

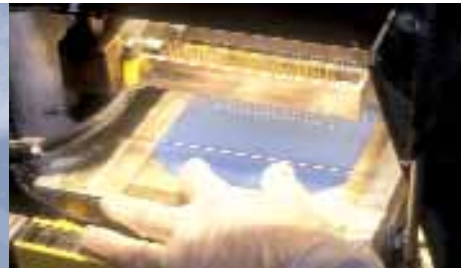


Supplément à LA LETTRE D'INFORMATION de la DGE

# COMPETITIVENESS CLUSTERS IN FRANCE

[www.competitivite.gouv.fr](http://www.competitivite.gouv.fr)





### Why the competitiveness clusters have they been created?

Competitiveness clusters have been created in 2005 to increase the competitiveness between companies and develop employment among expanding markets.

### WHAT IS A COMPETITIVENESS CLUSTER?

#### **A joint theme-based initiative for a given geographic area**

A competitiveness clusters is an initiative that brings together companies, research centers and educational institutions in order to develop synergies and cooperative efforts.

Other cluster partners may include local and national authorities and services catering to cluster members.

#### **A chance to become a leader**

Clusters use synergies and innovative joint projects to give their member companies a chance to be national and international leaders in their fields.

### COMPETITIVENESS CLUSTER GOALS

- **To develop competitiveness of the French economy** through increased innovation
- **To boost local technological** and creative industries
- **To attract business to France** thanks to a higher international profile
- **To stimulate growth and employment**

### COMPETITIVENESS CLUSTERS STRATEGY

Each competitiveness cluster draws up a five-year plan, based on a vision shared by the various stakeholders. With the plan, the cluster can:

- **Develop partnerships between the various stakeholders**, based on their complementary skills
- **Construct shared strategic R&D projects** that can benefit from public funding, particularly the **Interministerial Fund (FUI)**
- **Promote an overall environment favourable to innovation** and the cluster's stakeholders via presentations, knowledge-sharing and mutual support among cluster members on topics such as training and human resources, intellectual property, private-sector financing, international development, and so on.

### ➔ AN EXAMPLE OF CLUSTER-BASED TRAINING ACTIONS

**Human resources and training** are among the top priorities at the **Burgundy Nuclear Partnership**. Starting in 2006, a series of training opportunities have been implemented, including the professional baccalaureate at Le Creusot, a professional BA at Chalon-sur-Saône and Le Creusot, and a specialised master's degree from Cluny. In addition, a survey of cluster staff and positions was carried out with public funding support. Finally, the Burgundy DRIRE (Regional Directorate for Industry, Research and the Environment) is offering support to the cluster for a project to launch an international school to train students to maintain, build and dismantle nuclear power plants.



In addition, international actions are set up in order to:

- **Encourage development of technology partnerships** with partners abroad, which benefit cluster companies
- **Attract business to France.** Clusters represent a real opportunity for international investors, to implement partnerships and take part in research projects carried out by clusters.

### → AN EXAMPLE OF AN INTERNATIONAL PARTNERSHIP

The French clusters [System@tic](#) and [Aerospace Valley](#) and the German cluster [SafeTrans](#) are taking part in a European technology development platform dedicated to embedded systems. These French and German leaders in the transport sector are actively contributing to setting up R&D projects that will have a lasting industrial impact at a European level. The project has begun to explore new partnerships with other European excellence clusters, particularly with the Dutch cluster Point-One, to develop embedded systems and micro-nanotechnology.

### PUBLIC SUPPORT FOR CLUSTERS

The French Government is particularly interested in promoting an overall environment favourable to enterprise and innovation, and in supporting R&D efforts within competitiveness clusters. It accompanies cluster development at both local and national levels in the following ways:

- Grants from the Interministerial Fund for outstanding research and development projects selected after a semi-annual call for proposals
- Partial financing for cluster governance structures, alongside local authorities and companies
- Financial support for theme-based collective actions initiated by clusters in a wide range of areas, via the various **Regional Directorates for Industry, Research and the Environment (DRIRE)**
- By carrying out and publishing studies such as **“Les bonnes pratiques de gouvernance pour les pôles de compétitivité”** (“Good governance practices for competitiveness clusters”) and **“Le guide pratique de la propriété intellectuelle dans les pôles”** (“A practical guide to intellectual property in clusters”)
- By involving Government agencies: the **French National Research Agency** and **Oséo-AII** provide financing for R&D projects led by competitive cluster stakeholders
- By bringing new means from public research centres
- With support from local authorities, which may also provide financial support for a cluster's R&D projects

### → AN EXAMPLE OF A COLLECTIVE ACTION SUPPORTED BY THE DRIRES

**Operation Cap Excellence**, led by the cluster [EMC2](#) has resulted in lower sub-contracting costs at the Saint-Nazaire naval construction site. This was accomplished by training the workforce in new technologies such as polymers and composites, and by diversifying its clients to include aviation, offshore oil drilling, yachting and the various defence markets.



### A positive evaluation of the competitiveness clusters policy

After three years of operation, an evaluation of competitiveness clusters policy was performed by external consultants during the first six months of 2008. First promising results justify to continue and to intensify this policy. As announced by the French President, in June 2008, a second stage will start, for a new period covering 2009 to 2011, with a global budget of 1.5 billion euros allocated by the French government, the same level as during 2006-2008 period. Implementation of new orientations and measures for competitiveness clusters will improve their excellence and develop their environment.

At an international level, the Government helps cluster stakeholders, and specifically companies, to identify the most suitable international partners, and to create technological partnerships with them, based on the creation of value.

The General Directorate for Enterprises (DGE) encourages the following:

- Actions carried out by clusters within the framework of implementing an international strategy
- Collective actions involving several clusters working in the same sector in order to increase partnership possibilities for their companies and to make them more attractive to foreign investors
- Actions to support technological partnerships abroad for cluster SMEs



#### AN EXAMPLE OF INTERNATIONAL SUPPORT

For the past two years, the DGE has supported the international structuring of all of France's biotechnology clusters. The [Life Science Corridor France](#) brings together the [Cancer-Bio-Santé](#), [Lyonbiopôle](#) and [Innovations thérapeutiques](#) clusters. It is involved in a strategic partnership with clusters in the Osaka region of Japan.

## COMPETITIVENESS CLUSTERS: A FEW FIGURES

### Who are the clusters?

- **71 competitiveness clusters** have been labelled
- **5,000 companies** were cluster members in 2007
- **80%** of these were **SMEs**

### What sort of aid do clusters receive?

- **554 R&D projects** have received public funding since 2005
- **€ 1,1 bn** has been spent on R&D projects since 2005, including 729 million from the Government
- R&D projects represent a total of **€ 3.6 bn**
- **12,000 researchers** take part in funded R&D projects
- **54%** of funding goes to cluster SMEs, within the framework of the Interministerial Fund and Oséo (not including support for laboratories)
- **1,343 R&D projects** received agency support (ANR and Oséo) in 2006 and 2007
- **€ 4 million** in funding came from the DGE in 2006 and 2007 to support international development

71  
COMPETITIVENESS  
CLUSTERS





## THE GOODS AND SERVICES OF TOMORROW SOME EXAMPLES

### TRANSPORT, AERONAUTICS AND AEROSPACE

#### → **New materials to make tomorrow's trains faster and more economical**

The goal of the **Ultimat** project at the **i-Trans** cluster is to validate the use of new materials, such as composites, metal foams, new steels and steel/polymer sandwiches, for building a multi-material chassis that will reduce both the weight and number of trainset parts by 20%. Costs and assembly times will also be reduced.

### BIOTECHNOLOGY AND HEALTH

#### → **Non-invasive surgery: new tools and high-tech training**

The **Anubis project** is developing a surgical model in which organ surgery is carried out via the body's natural pathways. The patient is left without a visible scar, and both pain and post-operative complications are reduced. The project aims to create new surgical tools as well as the training needed to learn this new operating technique. It has been approved by the **Therapeutic Innovations** competitiveness cluster.

#### → **A new system for intradermal injection (Lyonbiopôle cluster)**

**MicroVax** is a new vaccination system. The project aims to develop and market a micro-injection vaccination system capable of delivering micro-quantities of vaccine, while maintaining or improving the vaccination's efficiency.

### AGRIBUSINESS AND BIO-RESOURCES

#### → **Natural fibres for use in vehicle interiors**

The goal of the **Biomat** project of the **Industries and Agro-resources** is to find natural fibre substitutes for the petroleum-based polypropylenes and polystyrenes traditionally used in automobile interiors. Fibre substitutes are renewable and comply with technical constraints in terms of weight, impacts, aging, dynamic fatigue. They are also economical (competitively priced compared with plastics) and environmentally-friendly (they contain no harmful components and are recyclable).



## INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT), IMAGING AND NETWORKS

### → **Broadband technologies for isolated rural areas**

The [Ourses](#) project (Satellite Services for Rural Use) from the [Aerospace Valley](#) cluster is working to develop technologies that combine satellite telecommunications and wireless terrestrial technologies. The goal is to offer broadband services to isolated rural areas that do not have access to existing broadband networks (ADSL, etc.). [Ourses](#) is testing these innovations on a computer-based medical platform providing assistance to at-risk older persons in isolated areas.

### → **Terra Numerica: digital heritage**

Approved by the [Cap Digital](#) cluster in the digital heritage domain, the goal of the [Terra Numerica](#) project is to develop technologies for the production and visual exploitation of large-scale 3-D digital images of urban areas. These images can be used in a wide range of areas, including tourism and heritage promotion, services for local authorities, development and urban planning, civil safety, contextual business services, and so on. 3-D images may be consulted via web-based applications, mobile applications such as cell phones and PDAs, as well as virtual and augmented reality devices.

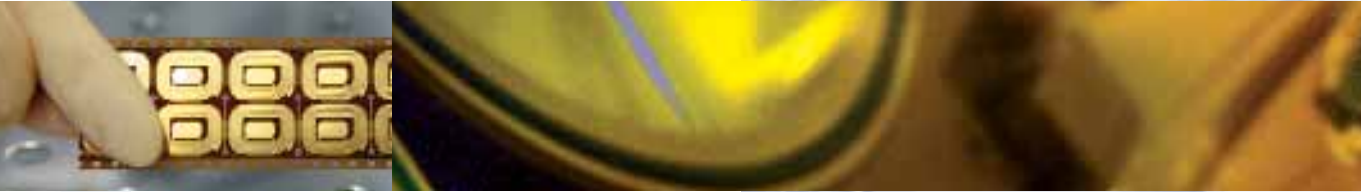
## ENERGY AND ENVIRONMENT

### → **Environmentally friendly antifouling paint for ships**

The goal of the [Paintclean](#) project of the [Brittany Maritime Cluster](#) is to develop new anti-fouling paints for ship hulls that are completely biodegradable and do not contain harmful products. The efficiency of these new products requires the development of procedures that limit the adherence and growth of marine organisms on the submerged painted surfaces and permit the elimination of paint/soiling complexes.

IVENESS

THE FUTURE



For further information:

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Photos : Ministère de l'Économie, de l'Industrie et de l'Emploi,  
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Infographie : Idé

Création, conception : agence paradigme



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