



Interdisciplinarity and Service Industry

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RESER - European Association for **RE**search on **SER**vices

Services: Importance and Pervasiveness

- ❑ Beyond traditional sectoral perception of services - 2/3 of the employment and value added in developed economies;
- ❑ Interlinkages: services as key inputs into all sectors enhancing the efficiency and welfare
- ❑ Service activities within manufacturing are responsible for the bulk of value added (e.g. pharmaceuticals)
- ❑ Heterogeneous set of activities that differ in regard of skills and technology, patterns of innovation activity
- ❑ Services are at the core of creativity, they are engaged in R&D and innovate; less formalised and more interactive way
- ❑ Invisibility and incremental change as distinguishing features of service innovation - **hidden innovation & neglected innovators**

Complexity of Service Innovation (1)

- Innovation in service sectors and in service tasks/activities
 - **Technological** or technology induced innovation (e-banking)
 - **Organisational** and marketing innovation provide new solutions to customer needs (business models, distribution channels, customer relations) (low cost airlines)
 - **Social innovation** in relations among actors (networks)
- Knowledge intensive services facilitate innovation throughout the economy (consultancy services)
- The diversity of SI - firms at the same time generate, adopt and implement multiple forms of innovation (Skype)
- **Open innovation** approach and increased role of **user driven innovation** - users provide signals to service providers and service industry (DUCI Lab)

Complexity of Service Innovation (2)

SERVPPIN-FP7

- Impact of public-private innovation networks (PPIN) - organizational device in which collaboration between public and private providers of services generates innovation in services, processes, organisation, social relations
- Benefits for all actors: complementarities, flexibility, learning, awareness raising on service innovation and new concepts of innovation, improve skills for cooperation, increase trust...large potential for transferring good practices
- Cases of PPIN in transport , health, knowledge intensive services

Complexity of Service Innovation Requires Interdisciplinarity

- Number of cases of good practices (also with EU funding) that reflect interdisciplinary cooperation but are known to a very limited audience; potential, not sufficiently exploited
- **Living lab** is about open innovation process, experimentation and co-creation with real users in real life environments, where users together with researchers from different disciplines, firms and public institutions look together for new solutions, new products, new services or new business models (150 LL across Europe)
- **Service Science initiative**: multi-disciplinary research effort that integrates research in computer science, operations research, engineering, management sciences, business strategy, social and cognitive sciences, and legal sciences – combined skills

Interdisciplinary (ID) Research is Relevant for Service Industry

- ❑ Service industry need to provide solutions to customers' problems that are usually not one dimensional!
- ❑ Research disciplines more focused on intra-disciplinary cooperation
- ❑ Difficulties of ID research: requisite skills for cooperation, language of communication, trust; institutional barriers
- ❑ Problem of trust in SSH capacity- research focuses on intangibles that are more difficult to understand
- ❑ Interdisciplinarity requires profound changes and re-thinking of education and training patterns

Improving interdisciplinary research cooperation in future?

- ❑ Promote open innovation and learning platforms that enhance cooperation across disciplines
- ❑ Communicate good practices of interdisciplinary research at the national and EU level to all stakeholders and facilitate transfer of good practices
- ❑ Enhance problem solving approach in education from the early stages – it addresses user needs (business, public services, individuals, society at large)
- ❑ Not only big projects matter -experiment with small-sized projects of interdisciplinary research cooperation to enable learning and acquisition of skills (local community problems, where actors know each other, trust is important)

Message

It is high time to discuss **Thinking across disciplines** given the overwhelming challenges we are facing, such as climate change, environment, population aging, spread of new diseases to name a few - these issues represent the perfect intersection where the cooperation of soft and hard science is essential in alleviating the problems and bringing the solutions

Need for combination of technological, organisational and social innovation!