

INNOVATION POLICY PROJECT IN SERVICES – IPPS 2006-2007

Policy Blueprint report

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Executive Summary

Over the recent years, the interest towards service innovation policy has been growing simultaneously with the economic weight and significance of services. At the same time, service related policies have remained relatively underdeveloped in many member states. This has created a need for transnational cooperation within the EU between member states and regions. The Innovation Policy Project in Services project (IPPS) and the synthesis paper at hand represent first steps of such practical transnational cooperation. In itself the IPPS served as a preparatory project for a future INNO-Net seeking to facilitate the development of an effective service innovation policy.

This policy blueprint report provides a synthesis and conclusions of the IPPS project implemented by Tekes, the Finnish Funding Agency for Technology and Innovation, under the EU RTD Framework Programme (Innovation and Research specific programme). The following countries and regions took part in the IPPS project: Czech Republic, Estonia, Germany, Ireland, Netherlands, Slovenia, Sweden, United Kingdom and the regions of Baden-Württemberg and Western Greece.

During the IPPS project, 11 mapping studies were conducted in the participant countries and regions¹. The findings of the individual mapping studies have been organised in this report under the major themes that emerged from the material. These themes emphasize the following issues:

- Need for a long-term strategic approach in support of service innovation policy development;
- Need for a horizontal policy approach and coordination between different policy levels as well as between policy actors;
- Need for a more balanced innovation policy recognising the importance of non technological innovation;
- The broad based innovation policy consists of a balanced mix of supply- and demand-side measures. At present the demand-side measures are still underrepresented in the innovation policy mixes;
- The framework policies have a significant influence on service innovation policy
- The evolving service innovation policy is likely to make use of the existing policies adjusted to service innovation but also a range of new types of initiatives can be seen to emerge in this policy area;
- Service exports and globalisation act as drivers that policies need to reflect. Also public-private partnerships are likely play an important role in service innovation policy;
- Regional policies and cluster policies also act as platforms for effective service innovation policy delivery. It is important that service innovation policy will be adapted to the socio-economic context where it is delivered.

The final chapter 4 presents the conclusions of the IPPS project and discusses whether there is a need to launch an INNO-Net seeking to facilitate the development of an

¹ The individual mapping studies can be found on Tekes extranet <http://akseli.tekes.fi/opencms/opencms/OhjelmaPortaali/ohjelmat/Serve/en/cooperation.html> and <http://www.proinno-europe.eu/>.

effective service innovation policy. The answer is two-fold. There is a need for broad-based transnational collaboration in the field of service innovation. Such a broad-based approach should include both policy, strategic and operational level activities. In relation to the INNO-Net, the report suggests that the final decision needs to be made once the details of the renewed INNO-Net concept are available.

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1 Introduction

This policy blueprint report provides a synthesis and conclusions of the Innovation Policy Project in Services project (IPPS) that was implemented by Tekes, the Finnish Funding Agency for Technology and Innovation between 1 September 2006 and 31 August 2007.

1.1 The objective of the IPPS project

The key objective of the Innovation Policy Project in Services (IPPS) was to advance service related innovation policy and programme development among Member States and regions by networking relevant actors, promoting cooperation, disseminating good practices and encouraging transnational policy learning. In addition, scientific knowledge on service innovation was built up during the project. The IPPS was a one year Specific Support Action (SSA) project funded by the EU's RTD Framework Programme (Innovation and Research specific programme). The IPPS was intended as a preparatory project for a future INNO-Net that, if initiated in the future, would focus upon strategic level cooperation and development of joint activities between national and sub-national service related innovation programmes. The IPPS project has aimed at gaining:

- better knowledge of the possibility to prepare joint activities / an INNO-Net for a future call
- better knowledge of possible barriers in setting up joint activities / an INNO-Net
- better knowledge of the characteristics of suitable partners for transnational cooperation.

The strategic objectives of the IPPS project were to:

- 1) Speed up the development of services relevant innovation policy at transnational, national and regional levels,
- 2) Optimise the effectiveness of innovation funding in Europe by bringing together service innovation efforts of the EU and Member States,
- 3) Explore the possibilities and potential barriers for developing joint activities or open national innovation programmes promoting service related innovation for the European cooperation and thereby promoting more effective and efficient efforts at national, regional and trans-national levels,
- 4) Improve economic structures within the EU by strengthening the full spectrum of businesses with potential to exploit service related innovations, and
- 5) Contribute to the betterment of legal European framework covering service related innovations (e.g. the Service Directive, R&D&I state aid regulations, service related IPRs).

IPPS project also had five operational objectives, each of which forms its own work-package in the project. The objectives were to:

- 1) Create a trans-national cooperation network of responsible national and regional Ministries and innovation agencies;

- 2) Carry out mapping studies on existing national and regional support programmes, activities and policies;
- 3) Produce a blueprint report that would explore possibilities and potential barriers for future joint activities in the form of INNO-Net;
- 4) Disseminate results and good practices and
- 5) Make a well-grounded go/no go-decision on setting up an INNO-Net in the area of service innovation and prepare for the upcoming INNO-Net if a go decision is taken.

1.2 Service innovation policy rationale – background for the work

Over the recent years, the interest towards service innovation policy has been growing simultaneously with the economic significance of services. At the same time, service related policies have remained relatively underdeveloped in many member states. Increased level of innovation is central in improving the performance of the service sector and the entire economy. However, national innovation policies have paid scant attention to services and service-sector firms have not been in general very active participants in the government-sponsored innovation programmes. There are several reasons for the current state of service related innovation policies and programmes. First, services represent a highly heterogeneous set of activities. Second, service innovations are multidimensional in nature involving organisational, operational, delivery system, customer interaction and technology related dimensions. Third, there is a need for a better understanding of the design and delivery of service innovation related policies and programmes. It has been recognised that most policies aimed at facilitating R&D and innovation have explicitly or implicitly focused on supporting technological R&D and technological innovation mostly in manufacturing firms. However, the importance of services, service related R&D and service innovation for economic growth and employment are now being increasingly recognised. Although non-technological innovation is driven by much wider range of factors than traditional R&D, R&D is relevant in many service firms, too.

From a policy point of view, the above arguments do not automatically justify the introduction of dedicated services R&D and innovation schemes². Further on, dedicated service schemes are not the only way to address non-technological innovation since services innovation can be facilitated through many other policies, including ‘non-R&D’ and ‘non-innovation’ policies. However, the important questions concern the policy rationale for R&D and service innovation policies. Is the rationale for policies aimed at facilitating R&D in services, or service R&D in manufacturing, different from the rationale of regular R&D policies? What is the policy rationale for service innovation policies? The debate on the policy rationale continues and it is clear that sustainable service innovation policy needs to be based on robust evidence. Without going into detailed policy rationale discussion, the following issues have been brought up by the recent literature³:

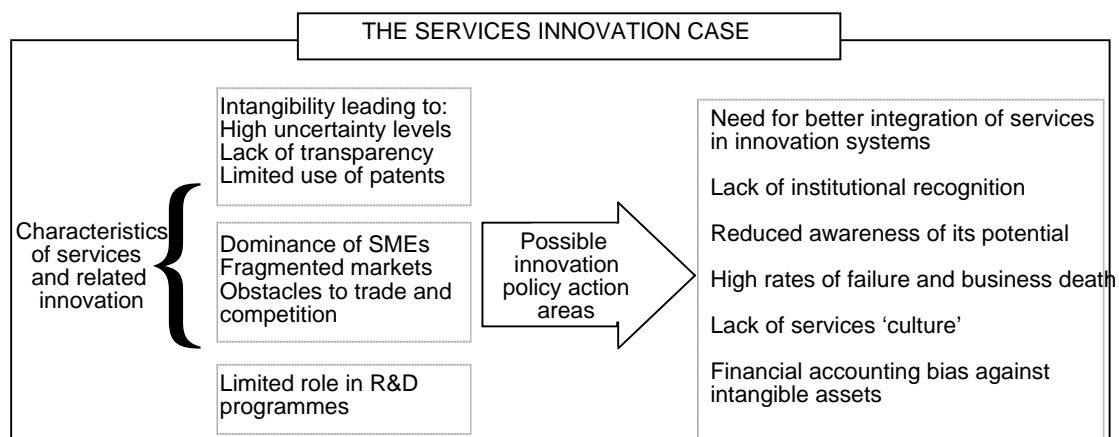
² Hertog den, P. Rubalcapa, L. and Segers, J. (2006) Is there a rationale for services R&D and innovation policies?, XVI International RESER Conference. Lisbon, September 28-30, 2006.

³ Rubalcapa, L. (2006) Which policy for innovation in services? *Science and Public Policy*, volume 33, number 10, December, pages 745–756, Beech Tree Publishing, 10 Watford Close, Guildford, Surrey GU1 2EP, England.

- Service innovation is a stimulant for innovation generally, as well as investment in intangibles and knowledge, all of which are factors of endogenous growth and total productivity
- In Europe relatively low productivity and performance are characteristics of many service sectors, as well as limited utilisation of information and communication technologies (ICT)
- Typically, services companies' level of participation in the R&D programmes is relatively low. This is not encouraging as we speak about the Lisbon strategy and the aim to achieve the 3% of GDP target in R&D investments in Europe
- The relative lack of formulation and organisation of service innovation requires promotion of new instruments of business support
- The recent deregulation and liberalisation in many service sectors means that businesses forsaking their protected market niches need to find new strategies to boost their competitiveness
- The current phenomenon of relocating services to lower-cost countries or countries with a higher specialisation, means that businesses in developed countries need to find new competitive strategies based on innovation

Exhibit 1 brings together arguments for the case of service innovation policy. It shows the key elements that arguably justify service innovation policy, not only from the neoclassical point of view of market failures, but also from the contextual facts and the systemic or evolutionist approaches. The three types of argumentation are interrelated and none can be understood in isolation. For instance, one line of argumentation goes as follows. 'Asymmetric information creates a natural barrier explaining a share of competition deficit in many services markets with consequences in productivity and innovation; at an institutional level, these facts are not sufficiently recognised, and for this reason pro-innovative and pro-competitive actions are underdeveloped'⁴.

Exhibit 1 Arguments for the case of service innovation policy



Source: Adapted from Rubalcaba, 2006

Column on the left lists some of the key features typical of services related innovation. These include intangibility of services and the resulting high uncertainty,

⁴ Rubalcaba, L. (2006) Which policy for innovation in services? *Science and Public Policy*, volume 33, number 10, December, pages 745–756, Beech Tree Publishing, 10 Watford Close, Guildford, Surrey GU1 2EP, England.

lack of transparency and limited use of patents. For instance, in the case of novel services it is difficult to verify their features and use value in advance. Further on, in comparison to physical goods, it is more difficult to compare novel services, and very often it is impossible to patent new type of services. The column on the right highlights some institutional failures that would justify the implementation of service innovation policy. These include the need for better integration of services into innovation systems, lack of institutional recognition of services, reduced awareness of their potential, high rates of failure and business death, lack of services culture, and inability of financial accounting to recognise the intangible assets.

1.3 Implementation of the project

The main methods used in the IPPS project were:

- Systematic exchange of information and good practices on existing policies, programmes and activities in the area of service innovations and on the potentiality of setting up joint trans-national activities in the future.
- Mapping studies carried out in selected EU member and regions to explore the possibilities and potential barriers for trans-national and European activities in the area of service innovation and a synthesis report based on the individual mapping studies.
- The dissemination of scientific research based knowledge on service related innovations and best policy practices which contribute to trans-national policy learning and to the development of European dimension in services related innovation activities.
- Finally, this blueprint report at hand is exploring the scope for trans-national cooperation and the appropriate instruments which could be used in future activities.

The following work has been performed during the project:

Tekes has identified the key actors in the area of service related innovation policies and built a cooperation network (called Expert Focus Group, EFG) to steer the work of the project and to function as an expert body in the questions of interest. The following Member States and regions have participated in the Expert Focus Group work:

- Ministry of Economic Affairs and Communications of Estonia (www.mkm.ee)
 - Kitty Kubo, Head of Technology and Innovation Division
- Federal Ministry of Education and Research (BMBF), Germany (www.bmbf.de)
 - Ursula Zahn-Elliott, Head of Division, Innovative Workplace Development and Services
- PT-DLR, Germany (<http://www.dlr.de/en/desktopdefault.aspx>)
 - Dr. Gerhard Ernst, Head of Section Work design and Services

- Dr. Ranjana.Sarkar, Programme Manager, Innovative work design and services, Project Management Agency at DLR , Project Management Agency for the Federal Ministry of Education and Research (BMBF)
- Forfás, Ireland (www.forfas.ie)
 - Dr Jos Evertsen, Senior Policy Advisor, National & European Innovation Policy and STI Surveys, Science, Technology & Innovation Division
- Enterprise Ireland (www.enterprise-ireland.com)
 - Mr Jim Cuddy, Head Innovation and Technology Transfer
- Ministry of Economic Affairs, Netherlands (<http://minez.nl/index.jsp>)
 - Karen de Ruijter, Directorate General for Enterprise and Innovation, Senior policy advisor
- Research Council of Norway (<http://www.forskningradet.no>)
 - Øystein Strandli, Program co-ordinator and Lise Våland Sund
- Public Agency for Technology Development of the Republic of Slovenia (TIA) (<http://www.tia.si>)
 - Dr. Mojca Skalar, Head of Office for International Cooperation
- Vinnova, Sweden (www.vinnova.se)
 - Ulf Eklund, Programme Manager
 - Jonas Matthing, Programme Manager
- Office of Science and Innovation, Department of Trade and Industry, United Kingdom (www.dti.gov.uk)
 - Mark Beatson, Director of Science & Innovation Analysis
- Ministry of Economic Affairs of Baden-Württemberg (<http://www.wm.baden-wuerttemberg.de>)
 - Frank Fleischmann, Head of Unit Service Sector Industry
- Computer Technology Institute, Region of Western Greece (www.cti.gr)
 - Ministry of Education and Religious Affairs
 - Prof. George Metakides, President of the Scientific Council
 - Anastasia Panagiotaki, MSc. Computer Engineer, Information Society Sectors
- Association of Innovative Entrepreneurship of the Czech Republic (www.aipcr.cz)
 - Ing. Pavel Dhlouhý, EUR. Ing., Project Manager

The Expert Focus Group has met three times. The first meeting took place in Helsinki on 12 October, 2006. The aim of the meeting was to exchange information on existing policies and practices in each participating country and to discuss and approve the template for the forthcoming mapping studies. The aim was also to choose the countries and regions for the implementation of the mapping studies.

The second workshop was organised in The Hague, Netherlands, on 26 – 27 February 2007. The workshop was hosted by the Dutch Ministry of Economic Affairs. In this meeting, the aim was to discuss the findings of the mapping studies and to build a roadmap for the final report and INNO-Net proposal preparation.

The third workshop of the Expert Focus Group was held in London on 29-30 May, 2007. It was hosted by the DTI, Office of Science and Innovation. In this meeting the findings of the synthesis report and the conclusions for the IPPS project were on the agenda. In addition, the possibilities for the future collaboration were discussed.

The mapping studies were implemented in 11 countries and regions and were reported both individually and in a format of a synthesis report. These will be described in more detail on Chapter 2 of this report. The mapping studies can be found as complete versions on <http://www.proinno-europe.eu/> and on Tekes extranet <http://akseli.tekes.fi/opencms/opencms/OhjelmaPortaali/ohjelmat/Serve/en/etusivu.html>.

The policy blueprint report at hand has been prepared by Tekes and commented by the Expert Focus Group members.

2 Mapping Studies

A number of empirical mapping studies (see Exhibit 2) generated a wealth of material on services related innovation policy in participant countries and regions. The following sections will display an up to date analysis on the current state of service innovation policy.

2.1 Carrying out the mapping studies in Member States and regions

A total of 11 policy mapping studies were carried out as part of the IPPS project. The mapping studies were written in each country by a local research team which was chosen by the Expert Focus Group member, see Exhibit 2.

Exhibit 2 The countries / regions and organisations contributing to the IPPS mapping studies

Country / region	Official IPPS participants	Research performers
Finland	TeKes, Finnish Funding Agency for Technology and Innovation	European Touch Ltd.
Germany	Federal Ministry of Education and Research (BMBF),	Fraunhofer Institute for Industrial Engineering (IAO)
Ireland	Forfás, Enterprise Ireland	CM International
Netherlands	Ministry of Economic Affairs	Dialogic
Norway	Research Council of Norway	NIFU-STEP
Slovenia	Public Agency for Technology Development of the Republic of Slovenia	Centre of International Relations, Faculty of Social Sciences, University of Ljubljana
Sweden	Vinnova, Swedish Governmental Agency for Innovation Systems	FBA Holding AB
United Kingdom	Department of Trade and Industry	Institute of Innovation Research, University of Manchester
Baden-Wuerttemberg - region	Ministry of Economic Affairs	Fraunhofer Institute for Industrial Engineering (IAO),
Western Greece* - region	Ministry of Education and Religious Affairs	Computer Technology Institute
Czech Republic*	Association of Innovative Entrepreneurship	Association of Innovative Entrepreneurship
Estonia**	Ministry of Economic Affairs and Communications	

*Czech Republic and Western Greece conducted a shorter version of the mapping study. **Estonia, although a participant in the Expert Focus Group, did not take part in the mapping study exercise.

The participants of the Expert Focus Group represent key European actors in the field of service innovation policy design and implementation. In this respect, the project met one of its targets, i.e. identifying and networking the key European actors in the area of service innovation policy.

2.1.1 Data collection and analysis

Data for the country studies was collected by conducting personal interviews with key informants using snowball sampling method. Important information was also gleaned from existing policy documents, recent research reports and Trend-chart database just to name some most relevant data sources of the mapping study. Data collection was conducted with the help of a common template that facilitated the comparability of the data that was originating from 11 different countries and regions. National mapping study reports have been published on the Pro Inno Europe internet site.

Despite the common template for the mapping study the actual country reports did not always strictly follow the common structure. However, the template focused the inquiry to the following key areas: supply-side measures, demand-side measures and framework conditions. This approach is based on the one presented by Georghiou (2006) in the recent policy document for the Finnish government⁵ (See Appendix: 1). As such the variety of styles in country reports represent national differences that is typical of this type of exercise. It highlights the very important feature of the EU level policy development and delivery such as variety of economic structures, governance styles, and innovation policy approaches in different Member States.

The policy mapping studies covering 11 member states and regions provided the data for this policy blueprint report. In the first stage the all mapping studies were systematically analysed mainly by using qualitative methods. Summaries of the country / regional reports are presented in the Chapter 2. As all mapping studies were analysed the key policy themes emerged from the provided material, see Chapter 3. In the Chapter 4 these key themes are reorganised under the proposed activities of the possible future INNO-Net project.

This section presents short highlights from each country report submitted for the analysis. The aim is to bring up service innovation policy related key issues as presented by participant countries in their reporting. For the full range of issues and more details readers are should look into full country reports that are available as electronic copies from the PRO INNO Europe website⁶.

2.2 Finland

Key Facts

The most important service industries in Finland in terms of employment contribution include: public services 32%, commerce 14%, finance, insurance, and business services 10%, transport and communications 8%.

The service sector share of the GDP is 66 % (2004), and 64 % of the labour force is in the tertiary sector, 32 % in the public sector services and another 32 % in private sector services.

The focus of R&D and innovation policies:

Finland has adopted the broad based innovation policy approach where it seeks to develop innovation-friendly business environment and society as a whole. Policies are sector neutral but services innovation specific measures have been developed, since they are one of the policy focus areas.

⁵ Georghiou, L. (2006) Effective innovation policies for Europe – the missing demand side, paper represents partial contribution to the Finnish government project: Globalisation Challenges for Europe and Finland organised by the Secretariat of the Economic Council, Prime Minister's Office, Helsinki, Finland.

⁶ <http://www.proinno-europe.eu/> and Tekes extranet <http://akseli.tekes.fi/opencms/opencms/OhjelmaPortaali/ohjelmat/Serve/en/etusivu.html>

Key service innovation policy actors include:

- Ministry of trade and industry
- Ministry of Education
- Finnish Innovation Agency (Tekes)
- Academy of Finland

Since the late 1990's high level policy documents in Finland have recognised services related innovation. The findings of the mapping study illustrate that by now service innovation receives extensive policy attention in Finland. Tekes is the leading policy actor in developing and implementing service innovation policy measures targeting both businesses and public sector organisations. Public sector service provision is facing challenges in Finland. As a result, changes can be foreseen in production and delivery of the public sector services. New innovative service concepts and procurement practices are needed as the division of labour between the public and private sector is evolving. In order to improve the productivity and the quality of services, there is an urging need for systematic research and development efforts⁷.

The policy mapping provides an overview of policies, measures and organisations that are relevant for service innovation promotion. They include: ministries and government agencies, business innovation support measures, financing instruments, as well as research-, development-, and technology programmes.

Most of existing innovation policy measures are available to service organisations. Many existing policy measures have simply been adjusted so that they are available also for service development. In addition, some new service specific policy measures have been developed. However, the above-mentioned changes do not guarantee effective delivery of service innovation policy measures. Agencies, and service organisations alike, face deep learning curve as they are seeking to support and develop innovative services. There are a number of challenges related to the characteristics of multidimensional service innovation. To overcome these challenges, effective service innovation policy delivery requires: new skills from the policy actors, new types of instruments, adjustment of project funding and evaluation criteria and the development of a horizontal policy approach.

There are very few sector specific policies in Finland and this applies also services. The number of policy measures is even more limited as it comes to policy measures that are explicitly targeting service related innovation. The most significant measures include technology programmes (e.g. Serve, Leisure Services, Liito and FinnWell) delivered by Tekes. The number of pure demand-side policy measures is very limited, one of the most successful ones being tax incentive for purchasing household services. Another significant demand-side measure is the programme for innovative public-sector procurements that will be launched 2008. In addition, there are a number of instruments that can have both supply-side and demand-side effects. The aforementioned applies to many of the regional development programmes. Internationalisation goal is built into most R&D programmes, and there are also some dedicated programmes and instruments addressing internationalisation of services.

⁷ www.tekes.fi/serve

In terms of framework conditions, EU Service Directive will have a significant influence on service innovation by opening up large and competitive common markets for service businesses. While successful and innovative service business will thrive, it is likely that intensive competition will force some service firms to cease trading. On the national level major foresight exercises as well as plans to set up Strategic Centres of Excellence in Science, Technology and Innovation represent developments that will influence the framework conditions for service innovation in Finland. Other key developments include new technology and innovation policy guidelines (2007-11) and renewed financing criteria allowing the funding of service innovation development projects.

Exhibit 3 SERVE an example of an innovation policy measure that is specifically targeting services

Serve - Innovative Services Technology Programme 2006-2010

Teles has launched Serve programme that seeks to facilitate service development in the targeted industries and it also promotes service related academic research. Serve is a five-year technology programme that aims to boost the development of innovative service concepts and new service business models. It runs from 2006-2010 and the total budget is about EUR 100 million, of which half is public funding and other half comes from the participating businesses. Serve programme also provides Finnish businesses and research organizations links to national and international networks through seminars and industry specific forums. Further on, it offers tools for product management and IP issues. Serve programme facilitates the development of innovative service concepts that can be reproduced or replicated. In addition it offers support for service R&D projects where some technology or systematic method is being applied. The Serve programme targets are:

- to increase the service product development capabilities of the service industries especially in professional services sector
- to promote systematic development of customer oriented service processes of small and medium-sized enterprises.
- to boost the development of new business models based on service innovations in different sectors

The programme funding is channelled to challenging projects that demonstrate novelty value at least at the national level. The evaluation criteria for project proposals are primarily assessed against the novelty of the service innovation, not necessarily on the novelty of the applied technology. The Serve programme seeks to stimulate both the supply and demand side of innovative services, as well as academic research on service science. In service supply side the programme focus is on professional services (especially knowledge intensive business services (KIBS), trade, finance and insurance, logistics, real estate and industrial services.

On the demand side, Serve focuses especially on renewal of public sector service provision. The objective is to create room for new innovative service concepts in the publicly funded service markets. It is assumed that service innovations will promote the strategic renewal of public sector service provision and new service concepts for the production of public sector services. In terms of academic research on services, Serve programme offers funding for strategic and applied research on service innovation. The annually defined focus areas reflect the specific nature of service innovation processes, the customer's role in service production, innovative service concepts, product management in services, new service business models, and internationalization of services. Source: www.tekes.fi

2.3 Germany

Key Facts

The most important service industries in Germany in terms of the value added (2004) are:

Services related to finance, leasing and business (582,5 bill. €), public health care, educational services, social services and other services like leisure, sports, waste management (453,6 bill. €) and trade, tourism and logistics (357,8 bill. €).

Service sector contribution to the German GDP is around 70% (2006).

R&D policies in Germany focus on services concentrated around the ICT sector, including knowledge intensive services.

Key service innovation policy actors include:

- The Federal Government and especially the Federal Ministry of Education and Research (BMBF).
- Federal Ministry of Economics and Technology (BMWi)
- Employer and business associations. the Chamber of Commerce, German Federation of Skilled Crafts and the trade unions

In Germany high-level policy documents have recognised since 1995 the role of services and related innovation. Key documents include the following ones:

- Services for the future, Berlin June 1995
- Services for the 21th Century, Bonn, October 1996
- Services - Innovation for growth and employment, Bonn, September 1998
- R&D-Programme Innovation with Services (2006-2010)
- High-Tech Strategy for Germany (Berlin August 2006)

The innovation system in Germany includes policy actors who support service innovations on the Federal level as well as on the, State and on the regional level. Several initiatives have been launched with the aim to strengthen the German innovation system as a whole, and also to improve the integration between the different levels of government.

At the Federal level there are several ministries each one having different priorities in promoting services. The Federal Ministry of Education and Research (BMBF) is in charge of service research, the Ministry of Economics and Technology is mainly responsible for innovation and development in different sectors of the economy, including the service sector. The Ministry of Labour is in charge of all aspects of labour and working conditions in regard to services.

At the State policy level, mainly the economic ministries of Baden-Württemberg and North Rhine-Westphalia (NRW) have taken concrete measures to foster the service sector (see Baden-Württemberg section). Both States have started systematic action programmes to strengthen the service economy. The range of activities reaches from measures to support the regional economic development to small-scale support activities like market analyses.

At the regional policy level many activities aim at strengthening the service economy and at supporting service innovations. Policy actors on the regional level include regional, municipal, and local authorities as well as regional networks of trade and professional associations. The activities focus on an improvement of regional

structures, on a support of innovation cluster development, and on infrastructure improvement. As a result of the structural changes in the economy (e.g. Ruhr area), these support measures are increasingly focusing services.

Public funding for service research has a relatively short history in Germany. In 1995 a scoping study 'DL2000plus' funded by the German Federal Ministry of Education and Research, gave a strong impetus for service research in Germany. Since then service related R&D activities have been conducted under wide range of themes. In March 2006 a new 70 Meur. research programme, 'Innovation with Services' was launched. It has the following main focus areas:

- Innovation management for services
- Innovation in growth sectors of the German economy
- Human resource management in service companies

Services are addressed as one field of innovation within the High-Tech Strategy for Germany. This is the first national level strategy for coordinated innovation policy. It has been developed in a joint effort by all federal ministries. It seeks to create a climate where ideas can be 'ignited', where research results can be translated into products, processes and services faster. The aim is to make Germany into the most research-friendly nation in the world. According to this strategy innovation policy has a central role in government activities. The strategy defines 17 cutting-edge fields with the aim of strengthening innovation for job creation and prosperity in the future. In total the government will allocate around 15 billion Euros for these activities by 2009.

The 'Partners for Innovation' is a programme that promotes innovation on different policy levels. It has been organised as a public private partnership, bringing together well known actors from trade, industry, the science community, associations, the social partners and politics aiming at the strengthening of innovation in Germany. 15 thematically specialised Impetus Groups have been established to develop new ideas and recommendations for action. One of them has dealt with services. Headed by IBM Deutschland GmbH and Roland Berger Strategy Consultants, the impulse committee has adopted the ambitious goal of contributing to a change of perception of services. For this purpose, the members have presented recommendations to political decision-makers and have launched their own service innovation projects (so-called pioneering activities).

'Council for growth and innovation' is another similar type consulting committee. This council supports and provides advice to the Federal government on innovation policy issues. 'Forschungsunion Wirtschaft-Wissenschaft' (industry-science research alliance) is a consulting committee established by the Federal Ministry of Education and Research and it deals with the implementation of the German High-tech strategy. Both the above-mentioned committees include subgroups that specifically address service innovation issues.

Exhibit 4 ‘Innovation With Services’ as an example of an innovation policy measure targeting Services

R&D Programme Innovation With Services 2006-2010

The Federal Ministry of Education and Research has launched the R&D Programme “Innovation with Services” that aims to help increase Germany's innovation capabilities and boost its competitive strength in the service sector.

The R&D programme runs from 2006 to 2010; and has a total public budget of ≈70 Mio EUR. About the same amount of funds will be contributed by the participating businesses.

The Innovation With Services programme seeks to enable businesses to draw on application-oriented research on a long-term basis and to test, introduce and implement research findings in actual operational practice. That means to stimulate integrated learning processes between research and industry, theory and practice.

The programme targets are:

- to develop new tools and processes for innovation management in services
- to develop and implement methods for engineering innovation processes in the services field and promote their application especially for small and medium sized business.
- to develop and apply technology for new services (e.g. for complex simulations or as a prerequisite for modern services)
- to provide communications platforms for close and sustained cooperation between German businesses and research organizations

The main element of cooperation will be research and development projects that are jointly supported by industry and the scientific community and examine central issues seen in the services sector

The ‘Innovation With Services’ programme funds research and development in a dynamic and heterogeneous field. This programme was designed as a "learning" programme so that it can quickly respond to these change processes. It offers an open research framework in which fields of action and funding measures can be successively proposed, assessed and implemented. The need for action and research is systematically analysed with the help of experts and the programme's advisory board with an eye to identifying new thematic areas and concrete projects. Based on this and in close coordination with other activities, the Federal Ministry of Education and Research then publicly announces its funding measures.

The evaluation criteria for the project proposals assess in the first place the novelty of the research question and the targeted service innovation, cooperation between research, trade and industry, convincing business plans for the commercialization and exploitation of the results, and the contribution to achieving a sustained improvement in the innovation capabilities of businesses (in particular small, medium-sized and young enterprises,).

2.4 Ireland

Key Facts

The most important service industries in Ireland in terms of GDP contribution include: Real estate, renting, business activ. 33%; Financial intermediation 25%; Distribution 20%; Transport, storage, communications 11%; Other community social and personal 6%; Hotels and restaurants 5%.

Services meanwhile account for nearly 68 % including utilities and construction, and 50 % of the GDP excluding utilities and construction.

Key service innovation policy actors include:

- Minister for Enterprise, Trade and Employment.
- Forfás
- Enterprise Ireland
- IDA Ireland
- Science Foundation Ireland

The findings of the policy mapping indicate that services innovation is receiving widespread policy attention in Ireland. Forfás is acting as proactive and a primary driver in this area of policy. This has culminated in a significant study of the current state of services innovation in Ireland⁸, and the more recent establishment of a dedicated in-house Services Policy Group in early 2007.

In principle, all existing policy measures for innovation are available to internationally traded services in Ireland. However, the predominant focus of such measures is on science, technology and R&D. While this is an important component of services innovation, arguably such measures can provide implicit disincentives to some services firms participation. In particular, for those firms that do not view R&D as an activity relevant to their business. In terms of the number of measures, supply-side measures in support of service innovation constitute by far the largest category in Ireland. There are relatively few demand-side measures in Ireland. However, 'Innovation voucher' scheme was launched in Ireland during March 2007, and it is available to traded and non-traded services. Early indications are that the take-up of the scheme is quite good. Typically supply-, and demand-side measures are technically available for service firms but none of them have been specifically designed for the needs of services. For instance, the new Irish Tax Credit scheme is available for internationally traded services, but the take up of the scheme among services remains low. Internationalisation measures provide an example of services that can be tailored to individual business needs. According to Irish Export Association reports that service businesses represent strong and growing component of its client base. Also in the case of inward investment IDA Ireland offers tailored support packages including establishment of R&D for multinational financial services firm, employment and recruitment supports.

Relatively few of the policy measures are designed specifically for services. Even fewer have been designed for services and related innovation. This is not surprising given that services innovation, as a policy issue, has only recently been elaborated in Ireland, the wider EU and OECD Member States. Product development support for services dominates both the supply- and demand-side of services innovation policy measures. This appears to be particularly true for explicit forms of innovation support, for example R&D and other technological supports. Conversely, policy measures that are not explicitly considered as innovation supports can facilitate other dimensions of services innovation such as new customer interfaces and business models. A good example of this phenomenon can be found in measures targeting customer interface innovation. Here, such measures typically focus on targeting export development of SMEs. Similarly, support measures for business model innovation can also be found in areas such as integrated support for entrepreneurship and organisational development. The above examples would seem to emphasize the horizontal need for horizontal service innovation policy deriving from the very nature of multidimensional service innovation.

The overarching Framework Environment for services innovation in Ireland is broadly supportive. Substantial developments, for example, have been made in helping to address competition issues within the non-internationally traded services activities. Skills and training are further areas that have begun to be adapted to the

⁸ Forfás (2006) Services Innovation in Ireland – Options for innovation policy, Dublin, Ireland

particular requirements of internationally traded services, as well as broader skills needs. Other aspects of positive framework development include scientific investment in ICT and broadband infrastructure support. IPR framework conditions are also assessed in the report suggesting that the predominant focus of patenting support is product related, although other aspects such as copyright are more broadly relevant to services.

Future options for developments in Irish services innovation policy include two main directions: a) maintaining the current situation where majority of policies are available to services and mainly focusing on service products, or, b) broaden out existing policy to include more service specific measures aiming at business model development and novel customer interface solutions.

2.5 Netherlands

Key facts

The most important service industries in the Netherlands in terms of GDP contribution include:

In 2005 the financial and business services sector make 24,3% of GDP. Furthermore wholesale (nace 51) represents 7% and retail 3% (nace 52) of GDP.

Services share of the GDP was around 75% in terms of employment, 65 % in terms of value added.

Key service innovation policy actors include:

- Innovation Policy is mainly the responsibility of the Ministry of Economic Affairs.
- At the regional level the Peaks in the Delta initiative is worth mentioning. In some of the selected regions service innovation features quite prominently.
- At the level of detailed policy development and/or co-ordination we should mention SenterNovem. EZ programmes are, for the majority, implemented by the agency SenterNovem.

Furthermore:

- The Advisory Council for Science & Technology Policy (AWT). The AWT made a plea to better integrate service innovation in innovation policies through one of its advices named "To better serve services: innovation policy for services" (2005, report no. 66)
- The Innovation Platform has, for instance, published a study on the role of creativity as the weightless petrol for our economy. This resulted, for example, to the introduction of creative challenge scheme and it proposed the innovation voucher scheme which in practice is quite popular among service firms. The Innovation Platform was also involved in initiating the Centre for Social Innovation.

The Dutch innovation system and the way it is governed is slowly adapting to the new service paradigm. Actors at various levels in the innovation system are increasingly aware and do recognise the need to address service innovation more fully. Various actors have also started to consider how they can better cater for the needs of service innovators and a few policy initiatives were actually started. These attempts are so far mostly experimental. Most visibly the notion of service innovation is on the agenda of the various directorates and units within the Ministry of Economic Affairs. Ministry and its services have various perspectives in dealing with service industries and service innovation, albeit largely at the level of stocktaking, foresight exercises and impact studies and less so at the level of concrete policy actions. Focus areas of the ministry attention include: growth in services (strongly linked to competition policies), trade and exportability of services, implications of the Services Directive

and the new framework for state aid for R&D and innovation, improvements in the statistical coverage of service industries, and the (innovative) use and implementation of ICTs in public service sectors. Some service industries also have fairly prominent position in regional innovation policies. At the national level there are some smaller (specific) initiatives aimed at addressing individual service industries. However, horizontal or generic policies remain the general point of departure in the Dutch innovation policies.

Supply-side measures have a key role in the Dutch innovation policy. Typically innovation policy measures are sector neutral but in reality they are biased towards technological R&D. This can be one reason why the take-up of the schemes remains relatively low among service businesses.

Demand-side measures have become more important element of Dutch innovation policy, also in service related issues. A range of initiatives involves elements that seek to stimulate demand for innovative services. These include: systemic policies (Creative Challenge, ICT in Societal Changes,), innovative procurement (Piano and Innovative Procurement), and Innovation Vouchers for stimulating SMEs demand for knowledge services.

Internationalisation of services can be effective way to stimulate knowledge exchange, innovation and economic growth. Various departments of the Ministry of Economic Affairs and its agencies address the issue of services internationalisation. One example is internationalisation support involves support for SMEs in creating linkages to other businesses, knowledge institutes, target country governmental bodies. This support is highly tailored and it includes financial supports and services.

Framework policies include competition policies and regulation that bear strong indirect influence on the scope for innovation in services. A number of service industries is addressed in particular such as healthcare, housing, education and free professions (i.e. sectors such as consultancy, legal services etc.) and this also might affect the room for innovation in these particular service industries. The services directive is in the first place a huge implementation trajectory that will affect all sorts of regulation at different levels of government. Especially the requirements to offer information to also foreign service firms will in practice mean an extra impulse for E-government and smarter and less complex regulation.

Generic policies aimed at fostering entrepreneurship and innovation equally apply to services and service innovation. Service innovation may indeed benefit from these generic policies and the shaping of the right framework conditions, however, in practice these generic policies are mostly having a technology and manufacturing bias (in their design, wording, conceptualisation). More specific policies – and the number of more specific or should we say customized (innovation) policy approaches seems to be on the rise - are by and large aimed at facilitating technological innovation. There are, however, some specific policy schemes which can be interpreted as more service innovation specific policies, although these are mostly ‘just a toe in the water’ and not always initiated from the idea of facilitating service innovation in the first place (a clear example being the Creative Challenge Call).

The Innovation Governance of the Netherlands is a complex system with many actors, funding mechanisms and inter-relations. In response to this in 2005 Ministry of Economic Affairs started to modernise the portfolio of policies and schemes aimed at businesses as well as the way they are implemented. In total 26 schemes will be

amalgamated into 7 instruments. Fewer and broader schemes, within the existing budget framework, will undoubtedly influence also service innovation policy development and delivery.

2.6 Norway

Key Facts:

- GDP (2005): EUR 243, 3 billion
- GDP (per capita, 2005): EUR 52 600

The share of the service sector covers 61% of the GDP. The service sector represents three out of four working hours in Norway. Close to 50% of total employment is found within the private service sectors (retail trade, transport, finance, ICT, tourism, entertainment, business consulting, domestic services etc.).

In 2005, Norway exported services for approximately EUR 24 billion, of which 42 percent was accounted for by the shipping industry. Services accounts for 22 percent of Norway's total exports. The Nordic countries accounts for approximately 15% percent of services exports, other EU and EEC countries 40% and North-America 30%.

Key service innovation policy actors include:

- Ministry of Industry and Trade
- The Norwegian Research Council
- Innovation Norway

The share of the service sector covers 61 % of the GDP, and services are also highly important in terms of employment creation in Norway. Financial and business services, ICT-related services, industrial services, and tourism are the most important service industries in Norway. Norwegian report on service innovation policies focuses on measures that are explicitly targeting service innovation in the private sector enterprises. Most measures and programmes in Norway are horizontally oriented and open to all firms regardless the industrial sector. Norway is one of the pioneering countries that have had specific programmes (PULS and TYIN) targeting service innovation.

Key policy actors that have recognised services and related innovations in Norway include: The Ministry of Education and Research, The Ministry of Trade and Industry, Research Council of Norway and Innovation Norway, a state-owned company promoting business development in all parts of Norway. Policy actors approach to service related innovations emphasize their different objectives and agendas. The ministry of education and research has outlined its approach in the latest published white paper (2004-05), 'Commitment to research', as follows:

- Due to the heterogeneity of the service sector it is very difficult to treat the sector as one in relation to research and innovation
- In general R&D is less important for the large part of service firms than for the manufacturing firms, heavily R&D based ICT services stands out as an exception
- Relatively low level of traditional R&D does not reflect the innovativeness of the service sector
- Knowledge intensive business services can be highly important since they can be a driving force for productivity increase in the economy

There are differences between research-based innovation processes in the manufacturing sectors and more user (customer)-oriented innovations in public and private services. Ministry of Trade and Industry commissioned a study that identified drivers and barriers for innovation in the service sector. The project was to constitute a basis for concrete policy measures. No specific measures have so far been developed, but this might be included in the work with the up-coming White paper on Innovation (2008), early indications suggests that there will be a separate chapter on service innovation. Since 01.01.2006 Ministry of Trade and Industry and the Research Council of Norway replaced former sector specific programme for research in services (PULS and TYIN) with a wider non branch specific Programme for User-driven Research-based Innovation' (BIA). Technology and products, processes and productivity and services are all important dimensions of research in the new programme. Early indications⁹ of the BIA experience, after two calls for proposals, indicate that the pure service oriented projects are not competitive on the quality of research, using traditional evaluation methods. It seems that portfolio measures are necessary in order to maintain a pure service oriented focus within a general policy measure such as BIA.

Innovation Norway offers a whole range of financing and other types of support services, such as competence building and networking, that seek to facilitate innovation activities in Norwegian firms. Most measures are sector neutral. However, in specific focus are tourism and travel industry and a set of sector initiatives including health services, maritime development, ICT and oil and gas, all of which are dependent on the development of innovative products, processes and services.

Supply-side measures that are targeting services related innovation. The Research Council of Norway in 2006 introduced a new horizontal programme BIA (Programme for User-driven Research-based Innovation). VERDIKT is a large horizontal programme also introduced in 2006. It is a central measure to realise ICT as a national priority area. The primary objective of the programme is to generate and apply new technology and knowledge in the area of ICT-based innovation and interaction in the networked community. For transport and logistics the Intelligent Freight Transport - SMARTRANS programme was launched 01.01.2007.

The BIT programme is a national and international market driven business development programme administered by Innovation Norway. The programme is based on ICT driven business processes, common sector technology platforms and business platforms founded on open international standards. Programme for international marketing in the tourism and travel industry seeks to facilitate increased sales as well as improved profitability in tourism related firms that have a need for increased competences in marketing and sales directed at international markets. Design Programme organised by Norwegian Design Council and Innovation Norway, seeks to influence more Norwegian firms to make use of professional designers. The Ice Breaking Measure is a funding scheme for SMEs using design services for the first time. The grant may be used for industrial or product design, packaging design or development of visual profile or identity. The main objective of the iVEL initiative seeks to increase the innovation competence and innovation speed of Norwegian firms, consultants and the broader knowledge environments.

⁹ Power point presentation by programme coordinator Øystein Strandli on the Norwegian web site on EU Trend Chart on Innovation.

Demand-side measures promoting service innovations. There are no particular systemic policies, regulation or procurement measures which seek to increase service sector innovation in Norway.

Policy measures facilitating internationalisation of services are being delivered by the Norwegian Export School that offers a basic course for service firms. Innovation Norway offers courses in practical export work, international marketing and internationalisation. The Export School cooperates closely with Norwegian firms, branch organisations.

Policies addressing framework conditions for services innovation include flexible labour markets in Norway. There is a high degree of mobility in the labour market and workers and new ideas move freely between firms.

Horizontal policies supporting service related innovation. Most policy measures and programmes in Norway are horizontally oriented and open to firms of all industrial sectors. However, often R&D programmes are biased towards manufacturing firms as they are mainly focusing on traditional R&D. The fiscal measure of SkatteFUNN seems to be the most popular measure amongst service firms. All enterprises subject to taxation in Norway are eligible for a tax deduction for R&D expenses in approved projects. Qualified project must be limited and focused, and aimed at generating new knowledge, information or experience which is useful in developing new or improved products, services or manufacturing/processing methods.

For the moment being there are no specific plans for new policy measures for services and related innovation.

2.7 Slovenia

Key facts

The most important service industries in Slovenia in terms of GDP contribution include (2006):

- Real estate, renting and business activities (14%)
- Wholesale and retail trade; repair of motor vehicles (10,3 %).

In terms of GDP contribution, services make up 51,65 % of the total value of the service sector in 2006.

In 2002-2004 the share of innovative companies in service sector was 16%, most important being the real estate, renting and business activities (23,7 %) and financial intermediation (20 %).

Key service innovation policy actors include:

- Ministry of Economy
- Ministry of Higher Education, Science and Technology
- Public Agency for Entrepreneurship and Foreign Investments
- Slovenian Technology Agency

The perception of the service sector as the generator of growth and competitiveness has developed in Slovenia since the 1990s. Slovenia has made a significant progress in the development of the service sector in the last fifteen years and in 2005, services accounted for a dominant share of 63.4 per cent of value added in the economy. Typically the understanding of innovation is biased in favour of technological

innovation and thus very deficient when it comes to innovation in services. However, some stakeholders are aware that in order to increase value added of services, innovations in services and in service functions are important. Key actors in service related innovation policy include: Ministry for Higher Education, Science and Technology, Ministry of Economy, Office for Growth, Directorate for technology, Directorate for promotion of entrepreneurship, Public agency for entrepreneurship and Foreign investment, Slovenia Research Agency and Slovenian Technology Agency. The Government has recently adopted a number of documents that can address also the service innovation activity. The main three documents are: Development Strategy of Slovenia, Resolution on the national research and development programme for the period 2006-2010, and Programme of Reforms for the Implementation of the Lisbon Strategy.

Through Europeanisation of innovation policy and by transfer of best practices, at least the rhetoric about innovation is gradually changing. The institutional set-up, mechanisms and instruments in the area of innovation policy have been constantly complemented in line with EU policies and practices. More problematic has been the fact that the policy-makers paid insufficient attention to the socio-economic framework to which they transferred the measures and therefore the expected results were not forthcoming.

The available evidence on the mechanisms, specifically addressing the promotion of innovation in services is very limited. However, general support measures addressing innovation and organisational change do include also service sectors and innovation in service functions. The existing R&D and innovation support measures are general in nature and do not differentiate in favour of service innovation or innovation in service sector. What one could stipulate as a positive development is, that at least in the rhetoric, no measure discriminates against innovation in services but treats all types of innovation as equally important. More problematic is the selection process and project/ proposal evaluation, where methodology still tends to be biased in favour of technology-based and product based innovation

Supply-side measures make up the majority of Slovenian innovation policy measures including: Equity support, Fiscal measures, support for public research, support for training and mobility, grants for industrial R&D, information and brokerage support, and networking measures.

Demand-side measures include systemic policies like cluster support, and regulation related policies targeting especially the functioning of markets in telecommunications services.

Internationalisation of services, current policy measures are mainly addressing support for potential foreign investors in terms of information on the country and establishment of modern logistic centres.

Horizontality of innovation policies is a not yet well-developed concept in Slovenian policy framework. Some of the strategic documents draw attention to this concept, but activities in practice seldom reflect this. Entrepreneurship promotion, education and training policies, awareness raising on innovation and measures encouraging innovation in tourism are relevant activities from the horizontal point of view.

Future policy developments include measures for stimulating entrepreneurship and competitiveness during the period 2007-2013. The programme brings forth certain new measures/ institutions, with the objective to foster entrepreneurship. It seeks to

create supportive environment for enterprises, upgrade of the human potential within business, stimulation of R&D investments, organisational innovations and support for services aimed at innovation.

2.8 Sweden

Key facts

The most important service industries in Sweden in terms of GDP contribution include: telecom and communication services, industrial services including a continuous transition in the manufacturing sector from goods to services, furniture and interiors (IKEA among others) retail and fashion, tourism and travel, banks and finance, county councils (health) and local municipalities.

Services meanwhile account for more than 70 % of the GDP.

Most important policy measures are systemic, framework and science-base oriented.

Key service innovation policy actors include:

- Ministry of Enterprise, Energy and Communications
- Swedish Government Agency for Innovation Systems (VINNOVA)
- Region Skåne (food), Region Västra Götaland (automotive and bio-medicine) and Region Östra Götaland (health).

The Swedish service sector made around 70 per cent of GNP in 2000. Services have been growing steadily for many years, both from the GNP point of view and in terms of employment. The most important service industries include: telecoms, security, industrial services, financing, and real estate services. In Sweden services employ significant share of the labour force. Business services and knowledge intensive services counts for nearly 15% of the employment. Infrastructure and communication count for around the same share, which is also the case for the trade sector. Public services, education and other services amount to nearly 40%. National innovation strategy in Sweden is under development. Earlier the general opinion was that services R&D is too near the markets for public support to be offered to the service businesses. More recently the ministries have started to pay more attention to innovation policy. VINNOVA has responsibility for developing different innovation actions in services context.

The Swedish mapping study is based on database that was constructed for this purpose. Assembled data base includes a wide range of policy actors¹⁰ and their activities that seek to support service innovations. The aim has been to create a generous overview of existing policy actors and their activities. The mapping study covers 109 actors whom are dealing with (innovation) policies and policy measures for the development of the service sector. The Government together with the government authorities is the main category (21%) followed by partnership organisations (19%) and regional government organisations (16%). Other relevant service innovation policy actors include: professional organisations, R&D organisations, foundations, trade unions, advisory organisations and non-profit associations. By looking at the service innovation policy actors on different

¹⁰ Policy actors include: Government, Government agencies, Regional governments, Local governments, Professional organisations, R&D organisations, Educational organisations, Technology Centres, Advisory organisations, Partnership organisations, Foundations, Trade unions and Non-profit associations.

government levels, the regional level is the most important category (35%). County Administrative Boards, Regional Councils, Basic region organisations (NUTS) and regional partnerships constitute this category. In order follows actors on governmental level (21%) and institutional level (13%). The latter category is a combination of professional organisations and trade unions.

Since the autumn 2006 the new government policy is to create more jobs in small businesses and to promote more “outsourcing” from government agencies/county councils and municipalities. The Swedish government policy is clearly in favour of new EU service directive and an open European market for services. At the same time one is keen to secure the Swedish labour market rules in Sweden, including collective agreements regulating service work done in Sweden. Service innovation policy making focus in Sweden is twofold. National level centralised policymaking focus is on public sector services. At the same time regional policy focus is on industrial and private sector services. Regional level service innovation policies provide an interesting perspective since they typically involve a close Triple Helix co-operation where public sector actors, research community and businesses come together to build regions innovation capacity. Overall, in Sweden the key service innovation policy areas include: ICT, manufacturing, environmental services, renewal of public administration, transportation and creative industry. There are only very few policy actors addressing service innovation in trade and commerce and financing industry. Finally, internationalisation is typical of services and also one of the key service innovation policy areas.

In Sweden policy influence on services takes place through several different routes, for instance, as a result of regulation and through public funding for certain types of services. In some instances policies and government agencies set minimum level and quality for the service delivery. Services that are to some extent financed by the public sector will also become subject to public regulation, for instance, merit based services where local authority provides support for the elderly citizens. In the case of market services Swedish Government has typically adopted a “hands-off-attitude” so that the actors on the markets are those who set rules and policy type issues. There is one important exception in this respect, publicly funded sector based research funding can be used for the development of new levels of service quality. This approach is traditional for the applied, sector based research programmes Swedish.

Traditionally policies that promote innovation in services were considered to be very close to the market and hence a sensitive area for public policy intervention. Around 1990 the first programs to promote innovation in services by IT-development started at The National Swedish Board for Industrial and Technical Development (NUTEK). The aim was to increase productivity in service activities using IT and to improve quality in services production by creating IT-support for increased professional skills among service-sector personnel. Later on there was more concentration on methods and tools and IT-use research and demonstrations. Since the year 2000, when the Swedish Agency for Innovation Systems (VINNOVA) was formed, there have been more dedicated actions promoting Swedish innovation systems on national, regional and sector levels.

The mapping study indicates that in Sweden all actors and their initiatives could be identified as supply-side oriented, although in many cases the interpretation between

supply-side, demand-side and horizontal measures is not very clear. Great majority of actors (85%) are active in demand-side measures such as: systemic policies (84 actors), end-user awareness (30 actors), regulation (20 actors), and procurement (14 actors). Half of the actors (55) in the study are concerned with internationalisation measures. Some 20 actors address all three internationalisation promotion categories; exports / internationalisation, inward investments and marketing the location as an attractive place. Majority (62%) of the actors are concerned with framework measures. The break down of measures indicates that 42 actors support science base development, some 25 actors are addressing regulatory issues and equal number addresses human resources development, 10 actors pay attention to measures service innovation culture and attitudes, and only 5 policy actors are concerned with fiscal issues influencing service innovation. Finally, some 30 policy actors have recognised the need for horizontal policy approach in promoting service innovations.

Another finding is that regional level actors constitute the majority of policy actors that are addressing private and industrial service policies. At the same time, actors on the central government level are focusing mainly public sector services. In the latter category all but two of the central agencies in the study are involved. A very good example of the regional policy measure is the growth initiative in the County of Östergötland called "New tools for health". The main motives are a great and growing market potential and a suitable regional profile. Examples are The environment of health and security, Self-service-care, Care at home, User archetypes for product development, Employee based product development, Sport-based prevented health care, Health in school and Creative cottages and Demonstrations of health promoting technology on large scale. The primary objective is to generate growth in the region through a successive introduction of the new products and services and supplying these on the growing international markets.

Future policy measures targeting service related innovation. Policy actors recognise that an innovative and competitive Sweden requires a long-term strategy for the service sector. Services development needs are closely related to market strategies, process development, organisational development and structural conditions. Exports of services has expanded in a number of business fields and Sweden is rather successful in this respects. Hence, it is important to set policy focus on issues that can secure service enterprises success in today's globalised world. For instance, taxes, freedom of trade, investment, controls, inter-action with institutes of higher education and access to new technology. Business and employment growth in services is supported by the EU's Services Directive which highlights the internationalisation of services as one cornerstones of the EU strategy. Finally, 12 key policy actors had quite strong consensus on the following areas that need policy attention in the future:

- Services position as an economic growth factor
- Innovation systems within the service sector
- Internationalisation and relocation of services
- Development of the tourist industry potential
- Better public procurement and new purchasing methods

2.9 United Kingdom

Key facts

The most important service industries in the UK in terms of GDP contribution include:

Real estate, renting and business activities: 25 % of GDP

Wholesale and retail: 12 %

Health and social work: 8 %

(the Financial Services sector only contributes 3 % of the GDP once adjustments for Financial Intermediation Services Indirectly Measured (FISIM) are applied)

The traded service sector share is 75 % of the GDP and 80 % of the labour force (including self employed)

Key service innovation policy actors include:

- Department for Innovation, Universities and Skills
- Department for Business, Enterprise and Regulatory Reform
- Department of Health
- Department of Culture, Media and Sport
- Technology Strategy Board
- Design Council
- Intellectual Property Office (IPO)
- National Endowment for Science, Technology and the Arts (NESTA)

In the UK the recognition of the poor fit between services innovation and many established innovation policy instruments has been growing. So far this recognition has not led to specific services-related innovation policy at national level. The Department of Trade and Industry (DTI) is the main policy actor here, and is considering whether some policy redesign is required. However, efforts to foster innovation in ‘creative sectors’ have come into play from the department for Culture, Media and Sports (DCMS), and the National Endowment for Science, Technology and the Arts (NESTA). Scottish Enterprise plays an equivalent role to the DTI in Scotland, and it has identified some service sectors among its priorities and has produced, for instance, an Innovation Toolkit for the tourism sector. These and other developments are helping to establish a climate in which services innovation and other non-traditional forms of innovation are much more at the forefront of debate.

In the national level in the UK, service-relevant innovation policy mechanisms are overwhelmingly supply-side oriented. Some mechanisms, however, are public procurement initiatives are more demand oriented but not specifically targeting services innovation. However, it is possible that specific procurement initiatives have a major bearing on particular classes of services. In the three principalities of Scotland, Wales or Northern Ireland, there are no identifiable generic service innovation related policies. Northern Ireland has recently instituted a study of trade-related service activities within the province. In the regional context ‘cluster’-type activities are quite common. They are relevant to specific classes of services, such as tourism, financial services or digital content. Within the regions of England, there are no identifiable generic service innovation related policies, although most Regional Development Agencies (RDAs) have cluster policies which include specific service sectors. These include software, digital content, medical and health, and creative industry sectors.

Over all the UK mapping indicates that there is rarely a generic ‘service’ focus in policies for innovation and internationalisation. However, an increasing emphasis on specific services sectors can be identified. There are also efforts seeking to conceptualise the ways in which services innovation may become better acknowledged in policy and statistics. There is likely to be more evaluation and restructuring of policy instruments in order to take account of ‘missing elements’ of services innovation and internationalisation. In particular this concerns the areas where there are seen to be shortfalls or major growth opportunities.

The following outlines some main developments that informants to the UK mapping study have suggested as being likely for the future. These include:

- Departments and agencies with innovation responsibilities (such as the DTI) are to pay more attention to aspects of innovation where service activity is neglected, or where many services’ approach is markedly different from that of other sectors. For instance, R&D is less important to many services, and this may mean (a) boosting awareness of R&D in services and (b) considering non-R&D mechanisms of innovation support such as knowledge transfer partnerships.
- Bodies concerned with what are predominantly service activities – notably the creative industries considered by DCMS and NESTA – are likely to continue to promote innovation in these sectors, and in liaising with programmes of innovation support elsewhere (for example the Technology Strategy Board (TSB), comprising mainly experienced business leaders) are likely to shape thinking and policy on services innovation more widely.
- Programme evaluation will be an important source of ideas for change, especially as it draws on concepts and analyses developed in the course of research into services innovation.
- Many regions will prioritise some services sectors and clusters more strongly among areas that require innovation support; given the variety of regional programmes and practices this will offer prospects for learning-by-comparing.

2.10 Baden-Wuerttemberg

Key Facts

The most important service industries in Baden-Wuerttemberg in terms of GDP contribution include: business-related services, trade, catering and transport, health care.

Services meanwhile account for more than 60 % of the GDP in 2005/2006. At the same time business services share of the GDP was 26%.

Key service innovation policy actors include:

- Governmental authorities, e.g. Ministry of Economic Affairs, Ministry of Science, Research & Arts
- commercial financial institutions and foundations
- Universities and Research Institutions, e.g. the Steinbeis Foundation, established by the Land Baden-Württemberg, with its – in all Germany – more than 400 centres for the support of knowledge and technology transfer between research and economy.

Traditionally largely SME-based processing industries have been of great importance in Baden-Württemberg. However, currently services account for more than 60 per cent of the gross value added. Services are increasingly important also in terms of employment in Baden-Württemberg. The economic and employment growth in

Baden-Württemberg and Germany as whole have for several years been based solely on the service sector. Within the service sector employment has risen most in business service providers (+ 44 %), and least in trade, catering and transport (+ 9 %). The great importance of business related services shows a close and complementary interrelationship between the industrial and the service sector. Of particular importance are: research and development (R&D), media, information and communication services as well as financial services, and consultancy.

Key actors of innovation system include governmental authorities, research establishments, knowledge institutions, as well as commercial financial institutions and foundations. The support of innovation is manifold and takes place by a number of governmental and administrative authorities of Baden-Württemberg including: the Ministry of Economic Affairs, the Ministry of Science, Research, and Art, the Ministry of Environmental Affairs, the Ministry of Food and Rural Areas because of its responsibility for agricultural research, and the Ministry of State. The Ministry of Economics of Baden-Württemberg reorganised the Service Economy Department as a part of the Ministry of Economic Affairs in the beginning of the year 2002. The purpose of the department is to identify unused potential for innovation, growth and employment in the service sector. Further on, the department will together with business organisations develop and support activities that help to realise these potentials.

The activities of service-related policies are bundled under the umbrella of the 'Baden-Wuerttemberg Services Offensive'. This umbrella also covers the activities for strengthening the banking and financing sector, and Baden-Wuerttemberg as a financial centre. Financing of medium-sized enterprises are closely linked with this on a technical and organisational level. In particular, the Services Offensive seeks to strengthen the integration of industry and innovative services that are closely related to manufacturing and business. It is supporting service enterprises in the development of new markets especially in the supra-regional and international contexts. Other focus areas include growth sectors in Baden-Wuerttemberg, especially leisure and event economy, health services, business services and household-related services. Current focus areas within the framework of the Services Offensive include:

- Support for the implementation of the EU Services Directive in Baden-Wuerttemberg,
- Technical assistance to the programme line 'Services Research' by the Landesstiftung (Land Foundation).
- Planning and organisation of the Service Provider Award 2008.
- Planning of follow-up events for the 'Export Initiative for the Service Industry'
- Joint project with the Chamber of Industry and Commerce of the Stuttgart Region: 'Outsourcing of Business Related Services'
- Household-related services project together with the Chamber of Industry and Commerce, utilising a database of household services and related image and qualification campaign
- Ministry of Economics call for attaching more importance to the service economy when planning the next funding period of the European Social Fund (ESF) 2007-2013.

2.11 Western Greece

Key facts

The most important service industries in the Region of Western Greece in terms of GDP contribution include: tourism, commerce, transport and logistics, information technology services.

The service sector makes up 63 % of the region's GDP, and 40.9% of the labour force is in the tertiary sector.

Key service innovation policy actors include:

National Level:

- Ministry of Development - (MoD)
 - MoD – General Secretariat for Research and Technology (GSRT)
 - MoD – General Secretariat for Industry
 - MoD – Special Secretariat for Competitiveness
- Ministry of Economy and Finance (MEF)
- Ministry of Education (MoE)

Regional Level

- Business Innovation Centre - Western Greece
- Patras Science Park
- Regional Higher education bodies and Research Institutions
- Centre for Local Development of Western Greece (KTADA)
- Institute for Development of Western Greece (INADE)
- Centre for Business and Technological Development (KETA)

Innovation has been recognized as a key to growth, but the role of service sector innovation has long been under appreciated. To some extent this is due to the difficulty of measuring innovation in the service sector that consists of a patchwork of different industries with significantly different innovation processes. Up to now, the service sector has not been specifically targeted by innovation policy measures that typically are sector neutral and address both services and manufacturing firms.

Western Greece stretches from the North-Western part of the Peloponnese to the western tip of the Greek mainland. The service sector makes up 63 % of the region's GDP, and 40.9% of the labour force is in the tertiary sector. Western Greece is an essential transport hub, which has led to an intense development of international sea transport and trade to and from its main port, Patras. The prospects for developing tourism and related Industry are also favourable. Overall, services role in the economy is expanding while agriculture and manufacturing are stagnant or even shrinking. The GDP per capita in the area is 53% of the EU average. Research activities (GERD) make up 0,6% of the GDP, 70% of research is funded by the Greek government and the EU. This context does not generate very favorable conditions for endogenous innovation. Traditionally research has been dominated by the public sector controlled universities which perform approximately half of the national RTD.

A general conclusion is that within the Region of Western Greece, there is room for development in terms supportive environment for innovation. Forthcoming initiatives and framework programmes seek to facilitate service innovation by aiming at the development of a favorable business and innovation environment. In terms of innovation policy measures, the mapping did not identify specific measures exclusively targeting services. This is significant as the regional (as well as national) economy is mostly service-based. Majority of the existing innovation measures do

not exclude services and the service sector in general, since they are sector neutral, without being biased towards manufacturing.

Supply-side measures include both financial supports and development services and the instruments seem to provide an integrated framework for innovation based growth. Most of the *regional policy measures* (with regard to volume and budget) focus on training and support for R&D activities. Regional measures, despite the fact these are quite few, also seem to be distributed across most categories, in a similar allocation scheme to that we find at the national level. On the national level supply-side measures cover effectively all categories described in the mapping template. These measures include: equity support, fiscal measures, support for public sector research, training and mobility supports, grants for industrial R&D, support services, and public sector procurement policies. These financial supports and innovation support services provide an integrated framework that can facilitate innovations and growth.

The policy mapping analysis did not identify specific policies aimed at *internationalization of services*. However, some aspects of the Investment Law and some INTERREG initiatives may be considered relevant under this heading.

Future policies are expected to place more emphasis on innovation at the regional level. Given the importance of the service sector in Western Greece Region the provision of specific service innovation measures seems to be a priority for national and regional innovation strategic planning.

2.12 Czech Republic

Key facts

The most important service industries in the Czech Republic in terms of GDP contribution include: commerce (NACE 51 and 52), tax advisory services, market and opinion poll research, business and management consultancy. In terms of GDP contribution, these services make up more than 50 % of the total value of the service sector

Services share of the GDP was around 42 % in 2004-05
At the same time business services share of the GDP was 8%

Key service innovation policy actors include:

- Ministry of Industry and Trade (MIT)
- Ministry for Education, Youth and Sports (MEYS)
- Czechinvest - Investment and Business Development Agency
- CzechInvest' regional office (RO I – III)
- Technology Centre (of the Czech Academy of Sciences) which plays few important roles in the R&D and innovation system; TC AV is funded mainly by the MEYS.

High level policy documents have recognised the important role of services and related innovations. Operational Programme Industry and Business 2004-06, pays particular attention to business consulting services. Regional advisory services are recognised as a powerful tool for business support, in particular in the case of SMEs. Consulting services are expected to be engaged in improving knowledge transfer and cluster development. Operational Programme Business and Innovations 2007-13 recognises under developed business services as a factor that can hamper economic growth in the Czech Republic. The problem is particularly important in the case of SMEs that would benefit most from such external services. Other key documents addressing service innovation are listed bellow:

- National Innovation Strategy
- National Innovation Policy (2005 – 2010)
- National R&D Policy (2004 – 2008)
- Innovation Concept for the Business Sector (2005 – 2010)
- Regional Innovation Strategies (it has been worked out in nearly all of 14 Czech regions)
- Operational Programme Industry and Business (2004 – 2006)
- R&D programmes,

Importance of innovation in the service sector has been identified in the high-level policy documents. For the time being, only few specific measures have been established. Investment incentives represent a specific measure that has attracted many investors to the Czech Republic, mainly because of the relatively low labour costs. Benefits for the national economy tended to be short-term in nature. The new initiative seeks to improve the short-term character of the instrument by extending the incentives to Technology Centers and Centers of Strategic Services. Services with higher value added are now supported by tax release and state aid for personnel training. Since 2002, 90 new Centers have benefited from this instrument and the amount of money invested by private investors (mainly foreign ones) is around 500 million Euros.

Supply-side measures that are targeting services related innovation. In general, all such measures are available for services businesses as well as for the manufacturing businesses. There are a very limited number of measures aiming at service innovation in particular. Dedicated service R&D and innovation programmes include:

- Targeted Programme “Information Society
- Investment incentives for Technology Centers and Centers of Strategic Services
- Fiscal measures, businesses are entitled to tax deduction based on their R&D activities since January 2005.

Public procurement seeking to stimulate innovative products and services development. The first steps have been taken in utilizing the EC initiative on public procurement.

Policies supporting internationalisation of services are seeking to attract inward investments. These investment incentives have been extended so that they can benefit businesses that invest into Technology Centers and Strategic Services Centers. Regulation related ‘competition’ is based on favourable regional conditions such as low level of costs and good availability of competent human resources. Some service organizations benefited from this opportunity and built their new facility in those locations.

Framework conditions for service innovation include policy such as Human Resources Development programme provides opportunities for life long learning. This programme can improve the availability of skilled labour that is crucial in the case of innovative services. Based on the structural funds the programme Education and Competition extends life long learning measure to the period 2007-13. R&D for Innovation programme 2007-13 changes substantially the Czech R&D map emphasizing the role of regional R&D activities as a way to support the regional development. Regulatory framework, state aid in the R&D and innovation will have to comply with the new regulatory framework of the EU and this may create new opportunities for service innovation promotion.

Horizontal policies are not explicit in this field in the Czech Republic. Nevertheless, embryonic policies could be identified from the policy documents. Strategic development programmes are the most relevant ones. One of the positive outcomes is the public administration reform that will give more responsibility for regional and municipal development projects.

Future policy measures include some new service innovation related instruments are under preparation under the EU structural funds. These include utilization of ICT in businesses, R&D and innovation support, consultancy, and IPR protection. Also public procurement is seen as a powerful tool to promote services innovation in the future.

3 Thematic analysis of the mapping study material

This chapter will report the key findings from the individual mapping studies. At first, service innovation policy related strategic issues are highlighted. This perspective is followed by a review of different types of policies (supply-side and demand-side) and other measures reported by the respondent countries and regions. Other themes, such as horizontal policies and internationalisation of services will also be addressed. Finally, the chapter will discuss a range of specific issues that arose from the mapping studies. In the explorative analysis the empirical findings will guide the discussion, rather than the strictly pre-determined common themes. Overall, the range of issues which were discovered is very broad and heterogeneous which partly reflects the early development stage of service innovation policy; partly this is related to the heterogeneous nature of the services sector itself.

3.1 There is a need to develop long-term strategy for services and service innovation

Policy actors increasingly acknowledge that service sector development covers such a large section of the economy that it requires long-term development efforts. For instance, in the knowledge economy availability of skilled labour is critical for many essential services. In fact, supply of skilled personnel is critical for both traditional and knowledge intensive services. Education and training institutions are mainly responsible for the supply of skilled labour. However, adjustments to education and training systems take time and long-term strategic thinking is crucial in this area. As one of the driving forces of service development, training and education offers a fertile field for transnational cooperation.

In addition to education and training, services development is closely related to such enterprise level issues as market strategies, service process development, organisational development and structural economic conditions. It will take some time to develop effective ways to deliver service innovation policy effectively in all these areas. At present, the important role of service innovation is still mainly reflected at the policy rhetoric while the actual policy measures and their implementation remain often fairly ineffective.

The policy mapping studies indicate, however, that services are now part of the innovation policy agenda. There are a number of arguments highlighting services' prominent position in the economy in most of the IPPS participant countries. These include:

- Services' dominant share of the GDP and employment, making any significant economic growth and productivity improvement highly dependent on service innovation.
- Services' growing role across the industries, also in the traditional manufacturing context, as a driver for competitiveness and revenue source.
- ICT alone enables continuous flow of innovations but the realisation of their full potential requires also service innovations and novel organisational forms.

- Services' tradability has been growing creating more potential for economic growth.
- EU, OECD and research institutes are accumulating research-based evidence on service innovation and services' role in innovation. This is encouraging policy makers to take action in the area.
- Knowledge intensive service activities have significant role within the innovation system as enablers of knowledge flows at the system level; between and within the actors. Knowledge intensive service businesses represent commercial enterprises that act as carriers, sources, and catalysers of innovations as well as innovators at their own right.
- EU Services Directive is pushing forward reforms that aim at common markets for services. Such large and competitive markets harness services growth and innovation potential.

Overall, the awareness of service innovation has increased among policy makers. As the first step we can recognise this in the policy rhetoric emphasizing the importance of service innovation. However, it is a long way from the positive policy rhetoric to a deeper understanding of service innovation throughout the governments. This understanding is the basis upon which the effective implementation of service innovation policy can be based on.

3.2 Service innovation policy needs to be build on horizontal policy approach and coordination between the actors

Service innovation is a multi-dimensional phenomenon. Its novelty can be based on the business model, organisational arrangements, customer interface as well as on technology. From a policy point of view such a complex phenomenon needs to be tackled by a range of coordinated measures covering both short-term and longer-term development needs. Relevant policy fields include research and development, technology development, education, training and skills development, competitive environment development, enterprise development and internationalisation. Hence, service innovation policy is not an isolated phenomenon. It requires recognition across the public administration and various interest groups.

At present the innovation policy design and implementation is often fragmented within governments and between different actors such as businesses, R&D institutions and other stakeholders. Innovation policy measures that are not sector specific but are assumed to benefit also services need particular attention in order to become effective for the promotion of service innovation. This requires wide-spread knowledge on service innovation and measures for an improved coordination within a multilevel governance structures. Taking this into account, joint transnational activities could be most useful in raising public awareness of the importance of service related innovation. We should communicate effectively to a wider audience the specific nature of service innovation and ways to promote innovation in services. Striving service innovation requires systematic development (e.g., Service Engineering), benchmarking and development of qualifications and competencies. These determinants of service innovation need to be equally targeted by research, development and innovation promotion as by the other fields of innovation.

The heterogeneous nature of services sector is another factor that calls for horizontal policy approach. For instance in the UK, creative industries are being supported by the Department for Culture, Media and Sports that has close linkages with these industries. At the same time, the Department of Trade and Industry has the overall responsibility of innovation policy, most service industries included.

3.3 Balanced mix of broad based service innovation policy involving both supply and demand-side measures

Supply side measures dominate the innovation policy in general and the same applies to service specific innovation measures. Financial measures such as equity support, fiscal measures, support for public sector research, support for training and mobility as well as grants for industrial R&D were all mentioned in the country reports, even though mostly not specifically targeted at services but in principle available to support innovation in services. The same applies to governmental services such as information brokerage and support as well as networking measures.

Those innovation policy measures that were explicitly targeted at services were few and far between; the main ones being 'SERVE' technology programme in Finland and German 'Innovation with Services' R&D programme and the High-tech Strategy. As relatively recent initiatives there is little evaluation-based knowledge available on the take up and impacts of these policy measures. Further on, even service specific innovation policy instruments tend to be based on technology policy instruments and processes. Considering the afore-mentioned, it is clear that there is still plenty of room for systematic development and evaluation of the service innovation policy. The existing 'piloting' activities are most valuable as they produce new practical knowledge and offer opportunities for good practice exchange and benchmarking.

3.3.1 Framework policies will have a significant influence on the service innovation related policies

Overall, competition policies and regulation bear strong direct and indirect influence on the services innovation. For instance, environmental regulation may create significant demand for various types of expert services and innovative solutions. Also the implementation of services directive will affect regulation in member states. Especially the requirements to offer information to overseas service firms will in practice mean an extra impulse for E-government, smarter and less complex regulation and internationalisation. All this will create further scope for service innovation.

3.3.2 The use of demand-side measures in innovation policy is still limited in nature

Demand-side policy measures seek to increase either the motivation or the likely success of innovation by acting upon the demand side issues, that is the specification and purchase of innovative goods and services. Ideally, demand-side policies focus on areas and markets that industry itself has already identified as critical to its future. Thus it is the market forces that will drive innovation forward. In the mapping studies such measures are still very much in minor role in the innovation policy. Existing demand side policies can be presented in three main groupings:

- Systemic policies which include cluster policies and supply chain policies
- Regulation, for example, the use of regulations and standards to set innovation targets and technology platforms to co-ordinate the development
- Procurement initiatives such as:
 - R&D procurement
 - public procurement of innovative goods, and
 - support for private procurement

Just to name a few examples, Netherlands has launched a number of demand-side measures that can also benefit services. These include Creative challenge call, ICT in Societal Sectors, Netherlands ICT research and innovation authority, Innovation vouchers, Small Business innovation research programme, Piano and innovative procurement. All these measures are reported as demand-drive policy activities. The two first mentioned ones are service specific policy measures. In Finland demand-side measures are also being developed, such as public sector procurement of innovative goods and services. Procurement of R&D services is an on-going service innovation measure and more procurement related activities are being planned. The Domestic Help Credit programme encourages consumers to purchase domestic services from outsiders. According to Finnish Tax administration, tax credit for domestic help continues to be very popular. In Sweden, the government is planning to outsource some public sectors services, thus creating demand for new and innovative services. Sweden has also launched tax reductions for households to buy domestic services. In Ireland innovation voucher scheme was launched in March 2007. It is available to traded and non-traded services. Early indications show a significant take-up of this policy measure.

On the demand-side service innovation policy is taking its first steps, even much more so than in the case of supply-side measures. Clearly, there is a lot of room for further development where Member States could support each other, not forgetting the important role that the EU Commission can have in the promotion of demand-side service innovation measures. At the same time, the concept of demand-side policy is not very well known and it seems that respondents may not recognise all those demand-side policy initiatives that already exist. Such measures may include regulation related changes, cluster and other systemic policies and demand-side measures in connection with regional development initiatives.

3.4 Developing service innovation policies by adjusting existing policies or by introducing new policy measures?

There seems to be two main ways to deliver service innovation policy measures: a) by developing existing policy measures to better accommodate services related innovation and b) by introducing new policy measures specifically targeting service innovation.

For the policy makers, the development of existing policy measures offers a relatively fast option to address service innovation on a wide front. However, R&D and innovation policy measures that are not service specific are often somewhat technology biased and not ideal for the promotion of service innovation projects. This is because until now language, evaluation procedures, funding criteria and skills

have mainly been developed around technological issues rather than service innovation. To be effective, existing policy measures need to be carefully evaluated and restructured so that they can become policy instruments that take account of 'missing elements' of services innovation. In the future, programme evaluation will be an important source of ideas for service innovation policy development. In particular, those evaluations can draw on concepts and analyses developed in the course of research into services innovation. Specific service innovation policies can benefit from the fact that they have a fresh start without the burden of technology-laden language, selection criteria and other practices. The issue here is that it is always more challenging to introduce new types of policy measures than rely on the existing ones.

The large number of existing instruments and other institutional barriers may be slowing down the development of new service innovation policy instruments. In many instances innovation policy scene is already quite crowded and there is limited room for introducing new policy measures. The danger is that the innovation governance system gets overly complicated and the transaction costs of using the measures become prohibitive from the business point of view. This situation may limit the introduction of new policy measures targeting at service innovation. On the contrary, it can be expected that there will be wide-spread efforts to streamline the number and nature of innovation policy measures. This will create opportunities as well as challenges for service innovation policy. As new major innovation policy openings are being introduced, services can and should have a clear role in the novel initiatives. To summarise, there are many arguments against a separate service innovation policy. At the same time, it is important that service innovation will have a prominent role and clear profile and it will be developed as an integral part of the broad based innovation policy.

3.4.1 Service exports and globalisation as drivers of innovation

International trade in services has expanded in a number of business fields and there is a lot of potential for further growth, international specialisation and more effective international division of labour. Hence, it is important to set policy focus on issues that can secure service enterprises success in today's global world. For instance, such focus areas include taxes, freedom of trade, investment controls, interaction with institutes of higher education and access to new technology. Business and employment growth in services is supported by the EU Services Directive which highlights the internationalisation of services as one cornerstone of the EU strategy.

3.4.2 Public-private partnerships as a vehicle to develop service innovation policy measures

Public-private partnerships create a platform for interaction that can play a key role in the development of service innovation policy measures. For instance, voluntary associations that host key decision makers in various fields of the society can be very influential. The aim of such associations could be strengthening of service innovation policy. In practice they could promote service innovation agenda and develop new ideas and recommendations for policy actions. Public procurement practices represent another important way to foster the development of innovative services. Although public procurement can be a tool to initiate service innovation, it is not guaranteeing a

sustainable demand for innovation. Furthermore, public procurement represents a top-down-strategy that may create technological path dependencies, instead of creating open technological passages. However, public procurement is clearly a developing area and its potential impacts require further examination.

3.5 Regional policy and cluster policies are often linked with service related innovation policies

The Swedish report highlights the important role that regional actors may play in the service innovation policy. In Sweden regional policy activities dominate the business services development whereas the public sector has the dominant role in the development of public sector services. In the regional context ‘cluster’-type activities are quite common. They can be relevant to specific classes of services such as tourism, financial services or digital content. Many regional actors have cluster policies which include specific service sectors. These include software, digital content, medical and health and creative industry sectors. Scottish Enterprise has also identified service sectors among its priorities and has produced, for instance, an Innovation Toolkit for the tourism sector. In many cases de-industrialisation characterises structural changes of the economy in regions. As a result, also cluster type policies and other innovation support will be more and more targeted towards dominant industries such as services.

3.5.1 Service innovation policy needs to be adapted to its socio-economic context and services industries profile of the area

It is clear that many service innovation policy measures cannot be directly transplanted across the European Community, for instance, those measures that address structural development of the economy. This can create barriers for some joint transnational activities; at the same time it emphasizes the need for information and good practices exchange.

Baden-Württemberg and Western Greece provide a good example of regional variations that service innovation policy needs to address. Baden-Württemberg is among the most innovative regions with high level of private R&D investments and growing knowledge intensive services sector supporting the regions’ strong high technology industry sector. At the same time, Western Greece is a region where more traditional services such as transport, trade and tourism play an important role in the economy. In terms of economic development and R&D investments, the region is way below the EU average¹¹. In Western Greece there are no service specific innovation policies, although the existing measures are open for all types of enterprises. In such a situation there is scope for regionally tailored service innovation policies that reflect the economic profile of the region. However, due to the centralised nature of the policy system, Western Greece has to make use of the national level instruments. This leaves limited space for the regional tailoring of service innovation policy measures. Yet, tailored innovation and service development policies could potentially trigger significant growth and economic development in the

¹¹ Yet, GDP per capita in the Western Greece is 53% of the EU average, research activities (GERD) make up 0,6% of the GDP, and 70% of research is funded by the Greek government and the EU.

area. Overall, service sector characteristics vary to a great degree between regions and member states. This has to be carefully recognised when institutional set-up, mechanisms and instruments in of service related innovation policy are being developed in line with the EU policies and practices. To achieve the desired results, sufficient attention needs to be paid to the socio-economic framework to which the new policies and instruments are being transferred.

4 Conclusions of the IPPS project

The following section will present conclusions that have been achieved during the course of the work carried out in the project. These conclusions are based both on the mapping studies that have been implemented as part of the project and on the work conducted by the Expert Focus Group that was established at the beginning of the project. The work of Expert Focus Group has been described in Chapter 1.2 and the summary of the mapping studies can be found in Chapter 2 of the report. Individual mapping studies are available through the Tekes extranet <http://akseli.tekes.fi/opencms/opencms/OhjelmaPortaali/ohjelmat/Serve/en/etusivu.html> or the PRO INNO Europe website <http://www.proinno-europe.eu/>. This section follows the template provided by the Commission which means that the headings and the content of the section are given.

4.1 Identification of a challenge and the benefit of trans-national cooperation to address it

The starting point of the IPPS project has been the fact that services represent highly dynamic and central element of the contemporary economy. There is substantial evidence that not only services are central to the production, transportation and consumption of goods but they often serve as engines for innovation and growth in their own right. Service activities are significant all industries: to traditional service sector but also to manufacturing companies which are transforming towards service businesses.

In this context, service innovation is a stimulant for innovation generally. It represents an investment in intangibles and knowledge that are key factors for growth and competitiveness of the European economy. Boosting innovation in services is a central element when dealing with competitiveness and economic performance of the European Union.

Policy makers in different Member States are facing a number of challenges that need to be tackled in order to meet, for example, the ambitious targets of the Lisbon agenda. Achieving these challenges is to a great extent dependent on the innovativeness and economic performance of services; of service sector as such and of service business development within manufacturing companies. There is a clear need to develop innovation policy both at national and European levels that would better support service businesses and in that way increase the competitiveness and performance of the European economy. The opening of internal markets for services is also creating both motivation and opportunities to increase the economic performance of services at the regional, national and European Union level.

During the course of the work of the IPPS project, a rather complex set of issues has been identified in relation to services related innovation policies and activities. These issues have been described in the mapping studies and they include, for example, heterogeneous nature of service activities, multidimensional character of service innovation, unique characteristics of R&D in services and the set of skills that are needed in innovative service organisations. On top of this, the mapping studies point out that the member states portray a great variety of services in terms of economic

development and sector compositions. Member states are at very different stages in the transformation process towards service driven economy and this poses challenges to integration and cohesion of the European Union as an entity.

The main challenge that has been identified in the IPPS project is that, for the moment, EU member states are going through a transitional period where the mindset has not yet fully adjusted to the requirements and potential of the services related innovation. The development of innovation policy and activities targeted at services is still at an early phase and the national and regional innovation systems are only slowly adapting to the new service paradigm. Most national and regional actors in Europe are only beginning to implement policies, activities and programmes supporting specifically service innovation and there are not any European activities in this field so far. Thus there is a clear, identified need and - at the same time - also an opportunity to establish an efficient trans-national policy design, learning and implementation process in the given field. Such a process would benefit all member states and also the EU as an entity.

The most effective way towards a new, broad-based innovation policy that recognises also services related innovation would be a trans-national learning process that consolidates the experience and good practices developed by national and regional level actors. It has been recognised in the course of the IPPS project that development of a service innovation policy includes significant challenges. Regional and national innovation policy actors, despite their socio-economic context, are facing a steep learning curve in developing their service innovation policy approach. Trans-national cooperation, such as strategic level collaboration, could contribute to the development. This type of collaboration could effectively leverage the experience of individual member states and regions to the wider audience.

The added value of trans-national cooperation is related to several issues. Firstly, it can facilitate the faster adoption of effective service innovation policy measures and provide support for the member state from the wider international community. Secondly, the added value comes through the creation of common understanding of services: their heterogeneous nature, innovation mechanisms and economic dynamics. Once the common understanding exists, it will be easier to target policies and to create necessary tools that support development of internationally competitive and high-performing services. In that way the European Union as an entity can emerge as more competitive and better prepared for global competition.

4.2 Type of activities to be developed at trans-national level

In order to meet the challenge identified in the IPPS project, there is a need for a broad-based service innovation policy covering all relevant aspects crucial for the progress in the area. In the longer-term, the goal should be an effective and balanced innovation policy which is industry neutral in nature. There is a need for a more balanced innovation policy that is independent of the scope and sector of the business as such and supports and accelerates the development of fast-growers and first-comers in any industry. There is also a need for a more balanced mix of innovation policy utilising both demand- and supply-side measures in service innovation promotion. However, before this goal will be achieved, there are some specific activities that need to be taken at policy-, strategic-, and operational levels.

For instance, the understanding of service innovation issues is still rather limited. Common terminology in the area needs to be established and policy design needs to be sensitive to the heterogeneous nature of service activities. Most of all, there is still a lot to be learned on the research, development and innovation activities of services. Services production and consumption are constantly evolving and the patterns of such dynamic phenomenon need to be better understood. Trans-national co-operation in terms of research, policy and indicator development are essential in tackling this type of challenges.

While some new policy measures need to be introduced, it is equally important to adjust existing policies so that they cater the needs of different industries and service activities effectively. A division of labour is needed between regional, national and EU level policies. Finally, framework policies (e.g. competition policy and regulation) have a significant influence on the service innovation and they represent the necessary basis for the development of other policies.

The main finding of the IPPS project is that to achieve these challenging goals, there is a need for broad-based trans-national collaboration in the field of service innovation. Such a broad-based approach should include both policy, strategic and operational level activities that would help

- to exchange ideas, information and best practices between member states and regions and therefore accelerate the learning process in the identified field,
- to create common language and understanding in the area of service innovation,
- to encourage the development of necessary policy toolboxes and measures in the identified field and
- to start a mind-set change that is required in order to recognise services as a powerful economic force in the contemporary and future European Union.

The possible trans-national activities that have been identified in the course of the project include such as:

- Establishing a Think-Tank that will be engaged in strategic level discussions and agenda development for service innovation policy. Such a think-tank would function as a driving force for the mind-set change and service innovation policy development and help to develop common language and understanding of services related innovation. It could include representatives from Ministries, innovation agencies, industry, trade organisations, Commission and other experts.
- Identifying industry and other needs for policy toolbox development in the field of service innovation.
- Raising public awareness and appreciation of services through a European “Services Award”.
- Organising joint calls and other joint activities for European level research in the field of service innovation. Several topics for joint calls and actions have been identified in the mapping studies implemented in the IPPS project. These should, however, be further prioritised and developed.
- Developing a good practice and information sharing platforms for service innovation policy actors. Such platforms could address the afore-mentioned challenges of service innovation policy development, e.g., heterogeneous

nature of services, multidimensional character of service innovation, and the unique characteristics of R&D in services. Templates could address the design, delivery and evaluation elements of the policy.

- Sharing knowledge through international workshops where the latest information is provided on service innovation policy developments.
- A policy-oriented conference has proved to be a useful platform for knowledge sharing and promotion of service innovation agenda. Such conference has already been hosted by Norway and Finland and the third conference will take place in Dublin in 7 -8 November 2007.

As the main conclusion of the project it can be argued that the most relevant way towards the identified challenge is to start a broad-based project that includes all levels mentioned above. This kind of broad-based approach was deemed necessary by the Expert Focus Group because of the importance of the subject and multifaceted nature of the service innovation. Due to the early development phase of the service related innovation policy, there is also a clear need to continue the exchange of information and best practices between member states and regions. However, in order to achieve the ultimate goal there is a need for more concrete activities, too.

Without such a coordinated effort, Europe would easily lose momentum in achieving its competitiveness targets. A coordinated effort as suggested here would function as an important catalyst for action and also bring clear European added value. It is precisely because of the early stage of development why spontaneous solutions are not likely to emerge.

A possible barrier to transnational cooperation identified during the project is a danger of initiating too rigid forms of cooperation. A flexible approach to transnational cooperation would be necessary to achieve the versatile goals which the development of services innovation involves and to take into account the different stages the Member States and regions are in. It was also felt that transnational cooperation in the form of innovation programme cooperation would be premature since there are no services related innovation programmes yet in place with the exception of Germany and Finland.

To summarise, there is a need to create a think tank that functions as a driving force for change at the strategic level. At the same time there should be activities advancing the development in the operational level, for example in relation to tools and methods needed for boosting service innovation. The strategic and operational levels need to go hand in hand in order to achieve the competitive edge in this field.

4.3 Potential actors to drive the agenda for transnational cooperation further

One of the greatest success factors of the IPPS project has been successful identification of potential partners and networking. The Expert Focus Group which was established at the beginning of the project involves exactly those members who are responsible for service related innovation policy and programme development in their own countries and regions. Above all, the members of the Expert Focus Group have been highly committed to the project from the start.

There is a clear interest among the IPPS Expert Group Members to continue co-operation in the identified field. Expert Group Members have showed strong commitment to the work during the project by attending all the three workshops at their own cost and also contributing to the work between the meetings. On the basis of the Expert Group meetings and informal discussions it seems that most members think the work in this area is important and should be carried further. The Expert Group Members are interested in both multi-lateral and bi-lateral co-operation.

There is evidence that Expert Focus Group members are interested in a broad-based approach where both strategic and operational activities are combined. The Expert Focus Group members are committed to prepare future activities together in this scope. What speaks for the commitment is the willingness of the group members to meet also after the IPPS project will be finished in August 2007.

Tekes, the coordinator of the IPPS project, is also highly committed to make progress in the field of service innovation both at the national and trans-national level. Together with the Ministry of Trade and Industry, Tekes has played a key role in the systematic development of service innovation related policies and programmes in the Finnish and international contexts. Already since 1999, Tekes has developed its own organisation, strategy, programmes, instruments and financing criteria to support service innovation development more effectively. In 2006, Tekes launched a five year long national technology programme “Serve” that focuses upon service innovations. The budget of the programme is 100 million euros. In the international scene, Finland and Tekes have been the lead coordinators together with Australia in the OECD KISA-project 2002 – 2006. In this project, 11 participating countries conducted around 20 studies on the role of *Knowledge intensive services activities* (KISA).

4.4 Funding instruments to implement the proposed action

One of the aims of the IPPS project was to make a well-grounded go/no go-decision on setting up an INNO-Net in the area of service innovation and prepare for the upcoming INNO-Net if a go decision is taken. Because the INNO-Net instrument itself is still in the process of development and since the next call will not take place until the end of 2008, definitive go-decision cannot be made yet. As was already mentioned in the previous chapter, there is, however, a clear interest among the IPPS Expert Group members to continue co-operation in the service innovation field.

During the IPPS project, several financing alternatives have been recognised and discussed as possible candidates for the continuation of the work. Thus there exist several options for funding the proposed broad-based action. If the aim is to achieve European level results in the area of service innovation, the best solution would be to get financial support from the Commission, for example, from the DG Enterprise or DG Research. It would also be possible to gain progress through multi-lateral co-operation that would be co-funded by the interested national actors. There are some Member States that would be interested to carry on the work in this field at their own cost. However, in this way the dissemination of results would not be European wide.

One funding option is offered by the future INNO-Net call under the PRO INNO Europe. In a “three star” INNO-Net the suggested broad-based agenda could be developed to advance the development of service related innovation policy and

activities. Here it would be possible to combine policy, strategic and operational activities and include knowledge sharing, think tank activities as well as joint operational activities at different levels. A “three star” INNO-Net is an instrument which would make it possible to take the “jump” to the next level in a European level service innovation policy and trans-national activities. A weak point of the INNO-Net instrument is the timetable since the next call will not take place until the end of 2008.

Another possible funding instrument is offered by PRO INNO Europe policy toolboxes. Under this instrument, some practical tools for service innovation development could be developed according to the identified needs. However, on the basis of the findings of IPSS project, policy toolboxes should be seen only as additional instruments to the broad-based INNO-Net. They would not stand alone since the whole field of service innovation is still at the very beginning of its development and the detailed and very practical projects could easily lead us “missing the point” in the overall agenda. There is a clear, identified need to further clarify the strategic issues (like common language and understanding) and this work cannot be carried out under the Policy toolboxes instrument.

It is also possible that some additional funding instruments could be found under Europe INNOVA (for example the European Innovation Platform for KIS). These could support the aims of a broad-based approach but would have to be seen as complementary in a similar way as toolboxes.

As was already mentioned earlier, national funding could also be used either to complement the Commission funding or to form the basis for funding. However, if national funding is selected as the only form of financing, the European wide impacts would then be harder to achieve.

Other possible funding instruments identified and discussed during the IPSS project are ERA-Nets and COST. ERA-Nets which aim at developing and strengthening the coordination of national and regional research programmes might offer one possible option for funding. The DG Research has shown recently an increasing interest in services, for example by establishing a Working group on R&D in Services under the CREST. The CREST project focuses on policy measures that seek to strengthen and activate R&D in services in firms, research institutions and other organisations. The results will be compiled into a report that will be presented to the CREST in the late 2007. The countries involved in the CREST working group have found the work useful. COST, on the other hand, offers an instrument that could also be used for networking and strategic co-operation in the area of service innovation. COST, the European Cooperation in Science and Technology, will continue to be managed by the European Science Foundation (ESF) under the Seventh Framework Programme (FP7). The bigger budget will allow COST to expand its activities and boost support for the COST Actions (networks of researchers). COST Actions cover basic and pre-competitive research as well as activities of public utility.

4.5 Leveraging the impact of the proposed action

The European added value of the proposed action is that it would correspond to an urgent and largely unsatisfied European need. A broad-based approach, funded by the

Commission, could be a key trigger that encourages further development in this field both at national and European level.

The broad-based approach as suggested here would be nicely complemented by the other initiatives like PRO INNO Europe policy toolboxes and the recent Europe INNOVA call on the European Innovation Platform for KIS. All these initiatives would be supportive to each other in such a way that unnecessary overlaps are eliminated while at the same time the greatest possible impact would be achieved. The broad-based approach would guarantee the widest possible dissemination of results at all levels – at regional, national and European level.

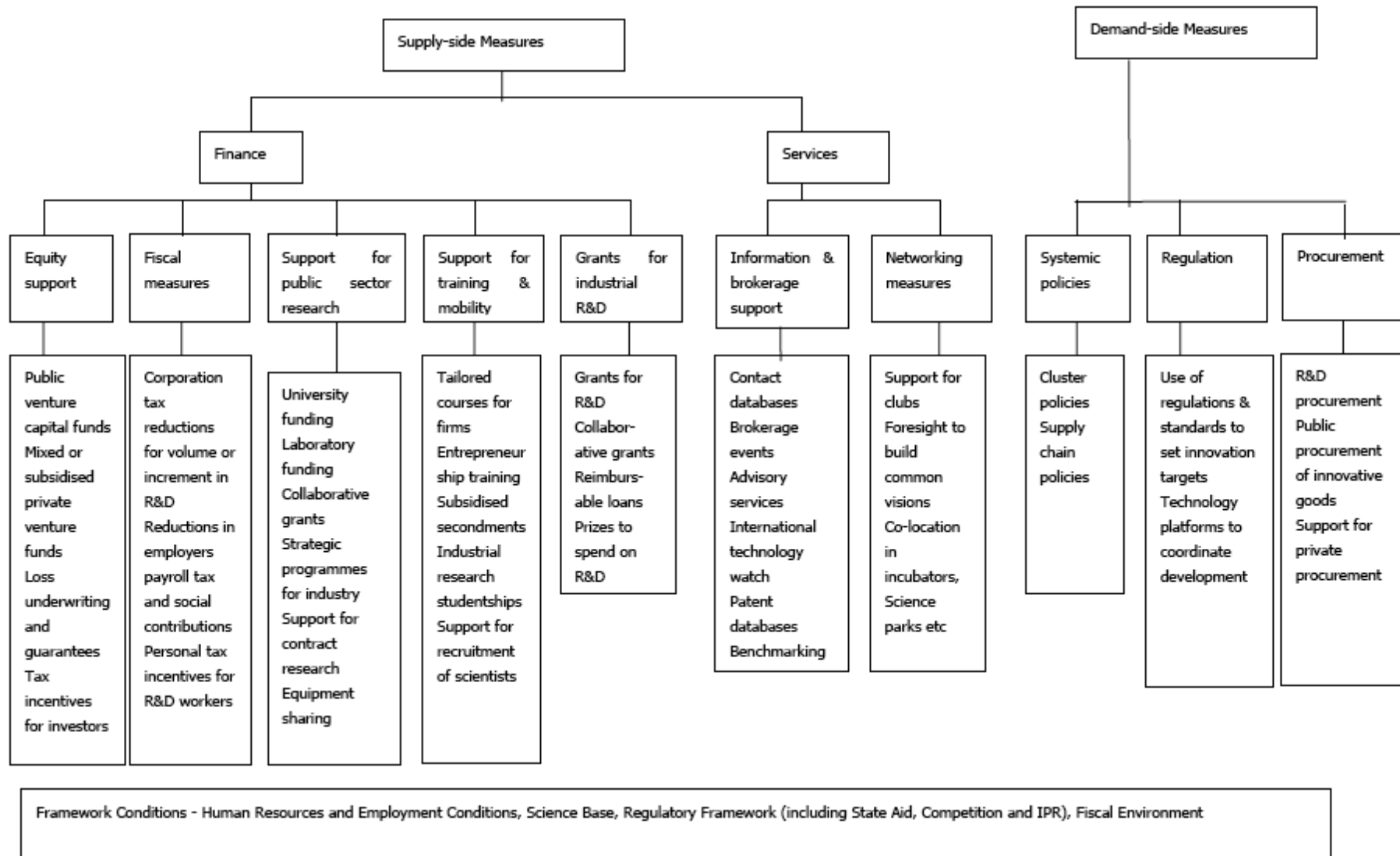
The potential impact of broad-based activities can be realised through a number of results affecting concrete activities as well as the process of formulating service innovation policy. The proposed action can:

- Consolidate the experience and good practices developed by the participants.
- Improve and enhance trans-national and trans-regional co-operation in service innovation policies.
- Initiate concrete trans-European activities in the service innovation field.
- Contribute to the economic performance and competitiveness of the member states and the European Union.

The development of joint strategies and goals for priority policy areas will help to direct the collaborative work of Ministries and innovation agencies in developing effective service innovation policy measures. By producing policy analysis and benchmarks, the proposed action will inspire and inform service innovation policy development. Sharing of good practice between policy practitioners and key stakeholders will help all parties in improving their understanding and competencies in the area of service innovation policy. Concrete European cooperation in the area of service innovation policy is also linked to many other areas of policy development and related support actions. In addition to service innovation policy itself, other potential areas for knowledge sharing include development of balanced broad based innovation policy (supply- and demand side policies), horizontal policy approach and policy coordination. Trans-national activities will lead to a common understanding of the specific circumstances in the participating Member States and their implications for common policy response. This can result in a commitment to strong European partnership.

The proposed action will also have wider impacts on the economic performance and competitiveness of the European Union. Therefore it would benefit the economies of the member states and the European Union as a whole.

Appendix 1



Source: Georghiou, L. (2006). Effective innovation policies for Europe – the missing demand-side, contribution to the project Globalisation Challenges for Europe and Finland organised by the Secretariat of the Economic Council, Prime Ministers Office, Helsinki, Finland.