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Deliverable 2.1

Analysis of Public Procurement of Innovation in EU



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Analysis of Public Procurement of Innovation in EU

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Index of contents

1	Introduction.....	6
2	Overview of the European innovation procurement landscape.....	8
3	Analysis of the national landscape	16
3.1	Methodology.....	16
3.2	National PPI landscape.....	18
	Estonia	18
	Greece.....	20
	Italy	24
	Romania	27
	Poland	31
	Portugal.....	34
	Slovakia.....	37
	Spain (Andalusia).....	40
4	Conclusions and next steps.....	43
	Annex I: Case studies.....	47
	I.1 A concrete solution to reduce air pollution	47
	I.2 Hospital uniforms with bio-based fibres	49
	I.3 A fresh approach to cooling down a hospital.....	51
	I.4 Illuminating the London Underground	52
	I.5 Car Fleet Shared Management Platform.....	53
	I.6 Protecting the water supply	54
	I.7 Innovative technologies to meet environmental targets.....	55
	ANNEX II: Information sources	56
	I.1 At EU level	56
	I.2 At National level	57



Index of tables

Table 1: Number of interviews per country	17
Table 2: Overview of terms and abbreviations used to refer to different concepts	44

Index of figures

Figure 1: Innovation procurement phases	10
Figure 2: Overall ranking and clustering of national policy frameworks for innovation procurement	13



1 Introduction

Public procurement is a powerful instrument with the potential to drive adoption of innovation among public sector users faster, while it can simultaneously boost economic growth by providing innovative companies with the opportunity for first user references. Strategic use of public procurement involves harnessing the purchasing power of public authorities, public service providers and publicly owned utilities to trigger the development of new products and solutions and be responsive to the adoption of innovative supply. By doing so, the public sector can find better solutions to needs that are currently unsatisfied through conventional solutions and improve efficiency, service quality, sustainability and effectiveness of public services. Simultaneously, innovative firms are provided with opportunities to obtain first customer references for new products and solutions, thus driving growth and economic renewal. The strategic use of procurement to boost demand for innovative goods or services has become an important part of the innovation policy agenda in many EU countries, and is at the core of the EU public procurement directives ([2014/23/EU](#), [2014/24/EU](#) and [2014/25/EU](#)) which underline the importance of fostering opportunities for public procurement of innovation.

However, even though Public Procurement of Innovation (PPI) is a strategic instrument that can drive growth and bring multiple benefits to public authorities, the market and the European society, its widespread adoption is only slowly taking up as there are several challenges that need to be addressed, ranging from a lack of awareness, knowledge, experience and capabilities related to new technologies and market developments to a lack of incentives and motivation to buy innovative solutions from a new company rather than buy established products from long-standing suppliers (risk-aversion). Basically, PPI requires a shift **from a purely administrative approach to a strategically and needs-driven one**: moving away from the traditional two-dimensional rationale (i.e. focusing almost exclusively on final cost and any additional services offered along, on the one hand, and on a rigid definition of the solutions to be provided on the other), start using more differentiated parameters and criteria that enhance quality-oriented, sustainable and long-term economic, societal and environmental advantageous results, and, instead of predefining the solutions to a given situation, provide a description of the actual needs, allowing for a greater margin of potential solutions.

PRONTO aims to address those challenges and **inspire, inform** and **support** public buyers in **designing, implementing** and **monitoring** PPI procedures, namely purchase innovative products, services or works that better address their needs, are new on the market and contain substantially novel characteristics but are not yet available on a large-scale basis. PRONTO activities will be deployed in 3 phases:

Phase 1: Assessment of public buyers' needs by reviewing the PPI landscape at European and national level (focusing on the 8 countries represented by the project consortium) and analysing the key challenges for the adoption of PPI processes.



Phase 2: Support the adoption of PPI processes based on 2 pillars:

- a) Design, implement and monitor 2 **pilot PPIs** in Slovakia and Romania in the fields of clean energy, healthcare and regional development.
- b) **Engage and train** public buyers in the partners' countries on the steps to follow and the available 'tools' to exploit for procuring innovation, share examples and good practices, highlight key barriers and how to overcome them, etc.

Phase 3: Communicate the key messages to the relevant stakeholders in the form of '**Actionable knowledge**' and develop **recommendations** and a **user toolkit** for public entities on how to replicate successful elements and transfer them into their context and settings.

The present document summarises the background analysis carried out by the partners in order to collect the necessary information so as to properly frame the project training and pilot activities in their countries. More specifically:

- **Section 2** outlines the PPI landscape at European level in terms of the relevant directives setting the PPI framework , guidelines addressing several aspects of the entire process through examples and good practices, available tools for public buyers to exploit and support 'structures' (e.g. organisations, H2020 Coordination and Support Actions, etc.) providing training, individual coaching, tools, etc., to assist public procurers.
- **Section 3** focuses on the partners' countries to reveal the national legislative (i.e. the extent of PPI integration in national legislations) and support frameworks that facilitate the application of PPIs, the level of PPI adoption in those countries and the challenges and perspectives of public buyers (i.e. level of awareness, main considerations, type of support needs, etc.). *Note: the methodological approach followed for the analysis is also included in Section 3.*
- **Section 4** features the aggregated findings, along with a short description of PRONTO support services.

Finally, **ANNEXES I and II** respectively list a number of case studies highlighting how several public entities addressed their problem by "thinking outside the box" and involving both key actors at regional/national level and potential providers in a "market dialogue" process in order to achieve the foreseen outcomes, as well as key information sources (e.g. relevant documents, websites, EU-funded projects, etc.).

2 Overview of the European innovation procurement landscape

Globalisation and fast-paced changes that define modern societies result in ever-evolving and differentiated needs that cannot always be tackled by resorting to the same means, procedures or tools. The European Union is constantly looking for new ways to respond to increasingly complex societal needs and meet the demand for specialised products and services. It therefore strives to promote innovation and technological advances that might lead to new and more adapted solutions by supporting R&D&I actors incentivising them to bring innovative solutions to the market and the public sector to act as early adopter and 'pool' innovation in our everyday lives.

Public procurement refers to the purchase of goods, services and processes/works by governments and state-owned enterprises, covering everything from army uniforms to highways and schools, from medical equipment to cleaning contracts and professional services. A substantial part of public investment is spent in our economy through public procurement, representing 14% of the EU GDP, making it a fundamental element of the investment ecosystem¹. The way this money is spent has clear implications for the economy, as well as for the organisations spending it and the citizens who ultimately avail of their services. Today, **Europeans** expect a fair return on their taxes in the form of **high-quality public services**. Public authorities can use the public procurement lever in a more strategic manner, to obtain better value for each euro of public money spent and contribute to a more innovative, sustainable, inclusive and competitive economy.

However, there still remain many areas where improvements in the national public procurement landscape would decisively contribute to competitiveness and efficiency gains. **Member States are not using to their full extent the possibilities of public procurement as a strategic tool to modernise their services and support sustainable social policy objectives and innovation**. It is still considered to be a mere administrative procedure, with 55% of these procedures today perceiving the lowest price as the only award criterion². Moreover, contracting authorities are rarely buying together, as only 11% of procedures are carried out by cooperative and centralised procurement. Buying in bulk, in other words bundling demand up, often leads to better prices and offers an opportunity to exchange know-how to obtain better quality. Although not all types of purchases are suitable for aggregation, overall low aggregation rates suggest lost opportunities.

Public procurement is a strategic instrument for each Member State. It is imperative, however, for it to turn away from its traditional two-dimensional rationale, i.e. focusing almost exclusively on final cost and any additional services offered along, on the one hand, and on a rigid definition of the solutions to be provided on the other. **It requires a shift from a purely administrative approach to a strategically and**

¹ ["Making Public Procurement work in and for Europe"](#), COM(2017)572, 30/10/2017

² *Ibid.*

needs-driven one, in full compliance with the rules. It needs to go a step further and start using more differentiated parameters and criteria that enhance quality-oriented, sustainable and long-term financially advantageous results, not just taking exclusively short-term cost into account. Additionally, instead of predefining the solutions to a given situation, it should rather provide a description of the actual needs, allowing for a greater margin of potential solutions. This is where innovation procurement comes to play.

Innovation can and should play a decisive role in this endeavour. It can take on multiple meanings³ but it is all about **finding new and better ways to deal with ordinary but also emerging challenges**. Some innovations will permit public authorities to save costs immediately, whereas others will bear fruit in the medium or long term. It can contribute to address many of Europe's major challenges, especially in creating sustainable growth and jobs⁴. It can enable investment in the real economy and stimulate demand to increase competitiveness, as highlighted in the Industry Communications⁵. It can also support the transition to a resource-efficient, energy-efficient and circular economy⁶ and foster sustainable economic development and more equal, inclusive societies. In a time of decreasing public budgets, innovation can facilitate the delivery of vital infrastructure and services; its process may encompass research and development (R&D), and any later phases such as preproduction, production, distribution, training, market preparation and new organisational or marketing methods.

"Innovation procurement" introduces the notion of **buying either the process or the outcome of innovation**. In other words, having specified their needs, public procurers must decide whether available products, services or works can meet their expectations. Oftentimes those needs are met, but there are instances when the procurers come to realise that the market lacks any appropriate solutions or, in case these exist, they are still quite new and not available on a commercial scale. Depending on the case, public procurers can resort to three possible alternatives:

- **When products, services or works available on the market do not cover their specific needs, public buyers have to buy R&D services in order to get new solutions developed and tested.** They describe what they need, prompting businesses and researchers to come up with and develop innovative solutions to tackle that specific need. This is known as **Pre-Commercial Procurement (PCP)** and provides public procurers with a way to share the risks and benefits of procuring R&D under market conditions and address challenges of public interest for which no satisfactory technological solution is available on the market yet. The procurement of R&D services involves a competitive development

³ *EC Directive 2014/24/EU* defines public procurement of innovation as '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 *inter alia* with the purpose of helping to solve societal challenges or to support the Europe 2020 strategy for smart, sustainable and inclusive growth'

The *OECD's Oslo Manual* defines innovation as 'the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations'.

⁴ https://ec.europa.eu/commission/priorities/jobs-growth-and-investment/investment-plan_en

⁵ "Investing in a smart, innovative and sustainable Industry. A renewed EU Industrial Policy Strategy", COM(2017) 479, 13/9/2017,

⁶ "Towards a circular economy: A zero waste programme for Europe", COM(2014) 398, 2/7/2014

in phases and is clearly separated from the deployment of end-products in commercial volumes. The contracting authority or entity is given the opportunity to 'test' several solutions on a small scale (i.e. more than one solution providers are funded) in order to define which one better addresses its needs or what remains to be resolved before proceeding with a full-scale purchase. The contract 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, services or works must not be an object of the same contract.

- In other instances, **public buyers' needs can be met with innovative products, services or works that are new on the market and contain substantially novel characteristics**. The issue in such an instance might be that **they are not yet available on a large-scale basis and may require conformance testing**. There exist also instances when those needs can be met with already existing products or services deployed in an innovative manner. In both cases, public buyers resort to **Public Procurement of Innovation (PPI)** acting as lead customers (early adopters). They can incentivise the industry to scale up the production of existing "innovative" solutions (not the R&D services to develop them) that are not yet available on a large scale commercial basis due to a lack of market commitment to deploy. The key feature of PPI is that contracting authorities do not define detailed technical specifications for the sought-after products or services, but describe instead the final result (i.e. the expected benefits) they wish to obtain. This approach enables potential suppliers to focus more on the characteristics of their solution instead of just the cost, as price is no longer the most important selection criterion in PPI (rendering public procurement a merely financial and administrative task), but a process involving a variety of factors and evaluation criteria.

Remark: The possibility of joint procurement should also be mentioned, which can facilitate cooperation between contracting authorities, thus allowing for risk and benefit-sharing in innovative projects and the pooling of demand.

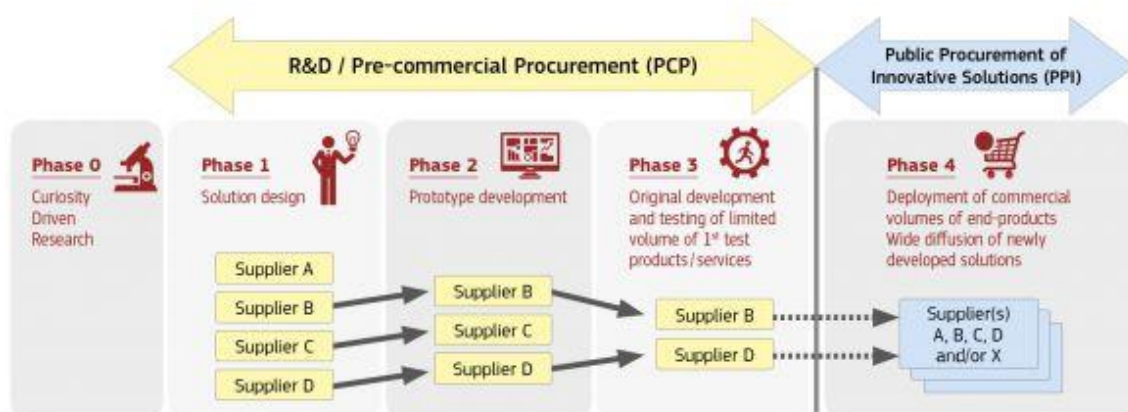


Figure 1: Innovation procurement phases

Source: [European Commission, Digital Innovation and Blockchain \(Unit F.3\)](#)

- In some cases, public procurers may wish to **purchase both R&D and its resulting products or services**, with both elements tailored to public requirements and with specific rules to ensure equal treatment and transparency. This is called an **innovation partnership** and takes place in three phases:
 - The **competitive phase** at the very beginning of the procedure, when the most suitable partner(s) are selected on the basis of their skills and abilities. The contracts establishing the innovation partnership are awarded using the criteria of the best price-quality ratio proposed.
 - The **research and development phase**, when the partner(s) develop the new solution in collaboration with the contracting authority. This phase can be divided into several stages where the number of partners may be gradually reduced, depending on whether they meet the predetermined criteria.
 - The (final) **commercial phase**, when the partner(s) provide the final results.

Remark: This procedure should, however, only be used in limited circumstances when the goods, works and services that are sought after are innovative, and when there is an intention to include both the development and purchase elements in the procedure, provided they correspond to agreed performance levels and maximum costs. The innovation partnership has a potential to overcome the primary challenge and uncertainty regarding the usage of a two-stage procedure divided into pre-commercial and commercial procurement, relating to the unfair competition and the conflict of interest that may occur based on cooperation within the pre-commercial phase.

In order for the above-mentioned mechanisms to be effective and efficient, several **factors** should be taken into account when selecting among the procedures made available to contracting authorities.

The first and most crucial step, however, is to carry out a thorough **needs assessment** and decide whether the public buyer will continue to opt for the current, established goods or services, limiting themselves to replacing outdated equipment with more of the same, or they will keep an open mind and envisage introducing modifications and innovative solutions. Instead of immediately drafting technical specifications, **public procurers should start by clearly defining their needs in terms of functionality or performance to improve**. Having sorted out the ones for which clear-cut solutions already exist, they have to **prepare a business case** for the remaining needs. This will allow them to determine if there is enough economic justification to start the procurement and, if so, set the parameters to maximise the expected impacts whilst keeping the costs and risks to a predefined acceptable level. It will also constitute a useful tool to decide on how to monitor the suppliers' performance and face any unexpected events within or related to the project, thus ensuring the viability of the latter. The business case should compare costs & benefits for three main scenarios, i.e. the *business-as-usual* one – when the buyer does not undertake any innovation procurement and chooses the risk-averse approach, the *best case* scenario and the *worst case* one. It should also include both the *internal expected benefits* (e.g. savings, modernisation of public services, functionality or performance improvements) and the

external ones (e.g. end-user satisfaction, environmental and societal impact). It is imperative to keep in mind that the external environmental and social impacts of innovation procurement occur over time and, therefore, **both short and long-term benefits should be considered** in the business case, including methodologies such as circular economy, Life Cycle Costing (LCC), Total Cost of Ownership (TCO), etc.

The next step would be to **turn to the market for solutions that are already available or under development**. This is known as a **Preliminary Market Consultation (PMC)** and refers to the process of conducting research with a view to preparing the procurement and informing prospective bidders of the contracting authority's plans and requirements. Both a good understanding of the potential supply chain and some market research are essential tools for any tender and its final outcome.

Another factor to take into consideration is a **project's complexity** and whether technical specifications can be precisely determined or not. There is the possibility to use a **negotiated procedure** for public contracts pertaining to large or complex projects, when the needs of the contracting authority cannot be met without adaptation of readily available solutions or when technical specifications cannot be established with sufficient precision. Under such circumstances, the public procurers have the possibility to choose between two similar procedures, with their main difference lying in the degree of maturity of the project:

- **The competitive procedure with negotiation** is addressed to public procurers who already have a more precise idea of the nature and the subject matter of the public procurement contract and *can therefore define the specifications they require*. In some cases, however, the contract cannot be awarded without prior negotiations and an element of adaptation, design or innovation, due to risk or complexity. This procedure aims to bring public procurers closer to the industry by initiating a direct dialogue on specific characteristics of the solutions to be developed, setting functional or performance requirements, appropriate award criteria in terms of quality and other measurable indicators, possibly including a prototyping phase.
- **Competitive dialogue** is addressed to public procurers who know their needs, but important choices remain to be made and, therefore, *specifications cannot be clearly defined*. It is a two-stage procedure. The public procurer should first describe its needs in a descriptive document, setting the minimum requirements for candidates and defining the contract award criteria based on Best Price Quality Ratio (BPQR). Then, after verifying the selection criteria for candidates, the public procurer initiates a competitive dialogue with the participants that meet the minimum requirements. When the competitive dialogue has reached an optimal stage according to the public procurer, each bidder is invited to submit their offer. This procedure requires that the public procurer carefully sets the quality criteria in the initial stage before starting the dialogue, so as to ensure that they are objectively measurable and comparable.

Finally, **time** is of outmost importance. A **Prior Information Notice (PIN)** can prove to be essential to ensure that the innovation procurement will really achieve the expected benefits and cost reductions. A PIN is a notice published in the Official Journal of the

European Union (OJEU), announcing early on a contracting authority's purchasing intentions. It may be used to reduce the time periods associated with tendering, to give the market advance notice of requirements, to initiate a preliminary market consultation or as a call for competition. It does not oblige the contracting authority to proceed with a procurement process, but informs the market that they should expect a procurement to be commenced in the coming period.

Overall, individual countries across Europe have reached different degrees of advancement as far as the **innovation procurement policy framework** is concerned, with it, however, being rated as rather immature on the whole. This was revealed in the evaluation of each country's performance in the field and the assessment of their policy systems maturity carried out during the "*Benchmarking (2018) of national innovation procurement policy frameworks across Europe*" study. In fact, the innovation policy framework across Europe is working at just above one fourth of its potential power and there is still significant progress to be made.

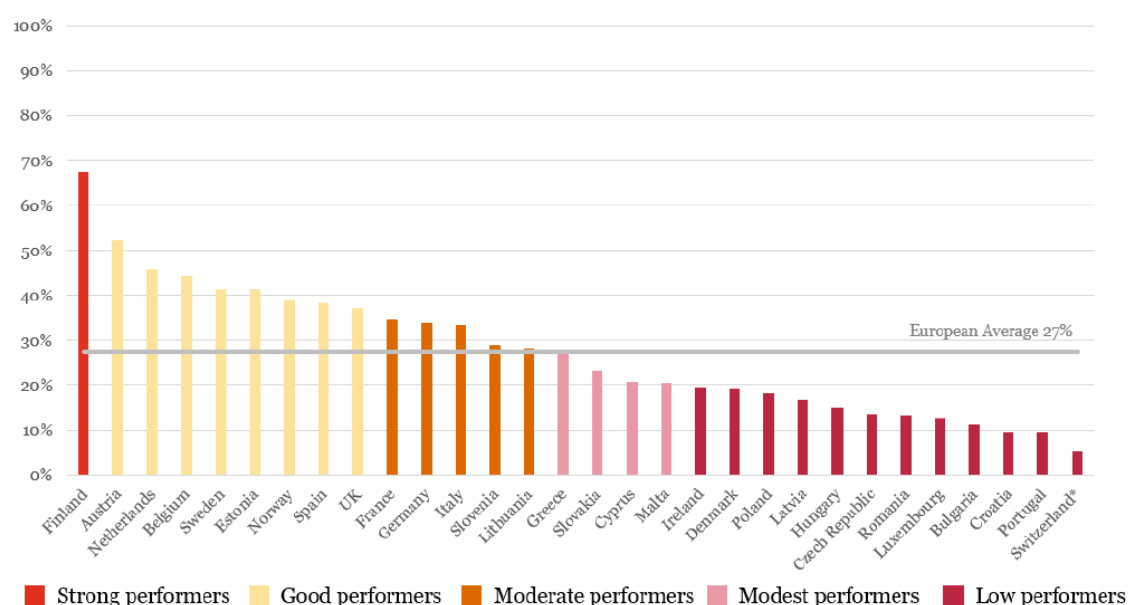


Figure 2: Overall ranking and clustering of national policy frameworks for innovation procurement

Source: "*Benchmarking of national innovation procurement policy frameworks across Europe*" study

A number of similarities, disparities and trends come to light. Although most countries have official definitions or at least a legal basis for R&D procurement, PCP and PPI - meaning that they are ready to develop corresponding strategies -, **innovation procurement is not defined across Europe in a sufficiently clear and accurate way** and there seems to be a common misinterpretation that innovation procurement only encompasses the innovation partnership procedure. Definitions can reach full coverage and be applicable to all types of public procurers nationwide, or not. They can be included either in legislation or in "non-legal documents" (such as policy documents

> <https://ec.europa.eu/digital-single-market/en/news/benchmarking-national-innovation-procurement-policy-frameworks-across-europe>, SMART 2016/0040 study contract

or guidelines for public procurers), but they can also just have a “legal basis” provided in national legislation, depending on the country.

The endorsement of **innovation procurement** as a mechanism for enabling structural reforms and public sector modernisation needs to be improved across all countries, namely through policies for competition and entrepreneurship. It **needs to be embedded as a strategic priority in policy frameworks and action plans related to all public sector activities**. It is currently only embedded in some sectors, notably those of the environment, health and social services.

There is also much to be done as far as action plans for innovation procurement are concerned. **Most countries have not yet developed dedicated action plans with specific measures, coordinated policy objectives, procedures and resources. They lack an overall umbrella strategy to foster innovation procurement more widely.** So far, only 4 countries (AT, BE, FI, NL) have adopted dedicated action plans, identifying concrete actions and targets and defining clear timelines. Specific objectives and targets can vary from raising awareness by drafting portfolios of projects and good practices to fostering dialogue between demand and supply, matching public procurers and potential suppliers of innovative solutions, and stimulating public organisations to participate in EU opportunities of innovation procurement, such as Horizon2020. They may appoint responsible actors for each action to be implemented and tackle issues like risk management, skills development and information sharing.

For the European public sector to become as innovation friendly as other regions of the world, **a spending target for innovation procurement needs to be adopted and implemented**, involving formal commitment by key procurers. It should be accompanied by support and monitoring activities and be embedded in a number of strategic projects so as to create an innovation procurement market. It should target not only central government authorities, but also regional and local ones, in an attempt to meet the targets fixed and make public procurers embrace the commitment. This endeavour also calls for the creation and implementation of **an adequate monitoring system** in order to measure and evaluate the progress of each country and its respective innovation procurement expenditure. Such a system **has not been fully developed and to expenditure measurement is still carried out in a non-systematic way, if at all.**

Another means of coaxing public procurers to opt for more innovation procurements is to **set a number of incentives, financial or personal ones, which could be applied nationwide or regionally, for pilot projects or larger scale innovation procurement**. Finland, for instance, provides grants to public authorities via a dedicated financing instrument. All public procurers are eligible for funding and the grant covers 40-50% of total costs in the preparation stage of procurement, covering namely development, piloting and adoption of new products and services. The grant should be used to build collaboration, undertake market consultation and bring together prospective providers and end users. The Finnish financial incentives apply both when co-financing can be attained (e.g. from EU programmes) and in instances when it cannot. There also exists a prize plan in some countries to reward top performances among contracting authorities and bonuses when targets are reached. Once again, the above-



mentioned incentives vary from one country to another and are not comprehensive or fully developed.

With a view to overcoming obstacles related to expertise and experience, **some European countries have come up with measures to provide assistance to public procurers in implementing innovation procurement projects.** Such measures aim at capacity building and encompass a variety of activities, like setting up central websites, organising trainings and workshops, presenting good practices, preparing handbooks or setting out guidelines, coordinating actions, building synergies and networking between procurers. **Nevertheless, such initiatives are generally not designed and addressed to mainstream innovation procurement on a large scale, and the number of countries that provide advanced types of assistance is limited.** Case specific, full-scale practical implementation, template tender documents and coordination support are still scarce in most countries.

EU Legal Framework

In January 2014, the European Parliament adopted new public procurement directives, which all EU Member States had to transpose into their national law by 18/4/2016:

- [Directive 2014/24/EU on public procurement](#)
- [Directive 2014/25/EU on procurement by entities operating in the water, energy, transport and postal services sectors](#)
- [Directive 2014/23/EU on the award of concession contracts](#)

These included changes to procurement procedures which were designed to facilitate the increase of innovation procurement, namely:

- Increased flexibility and simplification on the procedures to follow, negotiations and time limits.
- Clearer conditions on how to establish collaborative or joint procurements which, through bulk purchasing, can provide the necessary demand to launch new solutions.
- Strengthening the use of life cycle costing, which describes all the phases through which a product passes from its design to its marketing and the discontinuation of its production.
- The creation of innovation partnerships which enable a public authority to enter into a structured partnership with a supplier with the objective of developing an innovative product, service or works, with the subsequent purchase of the outcome.
- The exemptions for procurement of R&D services currently included in the new Directives (which are the basis for PCP) will be maintained. Public procurers can therefore continue to undertake pre-commercial procurement.

3 Analysis of the national landscape

3.1 Methodology

Having reviewed the European framework for the integration of the innovation concept in public procurements, the partners focused on the countries represented in the PRONTO consortium, namely Estonia, Greece, Italy, Romania, Poland, Portugal, Slovakia and Spain (putting emphasis on the Autonomous Community of Andalusia). The objective was to analyse the degree of PPI integration in the national legislation, identify the key actors responsible for the creation of the legal framework and support public procurers to implement such procedures (via training and individual guidance, the elaboration of explanatory notes, presentations, case studies, etc.) and the level of 'maturity' of public entities (awareness, competencies, mentality, etc.) to include PPIs in their planning.

The analysis was based on the partners' expertise and previous experience, the review of relevant documents (laws, guidelines, presentations, articles, studies, etc.) and interviews with key actors trying to cover all aspects of public procurement, namely representatives of:

- The '*demand*' side, i.e. individual public entities (e.g. public hospitals, research institutions, universities, technical centres, regional development agencies, municipalities, etc.), central/regional purchasing bodies (e.g. ministries, regional development agencies, etc.).
- The '*supply*' side, i.e. private companies that constitute potential suppliers of innovative solutions.
- The '*support*' side, i.e. policy makers (e.g. ministries), national/regional entities supporting public entities, experts/advisors, etc.

Important note: the aim of PRONTO is not to perform an exhaustive and thorough analysis of the national PPI landscape but rather to collect the insights on the challenges for the design and implementation of PPI procedures to properly adjust the upcoming PRONTO services and address the actual support needs of the public buyers. Therefore, the foreseen number of interviews was not envisioned to be large. The table below presents the number and type of interviewed organisations in each partner country.

Country	Demand	Supply	Support	Total
Estonia	1 ministry 1 municipality 1 public hospital	-	1 national PPI competence centre 1 regional energy agency 1 health cluster	6
Greece	2 universities 1 public hospital 4 municipalities 1 regional waste management agency	2	3 state support entities 2 consultants	15
Italy	3 regional purchasing bodies 1 regional development agency 1 research organisation 1 university 1 technology centre	1	5 intermediaries 1 consultant	14
Romania	1 regional development agency 2 public hospitals	2	1 ministry	6
Poland	2 Universities 1 Research organisations 1 municipality 1 regional organisations	2	1 consultancy	8
Portugal	1 regional purchasing body 1 public waste management association 1 public theatre 1 municipal ICT association	2	-	6
Slovakia	1 governmental agency 1 municipality 1 regional authority	-	3 consultants	6
Spain	3 ministries 1 public institute	2	-	6
Total	37	11	19	67

Table 1: Number of interviews per country

3.2 National PPI landscape

Estonia

Public **procurements account for ~25% of public expenditure in Estonia**. In 2019 nearly 7000 procurement procedures were initiated, with a total **estimated cost of EUR 3 billion**. 98% of all the procurements were e-procurements and 86% participants small and medium- size companies (SMEs)⁸.

The field of public procurement in Estonia is regulated by the Public Procurement Act (PPA)⁹ and supplemented with several regulations¹⁰. The general responsibility of public procurements in Estonia lies in the Ministry of Finance, which has set up a central online environment - Public Procurement Register¹¹ for publishing notices of the Public Procurements, submitting tenders and awarding contracts.

Innovation procurement and its objectives came under the spotlight within the wider entrepreneurship and innovation strategy¹² of the Ministry of Economic Affairs and Communications - one of the key actors in the field of innovation procurement - responsible for strategy and supervision. There is an organisation - **Enterprise Estonia (EAS)** appointed to **provide financial assistance, counselling**, cooperation opportunities and **trainings regarding innovation procurements**. EAS is in the process of building up a national competence centre of innovation procurements within the Horizon2020 project [Procure2Innovate](https://procure2innovate.eu)¹³.

Thanks to trainings and other awareness-raising activities, **the overall knowledge regarding the existence of innovation procurement is quite high** within the public sector. But **know-how regarding implementation and, therefore, actual practice remains low**. The implementation support demands time and resources, as it is often a case-by-case approach by EAS and therefore is not easily scalable.

The Estonian legal framework gives an official definition for innovation but does not provide the definition for innovation procurement, R&D, Pre-Commercial Procurement (PCP) (although there is a clear legal basis in PPA provided for implementing PCP) or Public Procurement of Innovative solutions (PPI). The working definition of innovation procurement (general term), PPI and PCP which are in line with the EU definition can be found in the national "Guidance on innovation procurement"¹⁴ published by Enterprise Estonia (EAS) which presents guidelines on how to procure innovation.

Even though a **legal framework** is presented, it **can be ambiguous and rigid**, and public procurers feel they have limited decision-making power. To procure innovative

⁸ Interactive statistics of procurements in Estonia available here:

<https://app.powerbi.com/view?r=eyJrIjoiOTg4ZGQ1M2ItNTkwYy00ZGFhLTg5NjAtYTljMzAyZDlYjc1IiwidCI6IjRmYjQ2MmUyLWE2MzktNGJINC1IM2U1LTM2ZWMTg0M2M5MSIsImMiOi99>

⁹ <https://www.riigiteataja.ee/en/eli/505092017003/consolide>

¹⁰ <https://www.rahandusministeerium.ee/en/objectivesactivities/public-procurement-policy/legislation>

¹¹ <https://riigihanked.riik.ee/rhr-web/#/>

¹² Estonian Entrepreneurship Growth Strategy 2014- 2020: https://kasvustrateegia.mkm.ee/index_eng.html

¹³ <https://procure2innovate.eu/estonia/>

¹⁴ www.rahandusministeerium.ee/sites/default/files/Riigihangete_poliitika/juhised/eas_innohangete_juhend.pdf



solutions, there should be more flexibility and freedom. Even though there are opportunities in theory, **the lack of practical knowledge leaves procurers “playing in the safe zone”**.

Procedures dedicated to procure innovative solutions are innovation partnership, competitive dialogue or competitive procedure with negotiation, but **Innovative Aspects can be present in all types of procurements** not depending on the chosen procedure. Since 2017, there is an opportunity to mark (by the procurer) in the Register if innovative aspects are present in a specific public procurement by answering 4 questions¹⁵. This questionnaire might be subjective and often also ignored – several innovation procurements are not marked as “containing innovative aspects”. Assessing the actual number of implemented innovation procurements is therefore complicated. Based on the interviews and desk research, their share is negligible, often connected with “hot” topics on the political agenda and carried out on a project basis rather than included in the long-term strategies of institutions.

One big challenge for actually implementing innovation procurements is that **public servants feel the need for innovation differently**, which is the first precondition for innovation procurements. People who work with procurements on a daily basis do not often think of innovation procurements. The need and input for organising innovation procurement should come from people who have expert knowledge of the specific area, but those are unfortunately not familiar with procurement procedures. Therefore, it is often a question of synergies inside public institutions. PPI demands a clear definition of the vision, but the **most complicated part is often describing the innovative solution**. In order to define the need, you have to familiarise yourself with the field and the available solutions (if we are not talking about the PCP) and possibilities to integrate those into the work of institution. Hence, the importance of involving specialists when preparing the tender and describing the expected solution cannot be underestimated.

Innovation procurement procedures do not differ much from those of regular procurement, but as the definition of the solution might end up still unclear (or might be on the challenge/problem not the solution level), more **questions are coming from providers** (mainly technical). This requires usually **extra effort**, and a **long preparation period** compared to regular procurements (at least a year and with close collaboration of the parties). Clarity is seen as being of the utmost importance when presenting the qualification conditions, as this is the biggest source of controversy.

In addition to human resources, **owing to the higher risk that procuring innovation represents, funding** is another challenge that public institutions see.

¹⁵ Questions presented to procurer to define if innovative aspects exist in the procurement:

- Did you acquire research and development activity in the scope of this procurement? (For example: basic research, application research, testing and development etc.)
- Was the object of the procurement novel for the contracting authority as well as for the whole market in general? (For example: Defence Forces procured a blocking device for the activation signal of explosives set off by radio which did not previously exist on the market.)
- Was the solution procured in the scope of this procurement novel for the contracting authority? (For example: the procurement of a control system of smart street lighting. Must be novel in local level but may be used in another country.)
- Did the procured solution make the work processes at the facilities of the contracting authority more effective? (For example: using an IT solution in new fields such as the procurement for a traffic flow control and planning system at Tallinn harbour)

Estonia has a **specific measure set up that is funded by the EU Regional Development Fund** (€20 M per year) and managed by Enterprise Estonia (EAS) to support innovation procurements. Activities implemented under this measure include training, preparing guidelines, developing a monitoring system and providing public procurers with incentives for innovation procurements.

EAS provides co-financing for Estonian public procurers. Innovation procurements which meet the criteria receive financial support to a maximum of 50% of the project cost and a maximum of €500,000. All stages of the procurement process are supported, from the identification of the need until the conclusion of the contract (procurement preparation and organisation, like legal and sector-specific consultancy, and procurement process management and contract execution, purchase of procurement proceeds, including research and development).

As **procuring innovation is not usually included in institutional strategies, there is no budget allocated to carrying out innovation procurements within public institutions** and, therefore, finding the means to cover even the 50% of the funding is challenging. The budget dedicated to innovation procurement is limited to the funding of projects in specific sectors but this does not seem sufficient to develop a holistic strategy to mainstream innovation procurement widely across the country. The lack of a strategic vision is confirmed by the lack of specific commitments by key procurers and the lack of measures to boost public demand and scale up innovation procurement widely across the country.

In general, however, interest in the topic remains high. **Innovation is seen as important and there is an interest to procure more innovative solutions**, but due to the several challenges mentioned, it often stays at the level of thought. There is avid interest in learning how to define the need for innovation, conduct discussions with providers, and evaluate more effectively the benefits of procuring innovation through best practices.

The **sectorial approach** could help to move from case-by-case implementation support to a wider, yet focussed approach, from defining the needs to optimising the processes via tackling the challenges with resources and producing know-how. Therefore, in the Estonian case, PRONTO has a great potential to help to put theoretical knowledge into practice with methodological approaches of how to implement PPI in specific sectors.

Greece

In Greece, innovation procurement is at an early development stage and some essential elements to its further development are still pending. Public Procurement of Innovation has not been defined in the legal framework yet, but [Laws 4412/2016](#) on “**Public works, supplies and services contracts**” (transposing Directives 2014/24/EU and 2014/25/EU) and [4413/2016](#) on “**Award and execution of concessions**” (transposing Directive 2014/23/EU) provide the legal basis to implement it. There also exists a technical guidance document published on 10th September 2018 by the [Hellenic Single Public Procurement Authority \(HSPPA\)](#) that provides both a definition of PPI and



a description of its procedural framework¹⁶.

Owing to the recent introduction of the PPI concept and to a certain vagueness arising from its lack of concrete definition within the legal framework, **most procurers are either unaware of its existence or have a loose and unclear idea of what it truly means or how it could be practically and effectively applied**. Few of them and in specific sectors (i.e. defence, national security) have already implemented it and it is clear that its development and success require effort aimed at raising awareness among policy makers and the public sector in general, since the main stakeholders often miss to identify its scope and benefits.

The **public procurement system in Greece is highly fragmented**, with various Ministries and actors involved in the decision-making process, depending on the objective of the public procurement contract and the economic sector that is involved¹⁷:

- The *Government Council for Economic Policy* that approves, monitors and evaluates the Action Plan for National Procurement Strategy and any possible revisions.
- The *National Central Purchasing Bodies*.
- The *General Directorate of Public Procurements* (within the *Ministry of Development and Innovation*) that owns and coordinates the national e-procurement system and is responsible for public supplies and services, including a specific focus on green and innovation procurement.
- The *General Secretariat of Infrastructure* (under the *Ministry of Infrastructure and Transport*), responsible for works procurement and public services contracts relating to public works.
- The *National Central Authority for Procurements in Health "EKAPI"* (under the Ministry of Health), responsible for procurements in the health sector.
- The *Hellenic Single Public Procurement Authority (HSPPA)*, which is responsible for the development and promotion of the national strategy in the field of public procurements, provision of policy advice to the legislature, provision of guidance to awarding authorities on the application of procurement law and regulation, and authorisation of the use of special procedures, such as negotiated procedure without publication notice. The SPPA also plays a supervisory role by monitoring and evaluating awarding authorities' decisions.

At the beginning of the year, every public entity and regional/local authority is allocated an annual budget destined to cover the entirety of its needs, divided into several categories. **Neither innovation nor medium or long-term expenses are foreseen** and budget shifts are only allowed under certain circumstances, following a well-defined process. In case of unspent budget amounts, those cannot be transferred to the following year or used for innovation purposes instead. Each department makes an

¹⁶ <https://diavgeia.gov.gr/doc/7%CE%9D%CE%A10%CE%9F%CE%9E%CE%A4%CE%92-%CE%9C%CE%A1%CE%A8?inline=true>

¹⁷ *Ibid.* 8



informative list of its specific needs and their associated costs, trying to prioritise and shortlist them. Depending on the funding made available and following internal procedures according to their legal framework, decisions are made as to the needs to be covered.

The recent financial crisis and its corresponding constraints did little to help increase funds dedicated to public procurement, let alone give public procurers leeway to implement a medium or long-term plan. In some instances, procurers may have recourse to their own funds or seek financing at a national level and, sometimes, through international available funding sources (e.g. H2020, Structural Funds, etc.). This, however, necessitates time, planning in advance and staff. Taking into consideration that **many procurement departments are understaffed** –in some cases counting only one or at the best three staff members at a local-authority level–, it is easy to comprehend that **they lack the means, the volition and time to go into a tender that includes additional innovation parameters and criteria**. The traditionally rigid, complicated and inexperienced public departments have to shortlist their needs, identify appropriate solutions and organise a tender. The process in itself requires more than enough planning and is already time-consuming; being short on capacity, information and expertise, it is no wonder that they are unwilling to even attempt to engage in a different and more complex procedure.

Procurers at all levels maintain close relations with local and national market stakeholders, which allow them to carry through market research to a certain degree. Nevertheless, facing the above-mentioned time and money restraints, **they are not up-to-date with the latest evolutions** and find themselves not acquiring the optimal solutions. Most of them also display a cautious attitude when innovation is associated to procurement, **due to the perception that it will end up in a more costly solution**. When conversations with public procurers turn to the costs of sustainability and innovation, **there is a lot of resistance to considering an item, solution or process that appears costlier than the business-as-usual alternative**. They **lack the culture and the cooperation mentality** that would make them turn to national or international partnerships, let alone think of aggregate demand. They are used to working in a certain way and are unwilling to change well-established habits. In this given situation, the fact that innovation procurement seems to have mainly developed in certain sectors means that they fail to see how it could fit in their own specific case.

A complete lack of expertise on behalf of the purchasing agency or an inefficient technical, risk and relationship procurement management can lead to unsuccessful procurement procedures. Thus, **it is quite common for procurers to exhibit a natural risk-aversion and avoid engaging in new procedures out of fear that they could potentially face allegations of corruption**. Most tenders take a long time to complete because they often face court appeals at all stages of the tendering process. The existing framework is very discouraging both for public organisations and for private-sector participants and quite often leads to fast contract award. This is especially the case in tenders of high estimated value.

Motivation is similarly a decisive fact when it comes to PPI. Unfortunately, **there are no financial or other types of incentives to encourage public buyers to undertake**

more innovation procurements (e.g. be eligible for additional grants in either EU co-financed programmes or in nationally financed ones, prizes aimed at rewarding top performances among public-sector contracting authorities, etc.). Furthermore, few projects involving innovation procurement have been up to now nationally funded or ERDF co-funded. Nevertheless, their conclusion within the last three years might account for the high concentration of the Horizon 2020 funding source.

The course of interviews revealed the extent to which the level of immaturity in this field also plays a significant role. **Procurers expressed their interest in new, innovative approaches but equally affirmed their preference for well-established and clear procedures.** It became apparent that major public procurers, representing significant budgets, have a considerably deeper understanding of the market, as suppliers tend to engage with them in a transparent, open dialogue. They do not wish to stray off the beaten track though, fearing all kinds of court appeals, loss of time and, ultimately, spending more than they initially intended. **What they really need is a clearly-defined framework** that would guarantee a straightforward procedure, steering away from allegations and missteps of any kind. Moreover, considering that they are traditionally more used to the administrative part of their jobs, **guidance and training need to be provided to “skill-up” their profile.**

Greece has an [*Action Plan for national Procurement Strategy*](#) (2017) that identifies a list of actions to promote innovation procurement in the country, including: a) conducting a special study to promote innovation in the sectors of health, energy, environment and transport, b) building knowledge for the public sector and for economic operators regarding the new legislative framework for promoting innovation procurement and c) developing support actions and promoting clusters in the relevant field.

The imminent creation of a **competence centre**, as pledged by the Greek government, will definitely constitute a step to the right direction. It will serve as a focal point, improving coordination of the currently fragmented support, facilitating access of public procurers to know-how on innovation procurement and providing them with tailored assistance to implement specific innovation procurement projects. It could lead to capacity building through a series of assistance measures, which might include setting up a central website providing all relevant information (explaining the policy and legal frameworks, presenting an overview of policy initiatives to help mainstream innovation procurement, featuring national and key European initiatives, etc.), organising trainings and workshops, preparing handbooks and guidelines, implementing networking activities, and so on.

Undertaking such an enterprise will clearly assist in cultivating the mentality and the much-needed frame of mind that will make all stakeholders (public authorities and procurers, research institutions, and companies) realise the necessity of new and innovative ways to move ahead, collaboration as a way to deal with challenges more effectively and gain in visibility, development of a forward-looking spirit of openness.



Italy

In Italy, the implementation of innovation-oriented procurement projects has remained fragmented for a long time without a defined institutional framework. Especially in the period of sharp contraction in economic resources, most of the efforts of policy makers have focused on the rationalisation and efficiency of the processes underlying traditional procurement.

Overall, the Italian public procurement system is decentralised¹⁸: it is composed of more than 20.000 contracting authorities active at a local, regional and national level. In addition to these decentralised procurements, there is also some centralisation of public procurement happening through a **CPB-Central Purchasing Body at the national level (CONSIP¹⁹)** and 31 main purchasing bodies (so-called *soggetti aggregatori*) at regional and local level which represent approximately half of the procurement expenditure in the country. The rationale behind the centralisation of procurement is to take advantage of economies of scale.

CONSIP²⁰ manages the **MePA²¹** platform (Electronic Market of the Public Administration), the virtual market for online purchases of the Public Administration, where public administrations meet the suppliers authorised to provide goods and services.

Italy does not have a permanent, officially appointed competence centre for innovation procurement. However, the national purchasing body, CONSIP, is currently participating to the EU-funded project "Procure2Innovate - European network of competence centres for innovation procurement"²², with the aim to establish a national competence centre for innovation procurement in Italy in the framework of the project.

Other active actors are the **Ministry of Education, University and Research (MIUR)²³**, promoting the importance of the public sector as a buyer for research and innovation a regional level, the **Lombardy region** has taken a leading role in innovation public procurement, both in terms of PCPs and PPIs, having approved and set up an all-encompassing **policy** (Regional Guidelines and Governance Framework), **legislation** (Regional Law n.29/2016 "Lombardy is Research and Innovation")²⁴ and **implementation** (PCP pilot promoted in 2012 by Niguarda Hospital and 3 PCPs in health care sector financed with funds from the 2014-2020 POR-FESR) framework, **creating the basis for the establishment of a regional competence centre on innovation procurement in the health care sector**. The Lombardy region is supported by ARIA, the innovation and procurement regional Company of Regione Lombardia. The Company operates as a link among the Public Administration, the market, Companies and Citizens to improve the quality of life and the competitiveness of the companies through

¹⁸ <https://ec.europa.eu/digital-single-market/en/news/benchmarking-national-innovation-procurement-policy-frameworks-across-europe>

¹⁹ <https://www.consip.it/>

²⁰ <https://www.consip.it/>

²¹ <https://www.italiaonline.it/risorse/mepa-cos-e-a-cosa-serve-e-come-ci-si-iscrive-304>

²² <https://procure2innovate.eu/home/>

²³ <https://www.miur.gov.it/>

²⁴ <https://www.clusterlombardomobilita.it/en/lombardy-research-innovation-law/law-29-2016--lombardy-is-reasearch-and-innovation->



innovation and purchases.

Another important Italian player is the **Agenzia per l'Italia Digitale - Agency for Digital Italy (AgID)**²⁵ that supports digital innovation and promotes the dissemination of digital skills, also in collaboration with international, national and local institutions and bodies. AGID deals with bringing public demand to the market and with the involvement of other institutions and industrial associations, has developed the platform Appaltinnovativi.gov, whose aim is to stimulate public demand for innovation and the encounter with the offer of original and innovative solutions.

In the benchmarking of national innovation procurement policy frameworks across Europe²⁶, Italy is at the 12th position of the overall ranking with a total score of 33,3%. From the 30 countries analysed, Italy is among the group of moderate performing countries in implementing a mix of policy measures that are conducive for mainstreaming innovation procurement. Having implemented only 33,3% of the policy measures to roll-out a comprehensive policy framework for innovation procurement, there is however still a significant reinforcement of the policy framework needed in Italy to reach its full potential.

According to the "Report on research and innovation in Italy" conducted by the **CNR**²⁷ (National Research Council), a first step towards defining a favourable institutional framework is in the "Growth 2.0 Decree" (Decree Law 179/2012, converted into Law 221/2012²⁸) which, embracing a heterogeneous range of interventions aimed at creating the Digital Agenda, provided with article 19 the implementation of "Large research projects and pre-commercial procurement" recognising the importance of public demand as a lever to stimulate innovation.

The transposition of the European directives of 2014 then represented the occasion for a further reorganisation of the whole matter by launching a process of empowerment of the public buyer, which was accompanied by a regulatory, administrative and organisational simplification of the entire public procurement sector. Progress in the legislative field was followed by a series of initiatives in the planning phase of the policies that have helped to redefine the structure of tasks and responsibilities, channelling new resources towards public demand for innovation.

Currently the main **reference documents** for PPI in Italy are:

- The Public Procurement Code (*Codice degli appalti pubblici*)²⁹, that provides indications on how to apply the PPI and how it works.
- Sustainability report 2018, conducted by Consip³⁰
- Report on research and innovation in Italy, conducted by the CNR in 2019³¹

²⁵ <https://www.agid.gov.it/en>

²⁶ <https://ec.europa.eu/digital-single-market/en/news/benchmarking-national-innovation-procurement-policy-frameworks-across-europe>

²⁷ https://www.cnr.it/sites/default/files/public/media/Relazione_2019.pdf

²⁸ www.mise.gov.it/images/stories/documenti/Executive-Summary-of-Italy-s-Startup-Act-new-format-23_02_2017.pdf

²⁹ <https://www.codicecontrattipubblici.com/>

³⁰ https://www.consip.it/sites/consip.it/files/CONSIP_RapportoSostenibilita_2018_WEB.pdf

³¹ https://www.cnr.it/sites/default/files/public/media/Relazione_2019.pdf



The Public Procurement Code includes measures aimed at strengthening **the National Anti-Corruption Authority (ANAC)**³² functions in the national public procurement system. ANAC exercises a supervisory role on public contracts and implements soft regulations, e.g. public statements, concerning the public procurement system of Italy, including innovation public procurement.

According to the analysis of the 14 interviews conducted with key stakeholders, **public authorities should use public procurement strategically** in the best possible way to stimulate innovation. This would help to achieve a more advantageous quality / price ratio as well as greater economic, environmental and societal benefits through the generation of new ideas and their translation into innovative products and services, thus **promoting sustainable economic growth**.

To give a boost to the panorama of the PPI seems to be necessary to have a political vision, including allocating resources and giving a legal "obligation" of a certain amount of procurement of innovation that cannot exist on its own.

Analysing the Italian scenario bottlenecks, a significant **resistance to change** from the procurers' side was pointed out, including risk aversion to novelties, in particular at corporate level. These cultural resistances are attributable to a **lack of knowledge, skills and competences** as well as a **lack of incentives**, not foreseen for the procurers promoting innovation, which consequently do not want to take the risk and prefer to adopt conventional, safer and more tested solutions.

Although public administrations need to rely on trained staff (external or internal), who can prepare and implement the calls, **specialised personnel with technical skills**, capable of conducting innovative contracts, **is missing in Italy**. The capacity of administrations should be strengthened, as well as procurers' awareness and knowledge (and good practices) transfer is necessary. Internal staff should be supported/assisted in implementing innovative procurements through PPI and PCP instruments.

There is a common difficulty by procurers to understand what type of measures need to be applied (PCP, PPI, Market consultation or state aid) and **who is the main beneficiary of the innovation**. If it is the company or the research institute that is promoting the research, the instruments to be used should be "state aid", if the beneficiary is the procurer or the public administration PCP or PPI could be used.

In Italy the problem is not the innovation, rather the process. **There are few guide articles** on the Italian procurement code that can be used to procure innovative solution and few rules, so **it is difficult to understand how to apply the tools** without making mistakes. Due to bureaucracy of the Procurement Code, which imposes too many operations, in the verification phase of the requirements, many public administrations prefer traditional tools and perceive PPIs as an unnecessary complexity, compared to conventional solutions that could respond likewise to the problem. The regulatory obligations, which are not so easily modifiable, are far from the innovation process.

Guidelines should be drawn up, promoting good practices and this should be done by experts with technical skills, but there is no involvement of them in the drafting

³² <http://www.anticorruzione.it/portal/public/classic/MenuServizio/ENG>



of the specifications. The innovative contracts must never be made only by the legal offices, but in collaboration with the technical / scientific directors. It would be useful to have a definition of the specific contents of the PPI calls that do not prevent participation (including start-ups), access to channels (start-ups, SMEs, innovators) and networks.

Resources and funds are lacking in some domains. There is **neither global vision** nor specific policies and budget allocation for PPI. It is necessary to get used to thinking in a **life cycle cost perspective**, considering external long-term impacts on the environment and society. Equally important is the **definition of KPIs**, or strategically set the objectives and define measurable KPI for long term impact.

There is a need for more tools for public administrations, more opportunities to understand what best fits specific needs to provide dedicated advices and support to procurers.

In Italy there are already several **consultants, competence centres, innovation brokers** (public and private) with the purpose of helping the public administration to understand what tool they should adopt, avoiding possible obstacles, legal problems and more potential risks of lawsuits for not choosing traditional solutions, but innovative ones.

Another fundamental point is that of the **lack of participation in European projects to export and share experiences**. In Italy we have many excellences not connected. **Creation of a Networking, community of professionals exchanging experiences and best practices is needed.**

Finally, since in Italy innovation is often more related to ICT, there is a strong interest in using PPI to foster sustainable development in Italy, where the bioeconomy and circular economy sectors are very proactive and well developed. The majority of the interviewees we approached are really interested in how the procurement of innovation can support the green side of the procurement, therefore it **is important to facilitate the connection between the green procurement and the innovation procurement**, which are not really connected.

In conclusion, there is a strong **need to increase the awareness, exchange good practices, build capacities and establish competence centres dedicated to the procurement of Innovation**. To support this process as PRONTO project, we can help to **raise awareness, stimulate the debate, boost the capacity building of procurers and facilitate the cultural change and the exchange of good practices**, for instance by collaborating with other projects like procure2innovate, which is creating competence centres for procurement of innovation.

Romania

The size of Romania's public procurement domain is not strictly identified; however, the European Commission estimates that EU countries spend about 14% of GDP (Gross Domestic Product) per year for public procurement³³.

The National Strategy for Public Acquisitions 2015 – 2020³⁴ made it clear that it is necessary to create an integrated legal framework, so as to replace the overregulation and frequent legislative modifications. In order to respond to this necessity, the objectives set under the national strategy were:

1. Development of Public Policies.
2. Establishment of a clear and definitive legal framework.
3. Operational support and help – desk.
4. Establishment of correction and contestation measures within the legal framework.
5. Monitoring, supervising and controlling the public procurement procedures.
6. Raising the professional and training degree for the personnel of the public procurement sector.

The implementation of the national strategy started in 2016 when the EU procurement directives (Directive 2014/23/EU, 2014/24/EU and 2014/25/EU) were transposed in the national public procurement legislation, within the following Laws:

- Law no. 98/2016 on public procurement³⁵,
- Law no. 99/2016 on utilities procurement³⁶,
- Law no. 100/2016 on work concession contracts and services concession contracts³⁷.

Additionally, the Law 101/2016 for corrections and contestation measures³⁸ completed the legal framework for public procurement. The EU directive on defence procurement (Directive 2009/81/EC) was transposed by the Emergency Government Ordinance no. 114/2011³⁹ in December 2011.

According to the European Commission analysis for Romania:⁴⁰ *"The public procurement legislation provides a clear legal basis also for implementing PreCommercial Procurement (PCP) and Public Procurement of Innovative solutions (PPI) although without explicit official definitions for PCP or PPI. The Romanian public procurement legal framework provides a legal definition for innovation but not for innovation procurement. It also provides a legal definition for R&D in the defence sector and identifies R&D via the CPV codes for non-defence procurers."*

³³ [European Semester Thematic Factsheet - Public Procurement](#), European Commission, November 2017

³⁴ [National Strategy for Public Acquisitions 2015 – 2020](#), ANAP, 2015

³⁵ [Law no. 98/2016 on public procurement](#), ANAP, updated in 2020

³⁶ [Law no. 99/2016 on utilities procurement](#), ANAP, updated in 2020

³⁷ [Law no. 100/2016 on work concession contracts and services concession contracts](#), ANAP, updated 2020

³⁸ [Law 101/2016 for corrections and contestation measures](#), ANAP, updated in 2020

³⁹ [Emergency Government Ordinance no. 114/2011](#), ANAP, updated in 2020

⁴⁰ *The strategic use of innovation procurement in the digital economy, Country Fact Sheet, EC, January 2019*

In conformity with article 3, section aa of the Law 98/2016, innovation is defined as “*the implementation of a new or significantly enhanced product, service or process, including but not limited to processes of production or construction, a new method of placing on the market or a new method of organisation in business practice, organisation of workplace or external relations among others to help address social challenges or to support the Europe 2020 strategy for smart, sustainable and inclusive growth*”.

In order to better understand and identify the public buyers’ level of awareness and experience on innovation procurement, various relevant documents, reports, articles and strategies of the public procurement domain were reviewed and 6 interviews were also conducted on this thematic, with relevant key factors, such as: a regional development agency, two public hospitals, one ministry representative and two private company representatives, which could be potential suppliers of innovative products and services.

The common and main conclusion was that **public buyers are not aware of what PCP or PPI means, despite the fact that most of them declared that they are knowledgeable about the innovation procurement**. The *Statistical report 01.01.2020 - 31.03.2020*⁴¹ regarding the awarding procedures of the public or sectoral procurement contracts initiated in the electronic public procurement system by publishing an announcement / simplified participation notice / invitation of participation made by the NAPA (National Authority for Public Acquisitions⁴²) reveals **a very low level for the procedures that could be innovation procurements**. Only 13 competitive procedures with negotiation from a total of 2,073 procedures were implemented in the first three months of 2020, indicating that **in the absence of stimulating measures the public procurers still manifest reticence to think differently**.

Despite the fact that the established legislation includes procedures which could ensure innovation procurements (Competitive solutions competition, Competitive dialogue Partnership for innovation, Negotiation without publication, Competitive negotiations), these are rarely used by public authorities. There is a **reticence at public authority as well as the supplier level to use the market consultation tool**, which is established in the legislation, *because this is a new tool in the legislation and faces the reticence of the public authorities, too carefully for not disregard the principles of the public acquisitions established in the legislation*.

Furthermore, in accordance with the *Monitoring indicators for the estimation of the efficiency for public procurement acquisitions in 2018, made by the ANAP* (National Public Procurement Agency⁴³) there is also **a reticence for using “the most advantage offer” selection criteria which are not really understood by the public authorities** because for a long period in the previous procurement legislation the recommended selection criterion was “the lowest price” and for the “most advantage offer” criterion the public procurers have the obligation to justify the selection criteria very clear, otherwise corrections or rejections of the documentation was applied. “*As the same in the other years, for the contracts which were concluded in 2018, in the context*”

⁴¹ *Statistical report 01.01.2020 - 31.03.2020 on the procedures for awarding procurement contracts public or sectoral procurement initiated in the electronic public procurement system by publishing an announcement / simplified participation notice / invitation of participation, ANAP, 2020*

⁴² *National Authority for Public Acquisitions (ANAP)*

⁴³ *National Authority for Public Acquisitions (ANAP)*

of the relevant public procurement procedures, the contracting authorities / entities used the lowest price criterion for awarding the contracts in the largest proportion, respectively 85.22%". Although documents are provided by ANAP on how you can build the selection criteria, there are not used at the full potential by public authorities.

Innovation procurement is not regularly foreseen/included in the medium/long term strategies at the level of the public authorities, and there isn't a dedicated budget for this type of procurement. The majority of the innovation procurements happened within research projects, regularly financed from the various financing sources and not from the budgets of the public authorities, or with some contribution of the public authorities (i.e. own budget). The most accessed financing sources are structural funds, H2020, Research and development national programs, Norwegian programs (a bilateral agreement between Norway and eastern Europe), etc.

Even if the legal framework for public procurement from 2016, included a first awareness to the topic of innovation procurement, this topic is not developed yet, nor as a stand-alone policy nor as a strategic part of other policies. **A national action plan or any policy in public procurement that encourages innovation has not been established yet.** The innovation procurement is made just in a few public entities like ONAC (National Office for Centralized Acquisition), ministers and other large public authorities.

The innovation procurement procedures are implemented in three steps, in most of which a lot of expertise and time is needed and not many public procurers have the capabilities to allocate this time or find and implicate the necessary expertise. *Monitoring indicators in 2018* regarding the acquisition domain reveal that the medium time for implementing the innovation procurement is higher than for all other procedures established in the legislation.

Procedure type	Preparing	Implementing	Total days	Procedures number
Open bid	15	103	118	3623
Accelerated open bid	6	39	45	52
Short bid	9	113	122	11
Competitive negotiation	29	171	200	16
Competitive dialogue	34	440	474	1
Simplified procedure	13	77	90	14874

Overall, the analysis revealed that:

- Innovation procurement is not developed yet.
- Innovation procurement is not a stand-alone policy or a strategic part of other policy.
- There is a lack of awareness and/or experience of the public buyers about the PCP/PPI terms.

- Innovation procurement is not defined in the national legal framework.
- Reticence at the public authorities' level and the offers level to use the market consultation.
- Choosing the safest and known way, by using the "the lowest price" selection criteria instead "the most advantage offer" selection criteria.
- A very low number of innovation procedures.
- The duration of the innovation procedures is too long.
- Lack of national action plan.
- Lack of policies in public procurement that encourages innovation.
- Training of the public procurement employees is needed and wanted.

Poland

In the last years, there has been an increasing level of action aiming at fostering the public procurement for innovation in Poland. EU directives and Polish law have been at the center of this process leading to the advancement of the mechanisms and impact of the PPI as well as its capacities to deliver innovative solution and products in an evolving ecosystem.

Poland sees a growing conscience of the significant relevance of innovation in the procurement area, especially in terms of acknowledging its transformative power, enabling a further modernization and evolution of the state and its capacities to support a transition to a more cost-effective and competitive ecosystem. At the same time, it seems that **innovation procurement has not been yet comprehensively addressed** and exploited to trigger the transformational change on a cross-cutting and transversal dimension, positively contaminating different sectors, areas and policy domains. Although lots of discussions and reflections have been stimulated, there are not systemic plans, capacity building and assistance measures put in place, enabling a comprehensive and fully integrated approach operationalizing public procurement in innovation.

Poland does not have a stand-alone, encompassing and integrated action plan for procurement capable to streamline coherently and comprehensively innovation. The public procurement system in Poland is highly decentralized and contracting authorities, also at local level, are allowed to define the secondary policies and objectives. Several actors are playing different roles in this scattered landscape.

- The Public Procurement Office⁴⁴ is responsible for the Public Procurement Law and its revisions. It also undertakes initiatives about awareness raising and supports

⁴⁴ <https://www.uzp.gov.pl/>

the improvement of the capacity of public procurers in the field of innovation procurement;

- The Ministry of Entrepreneurship and Technology⁴⁵ is responsible for the national innovation policy, including the innovation procurement policy;
- The Polish Agency for Entrepreneurship Development (PARP)⁴⁶ supports innovative entrepreneurs and contractors, under the supervision of the government;
- The Ministry of Science and Higher Education⁴⁷ is in charge of R&D policy and its executive agency;
- The National Centre for Research and Development⁴⁸ manages large innovation projects with the involvement of public, private and academic partners and is also involved in management and support of supply side R&D grant projects aimed at addressing public sector challenges;
- Other significant players include the Ministry of Investment and Development⁴⁹ focusing on financing innovations and the Government Administration Service Centres⁵⁰ which the main purchasing body for governmental level entities.

It must be noted that in Poland a new [national purchasing policy](#)- addressing also innovation procurement - is currently being elaborated.

Another element of analysis is that the **Polish public procurement law does not provide official definitions for R&D, innovation and innovation procurement**. As a consequence of this scattered legislative landscape a certain degree of unclarity emerged among Polish public procurers, many times leading to the assumption that only purchasing innovative solutions are labelled as innovation procurement. In fact there is a clash between the way the two parties define the subject: the EU public procurement directives define innovation as the implementation of a new or significantly improved product, service... (innovation procurement also includes procurements that purchase only the activity of implementing/creating an innovative solution, without necessarily buying this solution) whereas [art 73 of the Polish public procurement law](#) defines innovation more narrowly as only the outcome of an innovation activity (the new or significantly improved product, service...).

Poland uses the concept of innovation procurement as an instrument enabling the progress towards the development of the national economy and labour market. Following the objective of maximizing public purchases by giving procurers power to focus on innovation and sustainable products and service, a smart public procurement policy was adopted in the State Purchasing Policy. The assumption is that the public sector is an entity creating demand for high-quality products and services with priorities in: preferring innovative and ecological solutions; facilitating access to the procurement market for the SME sector; avoiding dependence on one supplier, striking

⁴⁵ <https://www.gov.pl/web/rozwoj>

⁴⁶ <https://en.parp.gov.pl/>

⁴⁷ <https://www.gov.pl/web/science>

⁴⁸ <https://www.ncbr.gov.pl/en/>

⁴⁹ <https://www.gov.pl/web/archiwum-inwestycje-rozwoj>

⁵⁰ <https://centrum.gov.pl/>

a balance marrying the quality and the efficiency goal. Considering also the [Strategy for innovation and efficiency of the economy "Dynamic Poland 2020"](#), there is a direct reference to public procurement as a key driver for new, pro-innovation approaches allowing the adoption of new technologies and innovative goods and services.

Legislative evolution

The year 2016 was particularly significant for functioning of the public procurement system in Poland. New provisions of an Act of 22nd June 2016 amending the provisions of the Public Procurement Law (PPL) (The Act of 29 January 2004) came into life on 28th July 2016. The most important law changes concern the description of the subject of the contract where innovative aspects could be best-described by the use of functional requirements, certificates or resulting from technical dialogue. Another important change is more precise conditions for selecting the best contractors. Other changes concern the criteria for the evaluation of the most advantageous offer, where the price weight cannot exceed 60%. However, the most important changes focus at the introduction of a new procedure - innovation partnership and the possibility of using variant offers.

Latest developments

The new Public Procurement Law contains a number of solutions which have a material impact on the situation of contracting authorities, contractors, and subcontractors. Such solutions are to be a response to the current problems on the Polish public procurement market, including, among other things, low competitiveness, an imbalance between the parties to the public contract, and no flexibility at the stage of performing the contract.

The regulation will enter into force on 1 January 2021, i.e. after a vacatio legis period of over one year.

Early results and outputs of the initial consultations and key stakeholders' interviews:

It seems that there is a deficit of knowledge of contractors and contracting entities in relation to the awareness and application of legal provisions fostering procuring innovative solution and products. On a systemic scale, Innovative solutions are rarely applied by contracting entities: some of the reasons seem to lie in the lack of needs/requests (*"I am not aware of the solutions thus I do not request them"*), in the knowledge/expertise capacities (*"I am aware of the opportunity but I am not able to use them and manage the processes"*) and in the business profile which does not foster the demand of innovation.

Polish contracting agents and their intermediaries would feel more comfortable in having a higher degree of knowledge conducive to procuring innovative solutions, products and services. This is an element of concern that Poland should address and there is also a significant discrepancy between the level of understanding of the concept and implementation of the term "innovation" - as expected by the contracting organizations and what offered by the contractors. In general, the perception of the level and scale of innovation provided by the contractors seemed to be lowered by the definition/parameters requested by the contracting agents. Another element that emerged was the level of involvement of innovation experts and/or professional

expertise from the contracting authorities: it was not deemed adequate by the contractors. Also, the level of dialogue and exchange about the innovativeness dimension between the parties was deemed by the contractors as limited. Several criticalities were found in the responsiveness, willingness and openness of contracting authorities and contractors to respond and provide information on the topic. Overall, public procurers agree in saying that they face complexities in developing innovative public procurement preparation and procedures. On the other hand, contractors face complexities in responding to public procurers' request of information/clarifications, as a detachment between the parties appears to emerge in relation to their understanding and implementation of public procurement of innovations. Finally, a misconception of the term "innovation" and "procurement of innovation" seem to be at the basis of the fragile alignment between expectations, delivery and appreciation of the key-stakeholders in the public procurement of innovation arena. The main conclusions indicate that there is a weak or poor level of knowledge concerning provisions conducive to procuring innovative products from the contractors' side. The level of contact between procurers and contractors in terms of addressing clearly and in an univocal fashion the concept of innovativeness would also benefit of a certain degree of reinforcement. Looking at the public procurement contractors, those running systematically pro-innovative proceedings, achieve slightly better results in fostering innovative solutions and products. Another element that would increase the current scale of application of innovative public procurement are trainings: for instance, by providing direct training and provide European best practices and knowledge incentives. Ultimately, there is a cultural dimension to address: the concept of procuring innovative products/services needs to be further promoted and endorsed, by showcasing concrete economic, social and political benefits

Portugal

Overall, in Portugal the personnel in charge of public procurement (PP) processes complaints about how slow the process is, while several legislative barriers are obstructing the innovation process: *"public procurement is slow, while innovation should be fast"*.

According to articles 19 and 21 of the "**Código dos Contratos Públicos**⁵¹" (code of public contracts), with regards to leasing and supplying goods and services contracts with a prior consultation process, at least three entities are to be invited by the procurer to bid. However, what happens in practice, is that via this process, if it is the same company wins a contract with the same procurer for 3 times, it is not possible for the procurer to work with that company any more for at least 2 years, even though the company is offering the best quality-price ratio. This creates concrete barriers to innovation, as sometimes, if we take the example of PCP and PPI processes, it is needed to work again with the same company because of the solution created (which could be

⁵¹ <https://dre.pt/web/guest/legislacao-consolidada/-/lc/114291580/201711301833/indice>

applied to other sectors, or may need to be updated/modified, or simply because it is more efficient and logical that the same company works again on its solution, etc.).

When dealing with the drafting of tender specifications and the contract itself, public procurers highlighted an important “vicious loop” problem, consisting in the need to consult and speak with companies, in order to be able to properly prepare the tender text. Different products and services have variable prices and technical requirements public procurers need to know. “*How to know what a competitive price is, in order to issue a fair call for tender?*”. Public procurers would need to consult with those same companies, which most likely would be the bidders themselves in the future. And this of course may generate bias and problems of non-transparency, conflict of interest, etc. Such core problem may be overcome by public procurers through informal meetings with providers, companies, organisations, etc., to provide public procurers with the technical support needed to properly draft tender specifications.

The drafting of the tender specifications, as well the contract itself, is considered a heavy burden on the shoulders of PP personnel, who has to “*deal with it alone*” (a public entity has multiple different needs, from logistics to stationery and to innovative technologies. The personnel in charge of PP often find themselves dealing with topics they do not master).

The political landscape is perceived by the personnel in charge of PP to be capable of eventually influencing procurement processes, discouraging PP personnel and not providing the right contribution to foster an environment dedicated to encouraging the procurement of innovation. It is important to underline at the same time that the above-mentioned complaint comes from a municipal level point of view and, more specifically, from non-for-profit entities owned by municipalities. Such entities have structure and personnel proper of a private company, and must at the same time comply with public procurement rules when it comes to purchasing goods and services.

However, PPI is often seen as a “*slower path*” to the specific objectives of the entity: there are innovative products and services already on the market that could serve the needs of procurers, by modifying them or adapting their implementation to the specific need. Such products and services can be procured via traditional PP processes, leading to the perception that “*PPI implies more work, and sometimes it’s not really what is needed*”.

In terms of personnel, each public entity has a responsible for public procurement who, in turn, is often aware of PPI, no PPI-specialized personnel seems to be employed though; in some case the personnel attended PPI trainings upon the initiative of the personnel himself.

Regarding the “overall time dedicated to public procurement”, it appears it really depends on two main factors: the type of goods and services to be procured estimated budget. If the budget is below 200.000€, the PP process may take from 1 to 2 months (which is considered “fast”). This however implies that:

- a. Tender requirements are well elaborated and presented

- b. No issues with the evaluation itself are raised (normally the criteria for winning is the lowest price)

None of the above-mentioned points are to be given for granted in any PP process, even more when applying more demanding processes as PPIs.

It appears **there isn't any long/short-term strategy specifically for PPI and no budget line is reserved at the beginning of the fiscal year for this type of (procured) investments**. "Innovation" is instead a common objective benefitting from specific annual budgets: public entities reserve specific budget to be procured to upgrading, updating or making more innovative certain processes (i.e. upgrading maintenance processes of Wi-Fi/ optical fibre infrastructures). Such innovation is however perceived as if it can be reached with traditional procurement.

The participation in EU projects is considered as an "alternative innovation budget line". Often EU projects (mainly H2020) are used to bring innovation (or implement awareness-raising activities) in public bodies, with special regards to participatory approaches of citizens. In a way, it is an "alternative" revenue stream for public entities.

Overall, our analysis revealed a misleading meaning attributed to the word "innovation", when associated with public procurement: it appears that PPI is not perceived as "another way to structure a PP process", it is rather perceived as a different and less-known way to purchase innovative goods and services, whose public contracts may be procured by public entities with a "more traditional" process anyway.

Why going for PPI then? It all lies in the process itself: the fact PPI process is divided into stages, is seen by public authorities as an important advantage because it reduces risks for public buyers (in terms of transparency, solutions provided gradually screened, multiple deadlines, etc.).

In this regard, the fact PRONTO is now understanding the barriers and problems of public procurers and, in the light of these analyses, the project will organise trainings tailored to the identified needs, is considered to be the best added value for public procurers. It was suggested to keep trainings as concrete as possible, meaning that PRONTO should identify the technical needs/ requirements of public procurers, and train them on those specific needs (i.e. if a public body has to purchase certain goods, they need training on what the price of those goods are, and what are the most suitable goods for their objectives are). In other words, the trainings shall help procurers to avoid informal consultations with companies, needed to properly draft the (technical) tender specifications.

Market dialogue is an element often easier said than done, where PP personnel feels the need of an external support to organise the info-days for providers to present their solutions (considered as vital for both parties). However, PP personnel is often overwhelmed with traditional workload and the organisation of these event is often a duty of the PP personnel themselves. An external support in this regard is perceived extremely positively and as really useful.

Regarding staff exchanges, transferring empirical information and suggestions from peers is considered as an extremely useful tool for procurers, if the bureaucratic/

administrative/ political framework of the countries is similar (i.e. a staff exchange on PPI practices between Portugal and Italy is considered as more fruitful, than a staff exchange between Portugal and Sweden).

Slovakia

As was the case in many eastern European Member States, public procurement practices in Slovakia were in desperate need of improvement in the 1990s and early 2000. The omnipresent lack of transparency and rule breaking began to recede after joining the EU and transposing EU public procurement rules. Yet, Slovakia is lagging behind in several EU rankings when it comes to tendering – according to the [Public Procurement Scorecard](#) in 2016, only five member states recorded a higher ratio of a single bidder and only two had slower decision periods.

The EU public procurement legislation was transposed into the Public Procurement Act (PPA) and its amendments (Act No. 25/2006 Coll. of Laws⁵²). Act No. 546/2010⁵³, which came into force in 2011, increased transparency and remedies by making online publication of most contracts mandatory. It also allowed bidders to be present during the opening of bids, obliged contracting authorities to notify unsuccessful bidders of the winning bid, and allowed the parties to appeal both the process and the results of an award. Further changes were introduced with Act. No. 95/2013⁵⁴, enabling for example the procurer to refuse bids of an “extremely low” price.

Major reform came with the completely new Public Procurement Act No. 343/2015⁵⁵, which became valid in April 2016. The law introduced several important changes, like the ex-ante control possibility for all parties, “market availability test” and many others. Most importantly, it introduced electronic processes to all public procurement in Slovakia (since March 2017).

When it comes to public procurement in Slovakia, the Office for Public Procurement (UVO)⁵⁶ is an important actor, whereas a bidder should also be aware of several other registries, namely (*note: except for the last one, which is run by the Ministry of Interior, the remaining registers are run by UVO*):

- The Procurement Journals⁵⁷ (collects all tenders)
- The Registry of public procurers⁵⁸
- Profiles of public procurers⁵⁹
- The Registry of the partners of public administration⁶⁰

⁵² https://www.slov-lex.sk/static/pdf/2006/25/ZZ_2006_25_20160101.pdf

⁵³ https://www.employment.gov.sk/files/ministerstvo/zakon_546_2010.pdf

⁵⁴ <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2013/95/>

⁵⁵ <https://www.eks.sk/Content/files/zakon/15-z343-2.pdf>

⁵⁶ <https://www.vlada.gov.sk/urad-pre-verejne-obstaravanie/>

⁵⁷ <https://www.uvo.gov.sk/vestnik-590.html>

⁵⁸ <https://www.uvo.gov.sk/register-verejnych-obstaravatelov-591.html>

⁵⁹ <https://www.uvo.gov.sk/vyhľadavanie-profilov-4db.html>

⁶⁰ <https://rpvs.gov.sk/rpvs>

Overall, public procurement accounts for 13.2% of the Slovak Republic's GDP and represents more than 32% of the total government expenditure, both figures being slightly above the OECD average. Public procurement in the Slovak Republic is not only financed by the government budget but also significantly draws on European resources. Indeed, the main European investment tool – the 2014-2020 European Structural and Investment Funds – finances more than 90% of the total public investment in the Slovak Republic, the highest percentage across Europe⁶¹.

In general, the procurement of innovation in Slovakia is **still in a very "embryonic" phase**. Very little information and knowledge is available about PPI. It is a relatively unknown subject, lacking awareness and knowledge, and is mostly limited to a theoretical level, meaning that **a common methodological guidance on its practical implementation is missing**. Most procurers have not come into direct contact with any of the current types of procedures, tools, benefits or risks associated with PPI procurement. This is mostly due to obstacles such as budget availability (suppressed budget does not allow it), knowledge of how to incorporate evaluation criteria other than the usual ones (costs, equipment guarantee, duration of service) or any other. As an example, from the interviews, environmentally friendly aspects are often preferred in procurement today, which could be considered as a kind of new approach to innovation procurement in Slovakia.

Procurers are concerned about many issues, such as missed opportunities in terms of awareness, understanding and simplification. According to our research, trainings aim to include innovation and information in the public procurement, however PPI is an entirely new concept that has not been much addressed.

The Slovak Environment Agency organises educational activities on green public procurement for public authorities. Its training focuses on how to implement GPP criteria in tender procedures. It is free of charge and organised in all self-governing Slovak regions in cooperation with the Ministry of Environment⁶².

Public authorities, especially the larger ones, are aware of the existence of PPI. Some of them consider launching PPI to reduce energy costs associated with public buildings. However, **innovations are very often procured by private entities that have received a public grant from the European Structural and Investment Funds (ESIF)**. According to Slovak legislation, all ESIF beneficiaries must start the process of public procurement (of innovation) in search of suitable subcontractors who could perform part of the work. Once they get structural funds for any sort of procurement, they need to follow exactly the same procurement process as any public entity.

In very few cases, **experienced procurers still use subcontractors and consulting firms to avoid professional liability**. In practice, this means that during audits and inspections, the outcome depends on which authority carries it out, and the findings often differ and even contradict each other. For example, "Company A", which has received an ESIF grant from the Ministry of Economy, is implementing a PPI and after an audit no irregularities are detected. A year later, the same "Company A" will receive

⁶¹ <https://www.oecd.org/gov/public-procurement/country-projects/slovak-republic-reform-esif/>

⁶² https://ec.europa.eu/regional_policy/sources/policy/how/improving-investment/public-procurement/study/country_profile/sk.pdf

an ESIF grant, this time from the Ministry of Education. It reintroduces the PPI, follows the same procedures, but there are serious shortcomings according to the audit. This situation therefore creates enormous uncertainty. In addition, experts who conduct tenders cannot take out professional liability insurance (if they do) because all insurance companies in Slovakia exempt public procurement services from their portfolios.

As a result, **the vast majority of procurement is governed by the "best price" as opposed to the "Most Economically Advantageous Tender" (MEAT)** principle where additional qualitative, environmental and/or social criteria are applied in addition to price/cost. "As soon as we do not choose the cheapest offer, we will open a Pandora's box," said one of our respondents.

This problem could be solved **by creating a new Ministry of Investment and Digitisation** (the exact name is to be confirmed), which is the plan of the newly elected government. They could issue common holistic and binding methodological guidance on how to proceed.

In addition to the above-mentioned challenge, there is a relatively high incentive to procure innovation from the state/government. However, human and financial resources are lacking. The positive element is that **the majority of stakeholders (individuals, not organisations) is open and eager to learn more about this new way of procuring and is very interested in examples.**

Recently, many competencies have been shifted from the national to the regional or local level. In practice, this means that municipalities and regions have more commitments but with the same budget as before.

Larger cities are still in a position to consider PPI, but smaller towns oftentimes focus entirely on securing the minimum day-to-day operations. PPIs could be considered as expensive solutions (the lowest price being the only parameter), which means that small contracting authorities cannot afford them. One solution could be that many small towns join forces. So far, however, **there is no mentality for cooperation.** Innovations are not included in their annual budget because they focus on the usual needs of contracting authorities. Medium-term (few years) planning exists only in large contracting authorities. Again, however, they do not rely on the annual budget plan adopted by the state.

The market pushes innovation many times, i.e. addresses public entities and presents them with an innovation that would benefit the provider. Then, of course, there is the problem of financing the procurement, which usually means that the solution provider is looking for suitable sources of financing.

The contracting authorities claimed very little experience with PPI abroad. Several projects took place within the framework of cooperation. There was no direct communication with the contracting authority.

The ambition is **to create a Competence Centre with other Slovak partners.** PEDAL Consulting has started its coordination and first interviews with the Procure2Innovate coordinator have been performed. This could be considered as a right step for Slovakia in the PPI field.

Overall, **although Slovak legislation recognises specific procedures for PPI, the biggest challenge is that, in practice, there is no holistic and binding methodological guidance on how to implement PPI.** This situation causes uncertainty and, as a result, many contracting authorities are abandoning PPI. They are afraid of possible sanctions in case inspectors detect irregularities. The ambition is to solve this problem by setting up a new ministry that would centralise all procurement under its leadership, thus creating a promising environment/frame for procurers when addressing these issues.

Spain (Andalusia)

Overall, the Spanish public procurement system is decentralised: the system is based on more than 8,000 contracting authorities at national, regional, and local level, including the central administration and its agencies, public-funded bodies, universities, and healthcare services.

The [Ministry of Science and Innovation](#) (MICINN) through its General Secretariat of Innovation is responsible for providing the financing of Spanish Innovation Procurement projects under the [European Structural and Investment Funds](#) (ESIF). Since 2014, Spain has been promoting innovation procurement projects for a global amount of € 300 million (for the EU current budget period 2014-20) to be co-financed with this FEDER Technological Fund of ESIF, through the Spanish Programme ([Línea FID - CPI](#)⁶³) for 2014-2020. The [Centre for Development of Industrial Technology](#) (CDTI) – a public business entity depending on the MICINN – has been appointed by MICINN as the national competence centre for innovation procurement in Spain together with ISCIII ([Institute of Health Carlos III](#)) and INTA ([National Institute of Aerospace Technology](#)), acting all three entities as a concerted network under the guidance of MICINN.

Finally, Regional Governments of the seventeen Autonomous Communities and two Autonomous Cities also have competencies in the field of innovation procurement and are progressively devoting greater budget amounts to this aim.

The Spanish legislative framework for public procurement consists of three main laws:

- Royal Decree-law 3/2020⁶⁴, of 4 February, on urgent measures transposing into Spanish law various European Union directives in the field of public procurement in certain sectors; private insurance; pension schemes and funds; taxation and tax litigation,
- Law 14/2011⁶⁵, of 1 June, on Science, Technology and Innovation,
- Law 9/2017⁶⁶, of 8 November, on Public Sector Contracts.

⁶³<https://www.ciencia.gob.es/portal/site/MICINN/menuitem.7eeac5cd345b4f34f09dfd1001432ea0/?vgnnextoid=9caa777e0abe5610VgnVCM1000001d04140aRCRD>

⁶⁴ <https://www.boe.es/eli/es/rd/2020/02/04/3/con>

⁶⁵ <https://www.boe.es/buscar/pdf/2011/BOE-A-2011-9617-consolidado.pdf>

⁶⁶ <https://www.boe.es/eli/es/l/2017/11/08/9/con>

This national legislation is further developed at the regional level through either regional implementation laws or implementation guidelines. In the particular case of Andalusia it's important to mention the Law 12/2007, of 26 November, for the promotion of gender equality in Andalusia⁶⁷ and the Agreement of 18 October 2016 of the Governing Council, encouraging the incorporation of social and environmental clauses in contracts in the Autonomous Community of Andalusia⁶⁸. Furthermore, Andalusia counts with The Strategy for the Impulse and Consolidation of Innovation Procurement (IP) in the Public Administration of Andalusia⁶⁹, which is a combination of economic measures and other actions (such as IP awareness, training and the creation of a regional structure for the provision of support services and governance) with the main aim of producing a change in the Andalusian Public system towards innovation, promoting innovation in the long term by requiring companies to innovate and to promote research via the acquisition of Innovation.

Overall, Innovation Procurement (IP) in Spain, and in particular Andalusia, is an instrument that has been promoted at national and regional level in a more effective way since 2016. Therefore, all the interviewed public bodies, and we could also say that in general, **public bodies in Andalusia have a certain level of awareness on Innovation Procurement**. They have all attended to some extent trainings on this issue, either internal or external, and some of them have already experience on IP projects. **However, there is a need for additional training on the subject** (general and specific).

Although the majority of public bodies have not considered to allocate some resources on their annual budgets for innovation procurement, they are all working on different IP projects and initiatives to be financed via European Regional Development Funds (ERDF) (as part of the activities foreseen on the Strategy for the Impulse and Consolidation of Innovation Procurement (IP) in the Public Administration of Andalusia). Therefore, we could say that the use of Innovation Procurement is gradually becoming more extended, not only in Andalusia, but also in Spain.

The main common concerns of public bodies when facing an IP project are **time** (on average an Innovation Procurement project takes around 20 – 24 months to be initiated) and the **uncertainty of the solution**.

When referring to the perception that public bodies have of Innovation Procurement, **the latter varies depending on their previous experience**. Those with *more* experience do not face any major troubles except for the **lack of technical knowledge in public administration**, but those with *less* experience generally perceived IP as a great challenge for the departments managing and controlling the procurement (**this procedure is more flexible and less structured than the traditional public procurement**), for those involved in the definition and description of the need (who **in the majority of cases lack technical expertise**) and they also thought that

⁶⁷<https://www.boe.es/eli/es/l/2017/11/08/9/con>

⁶⁸<https://www.juntadeandalucia.es/boja/2016/203/2>

⁶⁹ https://www.juntadeandalucia.es/export/drupaljda/planes/18/09/ECPI_vdef.pdf

purchasing innovation is sometimes not positive in terms of cost- benefit analysis (**the profitability of the project result sometimes takes too long**).

The main motivation to be involved in Innovation Procurement is in all cases financial, but it is also about the implementation of innovative processes, the reduction of costs and the improvement of existing public products/services that will have a positive impact on the citizens.

On the supply side, providers of technological solutions have in general a positive perception of innovation procurement. They think that the process is transparent and benefits and motivates the industry towards innovation.

4 Conclusions and next steps

Despite several setbacks, Public Procurement of Innovation is progressively emerging as a decisive factor for fostering the demand of innovative goods and services across Europe, improving the quality of public services destined to EU citizens, while at the same time addressing some major societal challenges.

Its **benefits** are undeniable. Although public procurement primarily aims at acquiring products, services and works economically, **by going beyond the concept of the 'better-price offer' and introducing among the award criteria parameters and notions** such as *whole-life and life-cycle costs*, *MEAT* (Most Economically Advantageous Tender - allowing for more prominence to quality), *risk sharing*, as well as *environmental and societal considerations* (notably circular economy), **public procurers can enhance cost-efficiency over the medium or long term and boost performance, thereby initiating cost savings**. It is simply a question of achieving the best cost-benefit ratio. Innovative products and services often result in concrete improvements of administrative procedures and the concomitant enhancement of service quality, as well as user friendliness and satisfaction. PPI also allows for the development of knowledge, skills and techniques and the rapid introduction of newer technologies into the market - subsequently applied to several future projects - and contributes to attain positive publicity and acknowledgement.

Attracting innovators is one of the main challenges for Public Procurement of Innovation as small and medium-sized enterprises (SMEs) are often deterred from participating in public procurement procedures because of the bureaucratic overhead and the excessive financial guarantees that are often required to demonstrate their financial capacity. Owing to its several available options and a simplified documentation, PPI has the potential to alleviate these obstacles and provide SMEs with easier access to procurement, thereby allowing for job creation and enhancement of international competitiveness.

By developing a forward-looking innovation procurement strategy, public procurers can drive innovation from the demand side, thus enabling the public sector to modernise its services faster, while simultaneously creating opportunities for companies in Europe to gain leadership in new markets.

Nevertheless, an investigation into the national PPI landscape in the PRONTO partners' countries clearly demonstrates that PPI has not reached its full potential in Europe yet. Throughout the interviews and analysis carried out for the purpose of this report, the barriers to wider adoption of PPI practices can be grouped into 3 main categories:

- The **lack of a clear definition of PPI**. There exists an obvious confusion as to what Public Procurement of Innovation really means, which is completely understandable if one considers the broad range of different concepts, each with their own associated rationales and approaches, which are used in literature and practice to describe the stimulation of innovation through public procurement⁷⁰.

⁷⁰ <https://www.tandfonline.com/doi/full/10.1080/13511610.2019.1700101>

The same terms and abbreviations are used to refer to more than one concept (see Table 2 below – *note: for the purpose of this report, only references to the term PPI are included*). Consequently, it may not always be clear to which concept the term refers to. This in turn leads to ambiguity as to the reason for stimulating innovation, what is regarded as innovation, and which approaches and methods should be used in each individual case. Furthermore, the use of terms and what they refer to varies across different streams of literature, authors and individual papers.

The analysis of various case studies (see ANNEX I) revealed the existence of *common ground* (i.e. focusing on the problem and opting for a solution instead of detailing the goods/services to be purchased) but also *different approaches*, ranging from enhanced collaboration among regional/national stakeholders in order to define the problem and the perceived outcome to the purchase of goods/services that are new on the market (or about to enter the market) or a new way of using already existing products to 'solve' a problem (business case). This only adds to the overall confusion.

Term	Source	Concept
Public procurement for innovation (PPI)	Edquist, Vonortas, and Zabala-Iturriagagoitia (2015) Edquist and Zabala-Iturriagagoitia (2012)	Occurs when a public organisation places an order for the fulfilment of certain functions within a reasonable period of time (through a new product, service or system)
	OECD (2017)	Any kind of public procurement practice (pre-commercial or commercial) that is intended to stimulate innovation through research and development and the market uptake of innovative products and procurement
Public procurement of innovation (PPI/PPoI)	Rolfstam (2013, 2012)	Purchasing activities carried out by public agencies that lead to innovation
	Yeow and Edler (2012)	The commissioning and procuring of goods or services that are new to the purchasing organisation and enable a novel service to citizens or enable a more efficient or effective delivery of that service
	Edler and Yeow (2016)	The purchase of a solution that is novel to the buying organisation in order to serve an organisational need
Public procurement of innovative solutions (PPI)	European Commission (2014b)	Procurement where contracting authorities act as a launch customer for innovative goods or services which are not yet available on a large scale commercial basis, and may include conformance testing

Table 2: Overview of terms and abbreviations used to refer to different concepts

Source: [Innovation and public procurement: from fragmentation to synthesis on concepts, rationales and approaches](#)

- **The absence of a clear-cut legal framework** in most countries represented by PRONTO. They have all reported a *legal basis* for the development of PPI, meaning that they are ready to develop a PPI strategy, but *no country* has included a *definition of PPI in its national legal framework*. This has frequently surfaced as a distinct obstacle for interviewees, who appear to consider it as a fundamental impediment when considering procurement, transparency allegations and wish to be reassured as to what they should do or not. To encourage more public entities to undertake innovation procurements, it is important that this is clarified in the future.
- **The need for a comprehensive and well-structured organisation in the procurement departments.** Traditionally viewed as an administrative function of government, public procurement largely remains compliance-driven and not forward-looking. The number of personnel dealing with procurement is more often than not very restricted and lacks the necessary skills and knowledge to design and evaluate tender documents so as to demand and opt for the best available market solutions going beyond the 'lower cost' option. There is simply a lack of awareness and understanding as far as PPI, its scope and implementation are concerned. This becomes evident whenever conversations with public procurers turn to the costs of sustainability and innovation; they are dubious and reluctant to consider an item, solution or process that appears costlier than the business-as-usual alternative. PPI is perceived as an additional time burden and, when coupled with a widely-observed mentality barrier and resistance to anything new and off the beaten track, it translates into an undeniable reticence to deploy innovative solutions and diverge from well-established procedures. Moreover, the lack of a concrete award and motivation strategy that could act as a driving force does not contribute to a positive change towards the desired direction.

The identified challenges will be addressed during the next phases of PRONTO, targeting both public procurers and those entities responsible for the creation of the legal framework and the support public procurers. This should be achieved by designing and implementing a wide variety of awareness raising, capacity building and support activities:

- **Training events** for public buyers, aiming on the hand to enhance their knowledge of the new approach for procuring innovative solutions, and on the other develop skills in order to exploit the various 'tools' available for the design and implementation of PPI processes. Topics like the necessary competencies to define the 'problem' and ways to communicate it effectively to potential suppliers, steps to follow so as to design a successful PPI process, establishment of a collaboration mentality, motivation and business thinking, etc., will be addressed as thoroughly as possible, while successful examples will be highlighted showcasing the derived benefits but more importantly the new approach to public procurements. In total, the project foresees 1 training event in each partner country and 3 additional ones at an international level.
- **On-the-job training activities** to facilitate direct interaction and promote mutual learning, knowledge exchange on best practices related to PPI, thereby

stimulating a debate on common challenges. Staff exchanges will help members of procurement departments to think beyond the barriers associated with innovation procurement, with important benefits for research, development and innovation in the near future. Overall, 18 international short-term (1-2 working days excluding travel time) staff exchanges between public procurers from at least 8 COSME countries are foreseen, with the participation of at least 18 experts.

- **Public consultations and active brokering** between public buyers and suppliers of innovative solutions. The aim is to facilitate an open and transparent dialogue and enable mutual learning in terms of defining and describing the public buyers' needs (demand side) on the one hand and technical and market knowledge (supply side) on the other. In total, 8 brokerage events at national level and 2 at international level are foreseen.
- **Actionable knowledge and recommendations** as a 'user toolkit' for all stakeholders to enhance the design and implementation of successful PPIs throughout Europe.

Finally, it is worth mentioning that those identified difficulties may and should normally be addressed with the establishment of further **national competence centres** in the countries where they do not already exist. Competence centres act as focal points where public procurers can access all capacity building and assistance measures for innovation procurement. They foresee dedicated actions and initiatives such as practical implementation, legal assistance, competencies building and coordination support, with a view to mainstreaming innovation procurement at a large scale. They aim to increase the number of contracting authorities that participate in PPI and map the respective procurement markets and their relevant players, while promoting cooperation, joint procurement with other national competence centres and exchange of best practices and good use of innovation tools.

In fact, this is also the aim of the **Procure2Innovate** project (H2020-ICT-780192, January 2018 - December 2021, <https://procure2innovate.eu>): to build a permanent network of competence centres that will facilitate knowledge sharing, collaboration and the exchange of best practices. The ultimate goal is twofold:

- a) Support five existing innovation procurement competence centres (in AT, DE, ES, NL and SE) in enlarging their scope, increasing their impact, and enhancing their services to public procurers; and
- b) Establish five new innovation procurement competence centres (in EE, EL, IE, IT and PT) helping them to support public procurers as they become ever more established and experienced in the field.

Remark: a collaboration with Procure2Innovate project has already been established, namely several Procure2Innovate partners have been interviewed for the analysis of the national PPI landscape, while the coordinators of the 2 projects agreed to design a joint action plan to maximise the impact of the foreseen activities. Moreover, collaborations with other projects and initiatives are also promoted in a dedicated task (T5.4), which will also facilitate the collaboration with similar initiatives to increase the impact of the project activities and maximise the opportunities of reaching beneficiaries in the most efficient way.

Annex I: Case studies

Important note: to better explain the different approach of innovation procurement, a number of case studies has been selected and outlined below. The list is not exhaustive but aims to stimulate interest and highlight how several public entities addressed their problem by “thinking outside the box” and involving both key actors at regional/national level and potential providers in order to achieve the foreseen outcomes.

I.1 A concrete solution to reduce air pollution

Challenge

Reduce air pollution

Public entity

City of Detmold, Germany

What was the main objective?

The City of Detmold’s busy central bus station is used by 2.3 million passengers each year and was last renovated in the early 1960s. The need for renovation and redesign was identified in order to improve traffic flow and accessibility. The City’s Department for Construction and Property Management identified the potential to reduce air pollution in the area.

What was the respective solution?

The application of photocatalytic concrete in the pavements and road surfaces. Strong sunlight or ultraviolet light decomposes many organic materials in a slow, natural process. Photocatalysts accelerate this process by stimulating a chemical transformation, without being consumed by the reaction. Pollutants are converted into harmless salts which flow through storm water drains. In addition to reducing airborne pollutants, photocatalytic concrete helps to avoid the heat gain associated with dark construction materials like asphalt and reduces the formation of smog. It also reduces the need for building maintenance and the environmental and cost impacts of cleaning.

What was the outcome?

Based on the daily average of 800 buses at the station, a reduction of the annual emissions of nitrogen oxides by up to 40% is to be expected. The additional cost of using the photocatalytic concrete was relatively low, amounting to €90,000 within a total project cost of €2.8 million.

What was done differently?

After thorough examination, a cross-disciplinary planning group was formed, including road planners, concrete technologists, geological engineers, university professors, auditors, officers for the disabled and political representatives.

Following two separate presentations and debates with the City's commissions for construction and property management, the project received the green light. The planning group also had discussions with the city owned bus company Stadtverkehr Detmold GmbH (SVD). The German Federal Environmental Foundation (DBU) supported the project through the Department of Civil Engineering of the University of East Westphalia-Lippe.

The cooperation within the project worked well, although the total time required was longer than a traditional procurement. Planning for the project began in January 2011 with procurement being launched in March 2012. A contract was awarded in May 2012 with construction completed in August 2013.

Market Consultation: Several producers were asked to send brochures and information on their product. Producers were then invited separately to a round table with the project group to discuss their solutions and potential applications to meet Detmold's needs. The wide range of conditions and materials affecting concrete requires a case-by-case approach to ensure the most appropriate application of the technology. It took around three months to get the information, with expert opinions and communication on the installation of the innovative product. The input of the University's engineers was particularly valuable during this phase.

Technical risks were assessed with reference to published research reports and manufacturer's specifications. Site visits were arranged to production facilities and the approach of different producers compared. A sustainability analysis was carried out based on the expected lifetime of the development of at least fifty years. The results were submitted to the planning group to determine which techniques were most suitable for the project. Approval was received at political level for the approach, taking account of the projected additional costs for use of photocatalytic concrete.

Procurement: An open procedure was used and six bids were received from construction contractors. The requirements in the tender documents were formulated in neutral terms so that multiple producers could supply the material – Detmold's internal auditors were very involved to ensure the transparency of the process. Based on the information gathered in the market consultation, the tender documents specified a TiO₂ content of between three and 5%. There were follow up questions to those that submitted an offer to see if they could really fulfil the criteria. Some companies submitted variant solutions with conventional concrete, which were 3.6% cheaper on average. Samples were evaluated as part of the tender process and following award of contract a test surface was set up to determine the best way of working with the material on site.

Details are available at:

https://www.barcelona.cat/digitalstandards/en/innovative-procurement/0.1/_attachments/barcelona_innovative_procurement_0.1.en.pdf

I.2 Hospital uniforms with bio-based fibres

Challenge

Reduce carbon footprint of the hospital

Public entity

Rawicz County Hospital, Poland

What was the main objective?

As a member of the LCB-HEALTHCARE project, Rawicz Hospital had the opportunity to make an innovative purchase to reduce its carbon footprint. The hospital's CEO recognised the relatively high risk associated with innovative building refurbishment and identified the procurement of new staff uniforms as a suitable pilot project to test new approaches. The previous generation of uniforms had not delivered against user expectations and the costs and environmental impact associated with their purchase and laundering had not been considered.

What was the respective solution?

The uniforms purchased by Rawicz hospital contain a fibre made from eucalyptus wood. The eucalyptus is certified as originating from sustainable forest plantations and the production process requires only 1% of the water needed for conventional cotton. The resulting textile is resilient and comfortable to wear. The European Commission has entered a public-private partnership with 50+ companies to accelerate the commercialisation of bio-based products in Europe.

What was the outcome?

In October 2012 Rawicz signed an initial contract with a local company that offered to supply clothing made of a mixture of 50% polyester and 50% Tencel (a eucalyptus-based product). The winning tender was chosen on the basis of best whole life cost, and has demonstrated considerable savings arising from reduced laundering costs and reduced turnover of uniforms. Approximately 80% of the costs associated with uniforms arise not from the initial purchase price but during the use phase - over a six year period an estimated 18% saving will be realised.

What was done differently?

The European Commission funded LCB-HEALTHCARE network allowed Rawicz Hospital to develop its innovation procurement approach and learn from other network participants.

Peer learning visits to LCB partners at the Erasmus University Medical Centre (The Netherlands) and Nottingham University Hospitals and Rotherham Hospital (UK) allowed staff to overcome their concerns about adopting a new approach, understand

the benefits of PPI techniques, and make direct contact with supply chain representatives. In particular, the use of *outcome-based specifications* and *whole-life costing* was new to the procurement team at Rawicz.

Needs Assessment and Building Demand: The Rawicz project team began by consulting the nurses who would wear the new uniforms. The user consultation gave the project team some clear, well-defined parameters that formed the basis of the outcome-based specification. The new uniforms had to be functional, attractive, user friendly, easy to clean, durable and cost effective. The project team recognised that creating a wider market demand would encourage a positive response from suppliers, and contacted other hospitals to explain the project and gauge their interest. Twelve hospitals employing over 13,000 people declared that they were interested in learning the results of the Rawicz hospital pilot project. A *Prior Information Notice* was published in the Official Journal explaining the hospitals' needs and inviting potential suppliers to an open meeting. The project was also publicised at national and international level. A *technical dialogue* procedure was launched to gather market knowledge in advance of the tender. Hospital staff were given the opportunity to test the offering of three companies over a period of three months. This phase identified a number of advantages of the fabric proposed for the new uniforms by one of the suppliers: it was resilient during the washing process, quicker to dry, less prone to staining and received general approval for quality and functionality. The testing phase also included discussions with the suppliers, which resulted in changes to the style and cut of the uniform. For the first time in the hospital's procurement, award criteria were used to assess factors other than purchase price. Whole-life costs were calculated and the environmental performance of the offered textiles was also taken into consideration.

Details are available at:

[Guidance for public authorities on Public Procurement of Innovation](#), Procurement of Innovation Platform, 2014

[Greener Textiles in Hospitals - Guide to green procurement](#), Nordic Council of Ministers, 2017

[Case Study: Introducing innovation procurement methods: Rawicz County Hospital, Poland](#), LCB-HEALTHCARE

I.3 A fresh approach to cooling down a hospital

Challenge

Implement environmental and health policies

Public entity

Public hospital in Sucha Beskidzka, Poland

What was the main objective?

Cooling hospital wards during summer months. Climate change has made heatwaves more common in Poland. The hospital in Sucha Beskidzka was one of many Polish hospitals where the impact of elevated room temperatures on staff and patients' well-being, as well as on medical equipment, were of increasing concern. The Ministry of Public Health responded by requiring all health care providers to install "sun-blocking equipment in patients' rooms" exposed to excessive sunlight. However, air-conditioning patients' rooms in the summer months strained the budget of the Sucha Beskidzka hospital.

What was the respective solution?

The building's façade was equipped with solar panels.

What was the outcome?

The temperature inside the hospital dropped by 10% even as the outside temperatures increased by 20%. The solar panels also supply 5% of the hospital's electricity needs, which compensates for the initial investment.

What was done differently?

Rather than buying more of the same, the hospital asked the market for available solutions within a technical dialogue. Then, using functional criteria (temperature reduction of 2°C) instead of prescribing a specific solution in an open procedure, it procured a healthier and more sustainable solution: the building's façade was equipped with solar panels, which provide shade without darkening the rooms. Using a whole-lifecycle-costing model was crucial for a procurement outcome that benefited the hospital patients, staff and management.

Details are available at:

[Delivering efficiency, quality and sustainability in healthcare through innovation procurement](#), EcoQUIP project (<https://www.ecoquip.eu>)

http://eafip.eu/wp-content/uploads/2016/11/2_M.Kautsch.pdf

I.4 Illuminating the London Underground

Challenge

Make public service less costly for taxpayers and the environment

Public entity

Integrated transport authority "Transport for London", UK

What was the main objective?

Transport for London (TfL) was required to reduce its costs by £2,5 billion over a period of five years, and at the same time contribute to London's target of reducing carbon emissions to 60% of their 1990 level. This prompted TfL to look at the installation, maintenance and energy costs of the fluorescent light bulbs used in the London Underground.

What was the respective solution?

Deployment of LED lighting

What was the outcome?

Over the 8-year, £8 million framework contract, the introduction of LED lighting is generating savings of 50%, which amounts to millions of pounds. Assessing the long-term value for money also resulted in a choice of products, which – with five to six times lower energy consumption – are genuinely better for the environment.

What was done differently?

TfL conducted a business case analysis looking at the life-cycle costs and benefits of LED lighting to establish whether – and if so, when – investment into this newer technology would be returned. The analysis showed that although the short-term cost of deploying LED lighting would be higher than the status quo, the mid- to long-term benefits, in particular savings on labour and energy costs, would more than compensate the initial expense.

The analysis also helped the TfL mitigate their upfront investment risk: LED lighting was at first installed only above escalators and in night-access areas, where the cost of the traditional lighting – and thus the potential for savings – was highest. These early savings could then be used to install LED lighting in other parts of the London Underground network.

Details are available at:

http://ec.europa.eu/environment/gpp/pdf/news_alert/Issue64_Case_Study_128_London.pdf

I.5 Car Fleet Shared Management Platform

Challenge

Reduce the use of cars by public authorities

Public entity

Ministry of Health, Portugal

What was the main objective?

The Portuguese Ministry of Health sought to optimise the route management, and reduce environmental impact and the overall cost of the car fleet used by all the services under the umbrella of the Ministry and the Portuguese National Health Service institutions.

What was the respective solution?

Setting up an electronic platform.

What was the outcome?

The platform allows users to share all available resources (vehicles and routes). This results in a reduced number of vehicles, as well as a reduction of the associated costs (such as insurance, fuel and maintenance costs, etc.) and the environmental impact. It also produces reports on the real-time use of the resources, providing indicators to induce efficient, transparent and conscientious planning, management, use and control of the car fleet.

What was done differently?

Instead of simply buying new cars, the Ministry of Health rethought the way the car fleet could be deployed. It envisaged an electronic platform where all the information related to the use of the car fleet would be centralised. In 2017, the Shared Management of the Car Fleet Platform of the Ministry of Health (GPFMS) was delivered by an external contractor selected through a public procurement procedure in which the desired outcomes were expressed in terms of functional requirements.

Details are available at:

<http://spms.min-saude.pt/2016/05/spms-desenvolve-gestao-partilhada-frota-do-ministerio-da-saude>

I.6 Protecting the water supply

Challenge
Respond to environmental concerns
Public entity
Austrian Mint, Austria
What was the main objective?
Cleaning up the residual water left over from the production of coins in Austria, which contained chemicals in excess of the legal limits.
What was the respective solution?
An easy-to-install, vacuum evaporation mechanism that filters a wide range of particles (including metal, galvanic, photo, print, pharmaceutical and food particles), which makes it suitable for use in a variety of industries.
What was the outcome?
The residual water is indeed cleaner, with the additional advantage that the Austrian Mint's need for fresh water has been reduced by 97%, saving 4 million litres of water per year.
What was done differently?
Austria's Federal Procurement Agency launched a three-stage public procurement procedure to find an innovative solution for the Austrian Mint (the entity responsible for coin production). Potential suppliers were invited to provide information about innovation track-record. Precise targets for the water treatment were included in the contract terms.
Details are available at:
http://ec.europa.eu/environment/gpp/pdf/news_alert/Issue58_Case_Study117_BBG_Austria.pdf

I.7 Innovative technologies to meet environmental targets

Challenge

Meet the environmental targets at municipal level

Public entity

The city of Copenhagen, Denmark

What was the main objective?

Having set the ambitious target of becoming carbon neutral by 2025, Copenhagen set to transform the way it manages energy and reduce energy consumption from street lighting.

What was the respective solution?

The City replaced nearly 20,000 high-pressure sodium lamps in Copenhagen's residential roads, larger streets and highways.

What was the outcome?

With the change to LED lamps the energy consumption has been reduced by 57%, reducing both the carbon footprint and maintenance costs (€ 1.6 million annually, for an investment of € 26 million EUR). The quality of street lighting improved, increasing security and comfort. Lighting control was integrated with traffic density data to adapt lighting levels according to road use in the future.

What was done differently?

The contracting authority opted for a competitive dialogue procedure. The evaluation criteria were balanced: price 25%, task performance and organization 25%, lighting solution 20%, energy and environmental qualities 30%. The procedure took 16 months until the signature of the contract.

Details are available at:

http://spice-project.eu/wp-content/uploads/sites/14/2017/08/Copenhagen_Street_Light.pdf

ANNEX II: Information sources

I.1 At EU level

1. [Directive 2014/23/EU of the European Parliament and of the Council on "the award of concession contracts"](#), 26/2/2014
2. [Directive 2014/24/EU of the European Parliament and of the Council on "Public Procurement and repealing Directive 2004/18/EC"](#), 26/2/2014
3. [Directive 2014/25/EU of the European Parliament and of the Council on "procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC"](#), 26/2/2014
4. [OECD/Eurostat \(2018\), Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation, 4th Edition, The Measurement of Scientific, Technological and Innovation Activities, OECD](#)
5. ["Making Public Procurement work in and for Europe"](#), COM(2017)572, 30/10/2017
6. ["Guidance on Innovation Procurement"](#), Commission note, C(2018) 3051, 15/5/2018
7. ["Benchmarking of national innovation procurement policy frameworks across Europe"](#), report 2019, SMART 2016/0040 study contract
8. [European Assistance for Innovation Procurement initiative \(eafip\)](#)
9. ["European Semester Thematic Factsheet - Public Procurement"](#), European Commission, November 2017
10. Bart Lenderink, Johannes I.M. Halman & Hans Voordijk (2019): "Innovation and public procurement: from fragmentation to synthesis on concepts, rationales and approaches, Innovation", The European Journal of Social Science Research, DOI: <https://doi.org/10.1080/13511610.2019.1700101>
11. [Internal Market, Industry, Entrepreneurship and SMEs - Legal rules and implementation](#)
12. **InnoBroker** "Development and Implementation of an Innovation Procurement Broker Model" (COS-LINKPP-2017-2-02)
13. **Procure2Innovate** "European network of competence centres for innovation procurement" (H2020-ICT-780192) - [Procurement of Innovation Platform](#)



I.2 At National level

Estonia

1. [National Statistics of Public Procurements](#)
2. [Public Procurement Act \(PPA\)](#)
3. [Additional legislation on Public Procurements](#) in Estonia
4. [Estonian Entrepreneurship Growth Strategy 2014- 2020](#) (national strategy for developing the demand side policy through innovative public procurements)
5. [National "Guidance on innovation procurement" paper by Enterprise Estonia](#)

Greece

1. [Law 4412/2016](#) on "*Public works, supplies and services contracts*" (transposing Directives 2014/24/EU and 2014/25/EU)
2. [Law 4413/2016](#) on "*Award and execution of concessions*" (transposing Directive 2014/23/EU)
3. [Hellenic Single Public Procurement Authority \(HSPPA\)](#)
4. [National Centre for Public Administration and Local Government](#)
5. [General Secretariat Commerce and Consumer Protection, General Directorate of Public Procurements, Ministry of Development and Investments](#)
6. [Guidance note on Innovation Procurement](#), Hellenic Single Public Procurement Authority 7/9/2018
7. Tsipouri L, Athanassopoulou S. Public Procurement for Innovation in Greece. In: Kalvet T, Kattel R, Lember V [Public procurement for innovation policy: International perspectives](#). Springer; 2014. pp. 151-170.
8. [Action Plan for national Procurement Strategy](#) (2017)

Italy

1. [CONSIP - CPB-Central Purchasing Body at the national level](#)
2. [MEPA](#)
3. [MIUR -Ministry of Education, University and Research](#)
4. [Regional Law n.29/2016 "Lombardy is Research and Innovation"](#)
5. [AgID - Agenzia per l'Italia Digitale - Agency for Digital Italy](#)



6. [Report on research and innovation in Italy - CNR](#) (2019)
7. [Growth 2.0 Decree" \(Decree Law 179/2012, converted into Law 221/2012\)](#)
8. [The Public Procurement Code \(Codice degli appalti pubblici\)](#)
9. [Sustainability report 2018, conducted by Consip](#)
10. [Report on research and innovation in Italy, conducted by the CNR](#) (2019)
11. [ANAC - National Anti-Corruption Authority](#)
12. [ARIA](#) - the innovation and procurement regional Company of Regione Lombardia

Poland

1. [Public Procurement Office](#)
2. [Ministry of Entrepreneurship and Technology](#)
3. [Polish Agency for Entrepreneurship Development \(PARP\)](#)
4. [Ministry of Science and Higher Education](#)
5. [National Centre for Research and Development](#)
6. [Ministry of Investment and Development](#)
7. [Government Administration Service Centre](#)
8. [national purchasing policy](#)
9. [art 73 of the Polish public procurement law](#)
10. [Strategy for innovation and efficiency of the economy](#)
11. ["Dynamic Poland 2020](#)

Portugal

1. [Portuguese Public Contracts website](#)
2. [Public procurement – a study on administrative capacity in the EU – Portugal country profile](#)
3. [Portugal – Public procurement 2020, ICLG analysis, January 2020](#)
4. [Código dos Contratos Públicos \(code of public contracts\)](#)

Romania

1. [Law 98/2016](#) regarding public procurement



2. [Government Decision no. 395/2016](#) for the approval of the Methodological Norms for the application of the provisions regarding the award of the public procurement contract / framework agreement from Law no. 98/2016 on public procurement
3. [National Authority for Public Acquisitions](#) (ANAP)
4. [Statistical report 01.01.2020 - 31.03.2020 on the procedures for awarding procurement contracts public or sectoral procurement initiated in the electronic public procurement system by publishing an announcement / simplified participation notice / invitation of participation](#), ANAP, 2020
5. [Monitoring indicators for the estimation of the efficiency for public procurement acquisitions in 2018](#), ANAP, 2018
6. [National Strategy for Public Acquisitions 2015 – 2020](#), ANAP, 2015
7. [Law no. 98/2016 on public procurement](#), ANAP, updated in 2020
8. [Law no. 99/2016 on utilities procurement](#), ANAP, updated in 2020
9. [Law no. 100/2016 on work concession contracts and services concession contracts](#), ANAP, updated 2020
10. [Law 101/2016 for corrections and contestation measures](#), ANAP, updated in 2020

Slovakia

1. [Support for the implementation of the Slovak public procurement reform in the framework of the European Structural and Investment Funds ex-ante conditionality action plan](#), OECD 2017
2. <https://www.youtube.com/watch?v=KbxnY99Gw58>
3. [Government Office of the Slovak Republic](#)
4. [Smart Cities Club](#)
5. [Public Procurement Act \(PPA\)](#)
6. [Act No. 25/2006 Coll. of Laws](#)
7. [Act. No. 95/2013](#)
8. [Public Procurement Act No. 343/2015](#)
9. [Office for Public Procurement \(UVO\)](#)
10. [The Procurement Journal](#)
11. [The Registry of public procurers](#)
12. [Profiles of public procurers](#)
13. [The Registry of the partners of public administration](#)



14. [Public procurement – Study on administrative capacity in the EU - Slovakia Country Profile](#) (European Structural and Investment Funds)

Spain

1. [Royal Decree-law 3/2020](#), of 4 February, on urgent measures urgent measures transposing into Spanish law various European Union directives in the field of public procurement in certain sectors; private insurance; pension schemes and funds; taxation and tax litigation.
2. [Law 14/2011](#), of 1 June, on Science, Technology and innovation.
3. [Law 9/2017](#), of 8 November, on Public Sector Contracts.

Consortium



PEDAL Consulting
Martin, Slovakia
www.pedal-consulting.eu



Slovak environment agency
Banská Bystrica, Slovakia
www.sazp.sk



Agentia pentru Dezvoltare Regionala Nord-Est.
Neamt county, Romania
www.adrnordest.ro



Agencia Andaluza del Conocimiento
Sevilla, Spain
www.deva.aac.ec



Civitta Eesti AS
Tallinn, Estonia
www.civitta.com



Q-Plan International
Greece
www.qplan-intl.com



FVA New Media Research
Rome, Italy
www.research.fvaweb.eu



LOBA Customer Experience Design
Portugal
www.loba.pt



The AdWisers
Gdansk, Poland
www.theadwisers.com



Frontier Management Consulting
Bucharest, Romania
www.frontierconsulting.ro