, see: https://en.wikipedia.org/wiki/Technology_adoption_life_cycle

[5] https://www.researchgate.net/figure/Geoffrey-Moores-adjusted-bell-curve-of-innovation-diffusion-taken-from_fig1_335175045

[6] https://cwbsa.com/innovation-adoption-curve and https://www.futurelearn.com/info/courses/sustainable-fashion/0/steps/13543




Translating this to the public procurement market (also notoriously known to be a conservative market) means that a healthy economy needs 20% of its public procurement expenditure to be invested in innovation procurement – 3% to R&D procurement and 17% to public procurement of innovative solutions – in order to reach a sufficient level of early adopters that are needed to encourage the rest of the public procurement market to widely adopt the innovations afterwards (as highlighted in Commission notice on innovation procurement C(2018)3051).

**Other parts of the world are already achieving this level or even higher level of expenditure on innovation procurement**: South Korea has a target to spend 25% of its public procurement on innovation procurement (5% on R&D procurement and 20% on public procurement of innovative solutions). In 2022, the US federal government spent $51,88 Bn on R&D procurement[7], which is 7,5% of the $694 Bn[8] total federal public procurement spending. The US also invests almost the double (3,5%) of Europe (2% of GDP) in ICTs[9], which are major drivers for public sector modernisation and for innovation procurement.

**Why set two separate targets (one for R&D procurement and one for PPI procurement)?** As the above Bell curves show, it is important to encourage both sufficient R&D procurement and sufficient PPI procurement:

- **Innovator type customers (R&D procurements)** are important because they can trigger the development of solutions in areas where industry did not see itself a customer need for a new solution, or where industry does not see a clear business case to invest in the development of the solution without clear customer demand. R&D procurements can help industry focus on solution features for which there is true demand and prevent wasting time on developing features for which there is no demand. By providing earlier customer feedback to industry, it can also speed up the time to market for bringing innovations to the market. The fact that a potential customer shows already interest in a solution at the development stage also helps companies attract financial investors to further grow their business so that for public procurers they become more reliable companies to buy solutions from in follow-up PPI procurements.
- **Early adopter type customers (PPI procurements)** are important because they can trigger wider deployment of innovative solutions, because their purchase signals to mass markets that there is a sufficient level of customer acceptance for the solutions.

Let's now take a closer look at how indicator 6 tracks progress on target setting across Europe.

Indicator 6 is composed of a set of **five sub-indicators**:

I. **Presence of a target definition**: Has a spending target for innovation procurement been set in the country (as percentage of total public procurement spending)?

II. **Coverage**: Is this spending target applicable in the whole country?

III. **Applicability to all types of innovation procurement**: Is the spending target applicable to all types of innovation procurement (both R&D incl. PCP, and PPI)?

IV. **Separated target**: Is there a separate target for R&D procurement and a separate spending target for public procurement of innovative solutions (PPI) respectively?

V. **Commitment of key procurers**: Is the spending target backed by operational commitments from key procurers to invest in innovation procurements?

[7] https://ncses.nsf.gov/pubs/nsf24327

[8] https://www.gao.gov/blog/snapshot-government-wide-contracting-fy-2022#:~:text=In%20Fiscal%20Year%202022%2C%20the%20federal%20government%20committed,billion%20from%20FY%202021%20after%20adjusting%20for%20inflation

[9] Science, Research and Innovation Performance of the EU 2020 - Chapter 5.4: https://ec.europa.eu/assets/rtd/srip/static/files/SRIP_2020_Chap_1.5.4.pdf

A country without a specific spending target automatically scores 0%. Having a spending target leads to a score, which depends on the extent to which the target is developed according to the five sub-indicators.

The table below provides an overview of the **possible scores** for each sub-indicator of indicator 6:

| Table 12. Possible scores for each sub-indicator of indicator 6 | | | |
|---|---|---|---|
| **Sub-indicators for indicator 6 / possible scores** | 0% | 10% | 20% |
| ❑ Presence of spending target | N | / | Y |
| ❑ Country coverage: national level | / | Y - Regional | Y - National |
| ❑ For all types of innovation procurement | N | / | Y |
| ❑ Separated target | N | / | Y |
| ❑ Commitment of key procurers | N | / | Y |

*Notes: Y="Yes"; N="No"*

*Source: Author's elaboration*

The total score on the indicator "spending target" is calculated as the sum of the scores of each of the 5 sub-indicators. Hence, the equation to calculate the score of the indicator takes the following form:

$$Ind6\ score = subInd1 + subInd2 + subInd3 + subInd4 + subInd5$$

## 2.13. Indicator 7 – Monitoring System

Without evidence about the progress on innovation procurement that has been achieved so far, policy makers cannot make informed decisions for the future on how to design policy actions to catch up in areas that are lagging behind. The current lack of a systematic monitoring of progress on innovation procurement across Europe also limits policy makers to set more ambitious targets for innovation procurement spending. Therefore, a number of countries around Europe decided to set up a national monitoring system for innovation procurement. This indicator reflects to which extent the following two monitoring dimensions have been developed in each country: **measuring innovation procurement expenditure** and **evaluating the impacts of completed innovation procurements**.

This indicator is composed of **two sub-indicators**:

- ❑ **Expenditure measurement**: reflects to which extent the country has developed an approach for measuring the amount of total public procurement expenditure that is spent on innovation procurements.
- ❑ **Impact evaluation**: reflects to which extent each country has developed an approach for evaluating the impacts of completed innovation procurements.

**The scoring depends on 4 factors**: If the country does not have an expenditure measurement nor an impact evaluation system, it automatically scores 0%. For each sub-indicator, if the country has an expenditure measurement or impact evaluation system, the country scores at least 25%. Additional 25% scores are obtained depending on the three additional factors presented in the table below that reflect to which extent the measurement or evaluation system is developed: (1) whether the system is applicable to all types of innovation procurement, (2) whether it is implemented across the whole country and (3) whether it is based on a structured approach (meaning an approach that is regularly and systematically applied according to a sound methodology, not a one-off pilot exercise).

The table below provides an overview of the possible scores for these two sub-indicators:

| Table 13. Possible scores for each sub-indicator of indicator 7 | |
|---|---|
| **Sub-indicators for Indicator 7** | **Score** |
| Existence of a system | 25% |
| Applicable for all types of innovation procurement | 25% |
| Implemented widely across the country | 25% |
| Based on a structured approach | 25% |

*Source: Author's elaboration*

The score of the indicator "monitoring system" is based on the average of sub−indicator I (measurement system) and II (impact evaluation system). Hence, the total score is based on the following calculation:

$$Ind7\ score = \frac{subInd1 + subInd2}{2}$$

where *subInd x* indicates the score of sub-indicator x.

## 2.14. Indicator 8 – Incentives

A major barrier for innovation procurement is the risk averseness of public procurers because of a lack of incentives for them to innovate. Some countries in Europe have therefore created financial or other types of demand-side incentives to encourage public procurers to undertake more innovation procurements. This indicator tracks progress on this incentive structure across different countries.

The indicator entitled “incentives” is composed by **two sub-indicators**:

I. **Financial incentives** that reduce the financial risk for procurers to undertake more innovation procurements (e.g. via grants, loans, tax incentives, crowd funding etc.)

II. **Personal incentives** that provide extra personal motivation to the procurer itself to undertake more innovation procurements (e.g. KPIs/targets to improve the quality and/or efficiency of public services that need to be reached by procurers, career promotion opportunities or bonuses, prizes/awards for best practices etc.)

**The scoring system of sub-indicator I “financial incentives” is based on 7 factors** (see table below) as follows. A country without financial incentives for innovation procurement scores automatically 0%. If the country provides financial incentives to public procurers to undertake more innovation procurements, it scores at least 14,28%. Additional 14,28% scores are obtained depending on six additional **factors that reflect to which extent the financial incentives are developed**: (1) whether there are only national financial incentives (top-up funding) available for cases that can receive financial support from EU programs, (2) or whether there are also national financial incentives available for cases that cannot receive financial support from EU programs, (3) whether dedicated ESIF funds have been mobilised for innovation procurement, (4) whether the above type financial incentives are available for all types of innovation procurement, (5) whether they are available across the whole country and (6) whether they are designed to foster large scale implementation of innovation procurement.

The table below provides an overview of the possible scores for the sub-indicator I “financial incentives”:

**Table 14. Possible scores for the first sub-indicator of indicator 8**

| **Sub-indicator “financial incentives” composition** | Score |
|---|---|
| Existence of financial incentives | 14,28% |
| Availability of national financial incentives for cases that can get financial support from the EU (top-up funding on top of EU funding)[10] | 14,28% |
| Availability of national financial incentives for cases that cannot get financial support from the EU | 14,28% |
| Dedicated ESI funds mobilised for innovation procurement | 14,28% |
| Directed to all types of innovation procurement | 14,28% |
| Applicable countrywide | 14,28% |
| Designed to foster large scale implementation of innovation procurement | 14,28% |
| Total | **100%** |

*Source: Author’s elaboration*

[10] EU financial incentives for innovation procurement include for example H2020 or ESIF co-financing, EIB loans to procurers, etc.

**The scoring for sub-indicator II "personal incentives" is calculated based on two factors**:

- Existence of personal incentives - yes or no
- Coverage: applicable countrywide – yes or no

The table below provides an overview of the possible scores for sub-indicator II:

| Table 15. Possible scores for second sub-indicator of indicator 8 | | | |
|---|---|---|---|
| **Sub-indicator "personal incentives" possible scores** | 0% | 50% | 100% |
| Existence | N | Y | Y |
| Coverage – applicable country wide | N | N | Y |

*Note: Y = Yes, N = No*

*Source: Author's elaboration*

The total score on the Indicator 8 "incentives" is calculated as the average of the total scores of the sub-indicator I "financial incentives" and the sub-indicator II "personal incentives". The corresponding calculation takes the following form:

$$Ind8\ score = \frac{subInd\ I + subInd\ II}{2}$$

where *subInd x* indicates the score of the sub-indicator x.

## 2.15. Indicator 9 – Capacity building and assistance measures

Lack of know-how and experience among public procurers is also a significant barrier to innovation procurement. Several countries around Europe have therefore set up measures to build up the know-how of public procurers on innovation procurement and/or to provide tailored case-by-case assistance to public procurers to implement specific innovation procurement projects. To make these measures easily accessible to public procurers in a one-stop-shop, these activities are typically coordinated by a competence centre on innovation procurement. This indicator measures to what extent different capacity building activities and assistance measures for innovation procurement have been implemented in each country.

The indicator is composed by **9 sub-indicators**, which each reflect different capacity-building activities:

I. **Central website**: a central website in the country that explains why the country encourages public procurers to undertake innovation procurement and that gives an overview of existing and upcoming policy initiatives to mainstream innovation procurement

II. **Good practices**: publication by the country of good practices / case examples on innovation procurement

III. **Trainings and workshops**: organisation by the country of trainings and workshops for public procurers on innovation procurement

IV. **Handbook or guidelines**: publication by the country of an official handbook or guidelines on how to implement innovation procurement

V. **Assistance to public procurers**: case specific implementation assistance offered by the country to public procurers to prepare and implement innovation procurements. This includes practical and legal assistance as well as assistance to public procurers to obtain hierarchical approval and financial support for implementing innovation procurements

VI. **Template tender documents**: publication by the country of template tender documents for public procurers for implementing innovation procurements

VII. **Coordination of procurements**: availability of government pre-approval or coordination for the implementation of innovation procurements in the country

VIII. **Networking activities between procurers**: networking activities organised by the country to facilitate experience sharing and networking between procurers in other cities/regions, sectors, countries (e.g. online via a forum, or via physical meetings)

IX. **One-stop-shop for public procurers**: existence of one single officially appointed entity in the country (typically a national competence centre on innovation procurement) through which public procurers can access all the above types capacity building and/or assistance measures.

The scoring for each sub-indicator is based on **6 factors that reflect the level of development of the specific capacity building activity**. If the activity is not implemented in the country, the country scores 0% on the sub-indicator. If the activity is implemented in the country, its score depends on the following additional five factors:

- If the activity interconnects to EU initiatives supporting innovation procurement
- If the activity is offered free of charge
- If it covers all aspects of information procurement
- If it is applicable to all public procurers in the country
- If it promotes innovation procurement at a large scale

The total score of each sub-indicator depends on how many of the six factors shown in the table below are incorporated in the specific capacity building activity. For each factor that is incorporated an additional 16,66% score is given. For example, if the capacity building activity incorporates all six factors, the total score is 6 times 16,66% or 100%.

The table below provides an overview of the possible scores for each sub-indicator:

**Table 16. Possible scores for each sub-indicator of indicator 9**

| **Indicator 9: sub-indicators' composition** | Score |
|---|---|
| Existence of the activity | 16,66% |
| The activity interconnects to EU initiatives supporting innovation procurement | 16,66% |
| The activity is offered free of charge | 16,66% |
| The activity covers all aspects of innovation procurement | 16,66% |
| The activity is applicable to all public procurers in the country | 16,66% |
| The activity promotes innovation procurement at a large scale | 16,66% |
| Total | 100% |

*Source: Author's elaboration*

The overall score of the indicator is calculated as the average score of each sub-indicator. Hence, the core equation of the "capacity building and assistance measure" indicator takes the following form:

$$Ind9\ score = \frac{subInd\ 1 + subInd\ 2\ + subInd\ 3 + subInd\ 4 + subInd\ 5 + subInd\ 6 + subInd\ 7 + subInd\ 8 + subInd9}{9}$$

where *subInd x* indicates the score of the sub-indicator x.

## 2.16. Indicator 10 – Innovation friendly public procurement market

This indicator reflects to what extent the national public procurement market in each country is innovation friendly and is therefore conducive to encourage the wide scale implementation of Innovation Procurement.

Indicator 10 is composed by **two multi-dimensional sub-indicators**:

I. The use of specific techniques to foster innovation in public procurement

II. The openness of the national procurement market to innovations from across the EU single market.

**Sub-indicator I** reflects to which extent the following **specific techniques are used that foster innovation in public procurement**:

a. The use of an IPR regime that leaves IPR ownership by default to the suppliers

b. The frequency of the use of value for money instead of lowest price award criteria

c. The frequency of allowing the submission of variant offers

d. The frequency of the use of preliminary market consultations

The **score for sub-indicator I** is calculated as the unweighted average of the scores for the four sub-sub-indicators “a. IPR regime”, “b. value for money”, “c. use of variants” and “d. open market consultations”.

In the vast majority of the cases, public buyers do not need to buy the ownership of IPRs that are generated by suppliers, and it is even better for the public buyer not to do that. Indeed, evidence[11] shows that leaving IPR ownership with suppliers fosters innovation (which delivers higher quality and more efficient solutions to the buyer), company growth (which results in more stable suppliers to buy from) and reduces also the costs of public contracts. Deciding not to buy IPR ownership still allows the public buyer to obtain all the required rights to safeguard his own freedom to operate (including avoiding supplier lock-in), while leaving the responsibility and costs to protect and maintain the IPR and to deal with potential legal claims with the contractor. Therefore, the EC[12] recommends[13] Member States that public buyers only buy those IPR related rights that they really need. As public buyers do not need IPR ownership in the vast majority of the cases this means in practice that, in public procurements, it should be the default rule that suppliers keep the ownership of their IPR and procurers only buy the required usage and licensing/call-back related rights that are needed to fulfil their public tasks, unless in exceptional duly justified cases (where there are overriding public interests that require the public buyer to own all IPR because the supplier cannot be allowed to commercialise the solutions).

Therefore, sub-indicator (a) indicates to which extent each country has implemented such a default IPR regime.

The sub-sub-indicator "a. default IPR regime" reflects whether in the country the IPR ownership is normally left to the suppliers (contractors/subcontractors) in public procurement or not (This sub-indicator tracks if the IPR ownership, not at all IPR related rights, is normally left with suppliers). The possible scores for (a) are:

- If the default regime defined for public procurement in the country is to leave IPR ownership with the public procurer, the score is 0%;
- If no default regime is defined for IPR allocation in public procurement in the country and the responsibility is entirely left to the procurer to decide whether to leave IPR ownership to the contractor or not, the score is 25%;
- If the default regime defined for public procurement in the country is to leave IPR ownership with the contractors, but this is only recommended through guideline documents, the score is 50%;
- If the default regime defined for public procurement in the country is to leave IPR ownership with the contractors, and this is the approach used in the general terms and conditions for government contracts, the score is 75%;
- If the default regime defined for public procurement in the country is to leave IPR ownership with the contractors, and this is the approach defined in public procurement law, the score is 100%.

The score for the sub-sub-indicator "b. the frequency of the use of value for money instead of lowest price award criteria" is calculated using the “Indicator 5: Award criteria” of the EU Single Market Scoreboard published by the European Commission[14]. The EU Single Market Scoreboard indicator measures the proportion of procedures, which were awarded only on the basis of lowest price. As a result, the score for “b. frequency of use of value for money award criteria” is calculated as follows:

$$Frequency\ of\ use\ of\ value\ for\ money = 100\% - proportion\ of\ procedures\ awarded\ only\ on\ the\ basis\ of\ lowest\ price$$

Another sub-sub indicator used to determine to what extent specific techniques are used to foster innovation in public procurement is “c. frequency of allowing the submission of variant offers". It is based on the assumption that in countries where bidders are allowed to propose variants to meet public procurers’ needs, the likelihood of proposing – and consequently purchasing – innovative solutions increases. This sub-sub indicator takes into account the proportion of calls

[11] DIGITAL STRATEGY - Economic benefits of leaving IPR ownership in public procurements with companies: https://ec.europa.eu/newsroom/dae/items/56812/en

[12] Commission notice C2021(267/01) "Guidance on innovation procurement", https://op.europa.eu/en/publication-detail/-/publication/9f9537e9-de23-11eb-895a-01aa75ed71a1

[13] https://digital-strategy.ec.europa.eu/en/news/eu-recommends-member-states-leave-ipr-ownership-public-procurements-contractors?r

[14] http://ec.europa.eu/internal_market/scoreboard/performance_per_policy_area/public_procurement/index_en.htm

for tenders (CfTs) allowing for variants out of the total number of CfTs.[15] As this information is not available for all countries for procurements that are not published in the TED database, the sub-sub indicator score is calculated only for procurements that are published in the TED database, as follows:

$$Frequency\ of\ allowing\ the\ submission\ of\ variants = \frac{Number\ of\ CfTs\ in\ TED\ allowing\ variants}{Total\ \#\ of\ CfTs\ in\ TED}$$

Finally, the fourth sub-sub-indicator contributing to the score of sub-indicator I consists of "d. frequency of the use of preliminary market consultations". The underlying assumption is that procurement procedures consult the market during the preparation of their procurement are more likely to result in the purchase of an innovative solution. This is due to the fact that public procurers usually resort to preliminary market consultations when they have a specific need to address, but do not know a pre-defined solution. For this reason, public procurers are willing to interact with the market to verify if innovative solutions could meet their needs.

This sub-sub indicator is calculated as the proportion of prior information notices (and periodic indicative notices in the field of utilities)[16] that envisage an open preliminary market consultation, out of the total number of contract notices published in TED. Since prior information notices and periodic indicative notices are not available for all countries for procurements that are not published in the TED database, the sub-sub indicator score is calculated only for procurements that are published in the TED database, as follows:

$$Frequency\ of\ preliminary\ market\ consultations = \frac{Number\ of\ prior\ information\ notice\ and\ periodic\ indicative\ notices\ in\ TED\ envisaging\ a\ preliminary\ market\ consultation}{Total\ \#\ of\ CfTs\ in\ TED}$$

To determine whether a prior information notice or a periodic indicative notice announced a preliminary market consultation, a keyword search was carried out within all available textual variables of the following expressions that are usually used to refer to a preliminary market consultation:[17]

- Preliminary market consultation
- Open market consultation
- Market dialogue/event/workshop/meeting/roundtable
- Industry/contractors'/suppliers'/information day
- Meet the buyers/procurers/clients/customers

In order to ensure a complete coverage of all different expressions to refer to preliminary market consultations, in addition to the entire strings (e.g. "preliminary" AND "market" AND "consultation"), also parts of the strings were searched (e.g. "preliminary" OR "market" OR "consultation") and manually checked.

**Sub-indicator II**, i.e. the **openness of the national procurement market to innovations from across the EU single market**, reflects to which extent all potential providers of innovative solutions (including new, non-established providers from other countries across the EU single market) are able to find interesting procurement opportunities in the respective country (level of transparency of public procurements in the country on the EU single market) and are able to compete for those opportunities (level of competition in public procurements in the country on the EU single market):

- ❑ The level of competition on the EU single market
- ❑ The level of transparency on the EU single market

Sub-sub-indicator "a. level of competition" takes into account the following two indicators:

[15] The calculation of the sub-sub indicator was based on the database of 2018 contract notices available through the EU Open Data Portal, and took into consideration all notices with ID_TYPE equal to 1 (Prior information notice), 2 (Contract notice), 4 (Periodic indicative notice utilities), 5 (Contract notice utilities), 7 (Qualification system utilities), 16 (Prior information notice defence and security), 17 (Contract notice defence security, 21 (Social and other specific services – public contracts), 22 (Social and other specific services – utilities), 24 (Concession notice).

[16] The calculation of the sub-sub-indicator was based on the database of 2018 contract notices available through the EU Open Data Portal, and took into consideration all notices with ID_TYPE equal to 1 (Prior information notice), 4 (Periodic indicative notice utilities), 16 (Prior information notice defence and security).

[17] Whenever available, official translations from the EU Public Procurement Directives were retrieved (e.g. Article 40 of Directive 2014/24/EU for "Preliminary market consultation". The data fields that were searched included: "Title", "Short description", "Description of the procurement", "Additional information" (section II), and "Additional information" (section IV).

1. Proportion of contracts awarded where there was more than one bidder
2. Proportion of procurement procedures that have used a call for bids to find a contractor (as opposed to directly awarding a contract to a specific contractor without allowing other parties to make bids)

The EU Single Market Scoreboard provides information on the proportion of contracts published on TED where there was just a single bidder (Indicator 1 “Single bidder”) and on the proportion of procurement procedures that were, according to the contract award notice on TED, negotiated with a company without a call for bids (Indicator 2 “Direct Awards”). These two indicators are used to estimate (1) and (2). The total score for "a. level of competition" is calculated as the unweighted average of (1) and (2).

Similarly, sub-sub-indicator "b. level of transparency" takes into account the following aspects:

1. Publication rate, i.e. the value of procurement advertised on TED as a proportion of GDP
2. No missing calls for bids information, i.e. the percentage of contract award notices that include the publication number of the related call for competition, which allows to link contract notice and contract award notice
3. No missing registration numbers of the buyer, i.e. percentage of cases where the registration number of the buyer is included in the call notices on TED

The scores for these three factors are calculated using the indicators "Publication value by GDP" (Indicator 3), "Missing previous publication number" (Indicator 10) and "Missing buyer registration numbers" (Indicator 12) provided by the EU Single Market Scoreboard. Hence, the total score for "b. level of transpare``ncy" is calculated as the unweighted average of the scores for (1) to (3).

The **score for sub-indicator II** is calculated as the unweighted average of the scores for the two sub-sub-indicators "a. level of competition" and "b. level of transparency".

Overall, the total score for the indicator "innovation friendly public procurement market" is calculated as the unweighted average of the total scores for the two sub-indicators I and II, namely:

$$Ind\ 10 = \frac{subInd\ I + subInd\ II}{2}$$

**Methodological note: calculation in case of values that were missing in the EU Single Market Scoreboard.**

When the latest values from the EU Single Market Scoreboard were not available, the most recent values were retrieved. In case of values missing not only for the latest year, but also for the entire time series, the score of the sub-indicator was calculated according to the same method used by the EU Single Market Scoreboard (e.g. for the UK and Switzerland).

## Annex I. Survey used for the benchmarking of innovation procurement policy frameworks

The survey for this 2024 benchmarking of national innovation procurement policy frameworks across Europe was available at https://ec.europa.eu/eusurvey/runner/f989b181-80b7-c26a-466f-3683ebe124a1 from May 2023 until June 2023. It was designed using the template developed in the first 2020 benchmarking, with the aim to cover all aspects that constitute the ecosystem of innovation procurement, from the legal framework to financing. Addressees, identified in the first months of project implementation, were key national procurement experts, namely, the officials from relevant ministries (public procurement, innovation, sectoral ministries), public procurement offices, ministries / agencies running funding programmes for innovation procurement, competence centres for innovation procurement, other individual experts on innovation procurement. Below we provide the integral text of the survey, including the introduction where we explained the scope, the objectives and the functioning of the survey.

# EU Innovation Procurement Observatory Survey

Fields marked with * are mandatory.

**Introduction to the survey**

**Background information:**

**Project**: This survey is taking place in the context of the project "EU Innovation Procurement Observatory" conducted by PricewaterhouseCoopers, Public and AITECH, for the European Commission, DG CNECT.

**Coverage**: 30 countries - 27 EU Member States, Norway, Switzerland and the UK.

**Purpose of the survey**: Gather qualitative evidence across the 30 countries regarding their progress in implementing a mix of policy measures that foster innovation procurement. Additionally, collect a set of good practice examples.

**Survey details:**

**Target survey participants:** representatives and experts working on innovation procurement in each of the 30 countries.

**Expected completion time:** around 30 minutes, unless additional time is needed to collect the information from multiple sources and contact points in your country.

**Technical completion time:** Please note that your session will time out in 30 minutes. However, you can take as long as you need and save your contribution as a 'draft' on the server and continue later. Save your work as a draft before your session times out.

**Supporting documentation:** Evidence are fundamental for this benchmarking, so we request you to provide additional documents (or the weblink to those) to support your answers.

**Good practices:** In the last section we ask you to provide at least one good practice case example, identifying also different impacts achieved. Please attach relevant file in the last section.

**Confidentiality**: Please note that personal data and information that you share with us in this survey will not be disclosed to third parties, unless you agree differently.

Thank you in advance for the time you dedicated to our cause.

Click here for additional information about the EU Innovation Procurement Observatory.

1. Definitions

***A common understanding of what is meant by innovation procurement is an essential prerequisite to encourage the use of innovation procurement across a country.***

*The objective of this indicator is therefore to check to which extent there is a clear official definition in the legal framework of the country for Innovation Procurement, R&D procurement, Pre-Commercial Procurement (PCP) and Public Procurement of Innovative solutions (PPI). A definition is considered official, when it is published in an official government document (e.g. in legislation, circulars, guidance, template tender documents issued by the government).*

***For information on what is considered as innovation procurement, R&D procurement, PCP and PPI in the EU, please read the document attached.***

***Question 1**: For which of the following types of procurement is there an official definition in your country, either at a national or regional level? You can tick multiple boxes.

- ❑ **Innovation procurement**: Tick the box if there is an official (national or regional) definition for innovation procurement in your country
- ❑ **R&D procurement**: Tick the box if there is an official (national or regional) definition for R&D procurement in your country
- ❑ **Pre-commercial procurement (PCP)**: Tick the box if there is an official (national or regional) definition for PCP in your country
- ❑ **Public procurement of innovation solutions (PPI)**: Tick the box if there is an official (national or regional) definition for PPI in your country
- ❑ To the best of my knowledge, official definitions do not exists on the types of procurement.

**Please provide the link to relevant documents (and additional free text information, if relevant) to support your answers.**
Include in particular the link to government documents that include the official definitions. In case there are multiple documents related to the definition (e.g. a legislation and a guidance document), please provide the link to both.
In case a specific definition is not available yet but it is under preparation, or an existing definition is currently being revised, please also explain in the free text field what is the status of the ongoing work on creating comprehensive and clear official definitions for innovation procurement.
Please clarify also if there any limitations in the applicability of the definitions (e.g. is the definition defined at national level for the whole country, or only within a specific region of the country?).
**Question**: Please upload relevant documents to support your answers

## 2. Horizontal policies supporting innovation procurement

*Innovation procurement does not happen in isolation, but at the intersection of related policies. This indicator reflects the extent to which innovation procurement is embedded as a strategic priority in policies that define the innovation procurement ecosystem in your country.*

***Question 2**: Which of the following horizontal policies are encouraging innovation procurement as a strategic priority in your country, either at a national or regional level? You can tick multiple boxes.

- ❑ R&D policies: Tick the box if there is a R&D policy in your country that explicitly emphasises the importance of innovation procurement, in particular also R&D procurement, in the broader R&D government strategy and actively encourages public procurers to implement innovation procurements, in particular also R&D procurements
- ❑ Innovation policies: Tick the box if there is an innovation policy in your country that explicitly emphasises the importance of innovation procurement in the broader government innovation strategy and actively encourages public procurers to implement innovation procurements.

- ❑ Public procurement policies: Tick the box if there is a public procurement policy in your country which explicitly emphasises the strategic importance of innovation procurement in the broader government public procurement policy to improve the quality and efficiency of public services.
- ❑ Competition policies: Tick the box if there is a specific strategy in the competition policy in your country to ensure a transparent, non-discriminatory, and level playing field for all actors involved in innovation procurements in the market.
- ❑ Digital / ICT policies: Tick the box if if there are digital / ICT policies in the country which recognise the strategic importance of innovation procurement to speed up public sector modernisation through the uptake of innovative digital solutions. This can include both the overall digital / ICT policy in the country as well as policies for specific ICT technologies (e.g. the policies for cybersecurity, AI, quantum, big data etc).
- ❑ Economic / trade policies: Tick the box if there are economic policies in the country that explicitly emphasise the strategic importance of innovation procurement for economic growth (e.g. in the context of economic reforms, industrial competitiveness, public sector efficiency, job creation or trade or export strategies).
- ❑ Entrepreneurship policies: Tick the box if there is an entrepreneurship policy in the country that emphasise the strategic importance of innovation procurement as a method of creating business opportunities for entrepreneurs or boosting the scale-up of startups and SMEs.
- ❑ Financial policies: Tick the box if there are financial policies in your country that facilitate innovation procurement, such as VAT or other tax incentives for public procurers when they implement R&D procurements or public procurements of innovative solutions.
- ❑ Regional / Urban policies: Tick the box if there are regional and/or urban policies in your country that emphasise the strategic importance of innovation procurement for regional growth or urban development outcomes.
- ❑ None of the above

**Please provide the link to relevant documents (and additional free text information, if relevant) to support your answers**. Include in particular the link to the horizontal policies/strategies in your country that are encouraging innovation procurement. Specify if these policies/strategies are limited to only one geographic region in the country, or national policies applicable to the whole country. Include information about (and where possible links to) concrete initiatives that these policies have launched to encourage innovation procurement (e.g. info on concrete initiatives digital policies and programmes to encourage public buyers in the country to use public procurement as a tool to speed up the introduction of strategic digital solutions such as AI in public services, concrete initiatives in the country's regional / urban policies and programmes to encourage regional and local public buyers to undertake more innovation procurements, etc). In case work is currently still under preparation to include innovation procurement in a specific horizontal policy, or an existing horizontal policy is currently being revised to do so, please also explain the status of the ongoing work on encouraging innovation procurement through this horizontal policy in the free text field.

Please upload relevant documents to support your answers

### 3. Sectoral policies supporting innovation procurement

*Public procurers are more likely to undertake innovation procurement when it is clearly positioned as a strategic objective in policy frameworks or action plans for their specific sector. This indicator reflects the extent to which innovation procurement is embedded as a strategic priority in policy frameworks and action plans for the different sectors in which public procurers are active in each country.*

***Question 3**: Which of the following sectorial policies are encouraging innovation procurement as a strategic priority in your country, either at a national or regional level?

| Sector | Type of policy | | Type of procurement | |
|---|---|---|---|---|
| | Innovation procurement policy and/or action plan at the national level | Innovation procurement policy and/or action plan action plan at the regional level | For all types of innovation procurement (procurement of R&D, PCP, and PPI) | Unsure *(mark if no information is available on specific types of policy and procurement)* |

| | | | | |
|---|---|---|---|---|
| Healthcare and social services | | | | |
| Public transport | | | | |
| General public services, public administration, economic and financial affairs | | | | |
| Construction | | | | |
| Energy | | | | |
| Environment | | | | |
| Water | | | | |
| Public order, safety, security, and defence | | | | |
| Postal services | | | | |
| Education, recreation, culture and religion | | | | |

Please provide the link to relevant documents (and additional free text information, if relevant) to support your answers. Include in particular the link to the sectorial policies/strategies in your country that are encouraging innovation procurement. Specify if these policies/strategies are limited to only one geographic region in the country, or national policies applicable to the whole country. Include also link(s) to concrete policy actions that these policies have kick-started in to encourage innovation procurement in their specific sector. In case work is currently still under preparation to include innovation procurement in a specific sectorial policy, or an existing sectorial policy is currently being revised to do so, please also explain the status of the ongoing work on encouraging innovation procurement through this sectorial policy in the free text field.

Please upload relevant document to support your answers

### 4. Action plan for innovation procurement

*A number of countries around Europe have implemented or have started implementing a dedicated action plan for innovation procurement that sets out how the country's political ambitions on innovation procurement are planned to be turned into concrete actions. An action plan typically defines the planned actions, expected results, responsible actors, timeline and resources that are mobilised to mainstream innovation procurement. This indicator thus assesses to what extent policy ambitions for innovation procurement have been operationalized through a dedicated action plan for innovation procurement.*

***Question 4:** Is there an action plan for innovation procurement?

- ❑ Yes
- ❑ No

**Please provide the link to relevant documents (and additional free text information, if relevant) to support your answers**. In particular, provide the link to the action plan and other relevant materials that further elaborate on the practical implementation of the action plan. In case there is no separate action plan for innovation procurement in the country, but it is part of another broader strategy/action plan, please explain this in the free text field and provide the link to the broader strategy/action plan that includes the action plan for innovation procurement. In case a new action plan is still under preparation, or an existing action plan is currently being updated, please also explain the status of the ongoing work on the action plan in the free text field. In case the action plan is limited in scope, please clarify in the free text field the limitations in scope (e.g. if the action plan is not applicable to all types of public procurers in the country but only to those

in certain sectors, or only to certain levels of government, or only to certain geographical areas of the country (e.g. only in certain regions or cities)).

Please upload relevant documents to support your answers

### 5. Spending target for innovation procurement

*In the field of R&D and innovation, setting spending targets is a widely used approach to encourage investments (e.g. the 3% Lisbon target for R&D expenditure in Europe). Over the past few years, several countries around Europe have set a specific spending target for innovation procurement as a percentage of the annual country public procurement expenditure that should go to innovation procurements. Therefore, this indicator reflects the progress on target setting for innovation procurement across Europe.*

***Question 5:** Has a spending target for innovation procurement been set (as percentage of total public procurement spending)?

- ❑ Yes
- ❑ No

**Please provide the link to relevant documents (and additional free text information, if relevant) to support your answers**. In particular, clarify in the free text field if there is one global target for all types of innovation procurement, or if there are separate targets for R&D procurement and for public procurement of innovative solutions. Provide the link to the policy document(s) in your country that set the spending target(s) and define the scope of the target(s). In case the target is limited in scope, please clarify in the free text field the limitations in scope (e.g. if the target is not applicable to all types of public procurers in the country but only to those in certain sectors, or only to certain levels of government, or only to certain geographical areas of the country (e.g. only in certain regions or cities)). In case there is no target adopted yet but work on defining one is under preparation, or an existing target is currently being revised, please also explain the status of the ongoing work on the target setting activities in the free text field.

Please upload relevant documents to support your answers

### 6. Monitoring system

*The current lack of a systematic monitoring of progress on innovation procurement across Europe limits policy makers to set more ambitious targets for innovation procurement spending and to make well-informed decisions about how to best design new policy actions to catch up in areas where innovation procurement is lagging behind. Therefore, a number of countries around Europe have set up or are setting up a national monitoring system for innovation procurement. This indicator reflects to which extent the following two monitoring dimensions have progressed across Europe: measuring innovation procurement expenditure and evaluating the impacts of completed innovation procurements.*

***Question 6.1:** Is there a system for measuring innovation procurement expenditure?

- ❑ Yes
- ❑ No

***Question 6.2:** Is there a system for evaluating the impacts of completed innovation procurements?

- ❑ Yes
- ❑ No

**Please add relevant links about the expenditure and impact monitoring systems in your country.**
In case the scope of these expenditure and impact monitoring systems is limited in one way or another, please explain in the free text field its limitations in scope (e.g. the monitoring is only covering R&D procurements but not other types of innovation procurements, the monitoring is limited to only one region of the country, the monitoring covers only procurements implemented by public procurers at national level and does not monitor what is done at regional or local level, the monitor does not cover innovation procurements that were implemented by procurers that are active in the utilities or defence sector, it monitors only procurements that are funded by one specific funding programme etc.). Please also

clarify how regular the monitoring is implemented (continuously, once every year etc.) and how it is practically implemented (e.g. by doing surveys of key public procurers in the country, by monitoring all public procurement notices published in the country etc). Please also clarify whether the monitoring system is linked to targets or other objectives on innovation procurement that are set out in the country's innovation procurement action plan (if applicable). In case there is no monitoring system operational yet, but work is under preparation to create a monitoring system, or an existing monitoring is currently being revised, please also explain the status of the ongoing work on the monitoring system in the free text field.

Please upload relevant documents to support your answers

### 7. Incentives for innovation procurement

*A major barrier in Europe for innovation procurement is the risk averseness of public procurers because of a lack of incentives for them to innovate. Several countries around Europe have therefore created financial or other types of incentives to encourage public procurers to undertake more innovation procurements. This indicator tracks progress on implementing such an incentive structure across different countries*

***Question 7.1**: Are there financial incentives (such as grants, loans, tax incentives, insurance schemes, crowd funding, investment funds etc) to reduce the financial risk for public procurers to undertake innovation procurements?

*Please select the financial incentives that are available to public procurers in your country:

- ❑ The government is offering financial incentives to public procurers to undertake innovation procurements that are not (co)financed by the EU
- ❑ The government is offering financial incentives to public procurers to undertake innovation procurements that are using EU (co)financing (e.g. ESIF or RRF co-financing of innovation procurements, EIB loans for procurers to implement innovation procurements)
- ❑ There are no such incentives in our country.

*** Question 7.2**: Are there personal incentives that encourage public procurers to undertake innovation procurements (i.e. other types of incentives that do not co-finance the cost to undertake an innovation procurement)?

Tick if there are:

- ❑ KPIs for key procurement managers to modernize public services (minimum levels of quality and efficiency improvements to be achieved over mid to long term)
- ❑ Personal annual job performance of each procurement officer contains an objective to contribute to identify ideas for new innovation procurements that can generate quality/efficiency improvements for the procurer and to help carry out such innovation procurements
- ❑ Career incentives for procurers that succeed in contributing to innovation procurements (e.g. faster promotion)
- ❑ Bonuses for procurers that succeed in contributing to innovation procurements
- ❑ National / regional prize to reward procurers that completed outstanding innovation procurements
- ❑ Other personal incentives
- ❑ There are no such incentives in our country.

**Please provide links to relevant documents (and additional free text information, if relevant) to support your answers.** In particular, provide links that provide further information about any financial or personal incentives that exist in your country. In case the scope of these incentives is limited in one way or another, please explain in the free text field its limitations (e.g. the incentives are only covering R&D procurements but not other types of innovation procurements, the incentives are limited to only to procurers in one sector or in one region of the country etc.). In case there are no incentives available yet, but work is under preparation to create an incentive structure, or existing incentives are currently being revised, please also explain the status of the ongoing work on this in the free text field.

Please upload relevant documents to support your answers

## 8. Capacity building and assistance measures

*Lack of know-how and skills can be a significant barrier to implementing innovation procurement. Setting up specific measures to increase public procurers' capabilities and know-how on innovation procurement is crucial to overcome this barrier.*

*Accordingly, the aim of this indicator is to track progress on the capacity building and assistance measures for innovation procurement across countries (e.g. establishment of central websites and one-stop-shops, tailored assistance for conducting procurement procedures, provision of trainings and guidelines. etc.)*

***Question 8.1:** Central website

| | Yes | No |
|---|---|---|
| Does the government (or another entity such as an innovation procurement competence center appointed by the government) have a central website that promotes innovation procurement? | | |
| Can you provide the link? | | |

***Question 8.2:** Trainings and workshops

| | Yes | No |
|---|---|---|
| Does the government (itself or through another entity such as a competence centre on procurement that is appointed by the government) offer trainings/workshops for public procurers on innovation procurement? | | |

***Question 8.3:** Handbook or guidelines

| | Yes | No |
|---|---|---|
| Does the government provide official guidelines on innovation procurement? *(e.g. an implementation handbook)* | | |

***Question 8.4:** Support to public procurers in the preparation and implementation of innovation procurements

| | Yes | No |
|---|---|---|
| Does the government offer case specific (practical and legal) implementation assistance to public procurers in preparing and implementing innovation procurements? | | |

***Question 8.5:** Template tender documents

| | Yes | No |
|---|---|---|
| Does the government make available template tender documents to undertake innovation procurements? | | |

***Question 8.6:** Coordination

| | Yes | No |
|---|---|---|

| | | |
|---|---|---|
| Does the government pre-approve or coordinate the implementation of innovation procurements nationally/ regionally? | | |
| Does the government pre-approve or coordinate the implementation of innovation procurements that are implemented with EU financing? (e.g. RRF, ESIF, Horizon Europe, EIB financing) | | |

***Question 8.7:** Networking between procurers

| | Yes | No |
|---|---|---|
| Does the government facilitate experience sharing and networking between procurers in other countries, cities/regions, sectors? (e.g. online via a forum, or via physical meetings)? | | |

***Question 8.8** One-stop-shop for public procurers

| | Yes | No |
|---|---|---|
| Does the government offer a one-stop-shop service (a so-called innovation procurement competence center) where public procurers can retrieve useful information and receive capacity building support and/or assistance in implementing innovation procurement procedures? | | |

Please provide the link to relevant documents (and additional free text information, if relevant) to support your answers. In particular, provide (if available) the links to the central website, the programme of trainings and workshops, handbook or guidelines, the repository with template tender documents, other capacity building, networking and coordination measures as well as the one-stop-shop / competence center.

Please upload relevant documents to support your answers

## 9. Good practices

***Question 9.1:** Good practices

| | Yes | No |
|---|---|---|
| Has the government published good practices / case examples of inspiring innovation procurements?<br>(itself or through an official competence centre on procurement) | | |

***Question 9.2:** Good practice case example

Could you please provide at least one good practice case example of a successfully completed innovation procurement? (identifying also the different impacts that were achieved, e.g. on modernizing public services, accelerating company growth, facilitating access to the market for new players such as SMEs, encouraging deployment of standardized solutions, bringing innovative solutions to the market etc).

For those good practice examples that are available online, please provide the link(s) below.
For those good practice examples that are not available online, please upload a document that describes the good practice example and the impacts it has achieved.

Please upload relevant information and links

## 10. National Events and Projects

**Question 10.1:** Are there any national events or projects you are aware of that this project could create a synergy with (for example, on the topic of procurement of innovation)? Please add information about them.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