



June-July-August 2013

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CLUSTER POLICY

▪ NATIONAL COMPETITIVENESS CLUSTER CONFERENCE

The competitiveness clusters, channels for sector strategies

The 12th National Competitiveness Cluster Conference served to underscore the important contribution the clusters make to industrial sector strategy. One highlight of the conference was the announcement of a €100 million package of loans to promote industrialisation of cluster R&D project results.

The 12th National Competitiveness Cluster Conference was held on 8 July 2013 in Bercy, and was attended by Arnaud Montebourg, Minister of Industrial Renewal, and Fleur Pellerin, Minister Delegate responsible for SMEs, Innovation and the Digital Economy. The two ministers highlighted the crucial role played by the 71 clusters in the government's industrial sectors strategy, and called for existing ties to be further strengthened. The clusters participate in the work of the new National Industrial Council, where their detailed knowledge of the latest innovations and how they are distributed across the country can bring new impetus to sectors.

The conference was also an opportunity to announce the introduction, as from October 2013, of a €100 million package of soft loans under the Programme of Investments for the Future (PIA). The loans are intended to promote the industrialisation and commercialisation of innovative products stemming directly from cluster collaborative R&D projects. The loans are an integral part of the new phase of cluster policy, emphasising the government's determination to encourage the transition from "project factory" to "products of the future factory".

▪ SINGLE INTER-MINISTRY FUND

Launch of the 17th call for projects by the Single Inter-Ministry Fund scheduled for this autumn

The 17th call for projects from the Single Inter-Ministry Fund (FUI) will open in autumn 2013, according to the usual calendar.

Project sponsors will therefore have until the end of November to obtain a label from one or more clusters and submit their online application on the Bpifrance secure Extranet.

Projects will be examined according to the following main criteria:

- Highly innovative project content;
- Project capacity to lead to the development of new products, services or processes with credible and significant market potential, and hence spin-offs in terms of economic activity and jobs;
- Quality of the partnerships between project stakeholders.

The list of projects selected will be released in March 2014.



▪ INVESTMENTS FOR THE FUTURE

11 cluster structural R&D projects selected as part of the PIA Programme of Investments for the Future

These highly collaborative projects offer large scope for SMEs and mid-tier firms (ETIs). The projects cover a wide range of themes, as the following examples illustrate:

🚩 Projects involving significant innovation and creating wealth at national level

- Development of neurostimulation treatments for obesity or cardiac conditions;
- Perfecting a 1m80 humanoid robot to provide new forms of home assistance;
- Developing the use of flax in composites for the automobile and aviation industries;
- Support for cell therapy to treat certain forms of diabetes or cancer;
- Creation of a motorised wheel, etc.

Competitiveness Cluster Structural R&D Projects (PSPC) are designed to support cutting edge French industrial projects as part of the dynamic created by the competitiveness clusters.

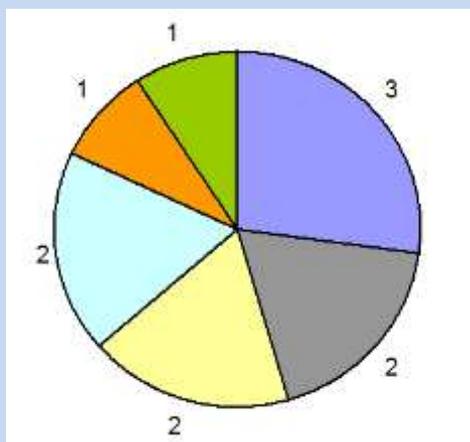
- **Projects distributed across the whole of metropolitan France** with 26 competitiveness clusters involved and 20 regions concerned;
- **High degree of collaboration:** each project involves some 13 partners on average, over 55% of them businesses, whereas the rules governing calls for projects require a minimum of only three consortium partners;
- **Substantial involvement of SMEs and ETIs:** 40% of PSPC partners are SMEs, 10% ETIs.

🚩 Selected projects varying in size but on average larger than those covered by classic R&D support tools

- The average total R&D spend by project partners is **€29.5 million**, for expected research aid averaging **€12.6 million**;

🚩 Significant State intervention through the PIA Programme of Investments for the Future;

- Across the range of projects as a whole, the State already provides aid amounting to **€138.4 million**, made up of **€61.9 million** in repayable advances and **€76.5 million** in grants. **The projects selected cover a wide variety of themes, in keeping with the wealth of fields covered by the competitiveness clusters.**



Health

Energy

Materials

Automotive

Agri-food

Service Robotics



What are the Competitiveness Cluster Structural R&D Projects (PSPC)?

These are projects intended to structure industrial sectors or encourage the emergence of new sectors, as a means of strengthening the positions of French firms on promising markets. On a broader front, they seek to improve the economic position of a whole network of firms, consolidating or building long-term collaborative relations between industries, services and research bodies. These are, therefore, R&D projects with a distinctly economic purpose. Eventually, these projects will result in the commercialisation of new products, services and processes.

The projects form part of the innovation strategy of the competitiveness cluster(s) supporting them. They cover the entire research spectrum, all the way through to the industrial pre-manufacturing prototype.

More information

The 11 structural R&D projects selected:

- C4C, France's first cell therapy technical platform for the treatment of certain forms of diabetes
- Fiabilin, developing the use of flax fibres in composites for the automobile and aviation industries
- Fi-Vime2, towards the generalisation of the motorised wheel
- Intense, innovation use of neurostimulation to treat obesity or cardiac conditions
- Megan, electronic power modules for electric vehicles
- Monoxen, the first fully-automated demonstration project for the production of high-yield, lower cost photovoltaic cells
- Open Food System, innovative services for the cookery and food of tomorrow
- Roméo II, the new home companion, a 1m80 humanoid robot providing personal services
- Sinfoni, using flax and hemp in building materials
- Valenthin, energy recycling of low temperature waste heat

INTERNATIONAL

▪ INTERNATIONALISATION DES PÔLES

Greater internationalisation, one of the four priorities for the clusters in supporting the growth of SMEs and ETIs

The Interdepartmental Working Group responsible for cluster policy held a workshop in Bercy on 17 June 2013, on the role of the clusters in internationalising their ecosystems.

In his introduction, Pascal Faure, Director General of the General Directorate for Competitiveness, Industry and Services (DGCIS), reviewed the main objectives of international initiatives by the clusters in the new phase of operations that opened in 2013:

-  Developing technological partnerships between French and foreign clusters;
-  Identifying priority international markets as part of the new cluster strategy for 2013-2018;
-  The importance of pooling resources and of inter-cluster relations in international and export initiatives.



Support action for internationalisation strategies

The first roundtable debated the various forms of action in support of business internationalisation strategies implemented by the clusters. The Images et Réseaux and Lyonbiopôle clusters highlighted the need to strengthen bridges between R&D cooperation and export, and the importance of attracting foreign businesses and encouraging them to invest in France.

Ubifrance emphasised its commitment to achieving the target set by government of providing personalised and long-term support to 1,000 SMEs and ETIs internationally, and reported on the continuing expansion of the Volunteer for International Experience (VIE) scheme. In addition, the 2009 DGCIS-Ubifrance agreement on cluster internationalisation has resulted in support being provided to over 1,100 international entities, including 660 SMEs/ETIs. The agreement has also launched over 350 technological and industrial partnerships.

The clusters: ecosystem facilitators

The competitiveness clusters are also ecosystem facilitators. The Optitec and Agrimp Sud-Ouest Innovation clusters reminded listeners of the diversity of tools provided by the clusters and the importance of pursuing efforts at coordination. The creation of Bpifrance export is a further step towards achieving the aim of simplification. The European Commission's Directorate-General for Enterprise and Industry presented the range of tools it can deploy to promote cluster internationalisation.

Institutional cooperation, an accelerator for technological partnerships

This workshop concentrated on the role of institutional cooperation. The Uptex, Pegase and LUTB competitiveness clusters presented examples of international partnerships set up or energised thanks to regular bilateral dialogue between the DGCIS and its contacts in key countries, for the most part in Asia, North America and Latin America.

The Ministry of Foreign Affairs also announced the appointment in 2013 of international technical experts, whose role will be to strengthen the links between clusters in France and their main counterparts around the world.

Boris Vallaud, Principal Private Secretary to Minister for Industrial Renewal Arnaud Montebourg, assured his audience of the government's keen interest in the competitiveness clusters, particularly as regards exports and the internationalisation of French businesses.

■ PUBLICATION

Monitoring State aid on behalf of the competitiveness clusters

The DGCIS Office of European Policy Coordination draws up a monthly bulletin monitoring the main State subsidies granted within the European Union. Monitoring this information also makes it possible to draw comparisons between the measures adopted by member States. The bulletin also details the subsidised activities of European-based firms.

CLUSTERS IN ACTION

FOCUS ON COMPLETED PROJECTS

■ BIO-RESSOURCES

Azostimer: eco-friendly nitrogen fertilisers from kelp



Copyright : Timac Agro International

The Azostimer project, which bears the label of the Mer Bretagne cluster, aims to develop new fertilisers based on Breton kelp and new tools to analyse plants' precise need for fertilisers, and to reduce the various environmental impacts (air, earth, water).

The project has received aid from the State and from local and regional authorities as part of a call for projects from the Single Inter-Ministry Fund (FUI).

The context

Using nitrogen fertiliser on crops carries risks for the environment. Apart from the problem of nitrates leaching into groundwater, the greenhouse gas emissions from nitrogen fertilisers cause serious environmental harm. Improving the agri-environmental balance of field crops is becoming a stark necessity for European farmers. Community standards governing the use of nitrogen fertilisers set maximum thresholds designed to reduce soil acidity and greenhouse gas emissions.

The objective

The Azostimer project aims to develop new natural fertilisers made from kelp to provide an innovative solution to the problems posed by nitrogen fertilisers.

The project partners

- Timac Agro International (Groupe Roullier), Saint-Malo, project sponsor
- Force-A, Evry (SME)
- Anaximandre, Landerneau (SME)
- UMR INRA-UCBN 950 Plant Ecophysiology & Agronomy, Caen
- ENSC Rennes – Organic & Supramolecular Chemistry
- ENSC Rennes – Chemistry & Process Engineering



Initial technological and economic spin-offs

- **Products developed from R&D work:** The project has led to the development of new nitrogen fertilisers combining local natural resources, particularly kelp from Brittany and humic acids, in order to meet EU limits on nitrogen fertilisers. The project has also allowed for the testing of new diagnostic tools using natural plant fluorescence in order to adjust fertiliser doses to the real needs of plants.
- **Theses:** 3
- **Scientific publications:** 6 in peer review
- **Jobs created:** 5 to date
- **Other expected spin-offs:** On the basis of the project, Timac Agro International is continuing to develop a new range of fertilisers for the European and South American markets. Project partner Anaximandre is developing the marketing and commercialisation tools for these new products, which are expected to reach the market in 2014-2015 (the earliest possible date in view of the approvals that have to be obtained before new fertilisers can be brought to market).

Latest successful R&D (FUI) projects featured on the website www.competitivite.gouv.fr

The projects present their first technical and economic spin-offs.

- **Oléovision**, new sunflower oils for the food industry and green chemistry (Agrimip Sud-Ouest Innovation cluster)
- **Aquactif**, Breton kelp identified for use in cosmetics (Mer Bretagne cluster)
- **Matcos**, development of innovative materials in a supercritical medium (Trimatec cluster)
- **Thermel**, optimised manufacturing of moulded rubber parts (Elastopôle cluster)
- **Mosahyc**, innovative high-definition laser lithography equipment for industry (Optitec cluster)
- **QualitNblé**, high quality bread thanks to carefully selected proteins (Céréales Vallée cluster)
- **Biospan**, new approaches to the treatment of colon cancer (Cancer Bio Santé cluster)



CLUSTER NEWS

■ FROM R&D TO THE MARKET

Ten competitiveness clusters sign a partnership agreement with Pacte PME on a pilot scheme

Ten competitiveness clusters (*) have signed a partnership agreement with Pacte PME(**) to ease the transition from R&D to the market. The agreement is part of the objectives for the new phase of cluster policy that makes the commercialisation of innovations a priority.



(*) Advancity, Aerospace Valley, Astech, Images & Réseaux, Minalogic, Mov'eo, Optitec, Plastipolis, Systematic Paris Region and TES

(**) Pacte PME, founded in 2010, is an association with a membership consisting of 54 major firms, including 16 CAC 40 companies and 19 of the leading public enterprises, plus 21 professional organisations and 21 competitiveness clusters. The members work together to promote the growth of SMEs and the emergence of new mid-tier firms (ETIs). The impact of their efforts is assessed annually by the organisation's joint monitoring committee, with the aid of national statistics office INSEE. In 2012, the Pacte SME major firms purchased goods and services worth a total of €16 billion from French SMEs, €455 million more than in 2011.

Pacte PME is launching three pilot operations.

Innovation showcases

These involve organising presentations of SME cluster members to representatives of the major firms involved in Pacte PME (business lines and purchasing functions).

A skills centre

The idea here is to set up a working group on the theme of "Large groups and SMEs, from co-innovation to the market" with SME cluster members and representatives from all the relevant sections of Pacte SME major firm members (R&D, business lines, purchasing). The aim is to encourage the introduction of collaborative practices tying collaborative research together with purchase of the services and products likely to emerge from the collaboration.

The innovative purchases observatory

The aim is to monitor the overall engagement with SMEs by groups belonging to a given sector, along the same lines as the Pacte PME consolidated annual reporting for all the groups concerned.

The agreement was signed in the presence of Arnaud Montebourg, Minister for Industrial Renewal, at the annual Pacte PME seminar held in Bercy on 23 May 2013.



■ INTER-CLUSTER COLLABORATION

A technological breakthrough at Roland-Garros thanks to three competitiveness clusters

Broadcasting a sports programme live, using high-definition and multiscreen technology, is a real technological feat made possible by the 4EVER project, holder of three competitiveness cluster labels.



Copyright Cap Digital, Philippe Roy

A week's worth of matches at the French Open tennis tournament at Roland-Garros were broadcast in high-definition using experimental new technology: the new digital high efficiency video coding standard, HEVC. This new Codec* offers less than half the bandwidth (or weight) of the current MPEG-4 AVC H.264 standard for identical image quality.

The higher the definition, the more effective HEVC actually becomes, suggesting that the technology will pave the way for the introduction of ultra high definition (ultra HD), a format currently in the process of definition.

This world first could not have been achieved without the 4EVER project, which carries the labels of the Images & Réseaux, Cap Digital and Solutions Communicantes Sécurisées (SCS) clusters, and was selected through the 13th call for projects from the Single Inter-Ministry Fund (FUI). The project was headed by Orange Labs and included eight French firms and academic institutions: Technicolor, Globe Cast, TeamCast, Ateame, Doremi, INSA, France Television, the Institut d'Electronique et des Télécommunications de Rennes and Telecom Paris Tech.

During the French Open, 4EVER set up multiscreen demonstrations (TVs, computers, tablets) using the new HEVC standard. The daily stream of televised matches was captured and streamed live to an experimental HEVC channel, which handled the encoding, broadcasting and decoding of images. The matches were then replayed in high definition in the France Télévisions public areas and in the Orange technical suite at Roland-Garros, as well as at the Rennes Digital Canteen via the ImaginLab platform's DVB-T2 network. The operation was a world first for an experimental high definition HEVC channel operating end-to-end and including simultaneous real-time coding and decoding.

The technical and economic implications of the HEVC standard are huge, since the standard was created to provide high definition channels for digital TV. The French broadcasting regulator, the Conseil Supérieur de l'Audiovisuel (CSA) is planning the general application of the standard in 2015. The changes could happen fast. Dedicated digital innovation platform ImaginLab is playing an active part in the experiments already under way, and this world-first live broadcast of a major sporting event is a splendid example.

* *Codec: device capable of encoding or decoding a digital signal*

 More information

 [Website of the 4EVER project](#)



▪ SUPPORT FOR SMALL AND MEDIUM-SIZED COMPANIES

The Dream cluster supports its innovative SMEs in accessing public procurement with Dreamao

The DREAM cluster has developed a range of initiatives in support of its innovative SMEs: monitoring public procurement contracts in the water and environment sectors, opportunities for targeting partner firms, dedicated training, etc.



The DREAM cluster

Delegated public sanitation services, study to define a waterways management strategy, restoration of a riverine forest (the combination of trees, bushes and grasses found on the banks of a river), etc. – public procurement contracts represent a major component of revenue for the 60 business members of the Dream cluster. In recognition of the fact, the competitiveness cluster has developed a series of support initiatives, in the form of DREAMAO, to help SMEs gain access to the public procurement market. The move ties in with the objectives of the French government, which has committed itself to increasing SME and ETI access to public procurement.

Monitoring public procurement calls for tenders

First and foremost, DREAMAO involves compiling and capitalising on all public procurement calls for tenders in the Water and Environment sectors issued in France and advertised in the Official Journal of the European Union. That represents close on 200 advertisements a week, classified by theme (sanitation and water treatment, environmental engineering, etc.) and available for consultation on a secure website. "*DREAMAO also collates notices of contracts awarded, information that has considerable added value for us as suppliers,*" adds Cyril Grand, chief executive of Ecobiotex.

A directory to identify potential co-contractors, subcontractors or suppliers

"*Spotting a relevant call for tenders is good. But the ability to target other firms we can team up with to submit a bid is even better. And DREAMAO offers just that: in one click, you can find potential partners within the DREAM network to put together a joint proposal,*" says Michel Bacchi, co-manager of micro-enterprise Rive. A keyword search of the "Entreprises" search engine on the DREAMAO Internet application enables the user to select DREAM member firms on the basis of their skills and experience.

Training towards better positioning on public procurement markets

Training is also central to the support measures DREAMAO provides. In partnership with business law firm Fidal, ten DREAM member firms have received training on disputes and litigation in public procurement and on the enforcement regime. "*For a small firm, it's difficult to keep abreast of rules that are forever changing. Updating our knowledge with the help of lawyers specialising in public procurement is really helpful,*" confirms Philippe Baumann, Chairman of Ontomantics.



A service wholly in line with government recommendations

On the strength of these successful beginnings, the DREAMAO family of support measures is expanding. Some of the main avenues to be developed: bringing innovations in the Water and Environment sectors to the attention of the authorities. Public purchasers are on notice to help support the development of innovative SMEs with growth potential. The government has set a target of 2% of public procurement to be channelled into purchasing innovation by 2020, as part of its National Pact for Growth, Competitiveness and Employment. The cluster will shortly be making tools available to purchasers, via DREAMAO, for better promotion of these innovative products and services.

The next steps: bringing innovations to the attention of public purchasers

DREAM is also a partner in the European Union's ECOPOL project (Competitiveness and Innovation framework Programme), set up to accelerate the implementation of eco-innovation policies in Europe. The transnational partnership is made up of the European Commission and partners from seven European countries. DREAM's task, as a member of the partnership, will be to organise workshops and training sessions for local authorities and to set up a website to guide their steps in the process of purchasing innovation.

 More information

 [The EU ECOPOL project](#)

 [Consult the archives \[http://www.competitivite.gouv.fr/spip.php?article116&lang=fr\]](http://www.competitivite.gouv.fr/spip.php?article116&lang=fr)

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