

ServINNo

Service innovation in
the Nordic countries:
Key Factors for
Policy Design

Mapping Service Innovation Policy in the Nordic Countries*

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Executive Summary

Over the recent years, 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 creates a need for joint efforts to carry out research and development activities aiming at effective service innovation policy. This NICE project, Service Innovation in the Nordic Countries (ServINNo), is one example of such activity.

This report provides an examination of service innovation policies in the Nordic countries based on mapping studies carried out by five institutions from Denmark, Finland, Iceland, Norway and Sweden. The synthesis analyses mapping study data that covers 11 countries, including both the Nordic and other EU countries. The results of these country / regional studies have been reported also individually, see details from Chapter 2 and 3 of this report¹. The key findings from the individual mapping studies are reported in chapter 4. Here the findings are organised under the major themes that emerged from the material. These themes emphasize the following issues:

- Long-term strategic approach in service innovation policy development
- There is a need for horizontal policy approach and coordination between different policy levels as well as between policy actors. In some countries innovation system has gone through structural changes in order to facilitate better policy coordination.
- Service innovation policy is hampered on the one hand by lack of information and data on how service firms innovate and on the other hand by a lack of awareness of the part of service firms of what policy measures are actually available.
- 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 rather under represented in the innovation policy.
- Framework policies will have a significant influence on service innovation policy
- The evolving service innovation policy is likely to make use of existing policies adjusted to cater service innovation, and also a range of new types of initiatives can be seen to emerge in this policy area.
- Service exports and globalisation will act as drivers that policies need to reflect. Also public-private partnerships are likely to play an important role in service innovation policy.
- Regional policies and cluster policies can 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 5 presents concluding comments.

¹ Some of the individual mapping studies can be found on <http://www.proinno-europe.eu/>. Mapping studies for Denmark and Iceland can be found on the ServINNo project website (<http://www.cfa.au.dk/SERVINNO/Servinno.htm>) along with links to studies for the other Nordic countries.

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1 Introduction

This research report provides a synthesis of the 11 service innovation policy mapping studies². The general purpose of the document is to analyse and disseminate information on the current state of the service innovation policy. The target audiences include researchers, policy makers and various service innovation policy stakeholders.

This research paper has two more specific objectives. First, it seeks to advance the knowledge on innovation policies targeted at service related innovations. Secondly, it seeks to offer up-to date information for the policy makers on the challenges and opportunities related to service innovation policy design and delivery by:

- Identifying and gathering information on the key European actors in the area of service innovation policy
- Analyzing the strategic and policy issues in the service innovation policy context
- Highlighting the on-going processes that influence the development of service innovation policy
- Suggesting some options for service innovation policy development in the future

The main methods used in this work are semi-structured interviews and a review of the existing research in the area and other relevant documents. Interviews were carried out by: Katja Hydle, SINTEF, for Norway; Elva Aðalsteinsdóttir, RANNIS, for Iceland; Jari Kuusisto, SC Research, for Finland; and Carter Bloch, CFA, for Denmark.

1.1 Service innovation policy rationale

The interest towards service innovation policy has been growing together with the economic significance of services. At the same time service related policies have remained relatively under developed. 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, in general, service-sector firms have not been very active participants in the government-sponsored innovation programmes. There are several key 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 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 more implicitly focussed on supporting technological R&D and technological innovation in mostly manufacturing firms. However, the importance of

² The empirical was collected in two studies that followed closely related research agenda, Innovation Policy Project in Services (IPPS, a preparatory SSA Inno-Net project by the DG Enterprise) and by the Nordic Innovation Centre (NICe) ServINNo project.

services, services R&D and service innovation for economic growth and employment are increasingly recognised. Although non-technological innovation is driven by much wider range of factors than classical R&D alone, also R&D is relevant in many service firms.

From a policy point of view, the above does not automatically justify designing and implementing dedicated services R&D and innovation schemes³. 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 more detailed policy rationale discussion, the following issues have been brought up by the recent literature⁴:

- Service innovation is a stimulant for innovation generally and for investment in intangibles and knowledge, factors of endogenous growth and total productivity
- There is relatively low productivity and performance in many service sectors and reduced use of information and communication technology (ICT) in services in Europe
- Typically, there is relatively low participation of services companies in R&D programmes. This raises the question of the Lisbon strategy and the aim to achieve the 3% of GDP in R&D investments in Europe
- The lack of formulation and organisation of service innovation, which requires the promotion of new instruments of business support
- The recent deregulation and liberalisation in many service sectors, which means that businesses forsaking their protected market niches need to find new strategies to boost competitive levels
- The current phenomenon of relocating services to lower-cost countries or countries with a higher specialisation demands that businesses in advanced countries should find new competitive strategies based on innovation

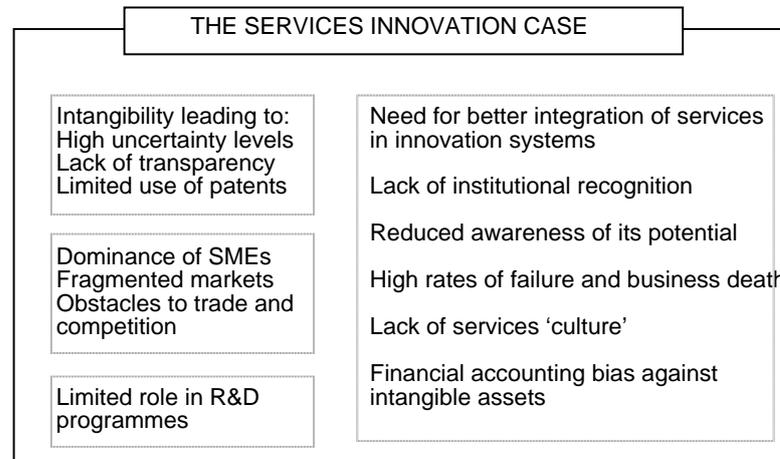
Exhibit 1 brings together arguments for the case of service innovation policy. It shows the key elements that arguably justify service innovation policy. Not only from the neoclassical point of view of market failures, but also from the contextual facts and the systemic or evolutionist approaches. The 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

³ Hertog den, P. Rubalcaba, 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.

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.

recognised, and for this reason pro-innovative and pro-competitive actions are underdeveloped'⁵.

Exhibit 1 Arguments for the case of service innovation policy



Source: Adapted from Rubalcaba, 2006

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.

⁵ 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.

1.2 Carrying out the mapping studies in member states and regions

The study was carried out in each country by a local research team selected by the Inno-Net participants, see Exhibit 2.

Exhibit 2 The countries and organisations contributing the project

Country / region	Policy organisation	Research performers
Finland	Tekes, Finnish Funding Agency for Technology and Innovation	European Touch Ltd
Denmark	Ministry of Science, Technology and Innovation	CFA - Danish Centre for Studies in Research and Research Policy
Iceland	Ministry of Industry	RANNIS, The Icelandic Centre for Research
Norway	Research Council of Norway	NIFU-STEP
Sweden	Vinnova, Swedish Governmental Agency for Innovation Systems	FBA Holding AB
Czech Republic*	Association of Innovative Entrepreneurship	Association of Innovative Entrepreneurship
Germany	Bundesministerium für Bildung und Forschung (BMBF),	Fraunhofer Institute for Industrial Engineering (IAO),
Ireland	Forfás, Enterprise Ireland	CM International
Netherlands	Ministry of Economic Affairs	Dialogic
Slovenia	Public Agency for Technology Development of the Republic of Slovenia	Centre of International Relations, Faculty of Social Sciences, University of Ljubljana
United Kingdom	Department of Trade and Industry	Institute of Innovation Research, University of Manchester

The countries that are analysed in the study represent a broad spectrum of European actors in the field of service innovation policy design and delivery. In this respect the project provides valuable information on the latest developments in the service innovation policy.

1.2.1 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 of the 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 countries.

Despite the common template for the mapping study, the actual country reports do not 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 government⁶ (See Appendix: 1). As such, the

⁶ Georghiou, L. (2006) Effective innovation policies for Europe – the missing demand side, paper represents partial contribution to the Finnish government project: Globalisation Challenges for

variety of styles in country reports represent national differences which is also a positive element in 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 countries provided the data for this research report. In addition to this, semi-structured interviews with policymakers and key stakeholders were carried out in Denmark, Finland, Iceland and Norway. In the first stage of the analysis all mapping studies were systematically analysed mainly by using qualitative methods. Summaries of the country / regional reports are presented in the Chapter 2 and 3. As all mapping studies were analysed the key policy themes emerged from the provided material, see Chapter 4. Chapter 5 presents concluding remarks.

2 Mapping service innovation policy in the Nordic countries

This section presents short highlights from each country report submitted for the analysis and main insights from interviews with policymakers and representatives from key stakeholder groups. 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 should look into full country reports that are available as electronic copies.

2.1 Denmark⁷

Danish innovation system has been going through several structural reforms over the last ten years time. It has been argued that the system was too fragmented in nature to act as a framework for coherent and efficient use of research and innovation resources. Another target for criticism has been the lack of interaction between the business sector and knowledge institutions. In order to address this situation the government passed a new Act on Technology and Innovation in 2002. As a result of this reform, responsibility of both research and innovation was given to a single ministry, the newly formed Ministry of Science, Technology and Innovation. Former Ministry of Trade and Industry, Ministry of Education, as well as Ministry of Economic and Business Affairs handed over research, development and innovation related responsibilities and competencies to the newly formed ministry. With the effect from May 2006 the structure of the new Ministry was somewhat changed. Three new directorates were formed (ICT, research and innovation, universities, and infrastructure) they operate directly under ministerial control. The aim was to further improve goal-setting, prioritization of resources as well as make use of a leaner organisation.

In 2005 the Danish government moved innovation policy and the coordination of the innovation system to an even more prominent position on the policy agenda. One of the new key actors is the Globalization Council which consists of a number of key ministers, and representatives of stakeholder groups, e.g. from the industry, trade unions, and knowledge institutions. By now, the Globalization Council seems to have institutionalised a new way of formulating innovation policy in Denmark. Typical of the new strategy is that it systematically involves a large group of key stakeholders in a very structured way. The globalization strategy itself has four main objectives, it seeks to make Denmark: 1) a leading knowledge society through increased public and private R&D spending, 2) a leading entrepreneurial society hosting a large number of high growth enterprises, 3) a location for world class education, and 4) the most competitive society by 2015.

Another strategic plan has been recently launched by the Council for Technology and Innovation. The plan, 'Innovation Denmark 2007-2010', both sets a number of concrete goals in terms of innovative performance along with expansions to existing programmes and new initiatives. The main 'policy tools' in use are:

⁷ See also Bloch, C. and Aagaard, K. (2007) Mapping Innovation Policies in Services – Country Report Denmark. ServINNo project working paper.

- Support of innovation projects involving the participation of both businesses and public research
- Network and support centres
- Increases to the Business PhD program, where PhD students spend part of their study at a business enterprise
- New measures designed to promote the commercialization of public research.

The latest instruments in the Danish innovation policy mainly focus on science based sectors and 'high technology research' in the fields of nanotechnology, information-technology and biotechnology, while other modes of innovation relevant for small and medium sized enterprises in low tech branches and services have received less attention. The recent Globalization Strategy, for instance, is to a large degree focused on R&D in large, high tech, companies and not to the same degree on low and medium tech companies dominating the Danish innovation system. Hence, there is little direct focus on service firms in innovation strategies. One explanation of this tendency may be found from the major structural changes in the organization of innovation policy in 2001. The Ministry of Research and Information Technology took the leading role in innovation policy, while the Ministry of Industry that had so far been in the leading role, became more focused on creating good framework conditions for private firms and promoting 'entrepreneurship' and supporting start-up firms. As a consequence, the majority of current measures are focused on making science and research more relevant and accessible to the industry.

While there has been very little explicit focus on services in Danish innovation policy, a number of generic policy measures are likely also relevant for service firms. These include programs such the Business PhD and Knowledge Pilots (see below). In addition, programs have been initiated recently to promote non-technological innovation, which thus also may be relevant for service firms.

Regarding explicit focus on service innovation, the situation may change, since the recent strategy plan, Innovation Denmark 2007-2010, acknowledges the importance service innovation and the relative neglect of service firms in innovation policymaking. As a first step, the Council for Technology and Innovation has commissioned an analysis of the key needs of service firms in order to strengthen competitiveness and productivity, which will be followed up by discussions with business organizations on what concrete policies can be developed and implemented to support innovation in service firms. The Council also held a conference on service innovation policy in the fall of 2007.

Policy proposals from the lobby organization Danish Business also emphasize the importance of user-driven innovation. Among the other areas highlighted by Danish Business are service exports, regulations and opening up the public sector. They argue that export and internationalization strategies should place greater priority on the needs of service firms. An additional focus area is difficulties for service firms in accessing capital markets.

Supply side measures represent the majority of public support measures in Denmark. Many of the measures are targeting high technology businesses but there are also activities that are relevant for service businesses. They include:

- KINO - Creativity and Innovation, New modes of Production and Entertainment Economy: a programme supporting research in Creativity and Innovation, new modes of production and entertainment economy
- The Business PhD program is a collaboration between businesses and universities where PhD students spend half of their study at a university and the other half working and receiving training at a company. While the program does not specifically or explicitly target service firms, a number of PhD students have been placed in service firms.
- The knowledge pilots program promotes (through subsidies) the placement of knowledge intensive workers in small and medium sized firms that normally would not employ knowledge intensive personnel. The objective is to increase small and medium size firms' access to external knowledge, here under also academic research.
- DesignDenmark. The Danish government has recently implemented a number of initiatives to strengthen framework conditions for design-based firms. Importantly, this design innovation strategy has also targeted non-design firms with the goal of increasing the use of design-based approaches in other sectors. Here the objective is to go beyond the use of design in the final styling of products and promote the incorporation of design throughout innovation processes. The main elements of the policy initiative are: creating a more commercial, business oriented design education; the Danish Design Centre, providing advice and support selected industries and regions; a service design initiative for developing user-friendly services; informing and assisting on available options for registering design-based IPRs and strengthening enforcement; and branding and promoting Danish design sectors internationally.
- User driven (or people-centred) innovation involves using advanced, systematic methods to examine, uncover user/customer needs, and looking at what customers might want or need as the main source of ideas for product development. Among the policy measures considered (and many already initiated) are: funding programmes for the collaborative development of new techniques for user-driven innovation; promoting education on the topic, promoting industry-science cooperation (often of a cross-disciplinary nature); Knowledge Pilots, a funding program to support the use of design-based expertise (broadly conceived) in small companies (particularly small) that do not have this type of competence; Knowledge spreading through the creation of centres, networks, publications and studies to increase awareness.
- Culture and Experience Economy is an initiative to strengthen the experience economy in Denmark and the commercialization of cultural activities. The main areas of the initiative are: improving framework conditions for innovation within cultural activities, tourism, design and architecture; financial and advisory support for sports business ventures; promoting interaction between cultural institutions and businesses; and professionalizing the holding of large events in Denmark.
- Diversity and creativity – a number of studies have shown that diversity (in terms of gender, age, ethnicity, nationality and competences) is an important factor in promoting innovation and the creation of new ideas. Denmark, in Nordic cooperation, has initiated an exploratory process to examine diversity and

creativity in DK and other Nordic countries, and how innovation policy can promote diversity⁸.

A specific attention to services was not identified in other policy areas including demand side measures, services internationalisation and horizontal policies. However, as indicated earlier on, the latest policy strategies have identified services importance and they are likely to have increasing attention in the future.

2.1.1 Key factors of evolving service innovation policy in Denmark

The identification of service innovation in the strategy plan Innovation Denmark 2007-2010 as a key policy area in the near future provided a background setting for the interviews, which were clearly focused on what the next steps should be taken in the policy development process.

Development of new service innovation policies should start by closely examining existing policies. There is general agreement that service innovation has been neglected in Danish policy. However, neglect mainly reflects the lack of explicit emphasis. Many policies may (to differing degrees) benefit service firms despite this. There is a need to recognize and understand this – i.e. to what extent do current policies benefit service firms – as this provides the best available starting point for developing more comprehensive and purposeful service innovation policies.

Innovation policy needs to take into account how service firms innovate. Even if use of policy measures by service firms can be documented, it may often be the case that the design of measures are implicitly 'biased' against service firms. This point was emphasized in the interviews through a number of concrete examples. For example, services R&D is generally non-technological, while Danish R&D programs have arguably increased their focus on advanced technologies within ICT, bio- and nanotechnology. While R&D programs do not necessarily need to target the service sector, broadening the focus of R&D programs may open them up to more service firms. In addition, service firms typically have a short term horizon for their innovation activities, implying that long term research projects may not fit well. An example given here is the Danish Business PhD program where firms are required to commit to taking on PhD students for half of their study. This commitment may be too long for some service firms that might otherwise be interested in taking on a PhD student for a shorter period.

In terms of policy, the most important challenge of internationalisation involves strengthening competences. Removing market barriers and accessing international knowledge are both important for maintaining international competitiveness. However, the general impression from the interviews was that the highest priority for policy was to improve framework conditions; strengthening knowledge competences through education and training, and reforming regulations and other framework conditions to keep the Danish business environment attractive.

⁸ Damvad, 2007, Innovation and Diversity, report prepared for the Danish Agency of Science, Technology and Innovation, the Nordic Council of Ministers, the Nordic Innovation Centre, and the Nordic Institute for Women and Gender Research.

Both innovation and other policy areas should take into account the potential for promoting service innovation. An example here is regulations and the implementation of EU directives. How and when these directives are implemented can have important impacts on service innovation. An overly restrictive implementation may handicap Danish businesses. On the other hand, being first to implement new regulations or closely following lead countries can have important advantages for product development. And in order to achieve effective implementation, close dialogue and coordination with individual sectors and businesses is essential.

A vital element of service innovation policy development is a better understanding of how service businesses innovate and the impacts of policy measures. While interviewees pointed out a number of areas where innovation policy can better target service firms, it was also stressed that we don't know enough about service innovation and service innovation policy. Hence, the development process of service innovation policies should also include both continued analysis of service innovation (including better statistical data) and careful evaluation of existing and new policy measures.

2.2 Finland⁹

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 efforts¹⁰.

This mapping study will provide an overview of policies, measures and organisations that are relevant for service innovation promotion. These 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 a 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

⁹ See also Kuusisto, J. and Kotala, S. (2007) Mapping Innovation Policy in Services – Country Report Finland. Innovation Policy Project in Services (IPPS).

¹⁰ www.tekes.fi/serve

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 to 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 a tax incentive for purchasing household services. Tax credits are granted to households for using domestic help or for buying domestic services or work. The aim is to encourage households to employ someone to work for them. As of 2006, the tax credit can be available for domestic help rendered to the household by the taxpayer's parents, grandparents and in-laws. Another significant demand-side measure is the programme for innovative public-sector procurements that will be launched in 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.

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

Tekes 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

2.2.1 Key factors of evolving service innovation policy in Finland

In Finland, the interviewees point out that there are two main ways how service innovation policy development changes the situation. First, it means the development of existing policies so that they are able to promote service innovation more effectively. Secondly, service innovation policy represents a fundamentally new approach to innovation promotion. Service innovation promotion is seen as a great opportunity to renew innovation policy from the clean sheet. To an extent, this is happening in Finland as a result of the new innovation strategy, structural changes at the ministry level, and the new role of Tekes, that is extending its activities in services.

New policy frameworks and institutional structures that are supporting service innovation policy development. The introduction of demand-driven innovation policy is one of the key themes in the new innovation strategy and it is reflected in the new structure of the Ministry of Employment and the Economy which has a specific unit for demand-side innovation policy. High-level management support continues to be instrumental for service innovation policy development. At present, services' importance is reflected in the Government programme document, in the innovation strategy that is under development, and also in the vision, strategy, and new organisation of Tekes. The agency now has a service business area, a unit for services innovation and a technology programme for services. One of the existing challenges is that the existing innovation policy is too much biased towards supply-side measures and also the demand-side needs to be developed. Household tax credit is one example of a demand-side instrument, which has been quite effective in creating consumer demand for services. In addition to above-mentioned there are some other practical steps that have been taken to give more prominent position to the promotion of non-technological innovation. They include: State productivity programme, new Innovation University (merger on the Helsinki University of Technology, Helsinki School of Economics, and University of Art and Design), CIS development to capture services innovation more accurately.

New instruments and tools that have been specifically designed for services innovation promotion. Partly the new focus on service innovation policy is a result from the new state aid rules that enable support services R&D and innovation. For instance, SMEs can now receive funding for buying in a wide range of consulting services, which can boost demand for KIBS. At the EU level, also the regional policy will be directed towards innovation promotion and it should have more service sector

focus. One of the newly launched instruments is SERVE Technology programme for promoting service innovation. This programme has boosted the number of business projects, and this also helps learning within Tekes on services and new industries. In addition there are a number of other tools and instruments, including manuals for service concept development, services IP management and services productivity. These have made the R&D in services more concrete, recognisable and they are creating a common language in this area. In addition to the existing instruments, vouchers and tax incentives are seen as policy measures that ought to be further developed and tested, especially in the case of SMEs. There is also a programme that will promote innovative public procurement in investment type situations. One of the challenges is related to the number of new and existing support measures. The more instruments there are, the more difficult it is for target businesses to cope with them. This raises the importance of systems competence (businesses ability to make use of public supports) among the firms in addition to market related innovativeness.

Framework conditions, service markets promotion and horizontal policy approach as elements of more effective service innovation policy. Service markets are still characterised by legacy type regulation that is also hampering service innovation. For instance, taxi services, pharmacies, division of labour between nurses and doctors, and media sector as a whole are highly regulated. There is a need to ask what really is the role of political decision-making and regulation in these areas. Clearly, there is a need to create space for service markets; public sector, private enterprises and third sector organisations need to be in equal position. However, it seems that there is still some ideological fear of opening up of service markets. From the PPP perspective social and health care services are an important area; introduction of markets and creating more room for private enterprises are seen necessary in this field. At present there are several instruments addressing this area¹¹. The most important horizontal policy areas for service innovation promotion include: education, competition, and public procurement policies, and also the opening up of service markets. Overall, several ministries have a significant impact on services including Ministries of: Social Affairs and Health, Transport and Communications, Finance, Education, as well as Employment and the Economy. Besides cooperation between the Ministries there is a need for more effective horizontal policy cooperation between Tekes and the Academy of Finland. Out of the policy areas, social affairs and healthcare ought to be more closely connected with the service innovation policy.

Challenges in developing supports for non-technological innovation

- There is a weak innovation and R&D culture in services leading into lack of business activities in services development area. There is a need for a new mindset and full use of the new state aid rules needs to be made. They allow many types of support for service innovation. It remains to be seen, how Tekes will adapt its role in the light of new state-aid regulations.
- Service enterprises are a new target for policy measures. It takes a lot of work that needs to be done within agencies, such as understanding service related

¹¹ Finwell technology programme is placing focus increasingly on wellbeing, and there is a separate programme for under development for healthcare development. Centre for strategic research (Shock) is being prepared in cooperation with the private enterprises. These PPP type centres are attracting both private and public funding for R&D projects. On the European level, Ambient Assisted living (AAL) has been established to promote the development in the area related ageing people.

concepts and service businesses as new and relatively unknown target groups for the agencies. Although service businesses and service development projects are now eligible for R&D supports, the inherent technology bias of these policy measures is still limiting their use among service businesses.

- One of the limitations is related to the prevailing R&D definition which ought to be more sensitive for the different forms of R&D in services. At present, the definition covers only a fraction of activities that are relevant for the R&D in services.
- Service innovation concept is challenging, there is lack of knowledge and the concept needs to be clarified and publicised more widely. Also attitudes towards non technological innovation should be improved, e.g., various service industries could be more active in their R&D and innovation activities.
- Taxation is high in Finland and it can be hampering the demand for services. Consequently, there is room for tax incentives as a way to promote service innovation.

2.3 Iceland¹²

In terms of employment, the services sector in Iceland is by far the most important one, covering 71.8% of the workforce in 2005. The service sector has grown rapidly and is still very much on an upward trend in terms of its share of labour force. The most important individual service sectors include health services (15.2%), wholesale and retail trade (13.9%), real estate and business activities (9.3%), education (7.4%) and transport and communications (7.2%). Over the recent years trade services have been increasing its share in total employment. Over the recent years also tourism has grown rapidly and by 2000 Iceland attracted 302,913 visitors. Icelandic service businesses have also been very keen to expand their operations overseas. Banking, retail and property businesses, in particular, have made significant overseas investments expanding their markets out of the borders of rather limited size Icelandic domestic economy with some 304,334 inhabitants (July 2006)¹³.

Under the parliament and government, the Science and Technology Policy Council represents the highest level policy actor in Iceland. Operating under the direction of the Prime Minister and consisting of ministers, scientists and business representatives, the Council formulates public policy on scientific research and technological development. Icelandic Centre for Research, RANNIS manages both basic research and the applied research and development through the Research Fund. This fund has the key role in the Icelandic innovation system and it offers competitive project grants for scientists, firms and institutes. RANNIS also manages three other funds that are supporting research, technology development and innovations. These include: Fund for Research Equipment, Graduate Research Fund, and Technical Development Fund. Overall, RANNIS runs the competitive funding system; supports the science policy system by gathering, analysing and providing information on research, development and innovation; evaluates the results and impact of research, development and innovation; is responsible for communication and information on research and development to the public and to the scientific community; oversees and promotes

¹² See also Aðalsteinsdóttir, E. (2007) Service innovation policy measures in Iceland. ServINNo project working paper.

¹³ www.iceland.is/

Icelandic cooperation in multinational research activities and participates in multinational cooperative programmes and structures.

2.3.1 Key factors of evolving service innovation policy in Iceland

The policy focus in Iceland has shifted from technology development towards innovation supports, and services are among the targeted activities. While there is a clear need to support innovation in the public sector, the scope for policy intervention in market services is perceived to be more limited. *'We constantly deal with this tenacious question, 'what role should the government play?'* It is mainly the market failures that are seen as the rationale for any policy intervention. There are a number of challenges that needs to be overcome to make the service innovation policy a reality:

- Need to establish a common language and widely accepted concept of service innovation
- There needs to be a systematic campaign that emphasizes the role of service innovation across the sectors and, services must be emphasised in all research and innovation activities
- The existing system needs to overcome its technology oriented legacy
- Evaluation of project proposals needs to be less biased against service R&D
- Service sector enterprises needs to be activated to do more R&D
- The role on knowledge and intangibles trade needs to be emphasized
- The horizontal nature of innovations needs to be acknowledged and publicised
- In addition to specific service innovation policy measures, there needs to be focus on creating favourable framework conditions that support the development towards service economy
- Services can also play an important role in the regional development now that the focus is shifting towards supporting potential growth industries rather than supporting ailing ones.

According to an Icelandic interviewee, 'The core of the matter is to understand the nature of services and what supports services?' There is still very limited provision of education that is targeting service management or research on services. Overall, there is need for increased emphasis on non-technological innovation and demand-side policies. The Icelandic interviews build a picture which indicates that service innovation policy is at the early stage of the life-cycle. Typical issues in such a situation include: establishing a common language and concepts, discussion on the rationale of service innovation policy, lack of experience in using the policy tools and a need to develop greater awareness of the importance of services and related innovation.

The innovation policymaking process in Iceland is going through a period of changes. Overall, the policy process is combining elements of top-down and bottom-up approaches. Science and technology policy council sets the high level agenda and at the same time there are continuous efforts to increase cooperation between businesses and research establishments. There is an emphasis on the effortless public access on the results of publicly funded research and the system seeks to encourage business R&D. The existing innovation promotion measures and programmes in Iceland are horizontal in nature meaning that they may include and cover both the manufacturing

sector and the services sector.¹⁴ Like in many other countries however, there is a tendency to give priority to tangible technical innovation. However, policy actors are starting to pay increasing attention to services development and innovation. So far the Technology development fund has received only a limited amount of applications of public support for service development projects. ICT related R&D has been one of the key policy focus areas and also ICT based services development has started in private enterprises and the public sector alike. Software and related services is one growing field along with health care services. However, there is a need for a stronger policy action in this field designed to seize the unique possibilities Iceland has in its health system. At present, a foresight study in this field is being prepared. Overall, there is a growing awareness that also service related skills and education needs to be further developed. There are no policy measures in place directly addressing services internationalisation. However, Iceland based services have expanded rapidly overseas and internationalisation is a highly relevant issue for trade, financing, real estate and airline services. In terms of demand side policies, Regional Growth Agreements represent systemic measures that can also support services development. These measures are public-private initiatives where businesses, municipalities, research- and educational institutions cooperate and commit themselves for providing funding or expertise for the project. In general terms the aim of these projects is to boost the areas economic growth and attractiveness in multiple ways.¹⁵

In terms of future developments, the Ministry of Industry and Commerce started to prepare a new bill on Innovation Centres in the beginning of 2007. This entails founding of an Icelandic Innovation Centre in the north of Iceland. As a result, the public support system for innovation and economic development will be dramatically changed. Institutions (for example, Ice Tec) will be integrated into one and so-called Knowledge Centres will be situated in every region. They are supposed to integrate the universities in the areas, the research institutes, businesses and seed/innovative companies to create a synergy that should enhance regional economic development.

Icelandic policy actors have also identified various issues that need to be considered when new innovation policies are formulated. Some of the themes that have been highlighted include:

- The definition of innovation needs to be reformulated so that it includes all of the factors that matter to innovation in service firms, also non-technological dimensions of innovation.
- Financial resources need to be secured for the development of service innovation policies. Some actors have suggested that a fund should be created that *is independent* of the Technology Development Fund.
- Firms in the field of commerce and service need to be engaged in the whole process of developing policies, some firms will have to be targeted and informed specifically about what is taking place.

¹⁴ Aðalsteinsdóttir, E. (2007) Service innovation policy measures in Iceland. ServINNo project working paper.

¹⁵ Examples of more detailed targets for the growth agreements: (i) Enhance the area as a popular place to live, (ii), encourage population increase, (iii) raise area competitiveness and nurture economic growth, (iv) develop and strengthen the area's growth sectors, (v) increase the number of competitive companies and jobs, augmenting the supply of products and services, (vi) exploit the possibilities created by joining in international projects, and (vii) attract international investment and knowledge.

- The service sector needs to be researched and evaluated in light of its capabilities to innovate and its innovative strengths.
- Start-up (seed) companies need to be aided financially and assisted in their networking and management processes.

2.4 Norway¹⁶

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. The 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 generic 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 recently 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, though 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. The 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 suggest that there will be a separate chapter on service innovation. Since 01.01.2006, the 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

¹⁶ The first part of this section on Norway draws on NIFU-STEP (2007) Mapping Innovation Policy in Services – Country Report Norway. Innovation Policy Project in Services (IPPS). The second part is based on policy interviews conducted by Katja Hydle of SINTEF.

programme. Early indications¹⁷ 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. The 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. The 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.

The Ministry of Industry and Trade has recently developed a comprehensive plan to strengthen the tourism and travel industry in Norway¹⁸. The plan identifies a number of focus areas for initiatives:

- Development of a national booking system for the tourism and travel industry
- Research support
- Sustainable development of tourism areas
- International promotion of Norway as tourist destination
- Supporting development of cultural activities

¹⁷ Power point presentation by programme coordinator Øystein Strandli on the Norwegian web site on EU Trend Chart on Innovation.

¹⁸ Norwegian Ministry of Trade and Industry (2007) Valuable experiences: the Government's national strategy for tourism and travel (Verdifulle opplevelser: regjeringens nasjonale reiselivsstrategi).

- Better statistics

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 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 SkatteFUNN tax incentive scheme aims to increase innovation and enhance value creation in trade and industry, as well as to boost R&D activity in Norwegian industry. SkatteFUNN is one of the very few tax incentive schemes that include services as a key focus area. Service projects make up around 45-50 per cent of the entire project portfolio. ICT related services and other services (education, leisure time, culture and sports, health and social services, renovation and environmental services) represent the most important targets for SkatteFUNN tax incentives, followed by R&D services, trade and post & telecommunications related services¹⁹.

2.4.1 Key factors of evolving service innovation policy in Norway

Taking the current status of innovation policy in Norway into account, the interviewees²⁰ saw in particular two main challenges for developing service innovation policy in Norway: establishing a more visible profile for innovation policy and identifying how policy can better target service firms.

Service innovation policy, and innovation policy in general, needs to be better defined. There have previously been discussions in Norway of implementing a broad based innovation policy, a holistic innovation policy²¹, which takes account of how innovation and other policy areas can be coordinated to effectively promote innovation. Due in part to a change in government, this plan has not yet been implemented, and interviewees emphasized the need both for a greater understanding of how policy impacts innovation and a more visible statement of policy goals for

¹⁹ Norwegian Research Council (2007) Årsmelding 2006 – SkatteFUNN, (SkatteFUNN annual report 2006, in Norwegian), Oslo, Norway.

²⁰ This part is based on interviews conducted by Katja Hydle of SINTEF.

²¹ As for example was reflected in the white paper, “From Idea to Value – the Government’s Plan for a Comprehensive Innovation Policy (Fra ide´ til Verdi – Regjeringens plan for en helhetlig innovasjonspolitik)” (Ministry of Industry and Trade, 2003).

promoting innovation. This holds both for innovation in general and is even more the case for service innovation.

Information barriers are the first that need to be overcome in service innovation policy development. Thereafter, focus should be placed on improving existing measures. It was readily acknowledged that there may exist 'biases' in many innovation policy measures that reduce their use by service firms, and Norway also has experience in moving from service specific R&D programs (e.g. PULS) to broader generic policies. However, it was emphasized that the first step really needs to be information and communication, in both directions. Policymakers simply do not know enough about the needs of service firms, and at the same time, the strong impression is that there is not nearly enough awareness among service firms on innovation and on what types of policies measures are available.

Non-technological innovation is important for competitiveness. An area that was highlighted for future service innovation policy was non-technological innovation. There is a greater need for support of organisational and other 'softer' factors of innovation, as these will have an increasing role in defining competitive advantages. Recent policy initiatives in Denmark were mentioned as potential examples.

Concerns over the loss of key national businesses can potentially have a negative impact on internationalisation. Interviewees argued for a greater focus on globalisation, in particular on strengthening the competences that service firms will need to compete globally. A potential consequence of globalisation and openness is that key national businesses may move abroad or into foreign ownership. This concern over the loss of key national businesses has been fairly strong in Norway, and could slow overall efforts to increase internationalisation.

2.5 Sweden²²

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 a significant share of the labour force. Business services and knowledge intensive services account for nearly 15% of 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 a database that was constructed for this purpose. Assembled data base includes a wide range of policy actors²³ and their

²² See also Eklund, U., Johannesson, C., Wiik, H. and Johaneson, A. (2007) Innovation Policy Project in Services – Mapping Study of Sweden. Innovation Policy Project in Services (IPPS).

²³ Policy actors include: Government, Government agencies, Regional governments, Local governments, Professional organisations, R&D organisations, Educational organisations,

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 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.

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.

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. A 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 internationalisations measures. Some 20 actors address all three internationalisation promotion categories; exports / internationalisation, inward investments and marketing the location as an

Technology Centres, Advisory organisations, Partnership organisations, Foundations, Trade unions and Non-profit associations.

attractive place. The 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.

2.5.1 Key factors of evolving service innovation policy in Sweden²⁴

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 have 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

In November 2006 the then newly elected Alliance Government presented its **reform programme for growth and employment 2006 to 2008**²⁵ within the framework of

²⁴ This part draws on the country report for Sweden in Forfás (2008) Services and Innovation:

Horizontal and Framework Policies Stimulating Innovation in Service Enterprises, Forthcoming.

²⁵ The Swedish Reform programme for Growth and Jobs 2006 to 2008, November 28, 2006.

See also The Swedish Reform programme for Growth and Jobs 2006 to 2008 – progress report 2007. October 18. 2007

The Lisbon Strategy. The progress report for 2007 gives an account of the next stage in the Government's policy with its focus on making it worthwhile to work and run a business. The Government is taking a broad approach, with measures aimed at strengthening competition in various markets and opening markets for more players. Important basis for the policy is regulatory simplification, a more business friendly tax system, greater access for small businesses to public procurement, work fighting cartels, increase the number of players in the health care and social services sector, improving the quality of Swedish research and an extensive reform of the Swedish education system.

In February 2007 the Government established a **Globalisation Council**.²⁶ The purpose is to promote a deeper knowledge of globalisation issues, draw up economic policy strategies and broaden public dialogue about how to ensure a successful competition in a more and more globalised world. Planned themes are:

- The dynamics and renewal of the business sector: entrepreneurship, small enterprises and innovation policies.
- Globalisation and labour market policy: technological development, low-wage competition and flexibility.
- The Swedish tax system and global competition.

These themes are affecting the whole business world, the service sector included. The Council has also planned to address the latter directly in the theme *The Swedish service sector*. However, the agenda is set until July 2008 and it might be seen as symptomatic that it does not yet include the service sector theme.

3 Mapping studies in other EU countries

3.1 Czech Republic

The share of service sector (NACE codes 50-52, 55, 60-67, 70-74) has been around 42 % of the GDP in 2004-05, and business services made 8 % of the GDP. The most important service industries in the Czech Republic 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. All key policy actors have recognised services and related innovations. These policy actors include: On the regional level local governments are responsible for the development, including innovation strategy. Regional Development Agencies support the innovation system and other relevant regional actors include Chambers of Commerce, Regional Contact Organizations, and Regional Advisory Information Centers.

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

²⁶ www.sweden.gov.se/sb/d/8616

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 below:

- 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 a 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. The 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.

3.2 Germany

The German innovation system includes policy actors who support service innovations on the Federal, State, as well as on the regional level. Apart from this, different initiatives have been launched with the aim to strengthen the German innovation system as a whole and to improve integration among the political levels

At the Federal level there are several ministries, with different priorities, in charge of promoting services. The Federal Ministry of Education and Research is in charge of service research, the Ministry of Economics and Technology is mainly responsible of 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 und North Rhine-Westphalia (NRW) support concrete measures to foster the service sector. Both States 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 more and more directed towards services.

‘Partners for Innovation’ is promoting innovations on different policy levels. It is a public private partnership, a voluntary association of well-known individuals and institutions from science, politics and society aiming the strengthening of innovation

in Germany. 15 thematically specialised impulse committees 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 pioneer activities). ‘Council for growth and innovation’ is another similar type consulting committee. This council supports and gives advice to the Federal government on innovation policy issues. ‘Forschungsunion Wirtschaft-Wissenschaft’ is another consulting committee and it deals with the implementation of the German high tech strategy. Both the above-mentioned committees include subgroups which specifically address service innovation issues.

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

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

The High-Tech Strategy for Germany is the first Federal level national strategy for innovation policy developed in a joint effort by all federal government departments. It seeks to create a climate where ideas can be ‘ignited’, where research results can be translated into products, processes and services. The aim is to make Germany into the most research-friendly nation in the world. This strategy puts innovation policy front and centre in government activities. The strategy defines 17 potential fields for job creation and prosperity in the future. Until 2009, the Federal Government will make available a total of approximately 15 billion euro for cutting-edge technologies and technology fields spanning programmes with the aim of strengthening innovation.

3.3 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 Ireland²⁷, 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 which 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

²⁷ Forfás (2006) Services Innovation in Ireland – Options for innovation policy, Dublin, Ireland

category in Ireland. There are relatively few demand-side measures in Ireland. However, an ‘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 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.

3.4 Netherlands

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 a 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 an 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, and 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.

3.5 Slovenia

The perception of the service sector as the generator of growth and competitiveness has developed in Slovenia since the 1990s. Slovenia has made 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 the 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 the 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, raising awareness 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.

3.6 United Kingdom

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.

Overall, 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.

4 Thematic analysis of the mapping study material

This chapter will report the key findings from the country reports. 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. Other themes, such as horizontal policies and internationalisation of services will also be addressed. Finally, the chapter will report a range of specific issues that arose from the country studies. In the explorative analysis the empirical findings will guide the discussion, rather than strictly pre-determined common themes. Overall, the range of discovered issues is very broad and heterogeneous. This partly reflects the early development stage of service innovation policy, and partly the heterogeneous nature of the services sector itself.

4.1 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 in the policy rhetoric, while the actual policy measures and their delivery remain often fairly ineffective.

The policy mapping studies indicate 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 countries covered here. 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 industries, also in a traditional manufacturing context, as a driver of competitiveness and revenue source
- ICT alone enables the 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 on 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 on 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 deeper understanding of service innovation through out the government. This understanding is the basis upon which the effective delivery of service innovation policy can be based on.

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

Service innovation is a multi dimensional phenomena and the novelty can be based on business model, organisational arrangements, customer interface as well as technology. From a policy point of view, such a complex a 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 phenomena and it requires recognition across the public administration and various interest groups.

At present, innovation policy design and execution 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 so that they can become effective in promoting service innovation. This requires widespread knowledge on service innovation, and measures for an improved coordination in multilevel governance structures. Taking this into account, joint transnational activities could be most useful in raising public awareness on the importance of service related innovation. They 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 the development of qualifications and competencies. These determinants of service innovation need to be equally targeted by research, development and innovation promotion as the other fields of innovation.

The heterogeneous nature of the services sector is another factor that calls for a horizontal policy approach to service innovation. 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 Department of Trade and Industry has the overall responsibility of the innovation policy, most service industries included.

4.3 Balanced mix of broad based service innovation policy - supply-, and demand-side measures

Supply side measures dominate the innovation policy in general and the same applies to service innovation specific measures. Finance related 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 represented in the country reports. Though, mostly not specifically targeting services but in principle available to support innovation in services. The same applies to government offered services such as information brokerage & support and networking measures.

Those few innovation policy measures that were explicitly targeting 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 service innovation policy. The existing 'piloting' activities are most valuable as they produce new practical knowledge in this policy field and offer opportunities for good practice exchange and benchmarking.

4.3.1 Framework policies will have a significant influence on the service innovation and 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 also 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.

4.3.2 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, and it is thus market forces that will drive innovation forward. In the country 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

- Regulations, of which examples include: use of regulations & standards to set innovation targets, and technology platforms to co-ordinate development
- Procurement initiatives such as:
 - R&D procurement
 - public procurement of innovative goods, and
 - support for private procurement

Just to name some examples, the 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. Two first mentioned ones being 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 on-going service innovation measure and more procurement related activities are being planned. The Domestic Help Credit programme is encouraging 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, effectively creating demand for new and innovative services. Sweden has also launched tax reductions for households to buy domestic services. In Ireland, the innovation voucher scheme was launched in March 2007, and it is available to traded and non-traded services. Early indications show a significant take-up for 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 promoting 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 related and other systemic policies, and demand-side measures in connection with regional development initiatives.

4.4 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, 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 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 that 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 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 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.

4.4.1 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 cornerstones of the EU strategy.

4.4.2 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 various fields of society can be very influential. The aim of such association could be strengthening of service innovation policy. In practice they can promote the 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 initiates service innovation, it does not guarantee 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 merit further examination.

4.5 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 is in 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 some 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 supports will be more and more targeted towards dominant industries such as services.

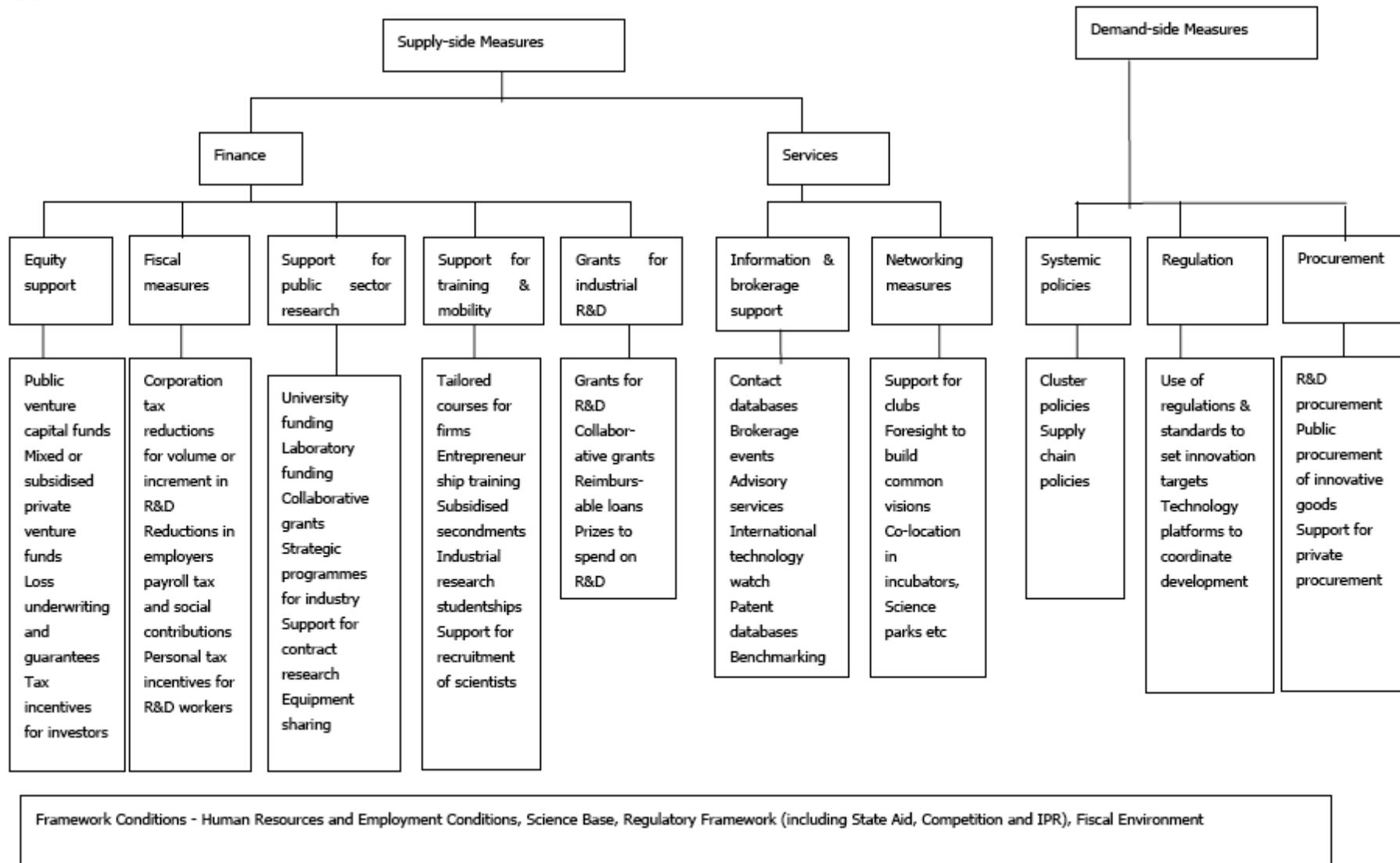
5 Concluding remarks

This report examines service innovation policies in the Nordic countries. Drawing on country reports undertaken by the ServINNo project and the IPPS project, the report maps service innovation policies in each country. These mapping studies are based on existing research in the area and other relevant policy documents. Importantly, the studies also include results from semi-structured interviews with policymakers and other key stakeholders in Denmark, Finland, Iceland and Norway. And, in order to provide greater international comparison, mapping studies from six other EU countries are included as well. Finally, the report discusses key themes that emerged from the mapping studies.

These themes emphasize the following issues:

- Long-term strategic approach in service innovation policy development
- There is a need for horizontal policy approach and coordination between different policy levels as well as between policy actors. In some countries innovation system has gone through structural changes in order to facilitate better policy coordination.
- Service innovation policy is hampered on the one hand by lack of information and data on how service firms innovate and on the other hand by a lack of awareness of the part of service firms of what policy measures are actually available.
- 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 rather under represented in the innovation policy.
- Framework policies will have a significant influence on service innovation policy
- The evolving service innovation policy is likely to make use of existing policies adjusted to cater service innovation, and also a range of new types of initiatives can be seen to emerge in this policy area.
- Service exports and globalisation will act as drivers that policies need to reflect. Also public-private partnerships are likely to play an important role in service innovation policy.
- Regional policies and cluster policies can 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.

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.