

BEST PRACTICES ON INNOVATION-FRIENDLY PROCUREMENT POLICIES

“Spurring innovation-led growth in LAC through
public procurement”



**Taller sobre Innovación en las contrataciones
públicas**

12 y 13 de julio de 2016

San Salvador, El Salvador

1. Demand and innovation

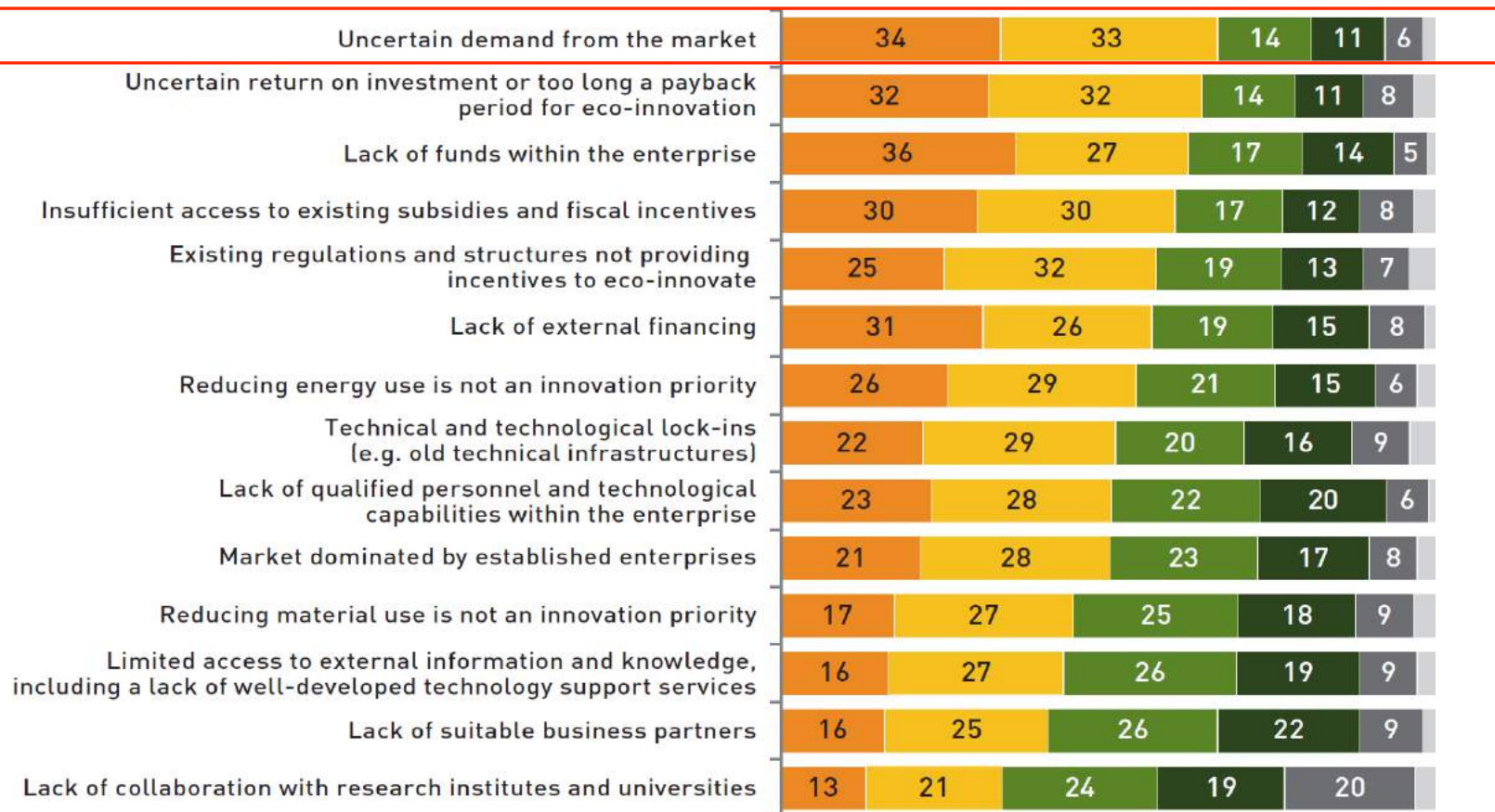


- Neo-Schumpeterian views and Systems of Innovation views → focus predominantly on the supply side of economic life (Edler&Georghiou, 2007)
- Schmookler (1966): demand plays a leading in shaping both the direction and magnitude of inventive activity
- Von Hippel (1986): Key role of the user, esp. ‘lead users’ in innovations “users whose present strong needs will become general in a marketplace months or years in the future”)
- Lead markets (Beise, 2001) and ‘demand advantage’ (Porter, 1990)
- Public sector as entrepreneur/risk taker (Mazzucato, 2013)



1. Demand and innovation

Very serious Somewhat serious Not serious Not at all serious Not applicable DK/NA



Q7. I will list you some barriers that could represent an obstacle to accelerated eco-innovation uptake and development for a company. Please tell me for each of them if you consider them a very serious, somewhat serious, not serious or not at all serious barrier in case of your company?

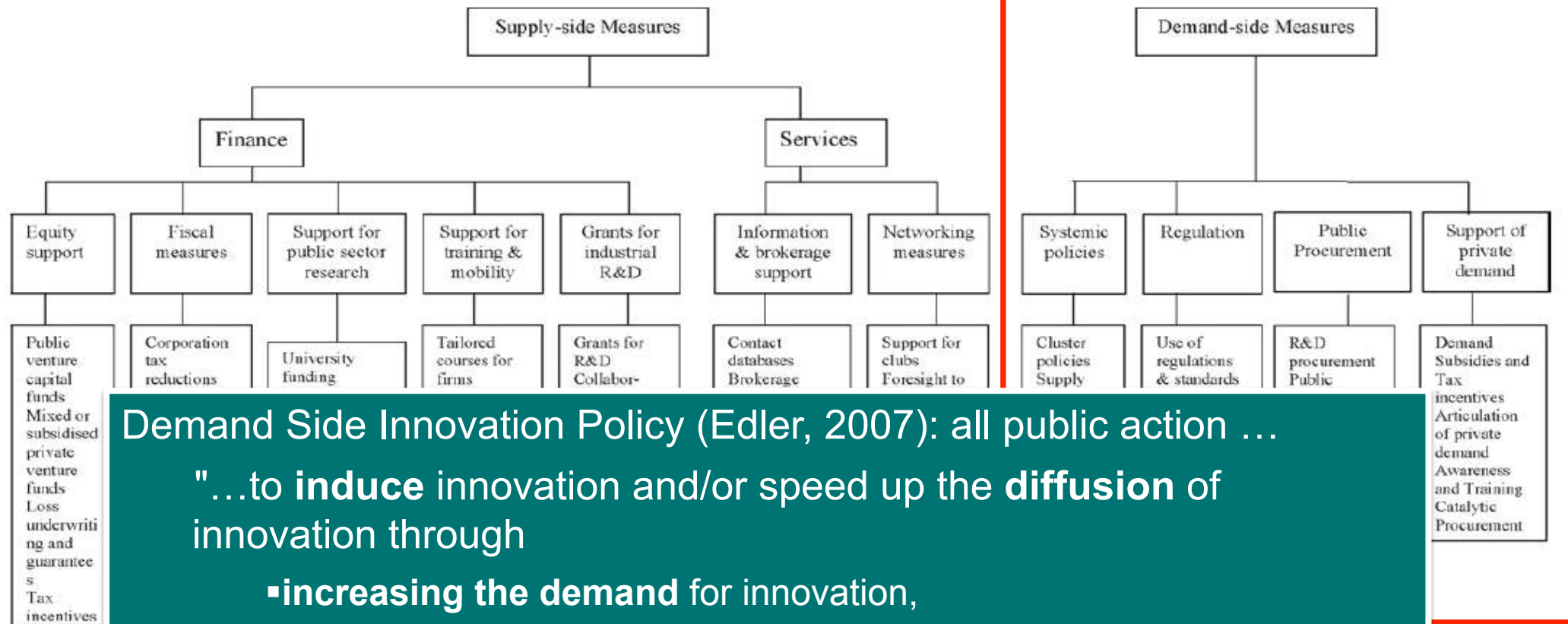
Base: all companies, % EU27

Source: INNOBAROMETER, Gallup 2011

Traditional focus on supply side

J. Edler, L. Georghiou / Research Policy 36 (2007) 949–963

953



Demand Side Innovation Policy (Edler, 2007): all public action ...

"...to **induce** innovation and/or speed up the **diffusion** of innovation through

- **increasing the demand** for innovation,
- **define new functional requirement** for products and services and/or
- **improve user involvement** in innovation production (user-driven)"

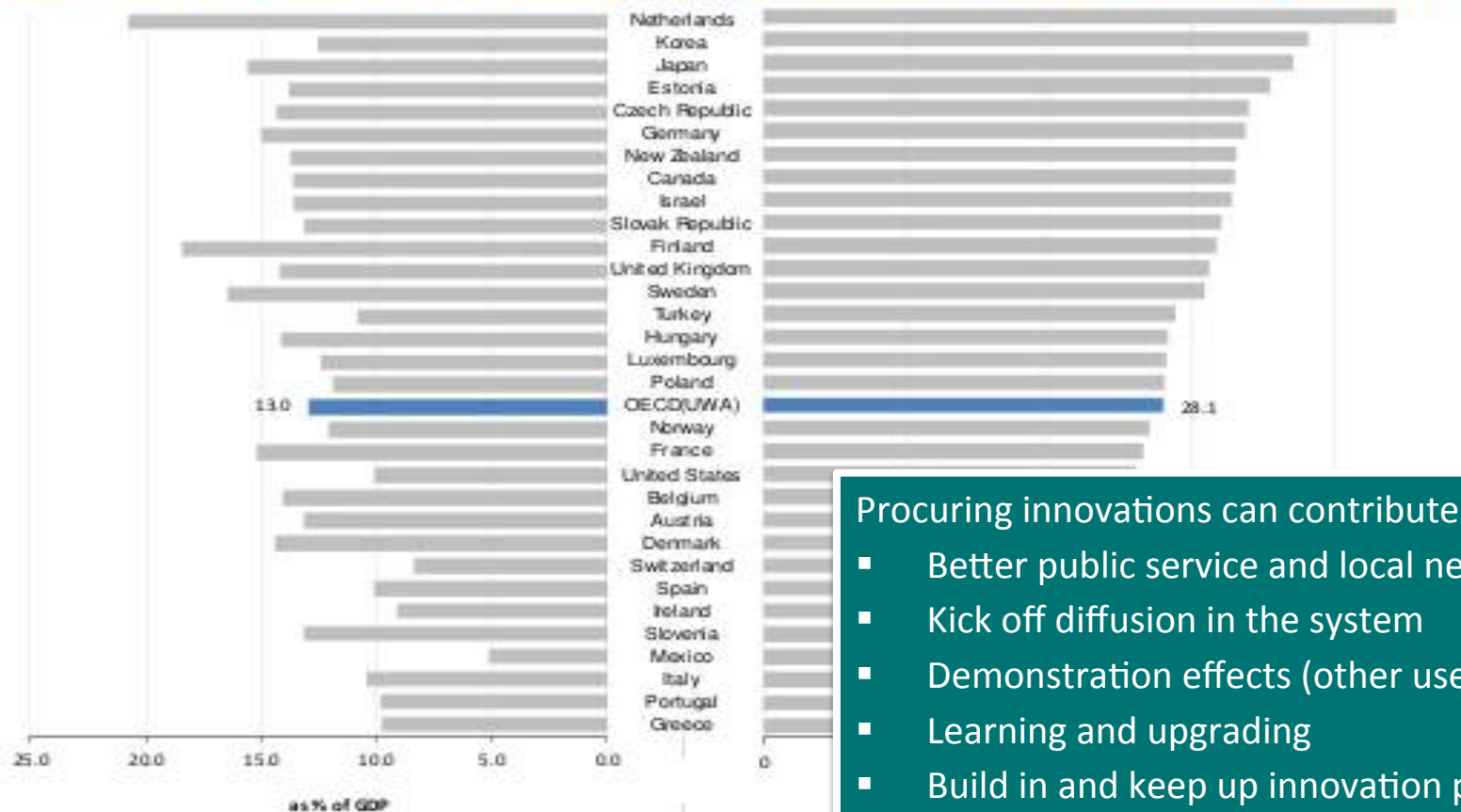
3. Policy trends

- As **innovation policy discourse**: started around 2003-2005: Kok-Report, Aho Report, EU procurement studies, UK White Paper, German High Tech Strategy...
- Challenges driven (innovation policy to solve future problems)
- “Demand based innovation policy”: more and more part of national strategies:
 - OECD 2011: Concept and plenty national approaches (rhetoric...(??))
 - 75% of EU member states have demand-side policies on their policy agendas
 - Further interest:
 - Studies/enquiries in UK, Austria, Germany, Estonia....
 - „*most important area*“ to learn for policy makers by Trendchart Users (2011)
- Demand conditions increasingly recognised as important as Framework Conditions for innovation systems more generally
- Global Innovation Index 2016: demand an issue for the first time

4. Public Procurement of Innovation

Public Procurement really matters

Government procurement as share of GDP and of total govt. expenditures



Source: OECD National Accounts Statistics. (2013)

Procuring innovations can contribute to

- Better public service and local need satisfaction
- Kick off diffusion in the system
- Demonstration effects (other users, producers)
- Learning and upgrading
- Build in and keep up innovation pressure
- Improve cooperation between local user and supplier

4. Public Procurement of Innovation

SBRI Government challenges.
Ideas from business.
Innovative solutions.

Innovate UK

Success stories

SBRI / / Success stories



Fantastic AlphaFox

A cunning device has been invented to combat online identity fraud. AlphaFox Systems has i...



Steaming ahead with the LoCooker

Steam ovens and water baths have become familiar features in professional kitchens. If Kenneth Board has his way, the LoCooker will soon be joining them.

[View »](#)



Creating the fabric of military life - Intelligent Textiles

Soldiers around the world will soon be wearing a revolutionary fabric technology invented by a small British company.

[View »](#)



Light fantastic: LED 'sleep mask' tackles diabetes-related sight loss

Twelve years ago, Paris-domiciled British artist Richard Kirk had a chance meeting over a pint in Soho - and discovered a new world. He became fascinated by a small piece of electroluminescent...

[View »](#)

in·no·va·tion (in
thing new. 2. Son
adj.
in·no·va·tive

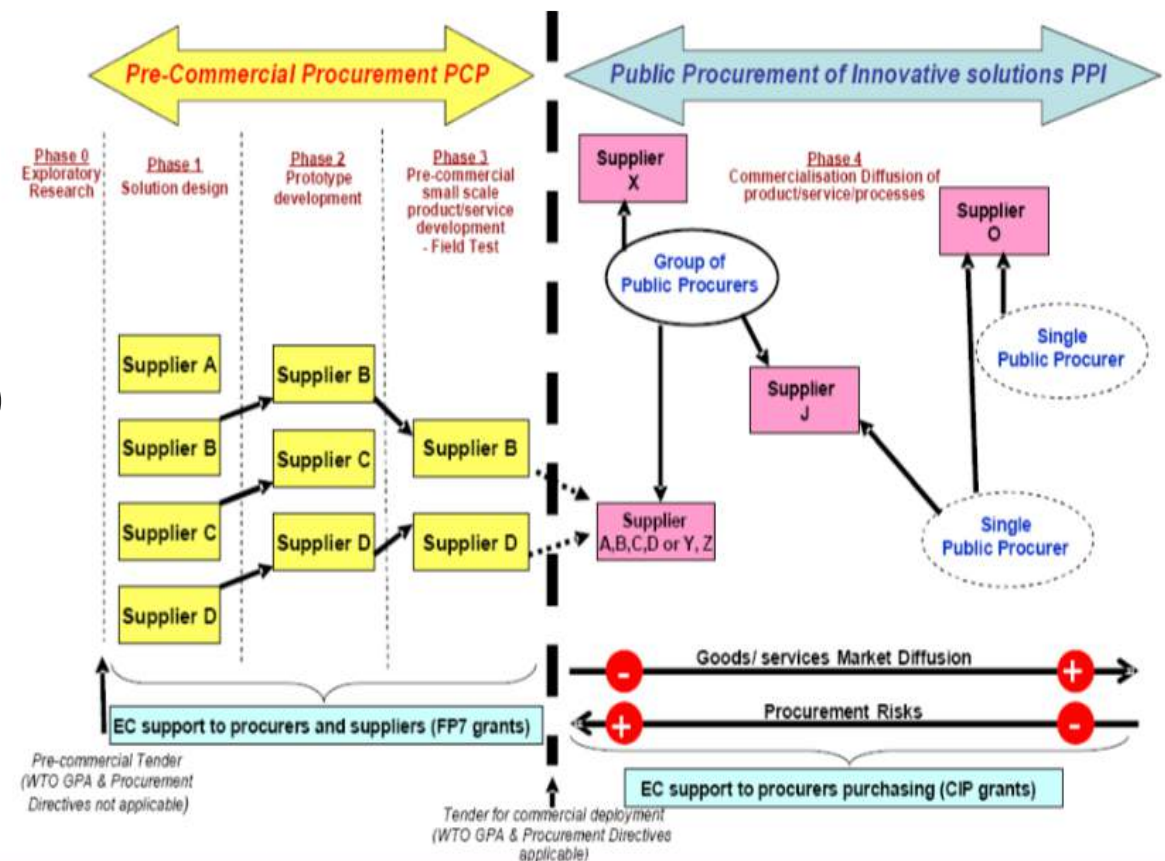
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Often confused

Operational procurement
(can be made 'innovation friendly')

Strategic procurement

Direct procurement of R&D
(Pre-commercial procurement)



5. Evidence: Public organisations as source of innovation

▸ Innovation in science, technology and industry

▸ Industry and globalisation

▸ Science and technology policy

▸ Biotechnology policies

▸ Internet economy

▸ Broadband and telecom

▸ Consumer policy

▸ International futures programme

Measuring the link between public procurement and innovation

This webpage presents the findings of a recent OECD project on the measurement of the link between public procurement and innovation. This project was carried out under the auspices of the Working Party of *National Experts on Science and Technology Indicators (NESTI)* within the CSTP Programme of Work and Budget for the 2011-12 and 2013-14 and as part of the NESTI activity to review the measurement framework for R&D and innovation.

Taking the OECD science and technology measurement frameworks as the point of departure, the project has highlighted which concepts, definitions and measurement approaches can be used to produce policy-relevant indicators on the interaction between procurement of innovation. It has also demonstrated how administrative and survey data can be used in empirical analysis to study the impact of public procurement on R&D, innovation and economic performance.

Project Outcomes

Coming soon: Project final report

As part of this project, two expert workshops were held with practitioners with an interest in procurement and innovation.

[Expert workshop February 2013](#)

[Final workshop December 2013](#)

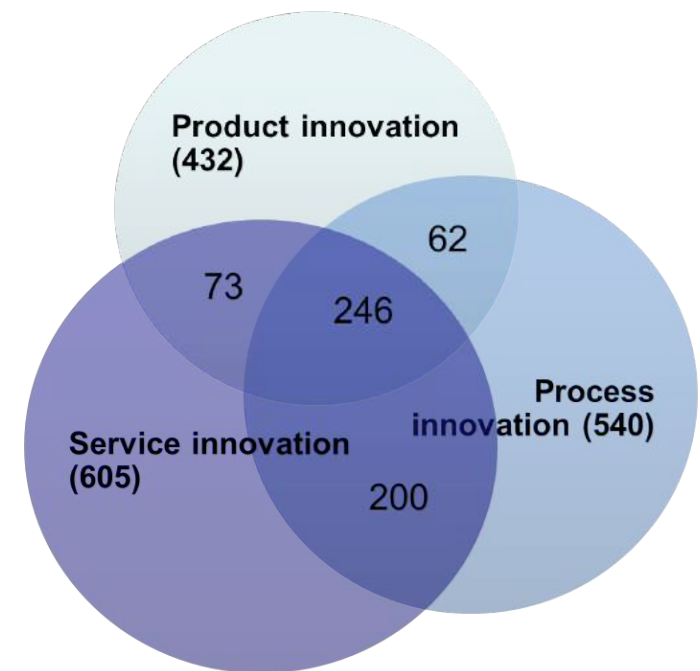
In spite of growing policy interest, there is very limited robust statistical evidence on the link between procurement and innovation.

Lack of comprehensive evaluations of PPI initiatives (Uyarra, 2014; Lember et al, 2014)

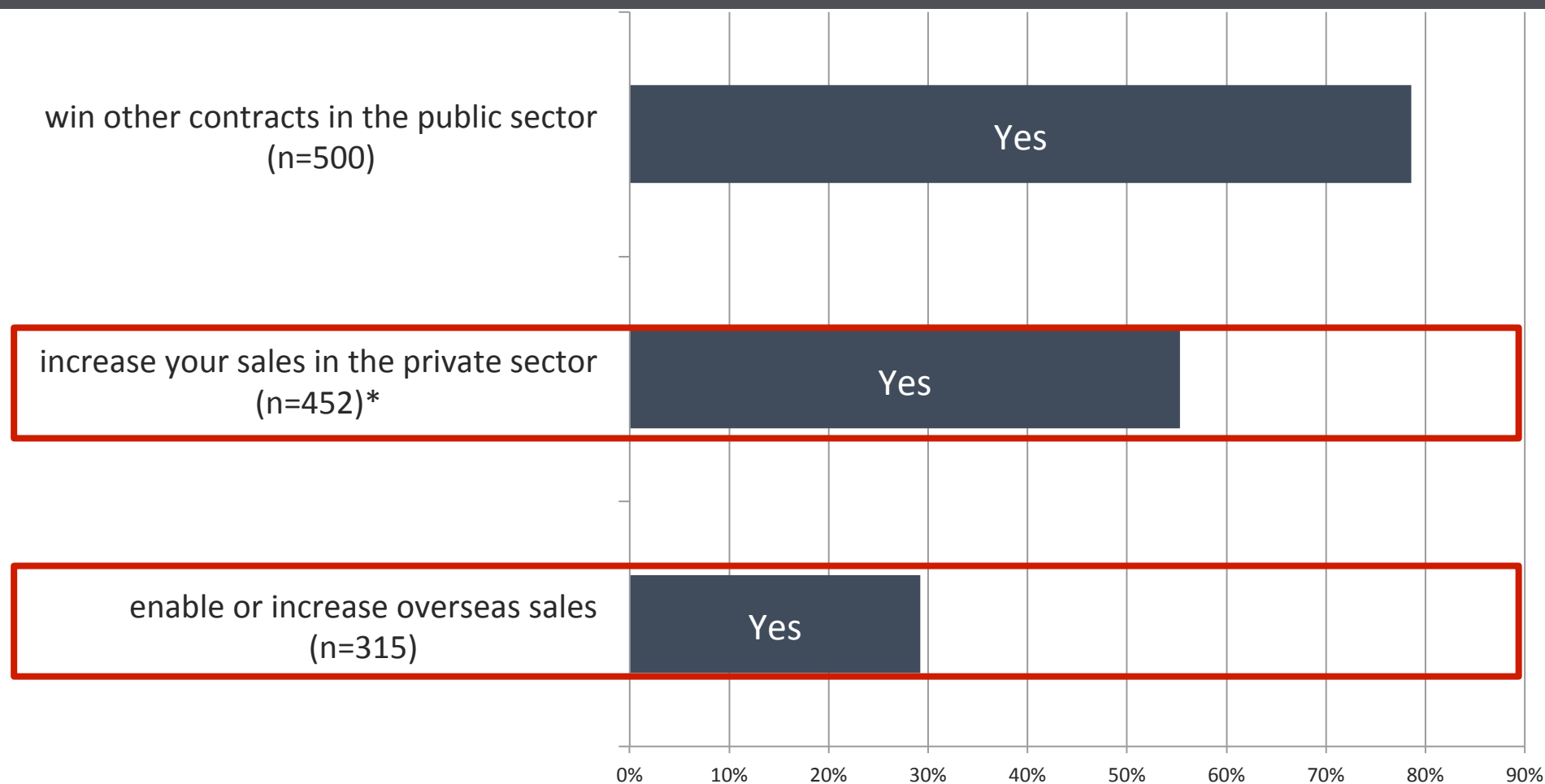
Impact of PCP initiatives better documented

5. Evidence: Public organisations as source of innovation

- Aschhoff and Sofka (2009): positive impact of PP on innovation input. No impact for R&D grants
- Guerzoni and Raitieri (2015): PP more effective than R&D subsidies. Innovation effects are stronger when the two policies interact
- Underpinn project (Georghiou et al, 2013; Uyarra et al, 2014): Survey of 800 UK suppliers to public sector (2010-2011). 67% say PP has had impact on innovation



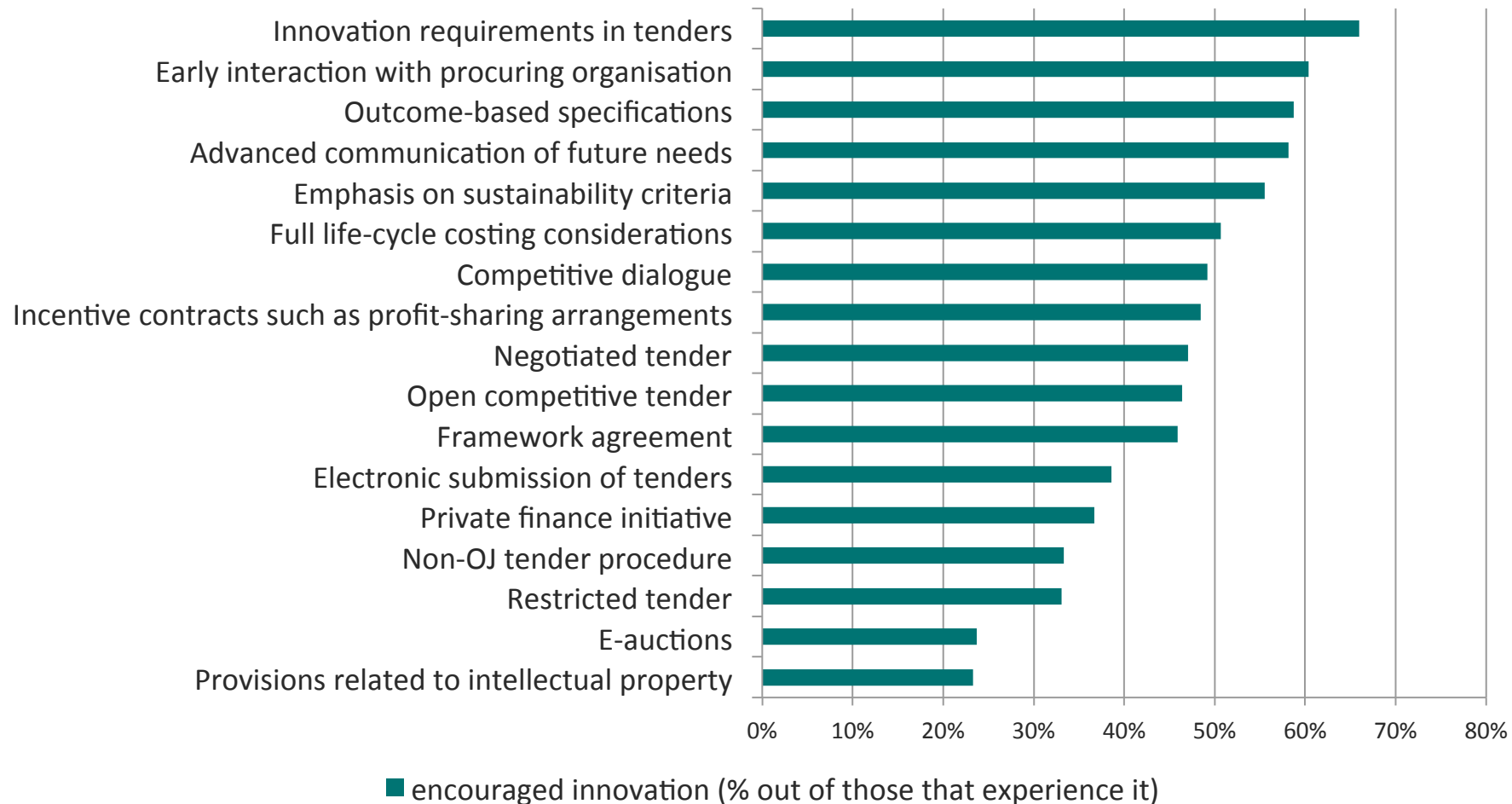
5. Evidence: Public organisations as source of innovation



"Innovations that resulted from bidding for or delivering public sector contracts have subsequently helped us to"

source: UNDERPINN Survey

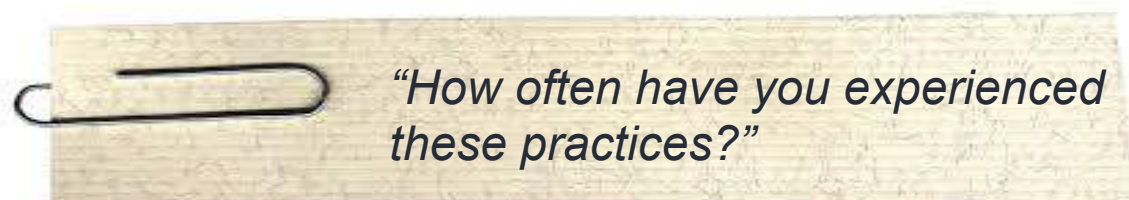
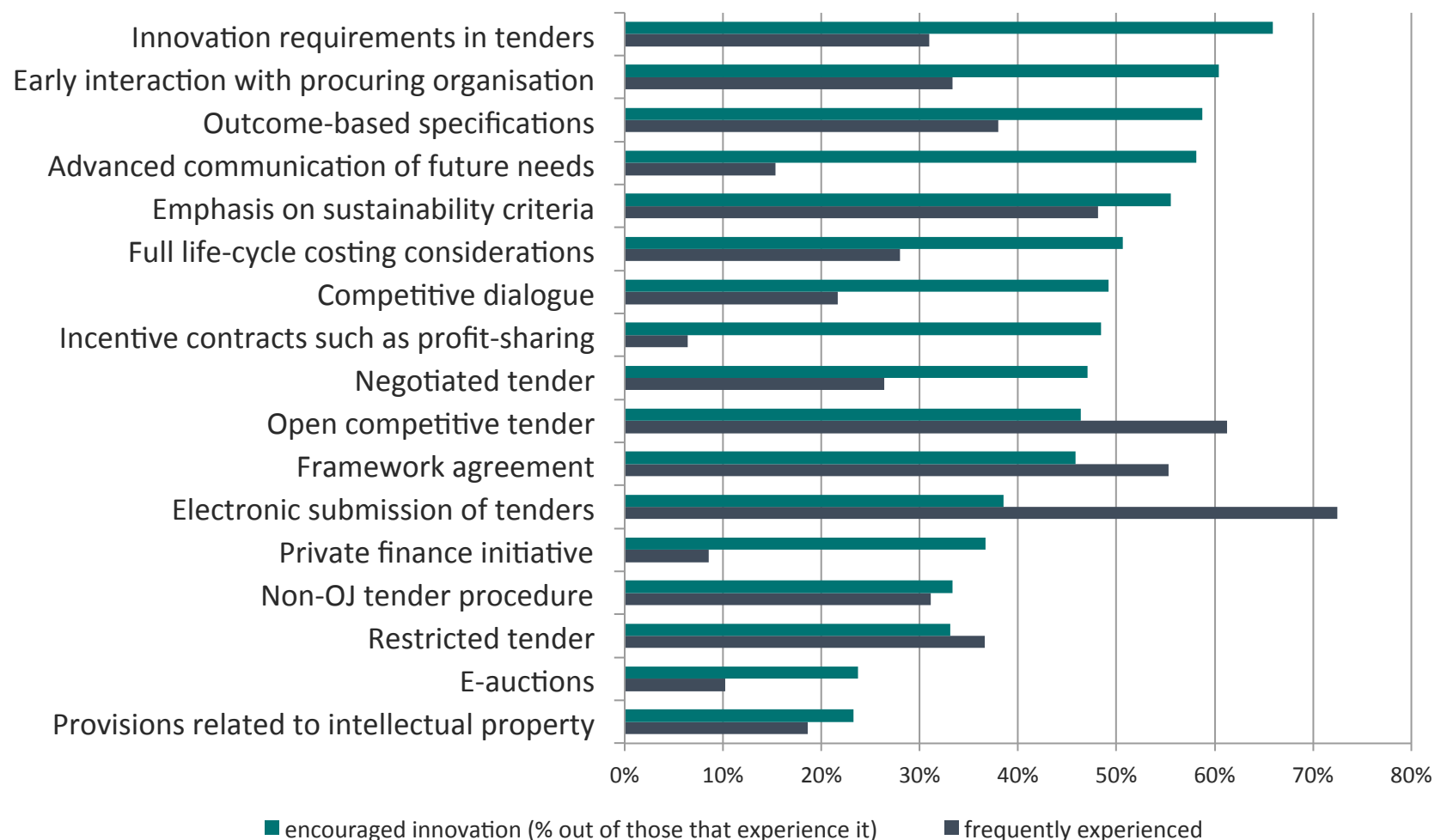
Tender practices that encourage innovation



“Have any of these PP practices favoured innovation?”

source: UNDERPINN Survey

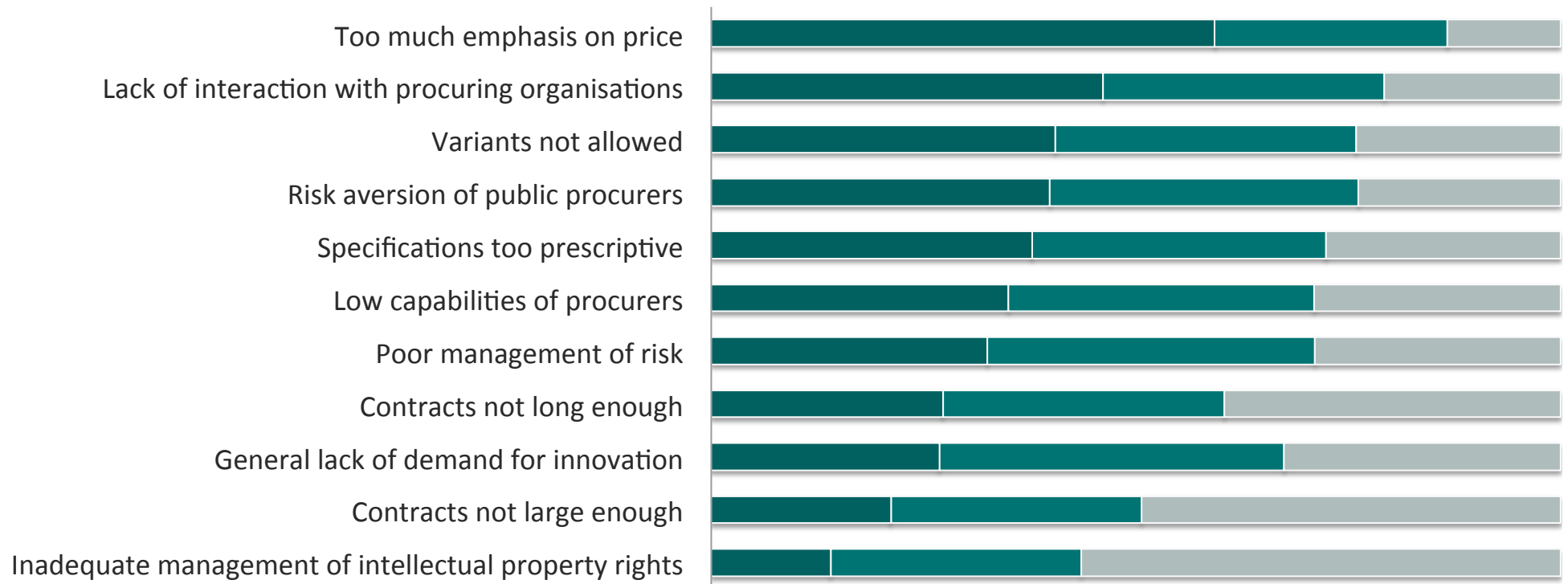
...are not used widely enough



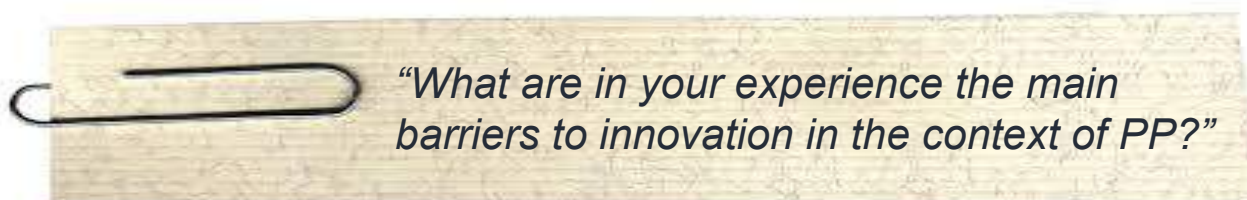
source: UNDERPINN Survey

6. Why? Key challenges

■ Very significant ■ Moderately significant ■ Not at all significant



source: UNDERPINN Survey



"What are in your experience the main barriers to innovation in the context of PP?"

Key challenges

Despite the potential of public procurement of innovation to spur innovation, PPI implementation has lagged behind

Key barriers and deficiencies for PPI implementation include (Georghiou et al, 2014) :

- Absence of adequate framework conditions,
- Organizational factors including capabilities of procuring organizations,
- Challenges associated with the identification and signaling of needs,
- Incentive structures influencing the probability of procuring innovative solutions.



Key challenges: Framework conditions

- **Supportive legislative framework**
- **Coordination mechanisms** e.g. innovation / economic/ sectoral policy
- **Trust/corruption**
- **Transparency, quality of information of tender opportunities**

“

“[There is a] Lack of consistency in approach within and between local authorities.”

“Public sector clients need to share knowledge and experience better, particularly about taking risks and innovation....”

“The raft of different prequalification questionnaires by similar organisations for similar products have cost the industry a lot time and money.”

“The whole process is time consuming and puts pressure on small businesses

”

source: UNDERPINN Survey

Key challenge: Lack of capacity

- **Capabilities and practices** of public sector (using right instruments etc.)

“

“We find the procurement professionals are people without expertise in what we provide”

“[It’s] All to do with the willingness and quality of the procurers.”

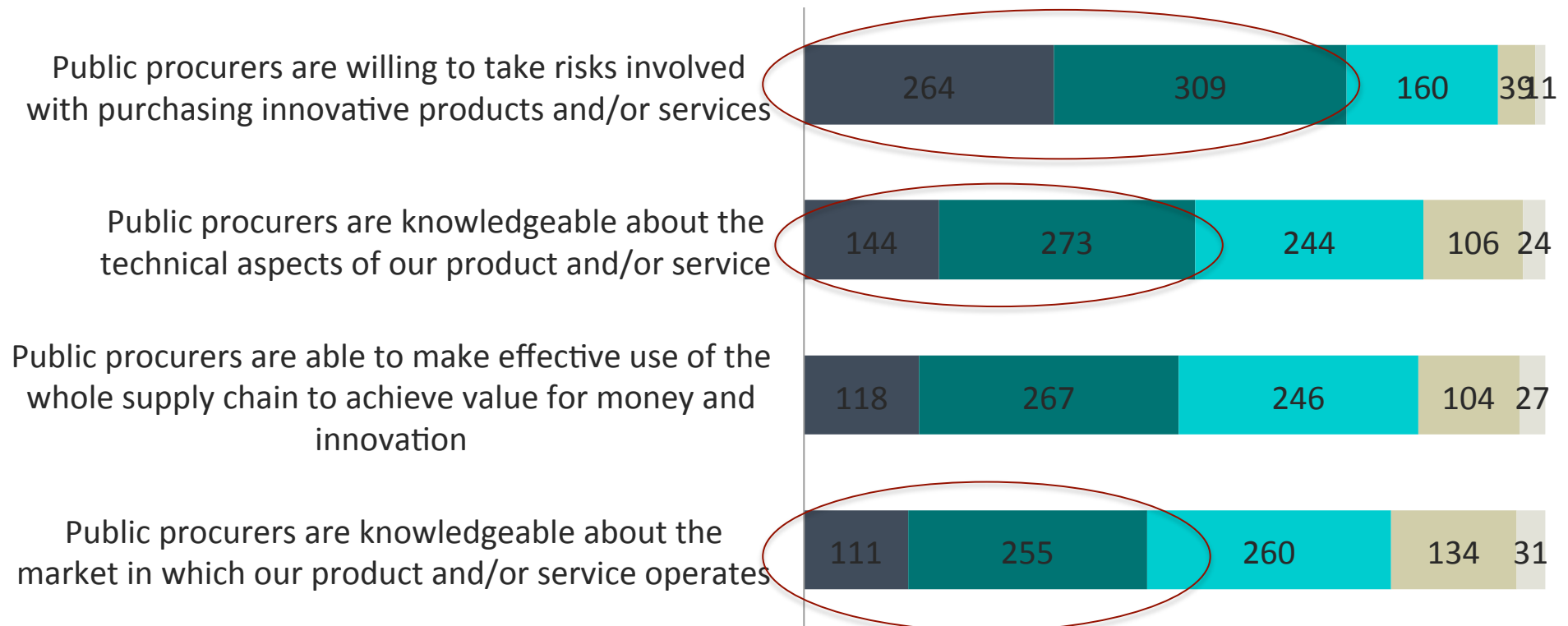
“Knowledge and appetite for innovation differs vastly across different sectors e.g. councils vs. the NHS”

”



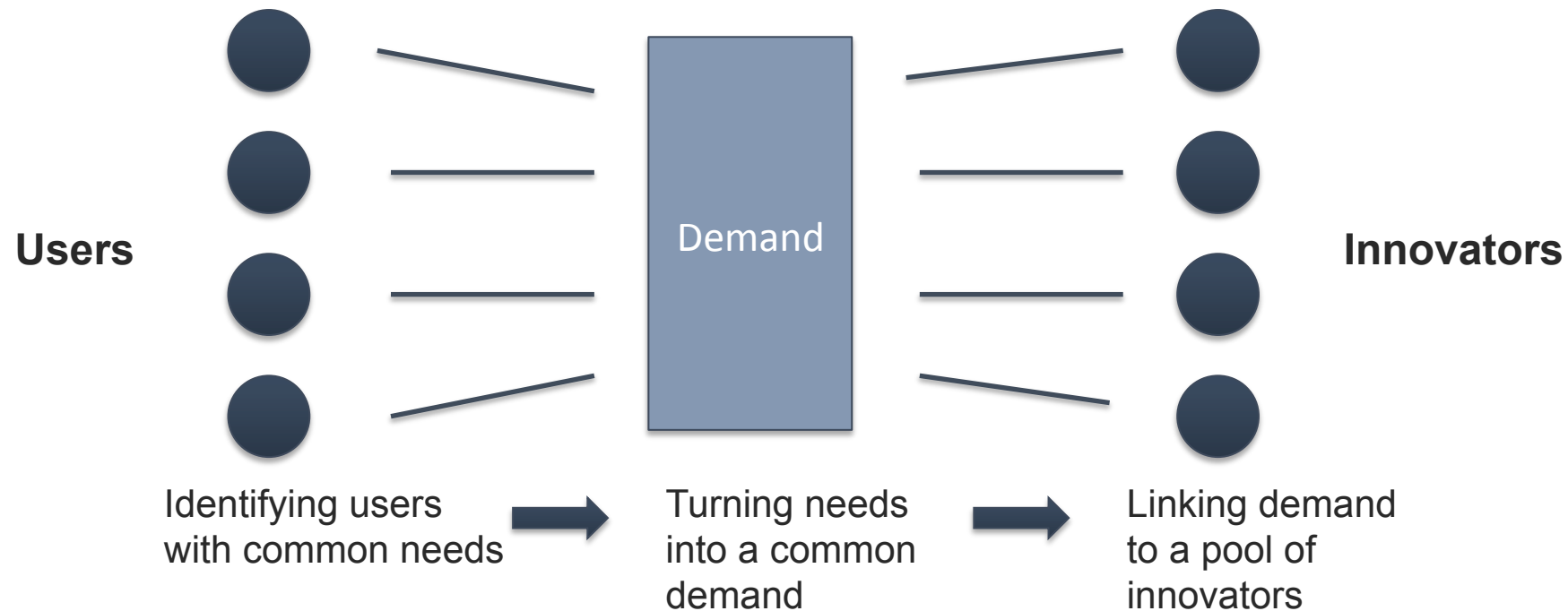
Lack of capacity/risk management

■ Strongly disagree ■ Disagree ■ Neither agree nor disagree ■ Agree ■ Strongly agree



source: UNDERPINN Survey

Key challenge: lack of interaction between users and producers



“

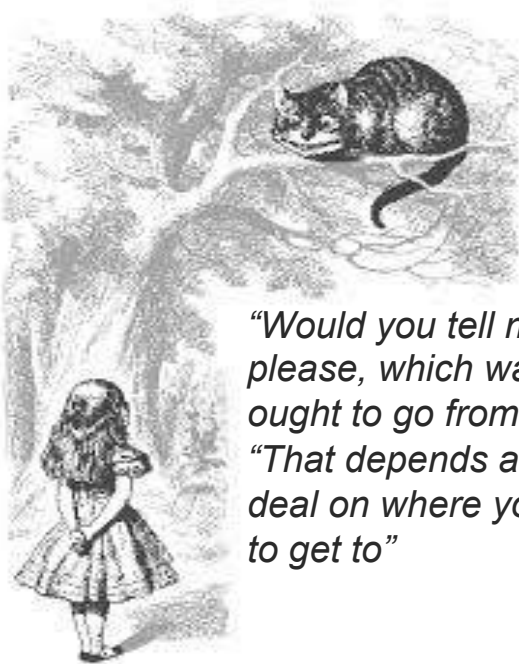
“There's not enough face-to-face contact and direct acquaintance with services”

“There is no direct communication between the bidder and the 'user', all is via the restrictive interface that is the procurer. This results in poor specification and ineffective procurement. As a bidder, you need this dialog to innovate effectively”.

”

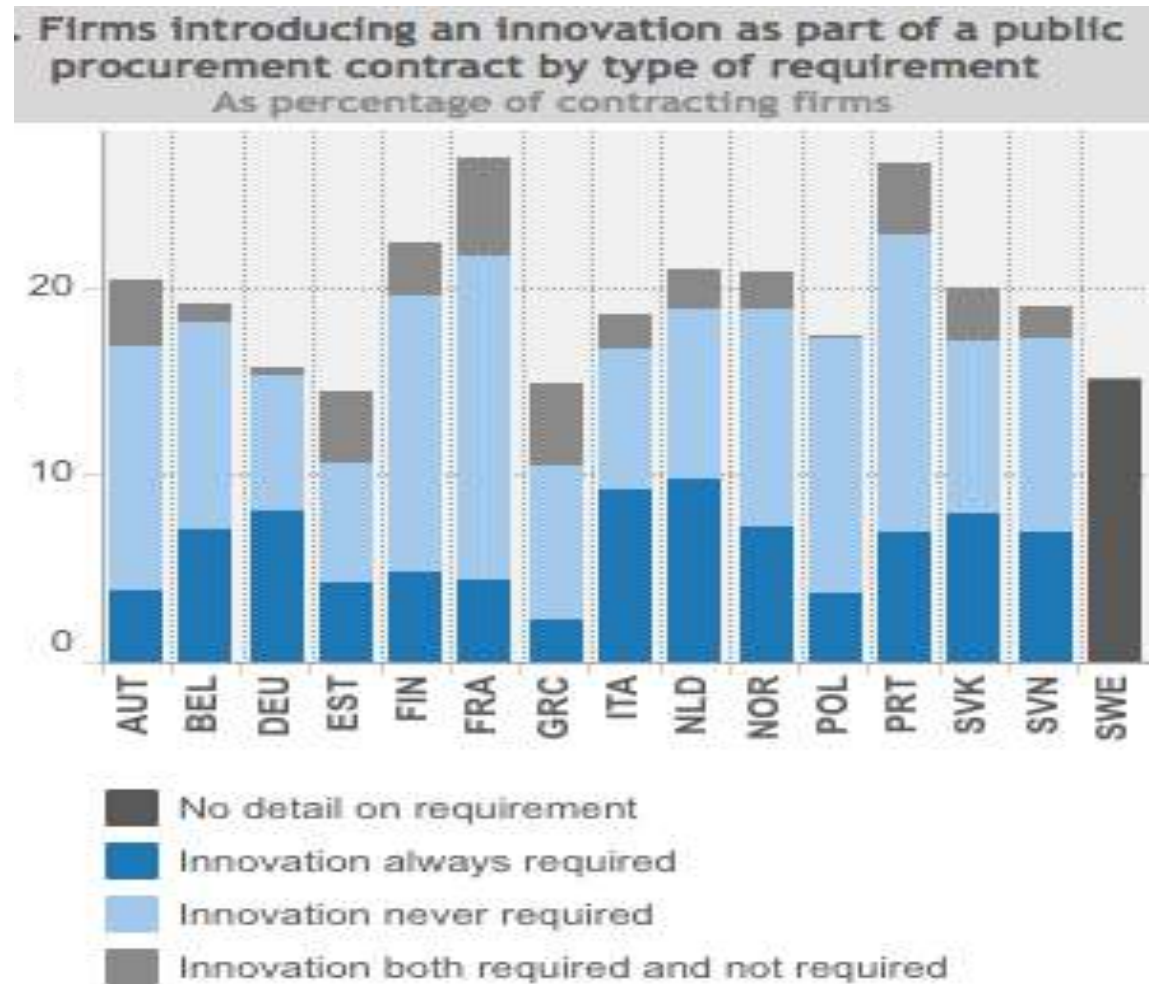
Key challenge: lack of incentive structures to procure innovation

“If you always ask for what you always had you'll always get what you always got”



*“Would you tell me,
please, which way I
ought to go from here?”
“That depends a good
deal on where you want
to get to”*

(Alice's Adventures In Wonderland - Lewis Carroll)

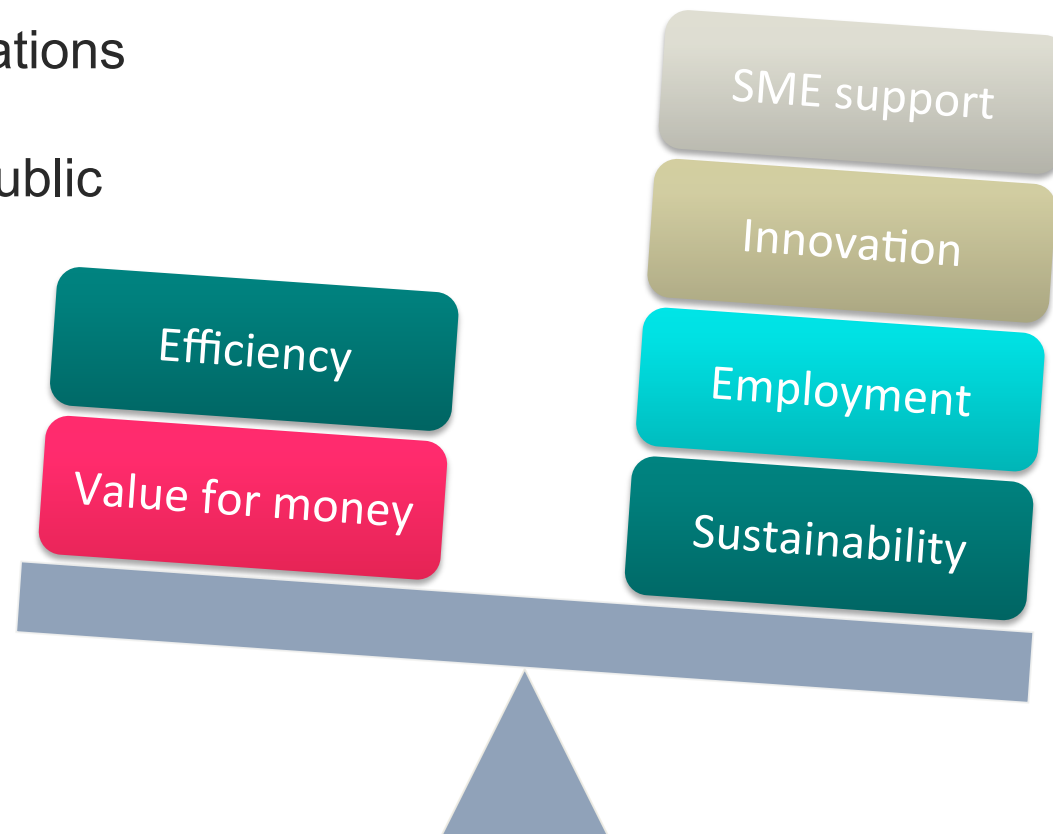


Lack of incentive structures



Associated with:

- Target conflicts
- Competing priorities
- Who benefits?
- Higher costs for innovations (public money)
- Resistance to use in public sector



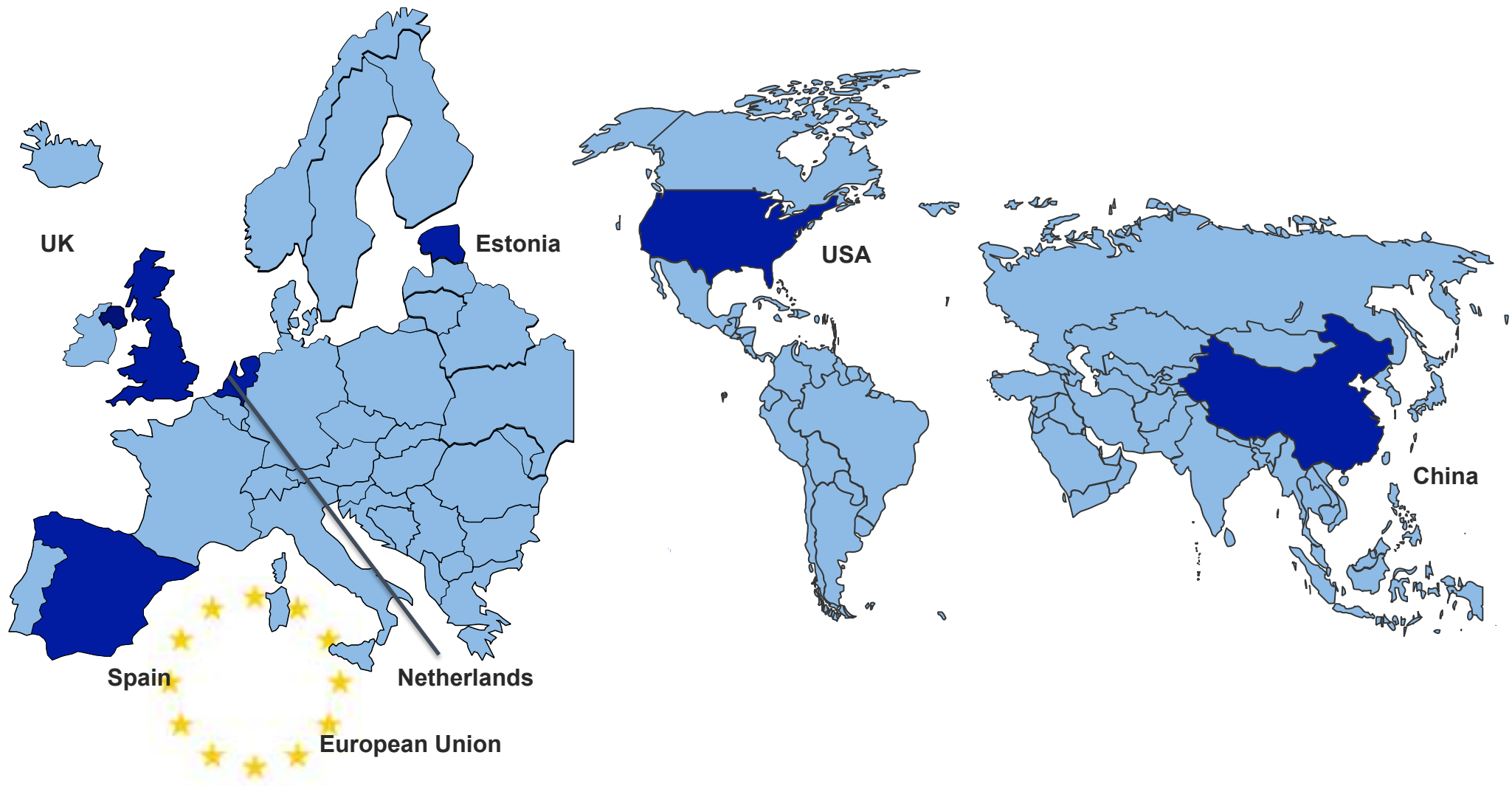
Policy Measures to Support Public Procurement of Innovation

Policy measures in support of innovation public procurement.

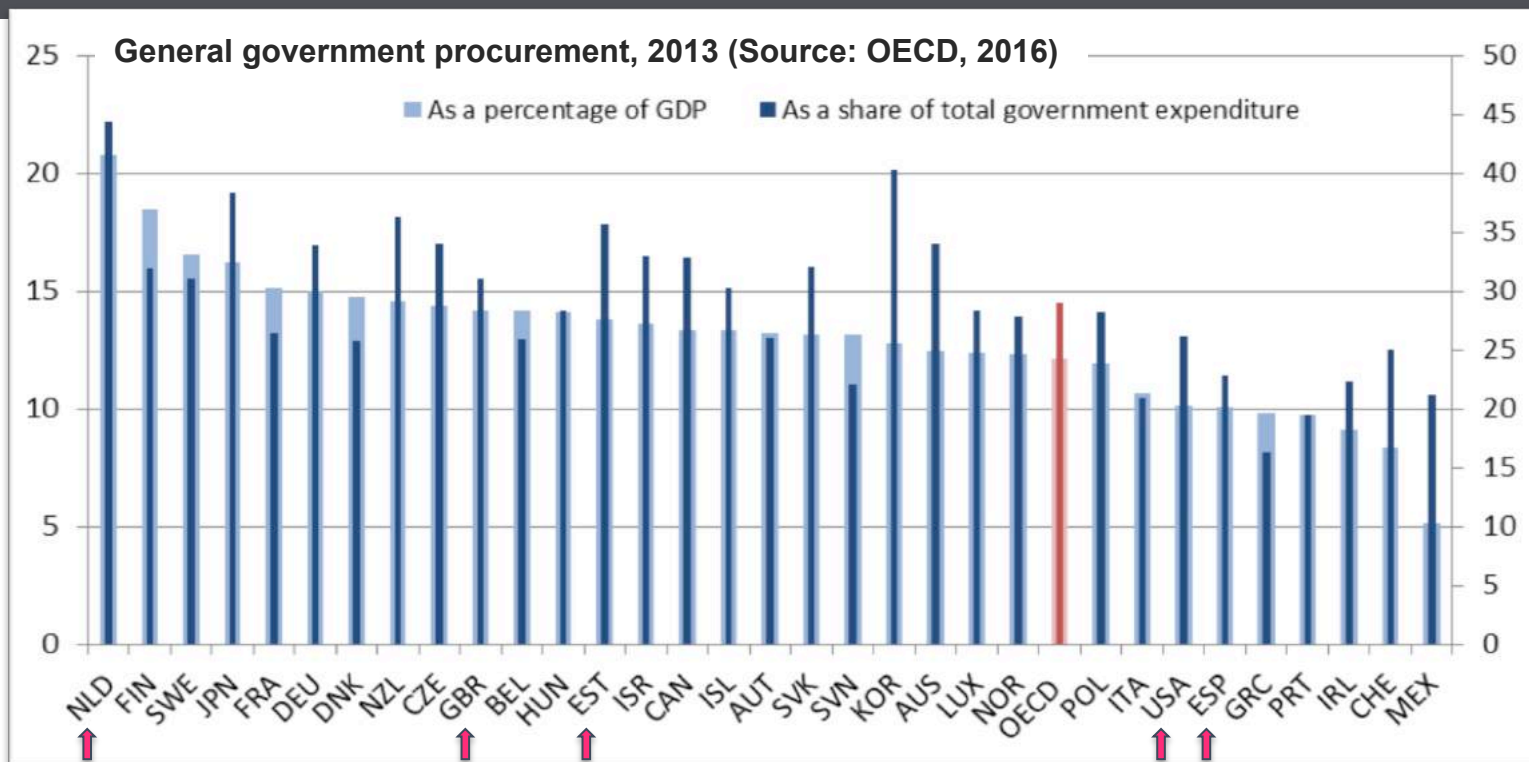
Policy category	Deficiencies addressed	Instrument types	Examples
Framework conditions	<ul style="list-style-type: none"> i) Procurement regulations driven by competition logic at the expense of innovation logic ii) Requirements for public tenders unfavourable to SMEs 	<ul style="list-style-type: none"> i) Introduction of innovation-friendly regulations ii) Simplification & easier access for tender procedures 	<ul style="list-style-type: none"> i) 2005 change in EU Directives including functional specifications, negotiated procedure etc. ii) 2011 proposal in EU to introduce innovation partnerships iii) Paperless procedures, electronic portals, targets for SME share
Organisation & capabilities	<ul style="list-style-type: none"> i) Lack of awareness of innovation potential or innovation strategy in organisation ii) Procurers lack skills in innovation-friendly procedures 	<ul style="list-style-type: none"> i) High level strategies to embed innovation procurement ii) Training schemes, guidelines, good practice networks iii) Subsidy for additional costs of innovation procurement 	<ul style="list-style-type: none"> i) UK ministries Innovation Procurement Plans 2009-10 ii) Netherlands PIANOo support network, EC Lead Market Initiative networks of contracting authorities iii) Finnish agency TEKES meeting 75% of costs in planning stage
Identification, specification & signalling of needs	<ul style="list-style-type: none"> i) Lack of communication between end users, commissioning & procurement function ii) Lack of knowledge & organised discourse about wider possibilities of supplier's innovation potential 	<ul style="list-style-type: none"> i) Pre-commercial procurement of R&D to develop & demonstrate solutions ii) Innovation platforms to bring suppliers & users together; Foresight & market study processes; Use of standards & certification of innovations 	<ul style="list-style-type: none"> i) SBIR (USA, NL & Australia), SBRI (UK), PCP EC & Flanders ii) Innovation Partnerships & Lead Market Initiative (EC), Innovation Platforms (UK, Flanders); Equipment catalogues (China to 2011)
Incentivising innovative solutions	<ul style="list-style-type: none"> i) Risk of lack of take up of suppliers innovations ii) Risk aversion by procurers 	<ul style="list-style-type: none"> i) Calls for tender requiring innovation; Guaranteed purchase or certification of innovation; Guaranteed price/tariff or price premium for innovation ii) Insurance guarantees 	<ul style="list-style-type: none"> i) German law enabling innovation demands in tenders; UK Forward Commitment Procurement; China innovation catalogues (to 2011); Renewable energy premium tariffs (DE and DK) Immunity & certification scheme (Korea)

Source: Georghiou, L., et al. 2014

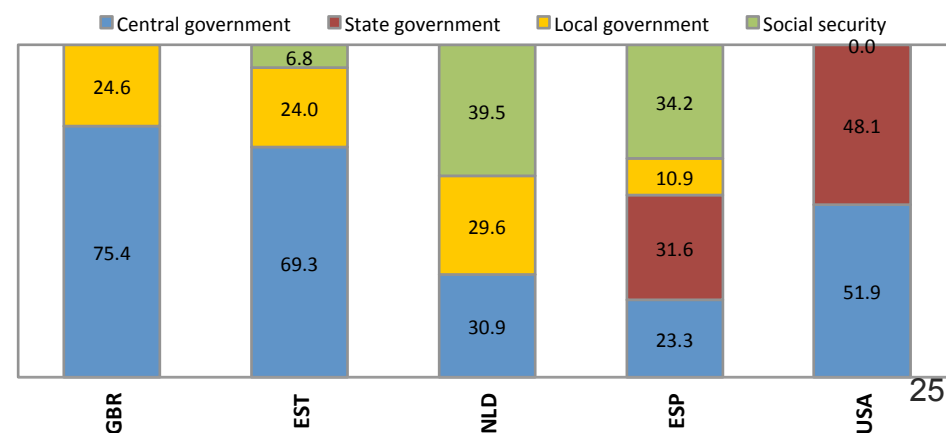
7. Examples of good practice. Selected Countries



Selected countries. Procurement profiles



Government expenditures across levels of gov., (OECD, 2015)







Differences in terms of PP overall spending

- Well above OECD average in NL
- Very centralised (UK) vs very decentralised (NLD, SP, US)

Diverse organisational structures:

- Imp. role of central purchasing agencies (e.g. UK) vs lack thereof (SP)

Overview

Policy Category	 UK	 SPAIN	NETHERLANDS	 CHINA	 USA
Framework conditions	<ul style="list-style-type: none"> Implementation of EU Directives including functional specifications, negotiated procedure etc. Paperless procedures, electronic portals, targets for SME share 	<ul style="list-style-type: none"> LCSP 2007 – TRLCSP 2011 Functional specification include in the tenders, negotiated procedure, contracting margin, etc. TRLCSP (expected for 2016) – Partnership for Innovation.– Official register of bidders and classified state companies (reduction of red tape in public tenders). 	<ul style="list-style-type: none"> Public Procurement Act- 2013 European Directives transposition 	<ul style="list-style-type: none"> No specific regulations focused on innovativeness but regulations on environment and industry could serve as complementary instrument to implement PPI Adoption of e-procurement platforms; but the use of this has been restricted by the fragmentation of legal frameworks regulating public procurement in China 	<ul style="list-style-type: none"> Procurement regulation driven by competition and value for money, innovation not an explicit consideration in public procurement regulations SBIR scheme as SME support, indirectly as ease of access of SMEs to government procurement of innovation (not only R&D services)
Organisation & capabilities	<ul style="list-style-type: none"> UK ministries Innovation Procurement Plans 2009–10 Innovation procurement guidelines (e.g. OGC) 	<ul style="list-style-type: none"> Help-desk PCP-PPI MINECO-CDTI. PCP-PPI Guide. Training and publications from the National Institute of Public Administration INNPUISO: Network for Science and Innovation Cities 	<ul style="list-style-type: none"> PIANOo support network as a Procurement Expertise Centre NEVI professionalize public procurement development 	<ul style="list-style-type: none"> Including of PPI policy as one of the new instruments of the indigenous innovation strategy, backed with a set of high-level policy measures 	<ul style="list-style-type: none"> New initiatives to make procurement agencies more aware of innovation, but not part of highest level innovation strategy as yet New program to increase the capabilities of procurers (but innovation not at the core) Buyers' club, model cases and new procedures rolled out to help procurers buy innovation
Identification specification & signalling of needs	SBRI	<ul style="list-style-type: none"> INNPUISO: Network for Science and Innovation Cities National Awards for Innovation and design- PCP-PPI category. Business associations that engage PCP-PPI 	<ul style="list-style-type: none"> Small Business Innovation Research (SBIR Netherlands). Pre-commercial procurement programme 	<ul style="list-style-type: none"> National and regional signaling catalogues which specify the technologies/solutions in great demand Demonstration/support programs for new technologies such as new energy vehicles 	<ul style="list-style-type: none"> In a few domains PPI part of delivering of policy, e./g. FEMP programme in energy efficiency, need definition here central SBIR scheme as main scheme to define needs of administrations and develop concrete solutions
Incentivising innovative solutions	<ul style="list-style-type: none"> UK Forward Commitment Procurement; iTAPP 	<ul style="list-style-type: none"> Funding instruments: INNOCOMPRA/FID INNDEMANDA Contracting margin for innovative SMEs 	<ul style="list-style-type: none"> Inkoop innovatie urgent Programme 	<ul style="list-style-type: none"> Larger government procurement budget for forthcoming financial year if agencies purchase innovative products 	<ul style="list-style-type: none"> Procurement of innovation as part of delivering “better government”

Examples of good practice: Framework conditions

European Union Procurement directives

Legal framework

- The *Utilities Directive* (Directive 2004/17/EC coordinating the procurement of entities operating in the water, energy, transport and postal services sectors) and the *Classical Directive* (Directive 2004/18/EC on the coordination of procedures for the award of public works contracts public supply contracts and public services contracts) on public procurement remain in force until 17 April 2016.

New legal framework

Provided by

New Directives on Public Procurement (to be transposed by January 2016)

In January 2014, the European Parliament adopted new public procurement directives that have to be transposed the directives into national law by January 2016. Once the directives have been transposed they are binding for public procurers from all member states:

- Directive 2014/24/EU (which replaces the “Classic” Procurement Directive 2004/18/EC)
- Directive 2014/25/EU (which replaces the “Utilities” Procurement Directive 2004/17/EC)
- Directive 2014/23/EU on the award of concession contracts

- ✓ A **replacement of the current negotiated procedure** (with prior publication of a contract) with a new **competitive procedure with negotiation**, simplifying the competitive dialogue for projects that have a high complexity both at the financial and the technical level.
- ✓ A new type of contract: the **European Innovation Partnerships**
- ✓ Other horizontal innovation-friendly measures, like the **introduction of a clarification of the exemption for R&D services in the public procurement directives** as well as the requirement for contracting authorities to **specify clearly in the tender specifications which property right the want to partially or fully acquire**, thus generating higher security for companies.

Examples of good practice: Organisation and capabilities

Dutch PIANOo initiative

PIANOo (Professioneel en Innovatief Aanbesteden, Netwerk voor Overheids-opdrachtgevers)

PIANOo brings **experts in specific areas together, pools knowledge and experience and provides advice. It also fosters dialogue between government contracting authorities and private sector companies.** PIANOo addresses a wide range of subjects in procurement practice, organizes meetings, produces publications and works with expert groups chaired by university professors specialized in the field.

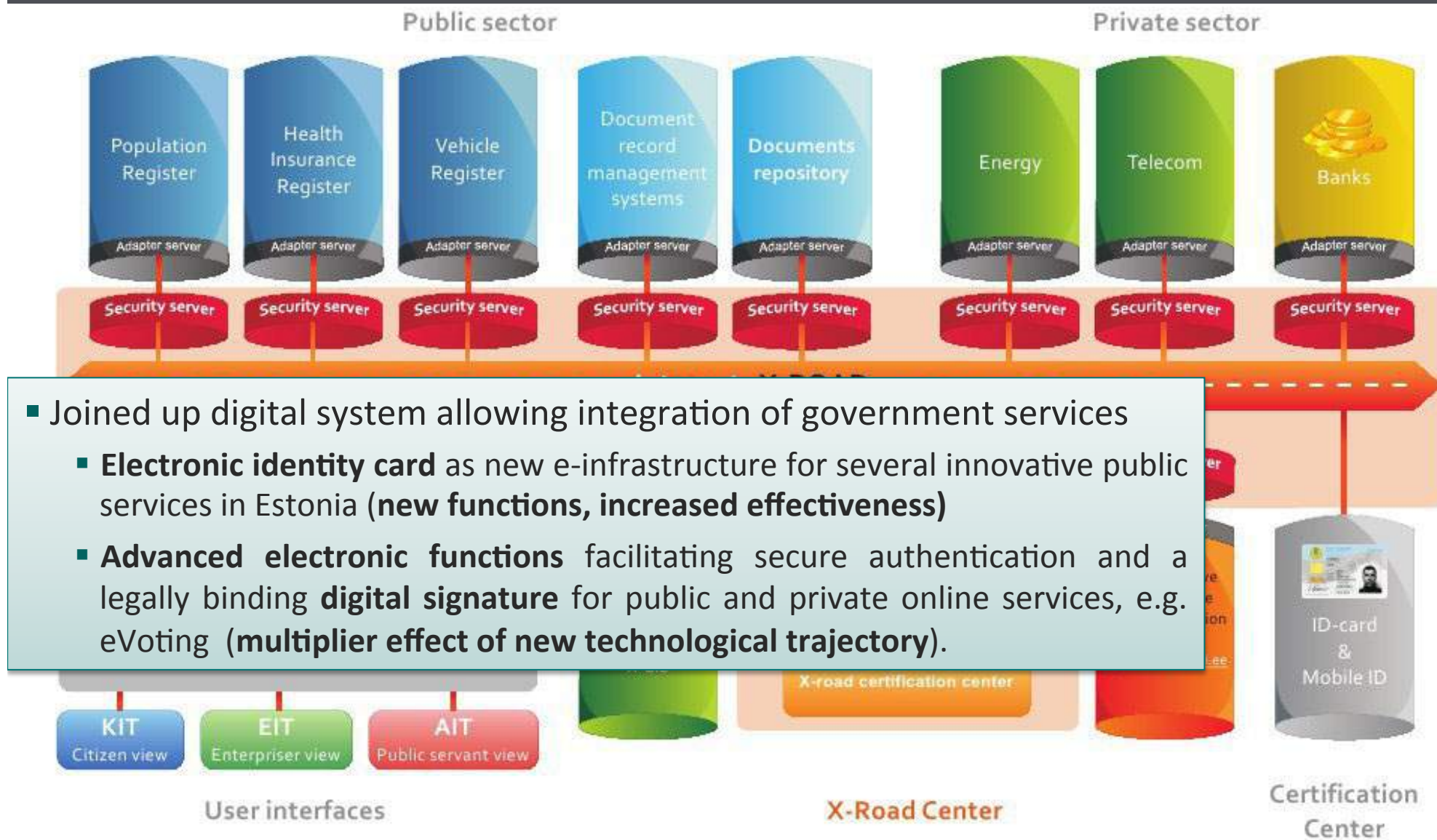


Also produce **manuals and checklists and provide special market files on the website.** In this sense, PIANOo sees market knowledge as an essential element in public sector procurement and tendering. Successfully crossed different frontiers in order to pursue its task to **professionalize public procurement**

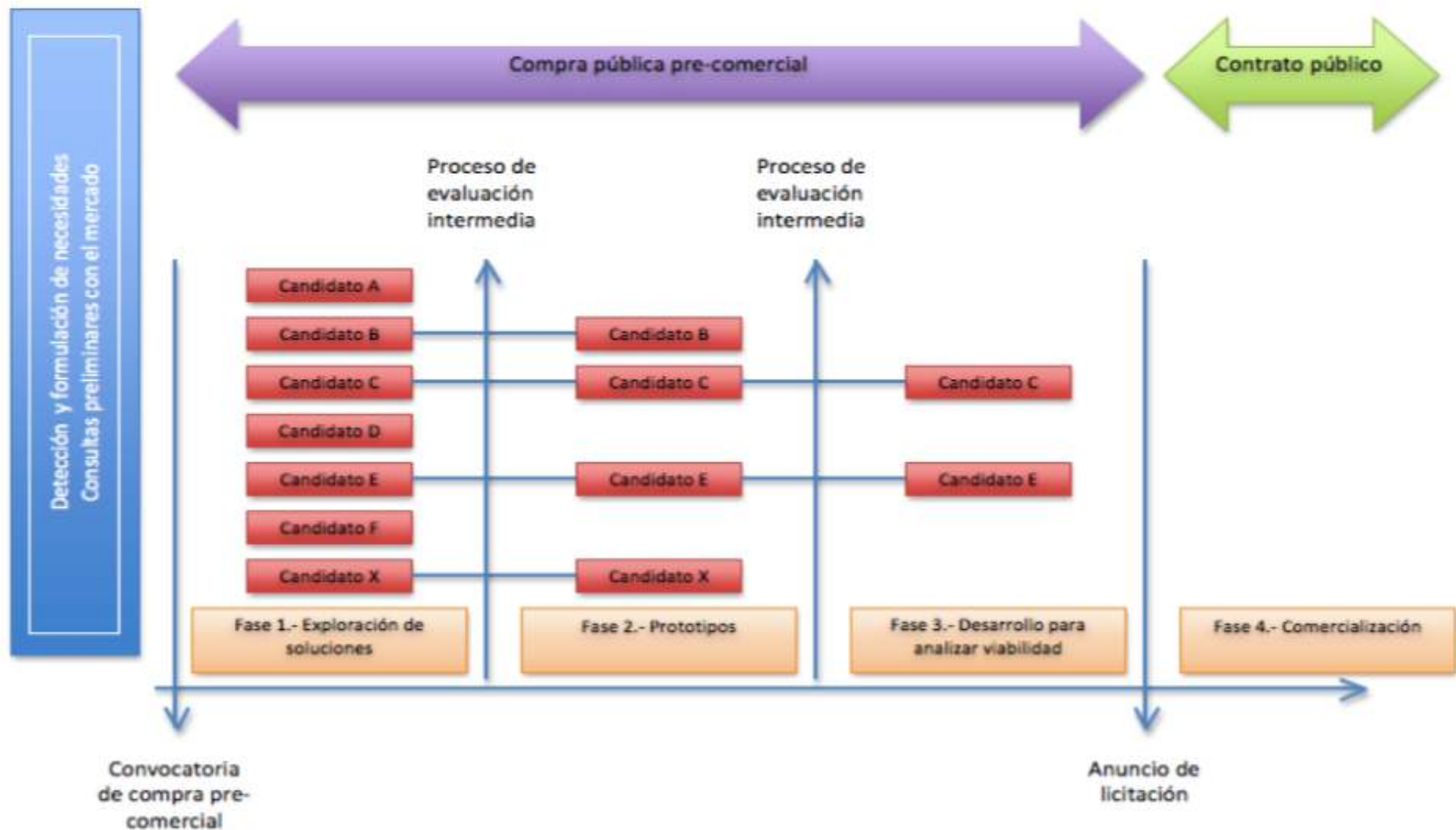
Services provided

Service	Content
Procurement expertise centre	A contact point for legal, practical or administrative questions from contracting authorities on procurement matters
Information services	An online library and a basic information service with fact sheets and FAQs provide immediate access to information on procurement matters
Supporting procurement partnerships	Small municipalities especially are encouraged to form partnerships with neighboring authorities to help build professional practice together. PIANOo assists the authorities to set up and develop such partnerships
Expert groups	Groups of experts from the network delve deeply into procurement issues and develop new and innovative approaches. Topics include procurement law, purchasing management, ICT procurements and e-auctions
Training	from in-depth courses on the legal aspects of public procurement, an annual conference and regional meetings to lunch-time discussion sessions on specific subjects
International matters	Exchange of experience with government procurement; PIANOo is member of the EU Public Procurement Lab and actively engages in international debate on procurement issues.
Public Procurement of Innovation	Advice on appropriate instruments and access to national and international networks working on the promotion of innovation through procurement including the Lead Market Initiative (the European policy for six important sectors of high economic and societal value: eHealth, protective textiles, sustainable construction, recycling, bio-based product and renewable energies)
Pilots on procurement innovation	Support through funding and advice for innovative pilot procurements. The experience of these pilots is shared with the network
Sustainable Procurement	Practical instruments and guidance to help national, regional and local authorities to implement a Sustainable Procurement policy

Examples of good practice. Signaling: Estonian government as Lead User



Examples of good practice: Signaling Pre-commercial procurement



Examples of good practice: Signaling Pre-commercial procurement in UK/NL/US

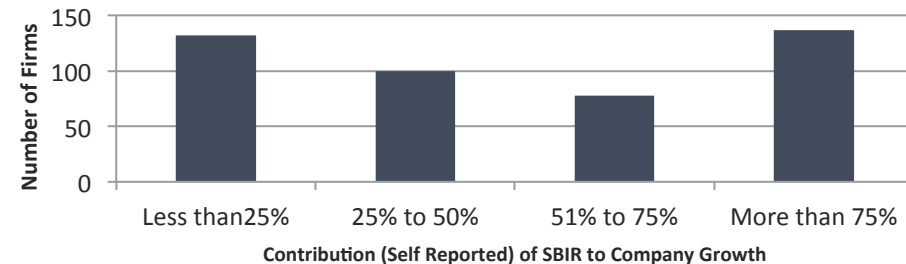
	UK SBRI	US SBIR	Dutch SBIR
Date established	2001 (relaunched in 2009)	1982	2005
Coordination	Technology Strategy Board (Innovate UK). Used by 70 public sector bodies	Small Business Administration, but each agency operates its own individual programme. Used by 11 US gov departments.	NL Agency but 3 variants Used by 7 ministries.
Mandated?	No, discretionary take-up by public sector bodies	Yes, 2.5% of Federal R&D Budgets over €100 million	No
Eligible organisations	EU companies of all sizes	Over \$100m Small Businesses (<500 employees) at least 50% owned by US citizen	EU companies of all sizes
Type of financial support	Contracts	Grants and contracts	Grants and contracts
Value of contracts awarded per year	644 contracts worth £101m (oct 2012-jul 2014)	2014 \$ 42.4 bn, 4805 awards (67% first stage)	2011: 370 contracts, €69 budget
Phase 1	Feasibility testing for typically up to 6 months. Contracts typically up to £1000,000 but can exceed depending on challenge	\$100,000 for a feasibility study for up to 6 months	Feasibility testing up to 6 months, and 50,000 euros per project
Phase 2	Development of prototype or contracts typically <£1 million demonstrator for up to 2 years	\$750,000 for development of prototype or demonstrator for up to two years	Development of prototype or demonstrator for up to two years, contract of €450,000 per project
Phase 3	No phase 3	No additional SBIR funds but follow through from sponsoring government department	Market development & product launch (not granted or supported by SBIR)

Examples of good practice: Signaling Pre-commercial procurement. Impact

USA

- Strong impact on growth of awardees (without being locked in to agency)
- Strong signalling effects to venture capitalists
- Subsequent commercialisation
- But: small employment effects, some crowding out effects and buy in effects on public sector unclear

SBIR impacts on company growth (Committee for Capitalizing on Science (Wessner ed) 2007) the DOD SBIR



NL

- Very positive in terms of SMEs participation.
- 2012 evaluation among 48 SBIR companies → SBIR had a positive contribution on the turnover (94% of the respondents), SBIR made it possible to bring new or significantly improved products and services to the market (94%), increase in the number of jobs (60%).

UK

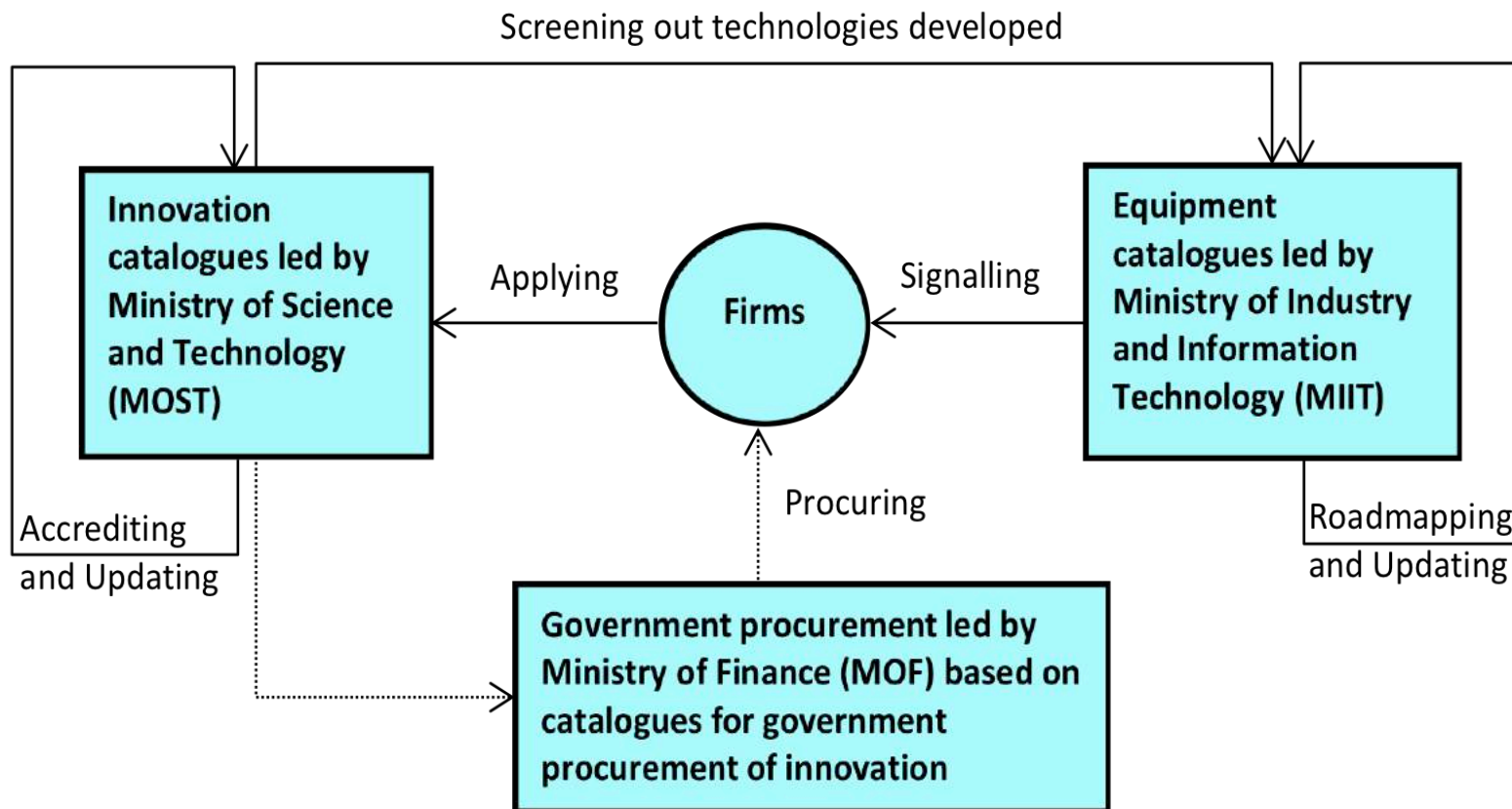
Positive: economic impact on funded firms

- Increased sales (41.7% of firms). Average sales impact of around 30.7%.
- SBRI support helped access additional finance (16.6%)
- Positive spillover effect on other innovation projects

Unclear:

- savings over time ?
- service improvements of departments
- Contribution to policy goals

Examples of good practice: Signaling China: Innovation catalogues and equipment catalogues



Innovation catalogue approach (what we have)

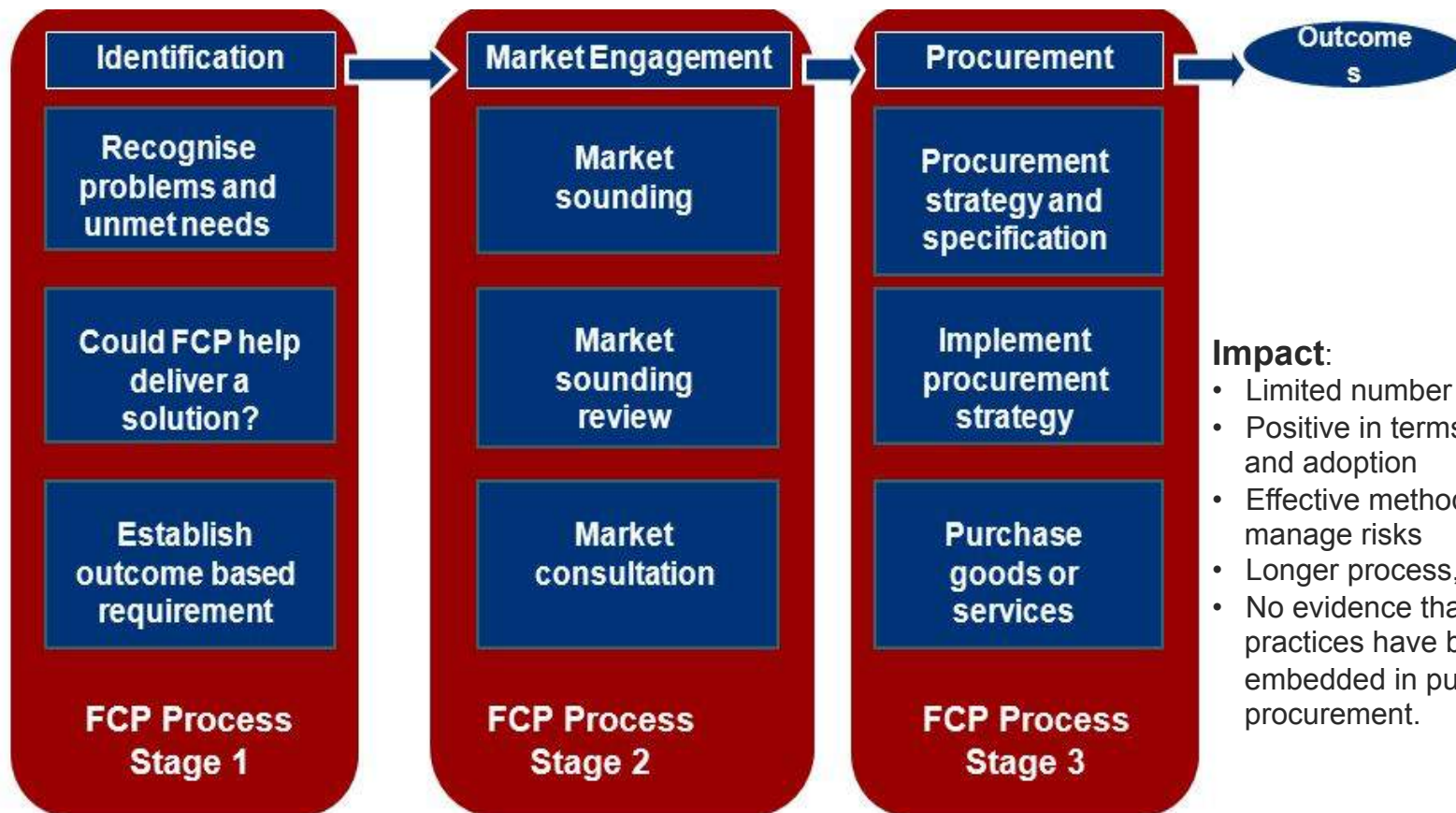
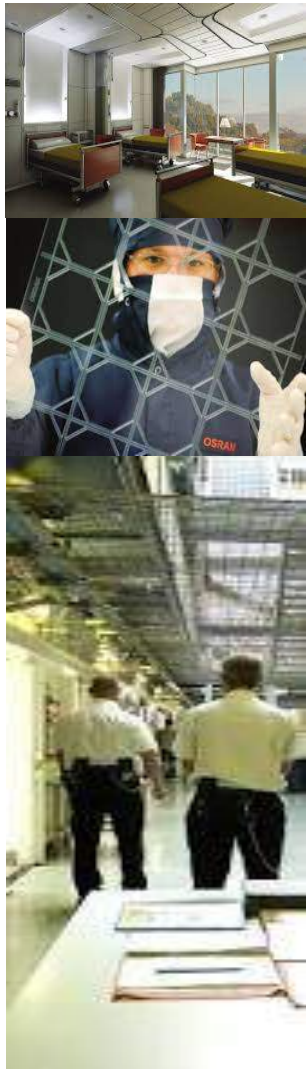
catalogues of innovative products to be bought by PP
orchestrated by various ministries, and taken up by regional governments
range of criteria (e.g. indigenous IPR, innovative contribution to policy goals, strong indication of commercialisation)
stopped in 2011

Signaling catalogue approach (what we want)

Public agencies signal future demand for equipment and technologies
Prioritising of projects that mobilise indigenous innovation (import substitution)
Initial step to be included in innovation catalogue

Examples of good practice: Incentivising innovative solutions

UK: Forward Commitment procurement



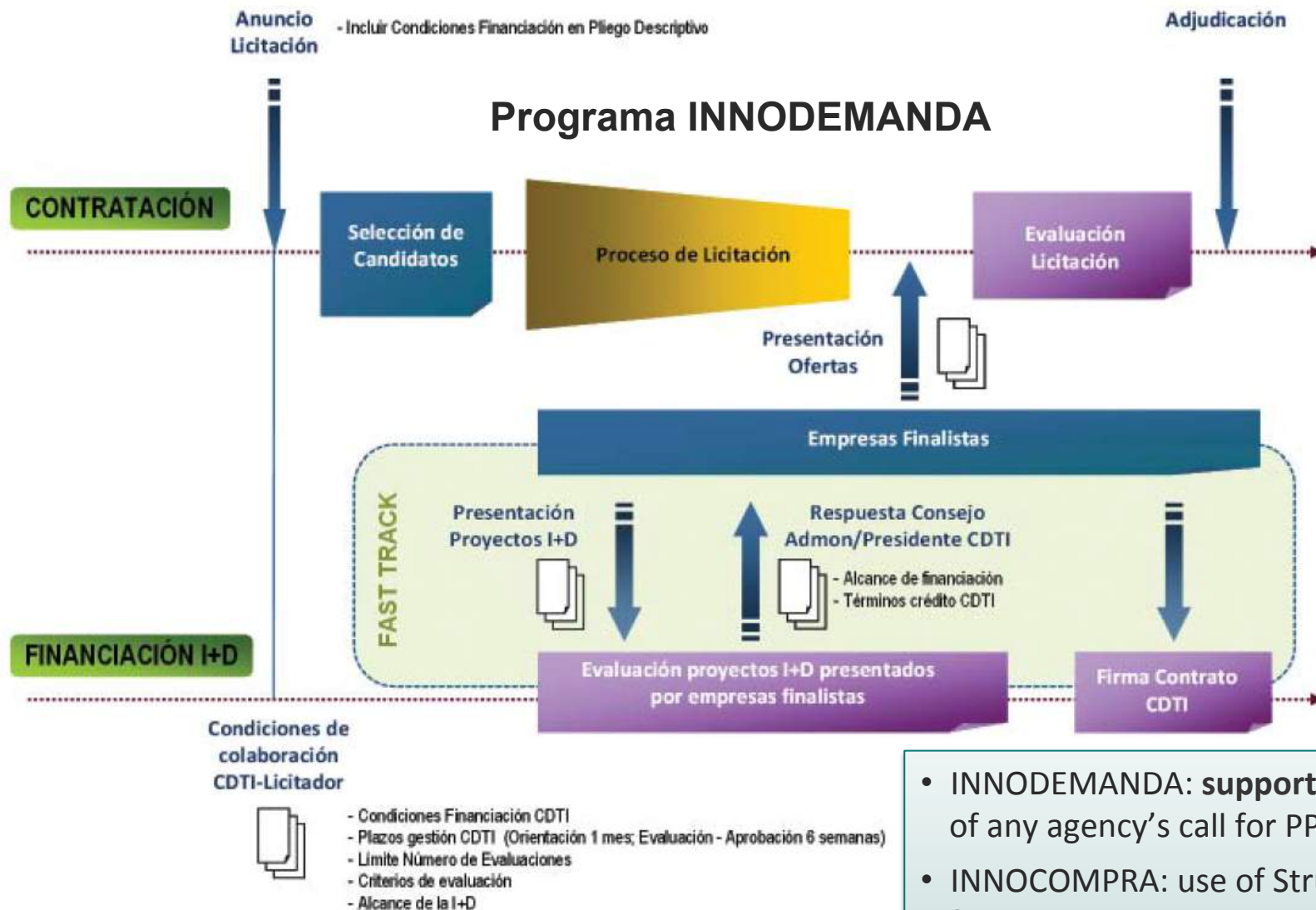
Impact:

- Limited number of cases
- Positive in terms of innovation and adoption
- Effective methodology to manage risks
- Longer process, more costly
- No evidence that such practices have become embedded in public sector procurement.

FCP methodology is directed at 'providing advance information of future needs, searching out and engaging with potential suppliers and, critically, incentivizing them through a Forward Commitment—the promise of current and future business to promote investment in innovative new product development' (DTI, 2006).

Examples of good practice: Incentivising innovative solutions

Spain's funding instruments



- INNODEMANDA: support the potential tenderers of any agency's call for PPI-PCP
- INNOCOMPRA: use of Structural Funds to co-finance PPI schemes, providing co-funding grants to regional and local authorities & informal network of expert officials

Examples of good practice: Incentivising innovative solutions. Spain's funding instruments

Available information on the INNODEMANDA program:

In 2011-2015 13 INNODEMANDA protocols have been signed (CDTI-contracting authority). As a result of that, CDTU has awarded 15 R&D projects (grant+loan) with a total budget of € 18,55M from which CDTI's contribution was 14,74M € (80%).

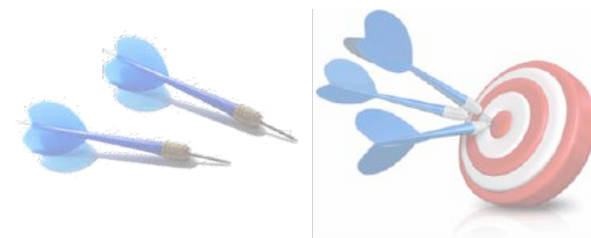
Available information on the INNOCOMPRA program:

The budget ERDF awarded / mobilized for PCP-PPI programs is reflected in the following table:





2007 – 2014		2014 – 2020	
Budget ERDF awarded for PCP-PPI programs	197 M€	Budget ERDF awarded for PCP-PPI programs	293M€
Budget ERDF mobilized for PCP-PPI programs ¹⁴	258,5 M€	Budget ERDF mobilized for PCP-PPI programs	410 M€

[14] This Budget has been implemented from 2011 to 2014

Capacity building and cultural change is the most important effect!



Summary: Role of PPI in different countries, enablers & challenges

	 UK	 SPAIN	NETHERLANDS	 CHINA	 USA	Estonia
	Leading country in terms of systematic use of PP as innovation policy tool. Linked to a range of policy agendas.	PPI a consistent priority despite changes in the government and economic crisis. PPI linked to technology/sectoral policy and regional policy	Recent agenda around PPI /national strategy for PPI with a commitment to spend 2.5% of PP budget on innovation	High level PPI policies since 2006, mostly as industrial policy focus to support catching up of the economy by targeting indigenous innovation	PPI and PCP understood in the mission oriented paradigm of STI policy.	Estonia does not have an explicit PPI strategy, currently discussing the design of a demand side innovation policy strategy.
What worked well	Large degree of experimentation around PPI. Strategic priority of PP as demand side policy	Relatively extensive use of PPI-CPC by local and regional authorities (INNOCOMPRA , INNODEMANDA and H2020 PCP/PPI projects, improving capabilities and routines of regional authorities.	<ul style="list-style-type: none"> ▪Continuity of political support for PPI. ▪coordinated activities (SBIR and Inkoop Innovatie Urgent) and sharing of good practice (PIANOo) 	Two main initiatives, the equipment and innovation catalogues , part of the overall STI strategy, aimed at signalling/ showcase of innovative solutions to potential buyers	<ul style="list-style-type: none"> ▪SBIR scheme, as a strong instrument to define and signal needs to achieve policy goals. ▪Decentralized SBIR, which improves the flexibility and sharpness of the instruments 	Government as intelligent and challenging customer to encourage innovation in the supply chain
What didn't work so well	Lack of continuity of many PPI initiatives after 2010.	Challenge remains to improve technical knowledge, experience and competences	Lack of technical knowledge PPI, with insufficient training of civil servants who are dedicated to those processes.	:Fragmented and inconsistent institutional settings. Protectionism.	Lack of high level political intent for a more systematic use of PPI beyond SBIR and some diffusion oriented programs.	Roll out of good practice due to the lack of capabilities in the system and the lack of systematic mechanisms for PPI
Lessons learnt	Experimentation, broad view of PPI, importance of continuity	Sustained political commitment and long-term vision. Capacity of PPI at regional and national levels	Coordination High level commitment PPI champions	Sectoral targeting, Strong signaling	<ul style="list-style-type: none"> ▪Policy continuity ▪Instrument design 	Importance of highly sophisticated and demanding public sector

8. Concluding remarks



Institutional Leadership

Sustained political commitment and long-term vision

PPI Champions

Support structure for the PPI-PCP

Measurement and showcase

Sectorial bet and pilot selection

Economic incentives

The role of the private sector

Elvira Uyarra,
Senior Lecturer, Manchester Institute of Innovation Research,
University of Manchester
elvira.uyarra@manchester.ac.uk

Diego Moñux
Socio Director, SILO
diego.monux@silocompany.com