Project activity 2.1: Benchmarking on best practices

Title of the deliverable: Report on best practices for this semester

Contents of the report: the report includes the pool of best practices presented and discussed by the partnership in the meeting in Tampere (March 2019) of the partnership and further discussion around them. They are to serve the partnership to consider these best practices in order to work towards the action plans to be developed in the 5th semester of the project.

A report authored by:

Partnership of the iBuy project

The Baltic Institute of Finland (activity coordinator)

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Contents

Logic of the activity

The goal of the activity was to collect a number of best practices on how the public officers can make the best and efficient decisions on choosing the IPP projects to be funded.

The idea was to search different procedures (scoring, criteria, qualifications etc.) on how the regions and countries in Europe select IPP projects.

The iBuy project will use the collected information as a policy learning material both inside the partnership and for the policy makers in the partner regions and countries. The collected information will be utilized in the project platform and in design of the IPP on-line course. The information will be useful in preparation of the regional action plans.

Main presentations, learnings, and conclusions from the partnership

1. Lithuanian Innovation Centre

Selected cases:

1) Pre-commercial procurement of Lithuanian bank, Lithuania
2) Innovation public procurement procedure in Catalonia, Catalonia

Pre-commercial procurement by the Bank of Lithuania is still ongoing. Despite that, it can already be used as an example. Strategic economic development documents in Lithuania set FinTech technologies as one of the priorities which have to be developed. Bank of Lithuania showed initiative in order to create platform which would encourage FDI and development of these technologies.

First major lesson from this procurement is that communication about the planned procurement is essential, as it increases the number of participating companies. After the announcement of the call, even 9 companies expressed their desire to participate in the procurement. It gave a Bank of Lithuania a broader pool to choose from and a possibility to compare various offers and make better decisions.

Second lesson is related to existing regulations and support agencies. Although pre-commercial procurement is different from the regular procurement, existing regular public procurement practice can serve as a basis when it comes to choosing evaluation criteria. There is no need to “invent the wheel” and a lot of good practices can be found among the existent procurement law.

Several institutions are involved in the pre-commercial procurement process and the process itself to obtain the funding and later on to conduct the procurement is often considered as complicated by the procurers. However, as the example of Bank of Lithuania shows, it is very important to seek support from the existing support agencies, as these institutions have required expertise which can make the process faster and more efficient.

Importance of the support agencies is also illustrated by the Catalonian example. As innovative public procurement involves R&I activities, it is important for procuring organization to get expertise from aside. Procuring organizations can identify their needs but they need some help when it comes to the evaluation of offers. Usually, procuring organizations don’t have enough technical information, and therefore it is important to involve third parties which could act as advisers for better decision-making.

2. Balearic Foundation of Innovation and Technology

Selected cases:

1) BROCA Project, Spain
2) SILVER Project, 7th Framework Programme

The advances in surgery are mainly focused on minimizing the invasiveness of surgical procedures to reduce damage to the patient that may affect their quality of life.

In this sense, laparoscopic surgery has been imposed in recent years against conventional surgery because of its advantages: less invasiveness, which implies a reduction in hospital stay, decrease in postoperative pain, lower blood loss, faster incorporation into society and the patient's labor, as well as the possibility of performing a more precise surgery due to the expansion of the surgical field, with results comparable to conventional surgery in terms of oncological control and reconstructive surgery.

In spite of everything, laparoscopic surgery poses a series of inconveniences, especially for the surgeon, such as the long learning curve, the restriction of mobility caused by the axes of the instruments, the lack of perception of the depth of an image in 2 dimensions (2D), a longer surgical time, an unreal sensation caused by the virtual field together with the ergonomic position that the surgeon must adopt, with the consequent increase in fatigue.

When the surgery is performed with a robot, all the advantages of conventional laparoscopic surgery remain: a shorter learning curve, a reduction in surgical times and an improvement in the mobility and articulation of the instruments, but above all it provides a spatial vision real in 3 dimensions. However, it has the disadvantage of being a complex, large system that requires space in an operating room with a slow assembly in each patient and with its own patented consumable material with prices that question its cost-effectiveness in a public health system.

Thanks to the BROCA Project, development of a robotic arm has been started and it is characterized by its lightness, which occupies little space, is open software and has a control architecture that allows collaboration in the same physical space of the robot and the user.

The BROCA project is being developed thanks to three fundamental axes, complementary to each other and of vital importance in the whole project:

The University of Córdoba is responsible for developing and implementing artificial vision in the robot.

Thanks to the collaboration of the Andalusian Health Service, surgeons from the Reina Sofia University Hospital in Córdoba advise and test the robot. The objective is to adapt it to the demands of the operating rooms that already exist so that it has ergonomic characteristics for its users, both patient and surgeon.

As the winner of the Pre-Commercial Public Procurement process, the Tecnalia Foundation is in charge of developing the entire engineering part of the Robot. For this, it has a great know-how in

techniques, materials and processes, in addition to having adequate facilities and equipped with the most cutting-edge technologies.

3. Baltic Institute of Finland

Selected cases:

1) E-Maternity Card, Finland
2) Innovation Procurement Support in Estonia. Estonia

In e-Maternity Card case the proposal to cooperate came from the company since they had the product ready for testing.

Signing an innovative partnership agreement between a public organisation and a company gives a good starting point for joint development and may eventually encourage the public organisation to increase the procurement budget for the coming years. The planning of the cooperation is important since all the vital stakeholders, professional groups and other actors should be involved in the process.

Partnership agreement does not automatically lead to purchase, on the contrary a long-term procurement process may follow which allows also competitors to participate in the procurement process. Maternity e-card is difficult to export to other countries since its use requires similar kind of service infrastructure as in the country of origin. At the same time it can encourage for systemic innovation as it has happened in Japan. Japan will change their parental clinic system closer to Finnish system and the e-maternity card will eventually be implement in to the new system in Japan.

Innovation procurement support is needed as the Estonian case shows and many different funding sources are needed since they encourage public organisation to try and implement IPP. Again the funding support for IPP project should be big enough and the procurement should have a considerable impact at least on regional level. The impact assessment and evaluation should be mandatory parts of the procurement process and they should be explained already in the funding application.

4. Romania, by the Regional Development Agency of Bucharest-Ilfov

Selected cases:

1) Extreme Light Infrastructure - Nuclear Physics (ELI-NP), Romania
2) Case study on electric vehicle charging points, Spain

The ELI-NP project is a road opener for 21st century science, primarily because ELI will make changes in the way science is undergoing fundamental research by extrapolating the current technology. The project itself is unique and has created a scientific facility managing technology

with applicability in a vast area of domains. Besides the novelty of the technology, this project opened the door for IPP in the Bucharest Ilfov region as well, this great realization being made through an innovative partnership. Since in Romania this type of public procurement is not that common, this project highlighted the importance of IPP and could be an example for the future.

The SMART SPP case study from Barcelona is a good example for the Bucharest Ilfov region and there is a lot to learn from what was done during the tender. The city is now trying to replace the current fleet of public transport and is working on launching several tenders for the procurement of buses & electric busses, trams and trolleys. Electric vehicles seem to gain some territory in the region and slowly start to become popular – this means that charging station must follow. The use of electric vehicles as an urban transport by the general public would encourage the use renewable energies and would reduce dependency in oil in the transport sector, thus diversifying the energy sources of the city.

The criteria and indicators used with the SMART SPP methodology might be of interest for future tenders (taking into account the positive background from other regions/countries) and public consultation prior to procurement is a must in the case of new technology, especially concerning electric vehicles.

5. Region Central Greece

Selected cases:

1) Local Government Access Framework (LGAF) for Greek Municipalities, Greece
2) Fabulos project, Horizon 2020

The Local Government Access Framework (LGAF) for Greek Municipalities procurement procedure refers to an example of questionable final success but still a case of fruitful conclusions and takeaways.

A significant lesson learnt from the project is that it showcased how adopting open standards and service-oriented architecture in ICT procurements can a) allow a public authority to become technology and vendor agnostic and limit its overdependence on proprietary systems and suppliers and consequent vendor lock-ins, b) guarantee higher levels of interoperability with authorities' existing systems, c) enhance adaptation and responsiveness to required changes and increased reusability and transferability potential at a national and regional level, d) enable the possibility of interoperation with other information or systems of the public administration and e) create opportunities for knowledge-intensive entrepreneurs.

On the other hand, the project demonstrated that as public organizations are adopting public procurement for innovation as a crucial instrument for demand-driven innovation policies, they are called to develop capabilities and skills to manage these novel procurement practices. A complete lack of expertise on behalf of the purchasing agency or an inefficient technical, risk and relationship procurement management, can lead to unsuccessful procurement procedures.

The main takeaway from the FABULOS case, is that the procurement of a solution (service-type procurement) instead of software (product-type procurement) is needed to create an analogous model with how the public transport authorities are currently procuring the (non-autonomous) bus lines. It is expected to be similar model to the future procurements of commercial autonomous bus lines operations. This means for example that in future the cities can procure traditional bus line operations for some districts and zones as before, but after the project, in addition also will be able to procure bus transport service in zones or lines that would be managed with autonomous minibuses instead.

Respectively, the FABULOS example demonstrates the need for consolidated budgets that lead to higher paid contracts, when procuring partners are called to attract high profile bidders and established innovators and manufacturers. In practice, it is really common that providers would require several motivating factors to be engaged in an innovation project (such as high funding), when other more secured business opportunities are available for them.

A common lesson learnt from all cases documented above is the fact that the procuring/development process when it comes to innovation (regardless of the actual procurement framework) demands the active involvement of a) the end users, so that their actual needs are properly documented and addressed, b) the market stakeholders in order to identify the state of the art of product/service to be procured and c) at least a technical expert that acts as innovation and technology advisor for the procuring authority throughout the lifecycle of the procurement process.

6. Latvian Ministry of Economics

Selected cases:

1) Bio-based uniform, Poland
2) Ultra-Efficient Lightning for Future Wards, United Kingdom

In the case of Poland on bio-based uniform, a preliminary market consultation was launched to gather market knowledge in advance, before implementing the competitive dialogue as the PPI instrument.

The entire process took much more time than originally expected because of the prior consultation and the definition of the evaluation criteria which has been formulated into the formula of the whole-life cycle costs of the purchased product. Using whole-life cost instead of the ‘traditional’ method of choosing a product with the lowest purchase price proved to be the most beneficial. The method works best in the case of difficult purchases where the subject of the procurement is difficult to specify, and market research is necessary. Moreover, this solution may be applied to the different industries, which broadens up the possibility to adapt the particular criteria to the needs of the region, industry and the specific procurer.

In the case of the United Kingdom on ward lightning system, the Forward Commitment Procurement methodology was aimed to stimulate the supply chain prior to the beginning of the procurement process, making it possible to meet the “unmet needs” identified as part of the program. The market has been prepared for the PPI and has been incorporated before launching the process. This market consultation process allows to test the requirements and establish the problems prior to the announcement of the procurement. The market engagement not only gave potential suppliers notice and time to innovate, it also stimulated a valuable exchange within and between the supply chains.

Overall the process has taken much longer time than expected, including the pre-tender market communication and the whole process of PPI. Nevertheless, competitive dialogue as a procurement process implemented in the case of the UK, permits discussion of the options with the potential suppliers before inviting to present final offers during the procurement procedure. As the result of which, in the case of the UK, the consortium of the two enterprises has been developed, which was the one to win the procurement with the best offer provided.

7. Portuguese National Innovation Agency

Selected cases:

1) Positive energy boarding school in Rouillé, France
2) Innovation procurement network in Skåne, Sweden

In the French case the new building is estimated to achieve savings of 5.1 tonnes CO2/year in comparison to a standard school building – a 75% reduction. Without considering the wind and photovoltaic electricity generated on site the building would consume 34 kWh/m² instead of 117 kWh/m² for a standard building. If we include this RES capacity the figure falls to just 4 kWh/m².
Between 1 and 7 companies submitted bids for the various construction work lots, however, one lot had to be retendered as there were no responses

Overall, the work is proceeding very satisfactorily, although it will only be possible to assess operating conditions in a few years.
The approach for two of the lots (frame-straw, and sealant) could have been optimised. The straw insulation was included in the frame lot to ensure the appropriate integration of the straw bales into the structure (layout optimisation). However, the sealant lot initially received no bids, and even after relaunching only one company applied. The reason was concern about the quality of the straw and its installation.

The network in Skåne, Sweden, will increase expertise about innovation procurements among municipalities which hopefully leads to more innovation procurements taking place. This is beneficial both for buyers, suppliers and inhabitants. More innovation procurements will generate better solutions for the actual needs and also create a bigger market for the innovations. Inhabitants

will get better products and services and in the long run more innovation procurements generates more job opportunities.

Detailed description of the best practices

1. Lithuanian Innovation Centre

1) Local/Regional/National Example

Title of the case/best practice:	**Pre-commercial procurement funding support scheme**
Link to further information:	The case of pre-commercial procurement of Lithuanian bank http://eafip.eu/assistance/procurers-receiving-assistance/bank-of-lithuania/
Background:	Pre-commercial procurement' (PCP) is an approach within the public procurement of innovation, developed specifically for the procurement of R&D services rather than actual goods and services; if the goods or services developed during the R&D phase are to be procured, this would need to be based on a separate procurement process. Up to 85% of the total eligible costs of a project is co-financed under the 'Pre-Commercial Procurement LT' measure, and the remaining 15% will be awarded to the contracting authority and project partners. The form of financing with the measure is a non-refundable subsidy. One of the financed projects is the project of Lithuanian bank, which seeks to develop an innovative platform-service project for fintech companies and to promote foreign direct investments in Lithuania. The project, code-named LBChain, is expected to attract new fintech market players and established institutions through an exceptional and flexible blockchain platform, adaptable to their needs, as well as related services for combining technologies and the market regulation know-how required to use it. It is expected that these investments in the fintech sector will contribute to structural developments in the national economy including a higher added-value, the creation of high-paying jobs, and will ensure a return on the investments in LBChain.
Procurement objectives:	Pre-commercial procurement is aimed at acquiring new products that are not yet available on the market or where major improvements to the existing product are required. The main purpose of these purchases is to foster the development and adaptation of innovation to the public sector of public interest and to help new products or services to emerge in new markets. Through pre-commercial procurement, Bank of Lithuania seek to foster innovation in the financial market and accelerate its adaptation and in the public sector. The aim of the Bank of Lithuania's pre-commercial procurement is to develop the LBChain platform-service orientated towards attracting FinTech businesses and foreign direct

	investment, creating innovative block-chain-based solutions and supporting their application in the financial sector as well as improving the quality of regulatory requirements.
What is the IPP instrument that the public authority has used?	Pre-commercial procurement funding scheme, financed by ERDF.
Procurement process explained:	• Contracting authority prepares a description of the object of pre-commercial procurement and the project of technical specification; • Contracting authority submits the above mentioned documents to coordinating authority; • Coordinating authority assesses the documents for compliance with requirements and decides on the recognition of services as R&D; • If the object complies with requirements, contracting authority submits the application to the managing authority (short version) for funding; • Managing authority confirms the list of the contracting authorities which can participate in the further selection process; • Business support organization opens a call and contracting authorities submit full application forms for funding; • Contracting authorities sign funding agreements. After the approval of project funding, contracting authority sets up a commission for pre-commercial procurement and publishes the documents and defines a deadline to submit a tender. Then, the procurement procedure follows the standard PCP procurement procedure proposed by the European Commissions: I stage – concept creation and approval of innovative product (4 suppliers). II stage – prototype creation of innovative product (three suppliers). III stage – small-scale test product creation (2 suppliers). The Bank of Lithuania invited FinTech companies of different maturity to participate in co-creation of the LBChain technology sandbox. 9 companies sent their proposals to LBChain pre-commercial procurement, agreements were signed with four companies whose proposals were ranked best – “Deloitte”, IBM Polska Sp. z.o.o, “Tieto Lietuva”, “Inntec”. After the evaluation of the first round, three companies were selected for the creation of the prototype. After the

	testing activities two suppliers will be invited for further development activities. The procurement process is at the testing stage at the moment.
In what kind of indicators, variables or characteristics does managing authorities pay attention to when they decide which project will get funding?	Main criteria to receive the funding from the financial measure is the compliance to the concept of R&D activities and development of the prototype at the end of the project. Further criteria are: • Alignment with smart specialization priorities; • Duration up to 36 months; • Funding up to 2 mln euros; • Project activities implemented in Lithuania;

2) International Example

Title of the case/best practice:	**Innovation public procurement procedure in Catalonia**
Link to further information:	http://economia.gencat.cat/es/ambits-actuacio/contractacio-publica/junta_consultiva_de_contractacio_administrativa/compra-publica-innovadora/
Background:	Catalonia introduced innovation public procurement as one of the key tools of the action plan of the Catalan smart specialization strategy, the RIS3CAT, aimed at identifying challenges under one or more of the 7 specialisation domains and opening calls linked to these challenges. Additionally, other possibilities for IPP, not necessarily linked to S3 have been in place.
Procurement objectives:	According to the Catalan National Plan for IPP (2016), the objectives are: - Improve the public services, making them more efficient, through the adoption of innovative solutions, ensuring the most efficient use of public funds. - Foster R&D&I, especially in SMEs, through public sector's demand. - Foster internationalisation of the innovative solutions through the public Catalan market as a catalyst client - Rationalise the public expenditure through public procurement's strategic planning.
What is the IPP instrument that the public authority has used?	Several options; in this example we state IPP in the sense in which the public administration states a concrete measure linked to a challenge for which it needs a product and service based on a R&I component.
Procurement process explained:	The innovation public procurement process follows a similar approach to the regular public procurement but it adds the R&I requirements – which also require technical knowledge – to the process. The process opens with a list of the requirements of the public administration that they aim at solving through innovation. Under RIS3CAT, there can be a previous step where public administrations decide which are their R&I-based needs related to

	concrete challenges. An open call is open for different providers to present ideas on products/services to attend this need/challenge. With those who present a project, a round of negotiations is started, where potential providers explain technicalities, possibilities, expected budget, what is possible and what is not, etc. With this much more complete information, the call is narrowed now that it is clear what precise products/services can meet the need/challenge. Now that the right product/service is identified, potential providers make an offer and the selected one follows the public procurement rules, mostly based on (given the same product/service efficiency) the economic efficiency principle.
In what kind of indicators, variables or characteristics did managing authorities pay attention to when they decided which project will get funding?	The decision is based on the iterations, i.e. the negotiation rounds, where public administrations (with the help of experts) obtain information regarding the options, and select the one that is more cost-effective, innovative, and adequate for the challenge. There is no precise indicator-based system.

2. Foundation for Innovation and Technology in the Balearic Islands

1) Local/Regional/National Example

Title of the case/best practice:	**BROCA Project**
Link to further information:	http://www.proyecto-broca.es/proyecto/ (only in Spanish)
Background:	Advances in surgery are mainly focused on minimizing the invasiveness of surgical procedures to reduce damage to the patient that may affect their quality of life. In this sense, laparoscopic surgery has been imposed in recent years against conventional surgery because of its advantages: less invasiveness, which implies a reduction in hospital stay, decrease in postoperative pain, lower blood loss, faster incorporation into society and the patient's labour, as well as the possibility of performing a more precise surgery due to the expansion of the surgical field, with results comparable to conventional surgery in terms of oncological control and reconstructive surgery. In spite of everything, laparoscopic surgery poses a series of inconveniences, especially for the surgeon, such as the long learning curve, the restriction of mobility caused by the axes of the instruments, the lack of perception of the depth of an image in 2 dimensions (2D), a longer surgical time, an unreal sensation caused by the virtual field together with the ergonomic position that the surgeon must adopt, with the consequent increase in fatigue.

Procurement objectives:	When the surgery is performed with a robot, we have all the advantages of conventional laparoscopic surgery: a shorter learning curve, a reduction in surgical times and an improvement in the mobility and articulation of the instruments, but above all it provides a spatial vision real in 3 dimensions. However, it has the disadvantage of being a complex, large system that requires space in an operating room with a slow assembly in each patient and with its own patented consumable material with prices that question its cost-effectiveness in a public health system. Thanks to the BROCA Project, a robotic arm is being developed characterized by its lightness, which occupies little space, is open software and has a control architecture that allows collaboration in the same physical space of the robot and the user. PCP funded with 1.8 million euros. 80% of ERDF and 20% of national funds.
What is the IPP instrument that the public authority has used?	PCP Innovative partnership
Procurement process:	The PCP is similar to regular public procurement but with R&I. The process starts with a list of technical knowledge requirements launched by the public administration that have to be solved by innovation processes. The BROCA project is being developed thanks to a cooperation agreement based on three fundamental axes, complementary to each other and of vital importance in the whole project: • Academic Research: The University of Córdoba is responsible for developing and implementing artificial vision in the robot. • Clinical research: Thanks to the collaboration of the Andalusian Health Service, surgeons from the Reina Sofía University Hospital in Córdoba advise and test the robot. The objective is to adapt it to the demands of the operating rooms that already exist so that it has ergonomic characteristics for its users, both patient and surgeon. • Research, Innovation and Business Development. Tecnalia Foundation is in charge of developing the entire engineering part of the Robot.
In what kind of indicators, variables or characteristics did managing authorities pay attention to when they decided which project will get funding?	Basic criteria must be met • Concordance with the objectives of the Spanish Science and Technology Strategy • Contribution to socio-economic development • Stimulate entrepreneurship and innovation: Particularly of SMEs, including PCP projects and IPP

	• Favorable evaluation regarding the R & D & I content of the project <u>Particular IPP criteria</u> • Economic viability: Economic feasibility, sustainability over time, socio-economic and environmental impact and, where appropriate, an increase in R & D. • Technological innovations and developments: Prioritization of technological developments and innovations with greater commercialization and internationalization potential. • Capacity for high added value results: Ability to transform research results into products and services with high added value. • Promotion of the leveraging of R & D & I grants for companies that undertake technological innovations linked to the projects that are the object of the aid. • Participation of agents of the public R + D + i system, companies, Administrations and environmental agents.
Conclusions, lessons learned, how it would fit into my region:	The institutions and companies involved have formed a multidisciplinary group sharing knowledge and taking advantage of synergies to complete this prototype from the begining. When the project ended, this robot prototype was delivered to the University of Cordoba to initiate the commercialization process offering an economic return on the investment and improving the public health system. In the Balearic Islands region, a similar project led by the University could be carried out with the help of research centers and the collaboration of private sector. It is necessary to foster IPP/PCP in public institutions and show practical examples like this one made by other Spanish institutions.

2) International Example

Title of the case/best practice:	**SILVER**
Link to further information:	http://www.silverpcp.eu
Background:	As people get older, they face increasing risk of some severe condition that will affect their ability to continue living independently at home. The SILVER project searches for new technologies to assist elderly people in their everyday lives. By the use of new robotics based technologies, the elderly can continue independent living at home even if they have physical or cognitive disabilities.
Procurement objectives:	The first objective of the project is to establish, and execute, an agreed PCP process to run a cross-border PCP call for tender. This generic process should also form

	a basis for national PCP calls designed outside of the SILVER project. The second objective is to use the PCP process developed in the project to identify new technologies and services to support the independent living of the elderly.
Procurement process:	An international PCP was opened to acquire the research and development of robotics based technologies that support independent living for the elderly. Up to 8 companies participated in Phase 1: Solution Design (budget up to 350.000 EUR, duration 6 months), up to 4 companies in Phase 2: Prototype development (budget up to 720.000 EUR, duration 1 year) and up to 3 companies in Phase 3: Pre-Commercial small scale product/service development (budget up to 1.080.000 EUR, duration 1 year).
In what kind of indicators, variables or characteristics did managing authorities pay attention to when they decided which project will get funding?	This PCP aimed to solutions based on cost-effectiveness in the homecare sector. A market consultation was an essential part of the preparation on the PCP. With the market consultation the consortium wanted to get insight into the market; the state of the art and future developments of robotics in elderly care in order to prepare an adequate procurement with the right and feasible scope. The output of the market consultation gave a full insight into the current state of the art of robotics. It allowed contributors to give feedback on how our current robotics definition could perhaps be modified making the project desired outcome clearer. Moreover, the market consultation confirmed that the budget forecast was adequated.
Conclusions, lessons learned and how it would fit into my region:	Firstly, the methodology used in the market consultation to prepare the bases of the PCP are generic and therefore of application for our region. On the other hand, taking into account the high expenditure of the public health system in the region and that society ages more and more, the application of this kind of innovations could be very useful talking about cost-effectiveness, improving the quality of life of our elders.

3. The Baltic Institute of Finland

1) Local/Regional/National Example

Title of the case/best practice:	Maternity eCard / City of Tampere
Link to further information:	https://www.innokyla.fi/tietoa-innokylasta/innovatiivinen-hankinta/esimerkkeja (only in Finnish)
Background:	The target of the city of Tampere was to increase electronic services in parental clinics. Tampere-based company Mediware Ltd. had already developed the first versions of the electronic maternity card, and the user testing was started in cooperation with the city of Tampere. The UX testing aimed at increasing the services and information flow between the clients (parents), the personnel of the parental clinics and the hospital. There were 112 clients and health care professionals involved in the test phase. The feedback from both of these test groups was collected with the help of electronic surveys which focused on usability and development needs. The second survey was conducted when the product was ready.
Procurement objectives:	The goal was to develop and test maternity ecard in two city-operated parental clinics including fetal ultrasound services. Basically, the electronic maternity card is similar to the traditional maternity card. In addition, the ecard includes pre-information and questionnaire templates, a pregnancy diary and a chat service with the designated parental clinic. A client can personally add information and measurements made at home, which are then visible also to the health care professionals. The service includes general information about pregnancy, its phases, and development of a fetus.
What is the IPP instrument that the public authority has used?	Partnership agreement
Procurement process:	The cooperation was based on a signed partnership agreement. The agreement determined the goals, interests, duties, responsibilities and rights of these two parties. The content, timetable and budget was also included in the agreement. The project was funded by The Finnish Innovation Fund Sitra, Mediware Ltd., and the city of Tampere. The duration of the project was one year (3/2013-2/2014).
Conclusions, lessons learned, how it would fit into my region:	Based on the user experience, the city of Tampere launched a verification process of the needs and a preliminary deployment assessment of e-services. The information gathered from these processes assists in

	making decisions on what kinds of e-services could be procured in the future. Mediware Ltd. emphasised that customer perspective and their strong engagement from the beginning made the development of the service efficient. Especially the healthcare professionals were satisfied that they were involved in the development and their wishes and points of views were taken into account. The service was not ready when it was tested and therefore, there were lots of changes in the service during the test phase. Based on the feedback, there should have been more communication and training related to the changes. The need assessment was thorough and the needs were discussed after the test period with a wider group of stakeholders.

2) International Example

Title of the case/best practice:	**Case from Estonia – Innovation procurement support**
Link to further information:	https://ec.europa.eu/regional_policy/sources/good_practices/GP_fiche_30.pdf https://www.mkm.ee/en
Background:	In 2015, the Ministry of Economics and Communication introduced its "Public sector as smart customer" strategy as part of a broader innovation policy. In line with the strategy, the agency Enterprise Estonia was tasked with setting up a EUR 20 million scheme co-financed by European Structural Funds dedicated to innovation procurement. The scheme comprises activities related to awareness-raising and knowledge sharing as well as a budget for conducting innovation procurement.
Procurement objectives:	Circa 2 Million euro will be devoted to general awareness raising, knowledge sharing, workshops, consultations etc. – everything that helps the procurers and companies to better understand what innovation procurement is and why it is useful. The remaining 18 Million euro provides co-financing for Estonian public procurers to carry out an innovation procurement. Only procurers can apply, not companies, so it is fully demand-based measure. In 2016 Enterprise Estonia opened the first call for Estonian public procurers. The 18 Million euro support co-finances the actual procurement need (a new innovative solution, service or product) and supporting activities for the procurers to prepare and manage the procurement (e.g. the

	engagement of a project manager by the procurer, open market consultations before the procurement, legal support, market analysis etc.).
What is the IPP instrument that the public authority has used?	Innovation procurement support
Procurement process explained:	Procurers interested in conducting innovation procurement can apply for these funds. Specifically, the scheme provides co-funding for the actual procurement, i.e. the innovative goods or services, as well as for supporting activities throughout the procurement cycle. Notably, these may include contract preparation, legal and industry-related consulting, as well as management of the process and contract execution.
In what kind of indicators, variables or characteristics did managing authorities pay attention to when they decided which project will get funding?	Co-financing of up to 50% of the total cost of the project can be obtained, from which at least 75% must be disbursed on the solution and maximum 25% can be spent on supporting activities. The maximum financial support granted is EUR 500,000€ per innovative project.
Conclusions, lessons learned and how the example would fit into my region:	This pilot scheme will be refined on the basis of initial experience. The first call for procurers was opened in 2016, while the second one was concluded in early 2017. A third round was done in September 2017. Initial results demonstrate strong interest on behalf of contracting authorities and promotion of innovative ideas. However, it has also emerged that there is a shortage of skills necessary for conducting innovation procurement, in particular abilities to conduct market analysis and risk assessments as well as to meet technical criteria of the project.

4. Regional Development Agency of Bucharest-Ilfov

1) Local/Regional/National Example

Title of the case/best practice:	**Extreme Light Infrastructure - Nuclear Physics (ELI-NP)**
Link to further information:	http://www.eli-np.ro/
Background:	Initiated in 2005 and listed on the Roadmap of the European Strategic Forum for Research Infrastructures (ESFRI) in 2006, the Extreme-Light-Infrastructure (ELI) aims at investigating the large variety of science and research applications of ultra-intense and ultra-short laser pulses. The project is implemented in several steps and is ongoing at the moment. ELI is based on a new generation of laser technologies producing sources of ultraintense high-energy particle beams and ultra-bright radiations up to the attosecond timescale. As the first truly international laser research infrastructure, ELI will provide access to the international research and industrial community for

	prospective applications in medicine, radiography, fusion energy, environment, material sciences, nanotechnologies, bio-chemistry, etc. The facility is based on four sites. Three of them are presently being implemented in the Czech Republic, Hungary and Romania, with an investment volume exceeding 850 Mio. Euro, mostly stemming from the European Regional Development Funds (ERDF). It is a laser facility that aims at hosting some the most intense lasers world-wide, develop new interdisciplinary research opportunities with light from these lasers and secondary radiation derived from them, and make them available to an international scientific user community.
Procurement objectives:	The goal was to obtain an infrastructure that will create a new European laboratory with a broad range of science covering frontier fundamental physics, new nuclear physics and astrophysics as well as applications in nuclear materials, radioactive waste management, material science and life sciences. For the realization of ELI-NP the following two principles were used as a guideline: - a staged realization of ELI-NP - a flexible design of the ELI-NP facility.
What is the IPP instrument that the public authority has used?	Innovative partnership
Procurement process explained:	After a 3-year Preparatory Phase (2008-2010) of the ELI project, the ELI Consortium was set up, and on 11 April 2013 became the ELI Delivery Consortium International Association (ELI-DC AISBL). The Association was established in order to promote sustainable development of the project, establishing partnerships and collaborations with national, European and international structures and organizations. ELI-DC coordinates the transition from the implementation to the operation phase, leading to the creation of a European Research Infrastructure Consortium: ELI-ERIC. The availability of funding from the European Regional Development Funds (ERDF) in the three hosting countries represented a tremendous opportunity for ELI. The investment and start-up costs of the three facilities was co-

	funded by ERDF through the following Operational Programmes dedicated to R&D&I: - The Operational Programme "Research and Development for Innovations" in the Czech Republic - The Operational Programme "Economic Development" in Hungary - The Operational Programme "Economic Development for Competitiveness" in Romania. Because this was an innovative work and everything that involves these instruments (the lasers and gamma gauges) was non-existing on the market, they could not just be bought from the shelves. It required a team of specialized physicists that worked on developing the concepts and technology which was then acquired through complex procurement procedures. The procurement process has been implemented in steps, through preparation of the project, identifying/development of the technology and finally tendering and contracting.
In what kind of indicators, variables or characteristics does managing authorities pay attention to when they decide which project will get funding?	This project was initiated based on a memorandum approved by the Romanian Government and submitted the European Commission, that stated the importance of this major project and sought ways in which funding should be obtained. Thus, it was declared a major investment for Romania and funds were allocated from various operational programs to the Competitiveness Operational Program, which was the main source of funding. Jaspers was also involved in this process as it was responsible with evaluating the project.
Conclusions, lessons learned, how the example would fit into my region:	This project represents and major opportunity for Romania and the Bucharest-Ilfov region since it represents the true meaning of IPP – a technology was nonexistent and it required an intense process of discovery and development of tools by specialized physicists from around the world. It was a lengthy process that took about three and a half years to implement. This infrastructure created a new European laboratory with a broad range of science covering frontier fundamental physics, new nuclear physics and astrophysics as well as applications in nuclear materials, radioactive waste management, material science and life sciences. ELI will practice a vigorous technology transfer to European SMEs and large firms. High on ELI agenda is

	the training of aspiring scientists and engineers in the numerous disciplines associated with the Extreme Light. The region experienced growth and development on account of the investments made as new jobs and international partnerships were created.

2) International example

Title of the case/best practice:	**Case study on electric vehicle charging points**
Link to further information:	http://www.smart-spp.eu/fileadmin/template/projects/smart_spp/files/Case_studies/EN_Barcelona_SMARTSPP_Case-Studies.pdf
Background:	Various departments within the City Council of Barcelona have been strongly supportive of expanding the use of electric vehicles in the city and were planning the creation of the first networks of public charging points. The SMART SPP project team in the city identified this as an ideal opportunity for testing the advanced tendering methodology developed for the project.
Procurement objectives:	The goal was to identify and to develop the most innovative and most energy-efficient solution for the installation and management of ten on-street charging stations for electric vehicles with two charging docks in each.
What is the IPP instrument that the public authority has used?	City of Barcelona has used a particular procurement approach which focuses on engaging the market effectively before tendering (early market engagement). This entails consultation with the market before tendering in order to see what works, to establish technical specification and see what the market is capable of delivering for that type of services.
Procurement process:	Barcelona City council has applied the advanced SMART SPP tendering methodology. This was a pilot project for the procurement of 10 electric charging points. The procurement process has been implemented in 3 steps: 1st Preparation (Identifying product groups and setting up a project team);

	2nd Early market Engagement (Defining your needs, Informing the market, Engaging the market) 3rd Tendering and Contracting
In what kind of indicators, variables or characteristics did managing authorities pay attention to when they decided which project will get funding?	The managing authorities incorporated environmental and energy efficiency criteria in the technical specifications with regards to: - Service life of components - Energy consumption - Maintenance of the charging points After awarding the contract, the managing authority used the life-cycle costing (LLC) – CO2 evaluation tool in order to evaluate a posteriori the actual cost of the new service, for the short and long term and to extrapolate them for future tenders. Application of concepts such as the evaluation of costs for the whole system as well as dialogue with the market, were key to finding the best possible solution from the point of view of sustainability.
Conclusions, lessons learned and how it would fit into my region:	The process applied during the tender process for the installation, operation and management of the first on-street charging stations for electric vehicles in the city of Barcelona identified the following main points: - The positive background and high exposure for planned energy projects in the mass media are defining factors for mobilising suppliers in this emerging sector, including during the phase prior to tendering. - The type of consultation carried out was a great success in terms of participation and the technical information gathered. Thanks to the positive dialogue resulting from the exchange of information and knowledge and in view of the flexibility required in tendering for innovative solutions, this greatly helped in the development of a successful tendering process. - The use of the LCC-CO2 evaluation tool and acquisition of data on energy consumption and CO2 emissions during the product life-cycle made it was possible to estimate the energy costs for the service. This information might be useful for future tender processes.

5. Regional Government of Central Greece

1) Local/Regional/National Example

Title of the case/best practice:	**Local Government Access Framework (LGAF) for Greek Municipalities**
Link to further information:	http://www.greekinformationtechnology.gr/node/2257
Background:	The Central Union of Municipalities decided to exploit a financial opportunity offered by the EU Cohesion Policy Fund to carry out a pilot project with a total budget of €1.6M aiming at: a) the delivery of value-added on-line services to citizens and local businesses, and b) a more efficient management of local authorities' resources and organizational processes.
Procurement objectives:	The goal was to develop and test a single portal offering access to local government services aimed at citizens and businesses, which was the first attempt to consolidate local government authority IT applications under one umbrella and in line with standard European practices. In more detail, goal of the platform was to: • uniformly provide e-services to citizens and businesses • standardise municipal procedures • automate the work done by municipal staff • consolidate existing applications and ensure interoperability • improve procedures and also re-design them when necessary
What is the IPP instrument that the public authority has used?	Innovative partnership with EU Cohesion Policy funds, Public procurement on the basis of MEAT
Procurement process:	The procurement method for acquiring the platform was an open public call which included particular functional requirements and suggested a number of solutions already in use by local governments in other European countries (UK, Sweden, etc.). The contract was awarded to a large, well-established Greek IT firm that decided to use one of the proposed solutions (APLAWS). The carrying out of the work involved two basic stages: Stage 1: The design and development of the platform and its delivery as a product to the purchasing agency. Stage 2: The latform's utilization by end-users for the pilot delivery of eGovernment services. Finally, an open software platform was developed, incorporating operational procedure management and content management functionality. Open software tools were modelled and developed. Procedures were modelled and 30 e-services developed. Interfaces were developed for existing apps and third party systems. Central infrastructure was put in place and users given access via the public networks.

In what kind of indicators, variables or characteristics did managing authorities pay attention to when they decided which project will get funding?	Apart from the financial aspects, innovation characteristics and level of requirements' satisfaction were taken into account, mainly: • high levels of interoperability with Municipalities' existing systems • adaptation and responsiveness to required changes and increased reusability potential • possibility of interoperation with other information systems of the public administration
Conclusions, lessons learned, how it would fit into my region:	A significant positive side effect of the LGAF project was that it created opportunities for knowledge-intensive entrepreneurship. The embraced architecture resulted in the creation of a complex platform consisting of different components and provided subcontracting opportunities to specialized software developers. The main added value of the LGAF project lies in its long-term potential i.e. the productivity benefits for public and private. The MA involved was not an advanced and established buyer of innovative ICT solutions and this caused inconsistencies and delays. However, with the first experience at hand, they can gradually build their capacity to support PPI and improve their relevant management capabilities and skills. The case study findings suggest that the MA could not effectively manage the technology risks related to the product. More specifically, they were not able to communicate effectively the goals of the procurement among the selected end-users (municipalities) and find ways to increase their engagement in the project. Overall, several issues such as the insufficient expertise of the purchasing agency, the relatively limited involvement of the end-users, the inefficient technical, risk and relationship procurement management, the legal framework of the project, and the weaknesses of the Greek ICT ecosystem constituted significant deficiencies to the successful realization of the project. These findings can be of significant interest for the Region of Sterea Ellada in future procurement projects for ICT related products.

2) International example

Title of the case/best practice:	**FABULOS (Future Automated Bus Urban Level Operation Systems)**
Link to further information:	https://fabulos.eu/
Background:	The FABULOS project focuses on how cities can use automated buses in a systematic way. The goal is to procure the operations of an autonomous bus line. Self-driving minibuses have already been tested in technical

	demonstrations in various countries, but a proof-of-concept for the management of autonomous fleets as part of the public transportation provision is not yet available. Six partner cities are embracing this challenge by collectively procuring R&D for the prototyping and testing of smart systems that are capable of operating a fleet of self-driving minibuses in urban environments. These solutions should be all-inclusive: software, hardware, fleet and services. The cities play an important role by combining their efforts in supporting the market to develop such systems. This kind of intelligent transportation system and integrated transportation approach is key to facilitating the sustainable development of public transportation and for cities to be able to become car-free in the foreseeable future. In total, FABULOS procurement budget reaches around 5,500,000 Euros (including VAT). The maximum budget for individual suppliers involved in all three phases is over 1,000,000 million Euros (including VAT).
Procurement objectives:	The FABULOS project seeks new solutions and technologies to prepare cities for the future of mobility, including concepts such as self-driving buses. Novel transport solutions will be developed and acquired by utilising a Pre-Commercial Procurement (PCP), which allows the Procuring Partners to share the risks and benefits with the suppliers. The expected outcome of the FABULOS project is the demonstration of automated minibus service as part of the public transport system.
What is the IPP instrument that the public authority has used?	Joint Pre-Commercial Procurement (PCP), co-funded by EU and partner funds (10%)
Procurement process:	The pre-commercial procurement process consists of three clearly defined phases: concept design, prototype development and field testing. In each of these phases significant budgets are available for suppliers to support their work. <u>Phase 0: Open Market Consultation</u> Prior to the concept design phase the open market consultation took place, in which the scope of the FABULOS PCP was refined through a dialogue with potential suppliers and other stakeholders. The outcome of this phase was the preparation of a request for tenders, launched in September 2018. <u>Phase 1: Solution design</u> This phase is a feasibility study of the proposed solutions and technologies, which aims to verify the technical, economic and organisational feasibility of each supplier's offer. The expected output from participating suppliers was a report describing the results of the feasibility study and the conclusions for the start of prototype development. Phase 1 finallizes in April 2019. <u>Phase 2: Prototype development and lab test</u>

	The purpose of this phase is to take the most promising concepts that have been shown to be feasible in phase 1 and develop them into working prototypes. The selection process for phase 2 is based on the phase 1 report and an application process, which will outline the suppliers' plans for phase 2. Selected suppliers will each develop a prototype based on the results of their feasibility study, the aim of which is to verify the extent to which the prototype's main features meet the functional and performance requirements set in the challenge. The prototypes will be tested in lab-type environments. Phase 3: Field test This third and final phase aims to verify and compare the full feature set and performance of different solutions in real-life operational conditions. In practice, the automated minibuses will be tested on open roads in real life conditions. The intention is to undertake testing in all of the procuring cities. The pilot locations will be decided on based on the best possible match between the proposed solutions and local needs, opportunities and regulations.

In what kind of indicators, variables or characteristics did managing authorities pay attention to when they decided which project will get funding?	The Contracts have to be awarded based on the Most Economically Advantageous Tender (MEAT). Only tenders with the following minimum scores (thresholds) are eligible for consideration for a contract:
	• 60% of the maximum number of points for each of the criteria, excluding Price:
	  ○ Project Management
	  ○ Functional Requirements
	  ○ Non-Functional Requirements
	  ○ Commercial feasibility
	• 60% of the maximum number of points for the combined scores, including Price.

Conclusions, lessons learned, how it would fit into my region:	Overall, although the FABULOS project is still in progress, several useful conclusions can be drawn. The particular procurement process showcased the benefits of utilizing Pre-Commercial Procurement procedures when looking for solutions not yet commercially and widely available in the market. Moreover, the project already presents a deep impact on how public authorities and traditionally rigid, complicated and unexperienced public departments can act as innovation demanders and operate in the context of a research and development project. However, it is imperative for the successful realization of such project to involve at least one highly technologically skilled and experienced partner (such as a university) which will act as a technology advisor throughout the lifecycle of the procurement process. Finally, the Open Market Consultation phase, as a preparation of the pre-commercial procurement challenge and request for tender, was important for the successful procurement

	procedure, in order to involve technology companies and consortia from early on and to gain market insight on state of the art and future developments in the field. These findings can be of significant interest for the Region of Sterea Ellada in future procurement projects for beyond of the state of the art products.

6. Ministry of Economics of the Republic of Latvia

1) International Example

Title of the case/best practice:	Bio-based uniform/ Rawicz Country Hospital, Poland
Link to further information:	hyperlink1 hyperlink2
Background:	As a member of the LCB-HEALTHCARE project, Rawicz Hospital had the opportunity to make an innovative purchase to reduce its carbon footprint. The hospital's CEO recognised the relatively high risk associated with innovative building refurbishment and identified the procurement of new staff uniforms as a suitable pilot project to test new approaches.
Procurement objectives:	The previous generation of uniforms had not delivered against user expectations and the costs and environmental impact associated with their purchase and laundering had not been considered.
What is the IPP instrument that the public authority has used?	Competitive dialogue
Procurement process explained:	A technical dialogue (preliminary market consultation) procedure was launched to gather market knowledge in advance of the tender. Further on, staff were given an opportunity to test the offering of the 2 companies and the gained experience has allowed to test the requirements for the final product, modifying the specification (including such detail as the cutting of the clothing). When the procurement has been announced, 4 companies have answered, and the discussions have been conducted with those companies. Within 2 months the procurement has been resolved.
In what kind of indicators, variables or characteristics does managing authorities pay attention to when they decide which project will get funding?	Procurement was based on the whole-life cost evaluation. To calculate whole-life costs the following formula was used: $$LCC = \frac{Pp + Ce + Cu}{T} \times TMAX$$ *LCC – whole-life cycle cost,* *Pp – purchase price of an entire set of clothes declared by the supplier,* *Ce – exploitation costs,* *Cu – utilization costs,* *T – amount of time the clothing can be used,*

	TMAX – the longest amount of time the clothing can be used offered by the suppliers participating in the procurement. As the result, the offer with the lowest life-cost was the winner. Moreover, the offer with the lowest initial purchase price turned out to be the one with the highest whole-life cost.
Conclusions, lessons learned, how the example would fit into my region:	The entire process took much more time than originally expected. Even though the hospital is not sure if its calculations of the whole-life cost of the products are correct its procurement department believes that the method will be mastered. Using whole-life cost instead of the 'traditional' method of choosing a product with the lowest purchase price proved to be the most beneficial. Some of the suppliers did not quite understand the idea of a product whole-life cost even though during meeting preceding the procurement representatives of all interested companies declared they did. That resulted in long presentations during which the suppliers were trying to sell the same clothes that they had offered in the past. Also, once the procurement was resolved and the winner declared, one of the competitors was outraged that its product was not chosen even though its purchase price was lower. However, during the discussion with the potential suppliers, the new approach to procurement has been appreciated because the suppliers were able to freely present their solutions and were not limited by the standard questions from a procurement questionnaire. Representatives of Rawicz Hospital mention, that this method works best in the case of difficult purchases where the subject of the procurement is difficult to specify, and market research is necessary. The example demonstrates a great alternative to the basic criteria of the project evaluation-development of such formula is a good example which may be implemented in the region. Moreover, this solution may be applied to the different industries.

2) International Example

Title of the case/best practice:	**Ultra-Efficient Lightning for Future Wards/ The United Kingdom**
Link to further information:	hyperlink
Background:	The opportunity for innovation was presented by a 7-year refurbishment programme beginning in 2010. Detailed costings, verified by an independent quantity surveyor, show that the innovative solution will cost the same as a standard solution, but will deliver both the required step change in patient experience and lighting efficiency, and reduced on-site build time, minimising disruption to the hospital staff and patients.

Procurement objectives:	The objective was to procure an integrated "future ward" modular solution, with integrated bio-dynamic lighting, trunking and storage. There has been an anticipated benefits realisation – design features, operational benefits, construction benefits, sustainability, financial benefits.
What is the IPP instrument that the public authority has used?	Competitive dialogue
Procurement process explained:	Prior to the procurement procedure, Forward Commitment Procurement (FCP) has been introduced, which gave the supply chain the time and motivation to come up with an innovative approach. In 2 years, the competitive procurement procedure has been launched. Among the proposals, there have been leading medical lighting companies and a pan-European consortium of companies including a lighting designer, architect, building systems manufacturer and lighting manufacturers. By providing advance information on the requirement, in the context of a major procurement, and by stimulating cross supply chain cooperation the Trust gave the supply chain the time and motivation to come up with an innovative solution.
In what kind of indicators, variables or characteristics did managing authorities pay attention to when they decided which project will get funding?	The initial requirements have been concluded as cost effective and affordable. The final solution has met these requirements. The core requirement outcomes have also included such criteria as energy efficiency; fully installed, maintained and future-proofed service to facilitate the future upgrading; a pleasant patient experience.
Conclusions, lessons learned and how the example would fit into my region:	Setting up the project team with an expertise on the topic of the renewable energy has been a crucial part of the preparation for the procurement process. The FCP methodology was aimed to stimulate the supply chain prior to the beginning of the procurement process, making it possible to meet the "unmet needs" identified as part of the program. The market has been prepared for the PPI and has been incorporated before launching the process. This market consultation process allows to test the requirements and establish the problems prior to the announcement of the procurement. The market engagement not only gave potential suppliers notice and time to innovate, it also stimulated a valuable exchange within and between the supply chains. Overall the process has taken much longer time than expected, including the pre-tender market communication and the whole process of PPI. The FCP is a good example to use within the region, to foster innovation as well as create the specification meeting the needs of the customer and considering the possibilities of the supplier. Competitive dialogue as a procurement process permits discussion of the options with the potential suppliers before inviting to present final offers during the procurement procedure.

7. National Innovation Agency of Portugal

1) Local/Regional/National Example (Not found)

Title of the case/best practice:	Positive energy boarding school in Rouillé, France
Link to further information:	http://sppregions.eu/fileadmin/user_upload/Tenders/RGO/SPP_Regions_Nouvelle_aquitaine_Final.pdf
Background:	For the construction of a new 50 bed boarding school, as an extension of the Lycée Xavier Bernard in the town of Rouillé, the Region of Nouvelle Acquitaine, as contracting body, decided to apply highly ambitious environmental goals. The approach taken was based on the main French green building certification scheme, HQE (*Haute Qualité Environnementale*), with the further ambition of achieving a positive energy building. The HQE scheme assessed 14 environmental indicators. For each indicator it defines three levels of performance – very high, high, and regular. To fulfil the approach, you must achieve the *very high performance* level for at least three indicators, and at least a further four at the *high performance* level. Which indicators to prioritise at the higher level is the choice of the contracting authority.
Procurement objectives:	The Region of Nouvelle Acquitaine decided to fix the following indicators at the very high performance level: construction methods and materials, minimising maintenance and repair, and hydrothermal comfort. To achieve the positive energy standard, one element of the design was to incorporate the production of renewable energy on site.
What is the IPP instrument that the public authority has used?	Indirect support from Horizon 2020 research and innovation programme through SPP Regions (Regional Network For Sustainable Procurement).
Procurement process:	The procurement process was split into two stages: (1) Selection of architect/project manager - Awarded December 2015; (2) Procurement of works contracts (12 lots) – Awarded July 2017. The selection of the right architect was central to the ambitions of the Region, in achieving the environmental standards desired. The bidding architects were evaluated on a range of criteria over a two-phase evaluation – the first phase assessing their experience and suitability for the project, and second their concept for the project itself. The architect was tasked with designing a construction which met a specific performance level for 14 environmental parameters, as defined by HQE. The construction was able to make use of an existing, biomass powered, heat network, which serves the school together with another public building. The use of straw was one of the principle construction materials. Straw has two key

	advantages: (1) Local material (particularly relevant for an agricultural school); (2) Low energy material – little energy required to transform straw into a construction material. **The procurement process was also supported by the Nouvelle-Acquitaine Eco-Habitat Cluster**, which brings together architects, project managers, construction companies, researchers, and public sector organisations, to promote sustainable construction through networking at the regional level. Evaluation criteria: **Technical evaluation** (30%, including 5% in relation to the materials proposed); Price (70%).
Conclusions, lessons learned, how it would fit into my region:	The new building is estimated to achieve savings of **5.1 tonnes CO2/year** in comparison to a standard school building – **a 75% reduction**. Without considering the wind and photovoltaic electricity generated on site the building would consume 34 kWh/m² instead of 117 kWh/m² for a standard building. If we include this RES capacity the figure falls to just **4 kWh/m²**. Between 1 and 7 companies submitted bids for the various construction work lots, however, one lot had to be retendered as there were no responses Overall, the work is proceeding very satisfactorily, although it will only be possible to assess operating conditions in a few years. The approach for two of the lots (frame-straw, and sealant) could have been optimised. The straw insulation was included in the frame lot to ensure the appropriate integration of the straw bales into the structure (layout optimisation). However, the sealant lot initially received no bids, and even after relaunching only one company applied. The reason was concern about the quality of the straw and its installation.

2) International Example

Title of the case/best practice:	**Innovation procurement network in Skåne/ Sweden**
Link to further information:	https://www.vinnova.se/en/p/innovation-procurement-network-in-skane/
Background:	The purpose of the project is to build a long-term geographic order network, among municipalities and municipal companies in Skåne. The network will serve as inspiration and support when deciding to implement the changes that are necessary to work structured with innovation procurement.

Procurement objectives:	The goal of the network is to stimulate municipalities for more innovation procurement, thus generating better solutions for different needs. This allows companies to get a bigger market for their innovations, as well as the opportunity for risk sharing in the development work.
What is the IPP instrument that the public authority has used?	Vinnova funding scheme: 120 000 euro
Procurement process:	It is not expected deep changes on common procurement processes promoting innovation. This network structure will be an instrument to better support procurers to perform innovation acquisitions and to stablish a trustable learning process among the demand and supply sides.
Conclusions, lessons learned, how it would fit into my region:	The network will increase expertise about innovation procurements among municipalities which hopefully leads to more innovation procurements taking place. This is beneficial both for buyers, suppliers and inhabitants. More innovation procurements will generate better solutions for the actual needs and also create a bigger market for the innovations. Inhabitants will get better products and services and in the long run more innovation procurements generates more job opportunities.


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