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APPLIED POLICY SEMINAR
"PROMOTING INNOVATION IN THE SERVICES SECTOR"
GENEVA, PALAIS DES NATIONS, SALLE VII
Thursday, 25 March 2010

SESSION 1. INNOVATION IN THE SERVICES SECTOR: CONCEPTS, MEASUREMENTS AND POLICY CHALLENGES

Service innovation and innovation policies: key challenges and implications

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Geneva, March 25th 2010

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Context

- Research line at the University of Alcalá, (Madrid, Spain) on "**Services, Innovation and Competitiveness**" and Rooter. Member of the European Association for Service Research (RESER)

- Participation in national and EU Research Projects related to innovation in services:
  - ServPPIN 7th EU FP project on "**services, competitiveness and welfare and the role public-private service innovation networks**" (Coordinated by UAH)
  - Europe-Innova: Sectoral innovation watch. Tasks on **services and innovation policies** (Coordinated by TNO)

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The challenges for service innovation

- Recognition and importance
- Specificities and conceptualisation
- Measurement
- Impacts

The case of:

Service innovation impacts

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The challenges for service innovation policies

- Justification and rationale
- Integration in innovation policies
- Synergies with other policies

The case for:

A menu approach depending on national specificities and priorities

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The challenges for service innovation

- Recognition and importance

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Why services innovation is a policy challenge?

- The role of services in knowledge-based economies and **impacts on economic growth and welfare**
- The **competitiveness challenge** and opportunities coming from globalisation
- The **under-development of service innovation policies**

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Still the old myth about non-productive services

The old challenge coming from Adam Smith's 1776 times

"The labour of some of the most respectable orders in the society is, like that of menial servants, **unproductive of any value**, and does not fix or realize itself in any permanent subject; or vendible commodity, which endures after that labour is past, and for which an equal quantity of labour could afterwards be procured. The sovereign, for example, with all the officers both of justice and war who serve under him, the whole army and navy, **are unproductive labourers**. They are the servants of the public, and are maintained by a part of the annual produce of the industry of other people. Their service, how honourable, how useful, or how necessary soever, produces nothing for which an equal quantity of service can afterwards be procured…. In the same class must be ranked, some both of the gravest and most important, and some of the most frivolous professions: churchmen, lawyers, physicians, men of letters of all kinds; players, buffoons, musicians, opera-singers, opera-dancers, etc…. Like the declamation of the actor, the harangue of the orator, or the tune of the musician, **the work of all of them perishes in the very instant of its production**." (The Wealth of Nations, 1776)

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The survival of the old myths

Services are a problem:

- They make economies grow at a slower pace
- They are less productive
- They are less innovative
- They are less tradable

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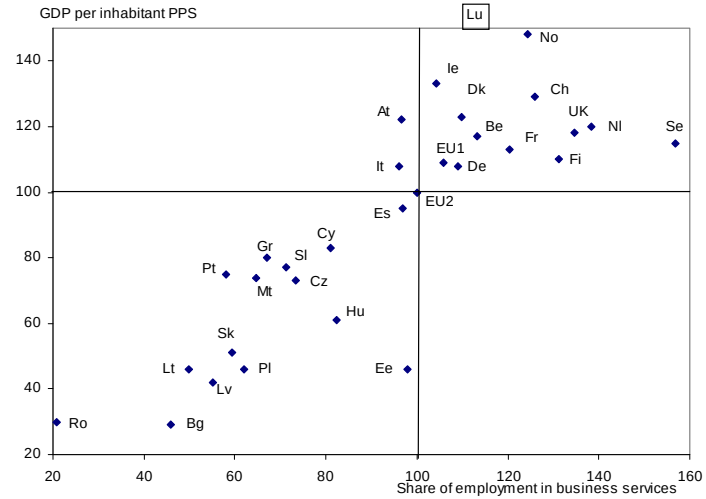
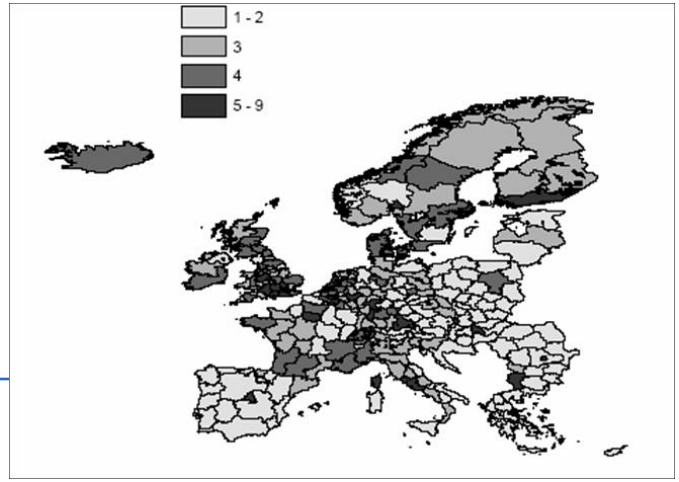
A major contradiction of the myths

But services such as KIBS contradict the traditional assumptions about services



- They create productivity growth in clients
- They help all productive systems to be more innovative
- They are active players in the globalisation edge
- Some of them strongly contribute to market integration



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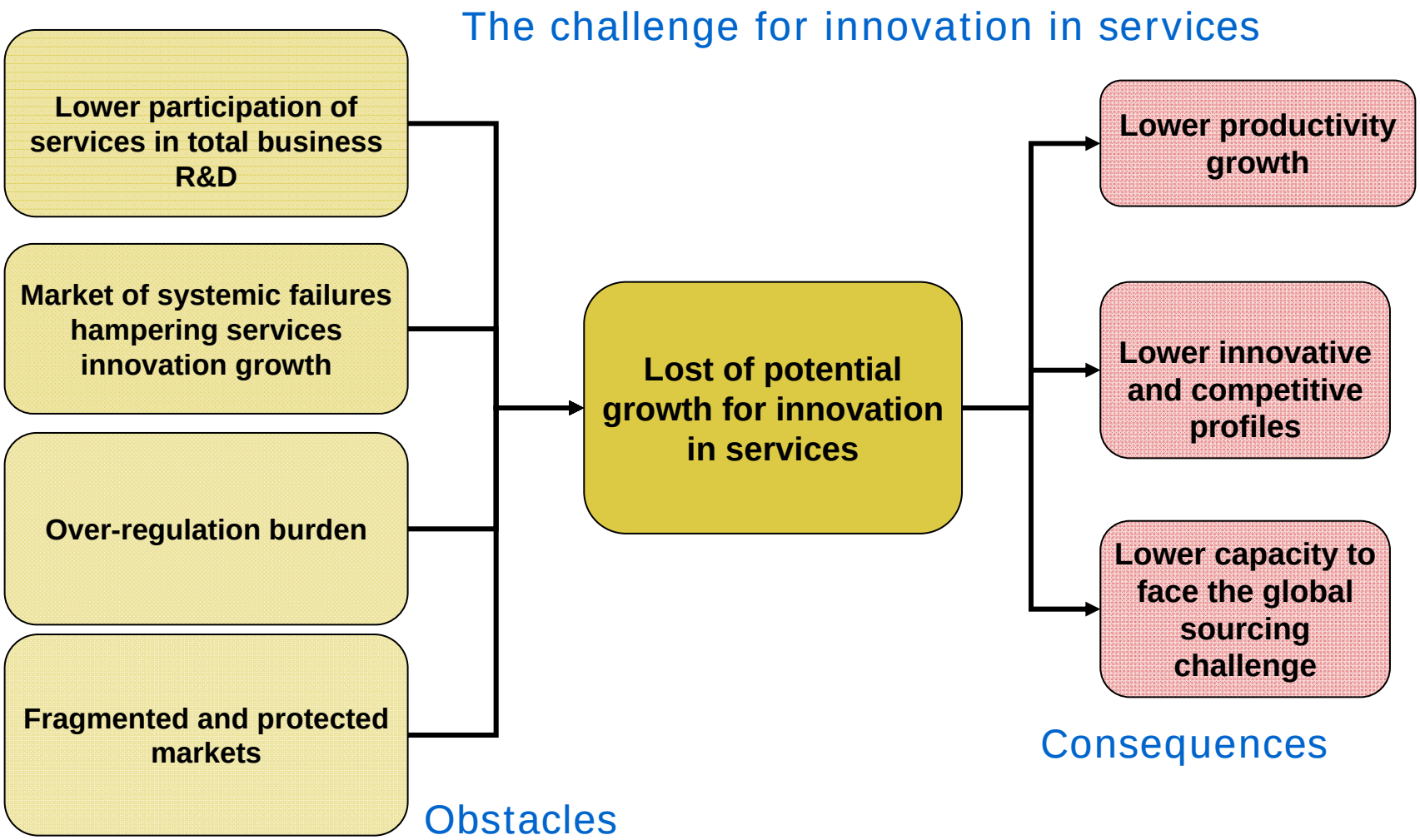
The Challenges for services and services innovation



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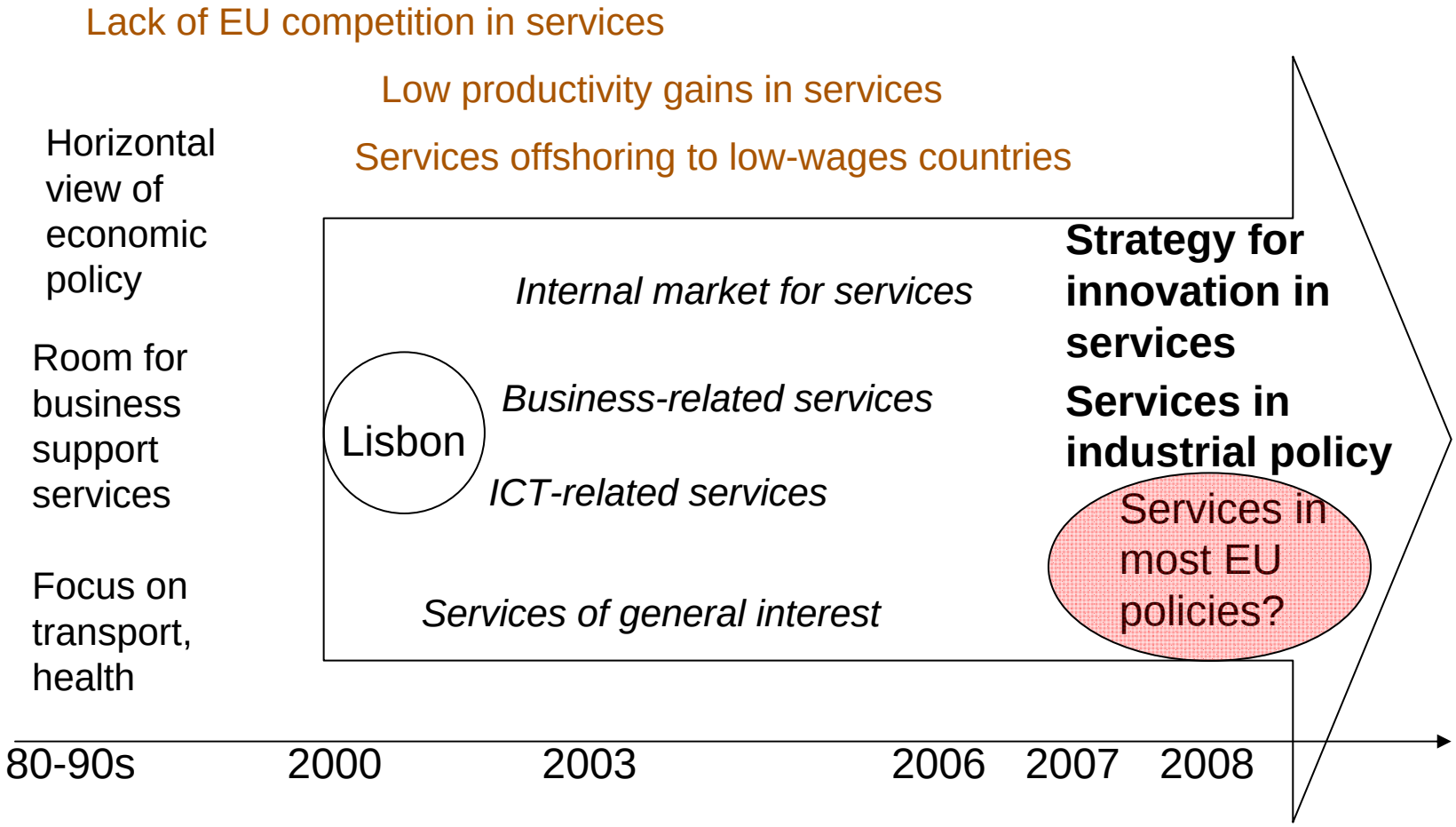
The way towards the recognition of services and service innovation in Europe



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The challenges for service innovation

- Concepts and measurement

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The challenges for service innovation

▪ Specificities and conceptualisation

Distinctiveness coefficient in some key policy related indicators: services versus goods, Europe-16

	Total goods industries	*Manufacturing*	*Total services*	*Distributive trades*	*Transport and communications*	*Financial services*	*Business services*
% of innovative firms	1.00	1.004	0.773	0.699	0.625	1.204	1.070
Intramural R&D	1.00	1.060	0.791	0.601	0.627	0.815	1.213
Extramural R&D	1.00	1.017	0.964	0.932	0.873	1.142	1.112
Impacts on costs	1.00	1.005	0.677	0.656	0.841	0.888	0.576
Impacts on quality	1.00	1.010	1.033	0.907	1.063	1.118	1.170
Impacts on respond time	1.00	1.007	1.227	1.250	1.330	1.307	1.113
Patents	1.00	1.033	0.517	0.575	0.254	0.125	0.825
Copyright	1.00	1.014	1.598	1.065	0.531	0.764	3.632
Obstacles	1.00	1.005	0.901	0.878	0.799	1.004	0.989
Total public funding	1.00	1.005	0.574	0.470	0.463	0.239	0.944

Note: Europe-16 refers to Belgium, Czech Republic, Denmark, Spain, France, Italy, Cyprus, Lithuania, Luxembourg, Hungary, Netherlands, Poland, Portugal, Romania, Slovakia and Norway
Note: In boxes those coefficient for which service stand 20% below or above the total goods average
Source: CIS4 database, Eurostat

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How to measure service innovation? Some challenges:

- Types: Product/process distinction, Organisational and marketing role, new types such as interfaces, combination, fragmentation, ad hoc.
- Measurement of other service-related indicators: service employment, service productivity, service quality, service prices
- Impacts on productivity and other economic and social variables.
- Data availability, data reliability and data comparability

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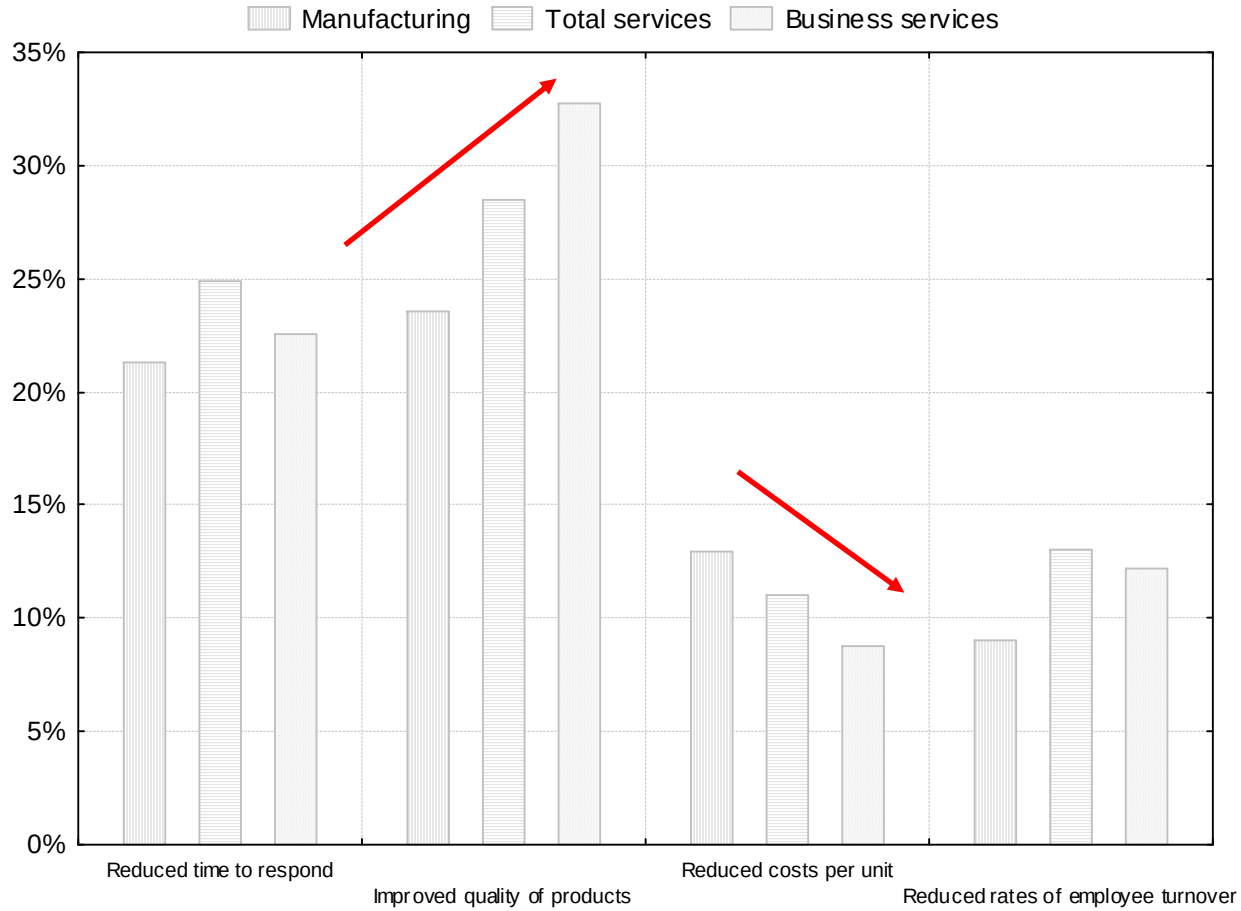
Services and organisational innovation

Figure 11. Share of innovative firms reporting highly important effects of organizational innovation



Source: CIS4 database

Note: Data refer to median values for the following 15 EU countries: Belgium, Bulgaria, Czech Republic, Denmark, Germany, Estonia, Greece, Spain, France, Italy, Cyprus, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Portugal, Romania, Slovakia and Norway

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The challenges for service innovation

The case of:

Service innovation impacts

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The data

- EU Commission data: CIS. Grouping by country, sector and size
- Many limitations: no way to measure many impacts, but some indicators are given. Methodological and comparability problems. No time series: static analysis (this is a problem to measure impacts of services innovation)
- Two main issues to take into account with respect to the database:
  - Available CIS4 data refer to EU19 (Belgium, Bulgaria, Cyprus, Czech Republic, Germany, Denmark, Estonia, Spain, France, Greece, Hungary, Italy, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Romania and Slovakia) + Norway
  - Differences in CIS3 and CIS4 survey methodology limit possible comparisons between both databases.
  - Still not enough data for CIS5

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The hypothesis

[1] Interactions with clients may produce significant effects in innovation performance

[2] In services, KIBS in particular, interactions should be higher

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Explanatory factors: list of independent variables

	Expected effects
Drivers	
• *Clients as innovation source*	+
• *Competitors as innovation source*	+ / ?
• *Providers as innovation source*	+
Inputs	
• *Acquisition of machinery (ICT incl.)*	+
• *Engagement in intramural R&D*	+
• *Engagement in training*	+
Micro context: scale	
· *Enterprise size*	+ / ?
Macro context: system	
• *The innovation atmosphere (SII)*	+ / - / ?

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Results of the ordered probit regression:
quality, flexibility, labour costs, range of products and new markets dimensions

Quality		
	Industry (N=79)	KIS (N=126)
Size	-0.014 (0.934)	0.022 (0.838)
Innovative atmosphere	-0.016 (0.920)	0.057 (0.656)
Intramural R&D	0.293 (0.187)	**0.340** (0.020)**
Training	**-0.324** (0.037)**	0.057 (0.609)
Acquisition of equipment	**0.376** (0.015)**	**0.313*** (0.008)**
Suppliers	**0.719*** (0.000)**	**0.440*** (0.006)**
Clients	0.226 (0.241)	**0.423*** (0.003)**
Competitors	**-0.343*** (0.020)**	**-0.327** (0.023)**
LR Index (Pseudo R2)	*0.120*	*0.116*

Note: (***) Statistically significant at 1% level; (**) Statistically significant at 5% level; (*) Statistically significant at 10% level.

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The challenges for service innovation policies

- Justification and rationale
- Integration in innovation policies
- Synergies with other policies

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The challenges for service innovation policies

- Justification and rationale

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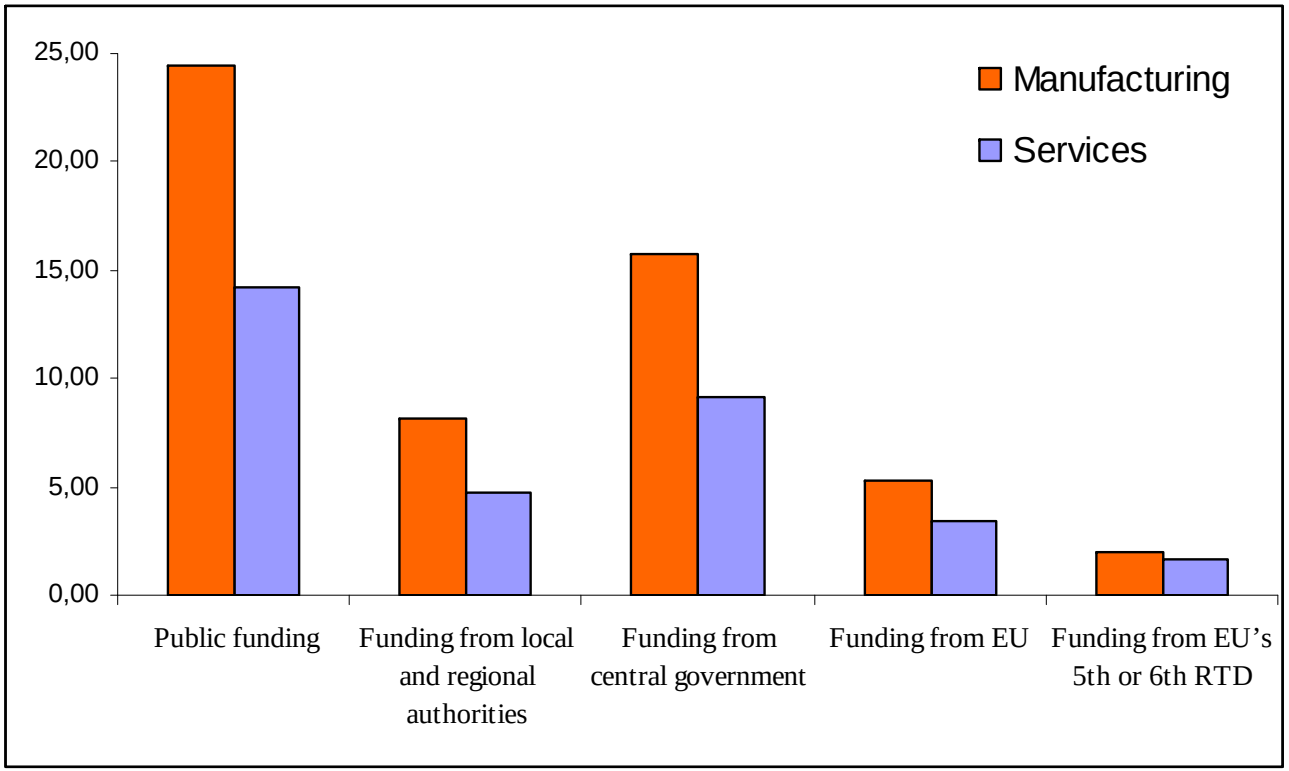
The bias for manufacturing in innovation funding and the role of EU programmes

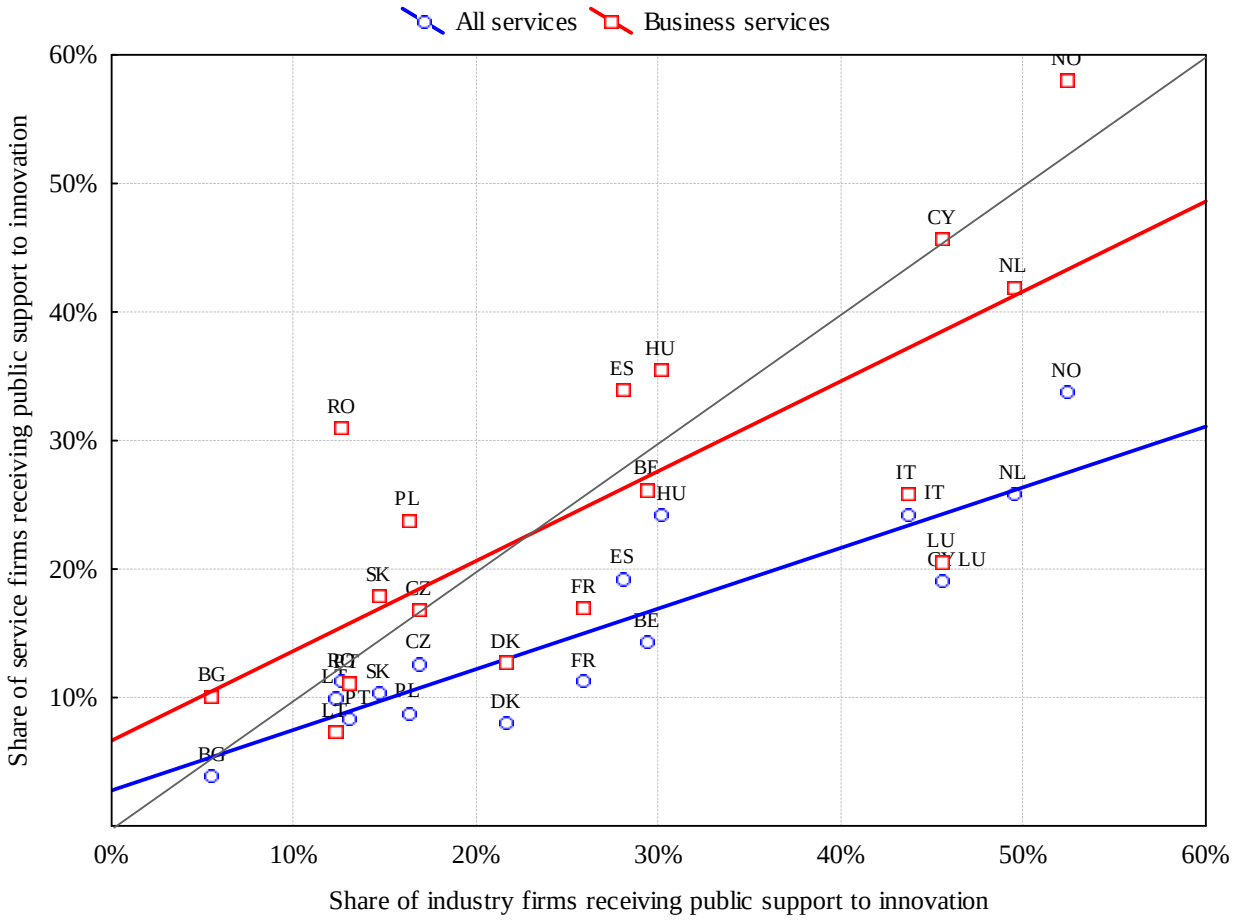
Innovative manufacturing and services companies using public funding (%)



Source: Based on CIS4, Eurostat.

The bias for manufacturing in innovation funding and the role of EU programmes

Share of innovative services and industry firms receiving public funding



Source: Based on CIS4, Eurostat.

The rationale for a service innovation policy

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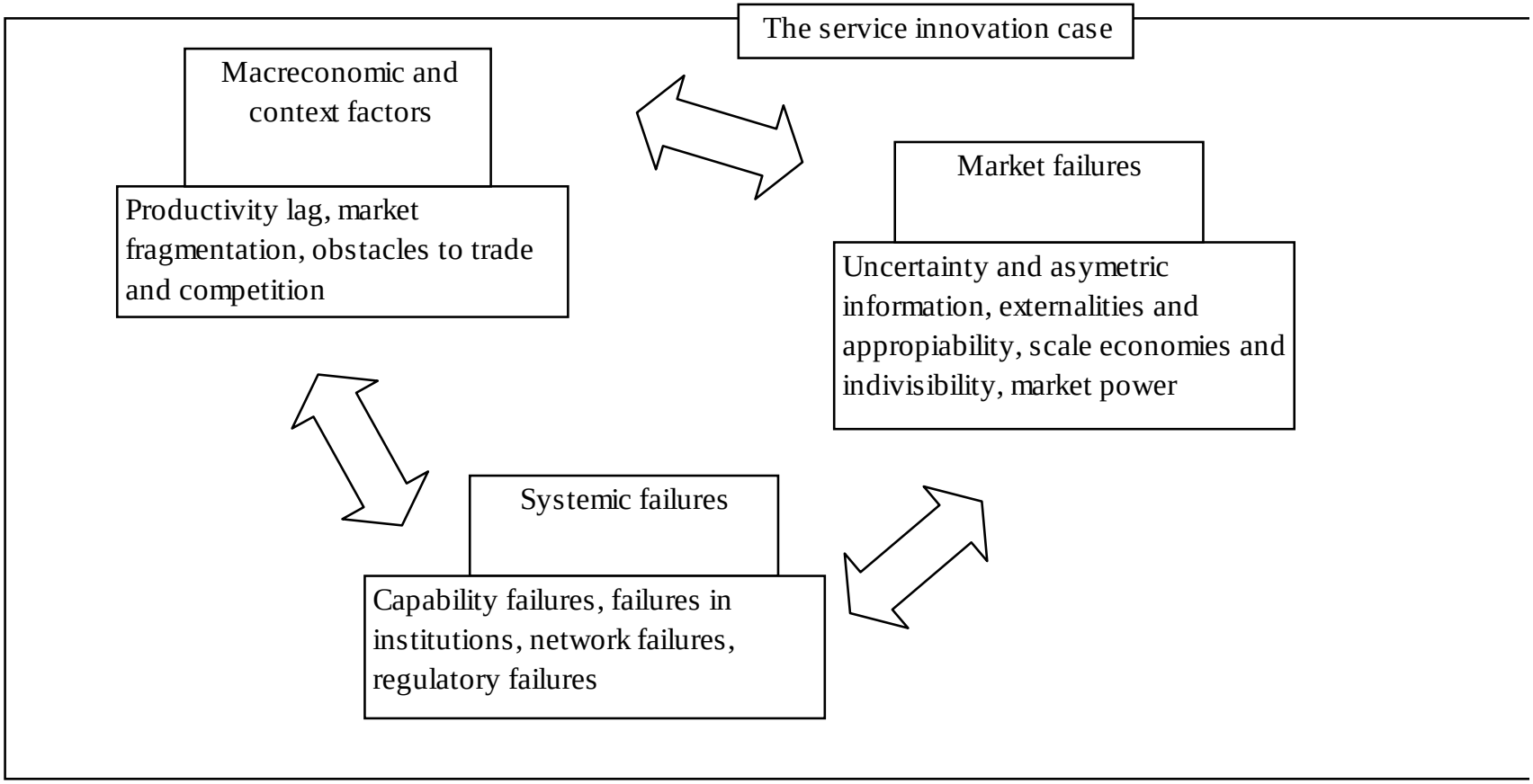

The rationale for a service innovation policy

Policy areas

Services in R&D programmes. Need of better integration of services in innovation systems. IPR. Entrepreneurship. Intangible assests. Improvement of institutional recognition. Coping with the lack of service "culture".

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The challenges for service innovation policies

- Integration in innovation policies
- Synergies with other policies

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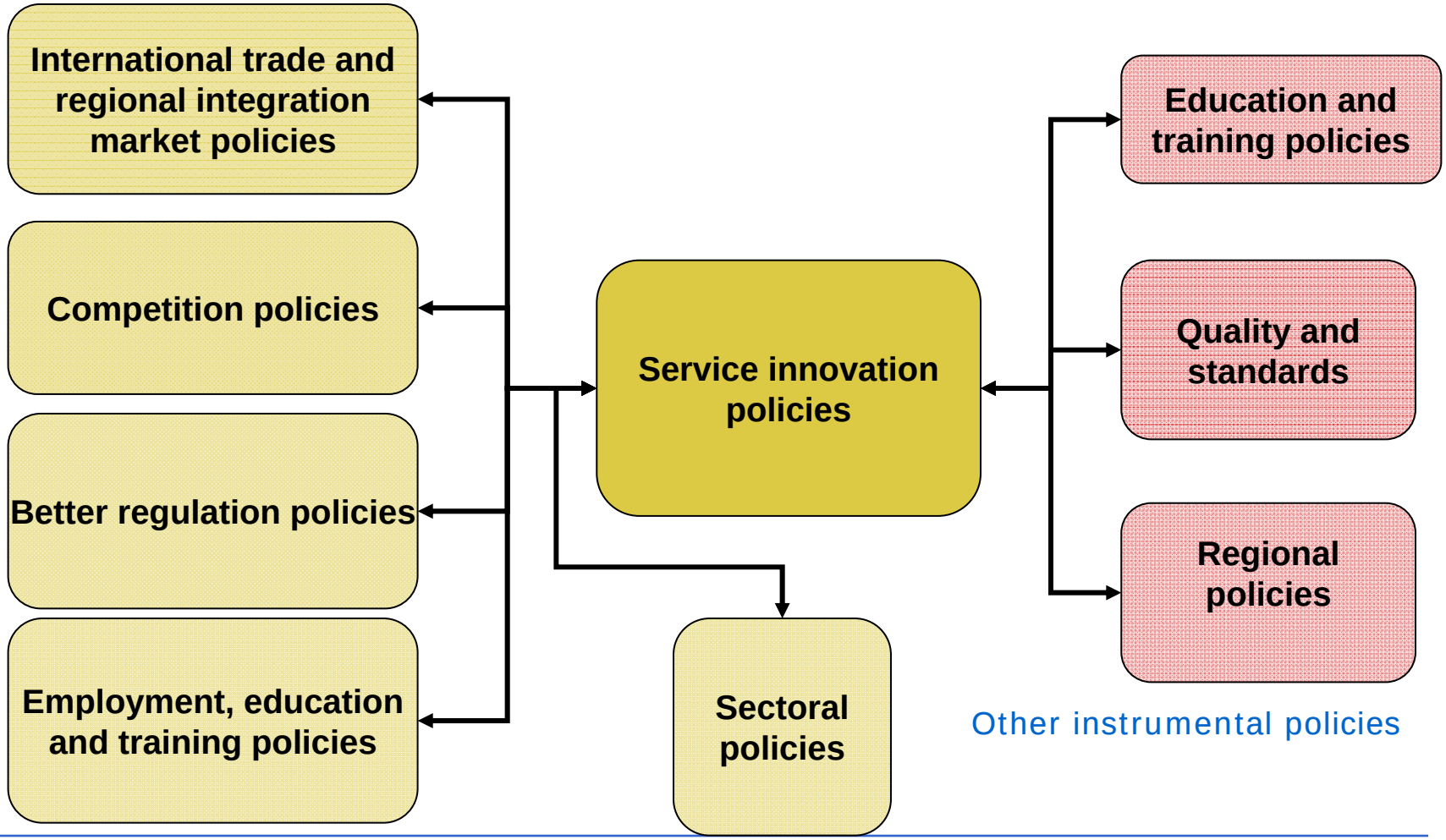
Innovation policies and other service-related policies: synergies and complementary effects



Mainly regulatory policies

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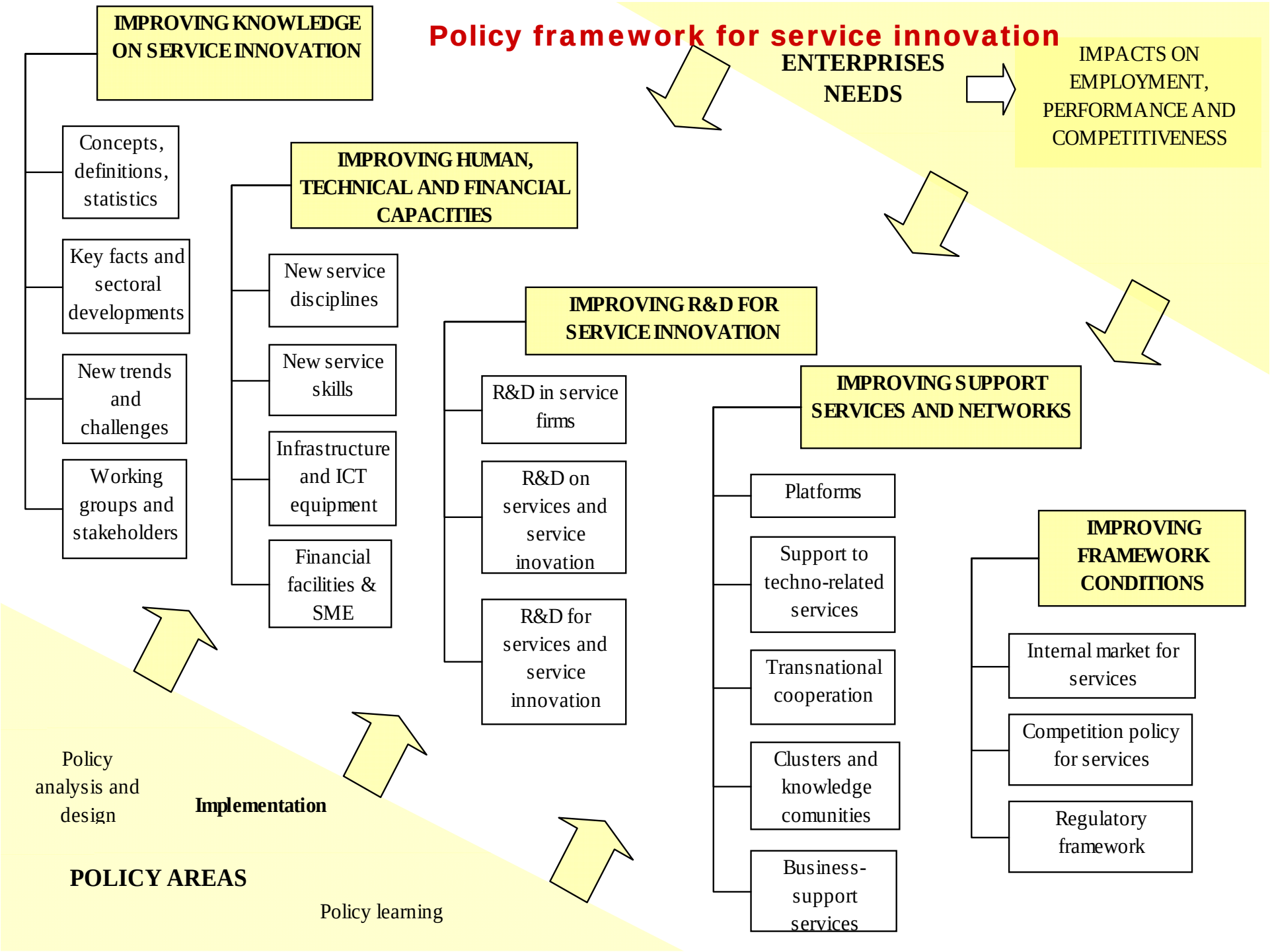
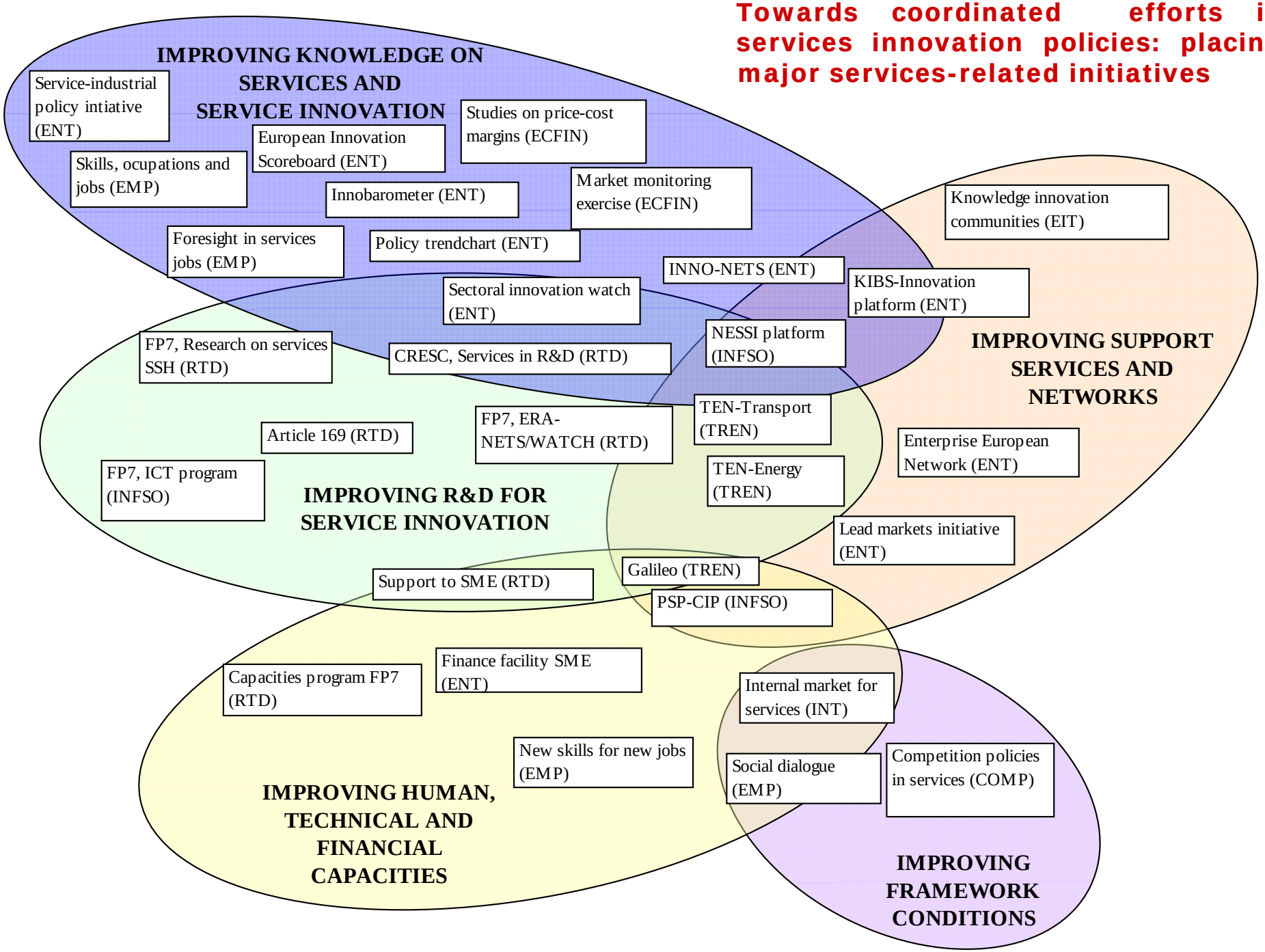
A case study: *EC Instruments supporting innovation in services*

- Screening project to obtain a clear picture of current instruments (including programmes, initiatives, and support measures) that support innovation in services - EU level.
- All relevant Community innovation-related instruments that affect or may affect services, covering fields like policy analysis/monitoring, policy learning and networking, capacity building in terms of infrastructure/equipment and R&D capacity, among others.

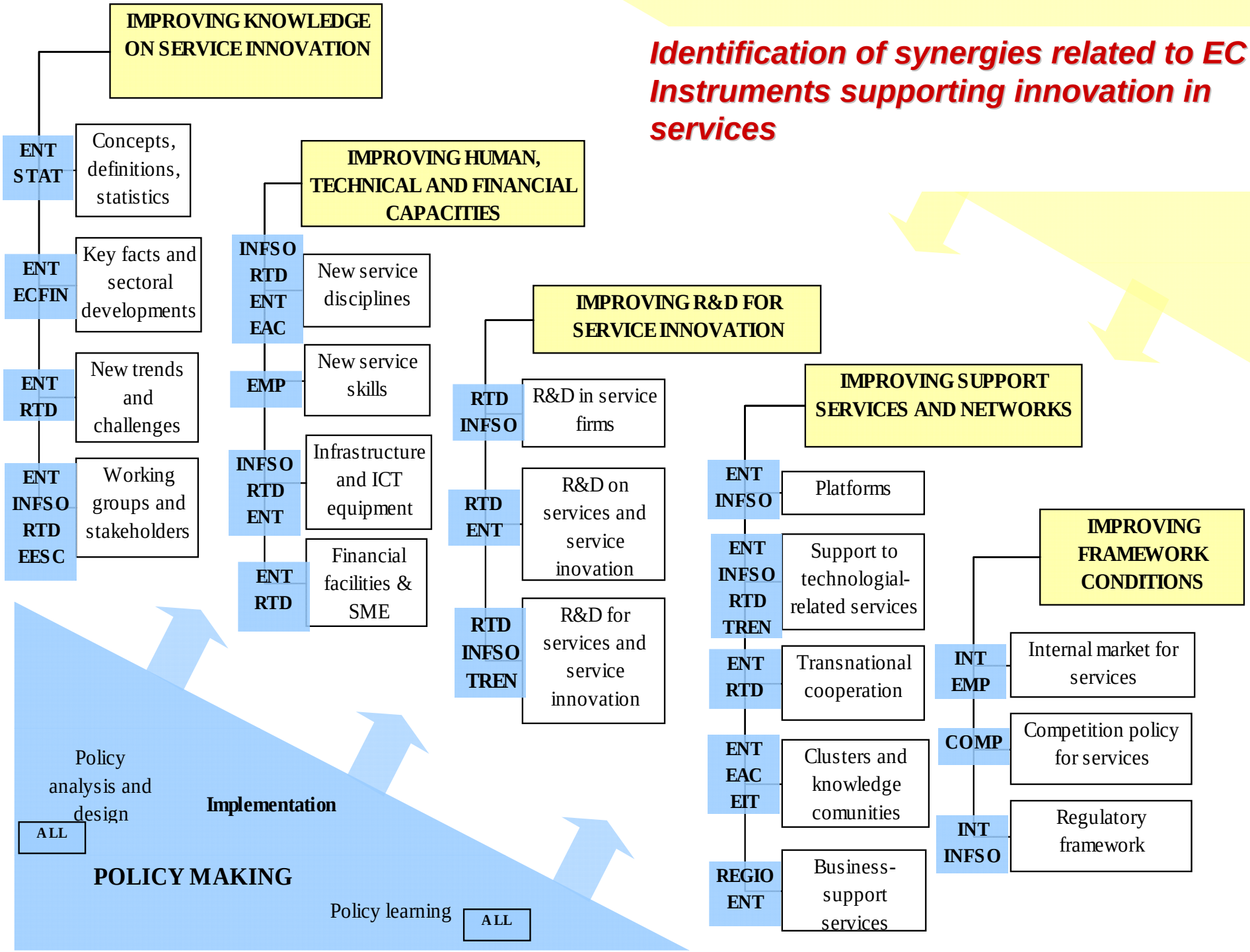
Policy framework for service innovation



Towards coordinated efforts in services innovation policies: placing major services-related initiatives



Identification of synergies related to EC Instruments supporting innovation in services



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The challenges for service innovation policies

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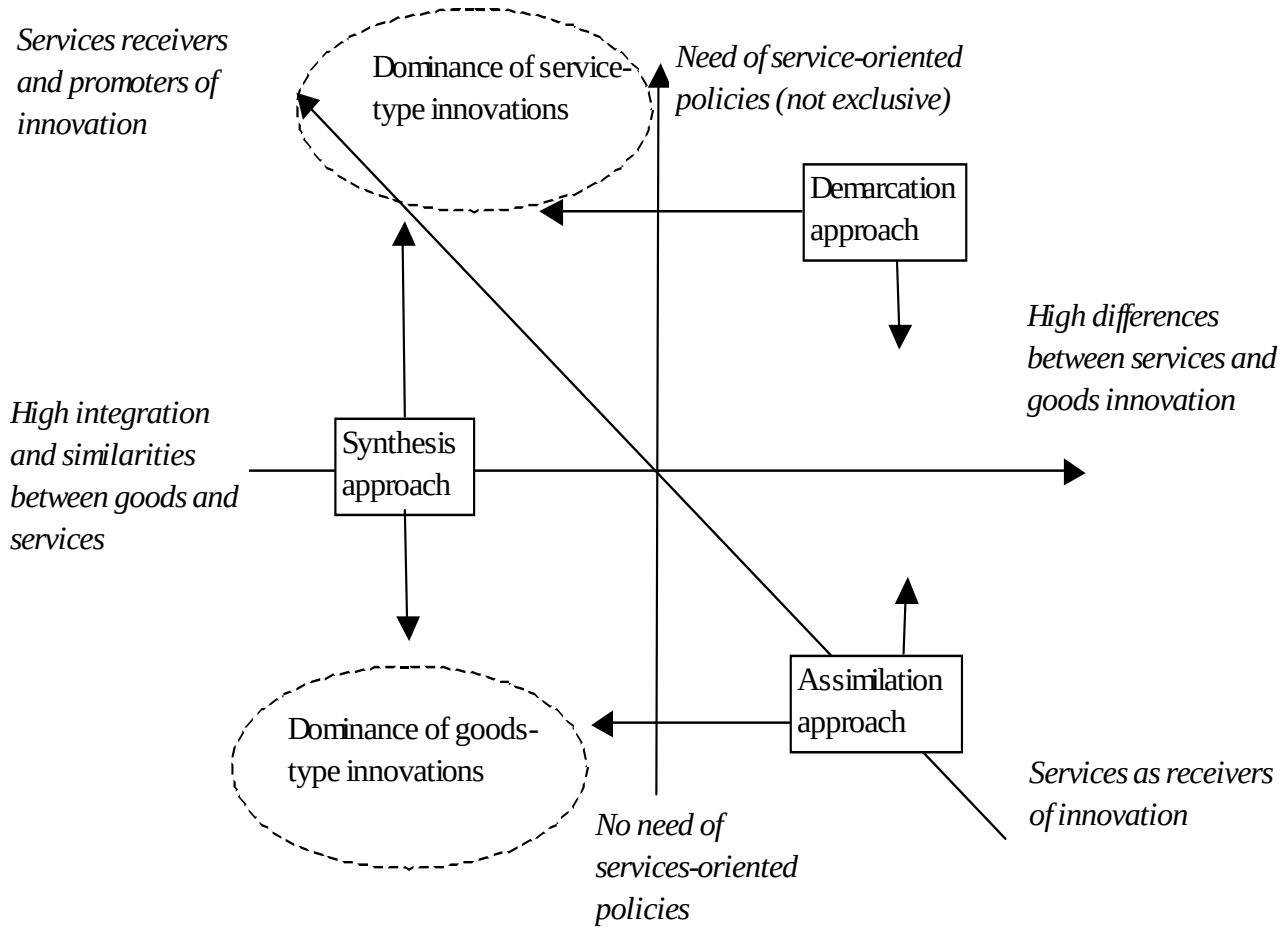
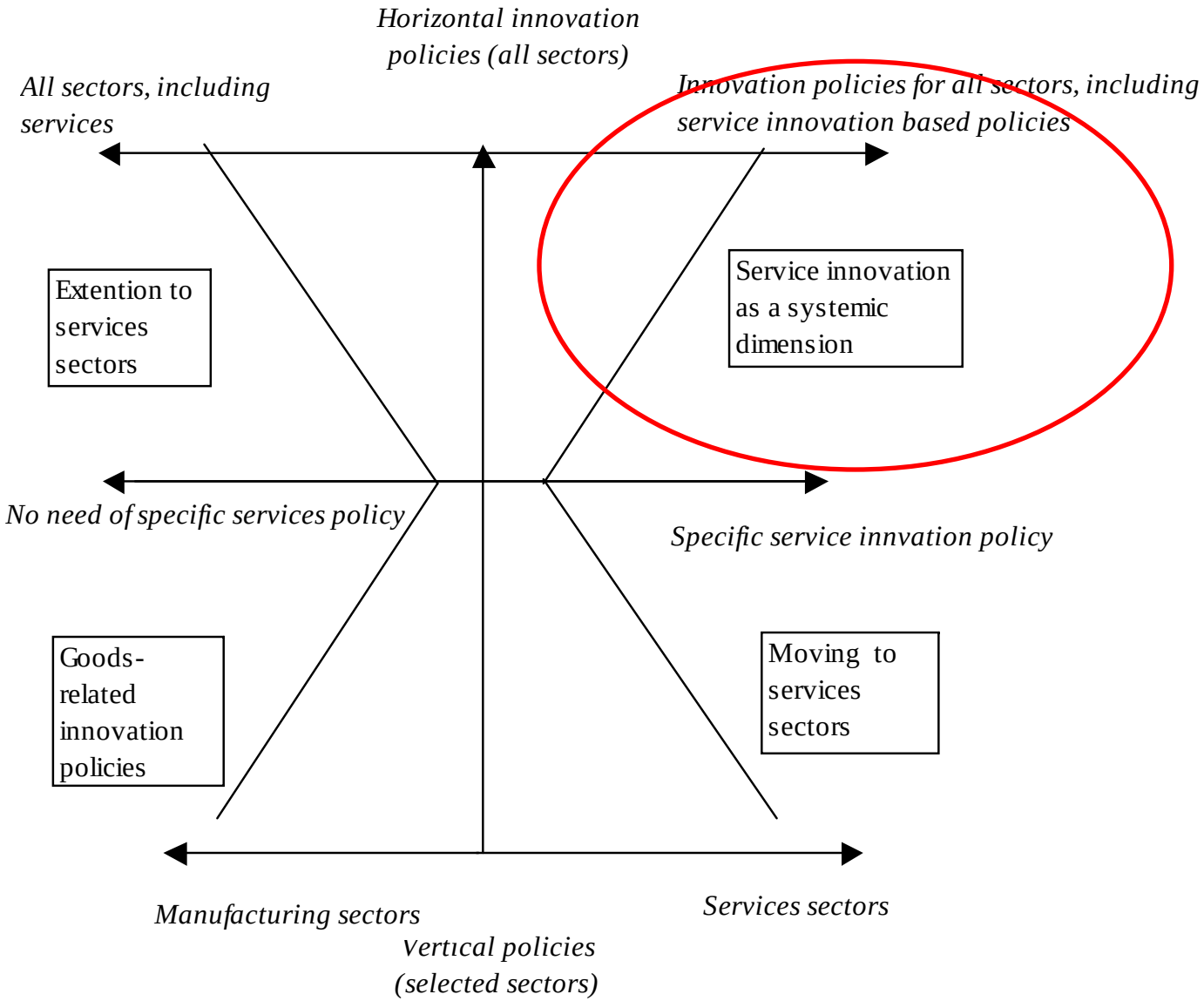
Synthesis vs Demarcation vs Assimilation approaches



Alternatives for innovation policies regarding services



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Conclusions and final remarks (I)

- Most developed economies are service economies. Services innovation is necessary for improving growth, competitiveness and welfare.
- There are remarkable service innovation challenges.
  - Obstacles hampering service innovation growth: market and systemic failures, over-regulation, market fragmentation,
  - Consequences of slow progress in productivity and global competition.
  - Policies for service innovation are under-developed

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Conclusions and final remarks (II)

- A horizontal framework for service innovation policies is needed. Systemic policy approaches are needed on top of specific actions towards services: convergence with industrial policies and other cross-sector policies.

- A reinforcement of synergies between innovation policies and other policies is necessary to avoid contradictory effects and reinforce complementarities.

- Many countries are still out of the service innovation policy development. This filed can be an opportunity to reinforce innovation systems in many places.

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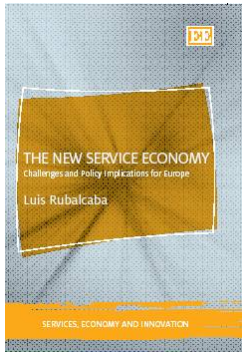
Background material



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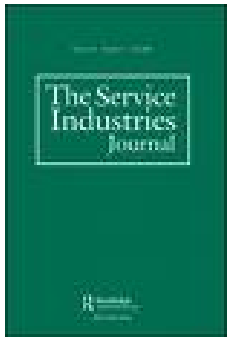

Thank you for your attention!

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