# PROJECT FINAL REPORT PUBLISHABLE SUMMARY

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#### 1. FINAL PUBLISHABLE SUMMARY REPORT

#### 1.1 INNOFIT EXECUTIVE SUMMARY

For long, the match between technical research and consumer demand may seem an obvious assumption for the development of new products. The supply side of innovation – producing technical knowledge has traditionally been the focus of European innovation programmes, for instances, the funding of basic technical research and its publications, education of experts, and the creation of patents. The demand side of innovation: the commercialization of technical knowledge was left to the entrepreneur.

However, the innovation performance in Europe shows that, despite of the highest number of patents worldwide, Europe is still far away from a fertile place for technology companies which entrepreneurs, venture capitalists and policy makers dream of: not just producing brilliant ideas, but turning them into lucrative commercial reality.

Featured by the Finish EU presidency in 2006 the demand side of innovation has recently gained attention for European innovation policy with a number of new policy instruments under development. A number of innovation initiatives are emerging. If the demand side can drive innovation (market-pull), the critical mass of public purchasing volumes, for example, can be used to create "lead markets" for innovation through public intervention.

In this project, we investigate the impact of regional advanced demand creation mechanisms like the European Satellite and Navigation Competition and the Living Labs to develop the innovation action plans for regions. The shared Action Plan is to be taken up by Regions willing to become active players in the Satellite Navigation downstream market by adopting demand creation mechanisms at regional level. In this way, the Joint Action Plan is specifically for regions.

Granted, a well-designed Joint Action Plan for regions is just the first stride for addressing difficulties in demand creation. We run regions engagement/dissemination activities to involve stakeholders from different regions like the engagement activities in Spain, Germany, and China to find out different regional innovation models beyond Satellite Navigation sector and Europe. In addition to the critical or seminal feedbacks on Joint Action Plan that we disseminate, the message that we learned as well is that, various regional innovation models didn't work in tandem in most regions. For most of the regional innovation concerned organizations, they are still struggling to provide better service. For this, one of the possible explanations is that, the innovation institutions are not able to address the new level of policy making. The regional innovation actors are not competent to deliver the demand creation.

For this, a regional innovation policy consulting package for regional government and other institutional actors is offered by the project consortium. This consulting package is developed from the results of the project through a bottom-up approach, and aimed at assisting in capability building for regions.



#### 1.2 SUMMARY PROJECT CONTEXT AND OBJECTIVES

For sustaining and fostering economic growth, the European Union focuses on innovativeness. The Special European Council acknowledged this fact in 2000 by the Lisbon European Council. The Lisbon Agenda was drafted with an aim of making the EU the most competitive and dynamic knowledge-based economy in the world being capable of sustainable economic growth. It has sparked interest and action in new approaches to economic policy for competitiveness and innovation.

Over the past 10 years, the European Commission developed a variety of initiative for making Europe become a place where entrepreneurs and policy makers dream of: not just creating new knowledge, but turning them into lucrative commercial reality, creating a lot of jobs. For instance, in 2009, the European Year of Creativity and Innovation 2009 is initiated, the first European Innovation Summit has been organized, the first innovation commissioner of EU, Maire Geoghegan-Quinn, has been appointed, she is heading a group of commissioners to produce a "research and innovation plan" to make life easier for European technology start-ups.

Among them, the Living Labs have been recently been adopted as a new innovation instrument to foster European competitiveness. It is based on the conception of open innovation. Open innovation is a new paradigm which aims to explain and overcome a lack in innovation capabilities in many companies. In closed innovation, research and development is usually done internally. The closed innovation paradigm requires a company to be in control in order to realize innovation successfully. The open innovation paradigm in contrast to the closed approach, proposes that companies are able to use external as well as internal sources. If firms attempt to innovate they are required to rely on internal as well as on external ideas and to use internal and external channels to market.

In this sense, Living Labs are different from other innovation platforms. They specifically focus on discovering and evaluating potential innovations together with end users, typically taking a medium or long-term perspective. As such they have taken the interest of a wide body of stakeholders. By now, the European network of Living Labs already counts 129 members.

Despite of these vibrant and lively initiatives, it is not yet clear about the role of regions in innovation processes. Most of the initiatives are EU/National policies and programmes which are far from the place where innovations take place and where these initiatives are implemented. As a result, the intentions of fostering innovation, building knowledge-based economy are hanged in the air, in most cases, the role of regions in these initiatives, the benefits for regions, and even the sustainability of these initiatives are not well addressed.

Take our conversation back to innovation processes, we found that the supply side of innovation has traditionally been the focus of European innovation programs, the funding of basic technical research and its publications, education of experts, or the creation of patents. This is in line with competition regulations that require research subsidies to be constrained to the pre-competitive sphere. Especially after the termination of the public private partnership Galileo clearly shows the public role in the supply of the Galileo satellite infrastructure by the European commission and the European Space Agency ESA.

However, technology-pushed innovation comes with market failure because the question remains unanswered whether there will be a market and for which services. For long, the commercialization, the demand side of innovation was left to the entrepreneur. Featured by the Finish EU presidency in 2006 the demand side of innovation has only recently gained attention for European innovation policy with a number



of new policy instruments under development. If market-pull can drive innovation, the critical mass of public purchasing volumes, for example, can be used to create "lead markets" for innovation through public intervention. In the case of Galileo, public lead markets are easily spotted if we just think of road taxing like the German TollCollect, cadastre or navigation applications. Another example is the Dutch "Innovation Voucher", with which customers can ask for a public complement (the voucher) to the budget for the purchase from the supplier, rather than directly funding the supplier. While demand side instruments still emerge, it becomes apparent that demand and supply are the closely related chickens-and-eggs pairs of any innovation.

Dynamic innovation processes are a way to combine the supply and demand side and, as Silicon Valley and Boston suggest, are based on effective regional infrastructures. Innovation policy discussion in Europe is still fragmented among the - mostly supply oriented – titles of "Europe of Regions", the "Regions of Knowledge", or "European Cluster Initiative". But there are new developments, for example, when the Finnish presidency introduced Living Laboratories, in which the innovation dynamics centre on the needs of real – living – users. The intention is that in repeated experimental feedback cycles, new products and services are created together with users demand for them. The impact of such demand creation mechanisms and the effective involvement of policy makers, scientific knowledge providers, products or services manufacturers, and users in such regional innovation processes are not well enough understood for concrete innovation policy recommendations.

This project will first determine the status of a couple of regions by mapping out existing capabilities sustaining demand-creation and clarify their specificities (SWOT analysis) likely to affect the adoption and success of new demand-creation activities. In parallel, the project will investigate the mechanisms at play in successful regions worldwide and therefore learn from international best practices. Finally, the project will examine European Satellite Navigation priorities for demand creation to ensure top-down consistency and alignment with future support and planning activities.

Our second objective is to enable demand creation in each region by stimulating result-driven collaboration among Satellite Navigation stakeholders. This will be achieved by first identifying and involving with brokers who are champions of demand-creation in each region. Based on the study of the status and specificities of each targeted region, the partners and brokers will identify opportunities and regional actors capable enabling them and determine the appropriate mechanisms. INNOFIT will then support brokers to gather entrepreneurs and SMEs with interest in Satellite Navigation technology, "send" the opportunities and the vision to transform them into sound products, services and ultimately, economic growth, jobs and welfare for the region.

The third objective is to draft a Joint Action Plan proposing, for each targeted region, adapted strategies and relevant activities to further support demand-creation. This will largely derive from the project findings during the initial study phase but also of its experience acquired while supporting demand-creation within European regions. This action plan will be complemented with its relevant business plan detailing how the above-mentioned activities will be funded, therefore securing its implementation.

Finally, we intend to disseminate the project results in sample regions and, by this mean, contribute to the mobilization for the Joint Action Plan to follow-up. However, we will also disseminate in other SatNav European regions and in other high-tech clusters beyond Sat-Nav domain and Europe. Indeed, the project concept, findings and experience will be relevant to other European regions of knowledge because this project follows a systematic actionable approach to stimulate demand creation within a region. Hence, the



overall objective of the dissemination will be to ensure continuity in the development of regional demand-creation capabilities, extend the community both in the SatNav sector and in other relevant high-tech clusters.



#### 1.3 MAIN S&T RESULTS/FOREGROUNDS

Our mission is to establish a plan, mechanisms and metrics for the wide adoption of the integrated demand creation approach for European regions of knowledge especially in the Sat-Nav sector. The main results in clued:

#### 1.3.1 CONCEPTUALIZATION OF DEMAND CREATION

Prior to the investigation of concrete demand creation mechanisms, we, firstly, look into the concept of demand creation by studying the extant demand creation associated research. As the following chapters indicate, these researches range from economics to business management study.

#### 1.3.1.1 The demand creation in economics

We start with the demand creation concepts in economics literature. Demand creation is found in an economic growth model which has been presented by Aoki and Yoshikawa in 2002. In their model, they argued that the factor to restrain growth is saturation of demand. They questioned the standard assumption in the traditional economics literature that all the products are "symmetric" and income elasticity of demand are common for all the products, and provided a model based on observations of the logistic growth of an individual product/industry. They took the preferences as endogenous in this model and argued that the factor to restrain the growth of economy is saturation of demand; economic growth can be sustained by introducing new products/ industry, which works via affecting preferences, and creating demand.

In addition to macroeconomic literatures, demand creation also has been found in an economic research on "innovation enterprise" (Lazonick 2000). In which Lazonick addressed the deficit of neoclassic theory of the optimizing firm and proposed a new model. Contrary to neoclassic monopoly model that assumes an optimizing monopolist takes technological and market conditions as given constraints and will choose to produce at a smaller volume of output and at higher prices than the aggregate of optimizing competitive firms in a particular industry, he argues the innovative firms become dominant by transforming the industry conditions, shaping market demand, and producing at a larger volume of output that it can sell at lower prices than the optimizing firms in the industry. Three social conditions (strategic control, organizational integration and financial commitment) of innovative enterprise which can enable innovative enterprises transform technical and market conditions have been provided.

Growing number of researches on economic growth seems reaching a common consensus that innovation, shaping demand are keys to an understanding to economic growth, is being reached among economist. Demand creation is not a brand new idea to substitute the existing researches, it helps draw attentions to a very important aspect of innovation and economic growth. So far, it hasn't been systematically analyzed by quantitative methods.

#### 1.3.1.2 Demand Creation and Marketing

In addition to economics literature, demand creation is quite often mentioned in the marketing researches. Marketing is a process by which companies create value for customers and build strong customer relationships in order to capture value from customers in return (Kotler & Armstrong 2006). The process of marketing consists of five steps: Understand the marketplace and customer needs and wants; Design a customer-driven marketing strategy; Construct a marketing program that delivers superior value; Build profitable relationships and create customer delight; and Capture value from customers to create profits and customer quality. The demand is defined as human want that is backed by buying power.



Considering the objectives of this project which is to identify the capabilities of European regions of knowledge and establish a joint action plan to facilitate the transformation of knowledge into useful products and services. In this part we focus one of the most important thematic fields in marketing research—New product development.

#### (1) New product development and Demand creation

In order to explain why some companies run more successful new product development than others, factors including respectable R&D budget, visible strategy, and others are uncovered (Cooper & Kleinschmidt 2007). The communication and collaboration with external partners like suppliers (Handfield & Lawson 2007), firms (Ganesan, Malter, & Rindfleish 2005) (Dowling & Helm 2006) and users (von Hippel 2005a), could promote new product development success. The research findings of (Lechner & Dowling 2000) shows that cooperative networks of firms are often embedded in regional clusters. Further research by (Dowling & Helm 2006) revealed that younger firms are shown to be more successful when they cooperate with other firms, while older firms will profit more from cooperation with research institutions.

#### (2) User Innovation and demand creation

The role of end user in new product development has been emphasized by scholars. It has been almost 30 years since researchers and practitioners began to study innovation by end users and user firms systematically (von Hippel 2005b). Now, it becomes a buzz word for both practitioners and academician. In traditional manufacturer-centric model, products and services are developed by providers in a closed way, the knowledge entailed by the products/ services like patents mainly comes from their innovation investment, and to avoid free riding, this knowledge are protected strictly. A user's only role is to wait and let their need be identified and met by introducing new products/services. Unlike this traditional one, in User-centred innovation process, users can join the new products/services process and develop what they want(Baldwin, Hienerth, & von Hippel 2006).

Quantitative researches show that a large portion of important innovation in different fields has been developed by users. I.e.,oil refining (Enos 1962), semiconductor processing (von Hippel 1988), chemical production processes (Freeman 1968). From welfare economists' point of view, comparing with a society in which only manufacturers innovate, social welfare is very probably increased by user-centred innovation (Henkel & von Hippel 2005).

"Leader user" is important concept in user-centred process (Luethje & Herstatt 2004;Morrison, Roberts, & Midgley 2004;Olson & Bakke 2001;Urban & von Hippel 1988). Lead users representatives of the majority of users, they face needs that will be general but face them months or years ahead of the bulk of users; they are positioned to benefit significantly by obtaining a solution to those needs. However, users' need for products / services are idiosyncratic and heterogeneous (Franke & von Hippel 2003). In order to combine and leverage various needs, user communities which users come together, build networks that provide useful structures and tools for their interactions are introduced. With which the researchers believe users and products/services providers can improve the effectiveness in developing and diffusing their innovation (Franke & Shah 2003;Jeppesen & Frederiksen 2006;von Hippel 2007). Free and open source software projects are relatively well-developed form of user communities (Bagozzi & Dholakia 2006;Lakhani & von Hippel 2003;von Hippel 2001).

In spite of growing literatures on the user centred innovation, researches didn't start to touch the industry or regional level. Most of relevant studies are focused on firm level; the researchers put a large portion of



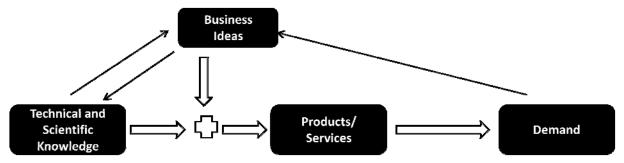
attentions on specific product/service or company. To address questions like "Is the concept of user innovation valid under the industrial/regional context?" and "How to apply the concept of innovation communities, lead users under the industrial / regional context?" becomes a tough challenge of this project.

Both economic and managerial researchers are realizing that discovering, shaping and meeting demands are important for the growth of enterprises and the growth of economy. The two models, technology-push and demand-pull are important for innovation (Dosi 1982; van den Ende & Dolfsma 2005). They are different ways to shape and address demands; technology-push is characterized by technology-oriented, while the other is user-oriented. There is no priority existing among them, different models fit specific environment; both of them achieved significant success in the past.

Despite of large amount of demand creation studies, there is no generally accepted definition on this; researchers give different meaning for demand creation according to their specific research context. However, from the literatures like user innovation or economic theories, we could conceive that demand creation is an interaction process between factors: Business Ideas, Scientific /Technical Knowledge, Service / Product and Demand.

#### 1.3.1.3 Dynamic demand creation process

Based on the literature, we propose that, demand creation consists of four elements including: Demand, Scientific / Technical Knowledge, Service / Product and Business Ideas. In this process, demand is discovered, shaped and satisfied. In short, the availability of scientific/technical knowledge and business ideas are necessary for the development of service/product; service/product is the actual good which can meet user's demand; demand and scientific/technical knowledge promote and stimulate the formation of new ideas; ideas also exert influence on the discovery of scientific/technical knowledge in turn (see Figure 1).



**Figure 1 Demand Creation Process** 

#### (1) Demand

Demand in this process is defined as consumer's desire and willingness to get a specific product or service and ready to pay a price for it. Traditional marketing research takes user's need as given, one generally accepted strategy to gain competitive advantage for a firm is listening carefully to consumers (Rosenbloom & Christensen 1995), which the demand has been discovered already and is being satisfied by the product/ services and knowledge providers. Take GPS & Navigation equipment as example, the users knows their need for guiding driving; the equipment manufacturers improve their products according to user's demand; the R&D centres ensure the success of the improvement.

However, firm cases and academic research have shown that it cannot ensure sustaining success of firms (Christensen & Bower 1996), some established firms led industry in developing technologies failed for lack of impetus and resources deployed to the demand which no customers yet exist. The need for a particular product cannot be met by existing suppliers or is temporarily suppressed, but will become active under



particular conditions. Sometimes, even the users don't know what their needs are exactly. The way to activate the need is not simply waiting until it becomes noticeable. Entrepreneurial activities are the most usually way that makes latent demand "visible". The latent demand is activated when the unexpected product or service comes to users. Users cannot tell you what they want, but they can tell you they like it or not when a product or service comes to them.

Turning to industry or cluster level, it becomes more apparent that demand can be created. In the SMS industry, for example, the SMS service was initially launched for the complaining on the high cell phone rates, which at first, rare people use this function, now it has already become a part of our daily life, in Korea and China, it's a profitable industry.

On the other side, demand is the most crucial source where the innovative ideas come from. It will be discussed in more detail in business ideas section.

#### (2) Service or product

Services or product is anything that can be offered to a market for attention, acquisition, use, or consumption that might satisfy demand. The forms of products could include physical objects, activities, events, ideas, or mixes of these entities (Kotler & Armstrong 2006). It is a mediator good between scientific/technical knowledge and demand; it is a "touchable" and "visible" form of knowledge that can meet user's needs.

Business ideas and technical/ scientific knowledge are two necessary factors to constitute a real product/service. Business idea is the core part of a product or service. Scientific/ technical knowledge is the resource entailed with which manufacturers turn the ideas into actual product or service.

Product or service can be realized by small and medium size enterprises (SMEs), entrepreneurial ventures, new product development or new business development of big companies. Of which SMEs and entrepreneurial ventures account for a large proportion of the product/service development. During the launch process of product/service within SMEs and entrepreneurial ventures, getting financial capital from external provider in terms of venture capital from venture capitalists and angles, subsidies from public organization is crucial factor influencing the succeed of product/service. On the other side, SMEs and entrepreneurial ventures lack sustaining R&D capabilities for further development and improvement of product or service. The operation of these companies often focus on single product/service business, which usually is not mature, and need continues improvement. To these companies, the access to external R&D capabilities is another valuable resource.

#### (3) Scientific/technical knowledge

Scientific/technical knowledge is required for the development of product or service. It could be displayed as registered patent, blueprint, equation and other forms which are not user friendly to downstream customer, but they are necessary to manufacture an actual product or service. The universities, research institutes, and R&D centre of large enterprises, are main providers of such kind of knowledge.

However, nowadays, the knowledge comes from the knowledge providers mentioned above seems become more and more "unnecessary". The increasing number of registered patents didn't bring sufficient support in demand creation as we expected. Being the "world champion of patent creation" in 2006, many European countries remain to have low economic growth and high unemployment rates. It indicates that abundant knowledge is not enough to ensure economic growth.

#### (4) Business Ideas



Ideas are key component of a product which addresses the question what does the user really need? The source of ideas is "change", the famous strategy think tanker Peter Drucker once summarized 7 sources of innovative ideas (the unexpected, incongruities, process need, industry and market structures, demographics, change in perception and new knowledge) (Drucker 1996), except the new knowledge, the remaining all come from demand change.

Yet the idea from new knowledge is the riskiest and least successful source of innovative ideas for its basic characteristics: time span, casualty rate, predictability, and in the challenges it poses to the entrepreneurs (Drucker 1996). It seems a big challenge to apply the created knowledge into markets. However, based on previous research finding like new product development and users, we propose that the negative impacts on the success of ideas based on new knowledge could be alleviated by connecting knowledge provider and users' demand, get the R&D research more demand and idea oriented.

In spite of high risk, the history-making innovation's case, the success of previous knowledge-based innovation make the ideas come from new knowledge become the "super-star" of entrepreneurship. It is also the super star in this project. Bright ideas are ruled out in above discussion, which a small proportion as low as one in five hundred ideas makes any money above its out-of-pocket costs according to relevant research (Drucker 1996).

In general, we propose that demand creation is an aim which is to bridge the gap between R&T knowledge and downstream application, transfer knowledge into useful product and services, harvest profits it deserves.

Demand creation is a process that discovers, satisfies latent and existing demand with services or products development which are based on technical or scientific knowledge. It consists of 4 steps: formation of ideas, discovery of technical/ scientific knowledge, the development of products/services, and satisfying of demand. Of which discovery of technical/ scientific knowledge and formation of business ideas have no fixed sequence. Formation of ideas may trigger the discovery of knowledge; the discovery of knowledge also can stimulate the formation of ideas in turn.

The realization of demand creation is equifinal, set up of entrepreneurial venture and new product development is the most common way to realize the demand creation process. Knowledge and financial capital providers are necessary participants in this process. In addition to actors, the external factors like entrepreneurial climate, regulation policy also play an important role in the demand creation process, which influence all the stage separately.

#### 1.3.2 FIVE DEMAND CREATION INSTRUMENTS

As we discussed above, demand creation is defined as a process consisting of different stages, which play supplementary roles to each other during the shaping, discovering, and satisfying demand. The following five identified demand creation instruments we are going to discuss are employed by different industries and regions, ESNC, for example, focus on Satellite Navigation Business, is a European event with world reach; while Innovation Voucher centred on SMEs without specific industry emphasis. They are chosen by the criteria of mechanism for Scientific and technical knowledge transfer, mechanism for Service and product development, and mechanism for Discovery of latent and existing demand.

#### 1.3.2.1 Business Idea Competition

A Business Idea Competition is a broad public invitation to submit short description of business ideas. These ideas are evaluated by an expert committee, who nominates a winner. Through the publicity of an award ceremony, the winning team (s) get positive feedback, which increases their entrepreneurial commitment.



And they attract high public attention, which serves as marketing and networking contribution to the development of their idea and business. The award as well generates benefits for the innovation system: For the larger community the winners serve as role model that attracts further demand oriented thinking and action, the award committee accumulates knowledge over technologies and markets, which can serve policy decision making.

The case of ESNC (European Satellite Navigation and Competition)

ESNC is business idea competition platform aimed at promotion of Global Navigation Satellite System (GNSS) on regional and European level. This annually event was firstly launched as "Galileo Master" in 2004 by Anwendungszentrum GmbH Oberpfaffenhofen (link: http://www.anwendungszentrum.de) under the patronage of the Bavarian State Ministry for Economics, Infrastructure, Transport and Technology. Its process is described in Figure 2 – Current European Satellite Navigation Competition Process. It has become a highly visible and prestigious award in the area of Satellite Navigation and represents the "innovation platform" in Europe for the implementation of satellite navigation. With 13 participating partner regions (Figure.3), 100 experts from industry and research and almost 300 represented application ideas from 50 countries in 2008 alone. This network (include high-tech regions, experts, entrepreneurs, lead ventures like T-system and DHL, and European institutions & agencies like GSA, DLR and ESA) has managed to increase continuously.



Figure 2 Current European Satellite Navigation Competition (ESNC) process

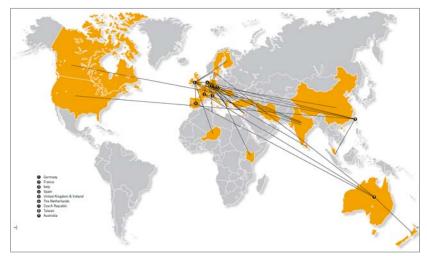


Figure 3 ESNC cross-regional interaction and collaboration

The fact sheet about ESCN shows that its potential goes far beyond the publicly known business idea competition, including the largest think tank of over 500 active GNSS business application experts and initial venture creation processes. Some facts are

- 15 partner regions (13 EU, Taiwan and Australia);
- 6 Special Topic Prizes from industry and research;
- International Marketing & Communication (Mailing list of 40.000 addresses, 150 online portals reporting about ESNC, newspapers, press releases etc.);
- 525 participants and 293 business applications;
- 60 awarded business applications;
- 50 % of the participants at the ESA Investment Forum 2009 are from the ESNC 2008;
- 30 % of the ESA incubates in Noordwijk are from the ESNC;

ESNC, as a business idea competition platform, it stimulates demand orientation early in the innovation process in different ways:

- Increasing number of new ventures in all regions from the ESNC (e.g. 38 new ventures in the incubator of the AZO in Oberpfaffenhofen);
- ESNC has created new market trends, like LBS gaming (120 gaming applications in the ESNC 2008) or green solutions for logistics & road applications (carbon footprint);
- Increasing number of industrial & institutional sponsors; lead ventures of the value-added chains like DHL, T-Systems, Navteq and renowned space agencies like ESA and DLR;
- Increasing number of participating SME's, mostly interested in the special topic prizes;
- Increasing requests for product developments and product launches;
- Increasing number of companies being financed through venture capital and corporate venture capital.



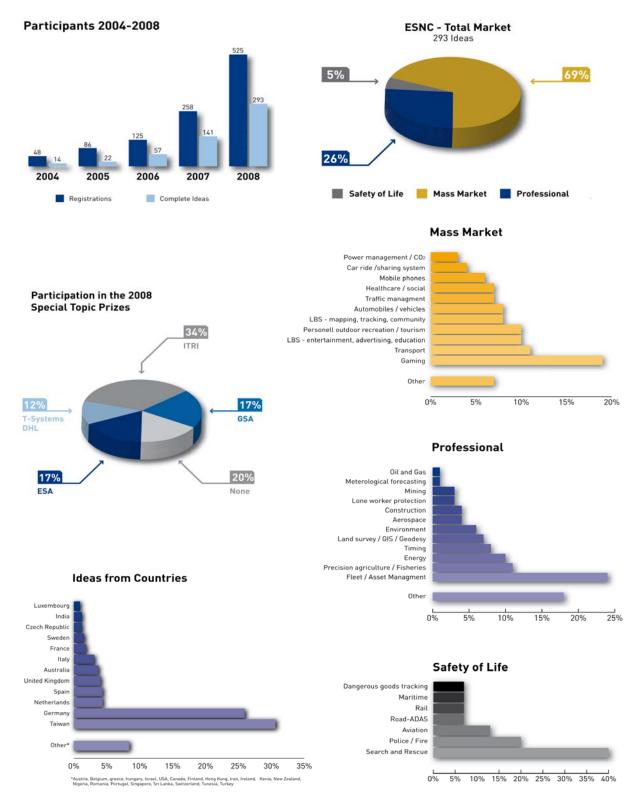


Fig. 4 ESNC 2008 facts & figures



#### 1.3.2.2 ENoLL (The European Network of Living Labs)

A Living Lab is an open innovation environment in real-life settings in which user-driven innovation is supported by the availability of established, consolidated services and ICT infrastructure for new applications/services development. It provides the ideal environment for developing innovative Satellite and Navigation downstream products and services, involving users, customers and citizens as appropriate in the development loop. 129 Living Lab (Figure 5) sites are already operational in different domains, spanning from e-Health to Energy Optimisation and Efficiency, from Intelligent Mobility to Inclusion of the elderly and disadvantaged people and Rural Development. The Living Labs are grouped under the European Network of Living Lab, which was launched in November 2006 by the EU Finnish Presidency and supported by the subsequent ones.

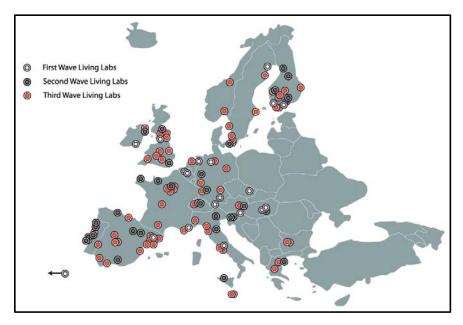


Figure 5 Living Labs in Europe

The case of FRASCATI Living Lab

The main objective of the Frascati Living Lab is to develop, experiment and exploit innovation, in real life scenario, involving:

- Incubation processes as those promoted within the ESA BIC Lazio cooperation for the transfer of Space technologies to non-space sectors;
- Traditional rural applications as environment, agriculture (wine management) and tourism, to serve at the same time citizens (producers), value added service industry and science.

The main driver of this initiative is the necessity of increasing the exploitation potential of the platforms, services, applications and technologies which are available to ESA-ESRIN under the main GMES framework. The idea is that combining available technologies and re-deploying them in new business and economic sectors can give origin to significant business streams, run by SMEs and validated through the mass intelligence / wisdom of the crowd (users' involvement in the definition of product/service features)

The core element of the Frascati Living Lab is its IT technological platform, formed by:

An online web portal. The web portal allows the user to actively choose between different



services and to access each single application. Currently, it is possible to access the portal either at http://www.frascatilivinglab.eu or http://www.frascatilivinglab.org. This provides a facilitated access to all the available GMES technologies and services to all the SMEs willing to learn more and experiment on the available GMES technologies and services, thus providing a valuable input to the design phase, reducing both costs and risks (see Figure 6)

• A collaborative workspace (see Figure 7), in which the basic interaction processes are supported, to facilitate the interaction between the various community typologies in the product development phase. It includes all aspects related to "collaboration" and "shared workspace" concepts and allows business workflow management, creation of documents, appointments, contacts, tasks, notes and lot more, in a shared way.

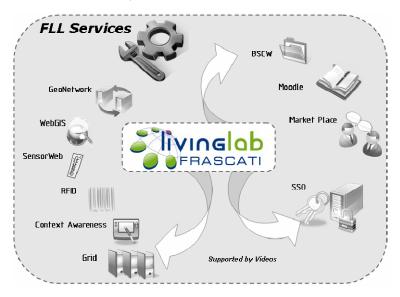


Figure 6 Frascati Living Lab Portal Concept

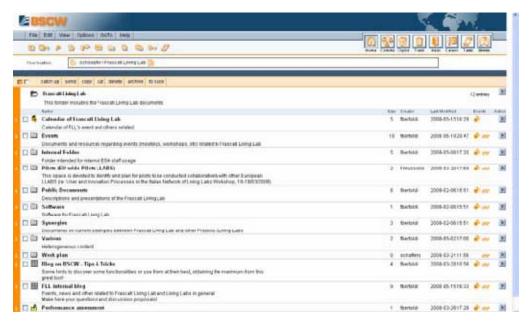


Figure 7 Screenshot of the Frascati Living Lab Collaborative Workspace

The Frascati Living Lab initiative is an example of advanced mechanisms to re-deploy existing technology in different market sectors through the identification of new use and implementation



scenarios. This allows for the creation of additional demand, which can be latent at various stages of industry, economy and society. It is worth mentioning that the initial focus of the Frascati Living Lab initiative can be subsequently widened and opened to other sectors and segments, beyond rural. As a matter of fact, the Frascati Living Lab initiative can very well support trans-regional projects, not being linked to the original territory.

As such, the Frascati Living Lab initiative removes a number of existing barriers which actually prevent SMEs from adopting new technologies and exploring their deployment in real business contexts. Such barriers are:

- High costs to support R&D phase for the selection of baseline technologies;
- High risk involved in the launch of new products/services, especially for SMEs.

#### 1.3.2.3 Innovation Voucher

Innovation Voucher is an innovation policy instrument which is said to be initially launched in 2004 in Netherlands. It aims at stimulating knowledge transfer between small and medium sized enterprises (SMEs) and knowledge providers such as public research institutes, semi-public research institutes, and even some private ones. In practice, the organizer provides SMEs with credit note to buy technological or other knowledge from knowledge providers. It stimulates demand orientation mainly in the stage of product development in innovation process by extending knowledge which could be applied by SMEs. It also facilities the potential cooperation between SMEs and knowledge providers due to the bridge building during the implementation process of Innovation Voucher.

The case of Innovation Voucher in Netherlands

Initiated by Dutch Ministry of Economy Affairs, The Innovation Voucher, an innovation policy instrument which firstly launched in 2004. In the past several years, a number of regional programmes similar to innovation voucher were introduced in the southern province, including "research vouchers" in the province of Limburg(1997-1999), "Southern Netherlands knowledge vouchers" (2001-2004), "inter-regional vouchers"(2001-2002), "cross-border knowledge vouchers"(2002-2004) and "interreg mid-benelux area innovation vouchers"(2005-2007)1.

The first round of an innovation voucher pilot is set off from September 2004, 100 of 1044 SMEs applicants were offered with large vouchers randomly by means of lottery, each large Voucher has a value of 7500 euro (comparing with small Voucher with a value of 2500 euro). Some 400 large vouchers were distributed in a second allocation round in March 2005, in 2006 a total of 3,000 small vouchers and 3,000 large vouchers are available. The procedure for innovation voucher could be divided into 3 stages: application submitting; selection, and implementation.

#### (1) Application submitting

Only SMEs can apply for innovation vouchers, and each firm can only apply for one voucher. But it is possible that several companies (less than 10, include 10) could jointly apply for vouchers for a common question.

In this pilot, 1044 applicants applied for the available 100 vouchers, the average turnover is 3.5 million euro (Cornet, Vroomen, & Steeg 2006). The results show that in total 270 of the firms indicated during



www.interregio.nu 30-06-2008

the interview had had at least some contact with a research institution in the past. Even so 171 of the 313 firms had never commissioned an assignment from a research institution. It seems that SMEs have demand for cooperation with research institutions. Further research by Cornet, Vroomen, and Steeg (2006) shows that the most common reason for a real cooperation is that research institutions are considered too expensive. Innovation Vouchers help release the financial burden for SMEs.

#### (2) Selection

In principle the innovation vouchers are allocated on a "first come, first serve" basis, but considering the condition that the number of applications received on a single day exceeded the number of available vouchers, the 100 vouchers were allocated randomly conducted by a civil-law notary.

For being selected randomly, there are no big differences in terms of size, annual turnover, and distribution of industry between 100 "winners" and the remaining 944 "losers" (Cornet, Vroomen, & Steeg 2006).

#### (3) Implementation

When a SME gets an innovation voucher, the next steps are the SME address a research question which must be application-oriented, then commissions a public research institution to find an answer to the question. At the same time the innovation voucher is handed over to the research institution. Each innovation voucher has its maximum value, if solving the question costs more than its maximum value, then the SME has to pay the difference from its own funds.

In this case, after the official announcement on 15 September 2004, lucky SMEs have to formulate a research question instead of a project plan, which not only decreases the work of administrative burden for SMEs, but pushes away their worry on credential commercial information as well. Meanwhile, the research question must be application-oriented, which implies that the innovation vouchers cannot be used for ongoing projects at the research institution in question.

After formulating a research question, SME needs to make a choice on the research institute, SMEs can select a most appropriate one from the contact list, and commission the question by 31 December 2004. The maximum value of voucher in this case is 7,500 euro. The research institutions had to complete the assignment by 29 April 2005.

In a survey carried out by Cornet, Vroomen, and Steeg, 62 of 71 "winners" commissioned 64 assignments during the voucher period, while 242 interviewed voucher losers only commissioned 20 projects. Because the vouchers were allocated by means of lottery, there is no noticeable demarcation among "losers" and "winners". The innovation vouchers play an important role in explaining this significant difference.

In the other side, most of the voucher winners (72%) commissioned an assignment equal to the voucher value of 7,500euro. They don't use any of their own funds to have the research question addressed.

With regards to timing effects on projects, besides for the deadline set by the innovation voucher programme, the credit note also push SMEs to execute the project one step earlier. From the survey conducted by green source, 32% of the voucher winners said they would have commissioned the assignment at a later date if they had not received innovation voucher.



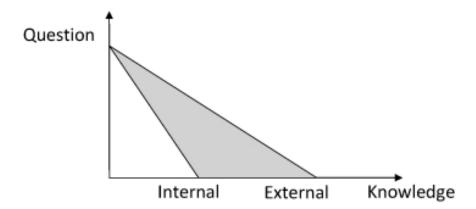


Figure 8 Innovation Voucher's effects on demand creation

Source: "Innovation Voucher Benelux Middle Area", *Project proposal* (2004)

As explained above, the innovation voucher programme is a process of application-oriented knowledge transferring, instead of knowledge supply focussed. With the knowledge purchased from external knowledge providers, SMEs could answer the questions rose from the improving process for product or services, and meet the market demand eventually.

Based on the data analysis above, we can make a conclusion, that innovation voucher stimulates demand creation via improving the availability of knowledge to SMEs in terms of providing accesses to external knowledge providers and funds entailed during the knowledge transferring process. The credit value of innovation voucher helps the "winners" purchase research capabilities, enlarge their knowledge "reservoir". With the help of external knowledge, SMEs play a better role in addressing the market demand.

The case shows the important role of innovation voucher on timing effectiveness, and size of cooperation between SMEs (market demand) and research institutions (knowledge) during the innovation voucher period. However, it didn't provide evidences that could indicate it exerts a value-added influence on the cooperation between SMEs and knowledge providers. In order to get a clearer picture on this, it still requires further research.

However, demand creation is a process that not only meets existing demand, but latent demand as well. In order to performance well, the SMEs must be able to sense the existing and potential market demand, develop product or service to address the demand. The existence of external knowledge supplements the lack of research capabilities among the SMEs. This makes the process of demand creation in an easier way, and running at a higher velocity. In other side, the close interaction between SMEs and knowledge providers exerts influence on changing pure academy-oriented research to application-oriented one; it also facilitates the further cooperation between for the SMEs and Knowledge providers. According to the survey conducted by green source, 95% of the voucher "winners" are satisfied or very satisfied with the quality of the research.

#### 1.3.2.4 Technology Road shows

A Technology Road Show is one day event with a goal to draw public attention to advanced public infrastructures so that those are used by product developers and service providers.

The Case of GALILEO and Satellite navigation road show

The GALILEO and Satellite navigation road show informs about the EU satellite navigation system



"GALILEO", further navigation infrastructure, positioning system, as well as existing and envisioned usages of satellite navigation, positioning systems and highly accurate time signals. The events consist of speeches, lectures and an accompanying trade exhibition. It accelerates innovation in different stages of innovation process by disseminating and sharing information.

The GALILEO ROADSHOW was triggered in 2005 in response to the insufficient supply of information about GALILEO (national/international) available to potential users and SMEs. Initially, the demarcations between GALILEO and GPS (and Glonass, respectively) were not widely understood and chances and potential capabilities not clearly recognisable. Officials responsible for questions surrounding GALILEO and existing international contacts were not commonly known. A large number of companies (small, medium-sized and large) as well as research institutions were already involved with GALILEO. However, they mostly did not know of each other's existence and thus were following their own objectives without the opportunity to exchange knowledge. Important information about GALILEO and news on developments did not reach the decision-makers, let alone the public.

The GALILEO ROADSHOW is made up of short impulse-driven speeches by various referees and lasts a maximum of one day. Its goal is to inform about the EU satellite navigation system "GALILEO", further navigation infrastructures such as "EGNOS", "GPS", "COMPASS" and "GLONASS", further positioning systems such as "W-LAN", "radio cell positioning", "mobile positioning" or "RFID", as well as existing and envisioned usages of satellite navigation, positioning systems and highly accurate time signals. Lectures by representatives of the industry, researchers and politicians, as well as welcoming speeches by the respective patrons form the centrepiece of the GALILEO ROADSHOW. Information about other relevant activities is also included, for example the bavAIRia user forums concerned with satellite navigation. Sponsorship and financing possibilities are included, such as the business incubation offers of the AZO Anwendungszentrum Satellitennavigation Oberpfaffenhofen GmbH and the European Satellite Navigation Masters Competition. Next to the lectures, networking opportunities for the attendees of the GALILEO ROADSHOW play a major role. An accompanying trade exhibition featuring best practice examples, projects and products is also often included. The main target audience of the ROADSHOW are small and medium-sized enterprises from a variety of branches, but also large companies, associations, public authorities, government agencies, research institutions, universities, students and others. At this point, a restriction on participation is not intended although it does remain a possibility for the future. The basic GALILEO ROADSHOW concept can be applied to an event covering either a broad range of topics or focussing on one specific issue. For instance, it can be used to inform and forge connections between selected user branches of the satellite navigation industry, such as automotive, recreation, tourism, robotics, security, medicine, geoinformation systems, transport, traffic, logistics, environmental engineering, maritime navigation, railway services or others. Furthermore, a topical focus is possible on areas such as the usage and integration of satellite navigation in driver/pilot assistance systems, tactical command systems, intelligent traffic systems, location based services and other systems. Depending on topics and participants, different event locations and hosts as well as a range of marketing tools and cost models are considered. To date, GALILEO ROADSHOWS have been held at the SYSTEMS 2007, at various German Chambers of Industry and Commerce, companies, universities and other organisations in Würzburg, Nürnberg, Oberpfaffenhofen, Kaufbeuren, Ingolstadt, Rosenheim, Berchtesgaden,



Donauwörth, Hof, Straubing and Coburg. The expansion to other German federal states and beyond was and is intended. In this respect it is worth mentioning Berlin, Wolfsburg (VW), Osnabrück, Stuttgart, Vienna, Praque and Sophia Antipolis.

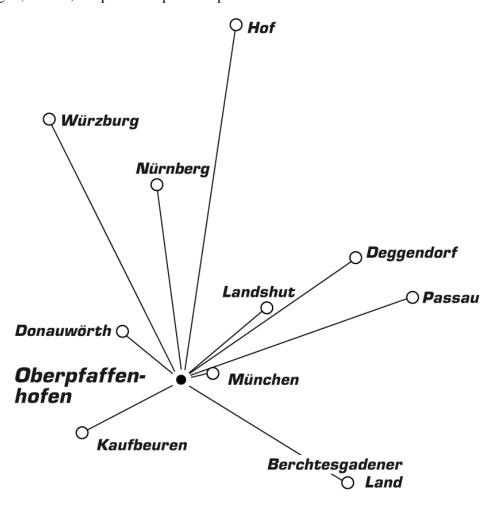


Figure 9 GALILEO ROADSHOW across GERMANY

The business model of the GALILEO ROADSHOW includes events both free and subject to charge. Marketing actions were taken using classic print media such as flyers, posters and advertisements in newspapers, but also involving new media forms such as email-newsletters, homepages and power point presentations. Speeches of referees and other content was generally collected, archived and supplied to the attendees as a printed volume and/or in digital form.

The GALILEO ROADSHOW presents an adequate method of drawing public attention to GALILEO and satellite navigation. The target audience includes everyone from start-up satellite navigation enterprises and research institutions interested in networking with other players of the sector right up to end users. Aim is to inform about the sector's potential and to encourage participation in the bavAIRia platforms. The concept of the GALILEO ROADSHOW is flexible and can thus be adjusted to different audiences and cooperation partners. This makes it an ideal instrument to forge connections between companies within the growing satellite navigation supply chain and between companies and end users.

#### 1.3.2.5 Lead Market Initiative



Lead Market is a name for organizing and coordinating public purchase volumes (on local, regional, national and European level) towards the achievement of innovation goals. In consequence such initiatives provide firms with the incentive to raise their R&D level and to apply successfully the full range of new technologies by using an administratively created market, improving the structural mobility and adaptability of Europe, and nurturing more positive European attitudes and culture towards entrepreneurship and risk taking.

We firstly identified Lead Market as one of the best demand creation mechanisms for its potential impact on the market creation for new technology. But, later, as we the more engagements with regions run, the more we are skeptical about the role of Lead market in demand creation. The government doesn't look into the deep demand, or in other words, they are not able to identify the market. As the engagement with Wuxi 530 program shows that the government wants create market, but they are incompetent to do that. For such a situation, what they do is that they invest in a large number of technology based projects in terms of cash investment, rather than buying the products. Which they believe there must be some successful companies will come out.

#### 1.3.3 JOINT ACTION PLAN

The aim of the INNOFIT Joint Action Plan is to develop a shared Action Plan to be taken up by regions willing to become active players in the innovation downstream market by adopting Demand Creation Mechanisms at regional level. In this way, regions, in the example of GALILEO, will play an important role in boosting their local economy and in supporting the transformation of technology and innovation in truly exemplary business cases based on the biggest joint European space technology infrastructure projects of the European Union, GALILEO and European Geostationary Navigation Overlay Service (EGNOS).

The main recipients of the INNOFIT Joint Action Plan are regions, regional clusters and business ecosystems, which are willing to develop their local economy by creating GNSS jobs through the adoption of demand creation mechanisms, the relevant and consequent identification and creation of new business opportunities especially for their SMEs, the embedding in local, European and worldwide networks and communities and the participation in workshops, training and education measures.

The main stakeholders, i.e. entities which are interested either in the implementation of the Joint Action Plan or in facilitating and supporting its roll-out are:

- **European institutions** such as ESA, European Commission (DG Enterprise, DG INFSO, DG REGIO, DG TREN), GSA, interested in streamlining the outcomes of the Joint Action Plan and in integrating them with existing initiatives;
- **Industry** (including **SMEs**), whose participation in the GNSS downstream market activities has to be supported and addressed;
- The established community of GNSS Service Providers, who are willing to integrate their current service offers and to contribute to the implementation of the Joint Action Plan by collaborating more actively with SMEs and with the relevant regional clusters and by participating in the demand creation processes.

The INNOFIT Joint Action Plan's peculiarity is that it was built according to a bottom-up approach. It is a set of actions, to be taken up by Regions interested in acquiring an active, leading role in the GNSS downstream market, by focusing on the implementation of demand creation mechanisms to support innovation in this domain.



It is a "How-to Manual" for Regions to support the decision process about what actions to be taken in the faster development of GNSS downstream markets starting from a local level.

The initial elements of the Joint Action Plan (which are to be performed by Regions) are:

- To promote dissemination and awareness initiatives (training) to the regional players as well as Good Practices about demand creation mechanisms;
- To assess the status of the region with respect to the INNOFIT reference model and to prioritize the activities to be launched, to be monitored through a control framework measuring the outcomes of the implemented activities, as suggested by the reference model;
- To develop regional policies and regional planning documentation to support the established priorities for the implementation of the Joint Action Plan and its demand creation mechanisms based on the regional available expertise and capabilities. This has to include what to implement, why to implement and how to implement and how much it will cost to implement it.
- To be part of an enlarged GNSS downstream community for demand creation and of the relevant events and networks, harmonized to include the various actors and stakeholders of the GNSS downstream market. This is done by leveraging existing initiatives, namely ENCADRE and NEREUS. Two main working streams:
  - Connection of the public demand with the technological offer at European level, involving the Regions at the same time;
  - Establishment of Innovator Forums, to allow for the single SMEs to go international and to access missing competencies at international level.

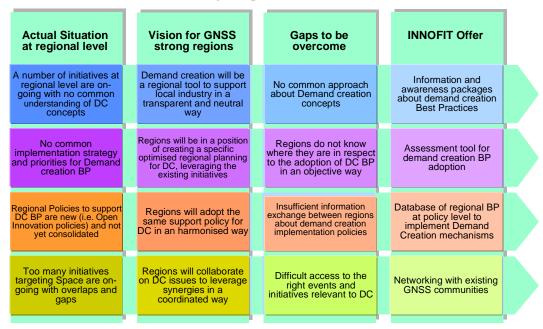


Fig. 10 INNOFIT JAP Summary Table

## 1.3.3.1 Promotion of dissemination and awareness initiatives about demand creation mechanisms for GNSS

In order to join the Joint Action Plan of INNOFIT various channels to participate in the Satellite Navigation Application / User Community are offered by our consortium. This is mostly dissemination and awareness



raising activities to share common and regular information exchange. We list here different already existing activities and initiatives:

- Pushing the INNOFIT web platform and an own online newsletter
- Organizing the strategy, awareness raising and dissemination workshop at ICE 2010
- Feedback and planning of further visits to potential new and already dedicated GNSS regions and clusters in Europe
- Continues dialogue with the three public main stakeholders, European Commission, European Space Agency and the European GNSS Supervisory Authority GSA
- Communication with ENCADRE association

#### 1.3.3.2 Readiness assessment for demand creation Good Practice in GNSS

One of the reasons why the GNSS downstream market has not taken off yet is because it took some time to realize that the GNSS downstream market is more likely a market pull rather than a technology push one. In this scenario, regions have the concrete opportunity to support the linkage between the technology providers and the market. A number of regional initiatives have been launched in the past years, aiming at fostering and streamlining the creation of new business opportunities. However, each of the regions has launched context-specific project, which did not take into account for what was in progress elsewhere and for an overall ideal model for demand creation in European Regions. Even though in some ways Regions feel to be in competition with each other, the domain relevant to the implementation of policies related to demand creation mechanisms is on the other hand a ground in which Regions can collaborate, for a number of reasons:

- It is easier to raise the internal consensus with the policy makers, especially if other regions are already implementing some initiatives;
- It is fundamental to be able to measure the benefits associated to such Good Practices.
- It is fundamental to be in a position of recognizing which initiatives are being launched, what they are actually about and how these can be linked to the existing regional policies and, if the case, these can be used to evolve the current regional policies.

In order to pass from conception to action, the regions are to analyze their own status with respect to the demand creation and innovation policy domain. The assessment must be done according to an objective reference framework, described in objective, operative terms and administered by independent evaluators, suitable to assess the current status and to map it against the overall regional models.

The Joint Action Plan is to this end providing regions with this information, to support regions to understand their current status and to plan and prioritize the consequent actions and initiatives. This will be done by organizing dedicated meeting / session, to be conducted at the premises of the specific region and involving the main actors and stakeholders in the GNSS downstream market. Suggestions for the evolution of regional policies will be also derived.

#### 1.3.3.3 Development of regional policies to support demand creation mechanisms

(1) Status and gaps in regional innovation policy



Regions / clusters should get away from a mentality to focus on the offer and infrastructure side of innovation support. Assumption is often that due to provided or just improved infrastructures entrepreneurship and the often so rare entrepreneur would act by its own; just lean back and wait for it to happen. Of course, a cluster, a region, needs infrastructures like e.g. universities with GNSS-focused training and education courses, research institutions and test laboratories of latest equipments and GALILEO test beds. But this investment is not sufficient to generate demand. It emphasizes technology push and not market pull, it assumes that entrepreneurs will always do the job necessary. This attitude for a cluster is no longer the optimal support a cluster can give to its members, especially to its SMEs. It neglects the importance of the demand side as emphasized in the Lead Market Initiative of the European Commission, or as insinuated in the Aho Report on "Creating an Innovative Europe", issued by the former Finish Premier Esko Aho back in 2006. So a change of mind has to go through regional innovation policy makers, a change from thinking just in terms of offers towards an active support of the demand side. In addition, there is often no common approach about demand creation mechanisms; regions / clusters do not know, where they are in respect to the adoption of demand creation good practices in an objective way, which is often due to insufficient information exchange between regions/clusters about how to optimally implement demand creation mechanisms.

Vision for European GNSS downstream clusters / regions is the insight to plan not only for the inclusion of the offer side of innovation, but to support - in parallel - the demand side, by planning for and envisaging to support implementing appropriate demand creation mechanisms like living labs, road shows, innovation vouchers or idea or business plan competitions on GNSS applications. In addition, teaming up with other European regions allows for benchmarking of outcomes and results. In times of recession, when public funding is scarce, benchmarking offers a way to justify and to put objectivity behind financial support received from the public. INNOFIT's benchmarking approach, which accompanies the regions during their efforts to create products and services closer to the local and international markets, shows a way, how to convince local policy makers to fund proper and effective innovation support measures like the focus on the demand side of the markets.

At the end of the day it is to increase the number of jobs created by a cluster, its regional GDP, making optimal use of the capabilities, the resources, the expertise and qualities of the work force mobilized in a region. Today's global economy requires flexibility going with the trends of the time, making best use of the outputs of the knowledge and information society, and catch up with the biggest European technology project, which provides a big chance for all European regions for creating new and modern jobs.

The biggest markets expected are not the GALILEO upstream markets, but the downstream mass markets linked to navigation, logistics, location-based services and mobile devices. Up-stream capabilities in space and GNSS are difficult to build-up over time, even more difficult and time consuming than in biotechnology. But GNSS is not like biotechnology, it comprises much faster moving markets, this is why a region has to participate now, has to gather experiences with GLONASS and GPS, the Russian and the US-American GNSS systems; the time window for market entry and success will shut soon, after GALILEO is running worldwide. There are still promising first mover aspects to solve and to contribute, like legal questions related to signal guarantees, or the most customer friendly specifications of the five planned GALILEO services signals or questions of norms and standardizations in optimal signal processing.

Participation in the Joint Action Plan gives access to knowledge, to the right people e.g. via the cluster managers to the experts in a target or partner region. The successful implementation of demand creation



mechanisms guarantees services and products much closer to the markets and the users, allows for shorter product to market times, reaches out to new customer and developer communities, links public procurement to regional capabilities and expertise and fosters idea creation and evaluation right from the beginning of the innovation process.

# (4) What regions have to do and how the INNOFIT offer can support regions in overcoming the gaps and achieving the benefits

Regions have to make a decision on what future technological and sectoral focus to bet and to rely on. This part is hard to influence on the time scale of the INNOFIT project, since this is a longer decision process. An infrastructure project like GALILEO has difficulties to change an entire region towards GNSS, if there has not been a person, an entrepreneur, a research group, pushing the region from inside, maybe pushing from outside, but then finding or gathering the resources already present inside. INNOFIT comes into the game, if there is a strong tendency or better a commitment to GNSS from a cluster / region. Otherwise, it is difficult to find out from outside to whom to talk in a region, if this idea has not been discussed in committees and among the innovation pushers and supporters in a region. Representatives from INNOFIT will visit interested and committed regions and discuss and show its key stakeholders benefits of adopting and committing to the Joint Action Plan. It comprises a bundle of demand creation mechanisms, easier access to GNSS application networks and events, as well as the provision of teams of experts to support the implementation. Regional innovation support stakeholders have to organize and sometimes to restructure in order to support the implementation of Demand Creation Mechanisms, calling stakeholders together, making calls for tenders to run and organize user forums or living labs, motivate developers to write applications or team up with international partner regions.

#### 1.3.3.4 Participation in a GNSS downstream community for demand creation

The INNOFIT consortium considers it as very important to be - as a region or cluster in Europe - part of the European GNSS downstream community. This community is not limited, although strongly influenced by the space and aerospace community. There is clearly a tendency towards an extension of this community into the ICT community. We think this is a necessary extension of this community, since the mass markets for GNSS downstream applications is believed to be more closely linked to the ICT and "mobile communities".

Currently, on the level of the European Union funded projects and networks it is mainly the Europe INNOVA and the ProINNO communities (DG ENTR), as well as projects funded by the 7th Framework Program, like the INNOFIT / Regions of Knowledge/ Capacities initiative from DG Research, GSA's GNSS-related calls, as well as ERA-Networks (DG Research/DG Enterprise) specialized on GNSS downstream applications, ICT related (policy) networks from DG INFSO and Interreg networks from DG REGIO. From these communities several associations, platforms and interest groups on GNSS have formed themselves, like ENCADRE (www.encadre.net), like NEREUS (www.nereus-regions.net), like ENoLL (www.enoll.org and www.openlivinglabs.eu) as well as the program platforms www.europe-innova.eu and www.proinno-europe.eu.

#### **ENCADRE and NEREUS**

ENCADRE has some 15 members, NEREUS has some 22 regions; there is some overlap in their respective member regions. Some regions in Europe are engaged with space and aerospace background since those regions are the ones, which expect profits from the upstream, which still is of the order of some 4 bio EUR distributed all over Europe. Not all regions committed are already engaged in the active work, but both non-



for profit organizations set-up working groups. INNOFIT members are engaged or even founding members of those two associations promoting space applications like GNSS in Europe and are thus able to introduce new members to those communities' regular meetings, workshops and events.

#### European Union funded networks: CASTLE, KIS4SAT, INNOFIT, PEGASE, GAINS

Those five networks are supported by the European Commission and GSA and directly related to GNSS downstream applications or services linked to SMEs active in this sector. Again INNOFIT members are part of each of the listed consortia or the Advisory Boards of those networks and thus in the position to facilitate access to those communities.

#### **INNOFIT** members

The INNOFIT contractors in the regions of Bavaria, Lazio and Zuid-Holland run or have as members many of the successful good practices in demand creation (e.g. Euroepan Satellite Navigation Competition, Innovation Vouchers, SMEs Communities, Road Shows, Living Labs, User Forums), events (e.g. Munich Satellite Navigation Summit), fairs and institutions (Anwendungszentrum Oberpfaffenhofen) in the support of GNSS downstream applications. Some of them are directly supported and sponsored by GSA and ESA. Again this enables preferred access to those events, measures and institutions for new clusters and regions in Europe.

#### Vision of the European GNSS clusters / regions and INNOFIT

Our vision is to create an active network of continuously interacting GNSS downstream application cluster members, especially SMEs, be it via

- Internet platforms,
- Professional social internet communities,
- Annually fixed events over the year like
  - Workshops,
  - Fairs,
  - Conferences,
  - Association meetings of interest groups like NEREUS or ENCADRE.

Examples of such events are the Toulouse Space Show (June), the Munich Satellite Navigation Summit (February/March), the European Satellite Navigation Competition, Oberpfaffenhofen (kick-offs (from March on) and award ceremony (October)), International Conference on Concurrent Enterprising (June), Industrial Forum (December). This is no incidence that they are almost continuously distributed over the year.

Important for the success of GNSS applications to become a European Lead Market is the increased involvement of the public, of regional stakeholders not directly linked to GALILEO/EGNOS and space, but also the proper inclusion of the e.g. social sector, legal sector, student communities, mobile communities or technology freaks, etc.)

#### What is the gap and relevant benefits of taking up the INNOFIT JAP?

One of the gaps is the missing access to experts and international collaboration partners, either for innovation (policy) support to set-up and design regional innovation (support) concepts or for joint venture, finance or



coaching and consulting partners in GNSS subsectors like GIS, SatNav or SatCom. In addition, it is difficult to find access to the right events and initiatives.

# What regions have to do and how the INNOFIT offer can support regions in overcoming the gaps and achieving the benefits

The INNOFIT offer to GNSS regions and clusters is to support membership to associations like ENCADRE, to support in participating in Europe INNOVA projects like KIS4SAT or its successors, to join NEREUS, attend regular events, workshops and conferences, linked to the above mentioned collaborative networks and contract partners. INNOFIT and its successors offer to take advantage of its team of experts helping the clusters to implement the set of demand creation mechanisms in your region. Please contact the INNOFIT consortium, at its website, www.inno-fit.eu.

#### 1.3.4 POLICY CONSULTING PACKAGE FOR DEMAND CREATION

Analysis in several European regions showed that there is a need to more closely combine the supply and demand side in order to come up to dynamic innovation processes. Finding the supply side quite well positioned the need to strengthen the demand side of innovation has been identified. Based on the Joint Action Plan we developed from the INNOFIT project and the results of a number of European projects and initiatives, we also contribute a regional policy consulting package for regional ministries, innovation support agencies, and cluster managers. The consulting package focuses on technology driven innovation in general rather than only on GNSS sector.

In this consulting package, we take a bottom –up approach (a multitude of individual projects towards a stepwise implementation of Dynamic Innovation Processes) most suitable for encouraging innovation in a specific region rather than fully integrated programmes expected to be implemented top-down.

Good practices – working on different stages of the innovation process – are:

- Collaboration for Demand Creation
- Adoption of innovation vouchers
- Relating public demand of products/services
- Road shows
- Support to and participation in idea contests
- Adoption and support to living lab approach
- Lead market initiatives

European Regions need to address gaps and implement effective mechanisms, processes and supporting policies in order to create/ safeguard jobs, effectively use regional infrastructures and increase regional GDP.

#### A Four Step Approach

The phase 1 (status quo assessment) will serve to:

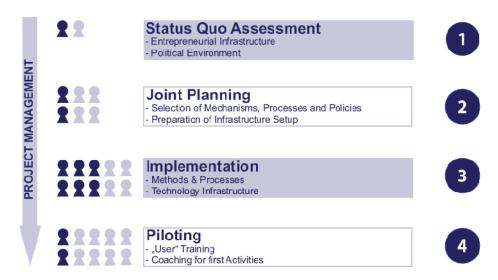
- Analyze, benchmark and discuss the current state and maturity level of your region
- Make suggestions for appropriate types of actions
- Allow for later monitoring of implementation progress



- Share contacts and enable access to events and networks for not yet mature regions
- Further improve on the contents, modalities for later implementation on agreed mechanisms
- Consensus building and consolidation with identified stakeholder communities in your region.

### The way to regional innovation

... a four step approach



Phase 2 (Joint Planning) will focus on jointly planning for later implementation of appropriate mechanisms, processes and policies as well as preparation for possibly necessary infrastructure setup, e.g. community platforms and other. It will also involve all important stakeholders in your region (policy and business representatives etc.)

Phase 3 (Implementation) serves to implement the former agreed measures and setup methods and processes.

Phase 4 (Piloting) will provide "hands-on" training and coaching for first activities on your way to an innovative business environment.

In any phase the INNOfit consortium will use its extensive international network in order to involve experts for support of both planning and implementation of special mechanisms and methods suitable for your region.



## 1.4 POTENTIAL IMPACT, MAIN DISSEMINATION ACTIVITIES AND EXPLOITATION OF RESULTS

#### **Potential Impact**

Impact entails demand creation. For long, the focus on the supply side of innovation has produced enormous scientific knowledge in terms of patents, publications and education of experts. However, scientific knowledge doesn't guarantee the impact without turning them into product or service. The innovation performance of Europe indicates that Europe is weak in demand creation. Europe is still struggling to create a fertile place for the commercialization of scientific knowledge where entrepreneurs, venture capitalists and policy maker dream of: not just producing knowledge, but real impacts.

This project raises the awareness of demand creation among regional innovation stakeholders like policy makers and other institutional actors. Based on the demand creation concepts, INNOFIT adopted a bottom-up approach and indentified a number of good practices for demand creation mechanisms to foster GNSS applications in European regions and clusters, which have been firstly collected at regional level in a number of engaged GNSS regions and secondly integrated in a joint regional model, suitable for assessing the status of a specific region with respect to its ability of supporting demand creation initiatives and, consequently, for steering the regional policy in this area. In summer 2010, ENCADRE was officially voted by the members of BavAIRia to be their European network activity, and in June 2010, Olivier Rerolle from CeTIM was appointed director of the ESA office for cooperation with European regions.

The demand creation concepts and tools are flexible and can thus be adjusted to beyond Sat-Nav domain. Despite of most of the demand creation related are identified from the field of Sat-Nav, and the Joint Action Plan is firstly aimed at the application in Sat-Nav domain, from the dissemination activities and regional engagement event, it is clear that the demand creation is not the challenge only for Sat-Nav industry.

#### Main dissemination activities

14<sup>th</sup> ICE Conference 2008, 23-25June, Lisboa

INNOFIT Workshop – "Demand creation and preparation of a sustainable regional Joint Action Plan for GALILEO / EGNOS-based applications in Europe"

ESoCe-Net Conference, 2008 30<sup>th</sup> November, Rome.

INNOFIT Workshop "Demand Creation Mechanisms in Space Based Technology Clusters"

15th ICE Conference 22-24 June, Leiden

Workshop of Demand Creation Mechanisms in GNSS Clusters- Towards a regional Joint action Plan for GALILEO/EGNOS-based applications in Europe that disseminates the concept of demand side of innovation and shapes INNOFIT Joint Action Plan

EsoCe-Net Industrial Forum 2009 7-8 December, Rome

Workshop of Demand Creation for GNSS Downstream Market Towards a Joint Action Plan for Regions to disseminate Joint Action Plan among regions

Dissemination session at Grace, Nottingham, 8 February 2010

Date: Monday, 8 Feb. 2010, 9:15 to 18:00

Location: Grace, Jubilee Campus, University of Nottingham, UK

ENCADRE Member, also involved in Nereus via Representative Leicester

University

Dissemination session in Budapest, 4 February 2010

Location: Meeting within IT/Media and Health Cluster partners in Budapest at City Hall



and Multimedia Campus "Kitchen Budapest"

Time: Thu. 4 March 2010, 15:30 to 19:00, Fri., 5 March, 11:00 -13:00.

#### Dissemination session in Warsaw, 4 June 2010

Location: Meeting within IMAGEEN, a DG Region supported project, Warsaw City

Time: Fri., 4 June 2010, 11:00 to 13:00, and 14:00 -18:30.

Organizer: City of Warsaw, INNOFIT

#### Presentation at Toulouse Air Space Show, 9 June 2010

The INNOFIT message was presented in an own policy session, here the NEREUS session, at the Toulouse Space Show by Roberto Santoro, EsoCe-Net. In parallel, also an eight-page paper of INNOFIT was submitted and accepted for the proceedings of this conference.

#### Open Innovation workshop at ICE Conference 2010, Lugano, 23 June 2010

Location: Grand Hotel Eden, Lugano

Time: Wed., 23 June 2010, 9:00 - 13:00 and 14:30 - 16:30

Organizer: INNOFIT Consortium

#### **ENCADRE** and Europe INNOVA activities

INNOFIT is based on the CASTLE project initiated and supported by DG Enterprise and Industry's Support for Innovation Unit. The Europe INNOVA programme, CASTLE was part of it, still continues after CASTLE has finished in 2008. The contacts developed there were used to proceed with the dissemination activities towards the European regions, especially those organised in the ENCADRE network, a network of clusters initiated as the exit strategy of CASTLE and now lead by the Conseille Regionale of Alpes-Maritimes in Sophia Antipolis, F, and INNOFIT partner bavAIRia, D. Raising awareness among the SME members and coordinating the activities of the member clusters.

#### Exploitation 1, Consulting package in policy and demand creation instrument implementation

Consistently with a bottom- up approach and instead of providing an integrated program to be deployed, we propose the Consulting package in policy and demand Creation instrument implementation.

Armed with experiences and expertise in regional innovation, demand creation which we gained from the INNOFIT project, this consulting package is aimed at providing service on regional innovation policy development and implementation. The target groups of this consulting package are regional ministries, innovation support agencies, and cluster managers.

In order to run this service, the roles of project partners are defined when the project is finished:

- CeTIM as an independent research institute on innovation management and Living Labs
- Gr-m as an independent regional innovation support agency
- EsoCEnet Lazio as independent regional innovation consultant in Aerospace, GNSS

In addition to project partner, a consulting company is to be founded, which is supposed to bridge the gap between prototypes, and product/service on market.

#### Exploitation 2, Demand Creation, Regional innovation models, and living lab handbook

#### (1) Living Lab handbook

Living Labs have recently been adopted as a new innovation instrument to foster European competitiveness. Living Labs are different from other innovation platforms, in the sense that they specifically focus on



discovering and evaluating potential innovations together with end users, typically taking a medium or long-term perspective. As such, they have taken the interest of a wide body of stakeholders. During the couple of years of its existence, a considerable body of knowledge has been built up in order to get a better understanding of the functioning of this new approach to innovation. Most of this knowledge is particularly dispersed over a wide variety of fields and sources, including project work, academic studies and practitioner reports.

In the European network of Living Labs, which by now counts 129 members, there is a strong need for a clear formulation of methods that actually make innovation happen? On top of that, there is a serious threat of losing knowledge, due to the liquid nature of the projects in which it was created; projects end, and knowledge is lost. Such needs formed the occasion for writing this handbook. It has been conceived as a collaborative effort of an international team that is committed to facilitate the European Living Labs. The handbook goes into issues such as how to define Living Labs, how do they work in practice, how to organise a Living Lab, and what does it mean to be "Living Labbing". Finally, a toolbox with concrete tools for Living Labs is presented. For now this is a "work in progress" of capturing and presentation relevant knowledge.

#### (2) Case studies of Regional innovation models and demand creation

Over the past 10 years, building next Silicon Valley has become a daunting challenge for most of the regional innovation concerned institutions all over the world. In order to address this, numerous endeavours in terms of, for example, injecting public money into basic research, government intervention in high-tech industries is made. Despite of we learned from the engagement with regions that most of regional innovation associated institutions are incompetent to deliver regional innovation work, the quality of the people engage in regional innovation is low, and the changes of innovation performance in some regions are palpable. The rise of new global innovation centres like Munich regions and Beijing ZhongGuanCun might offer some new thinking on regional innovation model and demand creation.

To keep up with America and Asia in demand creation, Europe still has to make more endeavours in learning how to make life easier for European technology start-ups. If experiences could really guide, an in-depth studies on regional innovation models from a global scale would really help in effectively managing regional innovation rather than throwing money at supply side of innovation as what we did before. The study will be presented as a collection book of regional innovation models which covers questions including how does regional innovation institutions involve in innovation processes, how do they manage innovation processes, how's the performance and so on. All the cases are from the regions where we did our dissemination activities, which mean that most of the information on each case is gathered from face to face interaction.

#### Exploitation 3, GAINS project and new initiatives to be approved

Six demand creation mechanisms are identified in this project, as aforementioned, these mechanisms vary in terms of where they work in the demand creation process and how they work. For example, European Satellite Navigation Competition (ESNC) stresses the generation of new ideas, while Innovation Voucher emphasizes more on creating demand side or more user-oriented relationship between knowledge providers and users.

The dynamic characteristic of demand creation process provides a potential to build synergies by connecting or combining different mechanisms. Simply address one stage or one aspect might lead to demand creating process less effective. The connection between some of the mechanisms we identified would create a



seamless innovation process which supports demand creation process from the inception of ideas to business growth.

The Galileo Advanced Innovation Services (GAINS) project is an example of building synergies from different demand creation mechanisms by connecting European Satellite Navigation Competition (ESNC) platform and European Network of Living Lab (ENoLL). It has been funded since the end of 2009 by FP7. The objective is to implement effective Galileo downstream application innovation services and to coordinate them by implementing 'innovation highway' as a seamless process on European level.

The project will implement 'innovation highway' as a seamless process for Sat-Nav downstream application development which would consist of validated modular services. To achieve the objective mentioned above, actions to be taken mainly include:

- Business opportunities capturing and qualification, by setting up a specific Living Lab prize
  within ESNC, matching of ESNC ideas with LLs performance profile, and selecting and
  giving access to multiple LLs and associated stake-holders.
- Developing application/service through Living Labs, by open call for the validation of business ideas, setting up projects between innovator and LL for testing and development of services
- Providing venture creation services for business growth, like linking identified ventures to
  existing initiatives and lead ventures relevant to the business growth in the GNSS market,
  and exploiting synergies with regional initiatives and founding programs

During the GAINS project, the innovation monitor (monitoring database) for measuring the output of the "Innovation Highway" process will be integrated with database of investors with behavioural patterns, information on service providers, competitors, potential. After the FP7 funding through the GSA is over, the potential benefits (which facilitate SatNav stakeholders to develop capabilities both in information gathering and processing, and networking) that the database brings to stakeholders would make the database sustainable. The maintenance cost for this cluster innovation monitor is expecting to be covered by premium membership. The premium member could get the access to the archival data, and some customized services in turn.

In additional to GAINS project, several proposals concerning the implementation of Joint Action Plan are waiting to be approved by the associated organizations:

- A proposal to set up three regional innovation clusters with demand creation mechanisms in Croatia (to be decided)
- Den Haag/Leiden university proposal, which takes the demand creation mechanisms as a lead idea
  to invest in the regional development of the new campus Den Haag of Leiden university (to be
  decided)
- German entrepreneurship program EXIST-4, where Munich has three proposals (first round accepted) of three universities and are featured at the national conference on 21-23 November 2010 as an outstanding example of a regional innovation network for Germany.



#### INNOFIT PUBLIC WEBSITE







INNOFIT Kick-off in Prague 2008







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### 2. USE AND DISSEMINATION OF FOREGROUND



#### **SECTION A (PUBLIC)**

#### A1: LIST OF SCIENTIFIC (PEER REVIEWED) PUBLICATIONS, STARTING WITH THE MOST IMPORTANT ONES Is/Will open Permanent Title of identifiers<sup>2</sup> access3 the Main Number, date or Place of Year of Relevant (if available) provided to this Title Publisher NO. periodical publication? author frequency publication publication pages or the series Innovation Performance and Leiden December 2009 2009 1-293 Nicole **Netherlands** ves Clusters: a dynamic Capability University Roettmer Perspective on Regional PhD Technology Clusters dissertation 2010 Berhard Conference France yes Katzy: paper at Toulouse From Demand Creation Marco Space Mechanisms for GALILEO and Conte: EGNOS towards a European Show June Roberto Joint Action Plan for Regions Santoro: 2010 committed to Satellite Juergen **Applications** Vogel June 2010 1-12 Leiden Under Wouter yes Chapter 2 Mensink University Submission and Chapter PhD Subject of Innovation dissertation

<sup>&</sup>lt;sup>3</sup> Open Access is defined as free of charge access for anyone via Internet. Please answer "yes" if the open access to the publication is already established and also if the embargo period for open access is not yet over but you intend to establish open access afterwards.



<sup>&</sup>lt;sup>2</sup> A permanent identifier should be a persistent link to the published version full text if open access or abstract if article is pay per view) or to the final manuscript accepted for publication (link to article in repository).

	A2: LIST OF DISSEMINATION ACTIVITIES								
NO.	Type of activities <sup>4</sup>	Main leader	Title	Date	Place	Type of audience <sup>5</sup>	Size of audience	Countries addressed	
1	workshop	СеТІМ	Demand creation and preparation of a sustainable regional Joint Action Plan for GALILEO / EGNOS-based applications in Europe	23- 25.06.2008	Lisbon		20	EU Countries	
2		Esocenet	Demand Creation Mechanisms in Space Based Technology Clusters		Rome			EU Countries	
3	workshop workshop	European Commission	Europe Innova SatNav Workshop: A joint strategy in support of the incubation of downstream space applications lead market	30.11.2008 11- 12.06.2009	Brussels		30	EU Countries	
4	Roadshow	BavAlRia	Galileo Roadshow	23.06.2009	Wuerzburg		75	EU Countries	
5	Forum	Federal Ministry of Transport (GER)	Forum for Satellite Navigation	24.06.2009	Konstanz		15	EU Countries	
6	workshop	INNOFIT consortium	15th ICE Conference Workshop of Demand Creation Mechanisms in GNSS Clusters- Towards a regional Joint action Plan for GALILEO/EGNOS-based applications in Europe	22- 24.06.2009	Leiden		Conference 240 Workshop 30	EU Countries	

<sup>&</sup>lt;sup>4</sup> A drop down list allows choosing the dissemination activity: publications, conferences, workshops, web, press releases, flyers, articles published in the popular press, videos, media briefings, presentations, exhibitions, thesis, interviews, films, TV clips, posters, Other.

<sup>&</sup>lt;sup>5</sup> A drop down list allows choosing the type of public: Scientific Community (higher education, Research), Industry, Civil Society, Policy makers, Medias ('multiple choices' is possible.



			that disseminates the concept of demand side of				
7	CNCC Hoor Forum		innovation and shapes INNOFIT Joint Action Plan GNSS User Forum Tourism	01.07.2009	Munich	25	
8	GNSS User Forum User Forum	BavAlRia	GNSS User Forum Security	16.07.2009	Munich	25	
9	User Forum	BavAlRia	GNSS User Forum Transport	22.07.2009	Oberpfaffen	25	
10	Round table	Bavarian Ministry of Economics	Galileo Round Table	23.07.2009	hofen Munich	10	
11	User Forum		GNSS User Forum E-Health	24.07.2009	Gilching	5	
12	User Forum		GNSS User Forum GIS	30.07.2009	Munich	10	
13	Conference		GNSS Anwenderkonferenz	08.09.2009	Wolfsburg	100	
14	User Forum		GNSS User Forum Transport	18.09.2009	Gilching	20	
15	Conference		ION	22- 24.09.2009	Savannah (USA)	250	
16	User Forum		GNSS User Forum Transport	19.10.2009	Munich	15	
17	User Forum		GNSS User Forum Tourism	21.10.2009	Munich	25	
18	Masters Competition Award Ceremony	AZO	ESNC	21.10.2009	Munich	150	Internationa
19	Forum	Ministry of Transport (GER	Forum for Satellite Navigation	22.10.2009	Oberpfaffen hofen	20	
20	Network Partner Meeting (GIS)		Project Meeting with RTGIS	05.11.2009	Gilching	5	
21	Workshop		Workshop in Nancy	05.11.2009	Nancy France	20	
22	Workshop		Living Lab Workshop in Karlsruhe	20.11.2009	Karlsruhe Germany	20	
23	Round table	Bavarian Ministry of Economics	Galileo Round Table	26.11.2009	Munich	10	
24	User Forum		Initiative SatNav BGL	02.12.2009	Freilassing	25	
25	Workshop	EsoCe-Net	EsoCe-Net Industrial Forum 2009 Workshop of Demand Creation for GNSS Downstream Market Towards a Joint Action Plan for Regions to disseminate Joint Action Plan among regions	07. – 08.12.2009	Rome	100 Workshop 30	
26							

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27	Network Partner Meeting		ENCADRE Meeting	14. – 15.12.2009	Nice (FR)	5	
28	Roundtable	Bavarian Ministry of Economics	Galileo Round Table	17.12.2009	Munich	10	
29	Conference		ENCADRE Kick-Off	18.01.2010	Nordwijk	25	
30	Forum	by Ministry of Transport (GER	Forum for Satellite Navigation	21.01.2010	Freilassing	25	
31	Networking event		Living Labs, Future Internet Communities and EUROCITIES Networking Event	26.01.2010	Brussels	100	
32	Conference		Symposium "Legal Aspects"	27.01.2010	Oberpfaffen hofen	75	
33	Meeting		GALILEO Open Day	22.02. 2010	Brussels Belgium	100	
34	<i>Meeting</i>	Gr-m	Dissemination session in Budapest	04.02. 2010	Budapest at City Hall	5	Hungary
35	Workshop	Gr-m and CeTIM	An introductory seminar of Best Practice in Demand Creation	08.02. 2010	University of Nottingham, UK	15	UK
36	User Forum	BavAlRia	GNSS User Forum Tourism	03.02.2010	Oberpfaffen hofen	25	
37	User Forum	BavAlRia	GNSS User Forum Transport	04.02.2010	Gilching	10	
38	User Forum	BavAlRia	Forum Space Applix	09.02.2010	Gilching	10	
39	Workshop	Federal Ministry of Economics	Cluster Workshop	01.03.2010	Berlin	20	
40	Conference		GSA Application Days	03. – 05.03.2010	Brussels	200	
41	Meeting with Forum SATNAV MIT BW		Network Partner Meeting	08.03.2010	Gilching	2	
42	Conference		Munich Satellite Navigation Summit	09. – 11.03.2010	Munich	250	
43	Network Partner Meetings		NEREUS GNSS Working Committee	24.03.2010	Brussels	20	
44	Meeting		Future Internet Assembly & Launch of the 4th wave of Llabs	14-15.04 2010	Valencia	200	
45	Network Partner Meetings		NEREUS	14. – 15.04.2010	Grenada	25	

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46	Seminar	CeTIM	NITIM seminar in Milano	19-21.04. 2010	Milan Italy	14	
47	User Forum	BavAlRia	GNSS User Forum Transport	22.04.2010	Gilching	5	
48	Forum	Ministry of Transport (GER)	Forum for Satellite Navigation	26.04.2010	Berlin	20	EU Countries
49	Roadshow		Galileo Roadshow	27.04.2010	Berlin	25	
50	Round table	Ministry of Economics	Galileo Round Table	29.04.2010	Munich	10	
51	Workshop	Federal Ministry of Economics	Cluster Workshop	03.05.2010	Berlin	20	EU Countries
52	Info Event		FP7 Info Event	06.05.2010	Oberpfaffen -hofen	25	
53	User Forum		GNSS User Forum Tourism	12.05.2010	Munich	25	
54	Kick-Off meeting		ESNC	11. – 12.05.2010	Madrid	25	
55	Road Show		Galileo Road Show	17.05.2010	Munich	150	
56	Workshop	European Commission's Enterprise and Industry Directorate- General in cooperation with Baden-Württemberg, Sat-Nav Initiative Baden-Württemberg, MFG and ESA	Towards a European Partnership in support of satellite-enabled downstream services: main fields for action	18.05.2010	Stuttgart	50	EU Countries
57	Meeting		LAZIO CONNECT Steering Committee	25.05. 2010	Roma	20	
58	Workshop	Ministry of Transport	Galileo Workshop	31.05.2010	Bonn	50	EU Countries
59	Meeting		Dissemination session in Warsaw	04.06. 2010	Warsaw City	3	
60	Conference		Toulouse Air Space Show	09.06 2010	Toulouse		
61	Conference		Europe Innova Conference	14. – 16.06.2010	Copenhage n	250	
62	User Forum		Forum Space Applix	18.06.2010	Gilching	10	
63	Conference	INNOFIT consortium	ICE-Conference ICE Conference 2010: Workshop on Demand Creation mechanism for Regions and Living Labs	23.06.2010	Lugano (CH)	100	International



64 Annual Meeting bavAlRia General Assembly 06.07.2010 Munich	150
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