

Enabling non-technical innovation – enabling the demand side

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Background

- ❑ Traditional innovation policy measures have focussed on manufacturing and technical innovation. Often implicit is the technology-push model
- ❑ Led to support for R&D – building on existing capabilities - rather than focussing on market needs
- ❑ Non-technical innovation shaped not by R&D but rather demand or customer-led – could be public or private sector
- ❑ So ... how do you design policy to empower demand-led non-technical innovation?

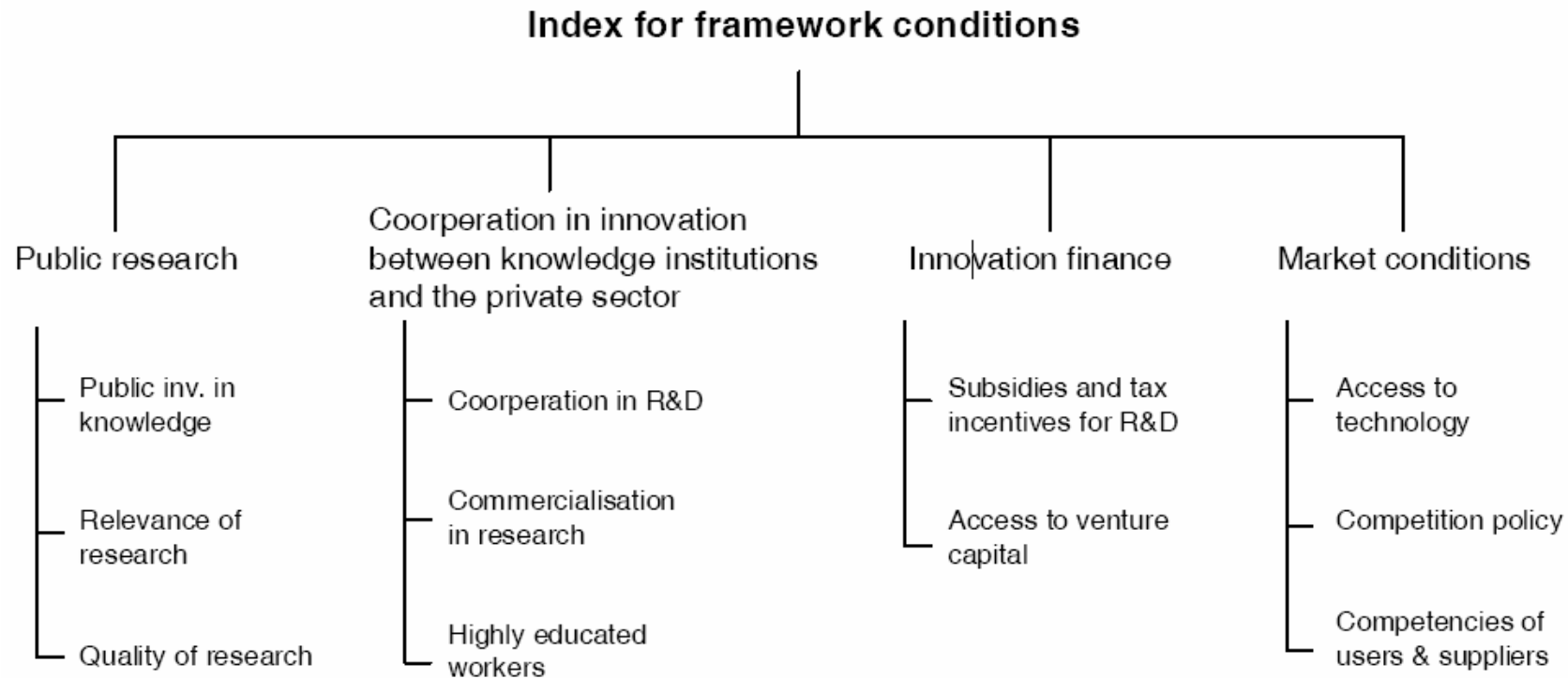
Conceptual backdrop

- ⌘ Key lesson of the innovation literature is the need for a systemic approach – reflecting national, regional and local dynamics
- ⌘ Acknowledging this reframes the innovation question: How do you structure a systemic innovation policy regime to enable demand-led non-technical innovation?
- ⌘ Answers need to reflect the multi-level influences (or governance) on innovation. So we might focus on
 - ⌘ Framework conditions
 - ⌘ Integrating system elements
 - ⌘ Direct interventions at the level of the project or firm
 - ⌘ Individual level factors

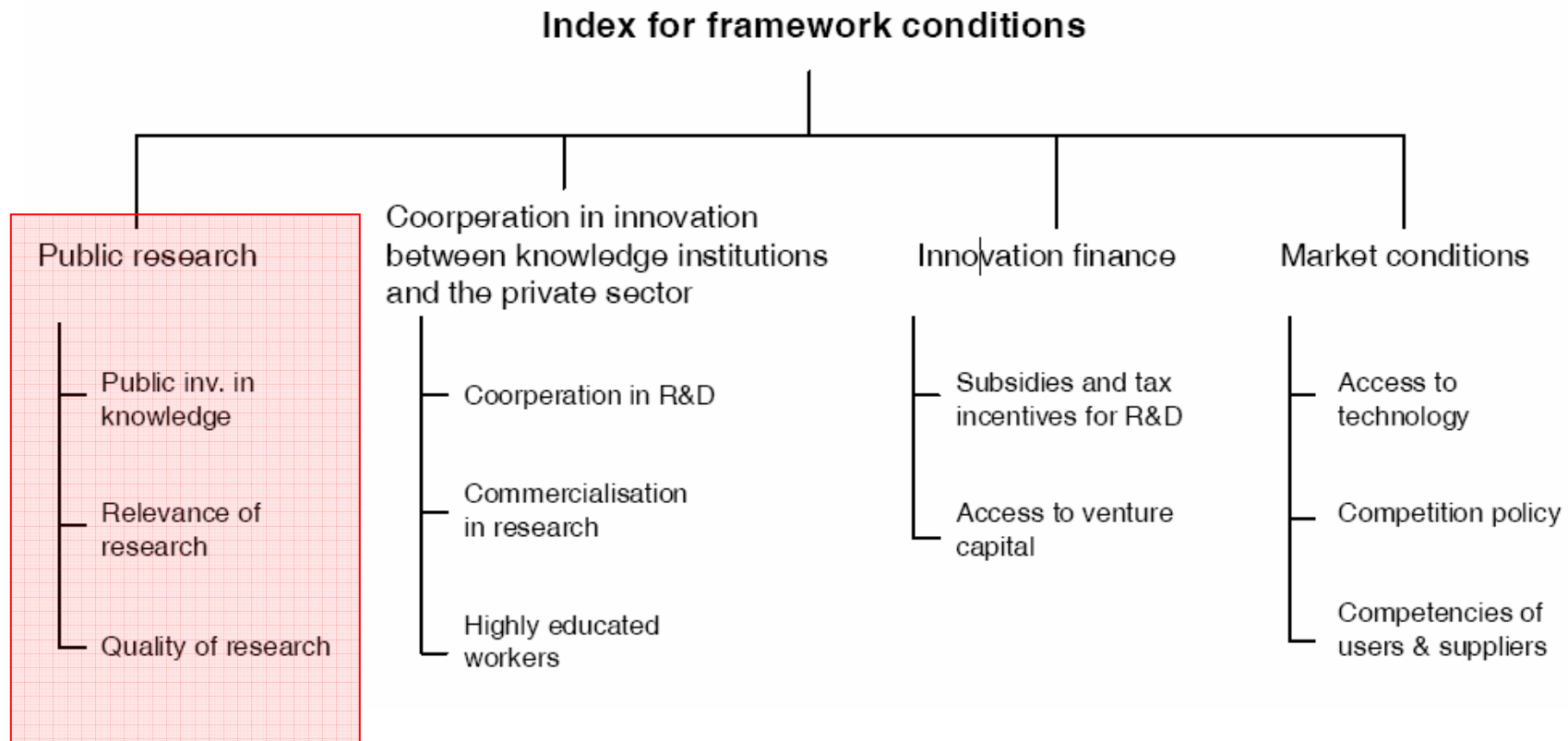
Framework conditions ...



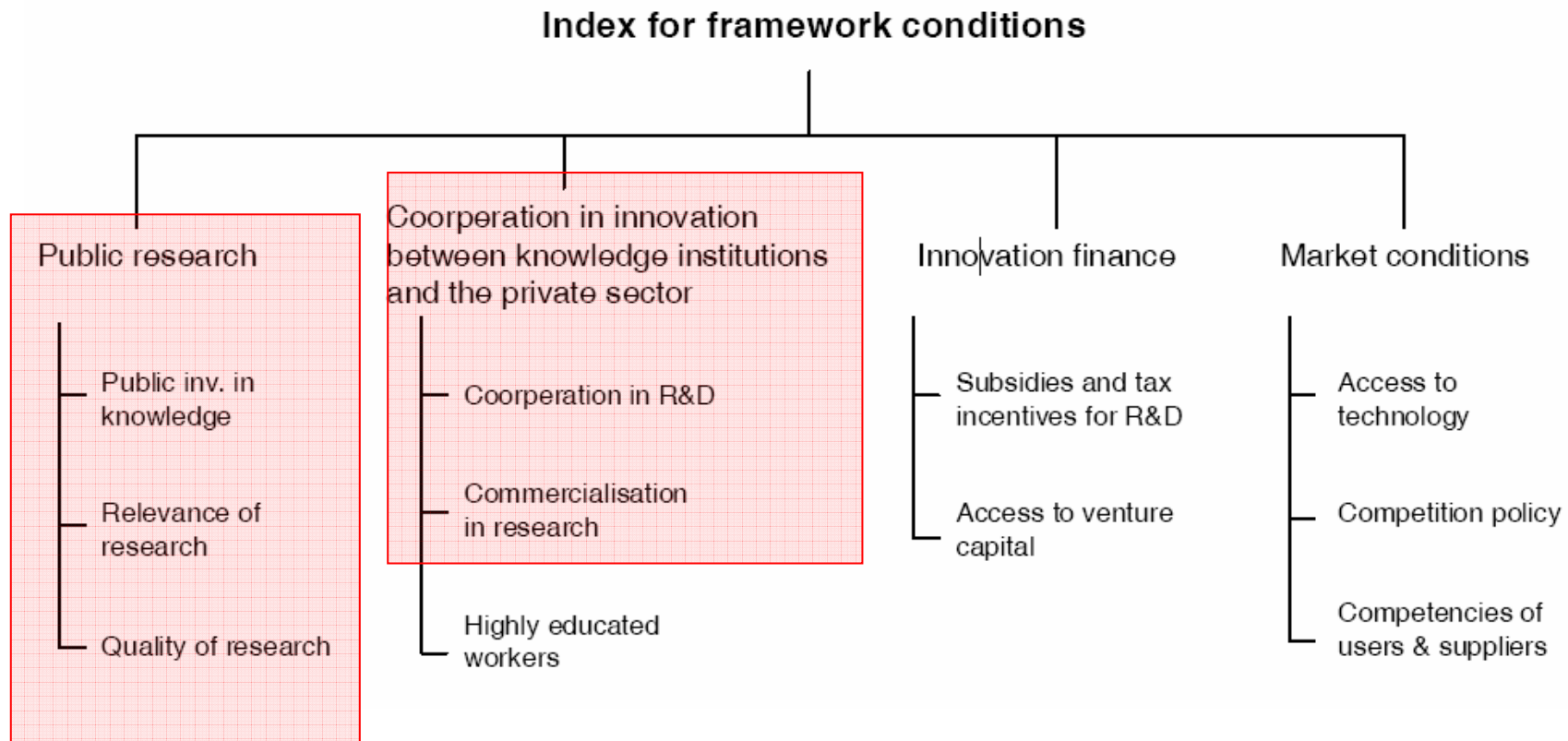
Setting appropriate framework conditions (OECD Benchmarking 2004)



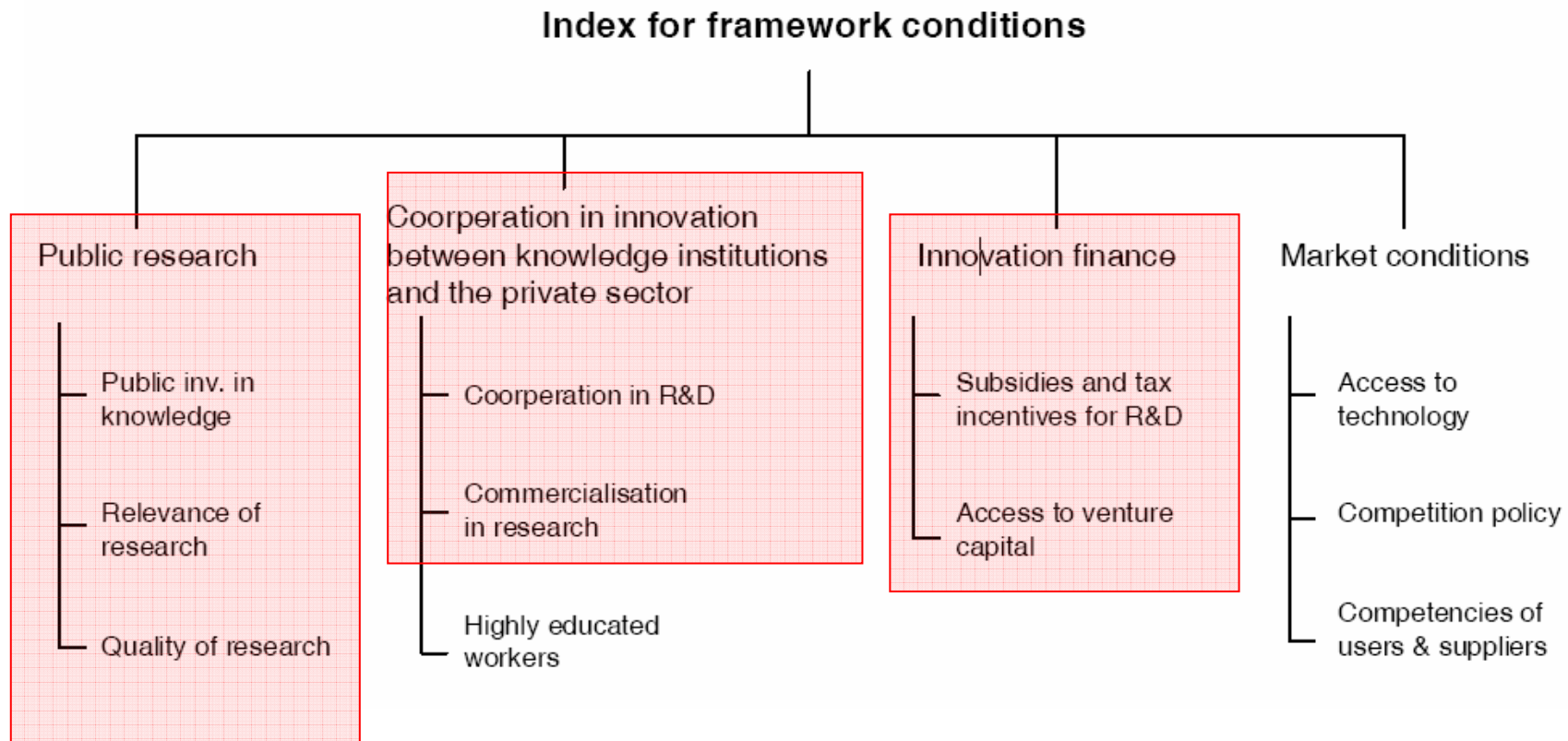
Re-thinking framework conditions?



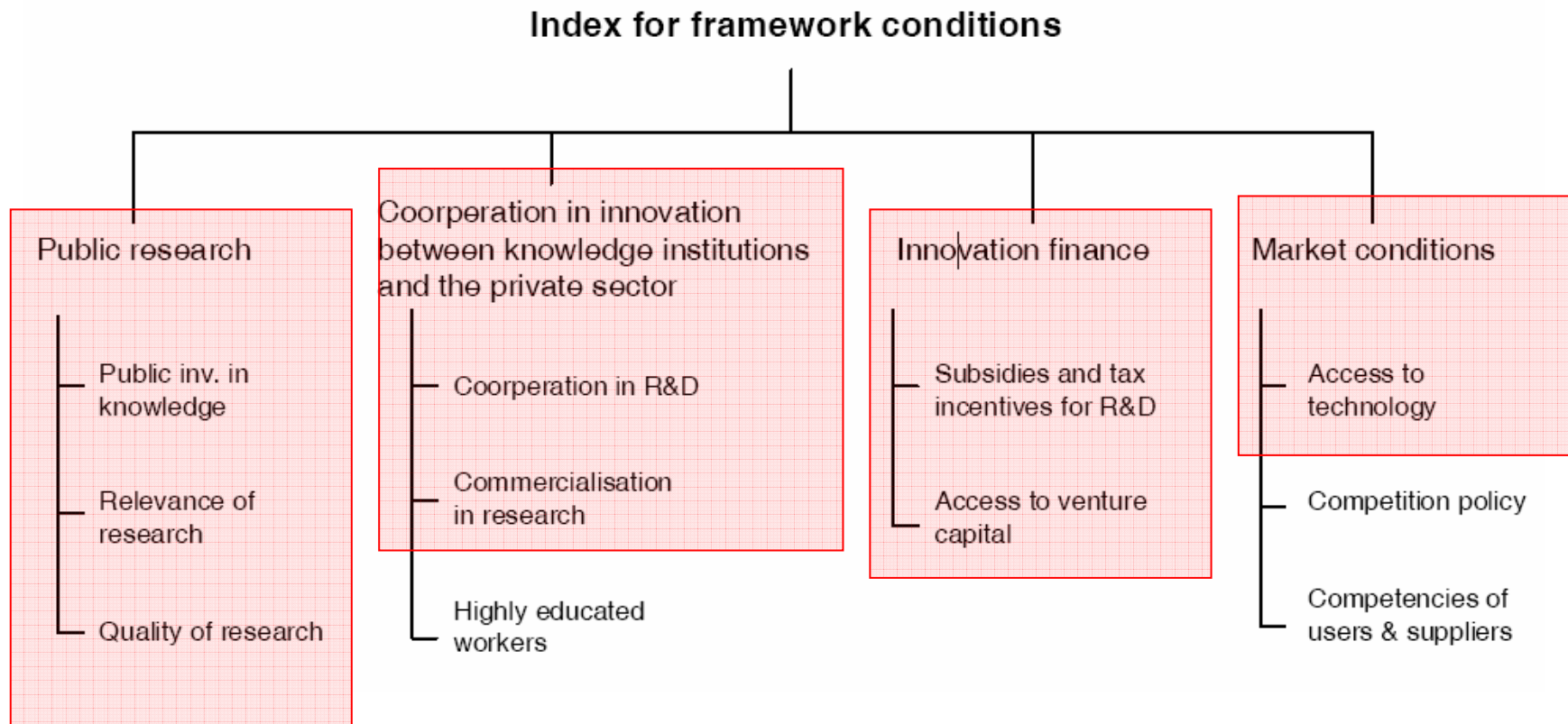
Re-thinking framework conditions?



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Re-thinking framework conditions?



Re-thinking framework conditions for non-technical innovation

- ❏ Need to shift emphasis away from backwards linkages towards technology providers and towards forward linkages
- ❏ In other words – focus needs to shift from innovation as a technological process to innovation as process of value creation.
- ❏ Judged on this basis OECD benchmarking type studies might give very different results
- ❏ Tax credits for example are typically given for R&D but should they also include investments made in non-technical innovations?

Integrating system elements ...



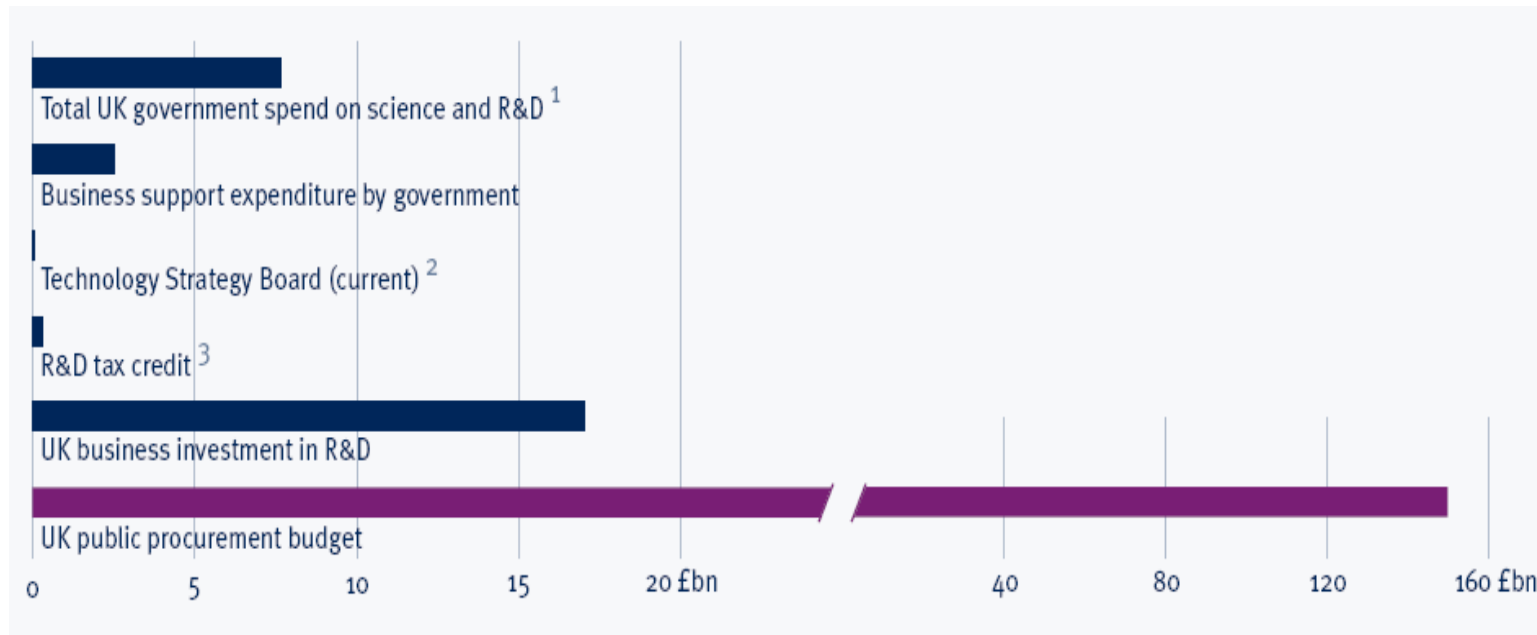
Integrating system elements

- ❖ Edquist (2004) argues that effective innovation systems exhibit:
- ❖ **Coherence** - an innovation system will exist when the array of organisations and their relationships in a region or nation form a coherent whole, which has properties different from the properties of the constituents.
- ❖ **Unified function** - an innovation system has a function, i.e. it has identifiable objectives or aims to which all elements of the system contribute. This might be evident in social partnerships (either formal or informal), agreed objectives and vision.
- ❖ **Bounded** - it must be possible to discriminate between the system and the rest of the world; i.e. it must be possible to identify the boundaries of the system.

Integrating system elements

- ⌘ Tendency to consider these kinds of issues with focus on links between knowledge generation and knowledge application – implicit is focus on technology enabled innovation (at least)
- ⌘ Is this important? Or, is it more important to evaluate coherence/unified function between firms and customers regardless of technological status of innovation
- ⌘ And, how do we do this? Supply-chain development perhaps rather than collaborative R&D support? Or specific support for user-led innovation?

... and a key mechanism might be public procurement



Source: Innovation and Public Procurement, p. 5

... but contract structuring is crucial..

EXHIBIT: 8	
Summary of findings from the Fraunhofer Institute review of innovation and public procurement	
Procurement stage	Lessons
1. Identifying requirements and ensuring user readiness	What do you need? Identify requirements carefully. Capturing the end user perspective is critical to success.
2. Gathering market intelligence	The procuring customer must be intelligent, with good technical knowledge to evaluate potential solutions and understand what the market can deliver (or should be able to deliver in the future).
3. Tendering process	Strike a balance between specifications that are tight enough to provide clear guidance, while broad enough to allow for alternative solutions. Make a conscious decision about who will bear the risk, or rather how risk will be shared. Consider unbundling complex projects or where the provider may lack experience. Use pilots.
4. Assessing tenders and awarding contracts	Use expert committees with multi-disciplinary skills.
5. Managing contract delivery	Use this phase to gather information and learn lessons for future projects: continue engagement between customers and suppliers.

Source: Innovation and Public Procurement, p.20

Structuring direct support ...



Eligibility Criteria for support

- ❑ SERVE scheme operated by the Finnish government agency TEKES. Innovation grant measure which aims to:
 - ❑ encourage the development of innovative service concepts and service business models in companies;
 - ❑ strengthen and diversify service related innovation activities, especially in SMEs;
 - ❑ improve productivity and quality of service activities in various industries.
- ❑ Provides grant support of up to 50 per cent of project cost
- ❑ Addresses internal resource constraints on firms – particularly finance, risk and skills.
- ❑ Key success factors are very broad eligibility criteria in terms of what it will support and particularly support for non-technological innovation – development of new business models for example.

And at the individual level ... we
might focus on skills



Priority skills for user-led innovation

- ⌘ What skills are necessary for user-led innovation – open innovation?
 - ⌘ **for effective partnering** – to manage and develop open innovation with customers and potential partners
 - ⌘ **for effective team-working** – both in organising and structuring innovation teams and working as effective team members
 - ⌘ **for effective knowledge management** – for capturing the lessons from innovation and using them.

Final remarks

- ▣▣▣ Supporting non-technical innovation requires a very different suite of policies to the traditional technology-push model
- ▣▣▣ Key point is that measures focus on enabling demand-led innovation and forward rather than backwards linkages
- ▣▣▣ The difficulty is the balance between measures to support demand-led innovation and non-technological development