



KIS-PIMS

" Knowledge Intensive Services for the Planning, Installation, Maintenance, and Scrapping (PIMS) services of renewable energy production systems "

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D1.5 NEW FORMS OF SUPPORT TO KNOWLEDGE AND SKILLS TRANSFER

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EXECUTIVE SUMMARY

This report aims at drawing generic principles of the KIS-PIMS project implementation, relying on a benchmarking analysis of ongoing programmes in Europe and in the USA to support innovation in services.

The SBIR approach of the United States has retained attention, since it enables accompanying the companies along the innovation process in several phases. The first phase aims to assess the project viability. The second phase aims to help achieve a prototype or a demonstration, whereas the last phase targets the connection and relay to private investments for commercialisation.

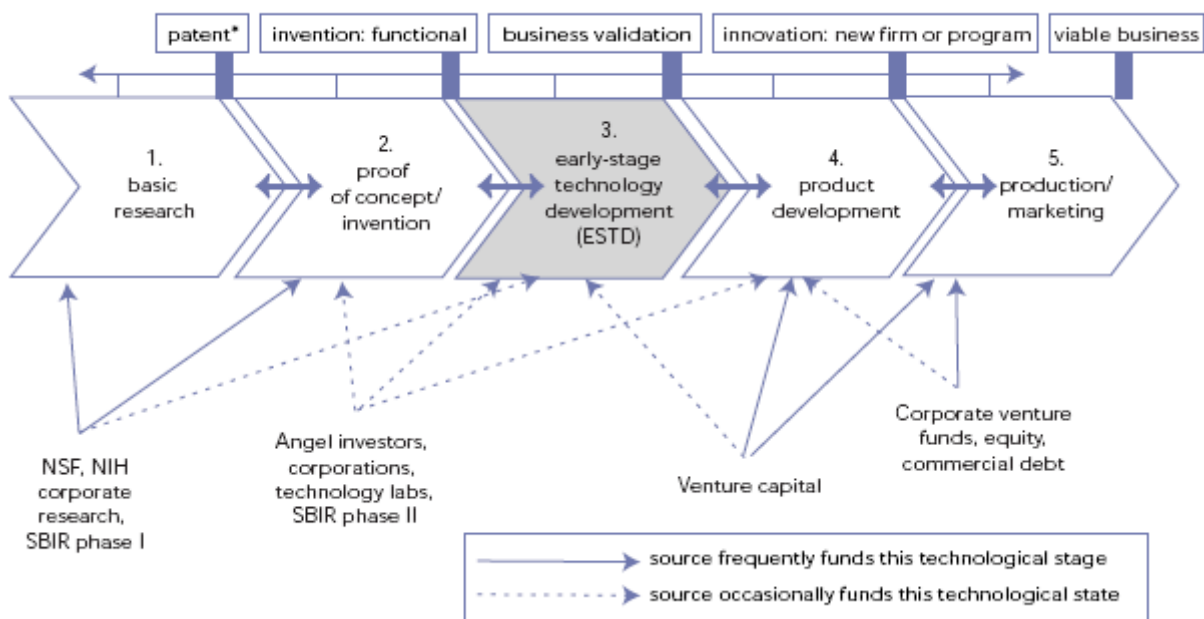


Figure 1 : Sequential model of development and funding¹

SenterNovem in The Netherlands has pioneered the “Innovation voucher” idea. The principle is to increase technology transfer from “knowledge institutes” towards SMEs. The innovation voucher is a small amount of money that allows SMEs get quick access to some expertise to solve a technical problem. SenterNovem is also adapting the SBIR approach to the Dutch context.

¹ Source: “Between Invention and Innovation An Analysis of Funding for Early-Stage Technology Development”, Lewis M. Branscomb & Philip E. Auerswald, Kennedy School of Government, Harvard University

Enterprise Ireland adopted the innovation voucher mechanism a few years ago to replicate locally the Dutch experiment.

Several other European countries have implemented special measures to support SME innovation focused on services. A selection of them is presented.

This report introduces the work to be done within Work Package 2 of the KIS-PIMS project. It concludes on the necessity to implement a new multiple step approach that will better cover the specific market value driven innovation in services.

GLOSSARY

“**EC**” stands for the European Commission.

“**KIS**” stands for Knowledge Intensive Services. It is meant services involving science-based and technology-based innovations, process and business model innovations.

“**PIMS**” stands for Planning, Installation, Maintenance and Scrapping services.

“**RES**” stands for Renewable Energy Sources. Main technologies under scrutiny during the KIS-PIMS project are solar, biomass, wind, small hydraulic and geothermal, without excluding the other ones.

“**RET**” stands for Renewable Energy Technologies. It is meant the technologies that enable the conversion of RES into usable energy (electricity, heat, cold), and optionally by-products.

“**RTD**” stands for Research and Technical Development and designate the related activities.

“**SME**” stands for Small and Medium size Enterprise, as defined by the European Commission (see http://ec.europa.eu/research/sme-techweb/pdf/sme-definition_en.pdf).

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1. INTRODUCTION

Deliverables D1.4 of the KIS-PIMS project depicted the barriers still faced by the players of the renewable energy sector to bring their service innovations to the market.

This report is the Deliverable D1.5 of the KIS-PIMS project, due end of January 2009. It aims at **benchmarking good practices of knowledge and skills transfer tested and validated in other countries**, in Europe and abroad, which could inspire the KIS-PIMS consortium in their own support scheme to be tested in Austria, Finland and France.

The countries where innovation vouchers have been tested with success, i.e. The Netherlands and Ireland, are investigated to gather their lessons learnt. This analysis is complemented by a scrutiny of the SBIR approach in the USA and in the Netherlands. Finally, support measures implemented specifically in favour of the development of services in various European countries are studied.

D1.5 is the result of a work led by Vincent Morfouace from TECHNOFI with the support of Serge Galant, CEO of TECHNOFI, Paul Kaaijk from ADEME, Janne Lehenkari from ADVANSIS, Michael Heidenreich and Simone Landolina from the EUREC Agency. Marc Dufau from OSEO was deeply involved in the design of the core principles too.

2. GOOD PRACTICES OBSERVED IN THE NETHERLANDS

SenterNovem is an agency of the Dutch Ministry of Economic Affairs. They promote sustainable development and innovation, both within the Netherlands and abroad. They aim to achieve tangible results that have a positive effect on the economy and on society as a whole. Their core competence is converting government policy into reality. On behalf of the Dutch government SenterNovem implements policy regarding:

- Innovation
- Energy and Climate Change
- Environment and Spatial Planning

The Dutch policies are implemented with the help of over 40 programmes and projects where SenterNovem supports sustainable economic development through co-operation and innovation.

SenterNovem also works on behalf of international organisations such as the European Union, the International Energy Agency (IEA) and foreign governments. These organisations gain access to a broad Dutch network of knowledge institutes, research centres, trade associations, companies and government officials. They also participate in numerous international platforms and consulting groups.

In figures, SenterNovem manages a policy budget of 1.300 M€, generates a Turnover of 100 M€ and employs 1.400 people.

2.1. Focus on the innovation voucher scheme

2.1.1. Presentation of the innovation voucher

SenterNovem was the pioneer to test the concept of innovation vouchers. The rationale is to subsidise knowledge transfer to SMEs.

Based on the observation that the flow of information from knowledge institutes to SMEs is suboptimal, despite the fact that much information is readily available, the idea was to encourage SMEs to find that information. To achieve a better result, the government of The Netherlands introduced Innovation Vouchers, first as a pilot project, but as of 2006 as a permanent way of promoting knowledge transfer to SMEs. Innovation vouchers enable SMEs to submit research questions to knowledge institutes, thereby encouraging meetings between the two. Vouchers are given to SMEs that need a little bit of research to innovate on products, production processes or services. After completing their research, knowledge institutes can cash the vouchers delivered by SenterNovem.

Every SME is entitled to a onetime 'small voucher' worth EUR 2,500. They aim at financing desk reviews or market assessments. In 2008, about 4000 small vouchers were budgeted².

'Large vouchers' are worth EUR 7,500 but they come with a price tag: an SME has to contribute one-third of the research costs itself, while the government adds the remaining two-thirds up to a maximum of EUR 5,000. Large vouchers cover more extensive research questions, usually focused on product innovation. Each SME may receive a maximum of one large voucher per year. For 2008, about 4,000 large vouchers were budgeted².

The total 2008 budget for innovation vouchers reached 30 M€.

2.1.2. Eligibility

Eligible knowledge providers are from the whole Europe:

- Any public knowledge institute
- Not-for-profit RTD organizations
- Labs of big multinational firms

When knowledge providers are private for profit businesses, clear eligibility criteria have to be defined, and a control mechanism must be implemented.

2.1.3. Implementation

In relation to the amount of the vouchers, the administrative procedures want to be as simple as possible. This is why, the voucher scheme has been completely converted into a web-based online application³ in 2009.

The whole process can be summarized in 9 elementary steps:

1. The company applies for a voucher (5 minutes)
2. SenterNovem issues a voucher to put the company in direct contact with a knowledge institute
3. They negotiate on research to be performed
4. The knowledge institute executes the project
5. The knowledge institutes invoices the company
6. The company pays using the voucher (ex VAT)
7. The company pays full VAT

² Presentation of Mr Hans Simons at EUSEW conference on 11th of February 2009 in Brussels

³ <http://www.senternovem.nl/innovatievouchers/index.asp>

8. The knowledge institute claims the voucher payment to SenterNovem on the website (within 1 year after invoicing the company)
9. Randomized audits of voucher projects are performed by SenterNovem

2.1.4. Lessons learnt

According to the 2006 and 2007 evaluations:

- The average SME size which applied for small vouchers had 10 employees;
- The average SME size which applied for big vouchers had 17.6 employees;
- “Additionality”: 44% - 50% of the innovation vouchers were newly applied to the SenterNovem agency, 67% had no public subsidy request before;
- The small “free” vouchers was more popular among the smallest SMEs;
- Virtually all business sectors were represented.
- Some follow up after voucher could be observed:
 - ‘After sale’ service by the knowledge institute
 - New orders were issued by the front runners

Based on past pilot phases, 2008 had proposed extended services to be rendered by the innovation voucher:

- The costs related to patent search and application became eligible;
- The financing is paid directly to the SMEs
- No formal role is maintained for the knowledge institutes.

2.2. Focus on the Small Business Innovation Research programme⁴

The Dutch government experiments with a small scale Small Business Innovation Research (SBIR) pilot programme inspired by the US SBIR programme. Contracts are awarded in a three-phase tender competition: feasibility, research phase and commercialisation. The unique feature of the SBIR programme is that the contracting authority fully funds the first two phases, whilst the resulting intellectual property

⁴ Sources : SenterNovem website

http://www.senternovem.nl/english/products_services/encouraging_innovation/small_business_innovation_research_sbir_programme.asp

and presentation of Paul Kaaijk, ADEME, at the periodic KIS-PIMS meeting.

remains with the company. This is allowed by the tender system, which complies with the EU competition rules. Through this form of precommercial procurement the government is able to stimulate innovative solutions for specific social issues. SMEs are encouraged to become more innovative. The resulting new products and services give companies a chance to grow and, in doing so, to create new jobs. At the same time the involved government gains a variety of innovative solutions to its social problems.

The goal of the Dutch government with the SBIR programme is threefold:

- Solving public questions and concerns
- Stimulating innovation among SMEs
- Valorisation of public knowledge

Examples of SBIR themes related to renewable energy solutions:

- Energy conservation with electromagnetic power technology (2004)
- Bio-based products (non-food) (2006)
- Application of hydrogen and fuel cell systems in civil works (2006)

2.2.1. Legal aspects

Contracts in the SBIR programme are subject to European procurement rules. EU-wide competitive tendering is not necessary, because of an exclusion for precommercial procurement for R&D. General procurement principles are still valid: transparent, objective and no discrimination on basis of nationality.

2.2.2. Modalities of application:

The SBIR scheme is three phase:

- 1) Attainability (50 k€ max),
- 2) From R&D to prototype (450 k€ max),
- 3) Commercialisation (SME needs another company as partner for phase 3, or the government plays the role of early stage customer).

The innovation projects are called through a Tender approach: the best proposals win. The government pays the costs (SBIR is an order, not a subsidy).

2.2.3. Lessons learnt

The programme is young. No indicators are available yet to measure the SBIR impact. However, the first conclusions are :

- high quality proposals, offered by new business partners,

- fast and efficient procedures,
- Results are either very innovative, or a new application of existing knowledge,
- Advantage of « order » is that work is 100 % paid for.

The typology of the applicants to the tenders is centred on small and young companies: 83% had less than 50 employees, and all orders have been granted to companies with less than 100 employees. 40% were less than 5 years old and 15% only recorded more than 15 years of activity. SMEs seem to be more creative, innovative and willing to take risks (new markets, services ...). Successful SMEs collaborated with partners (other SMEs or research institutes) at a rate of 89%.

3. GOOD PRACTICES OBSERVED IN IRELAND

Enterprise Ireland is the government agency responsible for the development and promotion of the indigenous business sector. Their mission is to accelerate the development of world-class Irish companies to achieve strong positions in global markets resulting in increased national and regional prosperity.

Through their extensive network of Irish and international offices, Enterprise Ireland works with their clients to assist them to compete and to grow.

Enterprise Ireland's key focus, for Irish companies is covered under the following five areas of activity:

- Achieving export sales
- Investing in research and innovation
- Competing through productivity
- Starting up & scaling up
- Driving regional enterprise

Enterprise Ireland also provides assistance for international companies who are searching for world-class Irish suppliers and can help international companies who want to set up food and drink manufacturing operations in Ireland.

3.1. Focus on the Innovation Voucher Initiative

3.1.1. Presentation

Small limited companies with a company registration number, which have a business opportunity or problem to explore, can apply for an Innovation Voucher worth €5,000.

The objective of the Innovation Voucher initiative is to build links between Ireland's public knowledge providers and small businesses and create a cultural shift in the small business community's approach to innovation.

The Innovation Voucher Initiative is running in Northern Ireland too. By linking up with Invest Northern Ireland, Enterprise Ireland offers voucher holders access to an additional 10 Knowledge Providers in Northern Ireland.

The Innovation Voucher Initiative was a key recommendation of the Small Business Forum in their report "Small Business is Big Business", published in 2006⁵.

⁵ <http://www.smallbusinessforum.ie/>

3.1.2. Eligibility

In Ireland, a small enterprise is defined as an enterprise that has fewer than 50 employees and has either an annual turnover and/or an annual Balance Sheet total not exceeding 10 M€. Small enterprises in the transportation and agricultural sectors are excluded in line with State aid guidelines.

Innovation Vouchers can be used for any kind of innovation such as:

- new product / process development;
- new business model development;
- new service delivery and customer interface;
- new service development;
- tailored training in innovation management;
- innovation / technology audit

Knowledge of:

- efficiency audits, process change,
- supply chain management and logistics;
- Product and service testing and economic impact assessment

Vouchers can be exchanged for knowledge transfer projects from the knowledge provider. For the purposes of this initiative, a knowledge transfer project is defined as one that transfers knowledge of a scientific, technological or innovative nature that it is new to the small enterprise. The small enterprise may then use the new knowledge to innovate a product, process or service.

Ineligible activities:

The Innovation Voucher may not be used to cover the costs of:

- Standard training courses
- software purchases
- aid that would promote/subsidise the cost of exports,
- internships for students of knowledge institutions,
- design and production of advertising material
- sales activities

3.1.3. Lessons learnt

Enterprise Ireland has issued hundreds of Innovation Vouchers worth €5,000 each since the programme was launched in March 2007. Work is ongoing to assist voucher-holding companies to link up with a suitable knowledge provider.

4. GOOD PRACTICES OBSERVED IN THE USA

The U.S. Small Business Administration (SBA) was created in 1953 as an independent agency of the federal government to aid, counsel, assist and protect the interests of small business concerns, to preserve free competitive enterprise and to maintain and strengthen the overall economy of the USA. They recognize that small business is critical to their economic recovery and strength, to building America's future, and to helping the United States compete in today's global marketplace. Although SBA has grown and evolved in the years since it was established in 1953, the bottom line mission remains the same. The SBA helps Americans start, build and grow businesses.

SBA provides a number of financial assistance programs for small businesses. They have been specifically designed to meet a business's key financing needs including the need for debt financing (loans), equity financing (investment/seed money), and surety bonds. (SBA does not provide grant funds to finance small businesses). SBA addresses these needs through the following three broad finance programs.

Debt Financing – SBA's Loan Programs: SBA does not make direct loans – it works with thousands of lenders and other intermediaries, which generally will make the loan with SBA guaranteeing the lender that the loan will be repaid. However, SBA guaranteed loans may not be made if the borrower has access to other financing on reasonable terms. Additional information on SBA loans, including credit and eligibility requirements, how to apply, etc., is available at the Apply for a Loan section of the site

SBIC Financing – SBA's Small Business Investment Company Program: SBICs are privately owned and managed investment funds, licensed and regulated by the SBA. SBICs are similar to venture capital, private equity and private debt funds in terms of how they operate and their ultimate objective to generate high returns for their investors. However, unlike those funds, SBICs limit their investments to qualified small business concerns as defined by SBA regulations. Additional information is available at: www.sba.gov/inv

Surety Bonds – SBA's Bonding Programs: The Surety Bond Guarantee (SBG) Program was developed to provide small and minority contractors with contracting opportunities for which they would not otherwise bid. The U.S. Small Business Administration (SBA) can guarantee bonds for contracts up to \$2 million, covering bid, performance and payment bonds for small and emerging contractors who cannot obtain surety bonds through regular commercial channels. SBA's guarantee gives sureties an incentive to provide bonding for eligible contractors, and thereby strengthens a contractor's ability to obtain bonding and greater access to contracting opportunities. A surety guarantee, an agreement between a surety and the SBA, provides that SBA will assume a predetermined percentage of loss in the event the contractor should breach the terms of the contract.

In addition, the SBA Office of Technology administers the Small Business Innovation Research (SBIR) Program and the Small Business Technology Transfer (STTR) Program. Through these two competitive programs, SBA ensures that the nation's small, high-tech, innovative businesses are a significant part of the federal government's research and development efforts. Eleven federal departments participate in the SBIR program; five departments participate in the STTR program awarding 2 B\$ to small high-tech businesses. The U.S National Science Foundation administers the SBIR.gov site on behalf of the federal government. Grants.gov is the source to find and apply for federal government grants.

4.1. Focus on the SBIR and STTR programmes

4.1.1. Presentation

SBIR is a highly competitive program that encourages small business to explore their technological potential and provides the incentive to profit from its commercialization. By including qualified small businesses in the nation's R&D arena, high-tech innovation is stimulated and the United States gains entrepreneurial spirit as it meets its specific research and development needs.

SBIR targets the entrepreneurial sector because that is where most innovation and innovators thrive. However, the risk and expense of conducting serious R&D efforts are often beyond the means of many small businesses. By reserving a specific percentage of federal R&D funds for small business, SBIR protects the small business and enables it to compete on the same level as larger businesses. SBIR funds the critical start-up and development stages and it encourages the commercialization of the technology, product, or service, which, in turn, stimulates the U.S. economy.

Since its enactment in 1982, as part of the Small Business Innovation Development Act, SBIR has helped thousands of small businesses to compete for federal research and development awards. Their contributions have enhanced the nation's defence, protected our environment, advanced health care, and improved our ability to manage information and manipulate data.

4.1.2. Eligibility

Small businesses must meet certain eligibility criteria to participate in the SBIR program.

- American-owned and independently operated
- For-profit
- Principal researcher employed by business
- Company size limited to 500 employees

More precisely, small business loans and small business grants may be awarded to companies that meet the size standards that the U.S. Small Business Administration (SBA) has established for most industries in the economy. The most common size standards are as follows:

- 500 employees for most manufacturing and mining industries
- 100 employees for all wholesale trade industries
- \$6 million for most retail and service industries
- \$28.5 million for most general & heavy construction industries
- \$12 million for all special trade contractors
- \$0.75 million for most agricultural industries

Note that about one fourth of industries have a size standard that is different from these levels. They vary from \$0.75 million to \$28.5 million for size standards based on average annual revenues and from 100 to 1500 employees for size standards based on number of employees. With few exceptions, all federal agencies, and many state and local governments, use the size standards established by SBA.

4.1.3. Implementation

Each year, eleven federal departments and agencies are required by SBIR to reserve a portion of their R&D funds for award to small business.

- Department of Agriculture
- Department of Commerce
- Department of Defense
- Department of Education
- **Department of Energy**
- Department of Health and Human Services
- Department of Homeland Security
- Department of Transportation
- Environmental Protection Agency
- National Aeronautics and Space Administration
- National Science Foundation

These agencies designate R&D topics and accept proposals.

A Three-Phase Program:

Following submission of proposals, agencies make SBIR awards based on small business qualification, degree of innovation, technical merit, and future market potential. Small businesses that receive awards then begin a three-phase program.

- I. Phase I is the start-up phase. Awards of up to \$100,000 for approximately 6 months support exploration of the technical merit or feasibility of an idea or technology.
- II. Phase II awards of up to \$750,000, for as many as 2 years, expand Phase I results. During this time, the R&D work is performed and the developer evaluates commercialization potential. Only Phase I award winners are considered for Phase II.
- III. Phase III is the period during which Phase II innovation moves from the laboratory into the marketplace. No SBIR funds support this phase. The small business must find funding in the private sector or other non-SBIR federal agency funding.

The US Small Business Administration plays an important role as the coordinating agency for the SBIR program. It directs the 11 agencies' implementation of SBIR, reviews their progress, and reports annually to Congress on its operation. SBA is also the information link to SBIR. SBA collects solicitation information from all participating agencies and publishes it quarterly in a Pre-Solicitation Announcement (PSA). The PSA is a single source for the topics and anticipated release and closing dates for each agency's solicitations.

4.1.4. Lessons learnt

The US SBIR scheme proposes a support scheme addressing the whole innovation process from idea to market, using initial calls for proposals.

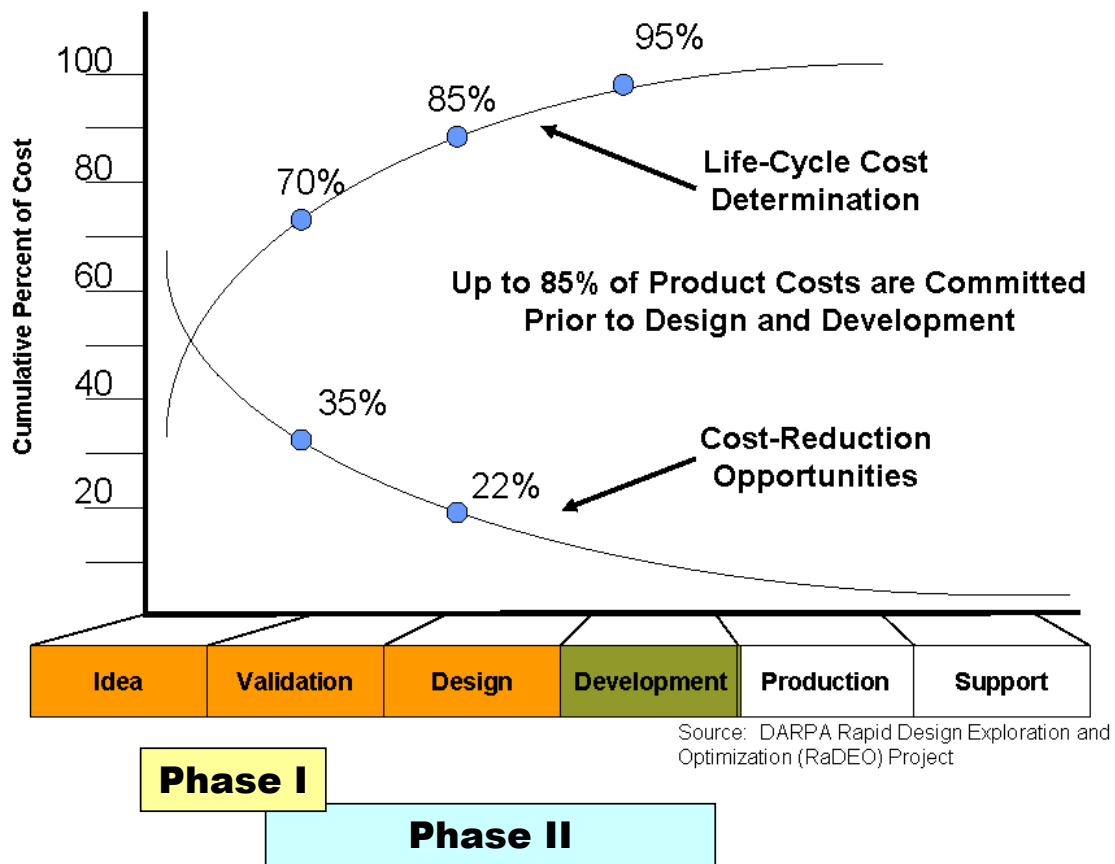


Figure 2 : Quantification of the importance of early stage validations

Phase I already awards the selected proposals for a significant grant (up to 100,000 \$), which allows an in-depth validation of the original idea. This amount of award is relevant of the State scale. Obviously, some low populated European countries could not afford such amounts.

On the other hand, phase II may look insufficiently funded (up to 750,000 \$) for some applications to reach a full scale prototype.

The SBIR mechanism has proven great successes in the past decades, with famous success stories like Microsoft and others, although the competition is now tougher, therefore hardly accessible to the smallest businesses.

5. SERVICE-FOCUSED SUPPORT SCHEMES EXISTING IN EUROPE

5.1. Feedback from the INNO Policy initiative of Europe INNOVA

Some findings of the INNO Policy Trendchart thematic report⁶ on innovation in services were presented by Prof. Lena Tsipouri, from the University of Athen, at the kick-off of the KIS Innovation Platform.

It aims at understanding why Member States have introduced policies to support innovation in services. Main reasons for such choices are summarized below:

1. Because services constitute the larger share of European GDP
2. Because there is evidence from pioneer firms that innovation in services helps their international competitiveness
3. Because the most prosperous countries have started doing it
4. Because Europe is losing competitive edge in manufacturing
5. Because we assume that since innovation policy is relevant for manufacturing it would be so for the service sector as well
6. Because innovation in services adds value to a whole spectrum of activities
7. Because in some important service sector case studies demonstrate the relevance of innovation
8. Because innovation in the service sector helps the diffusion of new technologies (the best means of productivity increase)
9. Because there is some kind of uncertainty associated with innovation in services
10. Because there is evidence that companies do not invest in service innovation as much as the neoclassical production function would imply (do not grasp opportunities fast enough)
11. Because society changes rapidly and so do its needs for new/modified services
12. Because business models change rapidly and the needs for new/modified services
13. Because they are important for the public sector

Moreover, these support policies have been introduced only recently:

⁶ Report Prepared by P. Cunningham, PREST

- Because we didn't know enough about innovation in services
- Because ICTs have facilitates service innovation considerably
- Because services are becoming increasingly traded and tradable (both for technical and regulatory reasons) and hence international competition increases; this alone justifies intervention
- Because there is stakeholder engagement

The above mentioned report states that the European Member States are not equal with regards to service support policies. The table below shows the Member States addressing service support in their policy documents:

Leading Countries in terms of policy documents.	Followers' group with some reference	No attention
Denmark Finland Germany The Netherlands Sweden	Belgium Cyprus Ireland Italy Latvia Malta Norway Portugal Spain Turkey the UK and to a lesser extent, Czech Republic Estonia.	Austria France Greece Luxembourg, Poland Slovenia Slovakia Switzerland

And the following table indicates those countries addressing service innovation with specific measures:

Measures addressing service innovation	Measures addressing service companies
Finland, Italy, Portugal, Cyprus, the Czech Republic, Norway	Austria, Belgium, Germany, Luxemburg, Malta, Spain, Iceland, Turkey

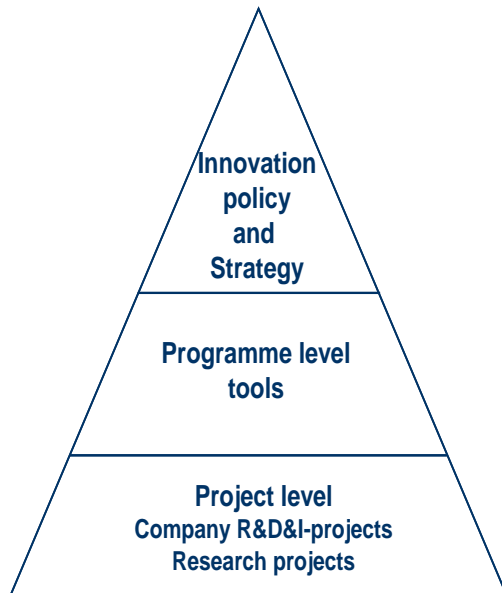
This report actually concludes on the following recommendations at EU level:

- Put in place further activities aimed at disseminating data on the contribution and role of services in the economy of Member States
- The Commission should investigate the most effective means of advancing academic debate
- The Commission should support the efforts made by Member States' to extend their support for innovation to include more service sector actors, to ensure that horizontal support measures are sector neutral and to raise the awareness among service sector companies of existing innovation support opportunities and their relevance. This could be achieved, for example, through good practice identification and dissemination.
- The Commission should support the development of monitoring and evaluation activities.

5.2. Focus on the Finnish service support policies

As depicted above, Finland has been of the leading countries to implement specific support schemes addressing innovation in services. These policies were deduced from an in-depth analysis of what services are and how innovation comes up in the service businesses. The presentation of Mrs Tiina Tanninen-Ahonen, Director at TEKES, about the Innovation Policy Project in Services (IPPS) made at the KIS-IP kick-off, pinpointed the following key issues of such policies:

Service Innovation activities at Tekes



- National Innovation Strategy of Finland 5/2008
- Tekes New Strategy 3/2008
- MoU (December 2007)
- IPPS INNO-Net / SSA (1.9.2006- 30.8.2007)
- EU Presidency: Services and Innovation Conference (October 2006)
- TrendChart workshop, Porvoo (June 2006)
- Commission Expert Group on Service Innovation (2006)

- The Serve project review
- IPR guide
- Service concept guide
- Workshops and forums

- Roadmap for research themes, calls accordingly
- New criteria for service concepts and business models
- State Aid for innovation advisory services 2/08

About the characteristics of service innovation:

- Services represent a highly heterogeneous set of activities
 - Service innovations are multidimensional in nature involving organisational, operational, delivery system, customer interaction and technology related dimensions
- It has been recognised that most policies aimed at facilitating R&D and innovation have explicitly or implicitly focused on supporting technological R&D and technological innovation mostly in manufacturing firms

IPPS conclusions:

There is a need for broad-based transnational collaboration that would include policy, strategic and operational level activities:

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

6. SUITABLE GENERAL SCHEME TO BE EXPERIMENTED WITHIN KIS-PIMS

Relying on the above lessons learnt from European and American measures to support innovation in service SMEs, some principles have been drawn to guide the development of the KIS-PIMS support scheme that will enable overcome the barriers identified in Deliverable D1.4.

These principles build upon the observation that most of the existing support schemes (excluding the Finnish one which addresses already services specifically) address mainly the upstream phase of the innovation process: from the idea to the demonstration at industrial scale. Little support exists to shoulder SMEs which face difficulties to shape a market-driven business model with a focus on the added value to the customers. Most often, the service SMEs will be close to the market and the RTD investments required will be supplementary in character. This is why KIS-PIMS proposes a three Steps approach that differs from the SBIR by its willingness to cover both RTD and market sources of innovation and then support the full innovation process in order to maximize the probability of market breakthroughs.

6.1. General principles

The KIS-PIMS partners converged on the following set of principles that will guide the development of the support schemes to be experimented in Austria, Finland and France:

- A. The KIS-PIMS support scheme must be compliant with the European and National rules and regulations about public financial support to the industry.
- B. The KIS-PIMS support scheme will deliver a response to any submitted project proposal focusing on innovative services in the renewable energy sector.
- C. The KIS-PIMS support scheme aims to support SMEs on the whole innovation process, according to which the innovation process is accompanied in 2 or 3 steps
 - I. The first step of the KIS-PIMS support scheme aims at making innovative service SMEs “investor ready” by estimating the viability of the proposed projects, whichever this investor is public or private;
 - II. The second step of the KIS-PIMS support scheme, where required, aims at helping SMEs effectively reach research and development financing. The main source will be public grants or loans, but it can turn to public-private partnerships.

- III. The third step of the KIS-PIMS support scheme aims at helping SMEs reach private finance to industrialize and commercialize the proposed innovative services ,and at reaching the market.
- D. The KIS-PIMS support scheme will accelerate the development of innovative services
- I. Step I - Short term issue
- Step 1 will utilize an innovation voucher funded by national and/or regional innovation agencies to enable SME access external innovation expertise of European scope. This expertise will have to address both technical and business issues that could weaken the viability of the proposed projects.
- II. Step II - Midterm issue
- Step 2 helps SMEs reach the prototype or the demonstration stage of their project. They will most often need financial support to achieve that goal. It is highly recommended that SMEs can rely on external expertise to build competitive project proposals eligible to public funding.
- III. Step III - Midterm issue
- SMEs can easily access their neighbouring investors (their own bank, shareholders, other regional or national investors). However, this financial environment is often insufficient to raise the required amounts rapidly. The KIS-PIMS consortium believes that further support is needed again after the demonstration stage to multiply the connections of the entrepreneurs to investors with a prior preparation.

6.2. Guidelines for implementation

The guidelines for implementation are to take into account the specificities of each of the countries participating to the experiment, viz: Austria, Finland and France.

6.2.1. Implementation in Austria

In Austria, the national innovation agency FFG has launched in January 2008 a new support scheme addressing innovation by SMEs of a few sectors (of which renewables) based on an innovation voucher. This voucher scheme is very similar to those successfully tested in The Netherlands and Ireland. It addresses mainly technology & skills transfer from research to business to foster collaborative innovation.

This existing scheme will be taken into account in the design of the KIS-PIMS process in Austria.

6.2.2. Implementation in Finland

In Finland, TEKES already have a programme to support innovation in services. It is neither focused on SMEs, nor utilizes the innovation voucher concept.

Discussions with TEKES will be engaged to state whether this existing support measure can be used as such to fulfil the specific needs of the KIS-PIMS goals, or it should be adapted in a new dedicated measure.

6.2.3. Implementation in France

In France, several support measures directed towards SMEs are in place at OSEO, the French innovation agency. In addition, the national agency for environment and energy ADEME award grants to close to market projects that need to demonstrate technology.

The KIS-PIMS support scheme will comply and complement these pre-existing accompanying measures.