



# **Policy Incentives for the Creation of Knowledge: Methods and Evidence. (PICK-ME)**

A Consortium between CCA (Italy), URU (Netherlands),  
GREDEG (France), LSE (UK), CSIC (Spain), UHOH  
(Germany), SNI (Israel), and CASE





# Can public policies stimulate the demand for innovation in businesses?

A special focus on Public Procurement for Innovation (PPI)

(This presentation builds on Pick-Me contributions as well as on papers from Charles Edquist and Luke Georghiou)





## Foreword

The PICK-ME project considered a number of tools and methods to stimulate demand-side policies for innovation.

This includes Gazelles, new approaches to IP, clusters, and PPI.





- PPIs are of primary importance in the context of so-called grand challenges (global warming, tightening supplies of energy, water and food, ageing societies, public health, pandemics, or security) (Lund Declaration, 2009).
- Such grand challenges are mitigated through other instruments (e.g.: R&D funding, tax credits, environmentally motivated regulations and standards, creation of markets for innovative ideas) (OECD, 2011).



# Context & overall goals of PPIs



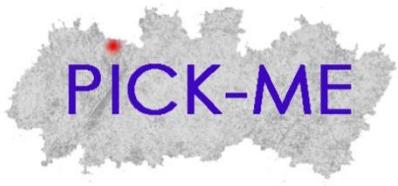
- Public Procurement represents more than 19% of all procurement activities. This amounts to over 2.3 trillion Euros!
- Most often PPIs are not launched to stimulate the development of new products, but to target functions that satisfy human needs or solve societal problems.



# PPI processes (1)



- Direct PPI: the procuring organization is also the end-user. This PPI includes the procurement undertaken to meet the ('mission') needs of the public agencies themselves (though results can be diffused to other users).
- Catalytic PPI: the procuring agency serves as a catalyst, coordinator, and technical resource for the benefit of end-users.



# Characterization of PPI processes



- Pre-commercial procurement (PCP) refers to the procurement of (expected) research results and is a matter of direct public R&D investments, but no actual product development.
- Adaptive PPI: the product or system procured is incremental and new only to the country (or region) of procurement. Hence, innovation is required in order to adapt the product to specific national or local conditions.
- Developmental PPI: completely new-to-the-world products and/or systems are created as a result of the procurement process.

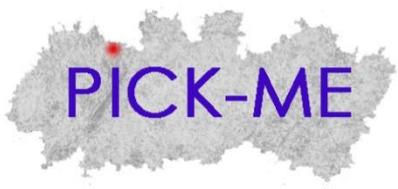


# Analysis of examples

UK, Sweden, France (high-speed train,  
switching technologies, etc.)



- PPIs are to a large extent a matter of identifying human needs and societal problems that are not solved at the present time (often related to “grand challenges”).
- A key issue is related to the ability of procurement officers to move from “off the shelves” to new solutions. This implies continuous training and the ability to increase risk taking with long term visions of the benefits.



Based on Edquist and Zabala-Iturriagagoitia (2012)  
and Georghiou, Edler et al.



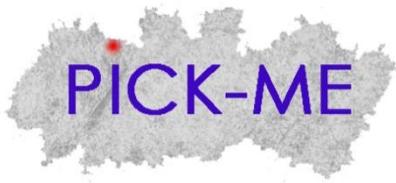
# UK system



# Influencing change through collaboration



Department for  
**Innovation,  
Universities &  
Skills**



PICK-ME



Making Kent a place of innovation & creativity



Mapping innovation

Showcasing innovations



R&D and technical innovations

Working on innovation tours



Interregional innovation



Award winning concepts to empower citizens



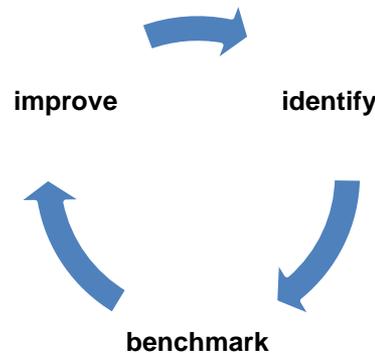
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# Evidencing performance for self improvement



- First ever council **self-improvement** tool for staff to assess the capacity to innovate.
- **Benchmarking** management and performance of innovations.
- **Mapping** local innovation supply chain to identify gaps and opportunities for collaboration.
- **Identifying** conditions for innovation.

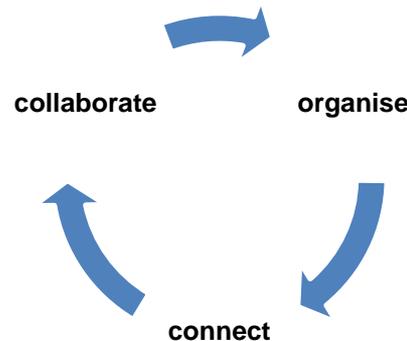


**Adapting Audit Commission methodology & developed with University of Kent**

# Sharing knowledge to drive collaboration



- **Catalogues of Innovation** showcases 150 case studies of innovative practice from across the council, private, and voluntary sectors in Kent
- **Stories of Change** features journeys of innovations in the community
- **Directory of Innovators** Features an expertise locator for staff
- **Communities of Practice** 700+ staff, developed social media toolkit, and self assessment of collaborative working

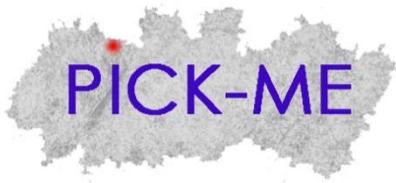


Supported by IDeA, developed with Kent local authorities and services, and featured on [Innovation Forum](#) and [ICELE](#)

# Learning by doing – “innovation at work”



- **Staff tours** to local innovative businesses
- **Road shows & fairs** across KCC
- **Creative thinking and film** training for staff from KYOI partners
- **Virtual reality:** Piloted first ever KCC event in Second Life
- **A day in the life** of the [“family innovators”](#) and [voxpops](#) of staff
- **DVD** of present and future innovations
- **Green screen** filming to record once and play repeatedly (i.e. for translation, deaf services, etc)
- **Creative marketing** film project with local college



Developed with Canterbury College,  
Stormit and SEEDA

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



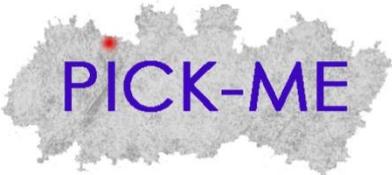
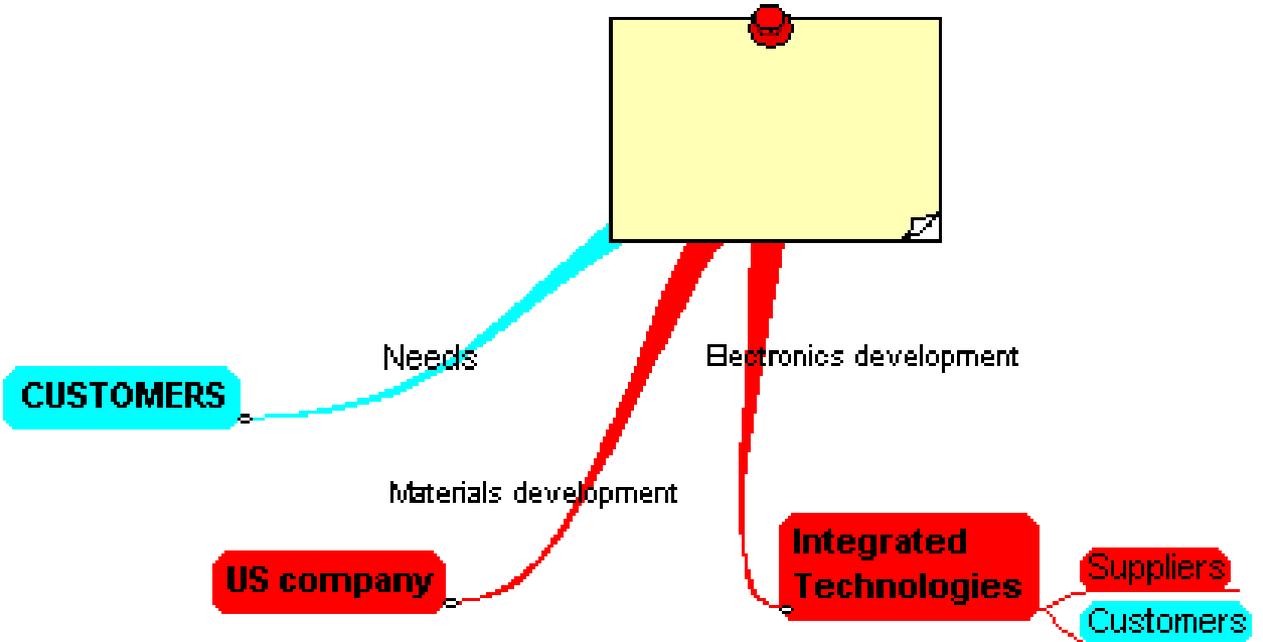


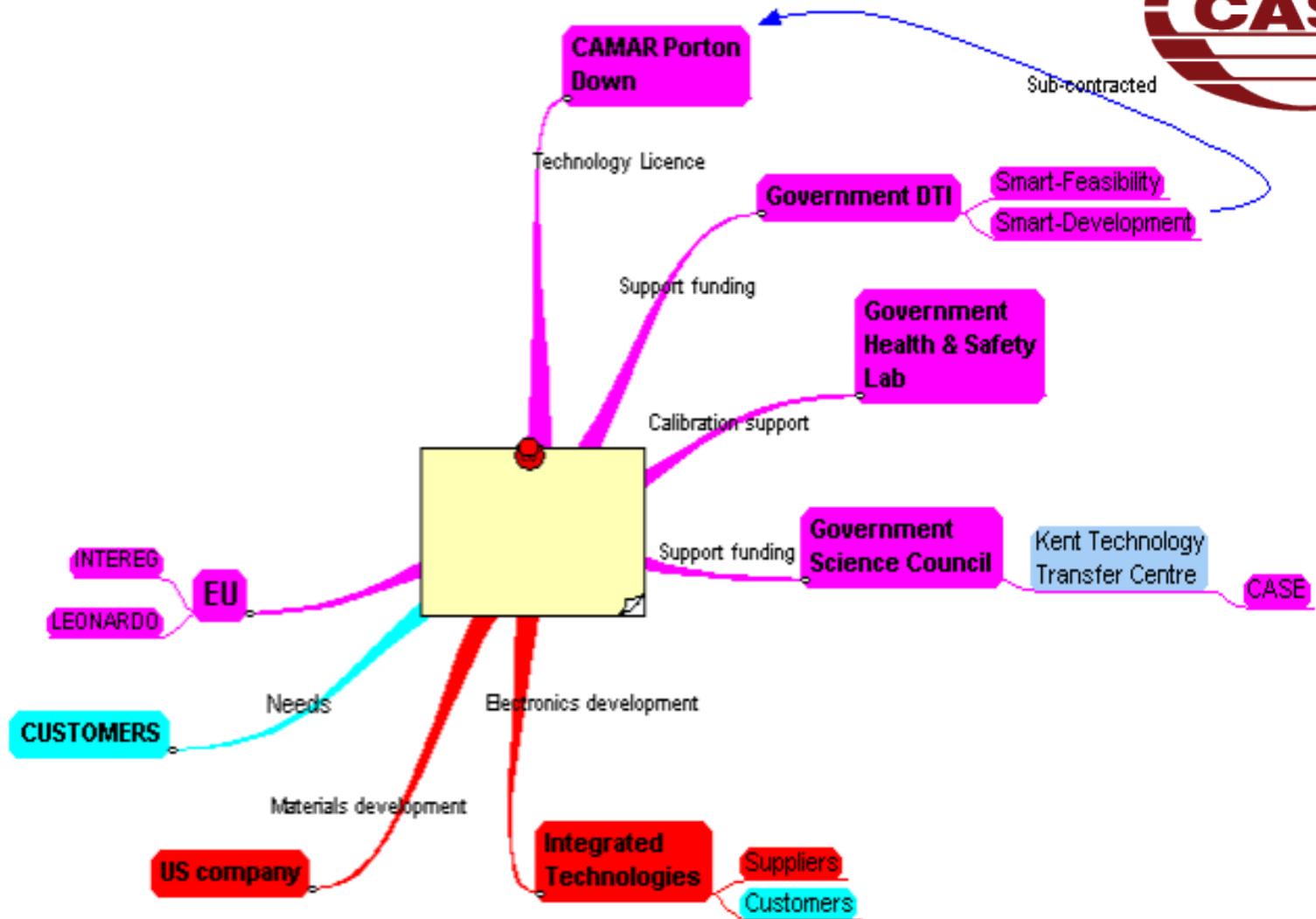
# Innovation Supply Chains

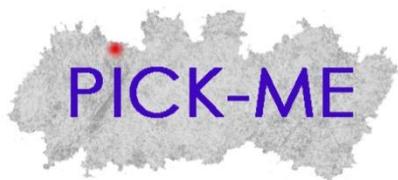
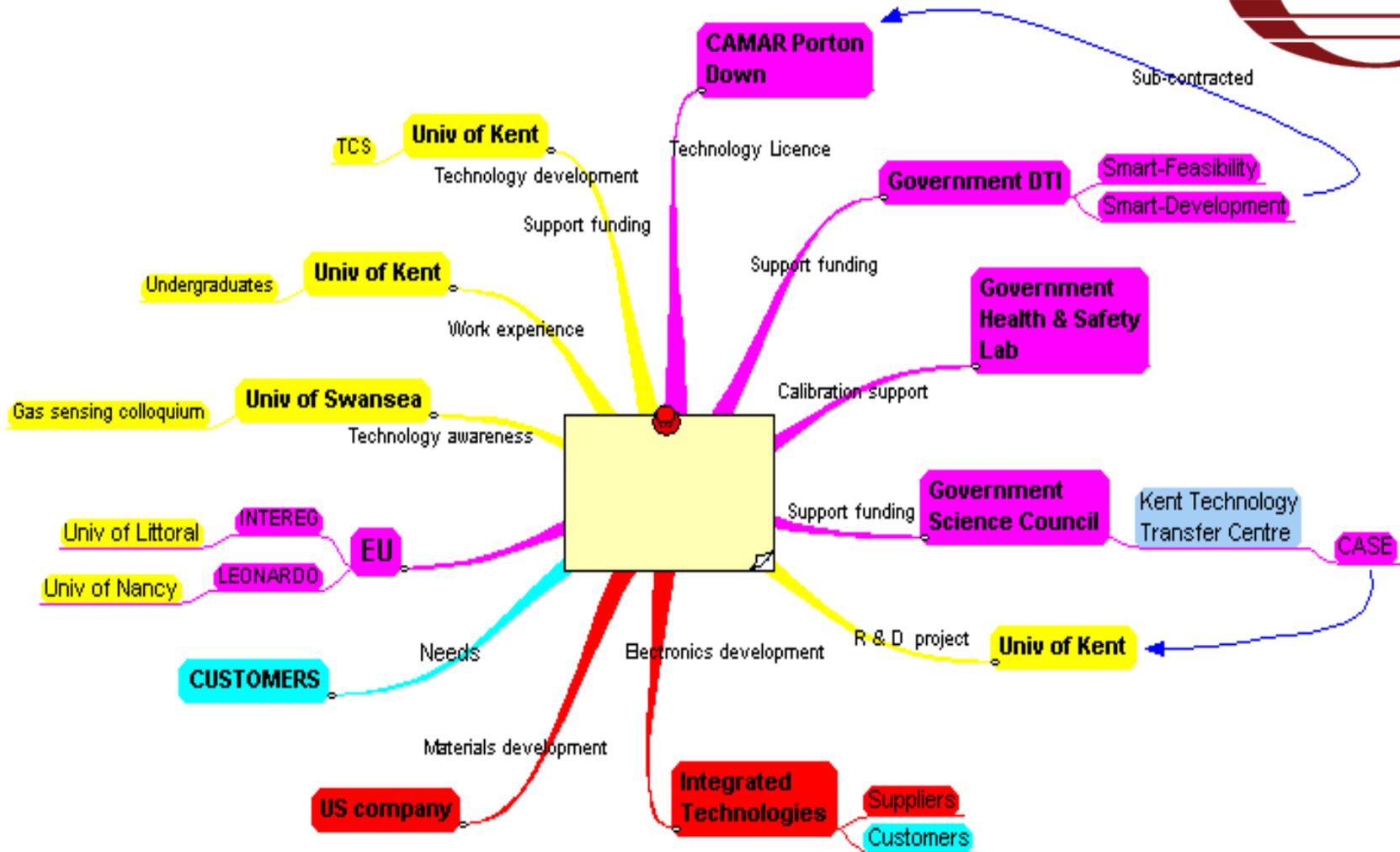
Small gas sensor manufacture for  
health services



# Innovation Supply Chain Mapping









- More experiments need to be designed/implemented.
- Organization of “focus groups” or “task forces” within certain needs, problems, challenges and procurement areas in the early stages of the PPI process.
- The “industry days” organized in the US clearly show how consultation and dialogue between buyer and supplier can directly influence the stages of requirement setting.



- EU regulations of public procurement have been an obstacle to PPI. EU procurement rules have inhibited collaboration and interaction for innovation in PPI processes. Policies to maximize competition have been governing the design of the rules to a much larger extent than policies to enhance innovation.
- However, new EU directives concerning procurement regulations have opened up opportunities for public authorities to purchase innovative solutions (new 2011 Directives).

