

1ST REPORT ON THE PROCUREMENT ENVIRONMENT

DELIVERABLE 4.1

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TABLE OF CONTENTS

1. Introduction	5
1.1 Overview	5
1.2 Definitions	6
1.2.1. Hybrid Threats	6
1.2.2. Practitioners at different levels	6
1.2.3. Definition of Gaps and Needs	6
1.2.4. Public Procurement	7
1.2.5. Innovation Procurement	7
1.2.6. Joint Procurement	8
1.3 Structure of the deliverable	8
1.4 Methodology	8
2. Procurement overview	11
2.1. Procurement legislation on National level	11
2.2. Types of innovation friendly procurement procedures	35
Negotiated procedure and negotiated award	35
Competitive dialogue	36
Innovation partnership	36
Pre-Commercial Procurement (PCP)	37
Public-Private Partnerships	38
2.3. Financial Tools	38
Fast Tract to Innovation	38
EIC Accelerator Pilot	38
EU Funded PCP/PPI	39
National initiaves	39
3. Recommendations for procurement	45
3.1 Example of procurement cases	45
Benchmark cases	45
Pitfall cases	46
3.2. Success factors	47
3.3. Joint Procurement Procedure Analysis	50
3.4. Barriers/ Pitfalls	51
4. Specific recommendations for EU-HYBNET uptake strategy	55
4.1. Disinformation	57
4.2. Cyber and Quantum security (Information sharing)	57
4.3 Training on media literacy	50

D4.1 1st Report on the Procurement Environment

5. Conclusions	. 60
6. Future work	. 61
ANNEX I. GLOSSARY AND ACRONYMS	. 62
ANNEX II. REFERENCES	. 63
ANNEX III. Ouestionnaire	. 64

TABLES

able 1 Glossary and Acronyms	~~
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abic 1 diossal v alia Aci olivilis	. 02

FIGURES

Figure 1: EU-HYBNET structure of Work Packages and Main Activities	5
Figure 2: Decision Tool for selection of Procurement Procedure	35
Figure 3: Range of alternative specification types	48
Figure 4: Comparison of the national and EU funded PCPs	50
Figure 5: Potential risks of an innovation procurement	52

1. INTRODUCTION

1.1 OVERVIEW

This deliverable aims to present the work carried out in the frame of the activities of the H2020 EU-HYBNET Project. In more detail, D3.3-First Report on Improvements and Innovation and D3.7- First Report on Innovation and Research Project Monitoring deliverables have provided the innovations that address the short list of the gaps and needs for the EU-HYBNET practitioners, available from D2.9 – Deeper Analysis, delivery of short list of Gaps and Needs. Following the aforementioned activities, WP3 Surveys to Technology, Research and Innovations also established a concrete methodology for shortlisting these innovations coming up with the most promising ones. These innovations were then fed to WP4 Recommendations for Innovations Uptake and Standardisation in order to examine the procurement landscape on a European level and the sectors under discussion and build a roadmap for their uptake. All the aforementioned aspects are depicted in the image below:

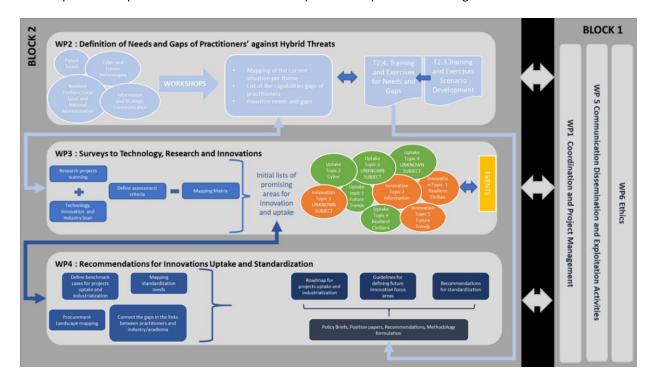


Figure 1: EU-HYBNET structure of Work Packages and Main Activities

So, the aim of this task, namely 4.1 – *Mapping on EU Procurement Landscape* is to map the current processes in the European procurement landscape with special attention to innovation procurement - buying innovative products and services. More specifically, the main goal is to have a review of EU procurement environment followed by EU-HYBNET Consortium members and the Stakeholders Group members. Additionally, the analysis references to all available material were also included as well as the relevant legal documents, reports, guidelines, recommendation, procedures, standards and all other relevant data and literature dedicated to this topic. Based on the activities conducted Task 4.1 will contribute on reaching the OB4 Goal 4.1 and Goal 4.2. of the project.

The procurement analysis included the current document was a collaborative effort between EU-HYBNET project and i-LEAD project¹. The aim of i-LEAD is to formulate a pan European network for Law Enforcement Agencies (LEAs) in order to express the common requirements that can fill capability and operational gaps. Having these in mind, the project will monitor research and innovation with the overall aim to indicate priorities for standardization and policy recommendations. In this context, the procurement landscape needs to be examined

¹ https://i-lead.eu/

in order to identify opportunities and threats especially in regard to the innovation procurement and joint procurement procedures. A separate Deliverable will be prepared for the purpose of the ILEAD project.

1.2 DEFINITIONS

1.2.1. HYBRID THREATS

Hybrid threats aim to exploit a country's vulnerabilities and often seek to undermine fundamental democratic values and liberties. Hybrid threats can be characterised as a coordinated and synchronised action that deliberately targets democratic vulnerabilities of states and institutions through a wide range of means. The aim is to influence different forms of decision making at institutional, local, regional, and state levels to favour and/or achieve strategic goals while undermining and/or hurting the target. To effectively respond to hybrid threats, improvements in information exchange, along with breakthroughs in relevant research, and promotion of intelligence-sharing across sectors, and between the EU and its Member States (MS) and partners, are crucial.

According to the Joint Framework on Countering Hybrid Threats², while definitions of hybrid threats vary and need to remain flexible to respond to their evolving nature, the concept of the Framework aims to capture the mixture of coercive and subversive activity, conventional and unconventional methods (i.e. diplomatic, military, economic, technological), which can be used in a coordinated manner by state or non-state actors to achieve specific objectives while remaining below the threshold of formally declared warfare. There is usually an emphasis on exploiting the vulnerabilities of the target and on generating ambiguity to hinder decision-making processes. Massive disinformation campaigns, using social media to control the political narrative or to radicalise, recruit and direct proxy actors can be vehicles for hybrid threats.

1.2.2. PRACTITIONERS AT DIFFERENT LEVELS

The EU-HYBNET H2020 project³ follows the European Commission definition of practitioners which states that "A practitioner is someone who is qualified or registered to practice a particular occupation, profession in the field of security or civil protection." In addition, practitioners in the hybrid threat context are expected to have a legal mandate to plan and take measures, or to provide support to authorities countering hybrid threats.

Therefore, EU-HYBNET practitioners are categorised as follows:

- ministry level (administration),
- local level (cities and regions) and
- support functions to ministry and local levels (incl. Europe's third sector).

EU-HYBNET includes practitioner partners from all these levels and its primary focus is on civilian security issues. It should be emphasized that the third category includes researchers and academics, as well as the Centres of Excellence for Hybrid Threats.

In respect to the i-LEAD project, the term *practitioner* refers to Law Enforcement Agencies. Law enforcement agencies are organisations who respond to, detect, and prevent crime. Within this perspective, it is recognized that police officers play a significant role in adapting and responding to unexpected or unknown situations, as well as recognized situations, such as theft or domestic dispute.

1.2.3. DEFINITION OF GAPS AND NEEDS

² https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52016JC0018

³ EU-HYBNET Description of Action, Coordination and Support Action, Grant Agreement No 883054

The *Gaps and Needs analysis* that has been completed in the frame of this project under the scope of T2.1 – *Needs and Gaps Analysis in Capability and Knowledge* aimed to identify, record, and understand the nature of practitioners and other relevant European actors countering hybrid threats' gaps and needs, and the obstacles of developing, maintaining, or improving their resilience in the landscape of hybrid threats.

1.2.4. PUBLIC PROCUREMENT

Public procurement is the process by which public authorities, such as government departments or local authorities, purchase work, goods, or services from companies. It is regulated by law to maximise value for money for the public sector and ensure compliance with three key principles:

- equal treatment
- non-discrimination
- transparency

To create a level playing field for businesses across Europe, EU law sets out minimum harmonized public procurement rules. These rules govern the way public authorities and certain public utility operators purchase goods, works and services. They are transposed into national legislation and apply to tenders whose monetary value exceeds a certain amount. For tenders of lower value, national rules apply whichwill stillhave to respect the general principles of EU law.

Every year, over 250.000 public authorities in the EU spend around 14% of Gross Domestic Product − GDP (around €2 trillion per year) on the purchase of services, works and supplies. Moreover, in many sectors (such as energy, transport, waste management, social protection and the provision of health or education services) public authorities are the principal buyers.⁴

The social gains of the public procurement come from the fact that by the public sector uses this mechanism in order to boost jobs, growth and investment, and to create an economy that is more innovative, resource and energy efficient, and socially inclusive.

Moreover, high quality public services depend on modern, well-managed and efficient procurement. Last but not least it should be mentioned that by improving public procurement big savings can be yield, even a 1% efficiency gain could save €20 billion per year.⁵

1.2.5. INNOVATION PROCUREMENT

According to the European Commission's *Guidance on Innovation Procurement* ⁶ such procurement is any procurement involving:

- buying the process of innovation research and development services with (partial) outcomes; and / or
- buying the outcomes of innovation created of others.

Innovation procurement is a policy instrument whereby policymakers can use the procurement process to foster innovation for the benefit of public authorities, the private sector as well as society at large. Indeed, with innovation procurement public expenditure is used more effectively, as it can harness the private sector's innovation capacity for number of purposes. Notably, innovation procurement may be used to improve the

⁴ https://ec.europa.eu/growth/single-market/public-procurement en

⁵ https://ec.europa.eu/growth/single-market/public-procurement_en

⁶ https://ec.europa.eu/transparency/documents-register/detail?ref=C(2018)3051&lang=en

quality of public services in those areas where the public buyer has a large market share, e.g., healthcare, transport, defence. The increased demand coming from the public sector boosts the private sector's innovative performance, thus increasing overall competitiveness. Not least, societal challenges may be tackled through solutions generated via innovation procurement⁷.

Public procurement's primary target is the acquisition of products and services economically. As such, innovation procurement can enhance cost-efficiency by considering life-cycle costs over the long-term and boost performance, thereby producing significant cost savings.

In addition to actual economic demand, innovative products and the provision of services often bestow concrete improvements in administrative procedures and the concomitant enhancement of service quality and user-friendliness. Finally, the government's demand for new products and services stimulates innovative activity in the economy and bolsters the rapid introduction of newer technologies in the market. Small and medium-sized enterprises (SMEs) profit especially, as they require reference projects for their innovative technologies to potential (private) clients and positively influence their purchasing decisions.⁸

1.2.6. JOINT PROCUREMENT

Joint procurement means combining the procurement actions of two or more contracting authorities. The key defining characteristic is that there should be only one tender published on behalf of all participating authorities.

1.3 STRUCTURE OF THE DELIVERABLE

This document is comprised of six (6) sections, the first being the current introductory section. The rest of the deliverable is structured as follows:

Section 2 shows a detailed description of procurement environment in EU level focusing also on innovation procurement that EU-HYBNET project activities are mainly concerned with. In the said section procurement legislative background is analysed on a national and European level. Moreover, the different innovation friendly procurement types as well as the financial tools to support innovation procurement are described.

Section 3 is providing detailed recommendations for procurement procedure that derive from the answers received and the literature review conducted by the task participants.

Section 4 includes the specific recommendations for the procurement of the solutions identified as priorities by WP3.

Section 5 provides the conclusion of the current document while **section 6 recommends** the future work that needs to be done until the delivery of the uptake strategy.

1.4 METHODOLOGY

Having set as the ultimate goal to provide in Task 4.2 – Strategy of Innovation Uptake and Industrialization the uptake of the most promising solutions, the partners focused on the review of the European framework for innovation concept in public procurements and more specifically on the countries represented in the EU-HYBNET and ILEAD consortia. In this context a questionnaire was prepared which run in parallel with the literature review of all related available material. The analysis outcome was mainly based on the partners' expertise and previous

⁷ https://ec.europa.eu/regional policy/sources/good practices/GP fiche 30.pdf

⁸https://procure2innovate.eu/fileadmin/user_upload/Documents/KOINNO_PublicProcurementofInnovation.pd f

experience, the review of relevant documentation (laws, guidelines, presentations, articles, studies, reports, etc.) and interviews with end users trying to cover aspects of national public procurement.

The aim of the questionnaire is convergent with the reasoning behind T4.1, which is to prepare a review of EU procurement environment, including gathering benchmark cases on innovative or regular procurement among EU counties, understand the national funding schemes across EU, as well as gathering recommendations for T4.2. The objective was to analyse the degree of innovation procurement integration in the national legislation, identify the key actors and tools for the implementation of and support of the public procurers to implement such procedures (via training and individual guidance, the elaboration of explanatory notes, presentations, case studies, financial support, etc.).

It is important to highlight that the aim of EU-HYBNET is not to perform an exhaustive and thorough analysis of the national innovation procurement landscape but rather to collect the insights on the challenges for the design and implementation of such procedures. Therefore, the foreseen number of interviews was not envisioned to be large.

The data gathered for the purpose of this Deliverable were collected with the use of an on-line questionnaire that consisted of seventeen (17) open questions and two (2) charts, allowing the respondents to present benchmarking examples of good practices or pitfalls related to their experience in conducting (joint cross-border or national) public procurement.

The open questions were divided into sections devoted to:

- · Current procurement processes mapping,
- Policies relevant to the innovation procurement field,
- Joint cross-border procurement provisions in respondents' countries,
- Rules related to procurement under defence and security field,
- Incentives and barriers in the economic aspect of procurement.

The answers and experiences could be deepened and expanded in the aforementioned good practices/pitfalls charts, where specific questions related to the specific procurement experiences (e.g., duration, type of procurement, involved entities, applicable law, value of the tender) were asked. The questionnaire template can be seen in Annex III.

The survey was held from 02/04/2021 until 07/05/2021 among practitioners in the field of procurement gathered around the EU-HYBNET and i-LEAD projects. The on-line form was prepared and distributed with the use of EU Survey tool, which is an online survey management system for creating and publishing forms available to the public. It is the European Commission's official survey management tool, which has as its main purpose to create official surveys of public opinion and forms for internal communication and staff management.

As mentioned above, the task participants also conducted a literature review of the online available material in order to deepen more into the national procurement procedures as well as identified the procurement requirements of the most promising solutions described under the activities WP3 and more specifically Task 3.1 – *Definition of Target Areas for Improvement and Innovation*. All the material collected and reviewed is listed on the reference section of the current document.

The abovementioned methodology enabled the Consortium to:

- engage actively with the interested stakeholders,
- identify the types of procurement and corresponding assets with relevance to the end users' objectives,

D4.1 1st Report on the Procurement Environment

- identify possible threats, risks and challenges related to innovation and regular procurement,
- list good practices related to procurement in order to meet objectives,
- map the success factors and problematic areas, and
- provide recommendations for the procurement procedure of the most promising innovations.

2. PROCUREMENT OVERVIEW

2.1. PROCUREMENT LEGISLATION ON NATIONAL LEVEL

The procurement dimension can be considered as the implementation vehicle of the innovation uptake procedure. Policymakers have recognised the public procurement as one of the most important policy instruments that stimulate innovation and generate the ground rules for innovation uptake.

Legislation is a key aspect in the requirements construing, that should be analysed in the technical specifications during services and products procurement. The 'Treaty on the Functioning of the European Union (TFEU)⁹ and the Directive 2014/24/EU ¹⁰ of the European Parliament and of the Council (Dir/2014/24/EU), have settled the prevailing legal framework for the procurement of public administration tenders above EU threshold values.

So, the analysis of the incorporation of the abovementioned framework in the national legislation is a prerequisite for someone to identify potential challenges as well as to set the scheme for the analysis of the procurement environment. This current section contributes to these directions.

SWEDEN

Public procurement in Sweden is regulated by the Law of Public Procurement. The Public Procurement Act (SFS 2016:1145), the Utilities Procurement Act (SFS 2016:1146) and the Concessions Procurement Act (SFS 2016:1147) consists the three constitutional acts, administrating public procurement in Sweden.

For the aforementioned acts, the first one applies to the public sector, and the second one manages the utility sectors of essential services such as water, transport, energy and postal services. The last act, the Concessions Procurement Act is applicable to work and service concessions. These acts convert the EU Directives 2014/23/EU, 014/24/EU and 2014/25/EU towards national legislation. Law (2011: 1029) on defence and security procurement conveyed the EU directive 2009/81/EC.

The National Public Procurement Strategy in Sweden supports the public procurement sector which was adopted by the Government in 2016 and provides a substantial aspect to "Public procurement that enhances innovations and alternative solutions" (Regeringskansliet 2016).

The National Government and the Agency for Public Procurement (Upphandlingsmyndigheten, UHM) play a crucial role in the Swedish innovation procurement framework, where the first is driving the political commitment and the second is the national competence centre for innovation procurement and is in charge for the application of the procurement plan at national level.

The State Purchasing Centre at the Legal, Financial and Administrative Services Agency is the central purchasing body which creates framework agreements for government agencies to use as a basis for making a call. The centre is also responsible for creating acts and regulations. Needs analysis, market analysis, procurement strategy and announcement of tender documents are made via Procurement tools Commerce (Upphandlingsverktyg Kommers). The national legislation does not regulate deployment of market consultations. Any company from countries affiliated to the WTO Government Procurement Agreement may freely participate in a tender. The procurement process can be prolonged when one of the bidding companies decides to challenge the award decision in court.

Innovative procurement is regulated by the Law (2016: 1145) on public procurement. The performance of R&D contracts is mandated to take place in Sweden. Innovation procurement is simulated by several initiatives, namely Sweden's Municipalities and Regions, Teknikforetagen, Swedish Competition Authority and the National

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Dissemination level : PUBLIC

p. 11

⁹ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12012E%2FTXT

¹⁰ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0024

Agency for Public Procurement. In Sweden, the regulations of the principle of openness and public action are crucial. As for this the procurement of goods and services which are under development and require confidentiality may be problematic.

The innovation procurement in the security area is exempted from the scope of national legislation and it is regulated by the Act (2011: 1029) on procurement in the field of defence and security. Purchase of technologies in the security and defence fields owned by companies from other countries is restricted by the national law with the aim of protecting the information and activities that are important for Sweden's security against espionage, sabotage, terrorist crimes and certain other threats.

Joint cross-border procurement is allowed under the national legislation. Nonetheless, there are many practical challenges, as many results obtained from the differences in the decision-making process and content of proxies in each country. Another challenge is the contract interpretation in the administrative process under the case law of each country. Moreover, participation of contractors from other countries in procurement on security solutions significantly prolongs processing times. In those cases, consultation with the Security Protection Police is a mandatory part of the procurement process.

The National Agency for Public Procurement manages the national funding to support procurement in Sweden. It has been tasked by the Swedish government with providing guidance to municipalities and regions in matters of state aid and contributing to improving their ability to assess when and how to apply state aid rules. State aid may only be granted if it has been approved by the European Commission or been designed in accordance with certain exemptions. When state aid is allowed, it can further contribute to political goals such as sustainable development, finance important infrastructure, finance the provision of welfare services or to make European companies more competitive.

In economic transactions with suppliers located in countries other than Sweden the processing time is longer because of the VAT legislation¹¹, but it varies depending on the subject of procurement and delivery terms.

PORTUGAL

The procurement policy in Portugal is defined and developed by the Ministry of Economics, which in a collaboration with the Institute of Public Markets, Real Estate and Construction (IMPIC), administer and audit public procurement in the country. The Ministry of Finance also plays an important role in the procurement system since it is in charge of communication activities about the public procurement to civil society as well as data gathering and for relating activities to the EU.

The Public Contracts Code, consisted of a complicated normative corpus, and the Decree-Law 111-B/2017, coordinate the public procurement scheme in Portugal, which converts the EU Directives 2014/23/EU, 2014/24/EU, and 2014/25/EU. The Defence and Security Directive 2009/81/EC was converted by the Decree-Law 153/2012. The processes are operated by the centralised purchasing bodies and their frameworks. The Central Purchasing Bodies in Portugal are the Government Shared Services Entity (eSPap) and the Shared Services of the Ministry of Health (SPMS). The former is responsible for several substantial framework contracts through which central government entities have to acquire standardized goods and services (vehicle gasoline, office material, basic software licensing, hardware equipment) and it awards framework agreements. The eSPap provides multiple shared services to the governmental bodies and public procurement is one of those. The National System of Public Procurement (NSPP) and all the entities who have joined it, containing regional and municipal contracting forces, could access the services supplied by the eSPap. SPMS is the purchasing body for the health sector, it prepares framework agreements, competitive dialogues, and aggregated procedures.

¹¹ https://www4.skatteverket.se/rattsligvagledning/2777.html

Furthermore, each ministry has a centralised purchasing procedure developed by purchase ministry units. Procurement starts with authorisation of expenditure. This phase may be complex as it is regulated by the budgetary rules to avoid debt. E-procurement is mandatory in procedures published under public notice and the contracting authorities have the authority freedom to use any of the procurement platforms run by private companies. The national legislation does not restrict the participation of companies from countries affiliated to the Government Procurement Agreement in the procurement process. Observance of the environmental, social and labour law provisions should be performed at the relevant stages of the procurement procedure. The Portuguese Public Contracting Code regulates market consultations in preparation of a procurement in the same way as the European legislation. Challenging the award decision in court by one of the bidding companies results in significant delays in the procurement process.

The compliance of the public procurement procedures with the national competition policy is implemented by the Portuguese Competition Authority (PCA) which also plays this role in the field of public procurement. Lastly, the Agency for Development and Cohesion (AD&C), operating under the Ministry for Regional Development is working towards public procurement. The AD&C manages the regional development policy and guarantee, at the technical level, the common management of the ESI Funds for the 2014-2020 programming period. The National Innovation Agency (ANI) is considered to be principal actor in the innovation policy area and is also a high possibility to become the national competence centre for innovation procurement. The National Office for the Promotion of the EU R&I Framework Program (GPPQ) holds also a position in the aforementioned field whereas it was also the promotion and monitoring entity for the participation on the Horizon 2020 Programme, and currently covering participation to EU projects in the area of PPI, PCP and R&D procurement.

The Public Contracting Code of 2008, the 2004 Directives and their alterations as well, comprise a fundamental public procurement process in Portugal. Centralized purchasing entities and their framework agreements are being employed by public entities of central administration. Centralization also is taking place inside each Ministry, as already mentioned, and with the combination of the purchasing procedures grown by UMC (purchase Ministerial units).

Buying procedures are beginning with expenditure approval which can be complicated due to budgetary rules to avoid public debt. Actions published under public notice require using the procurement mechanisms. There is a variety of procurement platforms (managed by private organisations) that can be chosen by each public contracting authority.

The Portuguese Public Contracting Code regulates the innovation procurement under the "partnership to innovation" (PPI) in accordance with Directive 2014/24 of the EU. A national program is put in place to foster innovation, creation of start-ups and the collaboration between companies, academia, and public administration. Moreover, innovation procurement is supported by several funding schemes. The R&D contracts are not required to be performed in Portugal. A majority of innovative technology can be purchased from foreign companies without any restriction. The national legislation limits the purchase of IT technologies under an innovation procurement procedure. In public procurement procedures regarding IT technologies it is mandatory to use open source software and transfer Innovative Product Resources (IPR) or divide IPR with a contractor. A 10-day standstill period is also required in tender of IT technologies. Moreover, Letters of Guarantee are mandatory for contracting above 200.000 euros but may also be determined for contracts below this amount. Proposals and applications must be written obligatory in Portuguese or, if not, they must provide an official translation. Procurement in the security area is regulated by the Portuguese Public Contracting Code allows contracting authorities to award contracts directly when the contract needs to be executed under special security conditions or when the tender documents were classified under security regulations.

Joint cross-border procurement is not regulated by national legislation, but it is allowed. Foreign companies participating in joint procurement of security solutions may encounter some legal obstacles. Portuguese contracting authorities may demand an accreditation for security levels issued by the Security National Cabinet or similar, considering the level of security and confidentiality required (EU, National, NATO). These accreditations take several months to be issued and they entail a very long investigation process of criminal records of company's managers, families and of the company itself. The parties participating in iProcureNet

H2020 Project identified several obstacles to participation in joint cross-border procurement. Namely the differences between EU countries regarding investment plans timing and approval, differences in the use of e-procurement, digital signatures, rules and approvals regarding expenditure and budgetary approvals, as well as the need to define a jurisdiction.

There are no legislative difficulties in economic transactions caused by the VAT legislation. However, some problems may arise when companies have their headquarters located outside of Portugal. All the procedures are regulated under the VAT Code.

LITHUANIA

Procurement procedures in Lithuania are regulated by four principal laws:

- 1. Law of the Republic of Lithuania on Public procurement,
- 2. Law of the Republic of Lithuania on Procurement by the entities, operating in the Field of Procurement Waste Water Management, Energy, Transport or Postal Services,
- 3. Law of the Republic of Lithuania on Public Procurement in a Field of Defence and Security, and
- 4. Law of the Republic of Lithuania on Concessions.

In 2016, the EU Procurement Directives 2014/23,24 and 25 were altered. More particularly, in the PCP sector, highly paramount is the Decree 709 (1st July 2015) of the Government of the Republic of Lithuania concerning the Approval of the Procedures for Pre-commercial Procurement.

In the sector of defence and security specifically, it has been carried out the Directive 2009/81/EC by the law on Public procurement, No XI-14912. In Lithuania, the national procurement supervising entities are directing a strict reporting system to audit the activities of public procurement which is administered mainly by sub-national contracting organisations. The Ministry of Economy and Innovation, at a national level owns a principal role in public procurement since it is responsible for this activity as well as for the relevant legislation and for technology and innovation. Nevertheless, the Public Procurement Office (PPO), which implements the public procurement policy and audit obeyance with the law and the legislation, also assists the Ministry. The PPO's activities involve the provision of methodological guidance to the contracting entities, the management of the central e-procurement portal, countering infringements, overseeing contracting entities' obeyance with the law and coordinating and supervising public procurement activities jointly with partner Ministries and other State entities. The Competition Council is also a key player and is responsible to research potential anti-competitive activities from contracting organisations and bidders. The Council reports to the PPO and has the power also to charge fines as well as to send a case to the court in case of competition law infringements applied to public procurement.

The Central Purchasing Organisation (CPO LT) is the main body responsible for centralised purchases on behalf of contacting authorities at national and local level. Other substantial entities in the innovation procurement area are the Ministry of Education, Science and Sport, in charge of the research policy, and the Agency for Science Innovation and Technology (MITA), which provides funds to PCPs and experts as well as support and assistance to the contracting entities. The measures for capacity building, are generated mainly through MITA, since it is participating in the warding procedure for the finance of the PCPs. Thus, when the applicant PCPs own an amount of more than 1 million euro, the governmental council on R&D&I also takes part in the awarding procedure. ESIF funds measure "Pre-commercial procurement LT", is funding the Pre-Commercial Procurement (PCP), which is the area that Lithuania is basically focused regarding innovation procurement activities. The responsible organisation for funding is the Lithuanian Business Support Organisation (LVPA).

Every public procurement procedure, above and below European thresholds, is performed on the Central Public Procurement Information System (CPP IS). This portal for all electronic procurement procedures is run and

administered by the Public Procurement Office. There are some procedures exempted from the mandatory use of CPP IS which are the procedures that, under the national law and European directives, may be performed without prior publication. This also includes low-value procurement procedures for the contracts under 10 000 EUR (excluding VAT) for the contracting authorities (classical sector). The deployment of market consultations in preparation of a procurement is regulated by Public Procurement Law and it depends on the stage of document preparation. Companies from countries affiliated to the Government Procurement Agreement (GPA) can freely participate in the procurement process in Lithuania. The procurement process may be delayed in case one of the bidding companies decides to challenge the award decision in court.

Innovation procurement is regulated by Law on Public Procurement, Description of the Procurement Procedure for Research and Experimental Development Services approved by the Decision No 22 of the Government of Lithuania on 15th January, 2020 and the Law on Technologies and Innovation. The law only applies to public service contracts for research and development services provided that the following conditions are fulfilled: the benefits accrue exclusively to the contracting authority for its use in the conduct of its own affairs and the service provided is wholly remunerated by the contracting authority. The Government of the Republic of Lithuania or the institutions authorised by it are responsible for awarding of contracts for research and development services which are intended to meet the needs of higher education and research institutions or are intended to develop an innovative product or service or innovative works and thus meet the needs of the public sect. Even though the process is regulated it is still limited due to the lack of clarity in regulations concerning procurement activities and different interpretation of regulation.

The innovation procurement is stimulated by the Ministry of Economy and Innovation. R&D contracts for precommercial procurement may be required to be performed in Lithuania depending on the source of their founding. If a contract is funded by the EU Structural Funds programme it has to be performed in Lithuania. However, the supplies do not have to be based in Lithuania. Innovation procurement is restricted in the fields of national security and defence. According to the Law on Public Procurement in a Field of Defence and Security the contracting authority shall have the right to exclude suppliers (legal persons) not established in a Member State and suppliers (natural persons) not declared in the Member State of residence, or to prevent suppliers from using such subcontractors. This information has to be provided in the procurement documents. Additionally, the procedures for procurement related to intelligence must be approved by the government. According to those procedures, suppliers are selected to participate in procurement procedures on the basis of the market situation and information available to the contracting authority, assessing whether the participation of a potential supplier poses a threat to national security. The deployment of an innovation procurement is constricted by the fact that there is no clear definition of public procurement of innovation. As there is no definition in EU Law or Policy documents each Member State has its own understanding of the concept.

Joint cross-border procurement is allowed by the national legislation. Nonetheless, the lack of clear provisions and methodologies on how to implement joint cross-border procurement poses obstacles for the participation. When it comes to joint procurement of security solutions the language poses a limitation for the participation of contractors from other countries, as all documents must be written in Lithuanian.

Procurement in Lithuania can benefit from a funding scheme. However, it only relates to pre-commercial procurement as three is no funding scheme for Public Procurement of Innovation yet. Pre-commercial procurement in Lithuania is funded by EU Structural Funds measure "Ikiprekybiniai pirkimai LT". Contracting Authorities can get up to 2 million euros funding (funding rate up to 90% of the value of PCP).

The VAT legislation does not pose any difficulties in economic transactions with suppliers located in other EU countries or in non-EU countries.

GREECE

Public Procurement process in Greece is regulated by the Law 4412/2016 - Public Procurement of Works, Supplies and Services, which transposes the EU legislation, coming into action on 1st August of 2016 (altering the Directives 2014/24 and 2014/25/EU) and by the Law 4413/2016 referring on award and execution of concessions in transposition of Directive 2014/23/EU. In the Defence and Security sectors, Public Procurement is regulated by law 3978/2011 - Public Procurement of Works, Services and Procurement in the Fields of Defence and Security Harmonization, which altered the Directive 2009/81/EC.

The principal actors in the area of public procurement in Greece are:

- The National Central Purchasing Bodies,
- The Government Council for Economic Policy authorises, oversees and asses the Action Plan for National Procurement Strategy and any potential amendments,
- The General Directorate of Public Procurements (under the authority of the Ministry of Economy and Development) possess and manages the national e-procurement system and is in charge of public supplies and services, involving a definite focus on green and innovation procurement,
- The General Secretariat of Infrastructure, overseen by the Ministry of Infrastructure and Transport, in charge of works procurement and public services contracts relating to public works,
- The National Central Authority for Procurements in Health "EKAPI", responsible for procurements in the health sector and,
- The Hellenic Single Public Procurement Authority (SPPA), settled by the Government in 2011, which is in charge of the evolution and promotion of the national strategy in the area of public procurement, supplies policy advice to the legislature as well as assists to awarding entities on the implementation of procurement law and regulation and approval of the application of certain activities such as negotiated procedure without publication notice. Further, SPPA holds an administrative role by supervising and assessing awarding entities' judgement, several policy documents and schemes, such as the Greek National Strategy for R&D&I and the Greek Smart Specialization Strategy.

Additionally, Law 4310/2014 on Research, Technological Development, Innovation and other provisions, facilitates and promotes innovation procurement as well as introduces definition of Pre-Commercial Procurement (PCP). Nevertheless, the Greek innovation procurement framework is still in an emergence level. To standardize innovation procurement at a national level, a competence centre within the General directorate of public procurement is demanded to be established.

It should be mentioned that there are also several electronic platforms which can be used for public procurement in Greece. The National Electronic Public Procurement System (NEPPS) is the main online hub for public procurement. Its objective is to modernise and simplify award procedures and to provide support to interested parties (citizens, contracting authorities, suppliers, supervisory authorities). The Directorate of Management, Development and Support of NEPPS at the Ministry of Digital Governance has a helpdesk that provides telephone support to NEPPS. The website provides information on NEPPS issues, allows users to search for tender procedures, offers user manuals for all NEPPS functions, as well as an e-learning service and CPV. The National System of Electronic Public Procurement (ESIDIS) is the electronic system of the Ministry of Development and Competitiveness through which a candidate supplier of the State can submit an offer. Tender invitations are also published on the Central Electronic Register of Public Procurement (KIMDIS), which aims to collect, process and publish data relating to all public contracts for the execution of works, supply of products and provision of services, independently from the process and the amount, for all the stages of the contract award. The Transparency Program DIAVGEIA (or DI@VGEIA) was created by Law 3861/2010 and serves as a means for publishing decisions of government bodies and the administration on the Internet.

The public procurement process comprises of six stages which are as follows:

- Stage 1: Tender preparation, in this phase drafting or verification of Notice/Declaration documents based on the approved technical specifications take place.
- Stage 2: Creation of a competition posting on ESIDIS, during this stage a tender for a public contract
 for procurement is created, a Tender Committee is appointed and the Announcement is posted on
 KIMDIS, DIAVGEIA or ESIDIS platform, the announcement is clarified through the ESIDIS system and
 preparation for unsealing are started.
- Stage 3: Unsealing of tenders, in this stage the Document file and Technical Bid file are unsealed by the President and Tender Committee, Financial Offer file is also unsealed at this point.
- Stage 4: Evaluation rating of bids, for a competition based on the price criterion, a single report is issued with the suggestion on the definition of the bidder with the lowest price as a temporary bidder. In case of grading (optimal value for money) a report is issued per phase.
- Stage 5: Invitation of bidding documents, in this phase supporting documents are submitted and evaluated. The minutes with the proposal for award to the contractor are composed and an Assignment Decision is posed.
- Stage 6: Invitation of the contractor to sign a contract.

Prior to the commencement of a public procurement procedure, contracting authorities may consult with the market in order to prepare the public procurement and to inform the economic operators of their plans and public procurement requirements. To this end, contracting authorities may, for example, seek or receive advice from independent experts or authorities, such as the Hellenic Single Public Procurement Authority (HSPPA) and the Tender and Contracts Monitoring Unit of the Centre for International and European Economic Affairs or other bodies active in the market. Such advice may be used in the planning and conduct of the public procurement process, provided that such advice does not distort competition or infringe the principles of non-discrimination and transparency.

Participation in the procurement to companies from countries affiliated to the WTO Government Procurement Agreement is regulated according to the EU Criteria for qualitative selection: Article 57 "Exclusion grounds" (1 to 6) of Directive 2014/24/EU. Natural or legal persons and, and where applicable associations of economic operators can participate in the procurement if they are established in a Member State of the European Union, or a Member State of the European Economic Area, or in third countries that have signed and ratified the Government Procurement Agreement (GPA) of the World Trade Organization (WTO), or in third countries which do not fall into the above cases and which have concluded bilateral or multilateral agreement with the Union.

Any interested party who has or had an interest in being awarded a contract and has suffered or may have suffered damage from an enforceable act or omission of the contracting authority in breach of European or Domestic legislation, has the right to appeal to the Authority for the Examination of Preliminary Appeals and to seek temporary protection or annulment of an illegal act or omission of the contracting authority or annulment of contract which has been entered into unlawfully. Any interested party who has suffered or may be harmed by a decision of the Authority for the Examination of Preliminary Appeals upon the reference for a preliminary ruling may file an application for suspension of operation and an application for annulment of its decision before the competent courts. The contracting authority has the right to exercise the same legal remedies if the Authority for the Examination of Preliminary Appeals accepts the preliminary appeal. Disputes arising from the award of public contracts and concerning claims for compensation are adjudicated by the competent courts, in accordance with the general provisions. The case is being heard in court as soon as possible.

Innovation procurement is regulated by the article 31 in Law 4412/2016 abovementioned, in accordance with Article 31 "Innovation partnership" of Directive 2014/24/EU. In cases where there are no suitable products or services available in the market new R&D procedures are required. In these cases, the procedures of Precommercial procurement (PCP) can be activated by seeking to weigh the pros and cons of possible alternatives

competitive solutions. The PCP is regulated by the article 14 "Research and development services" also of Directive 2014/24/EU.

Joint cross-border procurement is allowed under the national legislation and is regulated by Article 38 "Occasional joint procurement" and Article 39 "Procurement involving contracting authorities from different Member States" of Directive 2014/24/EU.

Procurement in security areas is regulated by the Law 3978/2011, and more specifically in the chapter *H* which is titled "Research and Development Programs". Article 7 "Protection of classified information" of Directive 2009/81/EC which is also adopted in domestic legislation foresees that contracting entities may impose on economic operators' requirements aimed at protecting the classified information they communicate throughout the tendering and contracting procedure. They may also request these economic operators to ensure compliance with such requirements by their subcontractors. Also Articles 15 "Defence and security", 16 "Mixed procurement involving defence or security aspects" and 17 "Public contracts and design contests involving defence or security aspects which are awarded or organised pursuant to international rules" of Directive 2014/24/EU apply to the procurement in the defence and security area. Obstacles and restrictions in the participation of contractors from foreign countries in the procurement of security solutions are mentioned in Directive 2009/81/EC and in particular Articles 40 "Suitability to pursue the professional activity", 41 "Economic and financial standing" and 42 "Technical and/or professional ability" of the same Directive which are adopted in domestic legislation.

Greece has funding schemes that support innovation and regular procurement.

No difficulties in economic transactions with suppliers located in other EU countries or in non-EU countries result from the national VAT legislation.

NORWAY

In Norway, the legislation referring to public procurement is mainly based on a substantial level on EU public procurement Directives in correlation with the country's obligation under the European Economic Area (EEA) Agreement. The public procurement legal framework is constituted in the Norwegian Act on Public Procurement of 17th June 2017, No. 73 (LOV-2016-06-17-73), and in three regulations adopted on 20th December 2016, i.e. the Regulation on Public Procurement of 20th December 2016, No. 1744 (FOR-2016-12-20-1744), implementing Directive 2014/24/EU, the Regulation on Procurement Rules in the Utilities Sectors (FOR-2016-12-20-1745), implementing Directive 2014/25/EU and the Regulation on Concessions Contracts (FOR-2016-12-20-1746), implementing Directive 2014/23/EU). In 2014, the EU Directive on defence procurement (2009/81/EC) came into operation which was carried out by the Regulation on Defence and Security Procurements. A principal role in the area of innovation procurement plays the Ministry of Trade and Industry (NHD), which outlines the rules and regulations on public procurement and is in charge of innovation policy. Innovation objectives have a key role in the strategic use of public procurement. The Government as well as key procurers, are supported by the Agency for Public Management and eGovernment (Difi) in the remodelling of the public sector and in the application of innovation procurement through competence creation and communication.

More in particular, Difi in collaboration with the Norwegian Association of Local and Regional Authorities (KS) and Confederation of Norwegian Enterprise (NHO) put into action the *National programme for supplier development* which aims to support innovation and creativity into the public sector via detailed innovation procurement projects, method development and competence building activities. From a supply-side perspective regarding innovation procurement, there is another actor namely the Innovation Norway (IN) Norwegian Government's most important institution for innovation and development of Norwegian enterprises and industry.

ROMANIA

All national legislations in the field of public procurement are adopted in accordance with the European directives. Procurement in Romania is regulated by:

- 1. The Governmental Emergency Ordinance no. 13/2015 on the establishment, organization and functioning of the National Agency for Public Procurements,
- 2. The Law no. 98/2016 on public procurements (Government Decision no. 395/2016 for the approval of the methodological norms for Law no. 98/2016),
- 3. The Law no. 99/2016 on sectoral procurements,
- 4. The Law no. 100/2016 on work and services concessions,
- 5. The Law no. 101/2016 on remedies and appeal for the award of public procurement, contracts and work and services concession, as well as for the organization of the National Council for Solving Complaints,
- 6. The Governmental Emergency Ordinance no. 98/2017 on the ex-ante control function on the process of contracts awarding (Government Decision no. 419/2018 for the approval of the methodological norms for OUG no.98/2017),
- 7. The Governmental Emergency Ordinance no. 114/2011 on the award of some public procurements in defence and security domains.

The Electronic Public Procurement System (SEAP) is the national software used for procurement. It is an online platform for publishing all information related to public procurement: procedure initiation notices, clarifications, errors in the award process, appeals and decisions. It was designed in order to ensure the highest possible level of transparency and accessibility.

Two central purchasing bodies are involved in procurement processes: The National Agency for Public Procurements and The National Office for Centralized Procurements. The National Agency for Public Procurements (ANAP), established by Governmental Emergency Ordinance no. 13/2015, is a public institution with legal personality subordinated to the Ministry of Public Finance. The fundamental role of ANAP is the formulation, promotion and implementation of the public procurements policy, the establishment and implementation of the control system for unitary application of the legal and procedural provisions, and the monetarization of the efficient functioning of the public procurement system. ANAP is involved in the ex-ante control function on the process of contracts awarding.

The National Office for Centralized Procurements (ONAC), established by Governmental Emergency Ordinance no. 46/2018, is the public institution with legal personality fully financed from the public budget, subordinated to the Ministry of Public Finance, which makes centralized acquisitions for all public institutions. ONAC has the following responsibilities: collection of public institutions' needs, establishment of the annual program of public procurements for centralised purchased products and services, ensuring the legal representation of public institutions' rights and interests, as well as control of the centralised agreement for public procurements.

The public procurement process consists of three phases: planning and preparation of the process, organization of the procedure and contract management and lastly performance evaluation. The procedure types for procurement are provided by the Law no. 98/2016 and they are as follows: limited auction, competitive negotiation, competitive dialogue, partnership for innovation, negotiation without prior publication, the solutions competition, direct award procedure and simplified procedure. The contracting authority has the right to organize a dialogue with independent experts or economic operators and their representative organizations in order to prepare the procurement. Consultations are held on the SEAP platform or other information sites. Market consultations held before the initiation of the procurement process are regulated by the Law no. 98/2016 and GD no. 395/2016.

Considering the diversity and dynamics of public procurements, the article 49 of Law no. 98/2016 on public procurements stipulates the obligation of Romanian authorities to grant economic operators equal and non-

discriminatory treatment in the field of public procurements. The article 53 stipulates the right to participate in procurement procedure of all economic operators established in: the European Union member states and countries in the accession process, the European Economic Space countries, countries affiliated to the WTO Government Procurement Agreement and third countries which are not part of the GPA agreement, but which are signatories to other international agreements by which European Union is obliged to grant free market access in the field of public procurement. The freedom to buy technologies owned by companies from other countries is not restricted by law. Moreover, Law 98/2016 (art. 3) guarantees these freedoms.

The Romanian National Strategy in the field of public procurements (approved by the Government decision no. 901/2015) sets the reduction of all delays in public procurements procedures due to appeals as a major objective. According to Law no. 101/2016, which regulates the terms and means for solving all the apples in public procurements, these can be filed both by administrative jurisdiction and by judicial means. However, in the procurement procedure planning stage, the contracting authority should draw up the estimated timetable for the procurement procedure, setting realistic deadlines and taking into account all risks that may arise during the procedure, including all types of appeals and maximum of delays.

The Law 98/2016 (art. 3) on public procurement defines innovation as the new or significantly improved product, service or process, including production or construction processes, new marketing methods or new organizational methods in business and work or external relations, in order to support the Europe 2020 Strategy for smart, green and inclusive growth. The provisions of Law no. 346/2004 (art. 17) on simulating the establishment and development of small and medium enterprises provide that they can benefit from information, assistance, consultancy, technological development and innovation services in the banking, finance, management and marketing fields in order to carry out and develop their activity.

The purchase of innovative and sustainable products and services is regulated by two procedures: the partnership for innovation and the competitive dialogue. According to Law 98/2016 on public procurement (article 100), the partnership for innovation aims to develop an innovative product, service or work and the subsequent purchase of the resulting products, services or works, if it corresponds to the performance level and maximum costs agreed between the contracting authority and the participant to the program.

The innovation partnership is applied when the contracting authority identifies the fact that the need for the development and subsequent purchase of an innovation product, service or work cannot be satisfied by the existing solutions on the market. The partnership is designed as a three-stage procedure: a competitive selection stage, a research and innovation stage and a commercial stage when the partner provides the final solution. The competitive dialogue procedure is regulated by Law 98/2016 on public procurement (article 70). It states that the contracting authority has the right to apply the competitive dialogue procedure in case of needs that cannot be satisfied by the existing solutions on the market. The competitive dialogue is designed as a three-stage procedure: the submission of the requests for participation, the selection stage, and the stage for candidates to submit final bids after the evaluation.

Limitations to purchase technologies from outside countries are set by the provisions of the Governmental Emergency Decision 202/2008 regulate the implementation of international sanctions, restrictions and obligations in relation to the governments of some states, non-state entities or legal persons, adopted by the Security Council of the United Nations, The European Union and other international organizations or by unilateral decisions of Romania or other states, in order to maintain international peace and security, to prevent and combat terrorism, to ensure the respecting of human rights and fundamental freedoms, the development and consolidation of democracy and the rule of law.

In Romania, the procurements for innovation in the field of security and defence are exempted from the general procurement rules, only if the conditions provided by the Law no. 98/2016 are fulfilled, especially the provisions defined by article 37. Procurement in the security field is exempt from the general procurement procedures

when protection of the essential security interests of the state cannot be guaranteed by less invasive measures and when the application of the procurement law would oblige the authority to provide information which disclosure is contrary to the essential interests of national security. Moreover, some exceptions from the rules are provided by the Governmental Emergency Decision no. 114/2011 regarding the award of certain public procurement contracts in the field of defence and security.

Innovation and regular procurement in Romania can benefit from several funding schemes. One of the schemes is the Operational Program for Smart Growth, Digitization and Financial Instruments, that proposes measures in the field of research, development and innovation/smart specialization and in the field of digitisation.

According to the national Law no. 98/2016, Section 9 national contracting authorities may act jointly with contracting authorities from other EU member states for the award of public contracts. The Romanian procedures which request security authorizations of contractors from other countries which want to participate in a joint procurement are regulated by the Governmental Emergency Decision no. 114/2011 regarding the award of certain public procurement contracts in the field of defence and security. The Romanian law complies with the EC Directives 81/2009 on the coordination of the procedures for the award of certain works, services and supply of goods contracts, by the contracting authorities or entities in the field of defence and security (amending the Directives 17/2004 and 18/2004).

There are no difficulties in economic transactions with suppliers located in other EU countries or in non-EU countries that would be caused by the national VAT legislation.

SPAIN

In Spain, the Law 9/2017 of Public Sector Contracts consists of the national legal framework which came into operation on March 9th 2018 and transposes the EU directives 2014/23/UE and 2014/24/UE in the field of public procurement establishing several procurement types. For additional improvements whenever is needed, the initiative of the Spanish Minister Council is demanded. In Spain, the relative public procurement system is basically decentralised and 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 National Police most commonly uses work contracts, services contracts, supply contracts and public service contracts. The Centralized Procurement Board is the central purchasing institution in Spain. The Spanish Centralized Procurement System is devoted to procurements of works, services and supplies that are tendered with similar and homogenous essential features by public administrations of the central state. Any natural person or legal entity from Spain or abroad who has full ability to act and has not been banned from official contracts can be a contractor in the public sector. The contractor should prove economic, financial and technical solvency. In order to prepare a tender and to inform the contractors about the administration plan and conditions of participation in the procedure the contracting authority can hold preliminary market consultations, which are regulated by article 115 of Law 9/2017. The contracting authority can be advised by external experts and technical experts from other public administrations or professional societies.

The access to the market consolidations is open and can be reached through the public sector tender platform. It is guided by the no discrimination and transparency principles. After the finalisation of the consultations a report about all the undertaken activities must be prepared. Before the commencement of the procurement process, the public administration should issue a document describing its needs. After the file is approved the procurement procedure begins. The process can be performed under three different procedures: regular, urgent or emergency procedure. All communication with public administrators must be done in writing, oral communication is forbidden except in the case of emergency. Every procurement process is accompanied by supporting documents which determine tender specifications and technical specifications.

The document on tender specification sets the terms and conditions according to rights and obligations of the parties. It also includes contract objective description, tender budget, contract duration and execution deadline, guarantee period and other guarantees and procedures for proposals submission. The technical specification document should include at least the technical features, the price per unit in the budget and estimated number of units able to be delivered. In case it is needed a list of requirements, modalities and technical specifications of different variants must be attached. The procurement process is based on publicity principle. Public administrations can use different publicity means depending on the type of the procurement. The publicity is done through the official national or European journals and the public sector tender platform. Tenders under harmonized regulation are published in the EU official journal. Tender contracts can be awarded through an open or restricted procedure. It could also be via a negotiated procedure, with or without publicity, and competitive dialogue.

Only some decisions and actions regarding the procurement can be challenged in a court, such as tender announcements, contractual documents guiding the contractual conditions, actions in the awarded procedure and award agreements. The legal appeal is facultative and free of charge for the appellant. In most of the cases the appeal is suspended when it is related to the decision of granting tender award. In the cases when the process continues precautionary measures have to be implemented.

Public procurement for Innovation has been excluded from the framework of Public Procurement rules, but art 177 to 187 of Law 9/2017 regulates the association for innovation. The procurement for innovation (PCP and PPI) is regulated by Law 2/2011 on "Sustainable economy" and Law 14/2011 on "Science, Technology and Innovation". Every company from Europe can bid for any tender in the PCP or PPI and technology can be purchased from any foreign country. Under the Spanish Strategy on Science, Technology and Innovation 2021-2027 companies can develop innovative products funded by several programs with the formula of subvention and loans at a very low rate. The Centre for the Development of Industrial Technology of the Ministry of Science and Innovation is in charge of these programs. Some Ministries can develop their own funding strategies. Additionally, regions have their own programs for funding R&D projects through Structural Funds.

The innovation procurement in the security area falls under norms of the Law 9/2017. However, the law excepts the Defence and National Security tenders from the general regulation as it is regulated by the Law 24/2011 that regulates the "secret procurement procedures" related to defence and security. Most of the provisions are related to technologies, intelligence, ICT systems and the classified information that has to support the tenders regulated in this Law. In some cases, the defence and security procurement follows separate regulations, but mostly it falls under the public sector regulations.

Innovation procurement in Spain faces many limitations. The main one is the fact that the public administration has the right to commercialise the Innovative Product Resources (IPR) which are shared between the companies and public administration. Although the IPR belongs to the developer company, the public administration has the right to use its results for a specified time. If the company does not commercialise the solutions the public administration can recover the IPR and offer it to another company to continue with the improvement of the solution. Another limitation to the innovation procurement is the short time limit for a receipt of tenders which is 60 days. Furthermore, subcontracting limits in maximum 50% of the total cost, and only takes place with companies who have concrete professional or technical skills. Companies wishing to participate in a tender need to demonstrate a financial guarantee report that shows the financial balance from the last three years. Moreover, the bidding process must be held in Spanish.

Cross-border procurement is not limited by the national legislation, but there are also no provisions to facilitate it.

In all procurement procedures, the VAT is paid to the company. When the contracting company is from a country other than Spain it should claim for the VAT to the Financial Ministry.

FINLAND

The procurement system in Finland is centralised and two Ministries competence under its scope. Firstly, the Ministry of Finance is in charge of assisting central government procurement via the government procurement plan, and it can choose about centralised joint purchasing activities as well as improving procurement activities and is also responsible for the the general terms and conditions of procurement. The Ministry of Economic Affairs and Employment (MEAE) is in charge of the national procurement legislation and amendments development as well as the provision of consultation to economic operators and contracting entities in relation to law elucidation and by promoting innovation procurement in Finland thought its responsibilities for the Finish innovation policy. In addition, a part of the aforementioned responsibility, is the joint work between MEAE with the Association of Finnish Local and Regional Authorities (FLRA) in order to operate the Public Procurement Advisory Unit (PPAU), which is an information desk for contracting entities working though phone and online. The Finnish Competition and Consumer Authority (FCCA) is supervising public procurement and ensuring the compliance of legislation related to public procurement. The Finnish National Audit Office on the other hand regulates public procurement activities. The Finnish Competition and Consumer Authority (FCCA) is supervising public procurement legislation. The Finnish National Audit Office (NAO) finally regulates public procurement activities related to budget, accounting and monetary activities.

Additionally, it should be highlighted that the Hansel Oy, a publicly owned stock company (part of the Ministry of Finances) is the central purchasing company while is in charge for the development of the Government's savings via entering into framework agreements relating to procurement. The company is responsible for providing state authorities with joint procurement and regular procurement support functions and customers with expert and developed services related to procurement, as well as procurement data processing and analysis services and related technical solutions. The company may also participate in joint procurements along with procurement entities of other European Union Members. Further, the Market Court (MC) is considered to be a distinct review entity on public procurement.

Several policies in Finland currently, include, strategic priorities regarding innovation procurement since the Finnish Government programme 2015-2019 provided substantial motivation to the evolution of innovation procurement policy.

In addition, in 2017 the Ministry of Economic Affairs and Employment preparedan Action Plan regarding innovation procurement whereas in the same year the Government choose to set a competence centre of excellence on sustainable innovation procurement which started operating in April 2018. The network-based Competence Centre for Sustainable and Innovative Public Procurement (KEINO) is currently the basic operative entity in the assistance of activities in the implementation of innovation procurement policy. *Business Finland* (previous name: Innovation Funding Agency Tekes) has a finance instrument for innovative public procurement since 2009, and between 2013 and 2016 ran a Smart Procurement programme. Several aspects in the area are VTT Technical Research Centre of Finland Ltd, a technology and research entity which has developed a method to monitor and measure volume, trend and impact of innovation procurement, SYKE, the Finnish Environment Institute, which is involved in measurement activities, and HAUS - the Finnish Institute of Public Management Ltd, which is engaged in some capacity building activities such as ad hoc training for public procurers.

In Finland, the legal framework presents an official legal definition for R&D procurement but is related only to the defence sector. Innovation procurement, Pre-commercial procurement (PCP) and Public Procurement of Innovative solutions (PPI) are specifically defined in the report *Public procurement of innovation – definition, opportunities and measurement*, published by the Prime Minister's Office in December 2017.

Overall, in Finland three acts related to Procurement procedures are applied, and more specifically:

• the Act on Public Procurement and Concession Contracts (1397/2016),

- the Act on Procurement and Concession Contracts of Entities Operating in the Water and Energy Supply,
 Transport and Postal Services Sector (1398/2016) and
- the Public Defence and Security Procurement Act (1531/2011), have been altered by the two EU Procurement Directives (2014/23/EU, 2014/24/EU, 2014/25/EU) and the EU Defence Procurement Directive (2009/81/EC) into the national legal framework.

Only procurements above EU and national thresholds are regulated by the Procurement Act. The national threshold for goods, services and design is 60.000 euros. The Procurement Act obliges state authorities and municipal authorities (i.e., contracting entities) to tender their procurements openly in accordance with the rules of the Procurement Act. The Procurement Act requires contracting entities to organize tenders in accordance with the principles of the Procurement Act, i.e., in a non-discriminatory, equitable, transparent, and proportionate manner.

Public procurement process of goods and services has the following stages: market mapping (optional), exploring inquiry, questions (optional), sending quotation, procurement decision walkthrough and possible appeal (optional). For all contracts above the national threshold, the public contracting entities shall publish the contract notice in the HILMA system.

Prior to the start of the procurement procedure, the procuring entity may conduct a market survey in preparation for the procurement and provide information to suppliers on its plans and requirements for future procurement. In the market survey, the contracting entity may use independent experts, other authorities or suppliers. The advice of these bodies may be used to assist in the planning and conduct of the procurement procedure, but the use of such advice shall not lead to distortions of competition (Procurement Act §65). Information also can be gathered independently from public sources and e.g., industry days, which do not limit buyer's options. Preparation phase of the request for a quote is the first step in public procurement of goods or services. In this phase a procurement schedule and security resources are established, a call for tenders and a draft key documents are drawn up, market mapping and involvement of users of the service are implemented and the invitation to tender is finalised. In the second phase a contract notice must be uploaded in the HILMA notice channel and invitation to tender must be publicised.

This is the time for taking questions and answers from tenderers and for clarifying the invitation to tender, and if applicable, correction of notice. In the next phase of the procurement process the intake and processing of tenders' applications take place. The quotations are opened and the invitation to tender is verified for suitability and conformity. The presented quotations are compared, and a winner is selected. Following the phase completed procurement decisions are made and after the end of the waiting period a contract is concluded. Challenging the tender award by one of the bidding parties causes major delays. Every bid has a 30-day possible appeal time for complying with quotations. When a procurement is done according to the legislation then no delays are expected.

Innovation procurement is included in the Public Procurement Act and follows the same procedures. Contracting entities, such as municipalities, universities, government authorities and bodies governed by public law, must always comply with the Procurement Act regardless of public sponsor. If private procurement is funded by public investment money, private companies must follow similar procedures as public entities. Innovation procurement is facilitated by Business Finland, which is the Finnish government organization for innovation funding and trade, travel and investment promotion.

Business Finland channels public research, development and innovation funding into risky projects that accelerate the renewal of the business world. Its funding encourages renewal and growth. As for now there are no innovation procurement standards in Finland. However, the government program has set a target to increase

Finland's research and development expenditure from the current GDP share of 2,7 percent to 4 percent by 2030. Limitation to the procurement approach under an innovation procurement procedure arise from the trade of dual-use items. National legislation on export-import control regulates the export of dual-use items and dual-use technology. Export control seeks to promote responsible export of Finnish technology and to prevent the use of Finnish technology for the development of WMDs, for undesirable military ends, for uses against the interests of Finland, or for purposes that violate human rights. Non-proliferation policy is implemented through international agreements and multilateral export control cooperation.

Joint cross-border procurement is allowed under public legislation. However, there are some obstacles for contractors from other countries. In practice only one tender is published on behalf of all participating authorities.

Procurement of defence and security products in Finland is regulated by the *Communication from the Commission Guidance on the participation of third-country bidders and goods in the EU procurement market*. The document gives Sweden the freedom to decide whether to allow public buyers to admit foreign bidders. The Public Procurement Act does not apply to procurements within the meaning of Section 5 of the Public Defence and Security Procurement Act (1531/2011), hereinafter referred to as the Defence and Security Procurement Act, or to procurements falling outside the scope of that law under Section 6(2), Article 7(1) or Articles 8 or 13 therefor. The procurement act does not apply to procurement that is confidential or requires special security measures based on the law. Moreover, the law does not apply to procurement where the application of this law would oblige the contracting entity to provide information the disclosure of which is contrary to the essential security interests of the State. The condition is that the protection of the essential security interests of the State cannot be guaranteed by measures less restrictive than non-application of the law.

The sale of goods from Finland to other EU countries is tax-exempt corporate sales only if the conditions for tax-exempt corporate sales are met. At other times, the seller of goods must charge and pay VAT on the sale of goods in Finland. The sale of goods to a buyer from outside the EU who is not liable for VAT in any EU country does not fulfil the conditions for Community sales. Thus, sales cannot be treated as tax-exempt corporate sales, even if the goods are transported from Finland to another EU country in connection with the sale. Sales will then be treated as domestic sales. The broad-based VAT system applies to almost all OECD countries in Europe. In addition, some commodities, such as export deliveries, are subject to a zero rate. In this case, the sales are tax-exempt, but the seller is refunded the VAT included in the input purchases. The tax rate is reported based on the tax-exempt price.

GERMANY

In Germany, public procurement is coordinated through a complicate regulatory framework that includes delegated acts, such as ordinances and guidelines via non-governmental entities and giving the potential for a great level of autonomy to the relative German federal states. Following, in the public procurement area the basic legislations are:

- the German Act against Restraints of Competition (Gesetz gegen Wettbewerbsbeschränkungen GWB),
 which includes key elements of public procurement in Germany, and
- the Procurement Regulation for Public Works (Vergabe- und Vertragsordnung für Bauleistungen VOB/A-EU) which coordinates public contract awards in the field of public supplies and services.

Other regulations exist like the German Regulation on the contract award to entities operating in the transport, water and energy supply as well as the transport sectors (Sektorenverordnung - SektVO), the German Public Ordinance for Contracts in the fields of Defence and Security (Vergabeverordnung Verteidigung und Sicherheit -

VSVgV), which transposed the Directive 2009/81/EC, and the German Regulation on the award of concession contracts (Konzessionen Konzessionsvergabeverordnung - KonzVgV).

In principle, all procurement procedures in Germany must be made through the procurement office. These offices are responsible for the implementation of procurement procedures in accordance with the procurement instructions, the coordination of procedure with the user assistance, as well as providing advice to the users on topics related to procurement procedure (e.g., obtaining and evaluating offers), as well as examination of the tender documents for completeness, clarity and traceability.

The administrative procurement requirements in Germany, leads to a highly decentralised system whereas the public procurement procedures are allocated in between three different governmental levels (federal, regional and local level). Majority of the procurement procedures are implemented at a local level.

The formulation of the public procurement principles as well as the drafts of relevant legislation is being made by the principal institution in charge of public procurement which is the Federal Ministry of Economy and Energy (BMWi). In addition, the Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), is responsible for public works procurement, whereas the Federal States Committee for the public procurement guarantee common exchanges between Federal States on the current aspects of procurement policy and activities in the context of EU Funds. In Germany, there are also additional actors in the procurement system which assist in the generation of procurement guidelines regarding private and public sector needs.

The procurement guidelines for public works are generated also from the German Committee for Construction Tendering and Contract Regulations (DVA) whereas the procurement guidelines for supplies and services are generated also with the contribution of the German Committee for Supplies and Services Tendering and Contract Regulations (DVAL).

There are four centralised purchasing entities at the federal level which are also thematically distinguished. These four entities are:

- the Central Purchasing Body of the Ministry of the Interior, which acquire all the necessary goods and services for all federal bodes, monitor the basic e-procurement platform as well as is responsible for other administrative activities.
- the Federal Institute for Materials Research and Testing, is in charge of the framework agreements generation regarding special technical product groups,
- The Federal Office for Equipment, IT Technology, and Use of the German Armed Forces is in charge to procurement for the military of Germany, and
- the Federal Financial Directorate Southwest (BFD Südwest) procures for the tax administration.

At regional level there can also be found central purchasing entities. The principal player at the national level regarding innovation procurement implementation is the Competence Centre for Innovative Procurement (KOINNO) whose objective is to act as an information knowledge organisation. KOINNO is responsible for various activities, such as awareness raising and international networking for procurers as well as specialized assistance to public institutions at all levels on innovation management and on innovative products. The centre is coordinated via the Federal Ministry for Economic Affairs and Energy (BMWi).

Lastly, ZENIT GmbH, a Public Private Partnership, composed by a group of private entities constitutes an alternative on innovation procurement. ZENIT is mainly active in the development and assistance of innovation procurement regionally, since it is implementing some elements of the KOINNO competence centre mandate. In addition, since 2017 acts also as the EU Contact Point for innovation procurement in Germany, providing

consulting services for Pre-Commercial Procurement and Public Procurement of Innovative Solutions funded under HORIZON 2020 or other EU funding programmes.

Regarding innovation procurement, this is regulated by the same policies as the national procurement. Grants and low-interest loans are provided to make research and innovation projects easier to finance. The national public procurement legislation does not exempt from its scope the application of an innovation procurement procedure in the security area. Cooperation with research institutions is particularly encouraged so that new scientific findings can be quickly converted into marketable products. Public procurement law offers public clients many opportunities to take strategic aspects into account in the procurement process. This facilitates production of innovative services that focus on environmental and social issues. Innovation-friendly framework conditions and market-oriented funding programs are put in place. The aim is to further advance medium-sized businesses in terms of innovation and digitization, to arouse enthusiasm for technical and scientific professions and to secure the qualified young talent of tomorrow.

It is important to highlight that there are no national regulations/policies that restrict the freedom to purchase technologies owned by companies from specific countries, not even under a security call. Free world trade with fair international competitive conditions provides important impulses for economic growth and employment with open markets and clear rules. The national Public Procurement legislation regulates the deployment of market consultations and there are no major delays for the procurement procedure if one of the bidding companies would challenge the award decision in court as there is no room for interpretation with the procurement.

However, joint procurement with partners from other countries is not allowed by the law in Germany. Joint procurement only happens at the national level. In this process some legal obstacles may arise regarding clarification on the intellectual property ownership or the responsibility in the event of an accident or maintenance.

Finally, no difficulties in economic transactions with suppliers located in other EU countries or in non-EU countries are expected by national VAT legislation.

POLAND

The public procurement process is regulated by the Public Procurement Law of 11 September 2019. The Act applies to tenders the value of which is equal to or exceeds 130,000 PLN or the European thresholds. Public procurement process in Poland is also regulated by other legal acts, such as the Public Finance Act, the Civil Code, the Code of Administrative Procedure and the Act on combating unfair competition. The procurement process has to be held in compliance with the following principles: the principle of fair competition, the principle of equality, the principle of impartiality and objectivity, the principle of openness, the principle of transparency and the principle of writing and conducting the procedure in Polish. The procurement above the EU thresholds can be held in one of the following procedures: open tender, restricted tender, negotiated procedure with publication, competitive dialogue, innovative partnership, negotiation without publication and single-source procurement. In the case of contracts below the EU thresholds, the contracting authority may conduct the procedure in the following manner: basic, innovation partnership, negotiation without announcement and single-source procurement.

Awarding a contract above the EU thresholds requires the contracting authority to make public notices on the website of the procedure and forward the notice to the Publications Office of the European Union, which publishes it in the Official Journal of the European Union. Awarding a contract below the EU thresholds requires placing an announcement in the Public Procurement Bulletin, available on the website of the Public Procurement Office website. The contracting authority may additionally submit the notice for publication in the Official Journal of the European Union. In classic procurement procedure with a value equal to or exceeding the EU thresholds the public contracting authority is obliged to prepare a document describing the needs and requirements of the

authority, taking into account the type and value of the contract. This document has to be published, prior to the commencement of the contract award procedure.

Since public procurement in Poland is highly decentralized, all contracting entities (including local administrations) have the possibility to implement their own secondary policies and objectives. During 2018, the number of contracting entities reached up to thirty-three thousand. For governmental level authorities, the basic purchasing body is the Government Administration Service Centre (COAR).

Innovation procurement policy as well as national innovation policy is carried out by the Ministry of Economic Development, Labour and Technology. Under the auspices of the Ministry is, also, the Public Procurement Office (PPO), which is a governmental agency and is responsible for the public procurement implementation as well as is in charge for the relative laws and amendments of the procurement. It is an independent unit within the Polish government, which plays a policy making and co-ordinating role in the procurement system. The key duties of PPO are:

- to prepare drafts of legislative acts on public procurement;
- to check the regularity of conducted procedures;
- to prepare training programs, organise and inspire training events in the field of public procurement;
- to maintain international cooperation on issues relating to public procurement;
- to monitor compliance with the principles of awarding public contracts and exercising control powers in the process of awarding public contracts;
- to analyse the functioning of the public procurement system;
- to disseminate knowledge about public procurement and sample templates of public procurement contracts, regulations and other documents used in the award of contracts;
- to issue in electronic form the Public Procurement Bulletin, in which the announcements provided for by the Act are placed;
- to ensure the organizational conditions for the functioning of legal remedies under the appeal procedure;
- to conduct activities related to the computerization of the public procurement system.

The Public Procurement Office implemented a portal for public procurement – miniPortal. It is a publicly available, free and intuitive tool to ensure electronic communication in a public procurement procedure. However, it is not widespread across the country, as public procurers still use commercial platforms for procurement (different among different public bodies).

More relative entities in the innovation procurement field are the Ministry of Investment and Development, which is in charge for monetary provision in innovations and the Polish Agency for Entrepreneurship Development (PARP), a government entity under the coordination of this Ministry, assisting innovative entrepreneurs and contractors. Furthermore, it has to mentioned that the Ministry of Science and Higher Education is responsible for R&D policy and its executive agency, while the National Centre for Research and Development (NCBR) coordinates substantial innovation projects (PPI) jointly with public, private, and academic partners as well as is involved in supervision and assistance of supply side R&D grant projects contributing to the solution of potential issues arisen in the public sector.

Art. 84 of the Procurement Law regulates market consultations in classic procurement procedure with a value equal to or exceeding the EU thresholds. The contracting authority, prior to commencing the contract award procedure, may conduct preliminary market consultations in order to prepare the procedure and inform contractors about its plans and requirements regarding the contract. In order to do so the awarding entity has to publish information on the intention to conduct preliminary market consultations and their subject on the

awarding entity's website. When conducting market consultations, the awarding entity may use the advice of experts, public authority or contractors. This advice may be used in planning, preparing or conducting a procurement procedure, provided that it does not distort competition or infringe the principles of equal treatment of economic operators and transparency. The awarding entity shall include information on conducting preliminary market consultations in the contract notice.

Market consultations take place in the competitive dialogue procedure. This procedure is used for awarding a contract in which all interested contractors may submit requests to participate in a contract in response to a contract notice. In order for contractors to determine the contracting authority's needs regarding the nature and scope of the contract as well as formal and procedural requirements of the conducted contract award procedure, the contracting authority draws up a description of the needs and requirements. The contracting authority conducts a dialogue with contractors invited to participate in the dialogue on the solutions proposed by them.

Pre-commercial procurement is not regulated in Polish legislation. Moreover PCP is excluded from the national bill (art 11, paragraph of Public Procurement Law) which states that research and development services are excluded unless they are covered by CPV codes from 73000000-2 to 73120000-9, 73300000-5, 73420000-2i73430000-5, as defined in the "Common Procurement Vocabulary", and if the following conditions are cumulatively met: the benefits of these services accrue only to the contracting authority for the purposes of its own activities and the entire remuneration for the service rendered is paid by the ordering party.

Innovation procurement in classic procurement procedure with a value equal to or exceeding the EU thresholds is regulated by Section II Chapter 3 Division 6 "Innovation partnership" of the Public Procurement Law. The contracting authority may award a contract under the innovative partnership procedure regulated by the Procurement Law in the event of a demand for an innovative product, service or construction works, if these are not available on the market. The contracting authority may decide to establish an innovation partnership with one or more partners carrying out separate research and development. In order to initiate the innovation partnership the contracting authority draws up a description of the needs and requirements in order for contractors to determine the nature and scope of the required solution for the development of an innovative product, service or construction works as well as formal and procedural requirements for the procurement procedure. The contracting authority has to provide free, full, direct and unlimited access to the description of needs and requirements on the website of the procedure. At this stage all interested contractors may submit requests to participate in a contract.

The contracting authority invites economic operators whose applications for admission to participate in the procedure were not subject to rejection to submit preliminary tenders, and if the selection criteria are established, invites economic operators who meet these criteria in the number specified by the awarding entity. The deadline for submitting initial bids may not be shorter than 30 days from the date on which contractors are sent the invitation to submit initial bids. When the time for submitting initial bids is closed the awarding entity invites to negotiations selected contractors who submitted preliminary tenders. It also indicates place, date and manner of conducting negotiations. After the conclusion of the negotiations, the contracting authority draws up a description of needs and requirements, which is a clarification and supplement to the information contained in the description of needs and requirements.

The contracting authority invites contractors with whom he conducted negotiations and who were not eliminated from the procedure at previous stages of the procurement process. The contracting authority selects the most advantageous offer that presents the most favourable balance of price or cost and quality criteria relating to the subject of the contract. The awarding entity may select several offers submitted by several contractors. The contracting authority concludes a public procurement contract, the subject of which is to establish an innovation partnership. Innovation partnership consists of stages corresponding to the sequence of activities in the research and development process, in particular, it may include the development of prototypes and the production of products, provision of services or completion of construction works. As part of the

innovation partnership, the contracting authority sets goals to be achieved after each stage or intermediate goals, and provides for remuneration in parts taking into account the stages of the partnership or intermediate goals. The contracting authority may terminate the innovation partnership after each stage or, in the case of an innovation partnership with several partners, reduce the number of partners by terminating individual contracts.

Polish national Public Procurement legislation allows joint procurement with awarding entities residing or established in other Member States of the European Union. Awarding entities may, together prepare or conduct a procurement procedure or organize a competition, award a contract, conclude a framework agreement, establish a dynamic purchasing system or award a contract under a contract framework or under a dynamic purchasing system (art.42of the Public Procurement Law). In general, the national law on joint cross-border procurement law reflects the regulation on the EU level.

The offer scheme is constructed in a way that 'enforces' the division between net and gross amount, including the detailed information on the VAT costs. Moreover, the Reverse Charge works the same way in all EU countries.

All complaints about the procurement procedure are examined only by the competent District Court in Warsaw - the public procurement court. The appointment of one specialized court to hear complaints in the field of public procurement is to contribute to shortening the time of examining cases and ensuring the quality of court judgments at the highest level. However, when one of the bidding companies challenges the award decision in court major delays are predicted which can take up to several months.

Certain tenders in the defence and security area are exempt from the provisions of the Public Procurement Law (art. 12-15). The regulations of the law do not apply to competition or contests:

- which has been given a clause in accordance with the provisions on the Protection of Classified Information;
- if required by a significant state security interest when the protection of the state's security interests cannot be guaranteed otherwise;
- concerning the production or sale of weapons, ammunition or war materials, referred to in Art. 346 of
 the Treaty on the Functioning of the European Union, if it is required by the fundamental security
 interest;
- which are subject to a specific procedure on the basis of an international agreements;
- where the application of the provisions of the Law would oblige the contracting authority to provide information, the disclosure of which is contrary to the essential interests of state security;
- provided for the purposes of intelligence or counterintelligence activities;
- awarded in a country which is not a member of the European Union, including contracts for the supply
 of non-military equipment, construction works or services for logistic purposes, carried out during the
 deployment of armed forces, and forces whose basic tasks include the protection of security, where
 operational reasons require them to be provided to contractors located in the area of operations;
- granted by state, regional or local authorities to state, regional or local authorities of another state
 related to: supplies of military equipment or sensitive equipment or construction works and services
 directly related to such equipment or construction works and services exclusively for military use or
 sensitive construction works or services.

ITALY

In Italy in April 2016, the government authorized the Legislative Decree no. 50/2016, enforcing the Directives 2014/23/EU, 2014/24/EU and 2014/25/EU of the European Parliament and European Council. This Decree establishes the Italian Public Contract Code. The Code establishes rules on public procurement contracts and concession contracts by contracting authorities and contracting entities of services, supplies, works as well as on design contests. The procurement process is not centralised, but the central government put in place a digital platform. The government functions as a service provider, while the individual contracting parties are responsible

for managing the procedures themselves. There is no centralised procurement platform and tenders are managed through various digital platforms belonging to different subjects (Central Government, Regional Administrations, private companies of public interest). The Directive no.2009/81/EU implemented by the Italian code and the Legislative decree no.208/2011 (Defence decree) are directing public procurement in the defence and security sectors.

The public procurement system in Italy is decentralized having more than twenty thousand local, regional and national level contracting entities. Additionally, there are some aspects of centralisation in public procurement taking place via a central procurement authority at national level (CONSIP) and thirty-one purchasing entities (named *soggetti aggregatori*) at regional and local level, depicting almost half of the procurement expenditure in Italy. In order to benefit from economies of scale, centralisation of procurement is implemented whereas the New Code encompass targets to further strength the National Anti-Corruption Authority (ANAC) regarding national public procurement system. ANAC also supervises public contracts and sets soft regulations, for example public statements concerning the public procurement system of Italy, as well as innovation public procurement.

Even though Italy does not possess a permanent authorized competence centre for innovation procurement, the national purchasing body, CONSIP, by taking part in the EU-funded project "Procure2Innovate - European network of competence centres for innovation procurement", acts as a national competence centre for innovation procurement in Italy in the framework of the project.

The Ministry of Education, University and Research (MIUR) is another actor disseminating the importance of the public sector as a procurer regarding research and innovation. Assisted by external professionals and at a regional level, the Lombardy region is holding a principal role on innovation public procurement and more specifically for PCP & PPIs having settled a universal policy Regional Guidelines and Governance Framework, under the legislation *Regional Law n.29/2016 "Lombardy is Research and Innovation"*. The region was able to promote the usage of innovation procurement in the health sector establishing this way a regional competence centre.

Market consultations are regulated under national law in a specific procedure called "expression of interest". In order to define the parameters of the tender the contracting body inquires for prices and documents available on the market. When a tenderer contacts the contracting authority outside of this specific procedure, it must be declared in the tender documents.

Any country affiliated to the WTO Government Procurement Agreement can participate in the procurement process in Italy. Purchasing technologies owned by companies from foreign countries is not restricted by national regulations, but in such a case all legal details must be provided. Joint procurement with procurers from other countries is allowed under national legislation and is referred to as "temporary business clusters".

In the last 2 or 3 years, challenging an award in a court did not postpone the award of contracts. This is caused by the fact that the appeals are expensive and long. The contracting authorities proceed with contract execution regardless of the ongoing appeal. A very important problem in realisation of a contract is the duration of a tender procedure, which usually takes around 6/7 months from the tender release to the contract awarding.

NETHERLANDS

In the Netherlands, the alteration of the EU public procurement directives 2014/23/EU, 2014/24/EU and 2014/25/EU were incorporated under the public procurement law since July 2016. The Defence directive 2009/81/EC was also incorporated in the national legislation by the defence and Security Procurement Act (28/01/2013).

R&D service where results and the costs are shared between the CA and the supplier, are exempted from the scope of application of the Dutch Public Procurement Law (Aanbestedingswet 2012). However, PCP is not explicitly mentioned in this regulation. Since 2013, the national Action Plan has been set in place in order to

reinforce innovation procurement (Innovatiegericht Inkopen) in the Netherlands. The Department for Innovation and Enterprise which falls under the jurisdiction of the Dutch Ministry of Economic Affairs and Climate Policy reassure political commitment on innovation procurement.

The national competence centre for public procurement is PIANOo, which is the entity aiming at implementing innovation procurement and motivate governmental bodies to incorporate innovation thought their procurement activities. The entity also works as a network forum and dissemination platform at national and international level. The last two activities are substantially important in the Netherlands since the majority of public procurements are taking place at regional and local level. Other key actors are the Ministry of Interior and Kingdom relations, in charge of digitalisation involving an action program for innovation procurement in the area of ICT and the Ministry of Infrastructure and the Environment which is responsible for disseminating the Dutch Sustainable Procurement Action Plan.

For innovation procurement in the Netherlands, regional and urban administrations spend about fifty-seven percentage of their total procurement budget whereas national authorities spend around thirty percentage. Some cities are a step ahead in innovation procurement such as Eindhoven in procuring innovative street lighting, Rotterdam in procuring innovative solution in transport, and Amsterdam in innovative solutions for digitalization of their services. On national level procurement is implemented in the defence and security sector, and several infrastructure projects such as the construction of national roads, bridges and public buildings.

The Dutch regulation on public procurement indicates the possibility to conduct a market consultation prior to the launch of the procurement. The public knowledge institute Pianoo has developed guidelines for contracting authorities, in order to effectively deploy market consultations. A good evidence that market consultations are being correctly implemented and no disputes arise is that there are no court cases related to a conducted market consultation since 2016.

The Dutch legislation does not limit the purchase of technologies from specific countries, nor does it mandate the performance of R&D contracts on the country's territory.

A 2012 Law allows contracting authorities to conduct ad-hoc joint procurement with other procurement entities from EU countries. The Law mandates the contracting authority to sign a joint procurement agreement with the other procurers, which outlines the roles and responsibilities of each participant and the national legislation that will be applicable to the joint procurement.

An advantage of the Dutch regulation is that unsatisfied bidders have a concrete and quick procedure at their disposal (kort geding) where the court releases a decision within 2 weeks from filling a claim.

BELGIUM

The public Procurement Act, which came into effect on June 17,2016 (later included some additions), administers public procurement in Belgium. The Act, coordinate public procurement activities including all types of public procurers and incorporated into national legislation all the EU public procurement Directives 2014/24/EU, 2014/25/EU, 2014/23/EU and 2009/81/EC. Procurement in Belgium, which is a federal sate with decentralised authorities, is distributed between the central government and three regions: Wallonia, Flanders, and the Brussels-Capital Region. Procurement Law, at the federal level, regulate public procurement whereas each region possessing a specific level of flexibility for illustrating and implementing legislation. The three regions as well as the provinces, the municipalities and other public bodies where five thousand contracting authorities exist, are possessing a level of procurement authority which is distributed by the Belgian federal system.

The main entities in the federal public procurement system are the Federal Public Service Chancellery of the Prime Minister, the Central Procurement Body for the Federal Services, and the Purchasing Advice and Policy Unit (ABA-CPA). The Federal Public Service Chancellery of the Prime Minister is in charge of the development,

management, and supervision of public procurement legislation as well as the formation of e-procurement. More precisely, the Chancellery acts as the secretariat of an expert advisory entity consisted of representatives from the federal authority, federated entities, public corporations, supervision bodies, and representatives of businesses and trade unions. The country has a Central Procurement Body for the Federal Services (CMS-FOR) which includes eleven sector dedicated departments.

With the provision of guidance to purchasing entities, the federal workers are supported in the contracting procedures through the support of the ABA-CPA. Lastly, the Federal Public Service Policy and Support (BOSA) provide assistance in multiple areas, regarding public procurement. Even though there is not a dedicated policy, plan or initiatives in relation to innovation procurement at a national level, some efforts can be found at the federal level since a national competence centre regarding innovation procurement is under development. Nevertheless, at regional level and more specifically in the Flemish region, there is an advanced policy and legal framework regarding innovation procurement.

The Programme for Innovation Procurement (PIO) was implemented by the government, which consists of a structured and detailed plan for monetary support and assistance for local contracting authorities to implement innovation procurement. The Wallon region has recognised the importance of innovation procurement, without having yet developed a dedicate plan. From 2018, the Brussels region has also been engaged in innovation procurement and at a local level the cities of Ghent and Antwerp are the most active ones having set a spending target of 10% for innovation procurement.

The Belgian procurement law clearly regulates market consultations, stating the necessity of reassuring transparency. It also includes provisions on how a public procurer should act in case an economic operator has taken part in the previous market consultation.

Joint procurement is explicitly regulated in the Belgian legislation at national level and international levels.

Finally, even if PCP is exempted from the Belgian regulation, there might be potential major delays if one of the bidding companies challenges the award decision in court. In this case, the potential impact differs on the time that the procedure is challenged.

FRANCE

In France, the Order no 2015-899 of 23 July 2015 on public procurement and the Order no 2016-360 of 25 March 2016 which incorporated the EU procurement Directives (2014/24/EU, 2014/23/EU, 2014/25/EU), consists the innovation procurement legal framework in the country. The Decree no. 2011-1104 (14 September 2011) incorporated into the national procurement legislation the EU Directive on defence and security procurement (2009/81/EC).

Since France is quite a large country with a semi-decentralised structure, the public procurement system is defined by the involvement of a large number of contracting and supervision entities. France is possessing the highest number of procurement procedures each year within the EU whereas most of these contracts are public works performed at local and regional levels.

The Ministry of Economy and Enterprise and the Directorate of Public Procurement (DAE – by the Minister of Finance and Public Accounts) are the principal entities evolving innovation procurement policy at the central level. The first one, is responsible for leadingthe development of public procurement legal framework, whereas the latter is in charge for the definition and implementation of public procurement policy under the supervision of the Prime Minister. The DAE performing its activities in connection to the Directorate General for Enterprise (DGE) and the Directorate of Legal Affairs of the Ministries of Economics and Finance (DAJ).

At the governmental level, the principal entities for the procurement policy implementation are the Secretaries General of the ministries which are in charge for procurement organization as well as for proper implementation

of procurement policy into the Ministry. For central authorities and hospitals, the principal procurement entity is the Union of Public Purchasing Groups. The Prefects, at regional level, are responsible for application of public procurement policy as well as the administrative aspects of the procurement via regional procurement platforms. Further, procurers' knowledge and assistance in sourcing activities is implemented through the contact point which is the Regional Directorates of Enterprises, Competition, Consumer Affairs, Labour and Employment (DIRECCTE), providing a significant contribution to France's innovation procurement framework. DIRECCTE established also the budget target of two percent of the total procurement budget of national State level contracting authorities to be distributed for innovation procurement contracts awarded to innovative SMEs (Small and Medium Enterprises).

PCP is not under the scope of French legislation on public procurement. The legislation distinguishes between innovative solutions and solutions that are not available in the market and would require R&D.

French procurement legislation includes the deployment of market consultations broadly in order to provide flexibility to adapt to different contexts. Flexibility and freedom for the deployment of such procedures is left to the public procurer depending on his needs, time and availability.

Moreover, TFEU applies when it comes to purchase technologies owned by companies from specific countries or other EU countries. In this context, tenders should be left open Europe-wide and cross-border or transnational interest must be taken into account.

Finally, cross-border joint procurement is encouraged by the legislation by encouraging contracting authorities to explore the possibility of a cross-border shared need. The creation of "transnational joint entities" is also regulated.

ESTONIA

The Public Procurement Act (PPA), which transferred the EU procurement Directives (2014/23/EU, 2014/24/EU, 2015/25/EU) and the Directive on Defence Procurement (2009/81/EC) into the national legislation, regulates public procurement in Estonia whereas the government supplies are governed with multiple regulations. The governmental system is Estonia is highly centralised and a substantial part of the budget for public procurement is used by the central government which is considered to have the biggest proportion of procurement expenditure. In addition, Estonia is usually characterized as a promptly and effective in the implementation of e-procurement.

The Ministry of Economic Affairs and Communications is also a principal entity regarding innovation procurement, and is in charge for public procurement policy, undertaking key activities such as law drafting, administration and consulting. The Ministry also established innovation procurement objectives within its national policy as part of the wider entrepreneurship and innovation strategy (Estonian Entrepreneurship Growth Strategy 2014- 2020").

Further, Enterprise Estonia (EAS), supports the Ministry and is a public entity developing business and regional policies and is responsible for multiple capacity -building activities regarding innovation procurement as well as administrates a financial support scheme, set up in 2016, that co-finances Estonian public procurers to develop and administrate innovation procurement. "Estonia 2020", "Sustainable Estonia" and "Estonian Entrepreneurship Growth Strategy 2014-2020" are the three key strategies which identify the role of public organisations as a first customer for innovation.

Finally, multiple development national plans, both sectorial or horizontal contributes either directly or indirectly to this objective.

2.2. TYPES OF INNOVATION FRIENDLY PROCUREMENT PROCEDURES

Research analysis revealed the available procurement procedures that are classified as innovation friendly ones. While formulating a procurement procedure it is crucial to take into account whether the contractual volumes are above (AT) or under (UT) the EU threshold in order to select the appropriate procedure as analysed below.

Primarily, there are six distinct options:

1. Public (UT) and open tender (AT): This is the principal standard procurement procedure. 2. Negotiated award (UT) and negotiated procedure (AT): These procedures are characterised by the potential to accommodate the procurement to the specific features. In the process of a pre-ongoing competition open to all bidders, new solutions to procurers could be generate through bidders. 3. Competitive dialogue: Competitive dialogue can be implemented in complicated contracts as the requirements in discussions with several suppliers are functionally described. 4. Pre-Commercial Procurement (PCP): Is implemented for the procurement of solutions that are not available in the market. 5. Innovation partnership: This recent procurement procedure associates the award of a development contract with the actual procurement which leads to the establishment of a long- term partnership between the company and procuring authority.

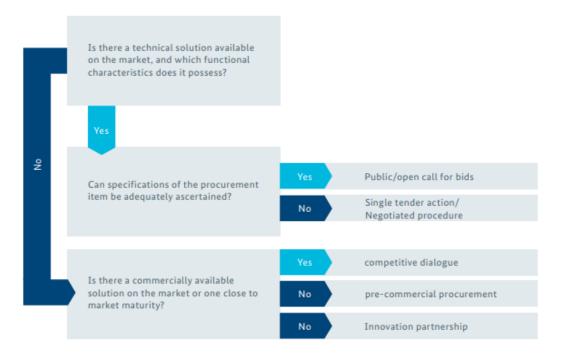


Figure 2: Decision Tool for selection of Procurement Procedure

Another instrument that can be used is the Public Private Partnerships (PPP). For the selection of the most suitable form of award in PPPs, principal questions are asked to the industry representatives followed by the market research and consultation. PPPs are contractual arrangements signed among private entities and public institutions and are mainly used for large infrastructure.

NEGOTIATED PROCEDURE AND NEGOTIATED AWARD

For contracts above the EU threshold values, the negotiated procedure is selected. In more detail, this is a procurement procedure setting the activity of the contracting authority to approach one or multiple selected companies to negotiate based on a pre-existing defined list of services in the context or not of a call to tender.

The main advantage from implementing such a procedure is that negotiations with the bidder are generating advanced and innovative aspects and hence, negotiated award. Under that aspect, shortfalls and high demands can be improved and high expectations can be met. Furthermore, innovation procurement potential is increasing by the nature of the overall procedure.

COMPETITIVE DIALOGUE

The competitive dialogue is the process where all the chosen companies are involved in a series of discussions regarding all the aspects of the tender. The aforementioned procedure according to market research, provides a flexible solution when issues arise such as inadequately described technical specifications or when financial and legal framework are not clear. During the analytical discussions with potential bidders, an in-depth understanding of contractual aspects, challenges and the specific demands of the procuring entity take place. The objective of the competitive dialogue is to consolidate all market information into the final description of services in order to respond to the demands of the contracting authority in the most efficient way. In the development of innovative solutions, such procedure between parties provides a methodical and practical approach in the formulation of the procurement documents. During the whole procedure, the following aspects are identified:

- This process demands experienced personnel to handle it and more time than conventional procedures.
 Moreover, it requires more resources since a dedicated project team or even external support is necessary.
- The dialogue phase demands substantial investment in time from the participating players. In times where it seems appropriate, there should be legitimate coverage for this, nevertheless, this should be set clearly during the implementation of the dialogue.
- To respond to bidders' considerations in relation to confidentiality issues that can arise (intellectual property, disclosure of sensitive data) and equality, mutual non-disclosure agreements could be signed.

ADVANTAGES

Competitive dialogue should be implemented in complicated markets or in solutions which are challenging to evaluate, where, for example, it is not easily defined what the market provides in terms of technical, financial or legal aspects. More precisely, regarding large innovative projects, which can be for example the installation of transport system. Since procurement specialist do not often conduct a comprehensive market research, this process is highly beneficial regardless of its complication.

INNOVATION PARTNERSHIP

The EU public procurement law (Dir/2014/24/EU, Art. 31, introduced a new procurement process identified as the Innovation Partnership. It is specifically designed, for the development and procurement of innovative products, services and works that are not yet available on the market. Thus, there is no need for a distinct process for the purchase, as is the case for pre-commercial procurement (PCP). Between the company and the contracting authority, a continuing partnership is built. Company's objective is to bring a product to the market, introduce it and constantly develop it.

As usually, before the tender process there is a call to tender. A bid is required by the selected companies for the first round of the tender. Following, a negotiation between the bidders and the contracting authority on the initial bids will take place and afterwards the procurer requests the follow-up bids. The objective is to alter and make better the bids in terms of the way they address the tender challenge. When the final bid will be accepted

by one or more bidders, the innovation partnership will be implemented. It has to be noted also that award of a tender only taking consideration the lowest price or lowest cost is not foreseen.

ADVANTAGES

For products and services that are not available in the market yet, the innovation partnership assists the contracting authority in their procurement strategy. Hence, research and development actions from a possible bidder may arise because of a current issue or of a non-settled challenge and assisted by the said procedure. Nevertheless, this process is only ideal for complicated products and services because both aspects demand expansion of resources and the various tiers are time-consuming.

PRE-COMMERCIAL PROCUREMENT (PCP)

Pre-Commercial Procurement (PCP) is the call for bids for R&D services. The objective is the development of innovative products and services which takes place in three stages, during which the competition between the participating companies leads to the identification of several solutions addressing the same need. In this regard, through PCP vendor lock in is avoided.

During the research and development phase, the contracting authority possess the option to choose the ideal solution between various bidders. The research and development phase could possibly happen in multiple stages: for example, there can be six initial bidders competing among them in the concept-building stage and after the end of the said phase the selection only three bidders could evolve to a prototype. Lastly two bidders could pass to the third phase where the prototype will be tested in real operational environment and be financed to conclude with a marketable solution.

The procurement process of a PCP, could generate the decision to purchase the R&D outcome by selecting the most suitable solution. However, there is the possibility to search for a totally different solution outside the PCP procedure. The procurement of the R&D phase and the procurement of the actual products are legally independent. In contradiction, the innovation partnership award a contract to only one bidder or one bidding consortium that is a "partner" in the development phase and the procurement procedure.

PCP is a tool for promoting innovative, adequate, and continuous public sector provision and not a procurement process in a strict way. The principles of transparency, non-discrimination and equality must be taken under consideration (European state-aid rules applicable). Additionally, it is important to highlight that the PCP procedure depicts the typical stages of a product innovation cycle. There is a separation between the R&D activities and the purchase of the subsequent commercial products. Intermediate evaluations are implemented for the each of the three phases. In that way, risks are eliminated, and the most suitable solutions are chosen.

The bidder and the contracting authority are sharing both the risks and the benefits of the PCP on market conditions. The contracting authority does not acquire the rights of use of R&D results since it passes them to the bidders within the framework of the PCP along with the obligation for the commercialisation of the solution. A future call to tender (Procurement on Innovative Solutions – PPI) may take place for the actual procurement and commercial exploitation of the new product solution.

ADVANTAGES

All along PCP refers to the procurement procedure where multiple bidders evolve a solution. The contractors are filtered out during several intermediate stages subsequently revealing the best bidder. PCP decrease the risks of the procurement in the public sector since the developers hold a substantial proportion of the cost because they have the option to promote their solutions elsewhere if they do not succeed in the competition. Thus, development costs potentially do not exceed the financing of one developer.

PUBLIC-PRIVATE PARTNERSHIPS

A cooperative arrangement between two or more public and private sectors, primarily of continuous nature is defined as a public–private partnership. More precisely, it includes government(s) and business(es) that collaborate in order to complete a project and/or to provide services to the general public. In various countries public-private partnerships have been adopted and are principally implemented for infrastructure projects, such as building and equipping of schools, hospitals, or transport systems. As funding instruments PPPs have been substantial controversial, mainly because the public return on investment which is considered lower than returns for the private funder. The inadequacy of shared understanding regarding PPP and the confidentiality about its financial details, makes the process for evaluating, whether PPPs have been successful, complex.

PPP on the other hand promotes the distribution of risk and the evolvement of innovation, while on the other hand critics highlight its higher costs and issues of accountability. In terms of value for money and efficiency, evidence of PPP performance is complicated and sometimes non available.

ADVANTAGES

- Guarantee the effective investments and usage of the public resources into public sector;
- Guarantee high quality;
- More investment projects are taking place in due terms and do not include unforeseen expenditures;
- Private entities can obtain a long-term remuneration;
- Private sector expertise and experience are capitalised from the public sector;
- The PPPs' risks allocation enables the reduction of the associated expenditures.

2.3. FINANCIAL TOOLS

FAST TRACT TO INNOVATION

Close-to-the-market innovation actions open to industry-driven groups which can be consisted of any type of participants are promoted by the Fast Track to Innovation (FTI), a fully-bottom-up innovation support programme which can assist partners to co-create and test breakthrough products, services or business procedures that could possibly alter existing or generate completely new markets, under the helm of the Enhanced European Innovation Council (EIC) pilot.

The FTI's goal is to:

- Decrease time from idea to market;
- Encourage the participation of first-time applicants to EU research and innovation funding;
- Escalate private sector investment in research and innovation.

EIC ACCELERATOR PILOT

As part of the Enhanced European Innovation Council (EIC) pilot, start-ups and SMEs that are located in one country inside the European Union or are established in a **Horizon 2020** associated country, have the opportunity to receive EU funding and assistance for advanced innovation projects with a market-creating possibility.

The Enhanced EIC pilot provides grant support along with grant in combination with equity investment. The Enhanced EIC funding can rapidly increase company's development and innovations that can create new markets. Further, it will assist the progress of development of innovation entities by giving them access to Business Acceleration Services.

The EIC Accelerator assists high-risk, high-potential innovative SME's which are eager to evolve and commercialise new products, services and business models that have the potential to increase economic growth and generate new markets or disrupt the current ones in Europe and all over the world. Full-cycle business innovation assistance is provided by the EIC Accelerator pilot.

EU FUNDED PCP/PPI

EC has recognised the importance of innovation procurement and more specifically PCP/PPI and several funding opportunities have been set in place in several funding schemes. In this context the EU's research and innovation programs FP7, CIP, EASME, and Horizon 2020, as well as the Horizon Europe have been funding projects in which groups of procurers from different countries around Europe are jointly implementing Pre-Commercial Procurement (PCP) or Public Procurement of Innovative Solutions (PPIs), as well as coordination and networking projects that prepare the ground for future PCP or PPIs. A limitation in some of the abovementioned funding opportunities may be the innovative procurement selection as it is predefined is several cases.

NATIONAL INITIAVES

SWEDEN

In Sweden, there are established financial motives, in the form of grants, to motivate public procurers to engage more in innovation procurement and they can be used for all types of innovation procurement (both R&D procurement, incl. PCP, and PPI). Moreover, these grants are applicable to all types of public procurers in all sectors and levels of government. The monetary incentives are accessible for procurements that have been financed by EU funds and that are not eligible for EU co-financing. Nevertheless Sweden, has not activate specific funds for innovation procurement.

More precisely, under distinct programs, Vinnova since 2011, has financed innovation procurement. Vinnova provides financial assistance in contracting entities which are interested in all forms of innovation procurement. Currently, there is a specific programme called "Innovation procurement" that is created to provide monetary funds to strategic investments and applications, having access though only by invitation. During the years, the amount of money invested for innovation procurement differs, however, the total amount spend per year in average is approximately one million euros.

Among the projects receiving funding are PCPs, PPIs and coordination activities, pre-studies and procurements in pre-procurement purchasing groups. The motivation of research regarding public procurement and the advancement of qualitive and quantitative evolvement of innovation procurement, is driven through the Swedish Competition Authority (Konkurrensverket), together with the Council for Research. The two entities provide funding for research projects and seminars.

Vinnova by providing monetary funds is assisting the implementation of innovation procurement projects. Further, in a collaboration with the Swedish Association of local Authorities and Regions (SALAR), UHM and Vinnova promote innovation procurement at local level by providing funds and stimulating purchasing groups of local and regional authorities. Moreover, Kammarkollegiet assists innovation procurement through framework agreements for national, regional, and local authorities. Nevertheless, national authorities have to use national purchasing entities whereas regional and local authorities have the option to use them voluntary. VINNOVA assistance achieved to successfully generate the implementation of numerous PCP projects.

FINLAND

Currently, the main actor providing funds to innovation procurement is *Business Finland* (previously called Innovaatiorahoituskeskus Tekes), a publicly funded entity for providing funds to research, development, and

innovation at national level, which allocates monetary funds for 40-50% of the project's total costs and providing funds to all types of innovation procurement (like PCPs and PPIs).

With a total budget of eleven million euros, seventy innovation procurement projects were funded covering a wide number of themes such as digitalisation, energy efficiency, transport, security, health, and environment via the Tekes Smart Procurement Programme, which run between 2013 and 2016. The programme motivated public buyers to implement procurements to address societal problems, renew public services and develop market access for new products and services. Business Finland through the funding that provides is creating a path for innovation procurement. The incentives schemes do not depend on the European structural and investment fund since they are being funded via national funds.

The competence centre for innovation procurement is KEINO and Business Finland since 2009 supports via financial incentives Finland's public procurers to engage in innovation procurement. Further, it assists in the participation of the cities of Vantaa and Oulu in the procurers' team of the first EU funded PCP project SILVER.

POLAND

In Poland, specific national financial assistance schemes have not been established in order to create motives for innovation procurement. Nevertheless, there are some resources dedicated for innovation procurement in several Polish operational programmes under ESIF (e.g., in the Digital Poland programme) but they are only in sectors set as specific priorities under ESIF and not designed for mainstreaming innovation procurement widely across all procurers and all sectors of public procurement activity in the country. EU funded ESIF budgets are linked to all innovation procurement in the country since there is no national funding.

NORWAY

The National Programme for Supplier Development was established to increase R&D and evolvement of new products via the strategic implementation of public procurement, while simultaneous provide to new market opportunities for these innovations and increase procurers' competences regarding innovation procurement. It targets on new possibilities supporting both public procurers and suppliers via innovation procurement. The program which was created in 2010 for a period of five years and was launched again until 2019, is a combined cooperation from three entities representing both the public and private sector:

- 1. Agency for Public Management and eGovernment (Difi) assisting in the development of instruments and guidance on public procurement and especially on innovative procurement;
- 2. Norwegian Association of Local and Regional Authorities (KS) is acting as the linking point among local and regional procuring authorities and support actors towards innovation procurement. It assists in the provision of outcomes regarding strategic areas as a programme to follow (e.g., upcoming procurements which may have a significant potential for climate-smart solutions) and systematically shares lessons learned
- 3. Confederation of Norwegian Enterprise (NHO) is the linking point with the private sector.

Buyers with a mutual needs and challenges are brought together by the programme in particular local authorities like cities and counties from across Norway. With the implementation of this, the demands are identified jointly and afterwards the market and relevant suppliers could jointly discuss on how to resolve this via joint procurement procedures.

The programme also is working as a broker and coordinator in joint procurement initiatives. It can assist in the progress of financial motivation for procurers for pilot innovation procurements. Top-up EU funds like ESIF are not implemented by the programme since its only use national funds.

Finally, in Norway there is a jointly force generation regarding 'green' innovation procurement whereas cities and municipalities are cooperating to challenge jointly the market to generate innovative green solutions. The group includes Oslo, Bergen, Kristiansand, Trondheim, Turku, Göteborg, Kaarina, Gladsaxe and Orebro.

GREECE

For innovation procurement, in Greece there are not any monetary funds or other types of incentives to motivate public procurers.

LITHUANIA

In Lithuania, the provision of financial incentives regarding innovation procurement is made through the LVPA, which is basically in charge of EU-related funding whereas MITA is providing incentives via national funds. Via EU ESIF funding schemes, Lithuania is promoting PCPs providing funds. The reception of funds is depending on the stage that each contracting authority starts PCP. LPVA is distributing the funds from ESIF. More precisely, with a budget of twenty-nine point thirty-six million euros, the measure "Pre-commercial procurement LT" ("Ikiprekybiniai pirkimai LT"), LPVA is providing the contracting authorities financial incentives for up to 90% of all eligible costs, and for a maximum project amount of two million euros. Projects receiving funds via the aforementioned measure, are identified as state planned projects whereas the Ministry of Economy and Innovation and MITA are also taking place in the award process. However, in cases where the candidate's PCP value is exciding one million euro, then the Council on R&D&I of the Government is participating also in the selection procedure. Since the financial incentives does not include all the types of innovation procurement and are not suitable for large scale procurements, only ESIF (no national) funds are being used for such cases.

The Lithuanian Agency for Science and Technology MITA (national competence centre for innovation procurement) provides financial assistance measures for innovation procurement in the country. The goal is to spend a 5% share of innovation procurement out of all public procurement in the country. Guidelines for PCP are developed from the Ministry of Economics whereas the MITA assisting Lithuanian procurers to begin PCP procurement via co-financing.

In 2016, the Ministry of Defence begun a PCP in order to generate a day/night surveillance device. Nevertheless, the action was not completed and paused on phase two due to the lack of available solutions that meet the end users' specific demands.

SPAIN

In Spain, financial motivations are only available to projects that can receive funding from the EU ESIF program, as in the priorities of the country and emphasises only on specific sectors such as health and security. Other types of public procurers and procurements in Spain do not receive financial incentives as well as projects that can receive funding from **Horizon 2020** and projects which are not eligible for ESIF funding. The domain of health has been more advanced in such procedures, and thus more innovation procurement have been implemented. Financial incentives are fostered under the INNOCOMPRA-FID programme and are funded via ESI funds through ERDF financed FID (Fostering Innovation through Demand).

For the implementation of innovation procurement at the national, regional, and local levels of public bodies, specific assistance has been created in the basis of grants or loans. Further, forecasting regarding innovation procurement is also a task of the Regional Smart Specialization Strategies (RIS3). Andalucia and Galicia are the two most active regions. Additionally, except the financial incentive, loans generated from national budget are offered to procurers in Spain. The amount covered by the loan are in the case of PCP maximum of 50-85%, and for other typed of innovation procurement maximum of 70%.

For financial incentives provision to public procurers regarding innovation procurement, the Spanish government in 2011, established a law enclosing PCP and PPI into the Spanish strategy for research and innovation. This action, contributed to multiple PPIs as well as several PCs to be implemented.

FRANCE

Regarding innovation procurement, in France there are not available any type of incentives either financial or personal to motivate public procurers to undertake further innovation procurement. Central government authorities are obliged to implement innovation procurement roadmaps based on the French approach whereas regarding public procurement spending of innovation procurement on national level target to 2%.

BELGIUM

In Belgium, there are only some incentives to motivate public procurers to implement more innovation procurement at regional level whereas at national there are not any kind of incentives. More precisely a 29% score for this indicator is generated due to the available incentives are not applicable for all procurers in Belgium and hence, substantial mainstreaming of innovation procurement cannot take place. Further, innovation procurement in the country is also mobilized through the available ESIF funds, whereas the Flemish region has established financial incentives in order to motivate public procurers to implement further innovation procurement activities. However, the score of this indicator proves that procurers in the country are not covered from financial incentives as well as personal incentives are not predicted.

The Flemish legislative framework for co-financing research and development is aligned with the Flemish financial support for innovation procurement. The PIO programme (the Programme for Innovation Procurement of the Flemish government) supports the necessary activities for the implementation of innovation procurement from the staffing procedures of external expertise, the procurement of R&D development services, the implementation of the testing procedures to the costs for the organisation of market consultations. The total budget of PIO annually is five million euros. There are not funds for the purchase of the innovative solution alone since the procurement funds are sponsored from public procurers. Further, there are local targets such as the Ghent city, which in 2014 set a goal to spend 10% of it is annual ICT procurement budget to innovation.

NETHERLANDS

For innovation procurement in the Netherlands, there are not available national or regional financial incentives for all public procurers to apply for funding. Some financial incentives for public procurers in the sectorial High Water Protection programme have been set in place but they cannot be combined with other EU funds and are not available to any kind of public procurer in the country since they are available only to those related with the high-water field and finally, are not designed to incentivize large scale implementation of innovation procurement. The Ministry of Infrastructure and Water Management through the High-Water Protection scheme, definite predict financial incentives to motivate public procurers in the water sector to get involved into innovation procurement: for regular procurements, the co-finance offer is 90% whereas for procurements focusing on research and development is 100%.

ITALY

In Italy, financial incentives are only available at regional level since at national level there are not any kind of incentives to motivate public procurers to get involved in innovation procurement. A Funding Programme for PCP/PPI funded via the Cohesion Action Plan was established from the Inter-ministerial Directorial Decree (DD) number 437 of 13th of March 2013. Four convergence regions, Calabria, Campania, Puglia, and Sicily are covered via the intervention. In Lombardy and Sardinia, other relevant regional initiatives exist via the ESIF since both regions have established calls for interest to gather innovation demands from public procurers in the region.

As a result, in Italy financial incentives are not available in all the country and to all types of innovation procurement. In contradiction, financial incentives which are only funded via ESIF finds are applicable in some regions focusing mainly on innovation procurement under the health sector.

ROMANIA

For innovation procurement motivation, Romania has established financial incentives on the basis of grants to trigger public procurers. The financial incentives are available for all kind of innovation procurement both research and development procurement, including PCP and PPI and are applicable to all public procurers in any sector and level of government utilizing ESIF and national funds. However, the provision of incentives in large scale implementation of public procurement is not covered. In particular, the public procurers may undertake innovation procurements within the following programs:

- Competitiveness Operational Programme (co financed through ESIF);
- The National R&D and Innovation III Plan for the period 2015-2020 (co-financed through national budget).

ESTONIA

In Estonia, even though financial incentives are available to motivate public procurers to get involved further in innovation procurement, these are mainly funded though EU funds since national funds are not available for this purpose. Further, only a small amount of pilot projects is assisted and thus, wide scale implementation cannot be achieved. The Estonian wider Entrepreneurship Growth Strategy, which supports innovation procurement ('the public sector as a smart customer') is implemented by the Estonian Ministry of Economic Affairs and Communications. Enterprise Estonia (EAS) was also assigned to coordinate a twenty million scheme, co-financed by ESIF in order to assist public procurers in the country to get involved further with innovation procurement. The aim of this measure was to motivate contracting entities to alter their procurement procedures to support innovation.

The twenty million supportive scheme was divided in two large groups of actions: 1) Around 2 million euro devoted to general awareness raising, knowledge sharing, workshops, consultations, etc. 2) The remaining 18 million euro provides co-financing for Estonian public procurers. The maximum amount of money which an innovation procurement project can receive, after meeting the criteria set, is 500,000 euros, whereas the maximum support in percentage of the project cost is 50%. All stages of the procurement procedure are assisted, from the identification of the demands until the completion of the contract.

Finally, in 2015 with the establishment of the strategy "Public Sector as a Smart Customer" established the role of EEA (Enterprise Estonia) as innovation procurement centre, which administrates a financial support program for Estonian public procurers to start PCPs and PPIs with funding also from the European Structural Funds.

GERMANY

There is not any financial assistance on a national level in Germany.

ZENIT GmbH has been active as a competence centre for public procurement of innovation in North Rhine-Westphalia (NRW) since 2012. It assists the Ministry to integrate PCP and PPI into the innovation and research strategy of the Land NRW and gives in-depth consulting services to public procurers. Furthermore, ZENIT GmbH offers support in cross-border innovation procurements between German procurers and procurers from other EU countries.

However, regional public procurers are assisted via the North-Rhine Wrstphalia approach to participate in EU funded PCP and PPI projects by being financed with up to maximum of 200.000 euros. Projects that are funded

via **Horizon 2020** and ESIF funds in synergy, including PCP and PPI, are started from ZENIT appointed by the region.

PORTUGAL

In Portugal, there is no established formal political framework for the setup of innovation procurement requirements relating to financial support.

3. RECOMMENDATIONS FOR PROCUREMENT

3.1 EXAMPLE OF PROCUREMENT CASES

BENCHMARK CASES

Procurement of government stamps in Sweden/2018

In 2018, the police authority in Sweden held a procurement of government stamps. It was an open procedure under the Law of Public Procurement. The agreement is valid for a total of 4 years, and it is valued at around 2.000.000 SEK.

Hardware and Software procurement in Greece/2020

In 2020, the IT Department of the Hellenic Police held Hardware and Software procurement. The aim of this procurement was to upgrade the infrastructure of the primary information system of e-mail to meet the needs arising from the implementation of security measures due to the COVID-19 pandemic. The contract was regulated by Law 4412/2016, and it took place in the three months following its signing. The value of the tender equalled 74.269,80 euros. The process was successful because of its short duration. In similar cases in the future good market research is required together with targeted technical specifications.

Problems in a public procurement process mostly arise when: contracting authorities during the design of the electronic competition choose incorrect parameters in the relevant fields of the online system forms; there is an irregularity conduct of the award procedure; economic and technical parameters related to the award procedure have changed substantially and the performance of the contractual object is no longer of interest to the contracting entity or the entity for which the contracted object is intended; force majeure appears and the normal performance of the contract is not possible and when the tender is deemed "not economically advantageous".

<u>Development of the National Ecosystem for the Recognition and Analysis of the Information Effect Phenomena</u> (NAAS)-Lithuania / 2020-2023

In the years 2020-2023, General Jonas Zemaitis Lithuanian Military Academy together with Mykolas Romeris University is conducting the procurement titled Development of the National Ecosystem for the Recognition and Analysis of the Information Effect Phenomena (NAAS). The NAAS pre-commercial procurement aims to create an efficient and modern ecosystem of science and studies enabling higher education institutions to train public security specialists and carry out research activities, including information security, information, and hybrid threat analyses, integrated (Internet and kinetic) information space monitoring and analysis of potentially criminal content. The ecosystem will integrate a concept model, methodological base, and measures to implement the vision of modern studies, thus enabling a direct cooperation between education institutions and participants to those cooperative activities.

For this purpose, it is planned to develop the National Science and Studies Platform for the Recognition and Analysis of the Information Security and Information Threat (NAAS). The newly developed ecosystem integrating technological, software and methodological instruments is intended for training the specialists of integrated electronic and physical space analysis and scientific research. The ecosystem will contribute greatly to more effective mitigation of the impact of hybrid threats at the national and international levels and ensuring public security. The procurement is held under the Lithuanian national regulations. Its value equals 1.704.550 euros.

The procurement proved to be successful thanks to the communication between Contracting Authorities and suppliers. Constant organization of meetings with suppliers in order to give them the ability to discuss implementation of the PCP is very important.

Supply of Xray Scanner in Salerno Airport / 2019

In 2019, the Salerno Airport conducted public procurement of X-ray Scanners. The process was regulated by the Legislative Decree no. 50/2016 and some specific regulations, and it was under the procedure of Supply and Maintenance. The tender lasted five years and its value equalled 380.000 euros. The tender was successful as the company providing the solution was the only one offering equipment with required certifications. This case proves that investment in research and development enables production of the best solutions on the market.

PPI4HPC / 2020

PPI4HPC is a joint procurement project in which five research bodies aimed to buy innovative high-performance supercomputer and an innovative high-performance storage system for science and engineering applications. The goal was to achieve a significant upgrade of the European high-performance computing (HPC) infrastructure towards future systems.

The joint procurement led by GENCI, the French public company in charge of providing high-performance computing and processing data, was organised in four independent lots leading to the awarding of contracts for systems that have meanwhile or are being deployed at four different research sites throughout Europe. Drawing from several previous pre-commercial procurement (PCP) developments, this procurement resulted in an ongoing improvement of computing and therefore research capacity. By doing a joint procurement, the consortium was able to pose high demands on an evolving market and reap the outcomes of prior PCP processes.

MALMÖ SWEDEN/2019

The procurement was related to innovation in ICT procurement to promote sustainable and fair supply chains. City of Malmö found that the way they traditionally purchased ICT equipment did not meet their sustainability ambitions. They therefore looked for a strategic partner who could help improve their purchasing practices and leverage the City's spending power to drive changes in the ICT market.

Through a market dialogue procedure, they invited ICT resellers to propose a framework for ensuring any equipment purchased by the city met the highest sustainability standards. Bidders were also asked to propose solutions for the recycling of obsolete ICT. Finally, the tender criteria invited them to commit to take part in regular discussions with the city on the topic through a dedicated Sustainability Forum.

The exercise was successful, making the arrangement between Malmö and its strategic partner the first of its kind in Sweden. Thanks to this contract, the City now consistently purchases majority of certified ICT products and has recycled over 7,500 obsolete ICT objects. Malmö also takes part in their partner's advisory board, coming together with other ICT users to discuss ways to push the industry towards greater sustainability.

SHUTTLE

Shuttle is a Pre-Commercial procurement project aiming to develop an automated toolkit that would enhance the investigation from crime scenes. The project is currently at the end of Phase 2. The experience was pretty helpful since it is a joint procurement procedure among 6 Member States. Through this approach the contracting authorities managed to express their common interest and procure the development services for its creation. The outcome at the moment seems promising. The problems met in the project are related in finding many suppliers (three bids were received) to develop the actual product and the coordination of the end users in order to express their common needs.

PITFALL CASES

Smart operations management building, 2020

In 2020, the Ministry of Defence of Lithuania procured a smart operations management building. It was a precommercial procurement on creation of a smart operations management building. It was held under the national law and valued at 2.000.000 euros. The execution problem resulted from different interpretation of national laws and different understanding of requirements for PCP between related governmental organizations led to the termination of this PCP. This case proves that the national law should be clear and unambiguous.

SEA - Milan Airport

In 2020, the SEA Milan Airport conducted public procurement of Supply TRS (AUTOMATIC LINES FOR THE HANDLING OF HAND LUGGAGE DURING SECURITY CHECKS). In 2019, the Salerno Airport conducted public procurement of X-ray Scanners. The process was regulated by the Legislative Decree no. 50/2016 and some specific regulations and it was under the procedure of Supply and Maintenance. The tender lasted ten years and was valued at 4.000.000 euros. The problems resulted from the fact that during the installation, the customer asked for some unexpected changes or additions. To avoid this kind of pitfalls in the future an additional margin should be considered in order to manage those kinds of issues.

3.2. SUCCESS FACTORS

Following the input provided by the respondents and the online material available the following were identified as the most commonly reported success factors in a procurement procedure:

• Well defined specifications depending on the type of procurement

In order to assist innovation in the public procurement, several studies reveal that functional rather than technical specifications provided the suppliers with more space to innovate and find new solutions meeting the end user's needs. However, the specifications included in the tender should be targeted enough in terms of describing the end users' needs. The image below summarises the four different options that public procurers have in the description of the tender specifications along with the level of freedom that they leave to the suppliers, the risk that they have and the amount of competition that they produce.

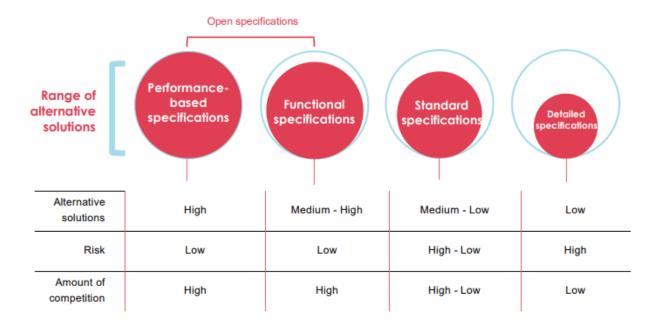


Figure 3: Range of alternative specification types 12

A competition with performance-based specifications is a procurement approach where the organisations articulate their needs in terms of functions, performance levels or performance targets rather than describe how those targets should be reached. So, instead of describing the need in terms of inputs, it is described in terms of outputs. Performance-based specifications are best suited for:

- A strategically important procurement connected to the core business as a means of opening up for new ways of solving key challenges;
- When there is little competition in the market in order to achieve greater competition by attracting more suppliers (from other sectors) with different views on how to solve the challenge set;
- In quickly evolving sectors, where the market experience and expertise are highly desirable;
- Where the baseline is well known, and the organisation sees that there is potential for change/innovation.

Technical requirements are detailed descriptions of how a contractor must conduct a service or deliver a commodity. They are formulated as detailed characteristics of the products or services being purchased. Performance-based requirements make it easier for both the contracting authority and the supplier to put their unique skills to work. The contracting authority can use its expertise to identify the need that must be fulfilled, and the supplier can use its expertise to determine which solutions are better suited to the buyer's specified requirements. Instead of restricting suppliers to the organization's assumed best solution, this type of specification encourages a process where the best solutions can be provided. Performance-based specifications are often used alongside technical specifications in tenders, although they are not mutually exclusive.

Standard specifications are specifications based on standards whereas detailed specifications describe specific details of the product or services to be procured.

• Extensive market analysis prior the tender release

p. 48

¹² https://www.innovasjonnorge.no/globalassets/0-innovasjonnorge.no/subsites/hipnorway/innovation-friendly-procurement-tools 02062020.pdf p. 27

One important step before the actual implementation of the procurement was considered the organisation of a market research. This way, the contracting authorities could have enough information about the available solutions as well as the industry's capabilities in the sector under discussion. Moreover, through this analysis relevant standards and IPRs need to be examined and taken into account in the subsequent procedure. To avoid the risk of distorting competition and to encourage good feedback from the market, below there is a list of recommendations:

- Procurers needs to proactively communicate their needs, requirements and planned procurement setup to all participants in the open market consultation activities;
- The participation of potential bidders in the open market consultation must not affect competition in the future tender procedure. This should be made clear to any communication related to the open market consultation activities.
- Legal assurances must be ensured for the participants' intellectual property rights (IPRs) and trade secrets will be protected;
- It is important to inform potential bidders that the procurement procedure is conducted separately, after the open market consultation, and that all potential bidders are treated equally in those terms. No advantage is given to the Open Market Consultation participants.

It is apparent that both user involvement and market dialogue are important activities in the preparation phase of a procurement procedure, which is explorative process. During the said period, the contracting authorities envisage the desired solution, its exploitation and added value in the organisation compared to an application already available on market. Workshops with supply side can e.g., provide support to the technical dialogue, feasibility check and market scanning for existing solutions. However, few public authorities have well defined models for implementing all the aforementioned steps in the preparatory phase.

Highly skilled personnel involved in the procurement procedure

In this context, modernizing public services via innovation requires a new mix of skills for the involved organisations regarding innovation management alongside the EU procurement. This practically means that the mix of skills involve legal, technical, and economic expertise to develop the business case, conduct the market and the technology assessment, the IP management and the contracting as well as public services performance measurement.

• Time and money margins should be considered. Piloting should be adequate

Successful cases of innovation procurement also report that they considered additional margins, both in time and money, in order to manage issues that may arise. It is also important to provide the market with adequate time and more lead-in to consider and prepare challenging offers. By doing so, companies are able to research and develop new products which meet the innovative specifications in a sustainable manner. Finally, with specific regards to piloting, it is highly recommended to conduct extensive testing of the newly developed solutions leaving adequate time to the end users to evaluate its usage to their daily activities as well as to industry to develop their solution up to the required level.

• Frequent procurer-supplier communication and collaboration

During the contract implementation, effective collaboration and communication between the Contracting Authorities and suppliers has also been considered as one of the factors that can enhance the procurement procedure. In this regards, regular meetings with suppliers are recommended to give them ability to discuss about implementation and development of their innovative solution, as well as resolve quickly any potential problems that may arise.

3.3. JOINT PROCUREMENT PROCEDURE ANALYSIS

From a legal point of view, it is important to highlight that following the responses received it seems that there no legal obstacles in national legal procurement frameworks preventing procurers from implementing innovation procurement. The directives also contain provisions to facilitate joint procurements between contracting authorities from different EU Member States.

In cases where the need is shared among several national organisations across Europe, the joint procurement is recommended and actually considered one of the success factors of the procurement procedure since several advantages can be witnessed. Several studies reveal that cross-border procurement activity can act as a driver in technological standardization and create better understanding of national differences and how to solve these. Indeed, joint procurement creates economies of scale enabling participating contracting authorities to witness substantial cost savings. On the demand side, joint procurement create the conditions for European SMEs access to a wider market. The advantages of the joint procurement initiatives can be also seen when compared with the national innovation procurement. A study on this matter has been conducted over the TED, revealing significant gains (column indicator) as shortly included in the image below.

Status December 2019 Comparing the effect of EU wide promotion of the call for tender and the effect of joint cross border procurement	EU funded joint PCPs (TED published / EU wide promoted) 167 contracts €69M	National PCPs (TED published / EU wide promoted) 254 contracts €108M	National PCPs (not TED published or EU wide promoted) 2634 contracts €662M	Indicator for
Average Nr of offers received	16,6	13,9	9,0	Level of interest of suppliers to participate
% of procurements that receive only 1 offer	0,0%	2,496	3,4%	Level of interest of suppliers to participate Degree of competition in bidding
% of procurements that award contracts to single versus multiple vendors	0% to < 3 vendors 7% to 3 vendors 93% to > 3 vendors	10% to 2 vendors 14% to 3 vendors 76% to > 3 vendors	12% to 2 vendors 17% to 3 vendors 71% to > 3 vendors	Degree of competition in product development Resilience to prevent supplier lock-in Safeguard for obtaining better value for money
% of vendors winning a contract for the first time with the procurer	85%	60%	45,0%	Opportunities for suppliers to find new customers Ability to mitigate integrity risks in procedure
% of total value of contracts awarded to suppliers from another country	33,1%	12,6%	0,6%	Cross-border growth opportunities for suppliers Access to wider / better value for money product pool
% of tendering procedures stopped i.e. no contract awarded	0,0%	0,0%	2,1%	Degree of difficulty for procurers to setup the procurement and for companies to make offers
% of total value of contracts that is awarded directly to SMEs	61,5%	58,0%	64,6%	Facilitating direct access of SMEs to the market, not as subcontractor but for their own product strategy
% of total number of contracts that is awarded directly to SMEs	73,5%	71,6%	72,6%	Facilitating direct access of SMEs to the market, not as subcontractor but for their own product strategy
% of number of Startups < 10 years old that are awarded contracts	59,8%	58,9%	63,1%	Facilitating access of Start-ups to the market Degree of disruptive innovation involved
% of winning tenders with university / non profit research center in it	30,5%	10,2%	10,1%	Degree of upstream R&D involved Degree of stimulating new further research
% of contract activities performed in EU Member States or Associated Countries	99,7%	97,0%	97,0%	Creating growth and jobs in Europe Strategic autonomy / technological sovereignty

The figures reflect the status of all awarded national and EU funded pre-commercial procurements up to December 2019

Figure 4: Comparison of the national and EU funded PCPs¹³

However, and despite the significant advantages that joint procurement can offer, several challenges exist. The main issue is related to the service adoptability and interoperability issues that may arise. It is advisable to base connectivity, interoperability, and scalability requirements on international open standards. In addition, the coordination of all involved stakeholders/ contracting authorities deems joint procurement as an complex procedure. Finally, linguistic barriers among contracting authorities or suppliers are also one of the obstacles that exist in such procedures. Participation of technical representatives should be strong in the phase of defining requirements and specifications. As the implementation of a joint innovation procurement entails more

¹³ Figure taken from the presentation *Update on results from completed and ongoing FP7 and Horizon 2020 funded Pre-Commercial Procurements (PCPs)* made by Lieve Bos , DG CONNECT F3 unit ("Digital Innovation and Blockchain")

challenges, especially if different countries are involved, the selection of a qualified Lead Procurer having strong management and legal skills much facilitates the overall process.

3.4. BARRIERS/ PITFALLS

The topic related to the problematic areas of a public procurement procedure has been analysed in multiple documents and reports. More specifically, based on the literature review conducted and the answers received, it seems that problems in a public procurement process mostly arise when:

- Procurers choose poor quality as a mean to lower procurement costs;
- Tender provides Unclear Specifications & Requirements;
- Before starting the procurement procedure, the contracting authorities have not conducted an adequate Supplier Assessment & market analysis;
- Lack of Transparency into the procedure, especially for the award procedure;
- Contracting authorities during the design phase choose incorrect parameters for the tender;
- Potential objection may arise in the award decision. Based on the answers received and the review of the national procurement legislation major delays are expected in such case;
- Economic and technical parameters related to the award procedure change substantially during the
 course of the project and the performance of the contractual object is no longer of interest to the
 contracting entity or the entity for which the contracted object is intended;
- During the contract execution, force majeure appears mainly due to external parameters and the performance of the contract is not possible;
- The tender is deemed "not economically advantageous".

It can be obvious that most of the abovementioned problems could be avoided, if special attention is paid to the design phase of the tender. More specifically, the design of a robust award procedure seems to play a pivotal role in the procurement successful outcome.

Besides the barriers that could arise in the procurement procedure in general, the focus of the current deliverable is centred in the innovation procurement. In order to better understand these potential problems, one should first address the sources of the associated risks. The image below summarises potential risks of an innovation procurement mapped in the different source types and stages of the procurement.

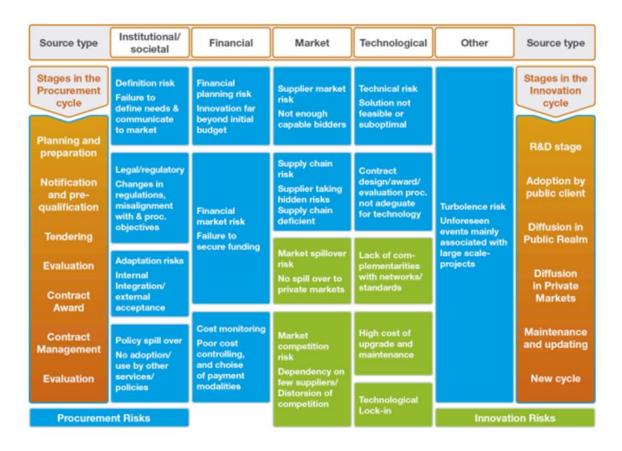


Figure 5: Potential risks of an innovation procurement

In short, the technological risks, in a procurement procedure are the ones that lead to severe implications related to the procured service or product and can be caused by technical operations. Such implications may be the non-completion, under-performance or false performance of the solution. The selection of an immature or suboptimal technology (it does not work as expected or is not fit for purpose, does not match standards, etc.), the failure to incorporate the related technological capabilities and standards from suppliers or failing to deliver the described in the tender solution can be listed as the most frequent factors related to problems in the procurement procedure.

- Solution is not feasible;
- Evaluation procedure is not adequate for the technology selected;
- Lack of complementarities with standards;
- High costs for maintenance and upgrade;
- Vendor lock in, which is the situation where a customer is dependent on a vendor for products and services, unable to use another vendor without substantial switching costs.

Market risks derive from situations where the public sector demand does not respond to the extent necessary or expected to the solutions prepared by the industry. In this context, markets are characterised as fragmented or there is a lack of companies delivering the desired innovations. The main reason could lie in the radical innovation required which cannot be delivered by the industry. Moreover, market concentration is considered unappealing for innovation procurement since it will most probably lead to vendor lock in situations.

- Unavailability of capable solution providers;
- Deficient supply chain;
- No spill over to private markets;

Competition distortion due to limited number of suppliers.

Organisational/Institutional risks are related to the failure or the non-delivery of the end product from the procurement for procurer inter-organisational reasons. Indeed, the public administrators set a number of goals in modern public procurement that range from cost savings, transparency up to enhanced sectoral policies (e.g., environmental, energy, industrial, etc.). The problem arises when these goals contradict each other. This can potentially lead to resources misallocation, where agency goals conflict with wider policy goals. In this context, the procurer organisations are also confronted with the dilemma of low-cost contracts effectiveness versus the high cost that derive from procuring innovation.

The procurement for innovation is also a costly and time-consuming procedure. It requires strong coordination and collaboration among stakeholders and continuous evaluation and learning that are all accompanied by transaction costs, which have to be taken into account when implementing the process. It should be noted that expensive coordination failure is another aspect that should be taken into account when procuring an innovative solution. Therefore, under the current circumstances related to public procurement, cost savings may still be perceived as the ultimate goal.

- Failure to define needs;
- Changes in regulations and misalignment with the procurement strategy:
- Adaptation risks by end users:
- No adoption by policy makers.

In addition, there are several societal risks that are related to a lack of acceptance and uptake by the users of the new or changed service delivered within society. Financial risks are also an important aspect of innovation procurement which can be translated to the uncertainty of meeting target costs and the ability to secure the funds needed in the first place.

- Financial planning risks- innovation far beyond initial budget;
- Financial market risks not enough resources to procure the solution;
- Poor cost monitoring.

Finally, large-scale projects/procurements are characterised by turbulence risks that are mainly a range of unforeseen events that lead various actors in the whole process to re-assess their priorities and to change their expectations. Such kind of risks may occur within organisations, but often are a result of the interplay of various actions and actors within the whole project.

Having identified the risks that derive in the overall cycle of the implementation of innovation procurement procedure, the answers received revealed several additional areas for attention:

- There is a knowledge gap and low understanding regarding innovation procurement. This mainly
 derives from the lack of a clear definition in the national legislation for innovation procurement.
 Clarifications are required and further training on what Public Procurement of Innovation really means.
 The confusion mainly derives from the broad range of different concepts, each with their own
 associated rationales and approaches, used in literature and practice to describe the stimulation of
 innovation through public procurement.
- Innovation procurement cannot be implemented without an (effective) involvement of the real enduser who can explicitly define their needs.

- Several innovation procurements run independently from the R&D/innovation agencies or experts, without a concrete procurement plan. This can undermine the successful enhancement and implementation of such a procedure.
- The public sector fragmentation witnessed in several countries represents a barrier that has stifled the widespread and virtuous use of R&D&I procurement in Europe. Especially, this is apparent in implementing innovation procurement in the defence and security sector.

4. SPECIFIC RECOMMENDATIONS FOR EU-HYBNET UPTAKE STRATEGY

Since the majority of the solutions proposed will be based on ICT technologies, the following recommendations have been formulated as the most important ones:

- 1. **Market Consultation**. Prior to initiating ICT's public procurement process, it is recommended that public institutions consult the market to identify state-of-the-art and commercial solutions. Transparent market engagement is considered important in order to identify the feasibility of the tender by assessing their needs, identifying what standards and other technical specifications to use as well as to look for existing solutions that might be re-used, without having to "reinvent the wheel". On a European level there are several repositories that could be consulted in relation to identify the aforementioned points such as Joinup, the European Federated Interoperability Repository (EFIR) and the EuropeanInteroperability Framework (EIF)¹⁴
- 2. **Available templates.** Officials responsible for drafting public procurement specifications and documents would be very much facilitated in case they use as a starting point readily available template. Generally regular procurement templates can be found in TED¹⁵, whereas for innovation procurement public entities could consult the EAFIP toolkit. ¹⁶a national level also several initiatives have been set in place. Indicatively, in Poland, Public Procurement Office is the responsible body for drafting public procurement policies and regulating and coordinating the national public procurement system. In addition, the PPO is in charge of the preparation of standardised tender documents, as well as guidance material. Similar initiative has been set in Luxemburg, the Business Process Management Office (BPMO) which provides several tools and templates to assist contracting authorities in the tender preparation.
- 3. **Skilled personnel.** It is highly recommended to involve in the procedure, experts from IT department. Their involvement is crucial in the needs' identification, the development of the technical specifications, the monitoring of the development of the solutions and their testing to ensure that expertise in cybersecurity aspects is considered. In this context cybersecurity threats should be considered when planning the procurement of a new system or service while threat identification should be continuous in the whole procurement lifecycle.
- 4. Adequate vulnerability assessment. Vulnerabilities should be considered before procuring new products or services and that vulnerabilities of existing products/services are monitored throughout their lifecycle. Moreover, the procuring organisation should establish a minimum set of security tests to be performed on acquired products or system, depending on the product/system type. It is also important to note that a newly acquired or newly configured product must undergo a penetration test in its actual installed environment. In the same way, remediating action taken must be online with the operational parameters of the actual environment.
- 5. **IPR provisions.** The way in which ICT solutions are licensed may affect their possibility to be shared and re-used. To ensure that the procured solution can be re-used by other public authorities or redistributed in any other way it is important to include the right IPR provisions in the procurement documents. This is especiallyimportant while procuring ICT solutions that citizens and businesses have access. An option is to include in the tender documents requirements that could ensure maximum public access for citizens and businesses. This can be covered by requesting access to the procured solution by several diverse systems, without being limited by the use of specific branded products or application. Accessibility needs for people with disabilities should also be taken into account.
- 6. **Open requirements.** The requirements should be presented in an open manner. When procuring ICT solutions, there might be the tendency to request very specific solutions in order to ensure that what is requested will do exactly what the procuring entity is expected to do. However, such an approach hides

¹⁴ https://ec.europa.eu/isa2/sites/default/files/isa annex ii eif en.pdf

¹⁵ https://simap.ted.europa.eu/standard-forms-for-public-procurement

¹⁶ https://eafip.eu/

several risks and disadvantages. First, customised solutions are generally more expensive than standard 'off-the-shelf' options. In addition, they are more difficult to be reused. Finally, suppliers who develop and manage custom-made systems can retain all the information about the system and make it very difficult to migrate to another supplier or to maintain or upgrade the system in the future. Excessive customisations may lead to supplier dependence and thus should be avoided. This aspect has been covered earlier in the document, however, below are some specific instructions related to the procurement of ICT technologies:

- a. Benchmarks should be used to indicate that products should meet or exceed overall performance ratings;
- b. Use functional requirements or performance to ensure that the procurement specifies functional requirements in a vendor-neutral manner;
- c. Refer to standards and technical specifications: to avoid mentioning a specific process or referring to a specific trademark;
- d. Use specific references only exceptionally when there are no other possible descriptions that are both sufficiently precise and intelligible to potential tenderers.
- 7. Compatibility with legacy systems. A common mistake that contracting authorities generally make is not to request compatibility with previously purchased proprietary solutions or as they called legacy systems. It is recommended to request for their interoperability of the new solution with the existing ones. As discussed in the literature, public authorities can be inefficiently constrained in their purchase of ICT by the existence of legacy systems, or by being locked-in to existing ICT products and services. ICT lock-in is a widely known concept, which has negative implications for the procuring organisations. Its alleged causes are the lack of interoperability, the lack of compatibility as well as high switching costs. Some countermeasures have been implemented, first and foremost the adoption of open source and open standards and the creation of some guidelines. In this context on order to ensure also that the purchased solutions can be further used to deliver trans-EU services, it is recommended to support solutions that use standards and no proprietary elements. Public procurements should include only standards that are supported by the market and that are recognised by a formal standardisation organisation, or a technical specification that has been identified by the Commission or by a national organisation. Moreover, functionalities to make data transfer effective should be requested meaning the setting of gateways to keep legacy systems/machines connected. Another approach in order to avoid lock in is to include exit costs in the procurement.
- 8. **Open procurement procedure is recommended.** Open procurement procedures are generally recommended when procuring ICT goods and services. Indeed, it can be seen that different procedures are chosen for different reasons: for instance, restricted procedures are preferred when procuring services requiring special features provided by one operator only (military purposes, personal data protection, public connectivity services, specific activities in strategic sites ...), as well as when too many vendors could be involved. On the contrary, negotiated procedures can be better when there exist some time boundaries, or a supplier's services uniqueness; finally, there were some opposite comments on competitive dialogue in relation to the cost effectiveness it can brings.
- 9. **Standards adoption.** Cost considerations, quality control concerns, supplier's expertise and the need of direct control are driving factors behind "make-or-buy" decisions. Similarly, these factors should be used as "motivational drivers" to promote the adoption of ICT standards that indeed support the cost reduction and ensure a good level of quality

4.1. DISINFORMATION

While procuring solutions to counter disinformation, two legislative initiatives proposed by the EC to upgrade rules governing digital services within the EU must be considered. During this regard, the Digital Services Act (DSA) and therefore the Digital Markets Act (DMA), should be taken into consideration in a very potential procurement of a tool to counter disinformation. The DSA and DMA have two main goals:

- to create a safer digital space within which the basic rights of all users of digital services are protected;
- to establish A level playing field to foster innovation, growth, and competitiveness, both within the European Single Market and globally.

While some behaviours are prohibited by the law at EU or national level (see definitions for illegal content and illegal goods), other behaviours could potentially lead to diverse forms of harms, without being illegal intrinsically. A case in point is coordinated disinformation campaigns which can result in societal impact or individual harm under certain conditions. Some content also can be particularly damaging for vulnerable categories of users, like children, but not for the final public. Such notions remain, to a particular extent, subjective and will be considered carefully.

4.2. CYBER AND QUANTUM SECURITY (INFORMATION SHARING)

The current section will go in more depth in relation to the Cyber Threat Intelligence legal specific requirements and considerations. Ambiguity in laws and regulations often breeds litigation and the costs of litigation may be significant enough to deter entities from engaging in CTI sharing. This section analyses the current legal requirements that need to be taken into account and examines whether theses could have an impact on the uptake strategy creation.

There is a consensus among the existing laws and regulations and the current discussion among practitioners that cyber threat sharing can be performed lawfully. However, organisations that wish to participate in CTI sharing among themselves would have to consider issues that could arise from the disclosure of personal information, breaches of contractual terms and disclosure of sensitive or classified information. In this regard, a good number of laws and regulations have been proposed in the EU over the years to promote the sharing of Cyber Threat Intelligence (CTI). The most relevant of these are Directive (EU) 2016/1148 of 6 July 2016, also known as the network and information systems (NIS) Directive; the General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679 of 27 April 2016); and the EU Cybersecurity Act (Regulation (EU) 2019/881 of 17 April 2019).28

The **Network and Information Security Directive (NISD)** 2016/1148/EU, which came into force in May 2018, has two main goals: the implementation of minimum-security requirements and the establishment of cybersecurity notifications for both Operators of Essential Services and Digital Service Providers. The Directive goes beyond implementation of security requirements, as it gives power to the regulatory bodies to audit the Operators of Essential Services to ensure the level of cybersecurity in the organization is acceptable and as per the provisions of the Directive. The NIS Directive can be considered the first EU-wide cybersecurity legislation. It aims to enhance cybersecurity across the EU. The directive encourages the sharing of CTI for the protection of critical infrastructure by providing an enabling environment for setting up ISACs which will foster the sharing CTI within and between the EU member states. Following the adoption of the NIS directive in 2016, it became an EU Directive requiring that every member state adopt national legislation which follows or 'transposes' the directive.

In general, the NIS Directive has three main parts:

- National capabilities: EU member states must have certain national cybersecurity capabilities such as a national CSIRT and must perform cyber exercises, etc.
- Cross-border collaboration: Cross-border collaboration between EU countries, including the operational EU CSIRT network and the strategic NIS cooperation group.
- National supervision of critical sectors: EU member states must supervise the cybersecurity of critical
 market operators in their country: ex-ante supervision in critical sectors (energy, transport, water,
 health and finance), ex-post supervision for critical digital service providers (internet exchange points,
 domain name systems, etc).

The NIS Directive observes that the responsibilities in ensuring the security of network and information systems lie, to a great extent, with operators of essential services. It does differentiate between sectors, placing higher burdens on critical infrastructure operators. The implication of this is that private entities that provide essential services (critical infrastructure operators) are obliged to ensure the protection of their network and information systems. The NIS Directive encourages a culture of risk management, which include risk assessment and the implementation of appropriate security measures for the protection of network and information systems within the critical infrastructure sector. Among these measures is the sharing of CTI.

The General Data Protection Regulation (GDPR) came into force on 25 May 2018. It sets the rules for the processing and free movement of personal data and applies to all domains of the public and private sector; however, some specific derogations are defined for data concerning health, aiming at protecting the rights of data subjects and confidentiality of their personal health data and at the same time preserving the benefits of data processing for research and public health purposes. GDPR treats health data as a "special category" of personal data which are considered to be sensitive by nature and imposes a higher standard of protection for their process.

Organizations processing health data have the following obligations (among others):

- to implement appropriate technical and organisational measures to ensure security of the processing systems, services and personal data,
- to perform data protection impact assessment, and
- to report data breaches which are likely to result in a risk to the rights and freedoms of individuals within 72 hours after having become aware of. Article 4 (12) of the GDPR defines a "personal data breach" as a breach of security leading to accidental or unlawful destruction, loss, alteration, unauthorised disclosure of, or access to, personal data transmitted, stored or otherwise processed; It has to be noted that if a data breach incident impacts the continuity of the health services as well, then it has to be reported according to the NIS Directive.

Regulation (EU) 2016/679,33 or GDPR as it is better known, has been hailed as the model for data protection and privacy laws both in Europe and beyond. The goal of the Regulation is to harmonise data and privacy laws across Europe, to increase the levels of protection for EU citizens and to give them greater control over their personal data. The regulation 'protects fundamental rights and freedoms of natural persons and in particular their right to the protection of personal data'. It has also redefined the way organisations across Europe and how those who offer goods and/or services to EU citizens around the globe, process personal data. GDPR contains provisions and requirements that are related to the processing of personal data of individuals (data subjects) inside the European Economic Area (EEA). These provisions and requirements include the provisions that cover the scope, application and objectives of the data protection regulations and the implementing arrangements.

Having the above into consideration, as a minimum requirement contracting authorities should define a policy for systems, services or devices processing GDPR's categories of personal data. Such information must be always

encrypted (whenever stored or transmitted). For the other personal data categories, encryption is required when the data are distributed outside the organisation. It needs to be made clear that this requirement does not always fall under the responsibility of the supplier.

- Whenever the system, device or service under consideration processes large volumes of special categories of information, a data protection impact assessment (DPIA) must be conducted;
- Document the need for any given supplier to process personal data and limit the data to whatever is necessary;
- Fully document the type of data that needs to be processed by a new product/system and apply limitations in the RFP requirements.

The **EU Cybersecurity Act's** main objective is to provide a permanent mandate for the ENISA and to establish a cybersecurity certification framework. It strengthens ENISA through the provision of more resources and a legal framework to improve cybersecurity capabilities at Union level, among member states, Union institutions, bodies, offices and agencies and relevant private and public stakeholders on matters related to cybersecurity. Among the provisions of the EU Cybersecurity Act, the provision that is most relevant to this study is Article 6(2), which states that 'ENISA shall support information sharing in and between sectors, in particular in the sectors listed in Annex II to Directive (EU) 2016/1148, by providing best practices and guidance on available tools and procedures, as well as on how to address regulatory issues related to information-sharing'.

Another issue likely to be addressed in the requirements is the civil liability that may arise from breaches of contractual terms. The disclosure of sensitive or classified information could make the legal and regulatory requirements difficult to address, because such information may cause serious injury to the national interest. A reference framework could be developed. The development of a reference framework would require the extraction of the legal requirements from the applicable laws that would add up to the functional and nonfunctional specifications of the tender related to the solutions architecture. These requirements need then to be translated into rules inside the organisations that use the solution. Such a framework would allow organisations to satisfy the legal requirements for CTI sharing and would also encourage private entities to join such a schema.

4.3. TRAINING ON MEDIA LITERACY

Technology and human development have affected substantially the field of war and conflict. The information environment has undergone tremendous changes recently, as the nature of mass communication has changed from "a single authorized speech and many listeners" to "many speeches for many listeners." Social media have a prominent role in the information flow. Social networks have the ability to disseminate large amounts of content at high speed over a short period of time. Therefore, the time dimension is used as an effective tool for hybrid warfare to influence and change public attitudes, opinions, and behaviours in order to achieve certain goals. Under the above circumstances, media literacy can be a useful tool to protect society from the destructive influence of the media. Media literacy is defined as "the ability to access, analyse, evaluate, and create messages in various situations". It provides a framework for accessing, analysing, evaluating and creating messages in many forms, from print to video and the Internet, deepening the understanding of the role of the media in society and the inquiries and self-expression skills necessary for citizens of democratic countries.

The literature review revealed that the procurement of a training application on media literacy there are no specific recommendations to be taken into account. ICT technologies can be an important facilitator in the implementation of such solution, without excluding other traditional methods.

5. CONCLUSIONS

In this document, the current procurement landscape in EU has been analytically described whilst special attention is given to innovation procurement that EU-HYBNET activities are mainly involved with.

Under the scope of the document and its relevant task, a specific questionnaire was prepared in order to collect the requested input regarding the procurement legislative background of each country participating in the project. This gathered input is analysed on national and European level as well. More specifically, the different innovation friendly procurement types and the financial tools to support innovation procurement are defined through these surveys and reviews of the existing procurement and policy practices.

In more detail, from the received answers and the literature review conducted by all the task participants derived detailed recommendations for procurement procedure, as described in Section 3.

The document additionally includes specific recommendations for the procurement of the sectors under which the solutions identified as priorities by WP3-Surveys to Technology, Research and Innovation fall into.

Overall, mapping on EU procurement landscape is achieved in a high level since the analysis prepared is based on all available material including legal regulations, procedures and guidelines, and serves extremely useful feedback recommendations to T4.2 regarding formulation of benchmark cases for innovation uptake.

6. FUTURE WORK

This deliverable emphasizes on providing an overview of the procurement landscape on EU level. The legislative background of the countries represented in EY-HYBNET project are analysed, along with the procurement procedures followed and the tools used. The work performed in D4.1 is of high importance in the project's proceeding and will feed information to T4.2 – Strategy for Innovation uptake and industrialisation and T4.4. – Policy Briefs, Position Papers, Recommendations on Uptake of Innovations and Knowledge. Moreover, under the activities of Task 4.1., several examples of procurement cases have been identified. Following the analysis of these cases, the pitfalls that could be avoided and the success factors have been listed. These aspects will play an important role in the development of the uptake strategy providing recommendations on procedures to be followed and areas that further attention is needed. D4.1 developed also specific recommendations for the specific sectors where each one of the four most promising innovations, as identified in Task 4.2., belong to.

Moreover, under the activities of Task 4.1., special attention has been given on the incorporation of innovation procurement as well as the types of the innovation friendly procurement procedures. EU has identified that innovation procurement procedures as a facilitator to the innovation uptake. Finally, the current document examined the Joint Procurement Procedures as one important step in the uptake of solutions which address a need shared among several practitioners from different Member States.

Lastly, the importance of D4.1 to the future project's work is highlighted since it is the initial step on the uptake strategy creation. It is important to note that for the second and third cycle, the task participants besides will focus on more depth in analysing and providing specific procurement recommendations for the most promising innovation that will be identified in that time as well as analyse the connection of the hybrid strategies in connection to the procurement landscape. More specifically, we plan to focus our work towards the following aspects:

- Analysis of the innovations which were identified in WP3. Identify the features they possess which are relevant for the procurement process.
- Analysis of the EU and country landscape in order to answers if public procurement instruments do allow procurement of such kind of innovations that were identified in WP3. In this context, one of important conclusions will be that either we have all procurement instruments and funding needed, otherwise recommendations will be provided.
- Practical recommendations regarding features of the innovations revealed in WP3.

ANNEX I. GLOSSARY AND ACRONYMS

Table 1 Glossary and Acronyms

Term	Definition / Description	
CPV	Common Procurement Vocabulary	
СРР	Central Public Procurement	
CSIRT	Computer emergency response team	
DPIA	Data Protection Impact Assessment	
EAFIP	European Assistance For Innovation Procurement	
EASME	Executive Agency for Small and Medium-sized Enterprises	
EC	European Commission	
EIC	European Innovation Council	
FP7	Funding Programme No 7	
GDPR	General Data Protection Regulation	
GPA	Government Procurement Agreement	
ICT	Information Communications Technology	
IPR	Intellectual Property Rights	
LEA	Law Enforcement Agency	
MS	Member States	
NATO	North Atlantic Treaty Organization	
NIS	Network and Information Systems	
OECD	Organisation for Economic Co-operation and Development	
PCP	Pre-Commercial Procurement	
PPI	Public Procurement of Innovative Solutions	
PPP	Public-Private Partnerships	
TED	Tender Electronic Daily	
TFEU	Treaty on the Functioning of the European Union	
VAT	Value-Added Tax	
WTO	World Trade Organization	

ANNEX II. REFERENCES

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ANNEX III. QUESTIONNAIRE

EU-HYBNET/iLEAD Innovation Procurement Mapping QUestionnaire

Fields marked with * are mandatory.





Dear

EU-HYBNET/i-LEAD

Consortium

Partner.

One of the goals of the projects is to perform a vast review of the EU procurement environment in order to share good practices, foster joint procurement actions and stimulate innovation uptake accross Europe.

Thus, we kindly ask you to fill the questionnaire on (innovation) public procurement.

Mapping current procurement processes

ackgro	ound, national s	oftware tool used	etc)?	2 22	
				n regulate the dep	loyment of marke

*3. Do you foresee major delays for the procurement procedure if one of the bidding companies would challenge the award decision in court (e.g. due to long duration of courts proceedings)?

1

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provide re	Jovani illiolillation regard	ang to involvenie	iii iii o procedu		
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	ovation procurement regu ovide an outline of the leg			curement legislation?	ır yes,

D4.1 1st Report on the Procurement Environment

*7. Are there any specific mandatory legal provisions that could limit the procurement approach under an innovation procurement procedure?

Please take into account the following aspects in your answer: Standards IPRs, exclusion grounds, limit the subcontracting, time limits for receipt of tenders, standatill period, obligatory Letters of Guarantee, any foreseen

2

obstacles related to the publication of the documentation on your e-procurement platform software tool (for example not support English language), economic eligibility criteria, problems in the Phased approach of the PCF
procurement.
procurement.
8. Is there a national/regional/local policy or standards in place to set targets/stimulate innovation procurement?
9. Is there any national regulation/policy that restricts your freedom to purchase technologies owned by companies from specific countries? If so, please detail or provide text of the provisions
10. Is there any regulation/policy that mandates the performance of R&D contracts on the territory of your country?
11. Do you foresee any other legal obstacles in the deployment of an innovation procurement tha are not addressed in the questions above?

Joint cross-border procurement

ther countries?	ional Public Procurement legislation allow joint procurement with procurers fron
3. Do you see ar	y legal obstacles to participate in a joint procurement procedure?
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* 16. Are there any funding schemes that support	ort innovation or regural procurement?
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Benchmark cases or Pitfalls	
ease report at least one benchmark case of national or cross-national public procurement, you have Innovation Procurement experience you may report this	Answer:
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Contracting Authority/ Type: Short description:	
- Applicable law:	
•Type of contract / Type of procedure:	
*Duration of the tender:	
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cific questions concerning the process of public procurement:	
Please elaborate on the Items that prove it successful?	Answer:
Lessons learned: any good practices that would you suggest to be followed?	
ease report at least one pitfall case of national or cross-national public procurement.	
you have Innovation Procurement experience you may report this)	Answer:
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Type of contract / Type of procedure:	
• Duration of the tender:	
• Value of tender:	
ic questions concerning the process of public procurement:	
	Answer:
d you face any issues for the execution of the procurement? ssons learned: any suggestions on how these pitfalls could be avoided?	
soons rearried; any suggestions on now these pittalls could be avoided?	

Please provide any relevant reports, papers, policy documents, recommendations, literature on the topic.

Thank you very much for filling the questionnaire!



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