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## CLUSTER POLICY

### ▪ POLICY OF THE CLUSTERS

## The competitiveness clusters must become “factories for the products of the future”

During the 11th National Competitiveness Clusters day, the ministers indicated that the clusters will have to focus their energies on the economic fallout of their efforts, and on the industrialization of the results of their projects, in an effort to facilitate the marketing of new products and innovative services.

The 11<sup>th</sup> national competitiveness clusters day was held on 4 December 2012 at Bercy, in the presence of Arnaud Montebourg, Minister for productive recovery, of Fleur Pellerin, Deputy minister responsible for small and medium-sized enterprises, innovation and the digital economy, of Geneviève Fioraso, Minister for higher education and research, and of Alain Rousset, Chairman of the Association des régions de France.

The three ministers reiterated that the competitiveness clusters are decisive tools for the competitiveness of French industry. They also outlined the ambition assigned to the competitiveness clusters by the Government, announced as part of the National pact for growth, competitiveness and employment.

After seven years in operation, the competitiveness clusters policy has unquestionably demonstrated its efficiency for driving collaborative and innovative research and development (R&D) projects. As such, the Government has decided that a third 6-year phase (2013-2018) would be launched as of this year. The competitiveness clusters will have to focus their energies on pursuing greater economic fallout, industrializing the results of the projects that they support, and disseminating innovations through the marketing of new products and services. The objective of this new phase is to transform the clusters into true “factories for the products of the future”.

At the same time, the competitiveness clusters will have to increase their efforts to support SMEs and mid-sized companies in order to contribute to creating a beneficial environment for their development.

Finally, the Regions will also be heavily involved in the governance of the competitiveness clusters policy, as demonstrated by the participation of the ARF chairman in this event.

### ▪ R&D PROJECTS OF THE CLUSTERS

## R&D projects of the clusters offering new economic fallout

There is a growing list of the R&D projects (FUI) undertaken by the clusters that have completed their works and that are now producing their first technological and economic fallout. These very promising actions are highlighted, along with the jobs created and the initial commercial successes.

80 projects illustrate the initial fallout of the R&D projects undertaken by the clusters, that have received aid through the single interministerial fund (French acronym: FUI). The R&D projects promoted by the clusters have already led to prototypes, demonstrators, patents, theses, scientific publications, the creation of jobs and companies, and brands marketed as a result of R&D efforts. The new projects include:



## Agriculture, agri-food

- **Oxychic**, in search of the benefits of chicory against the ageing of cells (NSL)
- **Avcop**, making better use of the co-products from the sea (Aquimer)
- **Vinéo**, optimising the potential of four varieties from the Southwest (Agrimip Innovation)
- **Farine +**, sketching out the breads of the future (Vitagora)

## Health

- **GR-CAV1**, an anti-cancer vaccine using red blood cells as a vector (Lyonbiopôle)
- **FIV-VAX**, a vaccine against the AIDS virus in cats (Lyonbiopôle)
- **Collect'Air**, combating nosocomial illnesses through air quality monitoring (Lyonbiopôle)
- **Neurocom**, treating deafness while making it invisible (SCS, Eurobiomed)

## Eco-technologies, environment

- **Intensification of the processes**, revisiting the bases of industrial processes (Axelera)
- **Voltarec**, complete recycling of photovoltaic panels (Tenerdis)

## ICT

- **Secmar**, safety and security of maritime approaches (Mer Paca)
- **Sismaris**, a maritime surveillance system for identifying suspicious behaviour (Mer Paca)
- **Madison**, pulsed laser for tracking failures of integrated circuits (SCS)
- **Smartstack**, 3D stacking of electronic chips, for complex electronic systems (SCS)

## Mechanical

- **MAAT**, optimisation of cutting conditions during machining (Arve Industries).

The oldest projects are being updated in order to integrate the economic fallout.



#### ▪ INTERNET

### Foreign language pages in order to provide the clusters with more international visibility

The Internet site used by the competitiveness clusters ([www.competitivite.gouv.fr](http://www.competitivite.gouv.fr)) is changing to provide more international visibility. It will now include pages in English and Spanish.

These two sections will be similar in terms of their tree structure and content. Their primary purpose is an international presentation of the cluster policy, and to promote French clusters worldwide. They each contain a database of 71 clusters, as well as an interactive map in English and in Spanish. Searches are now possible by business domain, region or by entering keywords. This will make it easier to identify competitiveness clusters, while encouraging new contacts. Also highlighted are links in English and Spanish to the Internet sites of the clusters, as well as their presentation videos and RSS streams.

- Internet site of the clusters in English: [www.competitivite.gouv.fr/en](http://www.competitivite.gouv.fr/en)
- Internet site of the clusters in Spanish: [www.competitivite.gouv.fr/es](http://www.competitivite.gouv.fr/es)

## EU NEWS

#### ▪ PUBLICATIONS

### The December 2012 edition of the monitoring bulletin for State aid available to competitiveness clusters

#### In the news this month:

- The European Commission has come out in favour of two investment measures in Germany and the United Kingdom, for the deployment of “NGA” very fast broadband networks.
- The European Commission has decided that a tax deduction measure for assets acquired through *leasing* was exempt from State aid on the basis of the fact that it does not promote any production or any company.

## LANDMARKS

# 143

This is how many files were submitted for the 15<sup>th</sup> call for projects (FUI)

## CLUSTERS IN ACTION

### FOCUS ON COMPLETED PROJECTS

■ ECOTECHNOLOGIES / ENVIRONMENT - OPTICS / PHOTONICS

## Idealibs: an innovative chemical analyser for identifying materials, waste and contaminants

A compact and portable laser spectroscopy system for the verification, sorting and identification of metals, waste and contaminants, in the service of the environment and of the metallurgy industry.



Copyright: Bertin Technologies

The project was carried out under the label of the Optitec cluster, and it received aid as part of the second call for projects under the single interministerial fund (FUI).

The project involved studying, developing and producing a portable chemical analyser based on laser-induced breakdown spectroscopy (LIBS). This is an analytical method used for measuring the components of materials. This involves focusing a sufficiently powerful laser beam on the surface of an object that is being studied. The objective is to create plasma, i.e. a gas of ionized material for which the emitted light is then analysed. The spectrometer analyses the chemical composition of the object's surface. Thanks to the analysed materials, this innovative technique is complementary to the traditional method referred to as infrared spectroscopy. For the planned applications, it also provides better performance than measurements using spark spectroscopy or fluorescence spectroscopy.

This project was intended to demonstrate that this analyser could meet the needs for *on-site* measurements, notably for sectors such as the environment (ground pollution) and metallurgy (sorting, recycling, stock verification, quality control). More specifically, it targeted certain metals such as lead, mercury, cadmium and chromium.

### The project's partners

- **Bertin Technologies is the project initiator.** Though a SME when the project began, this company is now a stakeholder in the CNIM group, and considered to be a mid-sized company. Its role was to coordinate the overall project in order to come up with a system providing performances in keeping with the targeted specifications. Its expertise will be put to use in the integration of the project's various elements in order to develop a final demonstrator.
- **The LP3 laboratory** based in Marseille, given its expertise in the field of the interpretation of spectra produced by plasma,
- **the company OGD Ortec** based in Aix en Provence, for its expertise in the field of decontamination,
- **Pellenc ST (SME)** located in Pertuis, for its expertise in the field of waste sorting.

## Description of the completed works

The project's main works focused on:

- Modelling and studying the parameters that influence the measurement performance of a laser-induced plasma spectrometry device;
- Designing a portable device, that notably includes the detailed specifications, miniaturization of the sub-assemblies, development of processing algorithms and, if necessary, of a dedicated spectrometer;
- Producing two prototypes;
- Quantifying the performances of these two prototypes and their assessment by the partner end-users.



*Quantum product marketed by Bertin Technologies, the outcome of the Idealibs project. Copyright: Bertin Technologies*



*Prototype for a portable pollutant analyser, the outcome of the Idealibs project. Copyright: Bertin Technologies*

## Initial technological and economic fallout

- **Results, products, prototypes, demonstrators, services resulting from the R&D works:** 2 prototypes of a portable version were created, as well as a portable demonstrator. The latter is capable of identifying chlorine and borium for applications involving waste sorting, as well as metallic elements such as lead, mercury, cadmium and chromium for applications related to ground pollution and the metallurgy markets.
- **Patents:** 2
- **Publications, including peer-reviewed scientific journals:** 10
- **Theses:** 3
- **Jobs created:** 10
- **In perspective:** the Quantum analyser is now being marketed in its stationary version. It is intended for the market for Customs inspections targeting terrorist or illegal substances. The project is progressing in two complementary directions with high stakes. They include the recycling of black plastics coming from electrical and electronic hardware waste or scrapped vehicles, and the detection of surface chemical and biological contamination.



## CLUSTER NEWS

■ ECONOMIC INTELLIGENCE, INTELLECTUAL PROPERTY

### The Avenia cluster promotes economic intelligence in the service of geosciences in the Aquitaine region

The Avenia competitiveness cluster provides its members with access to an economic intelligence platform that offers many shared or individual services in a great variety of domains.



The **Avenia** competitiveness cluster specialises in the field of geosciences, for example the geological storage of CO<sub>2</sub> or geothermics. It has included the importance of economic intelligence as part of the development strategy of its members and its ecosystem.

Fully aware of how difficult it is for its SMEs to access strategic information, the cluster decided to make this service available to them through a monitoring platform called *Géoscopie* ([www.geoscopie.fr](http://www.geoscopie.fr)). This platform analyses and disseminates technological, economic, legal and societal information relating to the cluster's various activity domains. In addition, a twice-monthly intelligence newsletter provides information to its 400 subscribers.

The platform is the fruit of a partnership between the Avenia cluster, the CCIT Pau Béarn, the CCIR Aquitaine and Direccte Aquitaine. It provides a range of services, both pooled and individual, in quite an extensive range of domains that, for example, include intellectual property.

*Géoscopie* is also a powerful communication tool for the cluster's members. Indeed, they can present their current events and projects directly on the platform. In addition to all of these services, it also offers:

- customised intelligence services in order to meet the specific needs of its members,
- a favoured operational contact with the INPI for the Avenia cluster,
- the preparation of a free intellectual property pre-assessment,
- access to the INPI training courses at a special rate,
- free working groups on the various subjects surrounding economic intelligence,
- conferences on "monitoring" or "territorial intelligence", involving an average of 60 people.

These actions are at the heart of the momentum of the Avenia cluster and of the development of its ecosystem throughout the territory of the Aquitaine region.

*"Thanks to Géoscopie, with just one click I have access to a concise and accurate review of current events in geosciences, which saves a considerable amount of time as part of our technological monitoring actions"*, indicates Julien Carlos, Director of the SME INT France.

#### Contact

- [Alexandre Sanna](#), task officer for the Avenia cluster monitoring platform

▪ INTERNATIONAL PARTNERSHIP

## Trimatec has signed a partnership agreement with technical centres in Quebec

Eight structures in France and Quebec have set up a partnership framework in areas relating to supercritical fluids, membrane-related processes and the production / economic development of micro-algae.



The representatives of the 8 signatories of the partnership agreement

The **Trimatec** competitiveness cluster and its partners in various fields, the Club français des membranes (CFM), Innovation Fluides Supercritiques (IFS) and Algasud have signed a partnership agreement with four technical centres in Quebec, namely the *Centre d'études des procédés chimiques du Québec* (CEPROCQ), the *Centre national en électrochimie et en technologies environnementales* (CNETE), the *Centre de transfert technologique en écologie industrielle* (CTTEI) and the *Institut de technologie des emballages et du génie alimentaire* (ITEGA).

The mission shared by all of the partners is to help companies to develop through innovation.

Initiated by Trimatec, this partnership is part of the extension of the isolated exchanges between structures, and its objective is to establish an operational framework for exchanges between them.

Five priority actions are targeted:

- developing transfers of knowledge and skills;
- networking of the members and industrial partners;
- the contribution of new skills from France or Quebec as part of collaborative R&D projects or structuring projects;
- the organisation of common events in order to promote the jointly developed skills;
- opening up new markets in France and in Quebec.

In parallel with the signing of this partnership, collaborative projects involving the members of the partner networks are already being set up. Next step: the organisation of two subject-specific half-days during the Americana trade fair in Montreal in March 2013.

The signing ceremony was held on 27 November 2012 during the Pollutec trade fair in Lyon, at the Network Village of the Ecotech clusters, in the presence of the Minister for ecology, sustainable development and energy, and the representatives of the Délégation générale du Québec en France.

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

Sign up [<http://competitivite.gouv.fr/>]

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