# IP issues in Public Procurement of Innovation

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Public Procurement Analysis



#### Overview



- What is Public Procurement of Innovation (PPI)
- > The connection between PPI and SMEs
- Legal frameworks
- Treatment of intellectual property in PPI
- > Pre-commercial procurement/Innovation partnership
- Examples of PPI

# Public procurement objectives

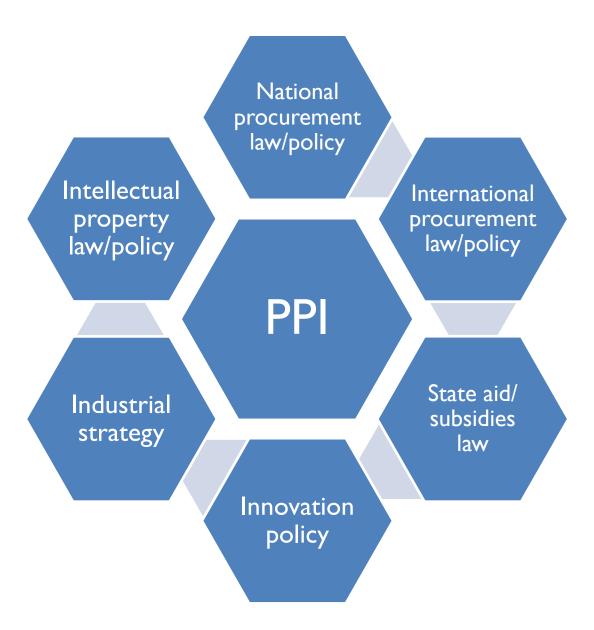


- Accounts for ~20% of GDP globally (World Bank 2018)
- Buying goods, services & works needed by public sector
- Competition and value for money
- > Transparency, accountability, and combatting corruption
- Environmental, social and economic objectives
- Political objectives
- Innovation?



# Policy/legal context for PPI





# Public procurement of innovation



- Procurement of goods and services which are either new to the market or which have been adapted to meet the needs of the public sector.
- Public sector demand may either **trigger** innovation or **respond** to it (Georghiou et al, 2014)
- Should be distinguished from grants or subsidies for R&D, where the public sector does not expect to acquire results for its own use
- Not all PPI is intentional, e.g. memory foam, DHA-enriched infant formula and scratch-resistant lenses all emerged from technologies developed by NASA, but for different purposes

### PPI and SMEs: Small is beautiful?



- Many countries have adopted policies to specifically support SME access to public procurement
- Mixed evidence on whether SMEs are more innovative than larger firms, but ensuring they can compete for public contracts can contribute to innovation by:
  - i. broadening the field of potential government suppliers;
  - ii. removing administrative barriers which may also impede innovation
- SMEs see excessive emphasis on price, lack of interaction with public authorities, restrictive specifications and risk aversion as barriers to PPI (Georghiou et al, 2014)
- >PPI may be more effective than R&D grants at encouraging SME innovation, but policy mix important (Guerzoni and Raitoni 2015)

# Legal frameworks for PPI



- Many countries have adopted rules specifically designed to support or mandate PPI, e.g. US, South Korea, Japan, Israel, Brazil.
- International procurement regulatory frameworks (e.g. WTO Government Procurement Agreement, EU Directives, UNCITRAL model law) also contain provisions which may contribute to PPI:
- i. Ban on restrictive specifications (e.g. those which refer to trademarks or proprietary methods/processes);
- ii. Exemptions or flexible procedures for R&D procurement;
- iii. Protection for IP belonging to contractors;
- iv. Exemption/flexible procedures where IP makes competition unfeasible.

# 2014 EU Procurement Directives Public Procurement Analysis



Pre-	Procedures	Specifications	Award/
procurement			<b>P</b> erformance
Exemption for R&D services (14)	Competitive Procedure with Negotiation (29)	Performance-based or functional specifications (42.3)	Award criteria may address innovative characteristics (67.2)
Preliminary market consultation (40)	Competitive Dialogue (30)	No reference to trademarks etc.; equivalents must be accepted (42.4)	Life-cycle costing may be applied, including environmental externalities (68)
Division of contracts into lots (46)	Innovation Partnership (31)	Use of third-party labels (43), or test reports/ certification (44)	Contract conditions may contain innovation-related terms (70)
Light-touch regime for social and other services (76.2)	Negotiated procedure no prior publication (32)	Variants may be accepted (Art. 45)	Modification of contracts during their term (72)
	Design contest (78-82)		

# How is IP treated in procurement? Public Procurement Analysis

- Most common default allocation is that IP remains with creator (usually the contractor), with public client obtaining some form of licence/additional usage rights/access to data
- Applies in US since 1980 Bayh-Dole Act, which has been credited with fueling economic growth/innovation similar laws adopted in many other jurisdictions
- ➤ EU procurement directives are silent on ownership of IP, but exemption for R&D services limits incentive to acquire IP
- > State aid rules work in opposite direction failure to acquire any rights may contribute to finding of illegal State aid
- ➤ 2014 guidance indicates no illegal State aid where CA acquires usage rights and ability to require licensing to 3rd parties on fair and reasonable terms OR competitive procurement

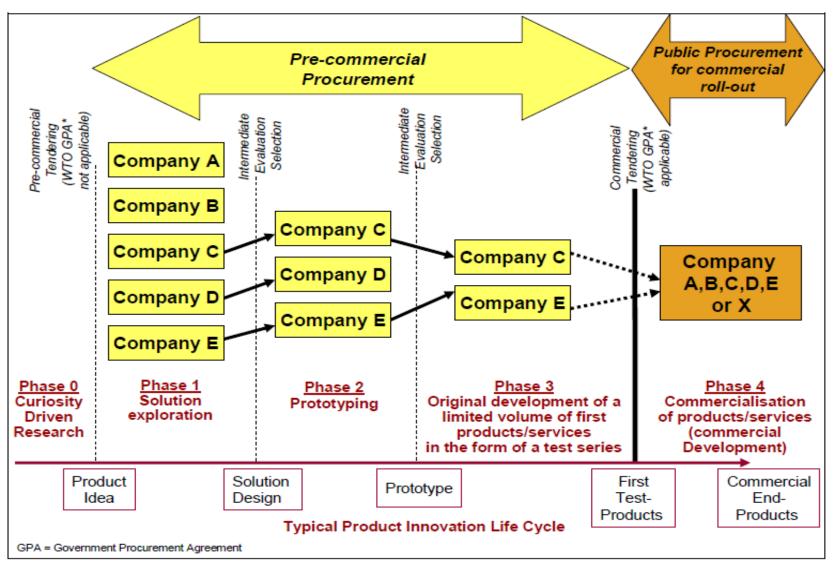
# How is IP treated in procurement? Public Procurement Analysis



Type of contract	Relevant IP	Typical management of IP
Purchase of off-the- shelf products e.g. software	Copyright, patents or trademarks over product	IP remains with the supplier.  CA acquires licence for use.
Purchase of an adapted product e.g. an ambulance	Existing IP in the base vehicle; Design and trademarks of the CA for customisation; New design features	Each party retains its own IP and may have licence over other party's; New IP may be owned by one party or jointly.
Design and build of works e.g. a <b>bridge</b>	Design drawings for bridge; copyright over design; patented components or materials; technical know how	Design drawings will normally be owned by CA; Copyright remains with architect; other IPRs will remain with original owner.
Provision of service e.g. consultancy or training	Materials developed for delivery of service; pre-existing materials or templates	IP in developed materials will be owned or licenced by CA; Pre-existing IP remains with contractor

# Pre-commercial procurement





**Source: European Commission 2007** 

## Innovation Partnership



Negotiated procedure to set up partnership with one or more operators.

#### **Partner A**

Phase I: R&D activities



Intermediate target and payment for R&D phase

#### Partner B

Phase I: R&D activities



Intermediate target and payment for R&D phase



**Phase II: Prototyping** 

Intermediate target & payment for prototype

Partner C

Phase I: R&D activities



Intermediate target and payment for R&D phase



**Phase II: Prototyping** 

Intermediate target & payment for prototype



Purchase of resulting supplies, services or works

Source: Semple (2015)

# Example I – Resah/RELIEF



- Example of pre-commercial procurement in health sector
- Resah (French central purchasing body) teamed up with Spanish and Swedish health bodies under EU-funded project
- > PCP targeted market gaps in solutions for self-management of chronic pain, e.g. lack of integration with hospital systems

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Feasibility
Studies (20% of PCP budget, ~6 months)

Prototype
Studies (20% of PCP development budget, ~6 months)

Prototype
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Prototype
Studies (20% of PCP development budget, ~6 months)

Pre-commercial development budget, ~6 months)
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> 7 companies admitted to Phase I (incl SMEs), 4 proceeded to Phase 2; Phase 3 launched April 2019

# Example II – London Fire Brigade



- One of the largest firefighting organisations in world, with fleet of 500+ vehicles
- Need for better data on vehicle + equipment usage, including emissions, water consumption, systems performance
- Open market consultation with suppliers interested in developing bespoke systems for pumping appliances
- Two ideas selected for procurement under framework agreements: i. telematics ii. RFID equipment tagging
- > Pilot contracts awarded, 6 months to develop and test systems
- Frameworks can be accessed by other European brigades
- > Joint ownership agreement for any developed IP

# Example III – Western Cape water 🔆



- Need for wastewater management in informal settlements
- Wastewater disposed of outside dwellings, no separation or treatment of grey water
- Western Cape government set up consultation with local people, established project group
- Single source procurement from Biomimicry SA
  - Phase I Scoping/feasibility study
  - Phase 2 Deep research/site visits
  - Phase 3 Design and business plan
  - Phase 4 Implementation (including training for locals)
- Developed system uses tree gardens and micro-wetlands (for grey water treatment), 'eco-machines' (for stormwater treatment), and relies on community waste management. Solution is low-tech and easy to maintain.

## Thank you!

Time for further questions/discussion.



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