Forskningsrådet

Public Procurement for Innovation: Policies and Highlights

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Demand side policies

- Demand side is about market creation
- Instruments:
  - Measures intended to create public or private markets in which socially insufficient demand is aggregated
  - PPI: organize demand as incentives to innovate and market innovative products
  - Regulation (e.g. standards)
  - Supporting private demand (taxes, awareness campaigns)
  - Systemic policies (lead market, open innovation and user orientation)
  - Policy risks higher than for supply-side measures (technological risks, proper anticipation of business response etc)
- New interest with global challenges

A need to differentiate

- **Public procurement** is the process whereby public authorities - including all levels of government and public agencies - buy goods and services or commission work. These contracts make up a significant share of the EU market, accounting for about 19% of its gross domestic product (GDP).
- **Public procurement of innovation** (PPI) occurs when public authorities act as a launch customer for innovative goods or services. These are typically not yet available on a large-scale commercial basis and may include conformance testing.
- **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.

Why/rational supporting demand of innovation & innovation procurement?

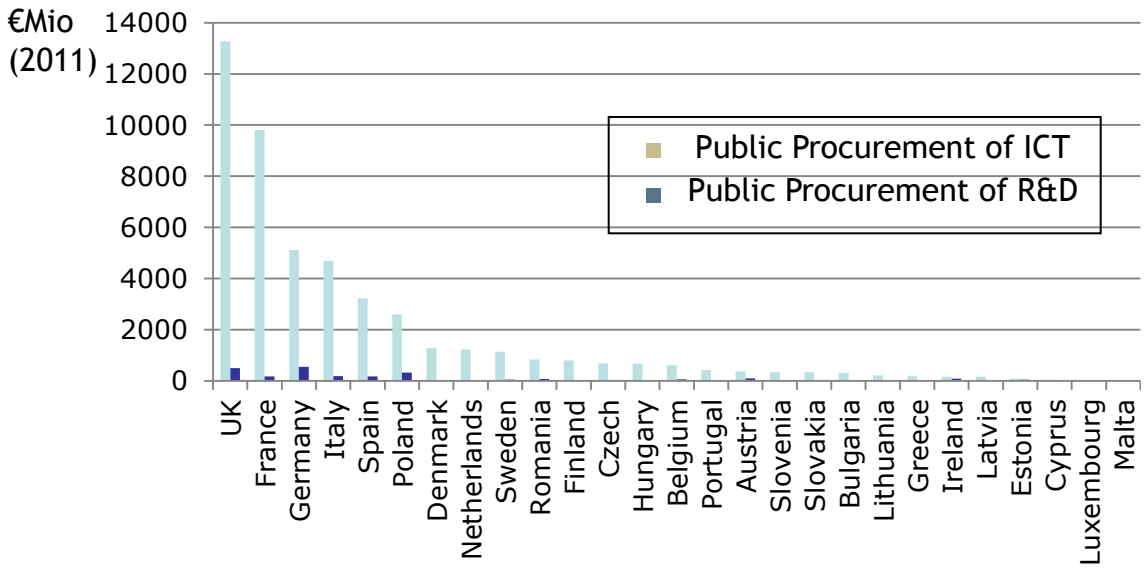
1. Potential lever for action: **18%-19% of EU GDP – € 2400 Billion (2010)**
2. Delivering **better public services/ facing Societal challenges**
3. Foster & accelerate **access to market** for innovative solutions (i.e. **lead customers, first client**)
4. Foster **EU Internal Market** to benefit of EU businesses (SMEs)
5. **Policy mix** and international rising field of innovation support policies

Innovation Procurement potential still underutilised

Innovation procurement is 'the tool' that enables potential buyers to steer industry R&I to its needs. However, it is under-used in EU.

	US	EU	
PCP:	50 $Bn	2,5 €Bn	of R&D public procurement/year
PPI:	15%	5%	of e-gov solutions procured are 'innovative'

- Also large differences within Europe



Frontrunner Member States invest 5 times higher % of total public procurement budget than followers on ICT and R&D proc:

ICT procurement
13,5% in UK <-> 2,5% in GR
R&D procurement
0,5% in UK <-> 0,1% in GR

Key characteristics of PPI

- PPI occurs when a public agency places an order for a product, system or technology that does not exist
- The technology may be known and proven but not at a market scale
- The procurer may be the user or only catalysing/aggregating the demand of others
- Developmental PPI: new to the market products
- Diffusion oriented PPI: Incremental or adaptive products
- Greek lesson: Unintentional PPI where immature conditions develop due to dynamics created by a PPI initiative: Networks and learning (Prof Lena Tsipouri)

Innovation Procurement – What is the EU doing?

- 2007: Commission Communication on pre-commercial procurement
- Since 2009: FP7 and CIP financial support to innovation procurement
  - Networks of procurers PCP-PPI
  - Co-financing for procurers to jointly implement innovation procurement "buyers' groups" PCP-PPI
- 2010: Innovation Union flagship promoting innovation procurement and committing to provide guidance, sharing of best practice and financial support to help procurers
- 2012: Horizon 2020 and Revised European industrial policy proposed with support to "buyers' groups" for preparing and co-financing innovation procurement – so far EUR 94M engaged (CIP-FP7) + innovation procurement platform and European Award
- 2013-14: Public Procurement Directives revision proposed and adopted Innovation partnership procedure, cross-border joint procurements, innovative character as contract award criteria …
- 2013-14: First Horizon2020 calls supporting PCP&PPI launched for a total of € 94M
- 2013-14: Launching of the PPI Award and of the PPI platform https://www.innovation-procurement.org/
- 2014-2015: Horizon 2020: €130-140M

- Contact in EU: Bertrand Wert, DG Enterprise

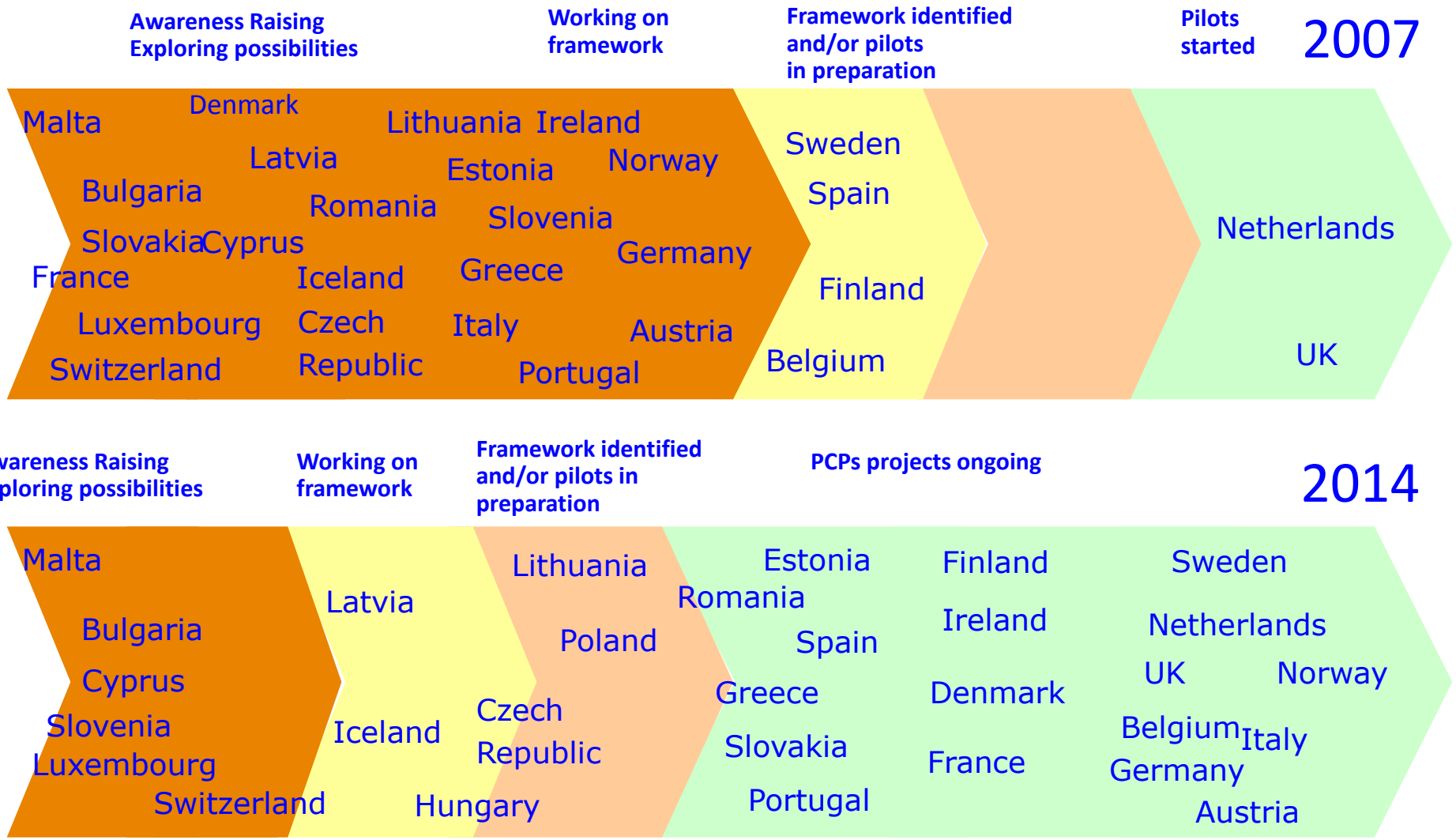
More important in EU: New legislation in 2014

- To support Europe 2020, Innovation Union, Horizon 2020
- EU-wide rules in the context of the Single Market

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

- http://www.innovation-procurement.org/about-ppi/legal-framework/

Progress PCP implementation
Learn from first movers

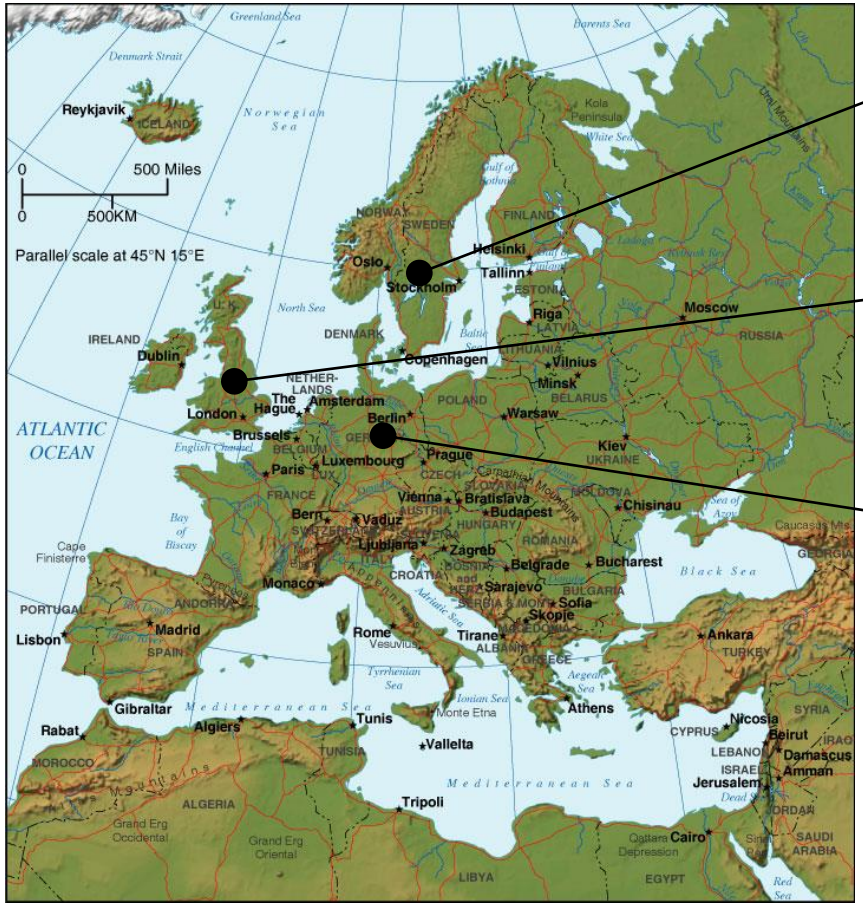


First pioneer projects are there now. Still major effort needed to mainstream them.
Source: Bertrand Wert, EU DG Enterprise

LCB-HEALTHCARE
Procuring better building solutions

Collaborative PPI: Example EU funded cross-border PPI (DG ENTR) CO2 less hospitals

Rotherham Ultra Efficient Lighting FCP (€2M)



Sweden
Fagerhult – Luminaires
Ecophon – Acoustic Tiles

United Kingdom
Cundall – Lighting Designers
Austin Smith Lord – Interior Designers
Wandsworth – Nurse Call Systems
EX-OR – Lighting Control

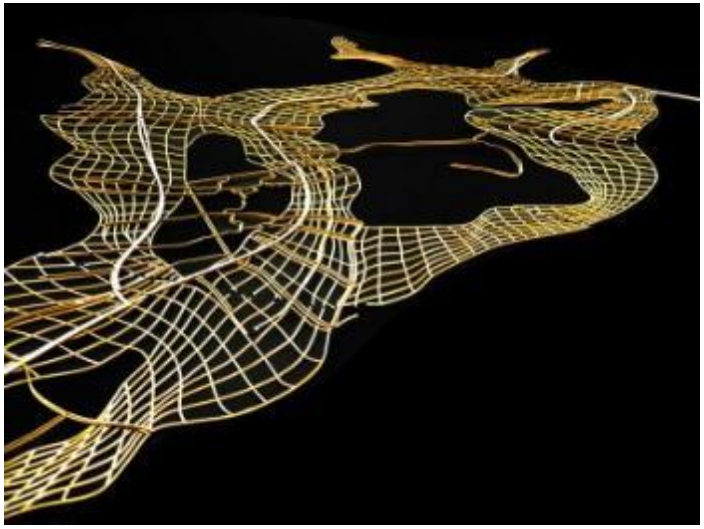
Germany
OSRAM – LED's, Lamps, Control Gear

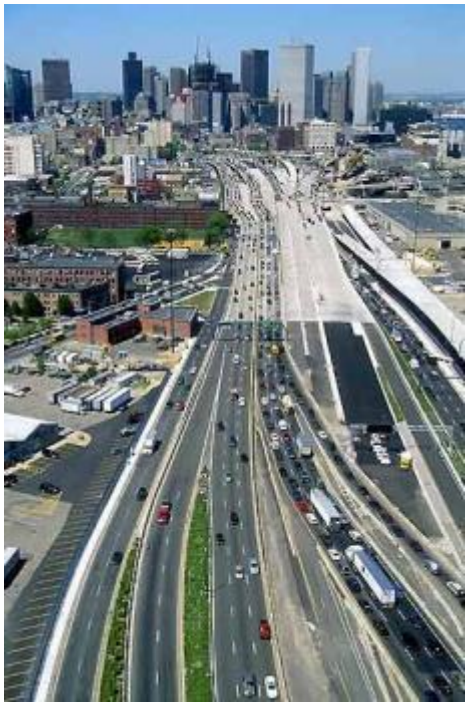
Sweden
Lund University,

UK
Kings College London,
De Montfort University,

Rotherham Hospital is a 500 bed acute unit in the North East of England

Collaborative PPI: Example EU funded cross-border PCP (DG CNECT)
Virtual road construction





www.rws.nl/v-con

3 EU Member States carrying out this PCP jointly: Rijkswaterstaat (NL), Centre Scientifique et Technique du Batiment (FR), Trafikverket/Trafic Agency Sweden (SE)

V-CON contracting authorities procure R&D services via the PCP to improve the efficiency and effectiveness of National Road Authorities by improving data exchange in the civil infrastructure sector using Building Information Modelling (BIM) approach. Defining a standard for use of BIM type approach in road sector + procuring R&D to develop the software for it, to be deployed in SE and NL at start.

Malaysia: Public procurement for Innovation:

- Increasing public investment into the enablers of innovation, particularly R&D and venture capital funding (10MP, p.16)
- Development expenditure will be an important instrument to support the transition to a high income economy that will rely on greater use of intellectual capital, skills, innovation and technology (10MP, p.56)

Malaysia: The Case of Electronic Passport

- Malaysian government endorsed a new biometric chip
- Catalysing the development of the electronic passport business
- Using of biometric chip in passport has been recommended by International Civil Aviation Organisation (ICAO)
- The pioneered company has become a global company providing electronic passports solutions to more than 12 countries

Malaysia: Government Green Procurement (GGP)

- Malaysia has embarked on GGP - Acquisition of products, services and work in the public sector that takes into account environmental criteria and standards to conserve the natural environment and resources, which minimises and reduces the negative impacts of human activities (KeTTHA, 2012)
- Federal government annual budget 2010 - Priority to environment-friendly products and services in government procurement (MOF, 2010)
- GGP has become one of the Entry Point Projects (EPPs) under the economic transformation program (PEMANDU, 2010)

Norway: Facilitating PPI since 1994-95

- Through IFU: Industrial Research and Development Contracts with foreign or Norwegian industrial clients
- Through OFU: Public Research and Development Contracts with public entities
- Key objective:
  - to bring a new technology, product or service to an international market (new to the world)
  - to improve public services or government efficiency
- Projects may last 1-3 years
- Include the process up until pre-commercial proto-type, in some cases more
- Innovation Norway as agency is only the facilitator (catalytic PPI)

IFU (IRD) in operation

Offer:
New product or solution

Competent Norwegian supplier

SME with competence and ability to carry out the project

IRD-contract

Market driven innovation

- High level of innovation
- Good market potential

Requirement:
Not met by existing products in the market

Client

Private or public enterprise

- Specification
- Reference
- Market channel

Conclusions

- PPI is gaining a greater role in innovation policy and is often linked to developing lead markets
- PPI works best when integrated in a viable innovation system with capable suppliers and sophisticated procurers/agencies
- But even in less developed economies, PPI may be useful especially when the project may be linked to a wider system and innovation cycle
- Global challenges and green innovation becomes increasingly a driver

Conclusions continued

- PPI as element in a package for transition management
- Helps correct for:
  - Directional failures
  - Demand failures
- But needs additional corrections for:
  - Policy coordination and governance
  - Learning capacities

Thank you for your attention

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