EU-Japan Centre for Industrial Cooperation

Seminar Report

EU-Japan Clusters Policies Towards SME’s Innovation

Tuesday, 15 February, 2011

European Commission – Albert Borschette Centre
Rue Froissart, 36, B-1000 Brussels
Summary

On Tuesday, 15 February 2011, the EU-Japan Centre for Industrial Cooperation organised a seminar, at the European Commission in Brussels, on “EU-Japan Clusters Policies Towards SMEs’ Innovation”. The Seminar began with an opening speech from Ayako Kawamura (Director, EU-Japan Centre for Industrial Cooperation) and an introduction to the main issues by Christian Saublens (Managing Director, EURADA and the Seminar Chairman).

The first session addressed European Commission public initiatives for SMEs and cluster cooperation and featured two speakers from the Enterprise and Industry Directorate-General. Nikos Pantalos (Support for Innovation Unit) explained the main principles on which EU support is based, outlined various initiatives to support cluster development, and announced that a new European Commission Communication on clusters is planned. Silviu Jora (Policy Officer, Policy Development for Industrial Innovation Unit) noted that because EU and Japanese policy-makers see ‘innovation’ and ‘internationalisation’ as key issues in their growth strategies there is room for cooperation and parallels can be drawn between the EU’s ‘2020’ initiative and Japan’s ‘New Growth Strategy’. Because EU innovation levels vary considerably between countries, it is not possible to have a comprehensive policy – instead a mix of demand and supply measures is used. The ‘Innovation Union’ and international cooperation are complementary and are intended to overcome innovation ‘bottlenecks’. Stronger coordination (such as via the Enterprise Europe Network) between the European Commission and the Member-States is needed.

The second session was devoted to Japanese public initiatives for SMEs and cluster cooperation. Yuji Hosoya (Senior Analyst, METI) explained why Japan had adopted a policy on industrial clusters and how its ‘Industrial Cluster Program’ worked and had been adapted. Now, there are bottom-up and top-down initiatives taken to promote clusters and examples of inter-cluster cooperation with foreign clusters in Europe and Oceania. Global niche top companies (‘GNTs’) have an important role to play but can often be ‘hidden champions’ and so are not easily identifiable but should be supported. Yoichi Iida (Chief Representative, NEDO’s Representative Office in Europe) explained that although NEDO is not responsible for Japan’s cluster policies, clusters policy overlaps with NEDO’s support for R&D activities and promotion of industry-academia-government cooperation. ‘Strategic technology roadmaps’ are used and are revised annually allowing NEDO to accelerate, maintain or terminate its support for a project. NEDO provides support services to raise participation levels by SMEs. NEDO collaborates with various foreign partners including the European Commission and Member-State organisations.

The third session focused on European Commission public initiatives for SMEs and cluster cooperation and featured speakers from the Commission’s Research Directorate-General. Although research-intensive SMEs had been categorised into R&D performing vs. R&D outsourcing types, Bernd Reichert (Head of Unit, SMEs Unit) admitted that this division was artificial. SMEs tend to innovate through collaboration, not alone. There is a clear relationship between internationalisation and innovation. SMEs take part in the EU’s Framework Programmes for different reasons. The form of innovation has altered over time. Clusters are not the innovation system but are certainly a useful means in helping SMEs cooperate on a broader field. Stefan Weiers (Programme Coordinator, ‘Regions of Knowledge’) explained that the ‘Regions of Knowledge’ programme aims to harness research and technological development (RTD) for regional economic development. Research intensive clusters are very important. The Regions of Knowledge programme has addressed different themes each year. Its last call for proposals was worth €18.66m. Greater participation by Japanese partners would be welcome.

The fourth session looked at two case studies involving EU and Japanese clusters. Geoffroy Trinh (Regional Representative, Vitagora® cluster in Asia) presented the experiences of the Vitagora cluster. French clusters are based on a strong collaborative approach and can attract funding from many sources. Young clusters’ lack of international experience can create problems. Cluster cooperation is mutually beneficial for the clusters involved. His cluster has partners in various countries. Since its first visit to Japan in 2007, although its relations
with Japan have strengthened and are delivering benefits, challenges remain. Stéphan Verin (International Executive Officer, UP-tex competitiveness cluster) explained that advanced materials based on textiles have a wide range of applications. UP-tex promotes research and innovation and collaborative efforts at cross-border, European and global levels. Its activities in Japan are important, beneficial and are supported by the French Government.

The final session consisted of the signature of a MoU between ZENIT GmbH and the EU-Japan Centre for Industrial Cooperation to place EU-Japan cluster cooperation on a more institutionalised approach and of a presentation of the European Cluster Collaboration Platform (ECCP) by Juan-J. Carmona-Schneider (ECCP administrator, Senior Project Manager, ZENIT GmbH) during which he encouraged participants to promote their projects, seek partners and raise awareness of their activities via [www.clustercollaboration.eu](http://www.clustercollaboration.eu) to foster the cooperation between Cluster organisations.

The Seminar was attended by more than 40 people (mainly from SMEs and cluster organisations). Points raised during the general discussion included the risks that international cooperation can result in unintentional technology transfer; how potential SME partners can best be identified; the importance of ‘open innovation’; levels of Japanese involvement in projects in Europe and that 100% funding would be more likely to attract SMEs than the current partial project funding that is available.
Seminar Outline

- **Date:** Tuesday, 15 February 2011, 13:30 – 18:30
- **Place:** European Commission – Albert Borschette Centre (Brussels)
- **Organised by:** EU-Japan Centre for Industrial Cooperation (EUJC)
- **Programme:**
  
  - **13:30** Welcome by Ayako Kawamura, Director, EU-Japan Centre
  - **13:40** Introduction to the Workshop
    by Christian Saublens, Managing Director, EURADA
  - **14:00** Towards World-Class Clusters in the EU
    by Nikos Pantalos, Support for Innovation Unit, Enterprise & Industry DG, European Commission
  - **14:15** SMEs, Innovation & Internationalisation Policy in the context of “Europe2020” Strategy
    by Silviu Jora, Policy Officer, Policy Development for Industrial Innovation Unit, Enterprise & Industry DG, European Commission
  - **14:30** Japanese public initiatives for SMEs and cluster cooperation
    by Yuji Hosaya, Senior Analyst, Japanese Ministry of Economy, Trade & Industry (METI)
  - **15:00** How to smoothly connect academia with industry?
    by Yoichi Iida, Chief Representative, Representative Office in Europe, NEDO
  - **15:30** Panel session 1
  - **15:45** Coffee break
  - **16:00** Fostering SME innovation through cross-border cooperation
    by Bernd Reichert, Head of Unit, SME Unit, Research DG, European Commission
  - **16:15** Perspectives for innovative research driven clusters in the FP7 – the programme “Regions of Knowledge”
    by Stefan Weiers, Programme Coordinator, “Regions of Knowledge”, Research DG, European Commission
  - **16:30** Vitagora®’s efforts, along with F²C Innovation partners, to develop clusters’ cooperation with Japan
    by Geoffroy Trinh, Regional representative for Vitagora® cluster in Asia
  - **16:50** UP-tex in Japan : towards an inter-cluster partnership
    by Stéphan Verin, International Executive Officer, UP-tex competitiveness cluster
  - **17:10** Memorandum of Understanding – Signature Ceremony
    by Julien Guerrier, General Manager, EU-Japan Centre for Industrial Cooperation and Juan Carmona-Schneider, Senior Consultant / Senior Project Manager, ZENIT GmbH
  - **17:20** European Cluster Collaboration Platform
    by Juan Carmona-Schneider, Senior Consultant / Senior Project Manager, ZENIT GmbH
  - **18:00** Networking reception
Major issues discussed

Europe and Japan are keen to promote development of clusters as a tool for innovation. They recognise that SMEs can play an important role in clusters, but require encouragement and support if they are to take part. There is scope for EU-Japan cooperation to promote cluster collaboration for innovation and its internationalisation. Some ‘EU-Japan’ cluster success stories and ongoing projects already exist.

Christian Saublens – Introduction to the Workshop

There are two types of innovation: technology innovation (linked with products and process) and non-technology innovation, linked with services. There are various kinds of services (services to industry, services embedded in industry, services to people (will be increasingly important) and support services to companies – also of growing importance). If companies provide new business models, policy-makers contribute regional intelligence. Support can be offered in fields such as research, innovation, production, marketing, distribution and funding. Only a few ‘high growth’ SMEs have the potential to be involved with cluster internationalisation. EU-Japan cooperation will target this group of SMEs.

Nikos Pantalos – Towards World-Class Clusters in the EU

The European Commission is not seeking to dictate cluster policy to member-states, but wishes to ensure a European ‘added value’ to what is going on at a national level. Modern cluster policies will seek to extend the application of best practice from one member-state to the others. A better understanding of cluster development in Europe is needed. High quality services should be available to clusters. Programmes such as ‘Interreg’, ‘Regions of Knowledge’ or the European Institute of Technology can help cooperation. Internationalisation will allow EU clusters to turn their focus from the local level.

Several EU initiatives support cluster development:
- The European Cluster Observatory (intelligence).
- The European Cluster Alliance (platform for a permanent policy dialogue).

The Commission will welcome involvement of non-member-states and hopes that the MoU that would be signed at the end of the seminar would facilitate the involvement of Japanese clusters. A handbook on how to develop a successful cluster internationalisation strategy will be written. The European Cluster Observatory will be developed for emerging sectors. Cluster managers will benefit from the European Cluster Excellence Initiative and will be able to benchmark the performance of their cluster against that of other clusters.

Silviu Jora – SMEs, Innovation & Internationalisation Policy in the “Europe2020” Strategy

Innovation is a solution to the economic crisis and is linked to internationalisation. Given that it is a priority for the growth strategies of both the EU and Japan there is scope for cooperation. The EU’s strategy is based on three pillars (smart growth, sustainable growth and inclusive growth). Japan’s strategy addresses green innovation and life innovation. Overall innovation levels vary between EU member-states – fragmentation can also be a problem, so it is not possible to have a comprehensive policy. Instead demand and supply
side measures are required. The Commission accepts it must streamline the governance of its innovation programme and cut red tape. The Innovation Union programme aims to address innovation bottlenecks and includes 32 concrete measures including boosting access to finance. European Innovation Partnerships are another important part of the Innovation Union and include pilot initiatives such as one on ‘healthy ageing’ which, by 2020, aims to give people an extra 2 years of ‘healthy life’. Smart cities, water and raw materials are areas for future partnerships.

Of the 25% of exporting EU SMEs, about half also export outside the Internal Market. SMEs should be encouraged to internationalise towards non-member-states. International cooperation with Japan, perhaps on the 32 concrete measures, might be interesting. The Enterprise Europe Network exists to strengthen coordination between the European Commission and the member-states by linking innovation and internationalisation policies. After having established 10 partners in China and 5 in South Korea, Japan will be EEN’s next Asian target country. Given that EU-Japan relations are already quite mature (the EU-Japan Centre, EU-Japan Business Round Table and the EU Gateway to Japan programme are all well-established), a decision was made to establish EEN Centres elsewhere first. The EU-Japan Centre in Tokyo will establish the first EEN Centre in Japan. Mr Jora ended his speech calling for ‘more ambitious’ EU-Japan relations in terms of the promotion of innovation and internationalisation.

Yuji Hosoya – Japanese public initiatives for SMEs and cluster cooperation

Since the late 1990s promoting continuous innovation has been seen as a key to economic growth. Under METI’s Industrial Cluster Program (2001 FY-2005 FY) and second phase of the Program (2006 FY-2009 FY), regional METI bureaux led 18 projects each. As of the 2010 FY, METI has changed its system of support: Bottom-up initiatives (such as the Hokkaido Food Cluster) are drafted at a local level (prefecture, town or village) and approved by the national government. Top-down initiatives (such as the Next Generation Aircraft Cluster) ensure national government promotion of international competitive cluster projects in a range of areas including next-generation vehicles. Japan’s MEXT has extended its “Regional Innovation Cluster Program” until the 2013 FY and will start a “Support Program for Regional Innovation” in the 2011 FY that will focus on soft side measures.

Tie-ups with overseas clusters in Europe, Asia and Oceania have been fruitful and have brought about active cooperation. The 2008 EU-Japan cluster forum emphasised the importance of SMEs. SMEs need product differentiation and niche markets if they are to compete with large firms that can gain power through market share. Many successful SMEs can be seen as being ‘global niche top companies’ (GNTs) – they play an important role in the regional economy and may stay purely domestic or may seek to penetrate foreign markets. Although it is unclear how many GNTs exist, 1,200 dynamic manufacturing SMEs have been identified by the surveys conducted by SMEA. These companies seem to hold the core part of GNTs and the candidates. A policy target is for SMEs to transform from being ‘domestic niche top companies’ to become GNTs and retain strong competitive advantages. Because many large companies are reluctant to deal directly with SMEs, new alliances (e.g. to source high-specification parts from domestic and foreign suppliers) between GNTs and SMEs have been observed. Together METI and MEXT support the ‘Innovation Initiative Network Japan’, a national cluster association. A guidebook will be produced aimed at managers and people who support SMEs.
Yoichi Iida – How to smoothly connect academia with industry?

Although the NEDO does not organise cluster projects *per se*, the fact that clusters use the strength of new industry-academia-government networks means that there is a similarity between cluster policy and the NEDO’s activities. The NEDO has brought organisations together to support their R&D activities and enhance cooperation. Whereas the MEXT mainly supports fundamental research via universities, the NEDO implements national projects (e.g. on life science, nanotechnology and renewable energy). Although there are no national projects aimed exclusively at SMEs, there are schemes to encourage SMEs to be involved in the national projects open to all companies. In addition national projects, the NEDO has several programs which support R&D oriented venture companies employing fewer than 300 people, worth more than JPY ¥ 300m and that have been created within the last 10 years.

Of the various stages in the ‘lifecycle of NEDO’s projects’ the most important ones are analysis of technology and industry trends and extraction of important technology targets. ‘Strategic Technology Roadmaps’ cover 31 industrial sectors and have 3 pillars – the ‘scenario for introduction’ establishes the aims and objectives, the ‘technology overview’ establishes time requirement and the ‘roadmap’ is revised annually. In 2009 FY, 106 working-group meetings were held and 21 roadmaps were revised and one was created. Data from the working-groups is shared and used to reinforce activities for future cooperation. Consortia are created some involve industry and academia; others involve up and down-stream industry. Also, consortia formation for a project is important. Consortia are created some involve industry and academia; others involve up and down-stream industry. Some consortia can be involved in a single project; the NEDO playing the role of a bridging facilitator. In order to improve project management, the NEDO implements interim evaluations for all project. In 2009 FY, 5,000 experts took part in 25 evaluation processes. 13 projects continued as planned, 1 was stopped and 9 were amended. 6 good projects were accelerated. The NEDO also conducts a follow-up monitoring of a project that has been completed. A survey of over 600 institutions involved in 123 projects between 2003 FY and 2008 FY showed that 10% of respondents felt commercialisation was possible (of them 71% felt that links with universities had helped resolve problems and links with users allowed information to be fed back into the product-development process), 10% had given up ideas of commercialisation and 80% wished to continue pursuing it.

SMEs have to compete in the NEDO’s national projects. Because, like venture capital companies they find themselves at a disadvantage when compared with large companies, the NEDO established a Help Desk that took an average of 268 requests/month in its first fiscal year and 94 organised information days and 32 individual assistance meetings to promote SMEs and others participate in its projects. The NEDO collaborates with foreign counterparts e.g. in France (Oséo, Ubifrance) where it promotes Franco-Japanese R&D collaboration.

Bernd Reichert – Fostering SME innovation through cross-border cooperation

Only a small proportion of SMEs can be considered to be ‘research intensive’. Initially, the European Commission assumed they could be subdivided into two categories an ‘R&D performing SME’ and an ‘R&D outsourcing SME’. However, it became clear that such a division is not possible. SMEs do not innovate alone, but through collaboration with other entities. Some SMEs, working in medium and low-technology areas can be considered to be
‘hidden champions’. Internationally-active SMEs tend to be more innovative but often lack knowledge of internationalisation support packages. Although companies may profess an interest in business-academia collaboration, few will see this as a strategic route. 22% of SMEs involved with the EU’s framework programmes (FPs) are ‘strategic innovators’ and see the FP as part of their strategic development. 13% would like to exploit their involvement in the FP but do not know how to do so. Other companies are involved for business reasons (to supply their product) but do not see it as an opportunity to innovate, some are more interested in building networks than achieving innovation and 5% are free riders. There is no single strategy for facilitating knowledge or technology transfers, many different mechanisms exist. The general understanding of innovation has changed from a more linear approach inside a company to an open one including services besides product development. The focus is more holistic and includes new business models, services and other non-technological aspects of innovation. Clusters are not the only solution for ensuring innovation, but are certainly a useful factor and can help SMEs cooperate on a broader basis.

Stefan Weiers – Perspectives for innovative research driven clusters in the FP7 – the programme ‘Regions of Knowledge’

The ‘Regions of Knowledge’ programme aims to harness research and technological development (RTD) for regional economic development. Research intensive clusters are very important and involve highly innovative clusters in a ‘triple helix approach’ (a research entity, a real company and a regional authority) rather than traditional clusters. European Commission support is justified by the requirement for a funded project to involve at least 3 research driven clusters from 3 countries. Clusters are seen as a tool for channelling funds into the regions – not the ultimate goal. Each year, the ‘Regions of Knowledge’ programme addresses a different topic or theme. The latest proposal (for €18.66m) will fund 7 or 8 carefully-evaluated projects. The Commission would welcome greater participation by Japanese entities. The programme has shown that synergies appear by chance, not design.

Geoffroy Trinh – Vitagora’s efforts, along with F²C Innovation partners, to develop clusters’ cooperation with Japan

Vitagora® was established in 2005 as a pôle de compétitivité and focuses on taste, nutrition and health. The French cluster model works on a project base. French clusters cover fundamental and applied research because unlike Japan, French clusters can benefit from money from an inter-ministry fund rather than from funding from separate ministries. In 2007, Vitagora conducted basic market research in Japan. In 2008, it met with various ministries during its first formal mission to Japan, supported by its regional development agency. The same year, it took part in the EU-Japan Regional Cluster Forum organised by the EU-Japan Centre and met with Japanese cluster managers. It met them again in 2009, during the mission it organised for the F²C Innovation ‘super cluster’.

Not only does it take time to develop relationships, it is often unclear who is the key contact within a partner organisation – it is therefore a good idea to use existing networks (such as via an embassy, the EU-Japan Centre or a successful existing cluster) to develop new contacts. Cluster structures are the best intermediaries for developing early-stage promising technologies. Vitagora has seen benefits from its links with Japan. It is now seeking the right partners for its project and will then try to secure funding. Clusters should be given incentives (not just financing) and should be made more aware of support that is on offer.
Stéphan Verin – UP-tex in Japan towards an inter-cluster partnership

Textile-based advanced materials can be used in transport, healthcare, construction, agro-resources and in clothing. UP-tex covers advanced textile materials, poly sensoriality and mass customisation and design. In the medical sector textiles can be used in many ways (from hip to cartilage replacement). In construction there is also a wide range of uses – insulation, textile architecture, strengthening and filtration. UP-tex works on projects from concept to commercialisation. Its international strategy is to work cross-border with Belgian, with other European and with global partners. Its first Asian partner was Taiwan because of its proximity China and because it would be easier to cooperate with than China.

UP-tex sees Japan as leading innovation in petrochemical and bio fibres. With rising prices and scarcity of raw materials collaboration is attractive. Japan also needs help – it has to understand the needs of the market. UP-tex is the interface between large Japanese firms and the myriad made up of their SME clients. There is good scope for cooperation: Japan and Europe are working on the same issues, seek the same ‘breakthroughs’ and face the same challenges in bringing together public and private research.

UP-tex is working on developing 2 potential research projects, 2 potential inward investment projects, hopes to conclude an MoU, wants to establish direct relationships between companies and achieve cooperation between the European Institute for Textiles and Japanese companies. However, international development is expensive and time-consuming and needs a framework if it is to lead to product development.

Juan Carmona-Schneider – European Cluster Collaboration Platform

The platform was created at the initiative of the European Commission and allows users to promote their projects, seek partners and raise awareness of their activities via www.clustercollaboration.eu.

Signature of the Memorandum of Understanding

An MoU was signed by ZENIT GmbH, representing European Cluster Collaboration Platform, and the EU-Japan Centre for Industrial Cooperation to place EU-Japan cluster cooperation on a more institutionalised approach.

Questions & Answers

The Seminar was attended by more than 40 people (mainly from SMEs and cluster organisations). Points raised during the general discussion included the risk that international cooperation can result in unintentional technology transfer; how potential SME partners can best be identified; the importance of ‘open innovation’; levels of Japanese involvement in projects in Europe and that 100% funding would be more likely to attract SMEs than the current partial project funding that is available.
– The risk that international cooperation can result in unintentional technology transfer; This is a common fear – Japanese have the same concern when it comes to cooperation with Europe. To some extent it is justified, but Japan and Europe have similar rules and regulations that can address this. After 2 years of negotiation, Japan (NEDO) and Europe (the Commission) published a joint call for proposals in the field of photovoltaics. Japanese and European entities have a similar fear regarding cooperation with South Korea and China and can work together to address this fear. Innovation is essential if Japan and Europe are to remain competitive and can be assisted by working together. Although Japanese research programmes are not open to foreign entities, the EU FP7 is. If Japanese research remains isolated then there is the risk of the ‘Galapagos syndrome’.

– How to identify potential SME partners; There is no EU-level database as such. Good practices in France (to identify and label firms with a high potential and thereby seek to make them more attractive to funding from venture capital and other private sources) could perhaps be copied. The Enterprise Europe Network and cluster organisations can be a good starting point.

– The importance of ‘open innovation’; Open innovation is essential and is supported by many multinational companies.

– Levels of Japanese involvement in projects in Europe; Japanese involvement in pre-FP7 projects was limited. It is hard to gauge precise levels of Japanese involvement because Japanese subsidiaries operating in a Member-State under domestic law would be counted as being a European entity, but under FP7 it is possible for Japanese entities in Japan to take part. J-BILAT exists to encourage greater Japanese participation.

– That 100% funding would be more likely to attract SMEs than the current partial project funding that is available.

 Whilst academic researchers are often able to raise match funding from other sources, the fact that participants do not get 100% of their costs covered by FP7 puts off SMEs. An anecdotal example is that whereas no Czech SMEs are involved in FP7 projects, they are involved in European Space Agency projects which give full funding.

**Useful links**

1. **European Union**

2. **Japan**
Participants & Evaluation

Total number of participants = 47
Total number of responses received for this evaluation= 17

Proportion of
   Japanese participants: 21%
   European participants: 79%.

The overall evaluation of the Seminar was that it was “Good”. Various aspects of the event were evaluated thus (scale of 1 (Poor/Low) to 5 (Excellent/High) :
Presentations & Handouts

- **Presentation** – Introduction to the Workshop
  by Christian SAUBLENS

- **Presentation** – Towards World-Class Clusters in the EU
  by Nikos Pantalos

- **Presentation** – SMEs, Innovation & Internationalisation Policy in the context of “Europe2020” Strategy
  by Silviu Jora

- **Presentation** – Japanese public initiatives for SMEs and cluster cooperation
  by Yuji Hosoya

- **Presentation** – How to smoothly connect academia with industry? - NEDO’s activities-
  by Yoichi Iida

- **Presentation** – Fostering SME innovation through cross-border cooperation
  by Bernd Reichert

- **Presentation** – Perspectives for innovative research driven clusters in the FP7 – the programme ‘Regions of Knowledge’
  by Stefan Weiers

- **Presentation** – Vitagora’s efforts, along with F²C Innovation partners, to develop clusters’ cooperation with Japan
  by Geoffroy Trinh

- **Presentation** – UP-tex in Japan towards an inter-cluster partnership
  by Stéphan Verin

- **Presentation** – European Cluster Collaboration Platform
  by Juan Carmona-Schneider
EU-Japan Clusters Policies toward SMEs’ Innovation

15th of February 2011
Brussels, BELGIUM

Christian SAUBLENS
EURADA Managing Director

The playfield

Innovation

• OSLO manual and Eurostat CIS4
• Technology innovation = RDT
  • Products
  • Process
• Non technology innovation = services
  • New or re-organisation of a business model
  • Marketing
Types of services

- **Services to industry**: design, packaging, logistics, open innovation, consultancy, marketing, enabling technologies, outsourcing, reverse innovation

- **Services embedded in industry**: mobile phone applications, car/bike hire in cities, finance/leasing of equipment, access to products/services instead of purchasing them

- **Services to people**: tourism, health, e-commerce, ICT, transport, ...

- **Support services to enterprises**: access to finance, clusters, higher added value services, consulting, ...

   ➔ New business models + regional intelligence

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The 2 dimensions of support for innovation

1. **Approach to innovation**

   - **Activities**
     - Research
     - Design
   - **Entrepreneurship**
     - Start ups
     - New products/services
     - New business models
   - **Market**
     - Public procurement
     - Market replication
   - **Sectors**
     - Tourism, ICT
     - eBusiness
     - Manufacturing
     - Culture, creativity
   - **Infrastructure**
     - Research centres
     - Science parks
     - Incubators
   - **Enterprise growth**
     - Training, skills
     - Technology transfer
     - Mentoring/coaching
     - Consultancy

2. **Nature of the support**
**Cooperation**

**Matrix of business functions and international services**

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<thead>
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<th>Business functions</th>
<th>International services</th>
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<tbody>
<tr>
<td>Research</td>
<td>Joint research</td>
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<tr>
<td></td>
<td>Access to equipment and expertise</td>
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<td></td>
<td>Establishment of research facilities (FDI)</td>
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<tr>
<td>Innovation</td>
<td>Joint development</td>
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<td></td>
<td>Proof of technological concept</td>
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<td></td>
<td>Proof of economic concept</td>
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<td></td>
<td>Licensing and transfer of intellectual property</td>
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<tr>
<td>Production</td>
<td>Establishment of production facilities (FDI)</td>
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<td>Subcontracting</td>
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<td></td>
<td>Outsourcing/Offshoring</td>
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<tr>
<td>Marketing</td>
<td>Market testing/Economic intelligence</td>
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<tr>
<td>Distribution</td>
<td>International outreach</td>
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<tr>
<td>Funding</td>
<td>Joint Venture</td>
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</tbody>
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*Source: Eurada*

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**SMEs and their cluster internationalization potential**

- **High growth enterprises**
- **Innovation driven enterprises**
- **Export driven enterprises**
- **Local market and life style driven enterprises**

*Source: EURADA*
Now let’s start!

EURADA
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info@eurada.org
EU initiatives for SMEs and cluster cooperation

Nikos Pantalos
DG Enterprise and Industry, European Commission

nikos.pantalos@ec.europa.eu

Guiding principles for EU support

Modern policies  Intelligence
Cooperation  Excellent services

International
EU initiatives supporting cluster development

European Cluster Observatory (intelligence)
European Cluster Collaboration Platform
European Cluster Alliance (policy makers)
European Cluster Excellence Initiative (cluster managers)
European Cooperation (Interreg, Regions of Knowledge, EIT)

European Cluster Alliance

Internationalisation
Cluster Marketing
Channelling R&I support
User-centric innovation clusters
Regional favourable cluster environments
Cluster Policy Excellence

Develop better cluster policies in Europe
European Cluster Observatory

- Training materials for cluster managers
- Benchmarking cluster organisations performance
- Provision of trainings (Future)

European Cluster Excellence Initiative

- Training materials for cluster managers
- Benchmarking cluster organisations performance
- Provision of trainings (Future)

European Cluster Collaboration Platform

- Cluster structure
- Share of maximal score
- Financing
- Outputs of services
- Diversity of services
- Cluster typology
- Internationalisation
- Cluster Organisation
- Clusters belonging to the same domain
The way forward

New Challenges

Europe 2020 strategy
Flagships on Industrial Policy and R&I
Other relevant EU policies
Next Programming period 2014-2020

New strategy for world-class clusters and networks in 2011
SMEs, Innovation & Internationalisation Policy in the context of “Europe 2020” Strategy

By Silviu Jora, DG ENTR, D1

(EU-Japan Clusters Policies Seminar, Brussels, 15 February 2011)

INNOVATION!
« The Europe I believe in »

By 2015, I want Europe to have become not just a "knowledge society", but an "innovation society".

I plan to make this one of my top personal priorities.

Because I am convinced that nothing is more important for Europe's future.

Jose Manuel Barroso, European Parliament, 13 October 2009
Europe 2020: 7 flagship initiatives underpin the targets

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<tr>
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<th>Sustainable Growth</th>
<th>Inclusive Growth</th>
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<td>Innovation</td>
<td>Climate, energy and mobility</td>
<td>Employment and skills</td>
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<tr>
<td>« Innovation Union »</td>
<td>« Resource efficient Europe »</td>
<td>« An agenda for new skills and jobs »</td>
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<td>Education</td>
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<td>Fighting poverty</td>
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<td>« Youth on the move »</td>
<td>« An industrial policy for the globalisation era »</td>
<td>« European platform against poverty »</td>
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<td>Digital society</td>
<td>« A digital agenda for Europe »</td>
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Japan's New Growth Strategy
- Convergences with EU 2020 ?-

**GREEN INNOVATION**
Science, Technology, IT

**LIFE INNOVATION**
Employment and Human Resources

- The Strategy is based on Japan's strengths and comparative advantages, focusing on three main potential sources of growth: the environment, health and tourism.

- It provides a clear and ambitious vision for the future by capitalizing on Japan's exceptional strengths, notably a high level of investment in human capital and R&D and outstanding educational results.

- Important place given to science, technology and innovation as a platform to support growth.
Overall innovation performances are diverse

Innovation leaders: Sweden, Finland, Germany, UK, Denmark

Innovation followers: Austria, Luxembourg, Belgium, Ireland, France, Netherlands, Estonia, Cyprus

Moderate innovators: Slovenia, Czech Republic, Portugal, Spain, Greece, Italy, Malta, Slovakia, Hungary, Poland, Lithuania

Catching up countries: Romania, Latvia, Bulgaria

EU innovation support: Better access to finance

**Financing**

**Loans & Guarantees:**
- Risk-Sharing Finance facility (FP7 & EIB) for research projects
- SME guarantee facility (CIP-EIP)
- JEREMIE and other financial instruments of the Structural Funds

**Venture Capital:**
- High growth and innovative SME facility (CIP-EIP)
- JEREMIE and other financial instruments of the Structural Funds

**Grants for projects:**
- Market replication projects for proof of economic concept and investment readiness (CIP: eco-innovation, intelligent energy, ICT)
- Pilot & demonstration projects for proof of technological concept (CIP, FP7)
- Capacity building for research, innovation / technology transfer, public services for innovation (SF, IDABC, CIP, FP7, TENs)
- Structural Funds: Managing Authorities!

Links:

EU innovation support: facilitate market take-up of innovations

**Public procurement**
- Promotion of and guidance on public procurement of innovative goods and services and pre-commercial public procurement
- Public procurement networks for mutual learning and cooperation (CIP)

**Regulation**
- Internal Market rules for environmental, health & safety, etc. issues
- EU Public procurement rules
- Standardisation, labelling

**Policy coordination**
- Lead Market Initiative: Coordination between policy areas and instruments

**Facilitate global market access**
- WTO, bilateral agreements...

Links:

---

**Complexity of EU innovation programme governance**

**FP7 Research and Development**
- **Capacities**: 4,1 Bn
  - Regions of Knowledge (3 Bn)
  - Research (6 Bn)
  - Research potential of cohesion regions (3 Bn)
  - Science & Society (1,3 Bn)
  - Infrastructure (1,7 Bn)
  - Risk sharing (1 Bn)
- **Cooperation**: 6,4 Bn
- **Themes**: 2,1 Bn
- **People**: Marie-Curie Scholarships (4,7 Bn)

**CIP Competitiveness & Innovation**
- **Capacities**: 3,6 Bn
- **Cooperation**: 2,1 Bn
- **Themes**: 2,1 Bn
- **People**: Marie-Curie Scholarships (3,6 Bn)

**LIFE+ Structural Funds**
- **Capacities**: 347 Bn
- **Cooperation**: 3,6 Bn
- **Themes**: 3,6 Bn
- **People**: Marie-Curie Scholarships (3,6 Bn)

**Operational Programmes**
- **LIFE+ Structural Funds**
- **FP7 Research and Development**
- **CIP Competitiveness & Innovation**
- **LIFE+ Structural Funds**

**Agencies**
- CIP
- FP7
- LIFE+
- Structural Funds

**EU innovation support: facilitate market take-up of innovations**

**Demand**

**Public procurement**
- Promotion of and guidance on public procurement of innovative goods and services and pre-commercial public procurement
- Public procurement networks for mutual learning and cooperation (CIP)

**Regulation**
- Internal Market rules for environmental, health & safety, etc. issues
- EU Public procurement rules
- Standardisation, labelling

**Policy coordination**
- Lead Market Initiative: Coordination between policy areas and instruments

**Facilitate global market access**
- WTO, bilateral agreements...

Links:
Main innovation bottlenecks

• No single market for innovation
• Underfunded and un-coordinated public support for innovation
• Under-developed capital markets for innovation: volumes of Venture Capital investments are at a quarter of the US, and cross border investments are limited
• Too few fast growing innovative companies
• Too few SMEs benefit from innovation support programmes

What is Innovation Union?

• Tackling weaknesses
• Under-investment
• Fragmentation
• Framework conditions
• Strategic approach
  • Partnership with Member States
  • From idea to market
• Building on strengths
  • Focus on societal challenges
  • Broad concept of innovation
  • Involving all actors
Strengthening the knowledge base

**Actions**
- 1. National strategies to boost training and careers of researchers (2011)
- 2. Independent multidimensional university ranking system and launch of business-education «knowledge alliances» (2011)
- 3. Commission to promote e-skills for innovation (2011)
- 4. Commission to propose a European Research Area framework (2012) to remove obstacles to mobility and cross-border cooperation by 2014
- 5. EU and Member States to complete or launch 60% of priority European research infrastructures by 2015.
- 6. Focus future EU R&I programmes on EU2020 and Innovation Union: societal challenges, with streamlining/simplification (2014)
- 7. Ensure strong involvement of SMEs with high growth potential (2014)
- 8. Develop the Joint Research Centre’s role to support the science base for policy making through forward-looking activities
- 9. European Institute of Innovation & Technology to set out a strategic innovation agenda (2011)

Access to finance

**Issues**
- Lack of finance is main constraint on innovative companies
- Few European SMEs grow into major companies
- Specific market gaps for start ups, for high growth companies, and for financing major research and innovation projects
- RSFF, CIP Financial Instruments cannot meet demand.

**Actions**
- 10. New generation of Financial instruments with EIB (by 2014)
- 12. Stronger brokerage between innovative SMEs and investors
- 13. Review State Aid framework, to enable support to all forms of innovation (2011)
A Single Innovation Market

- **Issues**
  - Costly EU patent system
  - Lack of harmonised regulations for innovations
  - EU standard setting too slow
  - Public procurers lack incentives, knowledge or scale to benefit from innovation
  - Importance of eco-innovation

- **Actions**
  - 14. Rapid agreement on **EU patent**
  - 15. **Screen regulatory frameworks** linked to Partnerships (2011)
  - 16. Reform **EU standard setting & link to R&D projects** (2011)
  - 17. **Member States to set aside procurement budgets for innovation**, with EC technical/ financial support (2011)
  - 18. Commission to present an **eco-innovation action plan** (2011)

European Innovation Partnerships

- **Key issues**
  - Major **societal challenges** require **joint responses** across policies and across EU
  - Numerous **sub-critical, uncoordinated initiatives**:
    - between EU / Member States / Regions
    - R&D / Market-side actions (public procurement, standards, regulation)

- **European Innovation Partnerships** are:
  - **Frameworks bringing together main actors and actions**
    - At EU and national levels
    - From research to market
    - Around common objectives and targets
EIPs

- **2010**
  Pilot on **active and healthy ageing**
  Aim: two additional healthy life years by 2020

- **2011**
  - **Others EIPs to follow** pending discussions and building on pilot experience
  - **Topics considered**: smart cities, water, (non energy) raw materials, agriculture, ..

---

**International cooperation**

- **Key issues**
  - Third countries see 27+1 small/medium parties, not one major partner
  - Europe’s openness is not always reciprocated
  - **Global challenges** require a global response

- **Actions**
  - 30. Attract high skilled third country nationals
  - 31. **Joint EU / national priorities** for cooperation with third countries (2012)
  - 32. Agree **international infrastructures** with world partners (2012)
**Why internationalise?**

- Globalisation requires **internationalisation**
- Internationalisation is the **road to competitiveness and sustainability**
- **Internationalisation and innovation** breed from the same drivers and mutually support each other.

---

**On the situation and drivers to internationalisation**

- A considerable number of European SMEs are engaged in international activities yet only a small percentage is involved in internationalisation beyond the Internal Market.
- The two most common modes of internationalisation are exports and imports:
  - 25% of SMEs within the EU27 export, of which about 50% also go beyond the Internal Market (13%).
  - 29% of SMEs within the EU27 import, again 50% import from countries outside the Internal Market (14%).
- In addition:
  - 7% of SMEs within the EU27 are involved in technological co-operation with a foreign partner.
  - 7% are a subcontractor to a foreign partner.
  - 7% have foreign subcontractors
  - 2% of SMEs are active in foreign direct investment.
**Innovation and internationalisation are complementary strategies**

- Innovative companies are more likely to export. They are more productive and therefore internationally more competitive. Exporting in turn has a positive impact on innovation. Exporting activities trigger learning effects and access to larger markets increases the turnover of exporting firms such that larger amounts of the cash flow can be devoted to innovation and R&D investments. Hence, exporting and innovation are complementary strategies that result in higher export shares, turnover and employment growth at the firm level.

- There are differences across EU Member States and industries with respect to how innovation affects economic performance. In industries with medium to low innovation intensity productivity growth is mainly driven by process innovations. In industries with high innovation intensity especially in the member states that are technologically more advanced productivity growth in turn depends more heavily on product innovations.

- Policies supporting innovation and internationalisation should be linked up. It is also advisable to design policy support measures that stimulate innovation and internationalisation at the same time.

**Remove barriers to innovation to promote internationalisation**

- Innovation-Internationalisation are interdependent – therefore the barriers to innovation act as barriers to internationalisation as well. There are still substantial barriers to innovation with respect to knowledge on markets and technologies, access to finance and the shortage of skilled labour.

- **Knowledge barriers**: Small firms and firms that are not part of a larger corporate group are more likely to experience knowledge barriers.

- **Financial barriers**: are particularly important for SMEs producing very novel products and technologies or relying on advanced knowledge

- **Skill constraints**: Small, young, innovative and growth oriented firms are more heavily affected by skill constraints

- Efforts should continue to overcome the fragmentation of national markets for risk capital and foster financial development in general (also for business angels and other forms of risk capital).
The European Patent and standards - fostering innovation and internationalisation

- The current European IPR system has several characteristics that are unfavourable for innovation. There is strong evidence by now that the lack of a single European Patent affects firms’ incentives to innovate and raises financial barriers to innovation. Implementing the single European patent comes therefore with a double dividend (Innovation Union Measures)

- Standards perform an important role for the diffusion of technology and as focussing device that guides future innovation activities (Innovation Union measures – reflow the EU standard setting)

Strengthening The EC - Member States coordination

- At the EU level the importance of the link between innovation and internationalisation has not been consistently approached until recently.

- The Enterprise Europe Network (EEN) is one of the few instruments at the EU level linking up innovation and internationalisation policies.

- At both the member state and the EU level there is a considerable dispersion of policy measures addressing either innovation or internationalisation or both. The level of awareness of public support programmes for innovation and internationalisation among SMEs is rather low and only 16 % actually use them.

- The EC Flagship initiative “Innovation Union” commits to link EU and national research and innovation systems better up
DG ENTR and internationalisation
Support initiatives:

• 2. Enterprise Europe Network (2008)

• 3. Others:
  - Services Directive
  - Support programmes (AsialInvest, ALInvest, Gateway to Japan...)
  - CIP and FP7 funds
Mission of the Network

- **Internationalisation**
  - Business partnerships
  - Advice on EU laws, rules, standards
  - Help SMEs access markets and benefit from the internal market
  - Access to finance and funding opportunities

- **Innovation**
  - Technology transfer
  - Modern innovation support services & Innovation audits

- **Increase R&D activities of SMEs**
  - participation in FP7

- **Feedback and consultation: dialogue with SMEs**
The Network’s results since 2008

- Helped businesses to sign over 3000 cooperation agreements
- Organised international brokerage events for 30,000 companies
- Local events for half a million companies
- Carried out over 75,000 technology- and company reviews and analyses
- 4000 SMEs consulted via feedback and panels
- Provided information and services to over 2.5 million SMEs

EEN in Asia

- The Enterprise Europe Network has opened 15 contact points in China and South Korea, giving European SMEs easier access to these attractive markets.

- There are now 10 partner organisations in China, in cities including Guangzhou, Xiamen and Hangzhou, and five in South Korea, including centres in Seoul and research hub Daejeon.

- Next is Japan!
EU-Japan Cooperation on SMEs innovation and internationalisation

- Innovative European SMEs challenges to internationalise (export) to Japan:
  Language barrier; Establishing contacts, connections and networks; Business
culture and practices; Knowledge on specifics of market and industry

- Therefore high expectations for the EEN Japan

- Building on the experience of 20 years of EU-Japan policy and business
dialogue, the executive training programme, EU-Japan Gateway

- Exploiting the commonalities and potential synergies between the
  EU and Japan Growth Strategies based on innovation (on healthy
  ageing sectors, environmental technologies, public sector innovation).

Innovation Union website
http://ec.europa.eu/innovation-union/

Innovation Facebook page
http://www.facebook.com/Innovation.Union

Innovation unlimited blog
http://blogs.ec.europa.eu/innovationunlimited
Japanese public initiatives for SMEs and cluster cooperation

February 15th 2011
Workshop
EU-Japan Clusters Policies toward SMEs’ Innovation

YUJI HOSOYA
Senior Analyst for Regional Policy
Ministry of Economy, Trade and Industry

Background of the birth of the industrial cluster policy
(Changes in regional economic development methodology)

Industrial decentralization and development of regional core cities
(1970s to mid-1990s)

- Dispersing industrial agglomerations of the megalopolis to the regional core cities for the purpose of promoting balanced regional growth
  The typical example is so called "Technopolis" program started from 1983

Prevention of hollowing-out and support for development of new growing sectors
(since mid-1990s)

- Revitalizing existing industrial agglomerations (mainly Marshall type)
- Organizing comprehensive support systems for creating new businesses
  (Organizing one-stop support system for creating new businesses, enhancing incubation functions including building of facilities)

Support for development of regional economies and competitive industries through continuous innovations utilizing regional resources
(since FY 2001)

Industrial cluster policy
Promoting industrial clusters which accelerate innovation and facilitate world-viable new businesses to be created one after another
**Target terms of the Industrial Cluster Program**

**Term I (FY 2001-2005)**

*Industrial cluster launch period*
through 18 projects led by regional bureaus of METI

**Term II (FY 2006-2009)**

*Industrial cluster development period*
through 18 projects led by regional bureaus of METI

**FY 2010- New Scheme for industrial cluster autonomous growth**

- Support the activities according to the basic plan made by local governments based on the “Act on Promotion of Establishment of New Business Facilities”.
- Promote new competitive cluster project start-ups by "Regional Competitive Edge Projects for Strengthening Business (new)".

---

**Industrial Cluster Program**

METI finished Industrial Cluster Program in FY 2009.

- Project Output:
  - Industry-government-academia networks are composed of 10,200 SMEs and 290 universities collaborating nationwide.
  - New businesses launched: over 70,000.

- 18 projects : As of March 31st 2010

- HOKKAIDO Cluster Project
  - Hokkaido IT Innovation Project,
  - Hokkaido Biotech Industrial Growth Strategy

- TOHOKU Manufacturing Corridor

- OKINAWA Industry Promotion Project

- Next Generation Key Industry Creation Project
  - Recycling-oriented and Environment-friendly Society Establishing Project

- Kyushu Recycle and Environmental Industry Plaza (K-RIP)

- Kyusyu Silicon Cluster Project
  - Kyusyu bio cluster Project

- SHIKOKU Techno-bridge Project

- KANSAI Bio-Cluster Project “Bio Cluster”
  - KANSAI Front Runner Project “Neo Cluster”
  - Environment Business KANSAI Project “Green”

- TOKAI Monozukuri Revitalization Project
  - KOKURUKU Monozukuri Revitalization Project

- Regional Industry Revitalization Project
  - Network formation support activities for: Western Metropolitan area (TAMA); area along Chuo Expressway; Tokatsu-Kawaguchi-Tsukuba (area along TX Line); San-En-Nanshin area; Northern Tokyo metropolitan area, and Kehin area
  - Fostering Bio-ventures
  - Fostering IT ventures
Two types of industrial cluster initiatives supported by METI

From FY 2010

① Bottom-up initiatives of industrial clusters with local roots
Regional clusters are supported by local governments, and METI provides financial support for various activities decided by the basic plan made by local governments according to the “Act on Promotion of Establishment of New Business Facilities”.

② Top-down initiatives promoting international competitive clusters
METI has been promoting new competitive cluster project start-ups (ex. aerospace, environmental business, bioindustry etc.) under the initiatives of regional bureaus of METI.

The changes of Industrial cluster policy budget

~ FY 2009 | FY 2010 ~ Competitive funds
--- | ---
Support based on “Act on Promotion of Establishment of New Business Facilities” (2.22 billion yen) | Support based on “Act on Promotion of Establishment of New Business Facilities”
- FY2010 2.19 billion yen
- FY2011 1.00 billion yen

Support for promotion of establishment of new business facilities
- Promotion of establishment of new business facilities
- Personnel training
- Maintenance of common facilities
- R & D, etc.

Support in form of Industrial Cluster Subsidies (1.14 billion yen) | Support for promotion of establishment of new business facilities
- Promotion of establishment of new business facilities
- Personnel training
- Maintenance of common facilities
- R & D, etc.

Support for forming 18 industrial cluster projects
- Forming networks
- Creating new businesses
- Promoting cooperation
- Developing market
- Dissemination, etc.

Regional Competitive Edge Project for Strengthening Business
- FY2010 1.39 billion yen (NEW)
- FY2011 1.30 billion yen

- Create new growth industries
- Business matching
- Coordinator arrangement
- Cooperation with support organs
- Coordinator training, etc.

Bottom-up initiatives by industrial clusters with local roots
Top-down initiatives promoting international competitive clusters
**Hokkaido Food Cluster**

- Hokkaido is located in the most northern part of Japan. This region has experienced serious economic sluggishness over an extended period. But Hokkaido has abundant forestry and fisheries, and comparative advantage in terms of large scale agricultural production.
- The purpose of food-cluster formation is to establish a wide range of food clusters by strengthening a cooperation system that encompasses various food related businesses including food processing, biotechnology, machinery manufacturing, distribution, IT and tourism. Additionally, steps are also taken to add high value to food resources and develop hot-selling products and to promote their sales in other areas of Japan and abroad.
- On May 19, 2010, the Hokkaido Economic Federation, the Hokkaido Central Union of Agricultural Cooperatives, Hokkaido Bureau of METI and the Hokkaido regional Government held a launch ceremony for the “Food Cluster Network (FC/NW)”. As of December 31, 2010, the network had some 800 members, including businesses, government institutions and other organizations.
- Hokkaido Bureau of METI allocates approximately 500 million yen of its budget for expenses related to food cluster development, such as those incurred in engaging coordinators and implementing R&D.

**Next Generation Aircraft Cluster**

The Aerospace Industry Forum was launched in April 2008, in order to promote Japan’s aerospace industry collectively, at Nagoya which is the center of the Chubu region where we can find large factories and many SME parts manufacturers not only for the automobile but also for the aerospace sector.

The Forum offers a vital opportunity to integrate and cultivate players in the aero parts industry, without necessarily being affiliated with a particular manufacturer, and also encourage newcomers to join.

**Support activities by the Aerospace Industry Forum**

| 1. R&D | Providing a total support system, from R&D to commercialization, is being reviewed under collaboration between industry, academia & government. |
| 2. Expand markets | Dispatch of an overseas missions, for Paris Air Show and Farnborough Air Show Seminars and the like. Where domestic equipment makers seek new vendors. |
| 3. Human resources cultivations | Comprehensive human cultivation programs in wider regions, including R&D of aircraft, designing, production technology/skills, production management, etc. |

[Chairman] Mr. Fumio Kawaguchi (Chairman of Chubu Economic Federation and C-ASTEC)
[Industry] Chubu Economic Federation, C-ASTEC, Mitsubishi Heavy Industries, Ltd Nagoya Aerospace Systems, Kawasaki Heavy Industries, Ltd. Aerospace Company, small/medium, aircraft parts manufacturers
[Academia] Nagoya University, College of Naka-Nippon Aviation
[Government] Chubu Bureau of METI, Aichi Prefecture, Gifu Prefecture, Nagoya City
Support Program For Regional Innovation by MEXT

Ministry of Education, Culture, Sports, Science and Technology (MEXT) will continue the “Regional Innovation Cluster Program” until FY 2013.

Budget; FY 2010 10.9 billion yen

*“Regional Innovation Cluster Program” is the combined and modified system of “Knowledge Cluster Initiative” and “City Area Program” which started in FY 2002

On the other hand, MEXT is going to start a new initiative “Support Program for Regional Innovation” in FY 2011.

Budget; FY 2011 11.1 billion yen

MEXT jointly selects new areas with METI and Ministry of Agriculture, Forestry and Fisheries (MAFF), and supports activating regional R&D through collaboration with local universities.

Support Menu:
- Gathering researchers for realizing the local strategies.
- Establishing local universities networks.
- Developing training programs.
- Sharing of university equipment with SMEs.
- Promoting use of the technological seeds.

※“Regional Innovation Cluster Program” areas are supported in this program until FY2013.

List of Exchanges and Tie-ups with Overseas Clusters

Europe

UK: Biotechnology
Kansai Biotechnology project in UK

UK: Biotechnology
Kanto Biotechnology project in South West England

The Netherlands: Functional food
Kansai Biotechnology project in Food Valley

Germany: Automobile
Chugoku Next Generation Industries project in Germany

Germany: Biotechnology
Kansai Biotechnology project in Dusseldorf

Germany: Optoelectronic equipment
Hamamatsu-Jena

France: Medicine, medical equipment, etc
Kansai Biotechnology project in Life Science Corridor

France: Cosmetics, functional food
Hokuriku-Loiret

France: Functional food
Shinshoku Techno Bridge plan in Lyon

Switzerland: Micro machinery
Suwa in Geneva, etc

Italy: IT, health and welfare
TAMIA project in Veneto

Italy: IT, manufacturing
Tokai Manufacturing project in Torino

Sweden: Manufacturing
Kansai Front Runner Project in Sweden

Denmark: Medical treatment
Kansai Biotechnology project in Medicom Valley
List of Exchanges and Tie-ups with Overseas Clusters

Asia, Oceania

- China: Recycling, environmental purification
  - Kyushu K-RIP project (Beijing, Shenyang, Dalian, etc)
- China: Waste management, reduction of environmental burdens
  - Environment Kansai project (Guangdong, Liaoning)
- China: Manufacturing
  - TAMA project (Shanghai)
- China: New energy, energy conservation
  - Chugoku circulation and environmental project (Shanghai)
- South Korea: Biotechnology
  - Kansai Biotechnology project (Seoul National University)
- Thailand: Waste management, reduction of environmental burdens
  - Environment Kansai project (Thailand)
- Saudi Arabia: Environment
  - Chugoku Recycling and Environment project (Saudi)
- South Korea: Recycling, environmental purification
  - Kyushu K-RIP project (Seoul)
- South Korea: Manufacturing
  - TAMA project (Hanyang University)
- Indonesia: Wastewater treatment
  - Shikoku Techno Bridge plan (West Java)
- New Zealand: Function food
  - Hokkaido Biotechnology project (New Zealand)

Dynamic relations between industry-lifecycle, region and type of innovation according to Audretsch et al (2008)

<table>
<thead>
<tr>
<th>Phase</th>
<th>Product lifecycle: conventional explanation</th>
<th>Industry lifecycle by Audretsch et al (2008)</th>
<th>Regions corresponding to industry lifecycle</th>
<th>Main players in production of goods and innovation</th>
<th>Types of innovation</th>
<th>Knowledge spillover Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Introduction</td>
<td>First entrepreneurial phase</td>
<td>Urban agglomerations</td>
<td>SMEs</td>
<td>Product innovation</td>
<td>Inter-industry knowledge spillovers (Jacobs externalities)</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Growth</td>
<td>First routinization phase</td>
<td>Industrial agglomerations</td>
<td>Large firms</td>
<td>Product &amp; process innovation within top-performing incumbents</td>
<td>Less knowledge spillovers</td>
</tr>
<tr>
<td>Phase 3</td>
<td>Maturity</td>
<td>Second entrepreneurial phase</td>
<td>Industrial districts &amp; Urban peripheries</td>
<td>SMEs</td>
<td>Product innovation</td>
<td>Intra-industry knowledge spillover (MARK externalities)</td>
</tr>
<tr>
<td>Phase 4</td>
<td>Decline</td>
<td>Second routinization phase</td>
<td>Peripheries</td>
<td></td>
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</tr>
</tbody>
</table>

* Rather specialized regions located in more peripheral areas, often near industrial agglomerations

Typology of the industrial cluster policy targets

<table>
<thead>
<tr>
<th>Target</th>
<th>Phase of Audretsch et al. (2008)</th>
<th>Industry / Products</th>
<th>Technology</th>
<th>Type of business</th>
<th>Present status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1</td>
<td>Phase I (Embryos of new cluster in the metropolitan areas)</td>
<td>New industries (bio, ICT etc.)</td>
<td>Most advanced</td>
<td>Start-ups</td>
<td>Spin-off from larger enterprise</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Spin-off from university</td>
</tr>
<tr>
<td>Type 2</td>
<td>Phase III (Hidden champions located in the industrial areas)</td>
<td>New products in the broad range related to machinery, materials and metal processing</td>
<td>Advanced</td>
<td>Second-time Start-ups (New entrants to different markets from where their present businesses belong)</td>
<td>Subcontracting firms of still competitive industries (automobile, high-end electronics etc.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>Independent niche-top business</td>
</tr>
</tbody>
</table>

Tentative classification by the author

GNT companies and their importance

The high competitiveness of Japan's manufacturing industry has one of its roots in the fact that there are a lot of SMEs which can be called "global niche top (GNT) companies." Their characteristics are quite similar to those of the "Hidden Champions" named by Dr. Hermann Simon.

Importance of GNT companies;

1. Operating as regional representative companies in their respective regions, GNT companies bring a number of benefits to regional economy and society including the provision of quality job opportunities.

2. Amid concern over the hollowing out of industries resulting from the expansion of overseas production, GNT companies are counted on to succeed and further develop the manufacturing technologies accumulated to date in Japan while at the same time continuing to maintain an "absorptive capacity" to properly respond to the emergence of new technologies in the future.

3. Even under the environments of relatively high wage and yen appreciation, GNT companies continue to maintain a degree of domestic production bases and penetrate foreign markets because of the strong competitive advantages of their products.

→ Promoting the developments of GNT companies can be expected to maintain a minimum production base as a whole of Japan, protecting Japan from massive technology drain to competing countries, resulting in the growth of the regional and national economy.
**What is the “Hidden Champions” Concept?**

Dr. Hermann Simon, a German scholar and specialist in business administration, conducted a systematic survey in the 1990s and showed that number of companies exist that can be identified as "hidden champions" in Germany.


A hidden champion, as defined by Simon, is a family owned/unlisted small and medium enterprise (SME), which is headquartered in a regional city, has a relatively long history, holds an extremely large share in a niche area of the world market, and earns the majority of its sales revenue from exports.

It is believed that there are some 500 to 1,000 such hidden champions across Germany, together accounting for a substantial portion of German exports. Furthermore, his book (1996) points out that similar companies are observed extensively around the world, particularly in developed countries.

In Japan, many of the SMEs that are referred to as GNT companies fall under the definition of hidden champions. For instance, several Kyoto-based measuring instrument manufacturers, such as Shimadzu and Horiba used to be typical examples though they are no longer "hidden" today. The reason why they do not relocate their headquarters to Tokyo is that they see no need to do so as they have been dealing with the global market from a very early stage.

**The necessity to support potential Hidden Champions (candidates of GNT companies)**

Today, however, although Japan has past its peak, there are still SMEs belonging to matured manufacturing sectors in existence and operating in various areas across the country. Quite a few of them are dynamic SMEs that boast excellent technological capabilities and seek to explore market niches by utilizing their existing capabilities and reinventing themselves in order to venture into a new business. Such SMEs can be seen as potential Japanese Hidden Champions, that is, candidates of GNT companies.

The large portion of GNT company candidates still remain in the position of a domestic niche top (DNT) company. Making DNT outgrown to GNT can be the important policy target.

→ However, the actual status of these companies is not necessarily clear as no systematic or analytical survey has been conducted to date. Led by the Small and Medium Enterprise Agency (SMEA)'s initiative to highlight 300 dynamic manufacturing SMEs nationwide, local governments, chambers of commerce and industry, and other organizations have compiled and published the directories of companies forming local manufacturing clusters. Nonetheless, the information provided by these directories is limited to the profiles of companies and their products in most cases.

→ By conducting a comprehensive survey and thus extracting traits for constructing the competitive advantages unique to GNT companies as well as their secrets of success and know-how, we can enhance soft-side measures provided by cluster promoting organizations designated to support GNT company candidates.

→ METI launched the "Study group for business system strategies of GNT companies" in November 2010. Under the supervision of the study group, an interview survey has been conducted for 30 typical GNT companies all over Japan since January 2011.
New alliances of SMEs with the hub role of GNT company

The expansion of overseas production and the massive shift of mass production factories of large companies abroad have caused drastic changes in the landscapes of Japanese manufacturing, such as,

1. Decrease in orders for SMEs providing processing service of only a limited process of manufacturing and Increase in the number of such kind of SMEs going-out

2. Weakening role of large companies, such as, demanding high spec processing, showing needs or ideas for new products, directing and guiding production technique and providing financial support for dies and molds which are necessary to trial production

3. Production abandonment of materials, equipments and machines by large companies because of the small market size

→The cases of new alliances of SMEs where GNT companies substitute the roles of large companies can be seen, such as,

A. Receiving orders for high spec parts and equipments from abroad and placing orders and providing adequate supports to processing service SMEs

B. Product development using patent or technology held by large companies which give up commercialization because of the small market size

C. Production of missing manufacturing goods used to be supplied by large companies

Case of joint receiving and placing of orders by SMEs

Customers abroad/domestic
Local economy revitalization by promoting regional innovation

Innovation Initiative Network Japan (National cluster association)

1. Augmenting human resources for supporting cluster activities through training, providing qualifications etc.
   - Networking between coordinators
2. Developing evaluation system for SMEs technology and business plan
3. Translating patent information of national research institutes into the form which is easy to understand for SMEs
4. Cooperating between members and financial Institutions.
   (Tie up with Regional Banks Association of Japan)
5. Sales promotions of SMEs under mutual cooperation of member institutes

Innovation Initiative Network Japan (launched April 2009)

1. Augmenting human resources for supporting cluster activities through training, providing qualifications etc.
2. Development of training programs and system
3. Networking between coordinators
4. Developing evaluation system for SMEs technology and business plan
5. Cooperating between members and financial Institutions.
   (Tie up with Regional Banks Association of Japan)
6. Sales promotions of SMEs under mutual cooperation of member institutes

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Innovation Initiative Network Japan (National cluster association)

Local economy revitalization by promoting regional innovation

Reinforcement of the support function

Member
- Industrial Cluster Program Promotional Organization
- Knowledge Cluster Initiative Core Organization

Member
- The supporting organization of the local government
- University/Research Organizations
- Financial Institution

National organizations concerned
- SMRJ (Organization for Small and Medium Enterprises and Regional Innovation, JISME)
- AIST (National Institute of Advanced Industrial Science and Technology)
- JETRO (The Japan External Trade Organization)
- JST (Japan Science and Technology Agency)
- JILC (Japan Industrial Location Center)

Cooperate
- METI (Ministry of Economy, Trade and Industry)
- STATE (Science and Technology Agency)
- MEXT (Ministry of Education, Culture, Sports, Science and Technology)

Support
- University/Research Organizations
- Financial Institution

Support
- AIST (National Institute of Advanced Industrial Science and Technology)
- JETRO (The Japan External Trade Organization)
- JILC (Japan Industrial Location Center)

Support
- SMRJ (Organization for Small and Medium Enterprises and Regional Innovation, JISME)
- AIST (National Institute of Advanced Industrial Science and Technology)
- JETRO (The Japan External Trade Organization)
- JST (Japan Science and Technology Agency)
- JILC (Japan Industrial Location Center)
How to smoothly connect academia with industry?
-NEDO’s activities-

February 15, 2011

Yoichi IIDA
Chief Representative, NEDO Europe
New Energy and Industrial Technology Development Organization (NEDO), JAPAN

About NEDO

NEDO is Japan’s largest public organization for managing research, technology development and demonstration projects. NEDO’s mission is to address energy and global environmental challenges and enhance industrial competitiveness.

History
1980: Established - New Energy Development Organization -
1988: Reorganized as - New Energy and Industrial Technology Development Organization -
   Added industrial technology R&D (1988), global environment R&D (1990), promotion of new energy and
   energy conservation (1993), support for private companies to strengthen international competitiveness (2000)
2003: Reorganized as an “Incorporated Administrative Agency”
Personnel
Approximately 1,000
Budget
Approximately 235 billion yen in FY2009
NEDO’s Role in the National Innovation System

Science and Technology Budget of the Government: ¥3.6 trillion*1

MEXT: ¥2.3 trillion
Ministry of Economy, Trade and Industry: ¥1531.6 billion
(including patents, nuclear energy, etc.)

NEDO ¥234.7 billion

Universities & national institutes
Basic research

Support for Young Universities & Other Researchers (¥4.4 billion)

National Projects (¥136.2 billion)

Support for Practical Application (¥113.8 billion)

Industry (¥113.8 trillion)*2

Life science, IT, nanotechnology and materials, new production technology and others
Environment, energy conservation, new energy and others

*1: Budget amounts of the government and NEDO are for FY2009.
*2: The amount of industry investment is R&D expenses in FY2007.

Lifecycle of NEDO’s Projects

- Analysis of technology and industry trends
- Extraction of important technology targets
- Selection of project participants
- Concentration on successful projects based on mid-term evaluations
- Dissemination of achievements and follow-up surveys

- Close relationship with industry through regularly conducted “Interview with Companies and Universities.”
- Utilization of “Strategic Technology Roadmaps” and human network during the development and revision process.
- Project planning based on public opinion.
- Reflection of interim evaluation results.
- Project acceleration funds.
- Conducting projects to distribute and evaluate samples.
- Conducting projects to verify R&D results.
- Promotion of industry and university cooperation.
Strategic Technology Roadmap

The Strategic Technology Roadmap consists of three elements: (1) Scenario for Introduction, (2) Technology Overview and (3) Roadmap.

Framework of Project Implementation

NEDO identifies and establishes the most suitable research structure. (1) Industry-academic consortium (2) Upstream and down stream industry consortium

(1) Industry-academia consortium

(2) Upstream and down stream industry consortium
### Framework of Project Implementation

NEDO identifies and establishes the most suitable research structure.

1. Combination of different types of consortium
2. (3) Combination of different types of consortium
3. (4) Competition among companies and consortiums

#### (3) Combination of different types of consortium for each research themes

- Theme 1
  - Company A
  - University C
- Theme 2
  - Company D
  - University F
- Theme 3
  - Company G
  - University H

#### (4) Competition among companies and consortiums

**Entrustment or subsidy**

- Theme
  - NEDO

**Gate**

- Competition

**Narrowing down**

- STAGE I (Feasibility study)
- STAGE II (Application research)

### Project Evaluations and their Reflections

Interim evaluations may result in modification or termination of projects.

#### Responses to Interim Evaluation Results

<table>
<thead>
<tr>
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<th>2001</th>
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<td>6</td>
<td>10</td>
<td>22</td>
<td>25</td>
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</tbody>
</table>

*Due to overlap, the total does not equal the sum of individual evaluations.*
Accelerated Practical Application by NEDO projects

71% of the companies, which achieved commercialization/product development, pointed out that identification of a mechanism for collaboration with a university, identification of needs in collaboration with users accelerate the process of practical application.

Some measures to promote SMEs’ participation

NEDO has taken several measures to expand its R&D networks and to promote more participation of various stakeholders including SMEs in NEDO’s activities.

- Information services
  - NEDO Help Desk (NEDO Okyakusama Desk)
  - Info Day on the call for proposal
  - Individual assistance meeting on call for proposal
  - Info Day on contracting and auditing

- Streamlined procedures
  - Wider eligible cost for SMEs and universities
  - Less intensive auditing for specific contractors

- Consulting services for SMEs
  - Research plan
  - Business plan
  - IPRs
International Collaboration with European Countries

NEDO has explored international R&D collaboration through reciprocal symmetrical funding by NEDO and overseas counterparts which can be carried out through existing NEDO support schemes applied to domestic research.

Framework of Collaboration with European Countries

**General arrangement**
- Information sharing
- Networking
- Matching

**Specific Program/Project**
- Information exchange
- Researcher exchange
- Collaborative project (Joint call, Parallel funding, etc.)

Ad Hoc Visits and Meetings
- International conference/exhibition
- Japan/XXXX Agreement

Higher expectation Possible collaboration

Institutionalized Consultation
- NEDO/XXXX Cooperation Agreement
- NEDO/XXXX Annual Meeting

Common interests Mutual benefits

Fundamental Research

Industrial Research

Experimental Development

Safety Evaluation Standardization
What’s New in International Collaboration with European Countries

NEDO has launched several new frameworks of collaboration in 2010:
– First joint call with the European Commission
– Comprehensive collaboration in industrial research with France
– Collaboration regarding Smart Community development (France, Spain, Germany) and Next-generation vehicles (Germany)

06/09/2010
-Germany
-BMWF
-Batteries

08/09/2010
-Spain
-CDTI
-Smart Community

07/09/2010, 15/10/2010
-Germany
-BMW, BMU
-E-mobility, Smart Community

12/10/2010, 18/10/2010
-France
-ADME, Grand Lyon
-Smart Community

20/07/2010
-European Commission
-DG RTD-K
-Photovoltaics

16/05/2010
-Germany
-NOW (BMVBS)
-Fuel Cells and Hydrogen

NEDO’s International Activities

China :
- Guangdong Province (SINOEX, National Energy Administration, Energy, Smart Grids)
- Beijing: National Energy Administration, The Chinese Academy of Sciences, (Smart Grids)
- Shanghai: The Chinese Academy of Sciences (SINOEX)
- Beijing(NEDO) (FZ)

USA :
- MEI (Smart Grids)
- Hawaii: Okinawa (ZEB, Smart Grids)
- National Laboratory (Energy Conservation, Buildings, Battery, Fuel Cells, etc)

Germany :
- BMU, BMW (Smart Grids, LV)
- BMW (Semi-Con)
- NOW (Fuel Cells)

Spain :
- CDTI (Smart Community, Industrial Technologies)
- Instituto de Energía Solar (INE, Solar power)

Australia :
- Qld (Smart Grids)

Sweden :
- OTE (Industrial Technologies)

India :
- NITI Aayog: Industrial, Technology, Solar power

Malaysia :
- MoE: of Industry, Mines, & Energy & Agriculture

Worldwide :
- IEA
- IRENA (Promotion of Asian function, Cooperation projects)
- World Bank (Cooperation projects)
Contact:

Yoichi IIDA
Director General, Chief Representative
NEDO European Office

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Telephone:+33 1 44 50 18 28 Facsimile:+33 1 44 50 18 29
E-mail: iiida@nedoeurope.org
URL: http://www.nedo.go.jp/english/index.html
Fostering SME innovation through cross-border cooperation

SMEs are key drivers of innovation serving as an important conduit for knowledge spill-overs. The 20 years have shown that entire sectors have been renewed and new industries created driven by innovative SMEs. They form a more important part of the EU economy than of other world region. They can contribute significantly to achieving the objectives of the EU2020 strategy, and notably the Innovation Union. This presentation looks into improved innovation capacity building through internationalisation and cross-border collaboration.

Dr Bernd Reichert
Head of Unit
Small and Medium-Sized Enterprises
Directorate General Research & Innovation
European Commission

Categories of SMEs

Source: EURAB's report on “SMEs and ERA”
Opportunities for SMEs

What do we know? (1/4)
SMEs and collaboration in the innovation chain

- Small firms do not innovate by themselves but in collaboration with suppliers, customers, competitors, universities, research organisations and others. Their networks help them overcome some of the obstacles to innovation linked to their small size.
- The quality of their local entrepreneurship environments – the strength of local technology partners, the quality of local science-industry linkages, and so on – is critical to generating local knowledge spill-overs that promote their growth.
- The focus should not be entirely on the local, however. It is also important to connect small firms to global knowledge flows.

SMEs, Entrepreneurship and Innovation, OECD study 2010
What do we know? (2/4)

Internationalisation of European SMEs

Study by EIM Business & Policy Research, Netherlands, for the European Commission (released July 2010)

- SMEs that are internationally active report higher employment growth than non-active SMEs
- Being internationally active strongly related to higher turnover growth
- Strong relationship between internationalisation and innovation
- SMEs are not aware of internationalisation support programmes.

What do we know? (3/4)

SMEs and Innovation Strategy

The Swiss Agency for Innovation (CTI) estimates that less than 50% of publicly funded applied research projects are handled strategically by industrial partners. (source: C. Meier, platin, CH)

About 22% of SMEs participating in the EU Framework Programmes are strategic innovators.
Typology of SMEs in the FP

Degree of SME involvement in project

High

Strategic Innovators 22%

Exploiters Seekers 13%

Curious and Helpful 22%

Experience Translators 18%

Low

5%

Free Riders

Degree of alignment between project’s and SME’s strategic objectives

Legend:

Technology Developers

Technology Networkers

What do we know? (4/4)
SMEs and academic-industrial collaboration

• At the overall level, the literature is very positive about academic-industrial collaboration
• Firms with a greater number of links to high research income universities invest more in R&D.
• Cooperation depends strongly on the persons involved and the strength of their network
• Most academics engage with industry to further their research rather than to commercialise their knowledge
Our understanding on innovation has changed

- from ‘closed’ to ‘open’
- from “technology/product” to all forms of changes, including new business models
- innovation in services and in combination between services and production.
- public sector innovation
- customer-driven innovation
- stronger policy focus on applied research (or better application of research results)

R&D-Collaboration with industry (SME): communication

- Problems in the communication between research organisations and industry

- Absorption capacity of European SME

  → Mentoring and coaching
Some recommendations for regional authorities

• Promote partnerships within innovation systems involving large and small firms, universities and research institutes, and administrations. Use these partnerships to provide soft enterprise support infrastructure (e.g. science parks and business incubators), collaborative research opportunities, services for knowledge transfer (e.g. innovation brokers, labour mobility schemes, programmes for the commercialisation of university research)
• Strengthen the absorptive capacity of SMEs, for example with skills development and innovation purchasing initiatives
• In the spirit of “brain circulation”, policy should seek to attract talented labour from other countries and facilitate diaspora return. Promoting cooperation between industry and universities in training and hosting researchers.
• Increase use of informal learning sources, by facilitating collaborations with firms and consultants providing knowledge-intensive service activities, for example using “innovation vouchers” for SMEs.

Source: SMEs, Entrepreneurship and Innovation, OECD study 2010

Thank you very much for your attention
# Perspectives for innovative research driven clusters in the FP7 -

### the Regions of Knowledge Programme

**Dr. Stefan Weiers**  
Programme Co-ordinator « Regions of Knowledge »  
European Commission  
Research DG  
Unit RTD B.4

---

## FP7 2007–2013

### COOPERATION (32.413 MEUR)

- Health  
- Food, Agriculture and Biotechnology  
- Information and Communication Technologies  
- Nanosciences, Nanotechnologies, Materials and new Production Technologies  
- Energy  
- Environment (including Climate Change)  
- Transport  
- Socio-Economic Sciences and the Humanities  
- Security and Space*  

* Separate themes

### IDEAS (7.510 MEUR)

- Starting Independent Researcher Grants  
- Advanced Investigator Grants  
- + CCR (1.751 MEUR)  
- ++ EURATOM (2.700 MEUR)

### PEOPLE (4.750 MEUR)

- Initial Training of Researchers  
- Lifelong Learning and Career Development  
- Industry-Academia Partnerships and Pathways  
- The International Dimension  
- Specific Actions

### CAPACITIES (4.097 MEUR)

- Research Infrastructures  
- Research for the Benefit Of SMEs  
- Regions of Knowledge  
- Research Potential  
- Science in Society  
- Activities of International Co-operation  
- Coherent Development of Policies
Regions of knowledge - Policy context

- Need to boost science and technology-based economic development, by better integrating research to their regional innovation strategies
- Within the framework of the Lisbon and Europe2020 strategies for a performing knowledge-based economy
- Promote the emergence of world class clusters in Europe
- To help reach the Barcelona objectives
- Synergies with cohesion and innovation and cluster policies

Research, innovation and cohesion policy: respecting difference while achieving synergies
COMMON GOAL: Employment + Growth

<table>
<thead>
<tr>
<th>Policy</th>
<th>Main Target</th>
<th>Funding Instrument</th>
<th>Budget (2007-2013)</th>
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<tr>
<td>Research</td>
<td>S&amp;T-excellence, international</td>
<td>FP 7</td>
<td>55 Bill. €</td>
</tr>
<tr>
<td>Innovation</td>
<td>Turning knowledge into business opportunities</td>
<td>CIP</td>
<td>3.6 Bill. €</td>
</tr>
</tbody>
</table>
| Cohesion | Promote regional excellence, convergence | ERDF, ESF, EARDF | 347 Bill €         
|          |                                          | thereof: 86 B€ earmarked for RTDI |

Practical guidelines published on CORDIS
Synergies with EU clusters initiatives

Expertise
Policy Cooperation
New and better tools
Quality support
Initiative for Excellence of Cluster Organisations
European Cluster Observatory
Cluster Partnerships (Cluster-IP)
Analysis
INTERREG
Structural Funds
FP7

What is a Regional Research-Driven Cluster?

Research Entity
Regional Authority

Regional Research-Driven Cluster

Business entity (e.g. SME)

Other Actors (e.g. TTOs, consultants)
Some strategic aspects

- Strategic positioning of the targeted clusters
  - Focus on **dynamic clusters**, incl. cluster organisations
  - At least **three RDCs** involved from 3 countries
  - Focus on **a few networks**: budget per project (1 to 3 M €)
- **Alignment with the Commission’s policy initiatives**, e.g., INNOVA, cluster policy initiative, Innovation Union
- **Mentoring as a compulsory activity**
- Internationalization activities allowed and encouraged

Regions of Knowledge annual variation of topics

- 2007: SMEs, rural economies
- 2008: research infrastructures; reducing CO2 emissions
- 2009: sustainable use of natural resources
- 2010: health, including e-health
- 2011: transport economy
- 2012: sustainable energy? (under consultation)
Regions of knowledge  
2011 Call for proposals

One call, REGIONS-2011, targeting the transnational cooperation of regional research driven clusters  
- for a total of 18,66 M €

Participants
➢ Consortia of at least 3 regional research-driven clusters from 3 different Member States or Associated countries
   • Possible representation by one member - under conditions
   • Compulsory description of the full clusters and their triple helix structure
➢ Coordinator: either a regional authority or a fully fledged RDC (with legal entity)
➢ 31 proposals submitted, evaluation took place recently, official selection procedure underway

Regions of knowledge
WP 2011 thematic scope

• Boosting the competitiveness of transport related economy
• Support innovative capacity of European transport related industries and business
• Promote sustainable transport in an integrated technology-led and user friendly way
• Examples: greening of transport, development of intermodal regional transport, urban mobility, safety or security

We favour innovative and cross-disciplinary approaches!
Transnational cooperation of research driven clusters

- Analysis, development and implementation of research agendas
- Mentoring of regions with a less developed research profile for capacity building (compulsory)
- Initiatives to improve integration: definition of joint action plans (JAP), together with business plans - following SWOT analysis and definition of RTD needs
- Measures towards the implementation of the JAP
- International cooperation activities (optional)
- Dissemination activities

REGIONS 2011: Expected impact

- Developing and integrating research-driven clusters across Europe in order to promote regional economic development and worldwide competitiveness
- Contribute to smart specialisation of regions from R&D point of view
- Stimulate more effective investments in R&D at regional level via tailor made regional strategies based on business needs
- Initiate private and public partnerships, which would mobilize European, national and regional funds and promote synergies notably with the Structural Funds, and the CIP
- Including more regions into the knowledge economy and the ERA, especially through the mentoring of regions with a less developed research profile
REGIONS of Knowledge - Conclusions

➢ Successful funding programme since 2007
➢ well perceived by European clusters, policy makers and regional developers
➢ Approach of annually varying but widely defined topics well proven
➢ However, limited funding and reach of co-ordination actions
➢ Need to deepen synergies with other funding instruments
➢ Regions have become players in knowledge economy
➢ Clusters as regional innovation engines
➢ Need to look further beyond the edge of Europe by developing internationalisation strategies
➢ Need to upgrade clusters to become global players

Thank you for your attention!
THE EFFORTS OF VITAGORA® AND F²C INNOVATION PARTNERS TO DEVELOP CLUSTERS’ COOPERATION WITH JAPAN

SEMINAR: EU-JAPAN CLUSTER POLICIES TOWARDS INNOVATION IN SMEs
BRUSSELS
FEBRUARY 15TH, 2011

Vitagora®
Taste – Nutrition – Health cluster

Competitive clusters
Accredited since 2005

French Regions of Burgundy and Franche-Comté

143 Members incl. 110 companies
A collaborative approach

Synergies between:

- SME: 65%
- Multi-nationals: 12%
- Research laboratories: 15%
- Higher education establishments: 8%

Gain in visibility on an international scale
Gain in visibility/find industry applications for research
Maximise results/business development

Value creating Innovation projects

Comparison with Japan
Knowledge cluster or Industrial cluster?

Both a Knowledge cluster AND an Industrial cluster

Access to funding to support both objectives:

- French interministerial funding for innovation projects
- French National Research Agency funding
- Regional funding
- European Union funding

127 projects accredited
R&D Investment 98 million €
International development

Founding member of:

WoFIN: the World Food Innovation Network

Member of:

5 international cluster agreements

Vitagora®’s first steps in Japan

2007
- First participation in a mission to Japan

2008
- First mission organized by Vitagora® in Japan
  - Meetings with METI, MEXT, MAFF

2009
- EU-Japan Regional Cluster Forum
  - First meetings with clusters
- First F²C Innovation’s mission
Early challenges

Young clusters have little international experience

- Distance with Japan
- Language barrier
- Lack of understanding of counterpart’s organizational structure
- Cultural differences
- Variable commitment of cluster members

Solutions:
- Involve established networks
- Learning by doing

A strategic investment

- Multiple benefits of cluster to cluster cooperation
  - Simplified access to R&D capabilities
  - Wide scope of technologies
  - Early exposure to innovative technologies
  - Greater visibility for SME
  - Facilitate trade
  - …

- Yet a long term investment
  - Takes time to start
  - Human resources to follow up
  - Results are not immediate

Advantages for Vitagora
- Enriching ideas with new points of view
- New scientific and technological capabilities at the service of R&D projects

Advantages for Japanese clusters
- Gateway onto French R&D capabilities and potential industry partners
- World leaders in the sciences of taste

WIN-WIN COOPERATION
2010: Towards partnerships

- **March:** 3 Japanese clusters attend the Taste – Nutrition – Health Congress in Dijon

- **May:** F³C Innovation sends companies to Japan (Tokyo, Sapporo, Fukuoka, Kanazawa)
  - Signature of Record of Discussion between Hokkaido Bio Cluster & F³C Innovation

- **June:** Kagawa glyco-bio cluster visits Vitagora®

- **October:** Kyushu cluster attends SIAL exhibition in Paris
  - Signature of Memorandum of Understanding between Kyushu Bio Cluster Conference and F³C Innovation

First outcome of cooperation

- **Increased opportunities for SME exchanges**
  - January 2011: Hokkaido Bio Industry cluster sends 5 companies to visit F³C Innovation
  - May 2011 (16-21): F³C Innovation sends companies to Japan

- **F³C Innovation contacted by Japanese companies through word-of-mouth and projects’ promotion**

- **First contracts by companies**

- **First experimentations by research institutes**
Next stage: building R&D projects

New network, new methodology

- Defining **INNOVATION NEEDS**
- Finding **PARTNERS** adapted to the project’s needs
- Access the most appropriate **FUNDING** to launch the project

Researchers meetings add momentum to the cooperation

- November 2010: Vitagora® invited to the Bio-Sapporo 2nd International symposium
- December 2010: Jetro Regional Industry Tie-up Program with Kagawa

Further challenges

- **Ensuring a sustainable cooperation**
  - Clusters’ existence
  - Securing funds for international activities
  - Dedicated human resources for cooperation follow-up

- **Strengthen incentives to allow SMEs to participate in cooperation**
  - Specific funds for clusters’ bilateral R&D project
  - Improve support for SMEs exchanges
  - Reaching out to companies outside clusters
Conclusion

• Vitagora® and F²C Innovation clusters experience positive partnerships with Japanese clusters
  – Understanding of long term interest
  – Focus on R&D capabilities
  – Mutual efforts to support SMEs exchanges
  – High involvement of companies and researchers

• An encouragement for eligible clusters to reach out to EU/Japan counterpart
  – Top international standards of research
  – Readiness to commit for several years
  – Acceptance of early setbacks

Thank you for your attention

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VITAGORA®
FROM A REGIONAL ‘PÔLE’
TO AN INTERNATIONAL CLUSTER
JANUARY 2011
UP-tex toward Japan: Interclustering activities

UP-tex mission

• UP-tex is an association of companies, research and tech transfer centers that has been approved as a Competitiveness Cluster by the French State; its major goal is to:

« Place textiles at the heart of the material of tomorrow »

• Its main territory: Nord-Pas-De-Calais and Picardy
### UP-tex development themes

<table>
<thead>
<tr>
<th>TRANSPORT</th>
<th>Poly sensoriality</th>
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<td>CLOTHING</td>
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### Transports & Automotives
- Automotives
- Railways
- Aerospace

**Main Researchs:**
- Composites materials
- Sustainability of materials
- Heat and flames
- Ballistics
- Thermal & phonics protections
- Recyclability
- Fonctionnalisation
- Smart textiles
Health

– Medical Devices

Orthosis  Implants  Wound dressings  Tissue engineering

Medical devices

• Toward a human textile

Tissue engineering

Publication de Ramakrisha et al. Composite Science and Technology en 2001
Housing & building

Insulation  Textile architecture  Strenthgtening  Filtration

Other themes

Filtration  Textile Cosmetics  PPE

Sports
From the idea to the project

UP-tex assists partners to mounting research and innovation projects in the fields of advanced textile materials:

• Assistance to mounting projects
  • Technical and economic watch
  • Assistance to writing project
  • Technical expertise

• Assistance to building consortium
  • Partner Search
  • Establishment of consortium agreements

• Assistance to fund raising
  • Rallying the best adapted funding
  • Support in the procedure

International network

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<tr>
<th>Business developments</th>
<th>Crossborder</th>
<th>Europe</th>
<th>International</th>
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<td>Acvtex – UIT Nord</td>
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<td>Inter - Clustering</td>
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<td>Wallonia and Flanders Clusters</td>
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<td>Scientific and Technological Cooperations</td>
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<tr>
<th>Marches cities</th>
<th>Brussels offices</th>
<th>Fairs: JEC &amp; TTNA</th>
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<td>TUNISIA</td>
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<td>TEXCOMP</td>
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<th>UBIFRANCE : JAPAN</th>
<th>ECIT/CETI</th>
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</table>
Objectives: to meet the main Japanese fibers companies in order to:
  • To set up long term partnership in order to secure the availability of advanced fibers for our companies
  • To benchmark researches done in Japan

Tools:
The DGCIS & UBIFRANCE Funds for Interclusters cooperation

First mission:
From 27 of September 2010 to 1 of October 2010

Costs: 1500 € per partners
Up-tex in Japan

**Organisation:**
French embassy in Japan
Ubifrance

**And the clusters:**
- UP-tex
- Pôle Fibres
- IAR
- Qualitropic

22 peoples representing companies, Research organizations and Clusters organizations

Up-tex in Japan

**Institutional:**
METI & NEDO

**Research:**
Kyoto Institute of Technologies

**Professional organisation**
Japanese Chemical Fiber Association

**Companies:**
Toyobo, Teijin, Toray, Kuraray, Toyota Boshoku,
Outputs:
- There is the same difficulties in Japan than in Europe in the relations between public research & companies
- Access to R&D & Products developments
- Managers.
- Several contracts signed between companies.
- One teacher from ENSAIT will go to KIT in Japan as a guest professor in June 2011.
- Share roadmaps on technologies
- Visit from JCFA to UP-tex in February 2011

Next steps:
- 2 potential research projects were identified and will be developed in next months
- 2 potentials inwards investments projects are under discussions
- Signature of a MOU this year?
- Direct relations between companies
- Cooperation between the CETI and Japanese companies
UP-tex in Japan

**Difficulties:**
- International development are time consuming
- Cluster needs resources to support their developments
- The ROI could be long because you need first to create confidences between partners
- Cultural differences are barriers to tackle
- We need a framework in order to move on projects development

THANK YOU

Thanks for your attention

European Cluster Collaboration Platform

Access to information and networking support for cluster organisations and their members

ClusterCollaboration.eu

Brussels, 15 February 2011
Juan-J. Carmona-Schneider, ZENIT GmbH

European Cluster Collaboration Platform

Mission Statement

The European Cluster Collaboration Platform within the context of the European Cluster Excellence Initiative provides online quality information and networking support for clusters organisations and their members aiming - to improve their performance and - to increase their competitiveness through the - stimulation of trans-national and international cooperation.
European Cluster Collaboration Platform

Project Background

European Cluster Excellence Initiative

Project overview

Cluster Management Excellence
Identification of performance indicators and presentation of training for cluster management

Quality Label for Cluster Management Excellence
Quality Management Approach, "Peer-Review System"

Cluster Management Excellence Knowledge
Case Studies and Development of Knowledge and Training Materials

Cluster Management Excellence Promotion
Europe Cluster Managers’ Club

European Cluster Collaboration Platform
Access to information and networking support for cluster management / cluster members
Welcome to the cluster community
Ten good reasons to join the platform

The platform ...

1. is the first cluster oriented collaboration platform, unique in Europe/worldwide
2. is a marketing portal to increase international visibility of the cluster
3. shows mapping results alternatively by flexible sectors or regions
4. shows the real cluster landscape through the structure of its members
5. offers a wide range of information on projects and calls for new projects
6. is an efficient tool to learn from the others and share experiences
7. saves resources - time and money
8. enables an anonymous sectoral benchmarking
9. provides personalised networking services close to your needs

Contact
the developers of the platform

Administration

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