

ESIC European Service Innovation Centre DISCUSSION PAPER

## Service Innovation Policy - A Benchmarking Review

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#### ESIC in Brief

Increasingly service innovation plays an instrumental role in the transformation and upgrading of traditional economic sectors and industries into more productive, competitive and high value-added business eco-systems. Considered as being multi-dimensional in nature, service innovation comprises innovation in services, service sectors or service industries that are provided by service entrepreneurs and service firms. It also takes place in manufacturing industries, adding further value and contributing significantly to overall productivity and profitability. There is a growing need to assess, analyse and demonstrate what impact service innovation has on industrial change and to assist Member States and regions towards a greater understanding of service innovation as a driver of industrial transformation and future competitiveness.

The European Service Innovation Centre (ESIC) is a two-year initiative commissioned by the European Commission's Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs to capture and demonstrate the dynamics and large-scale impact of service innovation, as well as to assess how service innovation impacts on competitiveness, industrial structures and regional development. It also assesses the implications and impacts of service innovation on employment structures, economic patterns and value creation.

Primarily, ESIC has provided customised advice to the six selected model demonstrator regions of the Canary Islands, Emilia-Romagna, Limburg, Luxembourg, Northern Ireland and Upper Austria. The initiative also helps other EU regions and Member States to make better use of the transformative power of service innovation in strengthening existing and emerging industries and markets and in developing better industrial policies and smart specialisation and cluster strategies. The creation of a favourable eco-system for service innovation will boost supportive infrastructures and business conditions that, in turn, will facilitate the take-up of innovative services throughout the Member States' economies.

The European Service Innovation Scoreboard, the Summary Assessment Reports and Policy Briefs from all six Model Demonstrator Regions are available on the ESIC website at: <u>http://ec.europa.eu/enterprise/initiatives/esic/index\_en.htm</u>



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#### 1. Introduction

This paper is a contribution to the ESIC initiative and it highlights the latest service innovation policy developments in the following 11 EU countries: Austria; Denmark; Estonia; Finland; Germany; Ireland; Netherlands; Poland; Slovenia; Sweden; and the United Kingdom. It represents an update of the EPISIS<sup>1</sup> 2012 report entitled 'Service Innovation Policy Benchmarking - Synthesis of key results and 15 country reports', which provided a comprehensive review and benchmarking of service innovation in these countries in 2012.<sup>2</sup>

Local experts have been involved in producing the 11 reports in this paper and they have helped to provide valuable insights into the service innovation policy progress that has taken place over the last two years. In a broader sense, the report sheds light on how innovation policy is renewed in response to rapidly evolving economic conditions and developments in the overall policy framework.

<sup>&</sup>lt;sup>1</sup> The 'European policies to support service innovation' (EPISIS) project 2009 - 2012 was financed by DG Enterprise and Industry of the European Union: <u>http://ec.europa.eu/enterprise/index\_en.htm</u> and Tekes - the Finnish Funding Agency for Innovation was the coordinator of the project: <u>http://www.tekes.fi/en/</u>

<sup>&</sup>lt;sup>2</sup> The 2012 EPISIS report covered also France, where service innovation policies remained largely unchanged and the situation in the three non-European countries of China, USA and South Korea

### 2. Recent Developments in Service Innovation Support Policies

At a general level, government ministries and agencies are increasingly becoming aware of the importance of service innovation. However, the development of service innovation support is uneven across the countries and there is a wide variety of policy instruments in use. At the same time, many countries are focusing on the EU and its Horizon 2020 priorities, as they are looking for possibilities to capitalise on the transformative power of service innovation.

#### 2.1. Service innovation awareness and the dissemination of policy initiatives

In several countries, the awareness of service innovation support measures is being diffused and disseminated from the national level to regional levels. Service innovation is actively promoted at national and federal levels for instance in Austria and Germany, while it is also actively promoted at regional level in other countries. Here, ESIC can provide an example of regional actions that support service innovation from its experience in providing advisory support services to its six model demonstrator regions. On the one hand service innovation measures at national level are not well-developed in *the Netherlands*, but on the other hand, in Limburg, another ESIC region, there has been a concerted promotion of service innovation initiatives (e.g. a pilot programme designed for increasing the awareness of service innovation among SMEs) that are all partially supported by public funds. This is creating an overall service innovation approach for the entire province but it remains to be seen whether such an approach will be taken up by other regions in the Netherlands. Developments in the ESIC regions are explained in more detail in section 2.7 below.

In Upper Austria, service innovation has now been adopted as one of the region's strategic development areas. It is seen as a way to transform the core manufacturing businesses into solution suppliers and a step towards Industry 4.0 type business<sup>3</sup>. Innovation policy in *Austria* is increasingly acknowledging the importance of service innovation at national and state levels, but the number of dedicated support programmes for service innovation remains limited. The vast majority of public support for R&D and innovation is open to all sectors of the economy, and it does not discriminate against individual sectors. This is also true for thematic programmes. However, in terms of services, the proportion of innovative firms that received funding is biased towards manufacturing.

The most prominent Austrian service innovation promotion measure was the DLI services initiative (*Dienstleistungsinitiative*<sup>4</sup>) that operated between 2009 and 2013 and had a budget of  $\in$ 25 million. The aim of the measure was to address service firms and treat them as a potential target group for funding by the Austrian Research Promotion Agency (FFG) and the programme was implemented within the funding guidelines of existing FFG support. Once the DLI has been evaluated, it is expected that the initiative will be continued. However, due to the limited impact on the manufacturing companies, there is a new focus on services within the 'Industry 4.0' context.

In 2013 the coalition government agreement pledged increased support for research into services in *Germany*. Since then, three measures have been initiated that raise the profile of service innovation in the national research context, namely: the German high-tech strategy<sup>5</sup> has been updated; a new research programme has been published by the Federal Ministry of Education and

<sup>&</sup>lt;sup>3</sup> Industry 4.0 stands for future manufacturing in which machines and products communicate with each other in 'intelligent factories'

<sup>&</sup>lt;sup>4</sup> https://www.ffg.at/dienstleistungsinitiative-dli-der-ffg

<sup>&</sup>lt;sup>5</sup> http://www.bmbf.de/pub/HTS\_Broschuere\_engl\_bf.pdf

Research (BMBF); and in preparation of this new research programme, several pilot measures (such as *Innovations for the production, services and work of tomorrow programme*, administrated by BMBF) have been initiated to address some of the most pressing research needs in service innovation.

The updated high-tech strategy refers to integrated solutions, i.e. combinations of products and services that can lead to new forms of value creation and, thus, to new growth opportunities. There is a clear shift away from traditional R&D as the strategy also acknowledges social innovation as well as special types of innovation patterns that apply for services. These stand for instance for company processes, strategies and user-driven approaches. Overall service innovations are viewed as combinations of various types of services that cater for different needs and thus provide optimal solutions. <sup>6</sup>

## 2.2. The increased awareness of service innovation is not always reflected in policies

The United Kingdom is one of the leading service economies and the UK government has recognised that services are market driven and, thus must be receptive to customers in order to create a favourable business environment. This involves a range of different issues. For example, immigration is an important policy topic as the supply of skilled labour is crucial for the knowledge intensive services in the UK. The same applies to Germany that aims at easing the immigration of highly skilled workers<sup>7</sup>. However, unlike Germany and Sweden, the UK government does not have a specific strategy or policy that targets service innovation.

The aforementioned references to the Austrian innovation policy highlight several bottlenecks that appear in service innovation support. The first is that the use of traditional R&D&I criteria tends to place service innovation projects in a weak position in a competitive funding situation in comparison to technological project proposals. As a result, a relatively small proportion of service innovation projects receive funding.

Secondly, the post financial crisis focuses on manufacturing industries and industrial policy type actions. As such, the Industry 4.0 concept can provide very fertile ground for the promotion of service innovation even if the main focus is on the industrial context. This type of industrial renewal approach is currently quite a powerful factor in policies at EU level as well as in many Member States such as Austria, Germany and Finland.

Furthermore, innovation in services and business models – discussed in more detail in Chapter 2.4 - are different to traditional forms of R&D and do not follow the logic of product based R&D. Such innovation is a key element of the global corporate environment but policy has been lagging behind.

## 2.3. Some Member States have sustained policies for the promotion of service innovation for a long time

*Finland* was amongst the first countries to introduce a policy to promote service innovation. 'Serve - Pioneers of Service Business<sup>®</sup>' was a programme that operated between 2006 and 2013 and had a budget of €224 million. Over this period, research on the topic expanded and service innovation became part of the mainstream innovation policy. Service innovation and innovative services are included in the strategic focus areas of the Finnish Funding Agency for Innovation "Tekes" and are ingredients in several policy instruments.

<sup>&</sup>lt;sup>6</sup> The Federal Government. The new High-Tech Strategy. Innovations for Germany.

<sup>&</sup>lt;sup>7</sup> http://www.bmbf.de/en/19727.php

<sup>&</sup>lt;sup>8</sup> http://www.tekes.fi/en/programmes-and-services/tekes-programmes/serve/

Feelings – Intangible value creation and experienced value programme<sup>°</sup> (2012 - 2018, budget €100 million) illustrates the evolution in Tekes's strategic thinking. The programme tries to encourage companies exploit all of their intangible assets (e.g. brands, reputation and knowledge capital) better than before.

In addition, innovative public and private sector services are catered for by several Strategic Centres for Science, Technology and Innovation<sup>10</sup> (SHOK), in Finland. The main goal of SHOKs is to thoroughly renew industry clusters and to create radical innovations. The SHOKs also represent a cooperation platform that combines innovative companies and spearhead research. The SHOKs operate in the key business areas (energy and the environment, bio-economy, metal products and mechanical engineering, built environment, health and well-being, digital economy/ICT) and are run by not-for-profit limited companies with other enterprises, universities and research institutes. A strategic research agenda steers the development activities (mainly research programs and projects).

*Sweden* has a strong service economy and is home to very successful and global service businesses (e.g. IKEA, H&M, Securitas, Skype and Spofity, just to name a few). In addition, the country has a highly developed and public services sector that is quite open to innovation. Since 2006, service innovation has also attracted the interest of the Swedish government. In 2012 this led to the launch of the <u>National Innovation Strategy</u> that took a broad view of innovation. This was based largely on a Service-Dominant Logic<sup>11</sup> and targeted the innovative capability or even the culture of society as a whole including the private, public and third sectors.

The service dominant logic has contributed to an important part to the service debate during the last ten years. It was introduced by Vargo and Lusch in 2004 in the article "Evolving to a New Dominant Logic for Marketing"<sup>12</sup>. According to service dominant logic the distinction between goods and services is not very relevant. Instead, services are seen as the fundamental basis of exchange. Although products are involved, the main aims of the products are to benefit a customer's need. In their recent text Lusch and Vargo describe their view on service dominant logic as follows: "Service-Dominant (S-D) Logic is a mind-set for a unified understanding of the purpose and nature of organizations, markets and society. The foundational proposition of S-D logic is that organizations, markets, and society are fundamentally concerned with exchange of service - the applications of competences (knowledge and skills) for the benefit of a party. That is, service is exchanged for service; all firms are service firms; all markets are centred on the exchange of service, and all economies and societies are service based. Consequently, marketing thought and practice should be grounded in service logic, principles and theories<sup>13</sup>."

In line with the service dominant logic, Kone Corporation, one of the leading escalator and lift manufacturers, states that: 'The company's objective is to offer the best People Flow<sup>™</sup> experience by developing and delivering solutions that

<sup>&</sup>lt;sup>9</sup> http://www.tekes.fi/en/programmes-and-services/tekes-programmes/feelings/ <sup>10</sup> http://www.shok.fi/en/

<sup>&</sup>lt;sup>11</sup> Service Dominant Logic is a recent concept launched in marketing domain. In short it emphasises the user value that can be delivered by physical goods and services in a users' context. For more details see:

http://www.diva-portal.org/smash/get/diva2:407549/FULLTEXT01.pdf and http://en.wikipedia.org/wiki/Service-dominant\_logic

<sup>&</sup>lt;sup>12</sup> Vargo and Lusch (2004), "Evolving to a New Dominant Logic for Marketing" *Journal of Marketing* 68(January), 1-17. Vargo and Lusch (2008), "Service-Dominant Logic: Continuing the Evolution" *Journal of the Academy of Marketing Science* 36(Spring), 1-10. <sup>13</sup> http://www.sdlogic.net/index.html

enable people to move smoothly, safely, comfortably and without waiting in buildings in an increasingly urbanizing environment<sup>,14</sup>. In a similar way Audi, the car manufacturer, defines innovation as a solution providing service as illustrated by the following statement: "In order to continue delivering our brand essence *Vorsprung durch Technik* in the future, we will offer our customers not just sporty, high-quality, innovative vehicles, but also comprehensive mobility solutions<sup>15</sup>." On a general level, the conceptual transition to service dominant logic is presented in the table below.

Goods Dominant Logic Concepts	Transitional Concepts	S-D Logic Concepts
Goods	Services	Service
Product	Offerings	Experiences
Feature/Attribute	Benefit	Solution
Value-Added	Co-Production	Co-creation of value
Value-in-exchange	Value-in-use	Value-in-context
Profit Maximization	Financial Engineering	Financial feedback/learning
Price	Value Delivery	Value Proposition
Equilibrium Systems	Dynamic Systems	Complex Adaptive Systems

Adapted from: Lusch and Vargo (2006), "Service Dominant Logic: Reactions, Reflections, Refinements" *Marketing Theory* 6(3), 281-288.

The strategy for increased service innovation<sup>16</sup> (available in Swedish only) and the subsequent National Innovation Strategy launched a platform for an increased understanding of, and even a language for, innovation in a broader sense including service innovation. However, there is still a need to develop awareness of service innovation and of its legitimate and visible role in the everyday operations and priorities of government agencies and other policy actors As illustrated by the following statement: *"The National Innovation Strategy has been developed in a broad dialogue with many actors. A continuous discussion, e.g. between the labour market parties, higher education institutions, public agencies and political representatives, is an important prerequisite within this field"<sup>17</sup>. An important tool for the on-going dialogue will be the Innovation Council that the Government intends to establish and which will be led by the Prime Minister.* 

In addition to the two Nordic countries, service innovation has been a continuing point on the policy agenda in *Ireland* over the last ten years, despite the fact that the financial crisis had a major impact on the Irish economy. Innovation in Services and Business Processes (ISBP)<sup>18</sup> was identified as being one of the 14 priority areas in the National Research Prioritisation Exercise. The exercise features in a report of Ireland's Policy Advisory Board for Enterprise and Science

<sup>&</sup>lt;sup>14</sup> www.kone.com/en/company

<sup>&</sup>lt;sup>15</sup> http://www.audi.com/corporate/en/company/corporate-

strategy.html#fullwidthpar\_\_ah\_1

<sup>&</sup>lt;sup>16</sup> http://www.regeringen.se/content/1/c6/14/96/42/7ad82a19.pdf

<sup>&</sup>lt;sup>17</sup> Government of Sweden Budget Bill Prop 2014/15:1 Expenditure Area 24 Trade and Industry p. 46

<sup>&</sup>lt;sup>18</sup> Forfas (2013) Assessment of Publicly Funded RD&I Supports for Innovation in Services and Business Processes, Dublin, Ireland:

http://www.forfas.ie/media/30042014-Innovation\_in\_Services-Publication.pdf

(Forfás) that operates under the auspices of Irish Government Department of Enterprise, Jobs and Innovation. The report looked at international best practices in public research, development and innovation (RDI) support for ISBP. The aims were to review existing RDI initiatives in ISBP in Ireland and to make recommendations as to how Ireland could move forward. The report drew on the international benchmarking carried out by the EU EPISIS project and its recommended actions (see Appendix 1). Ireland's current support measures are based on traditional R&D&I mechanisms, and eligibility for such measures works against ISBP projects in many cases.

As a conclusion, wide dissemination of the service innovation perspective across the policy fields is vitally important. Countries with a sustained focus on the topic seem to make the most significant impacts in this respect. In addition to Finland, Ireland and Sweden, Austria, Germany and Denmark are amongst those countries that have maintained a policy interest in service innovation.

#### 2.4. Completely new policy instruments to support service innovation are rare

As has been illustrated in this paper, awareness of service innovation is increasing in Europe. However, it does not seem that there has been much impact on policies at the Member State level. Poland is one of the few countries that are endorsing new measures to support service innovation. The implementing institutions will be the Polish Agency for Enterprise Development (PARP), the Ministry of Economy and the National Centre for Research and Development. The following actions are featured in the Polish Enterprise Development programme<sup>19</sup>:

- 1) Design and implementation of a pilot instrument to support innovation in services, to be managed by PARP<sup>20</sup>, based on the programme of the Finnish Tekes 'Serve - Pioneers of Services Business' (please see the previous chapter). The objective of the programme is to develop internationally competitive new business concepts in services by supporting projects of companies, research units, national and international networks. Exchange of best practices, forums of companies, consultancy/training on product management and protection of intellectual property rights represent other elements of the programme. After an evaluation of the pilot phase, a decision will be made on how best to support the innovation sector in the coming years;
- 2) Implementation of projects aimed at the promotion of non-technological innovation, including organisational, process, and product marketing in the service sector. The projects will support the purchase of services from a scientific/research unit by micro, small or medium-sized enterprises for the development of new or significantly improved services and the development of new business models using non-technological innovation, including organisational and process innovation or marketing. The instrument will promote the involvement in the creation of new products and services by the final users (user-driven innovation), thus exploring the market take-up (proof of market) for the proposed innovation;
- 3) Further support will be provided to companies developing innovations and new business concepts with a focus on knowledge-intensive business services (pilot I) and other services (pilot II) for the following:

<sup>&</sup>lt;sup>19</sup> The programme was adopted by the Council of Ministers on April 8 2014 with a time horizon until 2020. The programme does not have a budget yet.

<sup>&</sup>lt;sup>20</sup> <u>http://en.parp.gov.pl/</u>

- New, globally competitive concepts to provide services and business models and R&D in this field;
- Development and internationalisation of service companies export support, direct entry into foreign markets and foreign marketing;
- Involvement of customers in the process of creating a new service user-driven innovation in services;
- After the pilot phase the phase of testing and dissemination of innovation in services.

In addition to Poland, the Governments of Slovenia and Estonia have both recognised the importance of service innovation, or of non-technological innovation, as it is labelled in Slovenia. Both of these countries are developing and launching policies and instruments that can facilitate service innovation.

In *Slovenia* only a few new instruments were introduced in the period during 2012-2014 that could also promote service innovation. Most measures are horizontal in nature and during the period also the first demand-driven policy instruments were introduced. The key developments in Slovenia include the following:

- New R&D tax allowance for 100% of total R&D expenditure, of which in 2012 less than 22% of the allowances were granted for service firms
- A research voucher pilot started in 2013 and aimed at encouraging industrial research in firms. In addition to technical innovation also social innovation, research on creativity and marketing are included as new innovation support areas. These vouchers introduce demand-side innovation supports into Slovenian policy portfolio.
- Support for the establishment of new development units or diversification of existing units. The main objective is to strengthen research and innovation capacity of firms via supporting employment and training of researcher sand development staff in interdisciplinary research teams. In 2013 80%out of 58 selected firms were service producers.
- A Competence Centre for Design Management has been established and is co-financed by the European Social Fund (2013-15). The centre seeks to build knowledge and raise the awareness on the benefits of design in terms of product differentiation and source of added value. In this context the instrument directly addresses service innovation and illustrates the role of knowledge services in the value creation.
- A new mechanism (seed capital) was launched in 2014 to support innovative start-ups that are in the product-market fit phase. A convertible loan (ownership share) in the amount of 50.000€ was in the first call awarded to 20 start-ups. 75% of them are service firms that developed different mobile applications and platforms, but need to work on non-technological issues. These firms are provided with 10 weeks of training to acquire targeted skills such as "agile firm" training, marketing, organisation, financing, user experience, business model, internationalisation.

*Estonia* has also recognized the importance of service innovation. It is seen as a horizontal policy issue closely related to ICT utilization and healthcare sector renewal. Concrete new policy initiatives are yet to materialize but there will be several new measures and pilot projects that will be launched starting from 2015 by the Ministry of Social Affairs. The importance of service innovation has been addressed in the Estonian strategy document, 'The third R&D&I Strategy

"Knowledge-based Estonia<sup>21</sup> It notes that Estonia needs to increase innovation policy interventions/measures in service innovation, knowledge and technology transfer, organizational and process innovations. The priority areas specified in the strategy include;

- ICT horizontally across other sectors;
- Health and healthcare technologies;
- More effective use of resources

These areas are also priority areas of the Estonian smart specialization process as indicated by the, 'Smart Specialisation – Qualitative Analysis by the Estonian Development Fund<sup>22</sup>.

#### 2.5. The public sector as a driver of innovation and services

Services and related innovations are largely recognised by all of the main policy actors in *Sweden*. At the same time, deregulation of public health and care services has been a driver for new types of services and service innovations. The citizens' freedom to choose their supplier of welfare services has increased competition and acted as a driver for innovation. Policy developments in Sweden include measures for the stimulation of innovation in public sector services and of the demand for innovations in this sector.

Procurement has been used as a public sector tool to promote service innovation also in the *United Kingdom*. A good example is the National Health Service's (NHS) 3 Million Lives<sup>23</sup> initiative, which uses telecommunications technologies to support assisted living. In this context the UK Government used a large scale demonstrator<sup>24</sup> to test out the approach and this provided the confidence to push through requirements to the private sector.

In addition to the UK, *Finland* has launched demand-side measures to promote service innovation. The actions include a policy programme for demand-side innovation and measures to promote innovative public procurement. A Tekes programme (Innovation in Social and Healthcare Services<sup>25</sup>, 2008 - 2015, €100m) aims at renewing such services and providing business opportunities through innovative activities in the respective sector.

### 2.6. Changes in government, policies and institutions influence service innovation support in several countries

In *Denmark*, innovation in services has not been specifically targeted by new governmental policy initiatives but it has been affected by more general institutional changes, as well as by reforms in other policies. Similar developments are common in other countries and also influence the delivery of innovation policy.

http://www.arengufond.ee/wp-

<sup>&</sup>lt;sup>21</sup> Eesti teadus ja arendustegevuse ning innovatsiooni strateegia 2014–2020, "Teadmistepõhine Eesti;

https://www.hm.ee/sites/default/files/tai\_strateegia.pdf

content/uploads/2013/04/Estonia\_Smart\_Specialisation\_Qualitative\_Analysis.pdf <sup>23</sup> http://3millionlives.co.uk/

<sup>&</sup>lt;sup>24</sup> The Large-Scale Demonstrator approach is explained in the Smart Guide for Service innovation, accessible at: http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.4\_service\_innovation\_en.pdf

<sup>&</sup>lt;sup>25</sup> http://www.tekes.fi/en/programmes-and-services/tekes-programmes/social-and-healthcare-services/

For instance, in *Slovenia*, the economic crisis was coupled with political instability as the country has had four changes of government from the beginning of 2012. Frequent shifts in the distribution of tasks between ministries and implementing agencies slowed down the introduction of new policy initiatives for innovation support (described in Chapter 2.4).

Also, in *Sweden*, changes of the government in 2014 and 2015 created instability in service innovation policies and instruments while the second phase of Service Innovation & ICT<sup>26</sup> (SII) programme was cancelled in *the Netherlands* in 2011 due to new governmental policies<sup>27</sup>. Since then there has not been a targeted service innovation initiative in the Netherlands. Instead support is generated via more generic measures. A new (focused) approach has been introduced in the form of the 'Top Sectors' initiative<sup>28</sup>, in which each of the more thematically defined top sectors is involved in joint programming with knowledge institutes, researchers and enterprises in a 4-year innovation agenda. The top sectors can thus potentially contribute to societal challenges.

The approach to innovation is rather similar in *Denmark* where the public funding has been the subject of changes since 2012. One such development was the establishment of the Innovation Fund Denmark<sup>29</sup>, during April 2014 (with a budget of approximately €210m), in accordance with the national innovation strategy<sup>30</sup>, 'Denmark – a nation of solutions'. The fund replaced finance that had previously been available from the Danish Council of Strategic Research, the Danish National Advanced Technology Foundation and the Danish Council for Technology. Along with this simplification of the funding system, the establishment of the Innovation Fund is expected to lead to an increased focus on social and industrial demand for innovation.

In 2013, the Danish Government published the 'INNO+ Catalogue<sup>31</sup>,' which identifies promising focus areas for strategic investments in innovation (similar to the Dutch approach on top sectors). These are fields where Denmark is considered to have particular industrial and scientific strengths that can contribute to the search for solutions to important social challenges, as well as to creating growth and employment.

Innovations in Denmark are also facilitated by the SME-friendly 'Innobooster Programme<sup>32</sup>,' which incorporates the previous innovation voucher and innovation assistant schemes and adds other types of knowledge-based assistance. Under the new integrated scheme, a company submits an innovation plan and at the same time applies for financial aid to implement this proposal.

In 2014, 22 Innovation Networks were approved for a period of four years and received a basic grant of up to DKK 2 million, or approximately  $\in$  269.000, each. One of these networks is the Service Cluster Denmark<sup>33</sup> which disseminates knowledge and opens up new possibilities for cooperation between service

<sup>&</sup>lt;sup>26</sup> http://ny.the-netherlands.org/you-and-the-netherlands/you-and-thenetherlands%5B2%5D/you-and-the-netherlands/minbuza%3Ashare/innovation-in-thenetherlands/9.-service-innovation-amp-ict.html

<sup>&</sup>lt;sup>27</sup> Such interruptions triggered by government changes are not specific to the field of service innovation, but impact many policies, yet emerging fields like service innovation are particularly vulnerable to them.

<sup>&</sup>lt;sup>28</sup> http://www.government.nl/issues/entrepreneurship-and-innovation/investing-in-top-sectors

<sup>&</sup>lt;sup>29</sup> http://en.innovationsfonden.dk/

<sup>&</sup>lt;sup>30</sup> http://ufm.dk/en/publications/2012/files-2012/innovation-strategy.pdf

<sup>&</sup>lt;sup>31</sup> http://ufm.dk/en/publications/2013/files-2013/innovahovedkatalog\_web\_2.pdf

<sup>&</sup>lt;sup>32</sup> http://innovationsfonden.dk/lige-nu/innobooster/

<sup>&</sup>lt;sup>33</sup> http://www.serviceplatform.dk/english/sider/default.aspx

intensive businesses and research institutions. Activities include matchmaking, co-creation, projects, training and evaluation and monitoring. A new innovation network on financial ICT was also funded, while an existing network on marketing, communication and consumption has been funded for an additional period. All 22 networks are mainly concerned with the service dimension of their respective business areas.

#### 2.7. Service innovation policy development in six ESIC regions

Action-oriented, service innovation policy support was delivered by the ESIC initiative to six demonstrator regions that were seeking to capitalise on the transformative power of service innovation. These comprise of brief overviews of the Canary Islands, Emilia Romagna, Limburg, Luxembourg, Northern Ireland and Upper Austria that are presented in the following.

#### 2.7.1. The Canary Islands

In the Canary Islands, there was only a limited understanding of the concept of service innovation and how it could be used to support the regional innovation ecosystem. ESIC did not identify policy measures that purely target service innovation but proposed instruments that had links to services and service innovations.

These include, for instance, innovation vouchers, which businesses can use to search outside their usual networks for new knowledge that enables them to grow through the development of products, processes and services and the exploration of new markets. Originally, the vouchers were designed to support enterprises working together with schools, colleges and university departments. Currently, SMEs can use a wider range of suppliers with the capacities to support innovative ideas based on R&D, the application of design to business or the management of intellectual property. <sup>34</sup>

Businesses can also apply for grants to boost their economic activity and the creation of new productive structures based on R&D in technology-based enterprises. Funding can be granted for prototype projects that involve the development of new or improved processes, products or services, based on existing knowledge and techniques.<sup>35</sup>

<sup>&</sup>lt;sup>34</sup> https://webgate.acceptance.ec.europa.eu/ENTR/rim\_cp/support-measure/technologicalbonds-programme

<sup>&</sup>lt;sup>35</sup> https://webgate.acceptance.ec.europa.eu/ENTR/rim\_cp/support-measure/grantspromote-creation-and-expansion-innovative-technology-based-companies

#### 2.7.2. Emilia-Romagna

In Emilia Romagna, the service-based policy instruments include two support schemes providing 'business services' to eligible companies. These instruments promote knowledge development and transfer, as well as innovation and business model generation. In both cases, consultancy support is provided to entrepreneurs and start-up companies that are interested in organisational innovation and strategy development. These programmes are not sector specific and they are aimed primarily at assisting companies that want to move up the value chain by providing new types of offers and business models, for example, through the development of new services or product-service packages. <sup>36</sup>

At the national level, 'Industria 2015', the national industrial plan, focuses on the integration of the manufacturing sector with the development of new technologies and of services industries, and on an assessment of the scenarios that will characterise the Italian economy in the coming years. The main policies aimed at promoting industrial innovation focus on innovation in terms of new processes, services and products.

#### 2.7.3. Limburg

Of the six model demonstrator regions of ESIC, the Dutch Province of Limburg is the most advanced when it comes to service innovation support. Opportunities for service innovation have been identified in manufacturing as well as in service sectors. Some actors are already capitalising on these, as the launch of the Document Services Valley (DSV) or the creation of the Smart Services Hub (SSH) illustrate. DSV is an incubator for 'document services' and it supports firms with innovative plans for services that fit into the eco-system of Canon-Océ. The SSH is a consortium of parties keen on investing in measures for exploiting the local expertise in financial-administrative and information-based services. This is done to combine both the economic potential, through developing innovative solutions and smart services, and solving the lack of adequately skilled personnel, through developing new curricula. Additionally the Service Science Factory (SSF) is applying academic knowledge to service design projects across sectors. The SSF is a space in which students, researchers and professionals work together to invent new, or to improve existing services.

There are also specific support instruments that target services. For instance, the LimburgMakers<sup>37</sup> programme for SMEs considers service innovation in manufacturing firms as a priority. The programme was launched in 2013 by the Province of Limburg, Limburg Development and Investment Company (LIOF) and Syntens and has a budget of €10 million for the next three years. Another instrument, the Service Business Acceleration Programme, helps manufacturing firms become more service-oriented. In 2012 the programme published the roadmap Services Business, a collaborative effort from local manufacturing firms and innovation and development agencies in the three southern provinces of the Netherlands, to stimulate manufacturing firms to increase the number of services such as logistics, leasing, training, monitoring/diagnosis and maintenance that can be added to their equipment and systems.

<sup>&</sup>lt;sup>36</sup> https://webgate.acceptance.ec.europa.eu/ENTR/rim\_cp/support-measure/supportintroduction-ict-smes-and-creation-business-networks-and-technological-and <sup>37</sup> http://www.limburgmakers.nl/

#### 2.7.4. Luxembourg

Although there is more awareness of service innovation in Luxembourg than in other regions, this is not fully reflected in the policy mix. As in the case of the Canary Islands, some measures support service innovation, although this may not have been their original intention. Young companies, for instance, can be given support for the development of new products, processes or services, which involve a significant risk of technical or industrial failure. <sup>38</sup>

Support is also provided for the initiation of innovation activities. The measure is intended for SMEs and research organisations established in Luxembourg. This finance is available for innovation advisory services and innovation support services. The former refers to management consultancy, technological assistance and technology transfer services, as well as the acquisition, protection and trade of technical intellectual property rights. <sup>39</sup>

One of the instruments, called 'process and organisational innovation in services<sup>40'</sup>, provides support for a variety of innovations. The main aim is to encourage enterprises to introduce such innovations and the eligibility criteria require the end result to be a standard, a business model, a methodology or a concept that can be systematically reproduced.

Additionally, there is an initiative called 'eXchange2Innovate<sup>41</sup>' that also supports the flow of knowledge between enterprises. One-day workshops on are organised in host companies to present and identify best practices across topics, sectors and company sizes and to provide an open and practice-oriented dialogue, which gives participants initial guidance on service innovation policy. The initiative has been described as a concrete method of presenting the way the company is approaching the introduction of innovations. The enterprises involved range from banks through logistics companies to medical labs and this variety helps to create opportunities for cross-sectoral learning.

Lastly, there is an initiative entitled 'Development capital for SMEs' that has the objective of providing equity or equity participation to SMEs in order to strengthen their capital. Potential beneficiaries include SMEs active in the industry, crafts or service sectors that were established with the status of joint-stock companies and are implementing innovative projects and generating new jobs. The innovative character of the projects can be related to the services offered, the products, the production process or the commercial concept. The initiative is well-suited to service companies regardless of the sector in which they operate, as the funding criteria take due account of the services and production processes, as well as commercial concepts. <sup>42</sup>

#### 2.7.5. Northern Ireland

Measures supporting service innovation in Northern Ireland, directly or indirectly, contain for example the 'Design Service<sup>43</sup>. This service is managed by Invest Northern Ireland and promotes greater design awareness on the part of businesses and provides detailed design advice for the development of long-term design capabilities. The 'Challenge Programme<sup>44</sup>' of InterTrade Ireland, is another

<sup>39</sup> http://en.luxinnovation.lu/Services/Advice-on-national-and-European-funding-

opportunities/National-funding/Financing-R-D-and-innovation-projects-in-a-company

<sup>&</sup>lt;sup>38</sup> http://en.luxinnovation.lu/Key-sectors/Young-innovative-businesses

<sup>&</sup>lt;sup>40</sup> http://www.innovation.public.lu/en/financer-projets/rd-entreprise/innovation-procedeorganisation/index.html

<sup>&</sup>lt;sup>41</sup> http://www.exchange2innovate.lu/en/home.php?content=profil

<sup>&</sup>lt;sup>42</sup> http://www.innovation.public.lu/en/financer-projets/creation-entreprise/cd-pme/

<sup>&</sup>lt;sup>43</sup> http://secure.investni.com/static/library/invest-ni/documents/design-advice-service.pdf

<sup>&</sup>lt;sup>44</sup> http://www.intertradeireland.com/challenge/

example that helps people to work in a way that is more creative, more commercially-oriented and more innovative.

NORIBIC Ltd. provides mentoring and business coaching to SMEs, microbusinesses and start-ups and innovation consultancy for those with new products and business models. NORIBIC provides services such as business support, business training, business innovation, product innovation, coaching and mentoring and creative industry support.<sup>45</sup>

There are a number of programmes that are available to promote collaboration. For example, INVEST Northern Ireland supports business-led, collaborative networks that stimulate economic development. The objective is to expand the capability and capacity of these networks by attracting private sector companies, investors, researchers and academia that can help them to capitalise on opportunities to develop new products, processes or services.

#### 2.7.6. Upper Austria

Upper Austria is known for the strong manufacturing industry and the region has several tools for supporting technological R&D. There are, however, also some steps towards a more service innovation inclusive policy mix. The Upper Austria Research and Technology Council has recently been involved in various activities promoting knowledge-intensive services such as providing advice on the content of strategic programs. The prominent recommendation is to strengthen Upper Austria's competitive position irrespective of whether this is done through technologies or services. Furthermore, Upper Austria's economics department offers the 'Economic stimulus program' for mature enterprises of any size. This funding for material investments enables firms to start a new business, move their production site, or expand their operations by introducing "a basic process, product, or service innovation".

#### 2.7.7. Lessons learned

The work conducted in the model demonstrator regions allowed ESIC to summarise the key points in adopting a systemic and service innovation inclusive policy that relate to the key elements of any regional policy design process as well as modernising the policy mix. The former refers to a process in which small steps can be taken towards *systemic policy design* in a region. This entails identifying opportunities and priority domains for service innovation, raising awareness and promoting role models, making appropriate political commitments, selecting a coordinator and putting governance in place, adapting the policy mix and addressing the necessary framework conditions as well as ensuring policy intelligence and policy learning (based on monitoring and key performance indicators).

Modernising the innovation policy mix can be started by adapting the existing policy measures as well as by complementing and improving connections between measures in the policy mix. The figure below illustrates the types of policy actions that were scrutinized in the model demonstrator regions. Most of the suggested actions concern the adaptation of existing measures and in some cases they would require the creation of new types of actions. For more

<sup>&</sup>lt;sup>45</sup> http://www.noribic.com/

information please see the 'Lessons from the Model Demonstrator Regions: Service Innovation Policy in Practice' report. <sup>46</sup>





Further information illustrating the work conducted in the Model Demonstrator Regions is also available at the ESIC webpages. This refers to the Summary Assessment Reports consisting of thorough analyses of the role service innovation could play in the economic and industrial development of each region, the Proceedings Reports summarising the key points from the regional peer review workshops as well as the Policy Briefs containing recommendations for the development of a more systemic innovation policy and a business environment conducive to structural change. <sup>47</sup>

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http://ec.europa.eu/DocsRoom/documents/6911/attachments/1/translations/en/renditions /native

<sup>47</sup> http://ec.europa.eu/growth/tools-

databases/newsroom/cf/itemdetail.cfm?item\_id=7756&lang=en&title=ESIC%2DSynthesis %2DReport%3A%2DLessons%2Dfrom%2Dthe%2DModel%2DDemonstrator%2DRegions%2D%2DS ervice%2DInnovation%2Din%2DPractice

#### 3. Concluding comments

Service innovation policies in Europe are amongst the most developed in the world. However, it is clear that there is no such thing as a coherent trend towards European-wide service innovation policy. Even this limited review indicates that service innovation policy development is uneven, with differences existing between countries. Such differences are apparent in service innovation policy-related concepts, in understanding of the nature of the transformative power of services, as well as in policy approaches and in the instruments employed to implement these policies. In more advanced countries, support for service innovation is integrated into mainstream innovation policy. At the same time, many other countries are still developing an understanding of service innovation and the possibilities that might exist to support or develop it.

In this sense, there is a need for EU level activities that can promote the sharing of good practices in service innovation support between EU Member States. In other words, there is still need for EU level flagship type projects such as the EPISIS project or the ESIC initiative. In addition to knowledge sharing, such projects can be very effective in building networks involving policy-makers from the Member States. Such EU level activities can be crucial to the development of more effective service innovation support policies and instruments.

There are still relatively few policy programmes and instruments that specifically target service innovation. This means that service innovation policy tends to suffer from systemic deficiencies. In practice, this is related to the fact that a large number of innovation policy instruments are biased towards technology. For instance, in many countries, the funding criteria for research and innovation projects do not fully recognise the potential of service innovation.

Service innovation potential and support measures need to be seen in the broader context of the grand societal challenges, the search for increased competitiveness and the recognition that services and manufacturing are increasingly interconnected activities. This indicates that the best existing context for exploiting the transformative power of service innovation is the EU Horizon 2020, which is the EU Framework Programme for Research and Innovation.<sup>48</sup>

<sup>&</sup>lt;sup>48</sup> <u>http://ec.europa.eu/programmes/horizon2020/</u>

# APPENDIX – the recommendations of the EPISIS (European policies to support service innovation) project

- 1. Provision of a supportive environment for innovation in services and business processes;
- 2. Promotion of awareness and understanding of innovation in services and business processes by:
  - a. Broadening of stakeholder engagement on policy development and implementation in innovation in services and business processes by establishing a stakeholder network to inform future policy development and implementation;
  - b. Keeping existing public RD&I supports under continual review and tested to ensure that projects involving innovation in services and business processes are eligible for funding and support;
- 3. Strengthening of the research base relevant for innovation in services and business processes;
- 4. Supporting innovation in services and business processes in enterprise by adopting a strong focus on the end-user in innovation in services and business processes initiatives;
- 5. Encouraging multidisciplinary approaches to establish innovation in services and business processes projects of scale;

6. Establishing a supportive evaluation mechanism by setting an appropriate mix of traditional and less traditional metrics.

The report is available at:

http://www.tekes.fi/globalassets/julkaisut/episis\_taskforce6\_final\_report.pdf