

**Karlsruhe,
October
2008**

Non-technical Innovations – Definition, Measurement & Policy Implications

**The new service economy: growth and
implications for service innovation**

Luis Rubalcaba

Professor of Economic Policy, University of Alcalá-Madrid

Ex-President of RESER

Contents:

- **What is the “new” service economy**
- **Macro dynamics in services: some empirical evidence**
- **New challenges for services and the role of service innovation**
 - **Linkages between service innovation and organisational innovation**
- **Some horizons for services research and policy**

The new service economy:

- **What is really new? Beyond some new services, are we in a new service economy?**

Services traits which are not new

- **Many services coming from an old tradition**
- **Services already integrated in goods and material support for services**

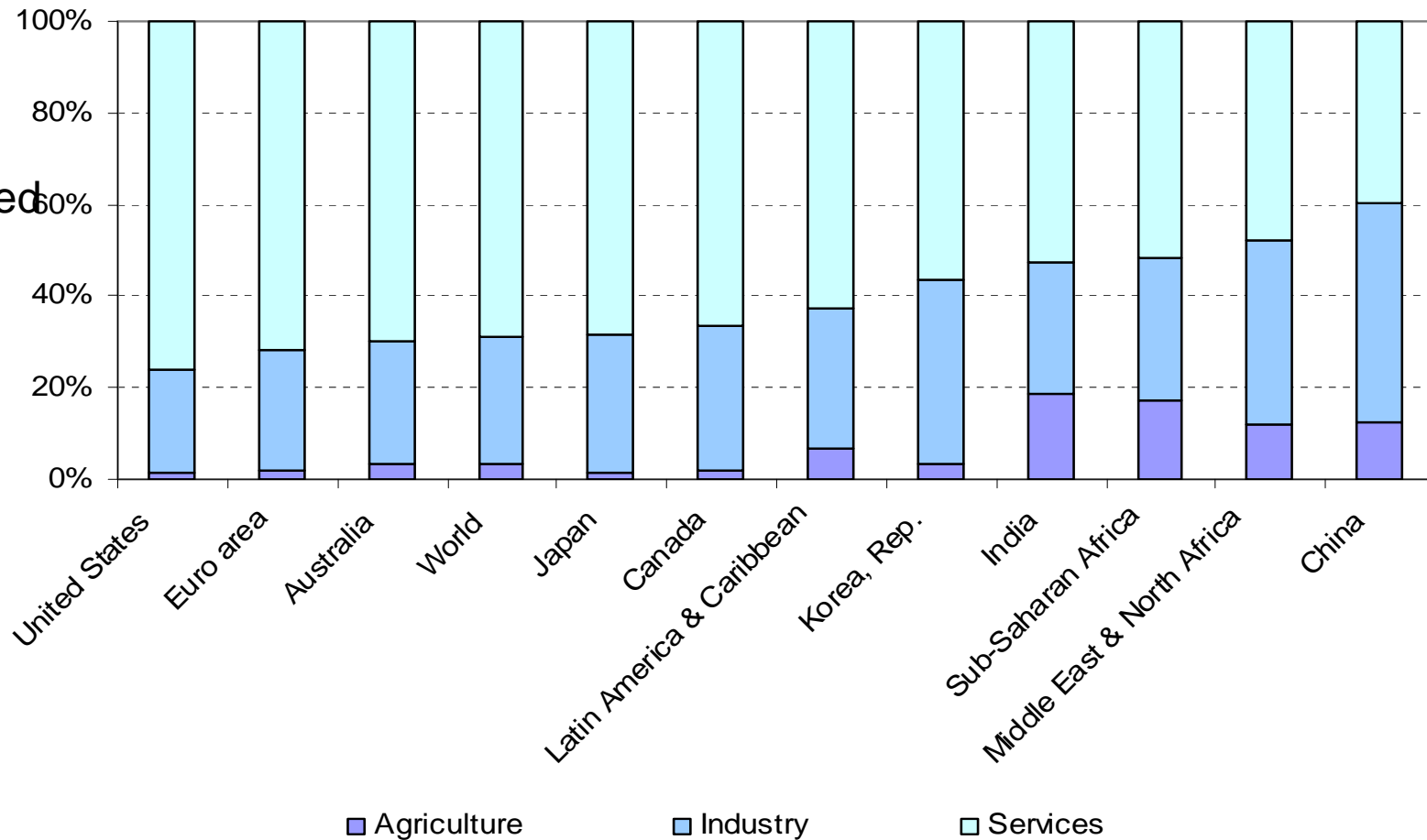
Services traits which are new

- **New integration in any economic and social activity: more intensive and uniform use of services all over the world?**
- **New challenges?**

- **New room for innovation, organizational innovation?**

Macroeconomic dynamics in services: a non-stop structural change process?

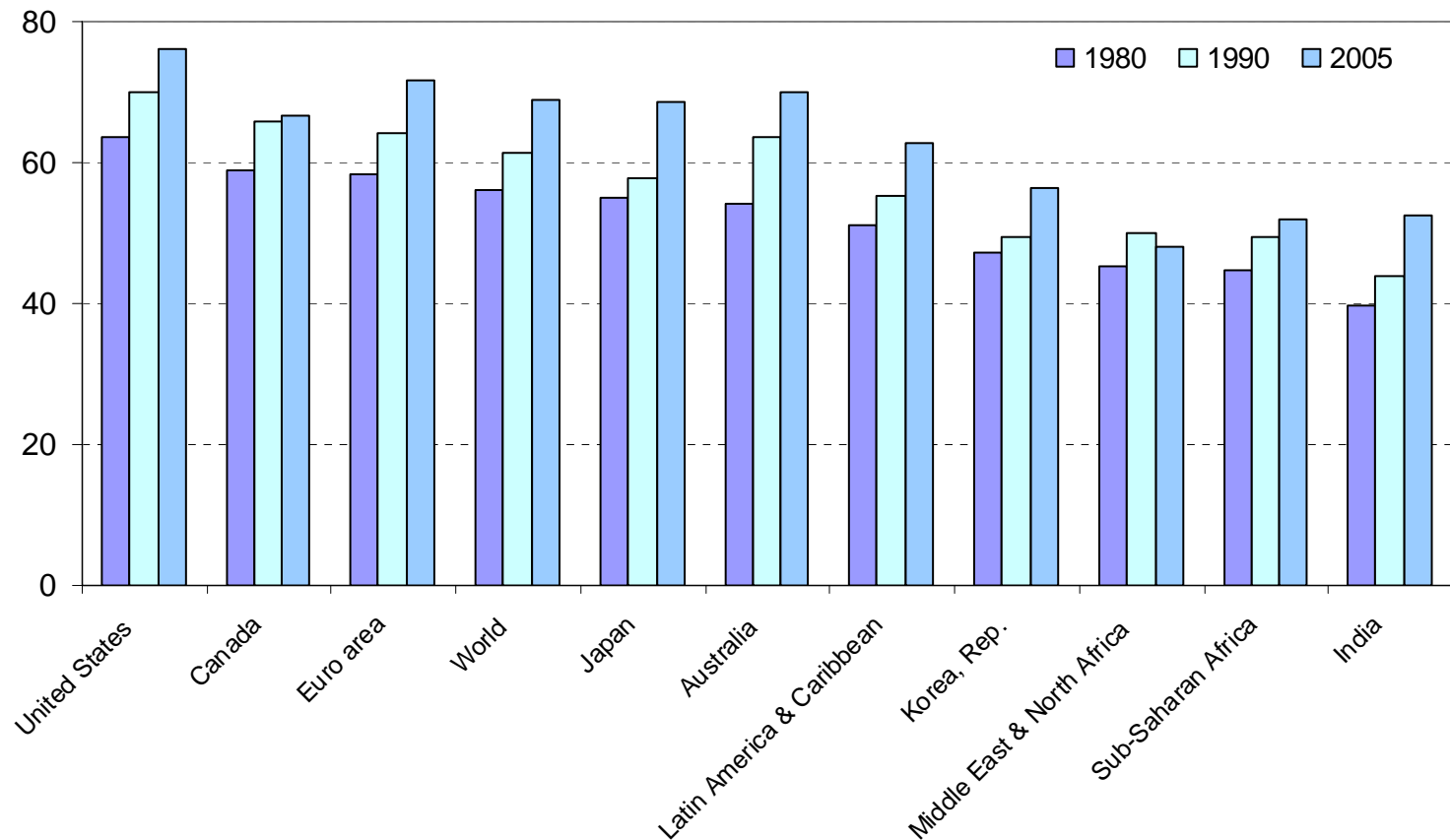
Figure 1.
Sectoral
value added
(% GDP),
2005



Note: for Australia last year with information available is 2003
Source: Based on World Development Indicators, World Bank.

**Macroeconomic dynamics in services:
a non-stop structural change process?**

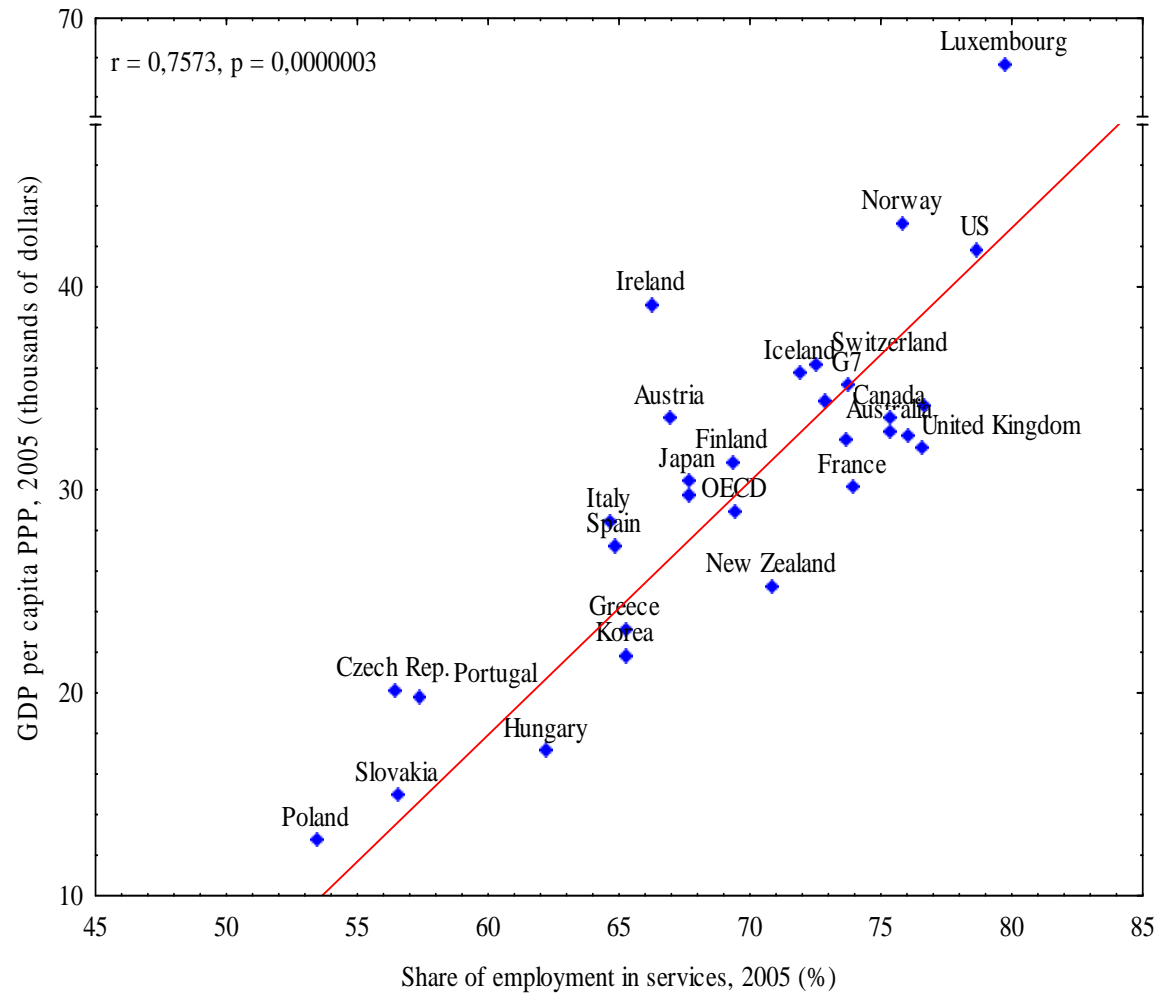
Figure 2.
Services value
added (% of
GDP)



Note: for Australia last year with information available is 2003
Source: Based on World Development Indicators, World Bank.

**Macroeconomic dynamics in services:
a non-stop structural change process?**

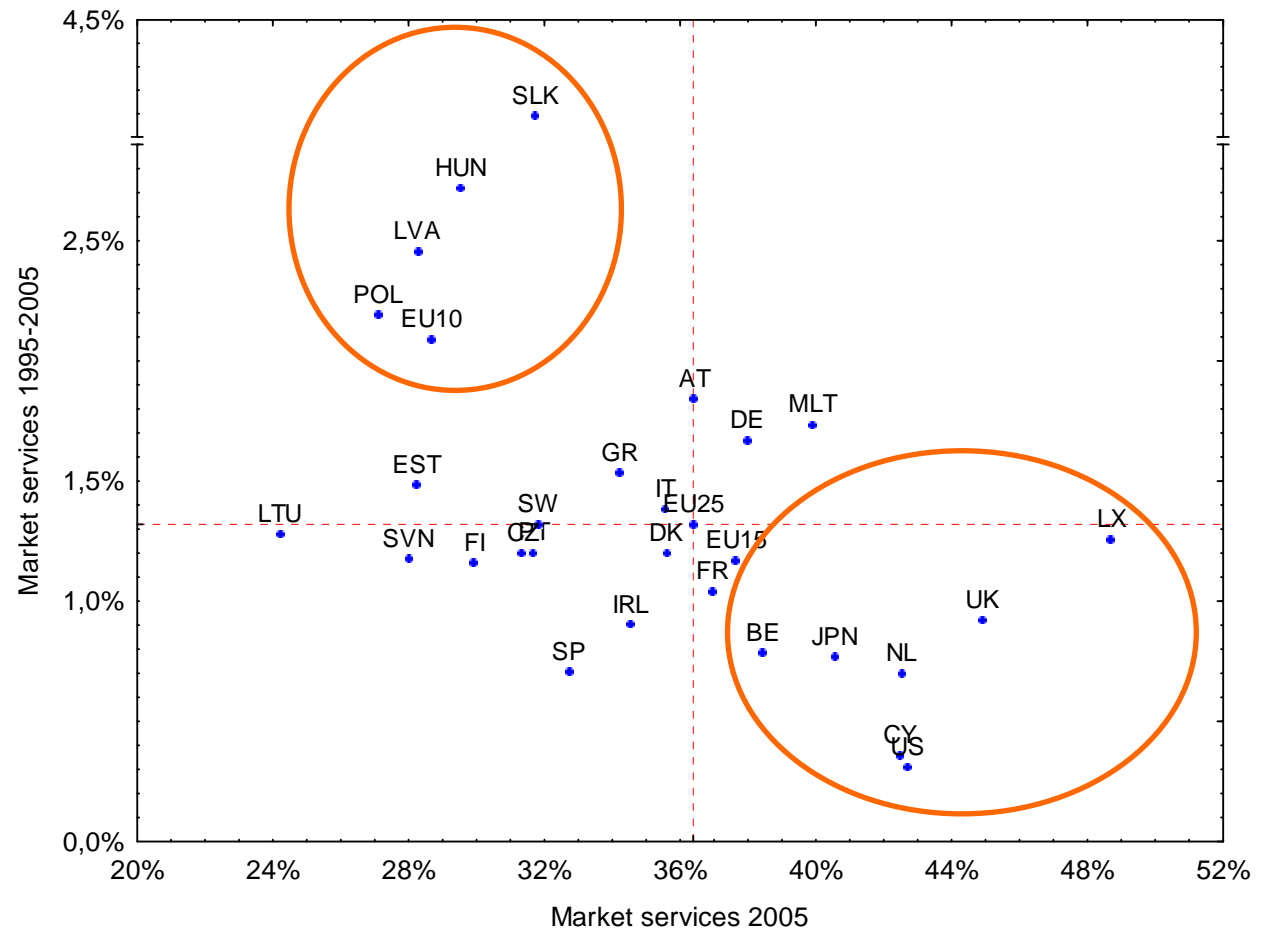
Figure 3. Employment in services and GDP per capita, 2005



Source: Based on OECD and GGCD National Accounts Statistics.

**Macroeconomic dynamics in services:
More uniform distribution of services?**

Figure 4. Market services share 2005 and annual growth rate 1995-2005

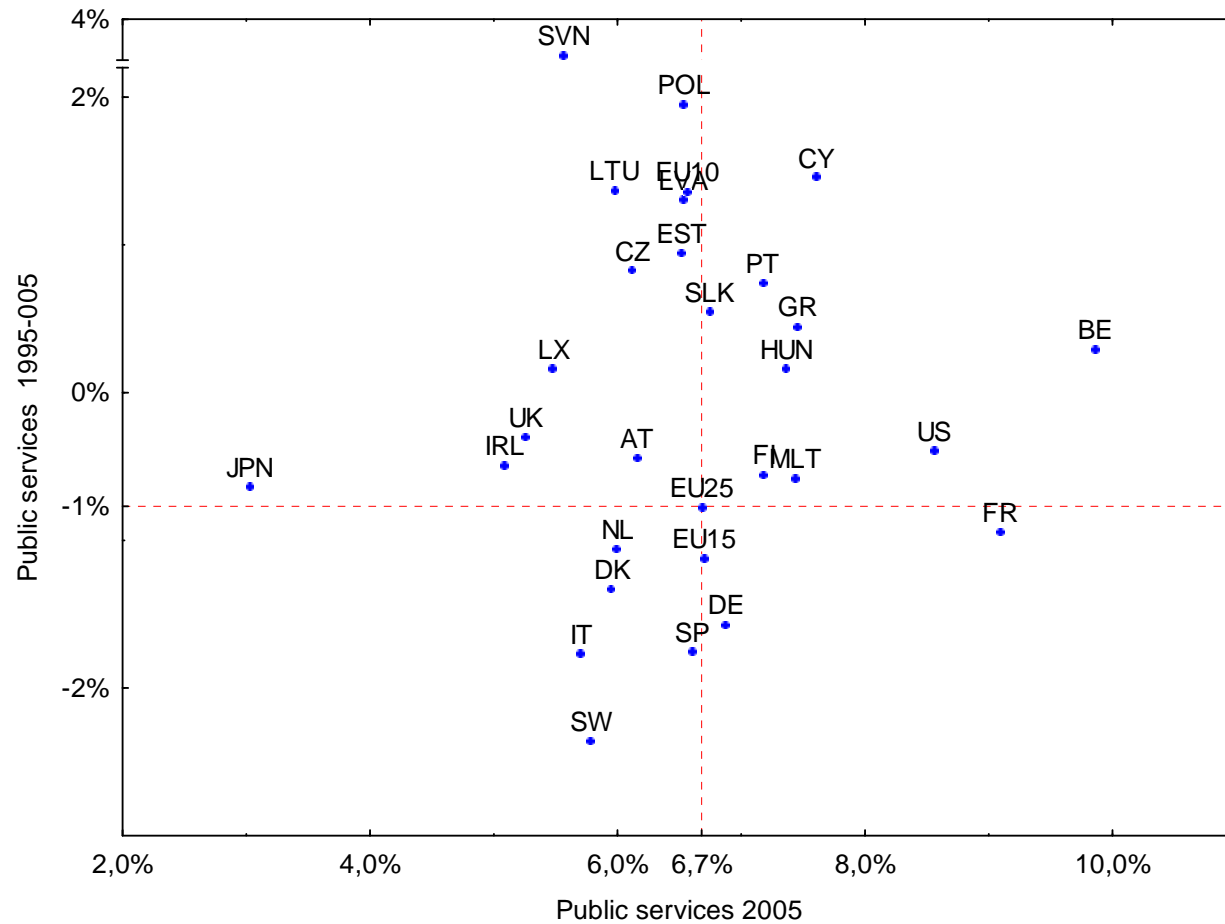


Note: Market services includes wholesale and retail trade (G), hotels and restaurants (H), 61 (water transport), 62 (air transport), 63 (other supporting and auxiliary transport activities; activities of travel agencies), financial intermediation (J), real estate, renting and business activities (K).

Source: Based on Euklems Database

**Macroeconomic dynamics in services:
More uniform distribution of services?**

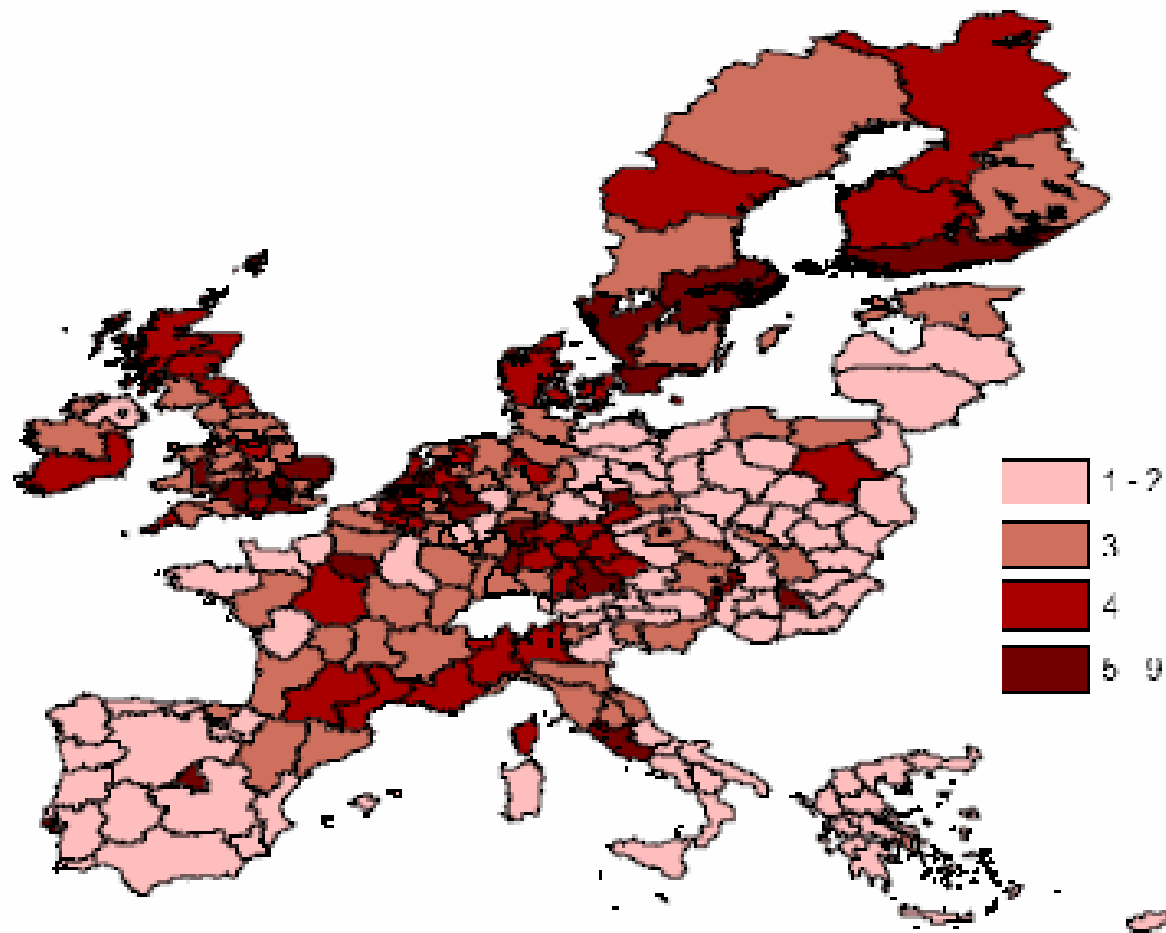
Figure 5. Public services share 2005 and annual growth rate 1995-2005



Note: Public services: public administration and compulsory social security (L). Source: Based on Euklems Database

**Macroeconomic dynamics in services:
More uniform distribution of KIBS?**

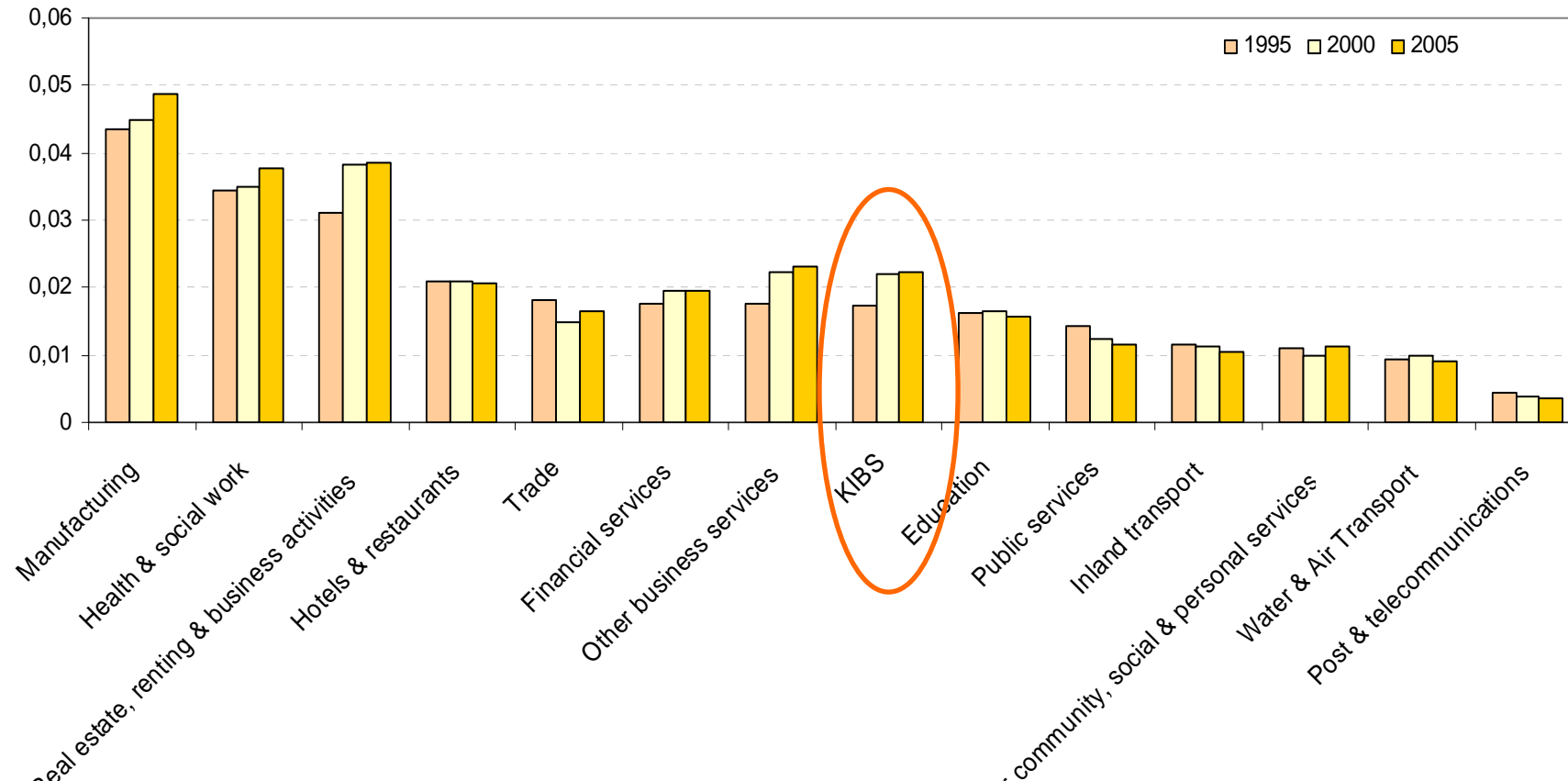
Figure 6. KIBS in EU
regions



Note: Public services: public administration
and compulsory social security (L). Source:
Based on Euklems Database

**Macroeconomic dynamics in services:
More uniform distribution of KIBS?**

Figure 7. Sigma convergence, EU25-US



Note: Standard deviations in the participation of services sectors en total employment. KIBS includes computer and related activities (72), research and development (73) and Legal, technical and advertising (741t4). Other business services includes renting of machinery and equipment (71) and other business activities, nec (745t8)
Source: Based on Euklems Database

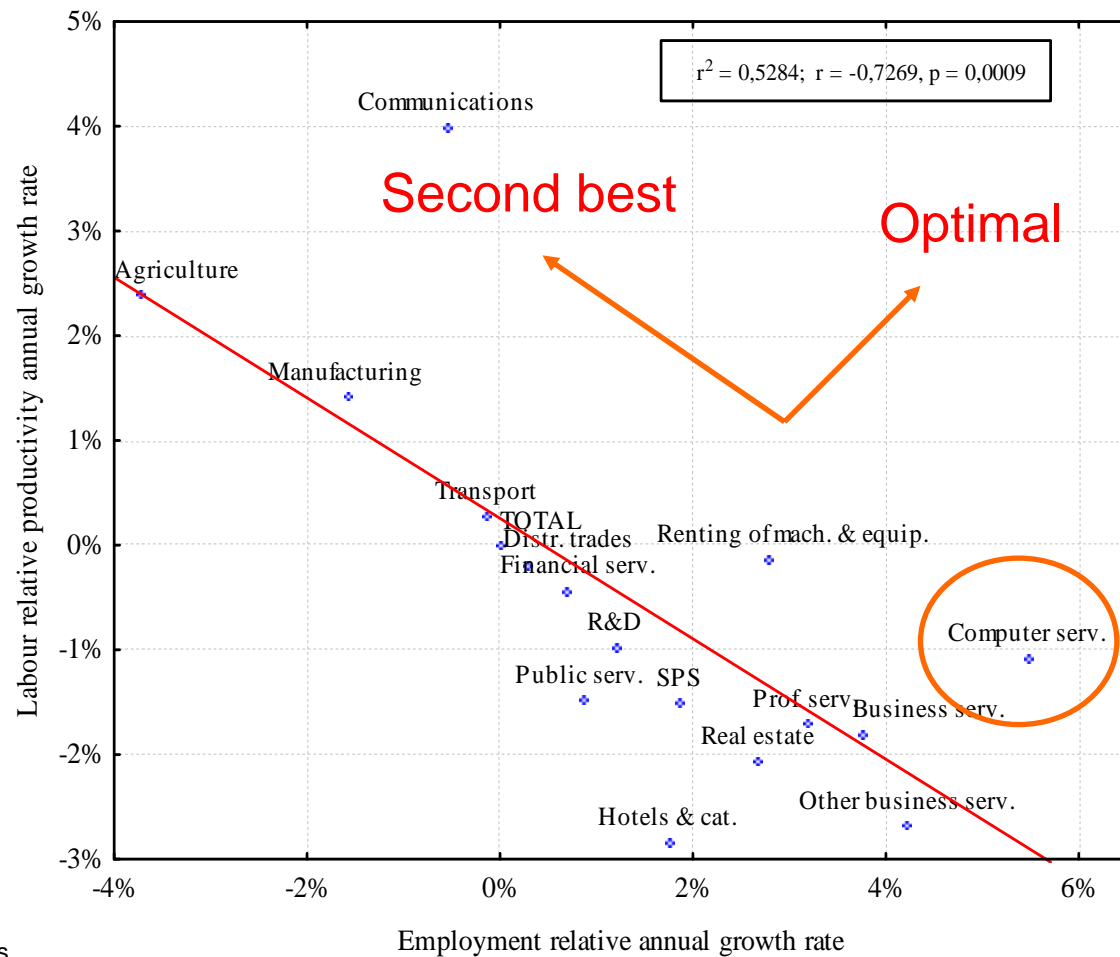
Table 1. Beta convergence regression summary, EU-US

	EU + US							
	EU15 1970-2005		EU15 1995-2005		EU10 1995-2005		EU25 1995-2005	
	b	p	b	p	b	p	b	p
Market services	-0,062	0,004	-0,038	0,047	-0,101	0,015	-0,078	0,000
Public services	-0,299	0,001	-0,078	0,655	-0,773	0,000	-0,549	0,002
Mix services	-0,038	0,023	-0,018	0,323	-0,159	0,016	-0,056	0,040
Manufacturing	-0,101	0,013	0,169	0,031	0,160	0,043	0,140	0,003
Trade	-0,184	0,000	-0,137	0,123	-0,505	0,023	-0,392	0,002
Hotels & restaurants	-0,092	0,672	-0,179	0,358	-0,350	0,013	-0,325	0,005
Water & Air Transport	-1,799	0,000	-3,447	0,001	-0,485	0,293	-0,908	0,024
Financial services	-0,110	0,642	0,286	0,156	-0,279	0,682	0,033	0,888
Real estate, renting & business activities	-0,340	0,000	-0,199	0,080	-0,395	0,120	-0,207	0,029
KIBS	-2,224	0,000	-0,222	0,354	-0,161	0,776	-0,211	0,319
Other business services	-3,068	0,000	-0,715	0,031	-0,772	0,296	-0,510	0,068
Education	-0,264	0,006	-0,051	0,742	-0,513	0,014	-0,247	0,051
Health & social work	-0,154	0,022	-0,087	0,065	-0,529	0,108	-0,013	0,848
Other community, social & personal services	-0,355	0,013	0,006	0,973	-0,516	0,152	-0,363	0,071
Inland transport	-0,011	0,969	-0,572	0,158	-0,305	0,347	-0,337	0,122
Post & telecommunications	-0,311	0,425	-0,645	0,479	-2,306	0,011	-1,719	0,008

Note: Marked figures are significant at $p < ,05000$. Source: based on EUKLEMS Database, March 2008

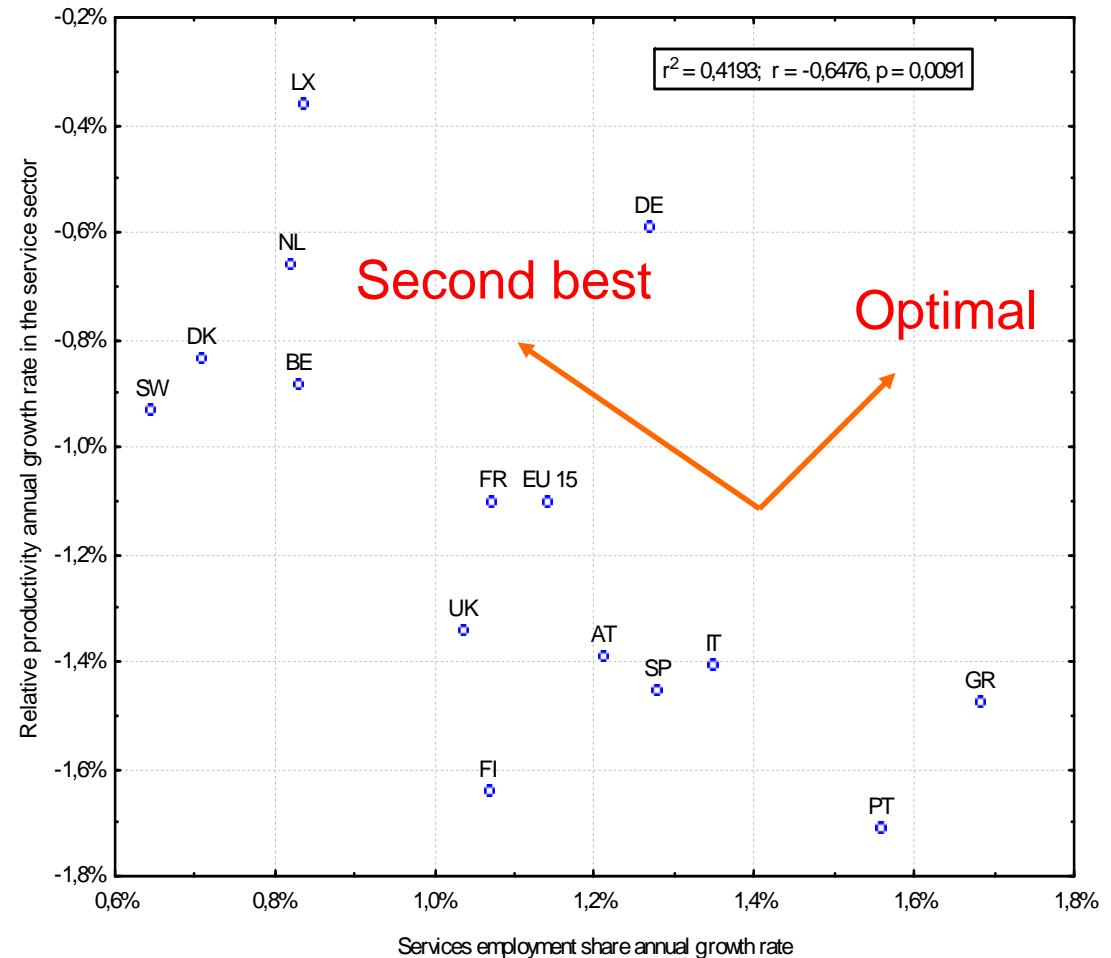
**Macroeconomic dynamics in services:
Consequences of services and organisational innovation at macro level?**

Figure 8. Relationship between relative productivity growth and relative employment growth, EU15, 1979–2003. Cross-sector comparison



Source: Based on OECD and GGCD National Accounts Statistics.

Figure 9. Relationship between relative productivity growth and employment share growth, EU15, 1979–2003. Cross-country comparison



Source: Based on OECD and GGCD National Accounts Statistics.

- **How to assess the place and impacts of service innovation at macro level? Needs:**
 - **Better definition of service innovation, service employment, service productivity, service quality, service price; the new knowledge, how to make it operational**
 - **Identification of linkages between services innovation and service productivity, how to approach it?**
 - **Service innovation at the roots of growth convergence, how to capture service endogenous growth?**

New challenges for the service economy the performance dimension

- **Globalisation and service offshoring**
- **Management of risk and uncertainty**
- **Role of services in manufacturing**
- **Service engineering and service formalization**
- **Competition and deregulation**
- **Role of ICT**

New challenges for the service economy: the social dimension

- **New skills requested**
- **Unemployment and social exclusion**
- **Sustainable development**
- **Ageing population**
- **Regional asymmetries**
- **Transformations in public services**

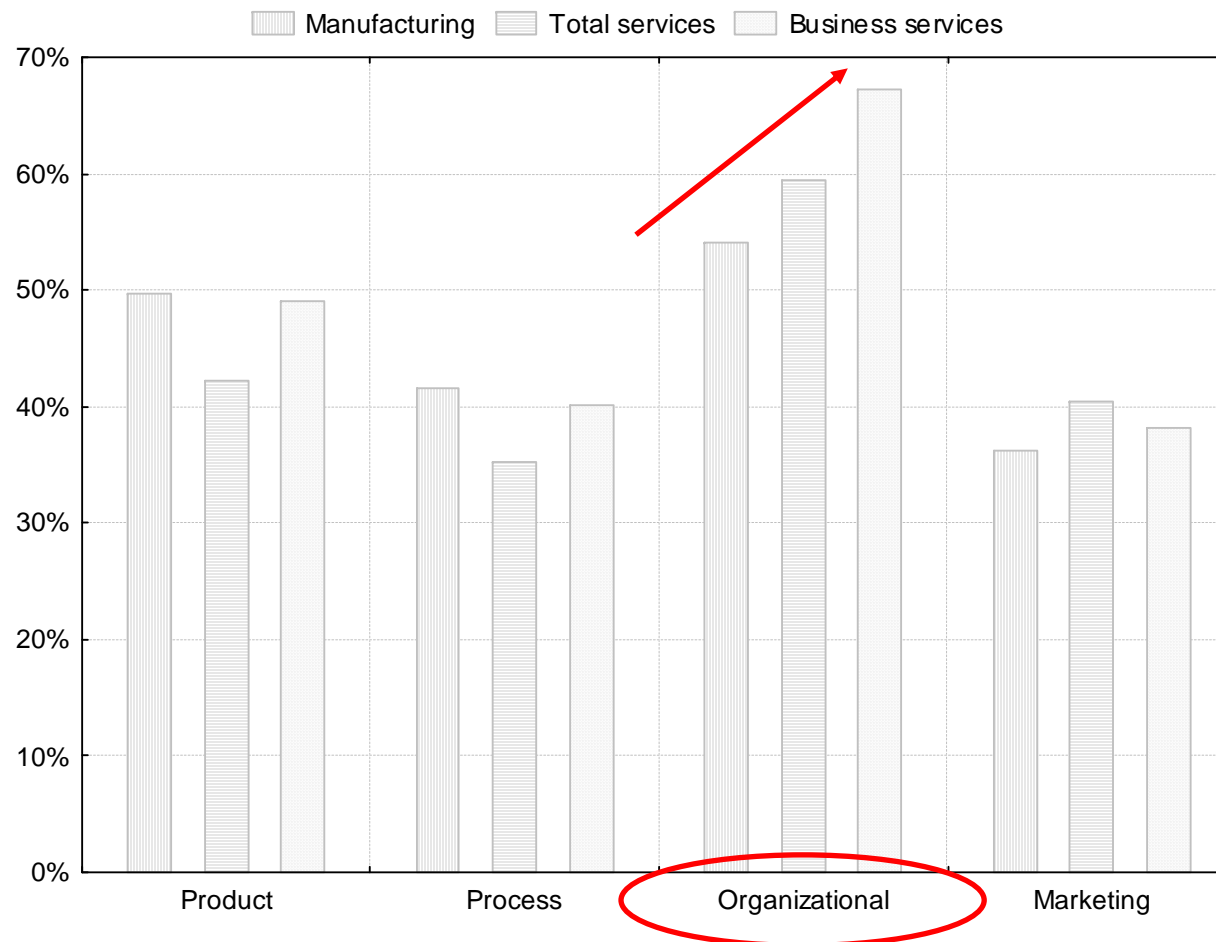
New challenges for the service economy: the ways to face to

- **Service innovation as a way to face all the challenges? What role? What assessment?**
- **Organizational innovation as a part of service innovation?**
 - **Product and process innovation in services**
 - **Organizational and non-tech innovation in services**
 - **Organizational and non-tech innovation in non-services activities**
 - **Marketing innovation**

Service innovation (SI) and organizational innovation (OI)

- **Common nature: intangible nature, interactive nature,**
- **Unclear boundaries: what SI is or is not OI**
e.g, use of KIBS, Interface innovation, service formalization, service combination or fragmentation, ad hoc innovations
- **Bilateral causality and synergies**
 - **More services, more SI, more OI**
 - **More OI, more SI, more services**

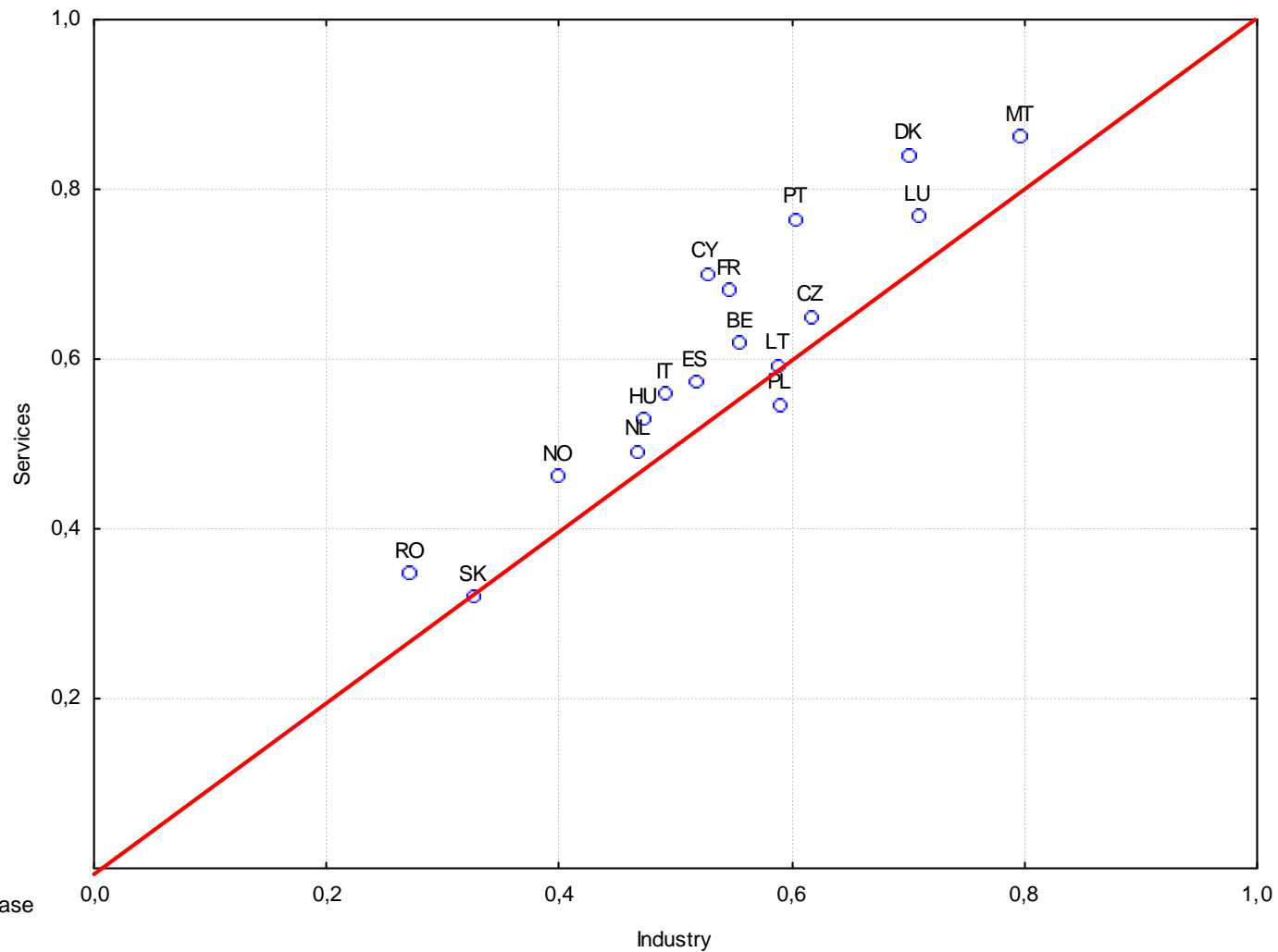
Figure 9. Share of innovative firms by innovation typology



Source: CIS4 database

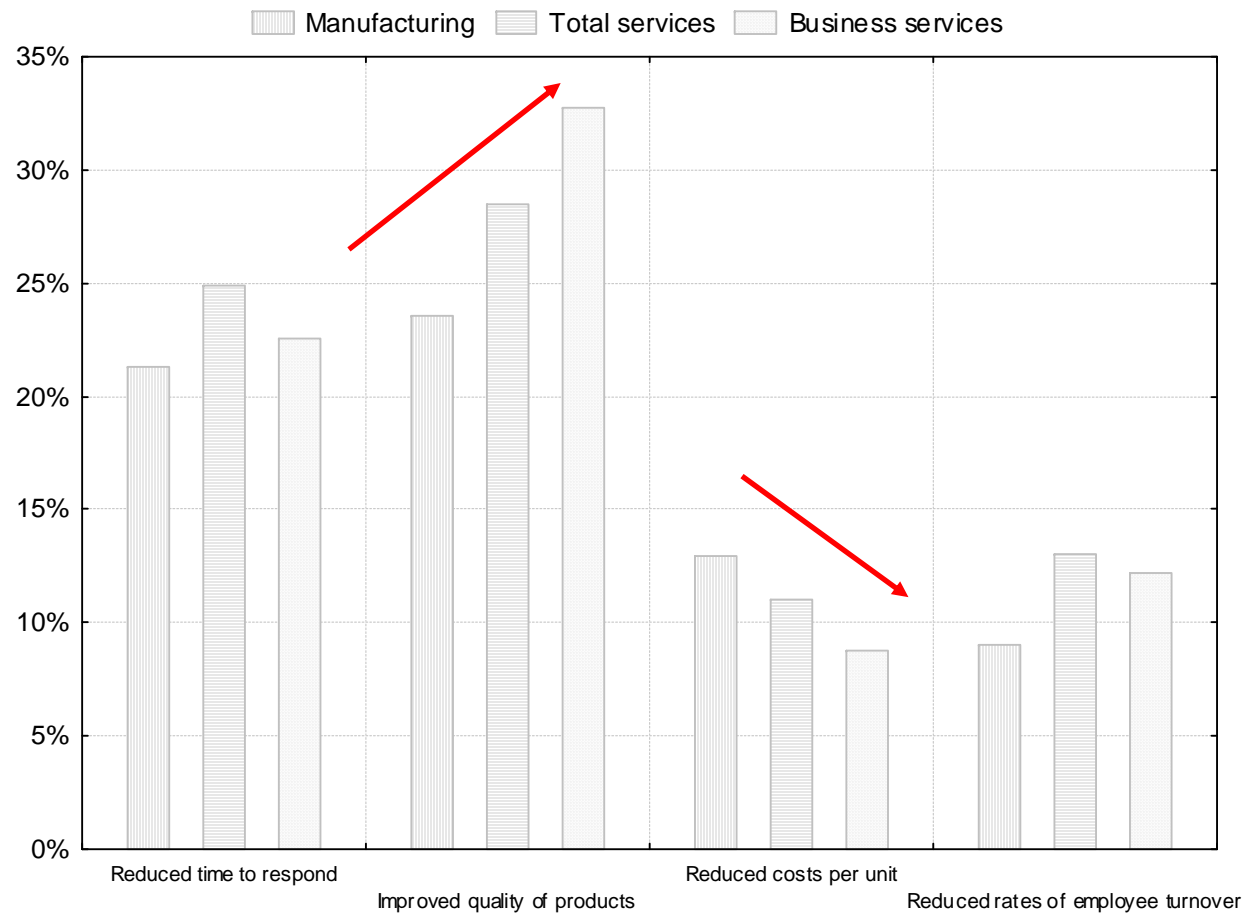
Note: Data refer to median values for the following 15 EU countries: Lithuania, Poland, Belgium, France, Czech Republic, Luxembourg, Norway, Hungary, Spain, Netherlands, Denmark, Slovakia, Portugal, Italy and Cyprus.

Figure 10. Share of innovative firms introducing organizational developments



Source: CIS4 database

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

Some horizons for the service & organizational innovation research

- **Conceptual frameworks, measurement, Impact assessment**
- **Relationship SI and OI**
- **Understanding of SI and OI in a macro context**
- **Macro and micro, economic challenges and business challenges, bridges in between**

New horizons for the service research

- **Services are not just a sector any more: a dimension of the economy, of product, of work (co-creation), of life (experience)**
- **Need of ambitious agendas for services research. Multidisciplinary approaches needed. Service Science?**

● **Thank you for your attention**

New challenges for the policy makers

- **No reason for the exclusion of services from current public policies**
- **Need to take the best from existing good practices: the case of Germany**
- **Need to assess the needs of different regions and countries**
- **Services innovation as a key pivotal dimension of most action**