PCP & WISE



PCP WISE: Scaling Water Innovation – The Private Sector & Venture Capital Perspective

PCP WISE Webstival – Webinar 4





Funded by the European Union

This project has received funding from the Horizon Europe Framework Programme (HORIZON) under grant agreement N° 101182917



Housekeeping rules

Welcome to the PCP WISE Webstival Opening Webinar!

Here's how to make the most of the session:

- **Stay Muted** Please keep your mic off unless invited to speak.
- Use the Chat Questions? Thoughts? Drop them in the chat anytime!
- 👻 Raise Your Hand Want to speak? Use the raise hand 🖐 feature.
- **This session is recorded** So we can share the magic with others later!
- **Cameras Optional** Feel free to keep your camera on if you'd like—we like seeing your faces!
- Be Respectful We're an inclusive, global community—let's keep it kind and constructive.





The PCP WISE Webstival





Agenda

10:00 – 10:05	Welcome & Opening Remarks, by Melissa Campagno, G.A.C. Group
10:05 – 10:25	Why SMEs and start-ups should participate in a PCP by Samira Boussetta, Altaee
10:25 – 10:45	Success Stories from completed PCPs, Ana Lucia Jaramillo, Corvers BV
10:45 – 11:05	Involvement of VCs in PCP by Maria Kampa, Corvers BV & Katarzyna Lenart, NCBR
11:05 – 11:20	The Polish Case: Program to support the commercialisation efforts of companies participating in PCPs by Katarzyna Lenart, NBCR
11:20 – 11:30	Q&A and Networking opportunities by Melissa Campagno, G.A.C. Group
11:30	Closing

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Why SMEs and start-ups should participate in a PCP

Samira Boussetta, Altaee 10:05 – 10:25





What is Public Procurement?

Public procurement is the process by which public authorities (such as government departments or local authorities) purchase works, goods or services from companies which they have selected for this purpose.

□ Ensure that public funds are spent efficiently.

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□ On the basis of a serious assessment, following certain predetermined rules

Without any kind of favouritism (i.e to ensure public funds are spent honestly). Ensure a free market at EU level Regulated to



What is innovation in public procurement?

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

- Buying the process of innovation research and development services with (partial) outcomes
- Buying the outcomes of innovation

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Why is public procurement of innovation important?





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Different models and approaches to innovation procurement



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What is a PCP?

In PCP, public procurers buy **research and development from several competing suppliers in parallel** to compare alternative solution approaches and identify the best value for money solutions that the market can deliver to address their needs.

Research and development is split into phases (solution design, prototyping, original development and validation/testing of a limited set of first products) with the number of competing research and development providers being reduced after each phase.



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1. PCP is a Demand driven process

Meets real-world needs : Public buyers define real needs, giving direction to innovation

Co-Develop with public buyers and real Users

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- Solutions are designed with and for end-users
- Test and iterate based on real-world feedback

Increase chances of product-market fit: This increases the chances of market uptake after the R&D phase.



1. Product Development Aligned with Real Market Needs

PCPs are **demand-driven** :

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- Meets real-world needs : Public buyers define real needs, giving direction to innovation
- **Co-Develop with** public buyers and real Users
 - Solutions are designed with and for end-users
 - Test and iterate based on real-world feedback
- Increase chances of product-market fit: This increases the chances of market uptake after the R&D phase.





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Why PCP Matters for SMEs and Startups ?

2. De-risking Market Entry

PCP allows the stepwise development and testing of solutions (feasibility, prototyping, and validation in real environments), **reducing the risks** associated with entering a new market or launching an unproven product.



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3. Early Engagement with Strategic Clients

- Participating in PCP gives SMEs access to **important public sector buyers** who can become long-term clients or references.
- This early trust relationship can open doors to other public contracts or private sector opportunities.



Gain Strategic Clients Early

- Work with forward-looking public sector buyers
- Build long-term relationships and reference clients
- Enhance credibility in your market



P*i***WISE** Footer title



4. IPR Retention and Competitive Advantage

- Companies retain the intellectual property rights of the solution, which means they can **commercialize the solution beyond the contracting authority**.
- This provides a valuable head start in the market and the chance to **scale internationally**.



Retain Your IP!

- You keep the intellectual property rights
- Public buyers get a license to use not ownership
- Commercialise your solution elsewhere scale up fast





5. Access to Funding Without Equity Loss

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- PCP provides public funding to develop and test innovative solutions, **without taking equity** or intellectual property.
- This helps startups and SMEs advance their technology without diluting ownership or relying on venture capital too early.



Non-Dilutive Funding

- Public investment in R&D **no equity taken**
- Secure resources to advance your solution
- Reduce dependency on early-stage
 investors





6. Validation and Visibility

- PCP projects are often part of **EU or nationally funded innovation programmes**, adding credibility and offering visibility at local, national, and European levels.
- Success in a PCP can boost a company's profile and help attract new partners or investors.



Visibility & Validation

- PCPs often part of national or EU innovation programmes
- Get featured in dissemination events, publications, and networks
- Strong track record supports future funding & scaling





Success Stories from completed PCPs

Ana Lucia Jaramillo, Corvers BV 10:25 – 10:45





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Successful stories from completed Pre-Commercial Procurements



Corvers Procurement Services B.V.



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Impacts of the EU funded joint cross-border Pre-Commercial Procurements

Showcases

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Impacts of the EU funded joint cross-border Pre-Commercial Procurements

Innovation Procurement - The power of the public purse

EU funded projects in the ICT domain

Publication of the European Commission, Directorate-General for Communication Networks, Content and Technology.





EU Funded PCPs

 Already by 2021, EU funded PCPs have strengthened the crossborder cooperation between 154 procurers across Europe that have jointly awarded in total 179 PCP contracts to contractors that involve 379 companies and 68 universities or research centres.







Impacts of PCPs

- From the contract award and R&D implementation, the impacts can be observed based on the type of players and how the R&D is committed to be implemented in the contracts.
- The results from 32 completed and ongoing PCPs funded through FP7 and Horizon 2020 show that the strategic use of public procurement to drive innovation from the demand side through PCP has significant positive impacts.







Immediate impacts after start of the procurement



- Opening the route-to-the market for new market players: 71,5% of total value of all PCPs contracts are won by SMEs through direct award (SME as sole or lead bidder), 86% if we count also the indirectly awarded contract value to SMEs (SME as partner or subcontractor). This is more than twice the average in public procurement across Europe (29%).
- Helping also established market players bring products to the market: 16% of contracts are won by large companies as single bidder. 19% of contracts consist of consortia of SMEs and larger companies bringing innovative products together to the market. 73,5% of the PCP contracts are won by SMEs (SMEs alone, or as lead bidder).
- Facilitating cross-border company growth: 33,1% of PCP contracts are awarded cross-border, 25 times more than the average in public procurement across Europe (1,7%).



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Immediate impacts after start of the procurement



- Bringing research results from the university to the market: 30% of contracts have universities or research centers as partners in the winning consortia (often together with university start-ups).
- Contributing to growth and jobs in Europe: Nearly all bidders (99,5%) are doing 100% of the R&D for the contract in Europe
- Reducing the R&D risks for procurers and encouraging commercialisation of results by vendors: Leaving the IPR ownership rights with vendors reduced the R&D cost for procurers on average by 50% as vendors see wider commercialisation potential for their solutions.
- Improving the quality and efficiency of public services: All completed PCPs have delivered working solutions that can contribute to the strategic goals of the procurer. 60% of procurers use PCP to obtain more open, interoperable solutions. Procurers from 50% of PCPs that completed by end 2016 have already deployed innovative solutions developed during the PCP.



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Longer term impacts a few years after project completion: Impacts on procurers

- Improving the quality and efficiency of public services. All completed PCPs delivered solutions that improve quality and/or efficiency. 60% of procurers use PCP also to obtain more open, interoperable solutions.
- Deployment of solutions by procurers in the projects: Procurers from 70% of the completed PCPs have already deployed solutions developed during the PCP (SILVER, PRACE3IP, HBP, PREFORMA, THALEA, IMAILE, NYMPHA-MD, SELECT4CITIES, HNSciCLOUD).
 - Some projects deployed solutions as open source without needing further procurement: PREFORMA, SELECT4CITIES, HBP (part open source).
 - Some projects procured the solutions as part of the PCP: PRACE3IP, THALEA, IMAILE. For other projects, the resulting solutions were procured after the PCP: SILVER, HBP, NYMPHA-MD, HNSciCLOUD.
 - Procurers from 30% of the completed FP7 PCPs have not procured yet due to several reasons (certification, standardisation not completed yet etc).
- Wider deployment of solutions by other procurers on the market: Procurers from 38,5% of completed FP7 PCPs are already implementing or are preparing additional larger scale procurements 99 with enlarged buyer groups (THALEA, HNSciCLOUD, PRACE3IP, HBP, IMAILE)







Longer term impacts a few years after project completion: Impacts on the companies



- Commercialisation of solutions (product available on the market): 86% of the Phase 3 contractors, 75% of the Phase 2 contractors and 30% of the Phase 1 contractors have already commercialised (part of) their solutions. 11% of the contractors (across Phases 1/2/3) still expect to commercialise within 2 years. 17% of the contractors do not plan commercialisation of solutions.
- Business growth: 50% of all contractors across all the phases already increased their revenues from commercialising the PCP solution. A number of contractors that do not continue until phase 3 also continue investing to bring their solution to the market. 24,2% of start-ups have secured equity investment and 17% of startups concluded partnerships with large corporates since the PCP. On average 1 SME per PCP has attracted additional EU SME instrument financing, either before the PCP to verify the feasibility of their idea and setup their business for the PCP or during/after the PCP, for wider marketing activities and/or to diversify also into other markets.
- Exit strategy (62,8% of companies in the PCPs are Start-Ups): 12,1% of start-ups have undergone a merger or acquisition. 3% of start-ups have done an IPO since the end of the PCP



WISE Webs



Showcases

Innovation Procurement The power of the public purse

EU funded projects in the ICT domain

Publication of the European Commission, Directorate-General for Communication Networks, Content and Technology.



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HEALTH / ELDERLY CARE PROJECTS

- THALEA Developing telemedicine for high risk intensive care unit patients
- SILVER Supporting independent living of elderly through robotics
- DECIPHER Safe mobile medical care for patients
 with chronic long term conditions
- NYMPHA-MD Mobile services for mental health treatment
- STOP AND GO Telecare services for frail elderly with multiple conditions

TRANSPORT PROJECTS

- V-Con Optimizing road infrastructure through virtual modelling
- CHARM Improving traffic management performance

SAFETY PROJECTS

• SMART@FIRE – Smart personal equipment to reduce the risks faced by firefighters

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PUBLIC ADMINISTRATION PROJECTS

- SELECT for Cities Enabling urban IoE applications and services
- PREFORMA Towards a sustainable ecosystem for long term digital preservation
- HNSciCloud A marketplace of innovative cloud services for scientific users

ENERGY PROJECTS

• PRACE 3IP – Increasing the energy efficiency of high performance computing

EDUCATION PROJECTS

• IMAILE – Personalized learning environments for primary and secondary schools

HUMAN BRAIN PROJECT

HUMAN BRAIN PROJECT – Interactive supercomputing for human brain research



Human Brain Project

- Brain research requires supercomputing resources but with a higher level of interactivity and memory capacity. Researchers need to steer model simulations or to quickly analyse large amounts of data.
- The Human Brain Project, an EC FET Flagship project, completed in end 2016 is a PCP that accelerated the development of interactive computing and large memory capabilities for High Performance Computing (HPC). It resulted in two solutions that both performed all R&D in Europe (Cray and IBM/NVIDIA).
- PCP opened up opportunities for participating companies to partner with other HPC players and commercialise their solutions.
- The <u>ICEI procurement</u> realised wider deployment of the solutions developed in the PCP across an enlarged buyers group around Europe. These solutions are nowadays widely deployed and used for brain research.



Procuring partners: Forschungszentrum Jülich (DE)

Other associated procurers:

Barcelona Supercomputing Center (ES), Karlsruhe Institute of Technology (DE), Federal Politechnical School of Lausanne – EPFL (CH), ETH Zürich (CH), CINECA (IT)

Website: www.humanbrainproject.eu



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Creating a competitive marketplace of innovative cloud services for scientific users

- End 2018, 10 leading European research centres completed the Helix Nebula Science Cloud (HNSciCloud) PCP to meet the growing requirements for handling applications and datasets in the fields of astronomy, high energy physics, life sciences and photon/neutron sciences.
- Meanwhile, the <u>OCRE consortium</u> procured the deployment of cloud solutions based on the PCP results across research and education networks in 48 countries.
- The hybrid cloud platform that is now deployed as a result of the PCP, links together commercial cloud service providers and publicly funded research organisations' in-house IT resources via the <u>GEANT network</u> to provide innovative solutions supporting data intensive science.
- These innovative services support the connection of the research infrastructures identified in the ESFRI Roadmap (European Strategy Forum on Research Infrastructures) to the nascent European Open Science Cloud (EOSC) intended to create a single digital research space for Europe's 1.8 million researchers.
- HNSciCloud and OCRE brought these solutions to the market.



Procuring partners:

European Organization for Nuclear Research CERN (CH) (lead procurer), National Institute for Nuclear Physics INFN (IT), German ElectronSynchrotron DESY (DE), National Center for Scientific Research CNRS (FR), Karlsruhe Institute for Technology KIT (DE), SURFsara (NL), Science and Technology Facilities Council STFC (UK), European Molecular Biology Laboratory EMBL-EBI (DE), Institute for High Energy Physics IFAE (ES), European Synchrotron Radiation Facility (ESRF)

Website: www.hnscicloud.eu



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Developing telemedicine for high-risk intensive care unit patients

- Intensive Care Units (ICU) strive every day to improve the care for acutely live-threatened patients.
- Between beginning 2015 and October 2016, five hospitals from Germany, The Netherlands, Spain, Belgium and Finland carried out the THALEA PCP to get a highly interoperable telemedicineplatform developed for tele-detection and tele-care of ICU-patients at increased risk.
- Three innovation systems were delivered at the end of the PCP.
- The novel algorithms and improved risk-detection of the telemedicine solutions, planned for wider deployment in the THALEA II PPI, enabled earlier diagnosis and improved efficiency in the ICU significantly, resulting in a reduction in sepsis mortality by 25% and in the length of hospital stay by 20-50%.

<u>eafip video - Dr. Robert Deisz THALEA PCP Telemedicine for Intensive</u> Care Units (Public procurer) - YouTube



Procuring partners:

University Clinic Aachen (DE) (lead procurer), University Hospital Maastricht (NL), Parc Tauli Sabadell University Hospital (ES), Hospital East Limburg (BE), Northern Ostrobothnia Hospital District (FI)

Website: www.thalea-pcp.eu





Successful national PCPs

Cases from Denmark and Norway



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UVD Robots

- 2014-2016: PCP by Danish hospitals
- Result: Blue Ocean Robotics (Danish startup) created innovative disinfection robots that kill 99% of all viruses & bacteria within 10 minutes.
- <u>2020: EU bought 300 of these 'EU made' robots</u> for hospitals around Europe to fight COVID.
 Largest order so far for the company, triggered wider diffusion of the solutions, selling worldwide. Steep growth, becoming a unicorn.
 Strengthens European position in robotics.







Snow Robots - YETI

In 2019, the Norwegian start-up Yeti Snow Technology successfully completed the pre-commercial procurement of the Norwegian airport operator Avinor to improve snow clearing operations at airports.

Thanks to this project, the company successfully brought to the market its innovative robotic snow sweepers and successfully attracted investors to grow its business. It won a large contract to deliver its driverless snowploughs to the Swedish airport operator Swedavia.

Yeti Snow technology came up with a driverless snowplough that could do the job. The company was setup in the run up to the pre-commercial procurement in 2015 by Semcon, a developer of autonomous systems for vehicles, and Øveraasen Snow Removal Systems, a Norwegian family business that been developing and manufacturing traditional snow ploughs, snow blowers and runway sweepers for more than 80 years.





 <u>No more stranded passengers at airports in the winter</u> <u>thanks to self-driving snow clearing vehicles | Shaping</u> <u>Europe's digital future (europa.eu)</u>


AquaGreen turning waste into energy

Clean-Tech company.

- "Our startup business has grown a little the other way around compared to typical startups. Normally, you start developing a technique that you then try to sell it. In our situation, we have contact with the market from the beginning and the solution was developed for a client from the beginning. We know that there is a great need. Customers are in line. It gives a completely different drive."
 - Olrik Birk Henriksen, senior researcher at DTU Chemical Engineering
 - Claus Thulstrup, owner/CEO Aquagreen



Join the circular economy with AquaGreen's sustainable steam-drying and pyrolysis technology

You transform biomass and waste, like sewage sludge, into renewable thermal energy, soil-improving biochar and/or activated carbon. While doing so, the process eliminates harmful pollutants, reduces greenhouse gas emissions and stores atmospheric CO₂ in biochar.

Sludge pyrolysis - AquaGreen

A group of Danish water procurers lead by DANVA joined forces in 2016 and launched a precommercial procurement to find a way to recycle and reuse valuable resources in wastewater.

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Takeaways

- PCP has **immediate and long term positive impacts** for public buyers and companies.
- The PCP instrument (as seen in EU funded PCPs) opens opportunities in the **contract award for innovative SMEs in a higher percentage (86%)** than the average in public procurement across Europe (29%).
- 50% of all contractors across all the PCP phases increased their revenues from commercialising the PCP solution. Also, contractors that do not continue until phase 3 continue investing to bring their solution to the market.
- 24,2% of start-ups have **secured equity investment** and 17% of startups **concluded partnerships** with large corporates since the PCP.
- National PCPs are also successful in bringing up results that are **further commercialised.**



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Questions?





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Involvement of VCs in PCP

Maria Kampa, Corvers BV & Katarzyna Lenart, NCBR 10:45 – 11:05



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Introduction and Background



VC definition

VC stands for "Venture Capital." It is a form of private equity financing that investors provide to startups and small businesses with high growth potential. Venture capitalists are individuals or firms that invest money in these early-stage companies in exchange for an ownership stake.

• Venture capital can take various forms depending on the investment focus, stage, and industry preferences of the venture capital firm.

• Types of VC include:

- Corporate Venture Capital
- Private Venture Capital
- > Public Venture Capital
- > Angel Investors
- Stage-Specific Venture Capital
- Industry-Specific Venture Capital



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FP7 & H2020 funded PCPs_ VC backing and commercialization

success

Update on results from completed and ongoing FP7 and Horizon 2020 funded Pre-Commercial Procurements (PCPs)

Lieve Bos DG CONNECT F3 unit ("Digital Innovation and Blockchain")

- How many VC backed companies?
 - > 30% of all SMEs that participated in FP7 funded PCPs are today VC backed

• Attracting first round of venture financing

- > 47,5% already their first VC backing before starting the PCP
- > 19% received first VC backing during phase 1 of the PCP
- > 9,5% received first VC backing during phase 2 of the PCP
- > 5% received first VC backing during phase 3 of the PCP
- > 19% received first VC backing after the PCP (this number is still expected to grow in the future)

• Success rate in growing the business

- 52,4% of VC backed companies have already commercialised their PCP solution and are already making revenue from it (slightly more than the average across all companies that participated in the FP7 funded PCPs)
- 9,5% of VC backed companies have already commercialised their PCP solution but not made revenue from it yet (still completing, certifying, marketing solutions)



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FP7 & H2020 funded PCPs VC Study Conclusion

Having VC backing is not a guarantee to win PCP contracts or to successfully complete a PCP.

Keeping a dual focus on developing a product that meets the public buyers' requirements alongside growing the company is important.

First indicators suggest a higher growth rate of the VC backed companies compared to the non-VC backed companies that participated in the PCP.

There is no direct link observed (yet) between IPR protection and VC backing.





Venture Capital and Public Procurement_The policy dimmension

The European Commission sees the importance of VC in public procurement across key services:

- Digital services
- > Health
- Environment
- Infrastructure
- > Initiatives are established at both the regional and EU levels.

Pre-Commercial Procurement (PCP) and Venture Capital

- > Early analysis of Pre-Commercial Procurement suggests VC is linked to the success of:
 - > SMEs, particularly in the innovation stage.
 - > Larger firms in later stages of PCP competitions.
- > This mirrors the US Small Business Innovation Research (SBIR) program, which increased VC's role in innovation procurement.



PREVENT PCP contribution





- VC Involvement Inquiry:
- > Explored Venture Capital (VC) involvement impact.
- During the OMC specifically asked participants about VC support.
- > 30% of companies were SMEs, and 10% were Start-ups/spin-offs.
- Interest in External Support:
- > 35% of responders expressed interest in external support.
- Support for developing and commercializing their PCP solution.





Roles of Key Actors

PREVENT PCP aims to explore the engagement of VCs in the PCP in order to increase the chances of commercialization of the developed solutions.

• Informal Working Group (IWG) 'Fostering Venture Capital involvement in Pre-Commercial Procurement.':

- Consortium engages external experts to form IWG.
- Members include researchers, representatives from CA & VC, members of EC services.
- Facilitate interactions between VC organizations and PCP contractors.
- Pitching Sessions:
- Prepare companies for participation in such activities
- Connect PREVENT PCP contractors with VC representatives
- Overall Aim:
- Commercialize the final solution in public and private sectors.
- > Increase chances of a profitable return on investment.
- > Act as a pilot and produce a set of lessons learned and policy recommendations





Benefits of VC involvement

• Transaction Benefits:

- > Firms participating in PCP gain various benefits, including:
 - Increased sales.
 - Business expansion opportunities by accessing new customer bases.
 - Employment creation.
 - Formation of new firms.
 - Generation of intellectual property.
 - Skill acquisition through innovative activities.
- Networking and Innovation Ecology:
- Participation in R&D enhances firms' networking and integration into innovative ecosystems.
- Firms may also publish results in trade and professional journals.
- Expertise:
- VC firms gain expertise in innovation procurement, opening further profit opportunities.
- VC firms investing in PCP gain access to innovating firms, providing investment opportunities and awareness of new markets.



Costs of VC involvement

- Venture Capital Engagement in Innovation Procurement:
- Introduces a new actor with different incentives.
- May lead to a loss of company control (dilution of equity).
- Can create pressure for rapid growth, potentially misaligned with the firm's strategic and operational capacity.
- These challenges necessitate a delicate balance between securing funding and maintaining a firm's strategic and operational alignment.
- Risks for the CA:
- Business Risk: VC control can challenge specific technology goals.
- > Policy Risk: Risk policy priorities like European autonomy.
- Alignment Challenges:
- > The aims of venture capital companies may not align with the aims of precommercial procurement.
- Procurement may fail if these aims diverge.
- Risks for Venture Capital:
- Inherent uncertainty in competitive R&D processes and commercial competition/tendering.



Recommendations



Limited VC Involvement in Early PCP Phases

Problem:

- VCs get involved in PCP at Phase 3, which limits risk mitigation opportunities, refining the business model early in the process.
- **Recommendation 1:** Involve VCs earlier (Phase 1 or 2) to provide input on Risk profiles, Business strategy, Commercialization plans.

Recommendation 2:

- Align procurement milestones with incremental financial returns.
- Innovators to provide strong market analysis to match deliverables with VC expectations on management, financial viability, and commercialization.
- **Promote Value Engineering:** Value Engineering specifications can help VCs better understand the benefits and cost-efficiency of the solution.







Addressing Equity Dilution Concerns & Evaluation Challenges

• Problem:

> Companies are often hesitant to share equity with VCs.

• Recommendation:

- Promote Hybrid Models:
 - > Encourage VCs to take on advisory and strategic roles rather than demanding equity.
 - > Reduces pressure on equity and aligns interests more closely.
- Problem:
- VCs may lack knowledge in innovation procurement
- Recommendation:
- Develop Training Programs:
 - Collaborate with Public Sector Experts to enhance VCs' understanding of innovation procurement.
 - > Focus: Improve evaluation skills for public sector innovations.



Aligning PCP Outcomes with VC Priorities

• Problem:

PCP outcomes sometimes do not align with VC investment priorities, particularly in security.

• Recommendation 1:

Focus on Public Funds:

Strategy: Emphasize public funding to bridge gaps and support VC engagement. **Problem:**

• Additional Financing needs for PCP companies.

Recommendation:

- Consider Other Sources, like EIC programs, national programs, and accelerators for further deployment.
- Public VCs may also be better suited options for fragmented markets like the security one.



Engaging VCs and Securing Participation

Problem:

"Time is Money" Approach: Difficulty in securing VC participation due to their busy schedules. **Recommendation 1**:

Facilitate Matchmaking Sessions/Events:

• Organize networking events that connect SMEs directly with VCs.

Recommendation 2:

Persistent Outreach:

- Use alternative approaches like in-person events or tailored outreach.
- Increase success rates by adapting strategies to better capture VC interest.





Enhancing EU Facilitation of PCP and VC Interaction

• Problem:

EU Involvement Needed: The EU should play a more active role in facilitating interactions between PCP companies and VCs.

Regulatory Support: Helps bridge the gap between public procurement and private investment.

> Attract VC Interest: Easier for companies to secure funding and investment.

• Recommendation 1:

- Establish a Centralized VC Database:
 - > Purpose: Help startups and companies identify relevant investors.
 - > Benefit: Provide VCs with insights into emerging businesses across the EU.

Recommendation 2:

>Involve Key European Organizations to support the VC ecosystem. :

> Offer financial backing and co-invest with VCs.



Involvement of VCs in PCPs

Katarzyna Lenart The National Centre for Research and Development











The National Centre for Research and Development

- An executive agency of the Ministry of Science and Higher Education of Poland,
- We support and develop innovative technological and social solutions,
- We create an ecosystem of knowledge and information on innovations,



National Centre for Research and Development











Innovation Procurement in NCBR







Pre-commercial Procurements

Innovation Partnership

Grand Challenge Competition











Pre-commercial Procurements in NCBR

Energy generation and storage

- Innovative biomethane plant,
- Heating plant of the future,
- Combined heat and power plant in the local energy system,
- Hydrogen storage.

Technologies for buildings

- Process and energy efficient building construction,
- HVAC for schools and houses,
- Micro-retention systems,
- Heat and cold storage,
- Electric power storage

Su	Ista	in	ab	ili	ity

- Sewage treatment plant of the future,
- E-Van universal delivery vehicle with electric drive.

These projects were funded by the European Funds









Pre-commercial Procurement



Basing on: Communication from the Commission COM (2007) 799: Pre-commercial Procurement: Driving innovation to ensure sustainable high quality public services in Europe





Polska





Pre-commercial Procurement



Basing on: Communication from the Commission COM (2007) 799: Pre-commercial Procurement: Driving innovation to ensure sustainable high quality public services in Europe





Polska





Pre-commercial Procurement



Basing on: Communication from the Commission COM (2007) 799: Pre-commercial Procurement: Driving innovation to ensure sustainable high quality public services in Europe









Challenges related to deployment of innovation

Further tests of the solution **Optimisation of the solution** under real operational or technology conditions **Production line for the new** Certification, standarisation, homologation solution Launching the solution to Scale up market









Where to look for a support?

Public agencies in the national innovation system Public agencies tackling energy transformation

Venture Capital

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Conclusions from the Acceleration Program (2023)

Only some of VCs have decided to support the Contractors Some of the Contractors has found investors on their own

Green & Energy transition – who should invest? Public or private sector? Cooperation with public institutions for creating an ecosystem of Green Deal innovations

Innovation Procurement

Narodowe Centrum Badań i Rozwoju

Katarzyna Lenart

Katarzyna.lenart@ncbr.gov.pl

The Polish Case:

Program to support the commercialisation efforts of companies participating in PCPs

Katarzyna Lenart The National Centre for Research and Development











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Innovation Procurement in NCBR







Pre-commercial Procurements

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- Process and energy efficient building construction,
- HVAC for schools and houses,
- Micro-retention systems,
- Heat and cold storage,
- Electric power storage

Su	Ista	in	ab	ili	ity

- Sewage treatment plant of the future,
- E-Van universal delivery vehicle with electric drive.

These projects were funded by the European Funds









Pre-commercial Procurement in NCBR

Market consultations over several months

Growing level of financing during the project

Competition of contractors and selection in subsequent stages



Narodowe Centrum Badań i Rozwoju

Selection of contractors based on the measureable parameters

Prototypes and full-scale technology demonstrators

Testing the solutions under real/near-real operational conditions








Technology Demonstrators











Commercialisation in NCBR's PCP

Obligation to commercialisation of the solution

Share of a revenue from commercialisation Obligation to publish an offer for a licence to use the results of R&D

Obligation to report the progress of commercialisation









Acceleration Program



National Centre for Resear and Development





Increase business competences of the Contractors Get to know VC financing opportunities

Prepare for foreign expansion









Acceleration Program

Business competences

Workshops on:

- Sales strategy,
- Business model,
- Marketing strategy,
- IPR protection,
- ESG,
- Public-private partnership,
- Incentives for companies development.

Venture Capital financing

Demo Days

Reverse pitching

Networking sessions

Workshops on:

- VC financing fundamentals,
- Investment agreement,
- Negiotiations,
- Presentations.

Foreign expansion

Consultations with the Polish Investment and Trade Agency

Workshops on:

- Foreign expansion financing,
- Target foreign markets analysis,
- Strategy for entering the market.









Results of the Acceleration Program



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Number of contractors, who found an investor through the accelerator programme

Number of contractors, who found an investor by other means Number of technologies, which were developed basing on contractors resources or existing investor

Number of contractors, that need a business environment or GOV support for the products









Results of the Acceleration Program

Education of local authorities and the society for Green Deal



Education of private investors is a key for them to decide

Cooperation with public institutions for creating an ecosystem of Green Deal innovations

Innovation Procurement

Narodowe Centrum Badań i Rozwoju

Katarzyna Lenart

Katarzyna.lenart@ncbr.gov.pl



Q&A and Networking opportunities

Mélissa Campagno, G.A.C. Group 11:20 – 11:30







The PCP WISE Challenge & 5 Use Cases

The overarching challenge is to control & manage our 'soil-water-vegetationatmosphere' system to prevent extreme events & improve water distribution















2. WILDFIRE 3. **DETECTION & INFRASTRUCTURE** RISK **STRESS** MONITORING MONITORING

4. MUITI-**HAZARD EARLY** WARNING **SYSTEMS**

5. PLANNING TOOLS FOR SOIL & WATER



Watch <u>Webinar 1 recording</u> for more info on the PCP WISE use cases and expected functional and information requirements of the desired solution





Who Should Apply? PCP WISE targets multi-disciplinary skills & expertise

- Main contractor (large SME: civil engineering and management, upscaling ambitions)
- Hydrology (model) skills/services dedicated to sectors
- Meteorology (short extreme events, climate scenario modeling, spatio-temporal modeling)
- Crisis (Risk/impact) skills/experience dedicated to sectors
- Remote Sensing value-adding skills/services dedicated to sectors
- LCT skills in operational information productions (upscaling) in back and front processing
- E Legal & contracting skills (European standards, AI, IPR, etc)
- Research and innovation skills in the above disciplines



Get involved now & Gear up for the PCP Journey !





Access the OMC document and supplier Request For Information survey (RFI)



Join our Community Networking & Matchmaking platform





PCP & WISE Footer title

22/04/2025



Final Remarks & Closing

11:40 - 11:45



