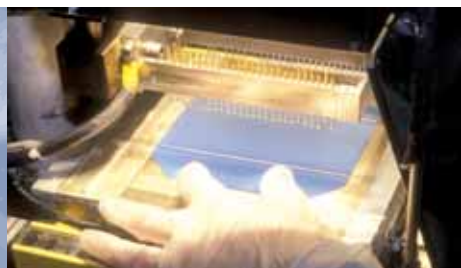


Supplément à LA LETTRE D'INFORMATION de la DGCS

COMPETITIVENESS CLUSTERS IN FRANCE

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€1.5bn for Phase 2 of the competitiveness clusters policy

Following the positive assessment of the first phase of the competitiveness cluster policy, the french government has decided to allocate €1.5bn to the launch of a second phase (2009–2011). In addition to providing continued support for R&D – the essential part of the clusters' activities – the funds will be used in three specific areas:

- Strengthening leadership and strategic steering for clusters (performance contracts)
- New means of financing (innovation platforms)
- Developing a growth and innovation ecosystem in each cluster (including private financing and better regional synergies)

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 strengthen the competitiveness of the French economy and develop both growth and jobs in key markets.

- Through increased innovation
- By encouraging high-value-added technological and creative activities, principally industrial, at a regional level
- By attracting business to France thanks to a higher international profile

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 of the **Burgundy Nuclear cluster**. Starting in 2006, a series of training opportunities have been implemented, including the professional Secondary School Diploma 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 Regional Directorate for Industry, Research and 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, a set of international actions is aimed at:

- **Allowing clusters to take part in implementing a European policy** for developing world-class European clusters
- **Encouraging cluster members to develop technological partnerships** with international stakeholders
- **Contributing to make France attractive** by encouraging international investors to initiate partnerships with the clusters.

→ AN EXAMPLE OF 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:

- **By allocating, through the Single Interministerial Fund**, financial support for the best R&D and innovation platform initiatives via calls for projects
- 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**
- **By involving various partners**, such as the Caisse des Dépôts, or the French National Research Agency (ANR) and OSEO both of which finance R&D projects led by cluster stakeholders
- By bringing new means from public research centres
- **Finally, by seeking assistance from local authorities**, who can also provide financial support for cluster projects (R&D, innovation platforms).

→ AN EXAMPLE OF A COLLECTIVE ACTION SUPPORTED BY THE REGIONAL DIRECTORATE FOR INDUSTRY

[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.



Allocation of State appropriations for Phase 2 (2009–2011)

- **LEADERSHIP APPROPRIATIONS – €50M** (financing for governance structures)
- **INTERVENTION APPROPRIATIONS – €600M** including €495M for R&D projects and €105M for structuring projects (innovation platforms)
- **AGENCY INTERVENTIONS – €850M** including €600M for the French National Research Agency (ANR) and €250M for OSEO and the Caisse des Dépôts.

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 Competitiveness, Industry and Services (DGCIS) 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 DGCIS 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 [Alsace Biovalley](#) clusters. It is involved in a strategic partnership with clusters in the Osaka region of Japan and in Massachusetts.

COMPETITIVENESS CLUSTERS: A FEW FIGURES

Who are the clusters?

- **71 competitiveness clusters** have been labelled
- **6,000 companies** were cluster members in 2007
- **85%** of these were **SMEs**

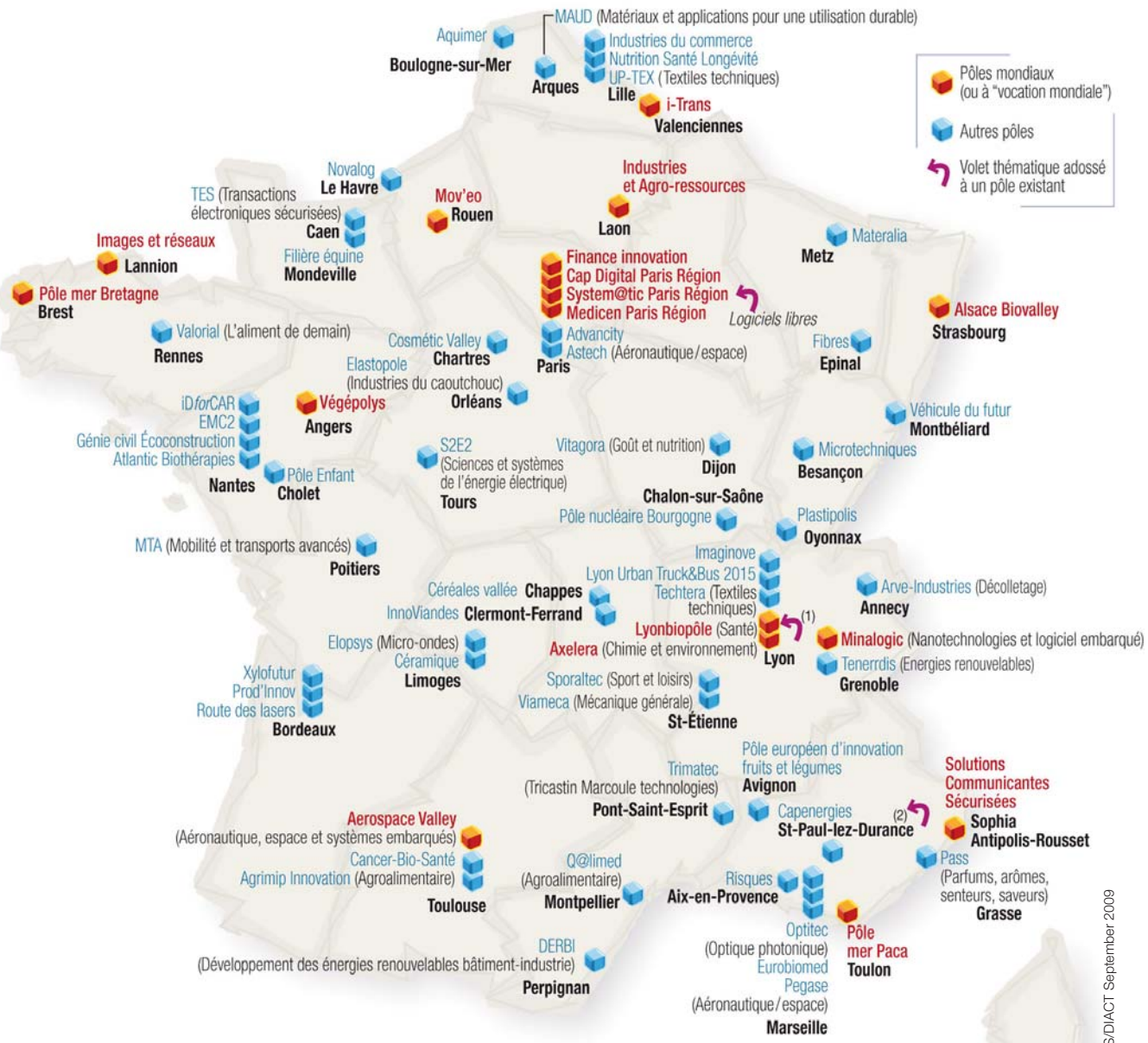
What sort of aid do clusters receive?

- **738 R&D projects** have received public funding since 2005
- **€ 1,46 bn** has been spent on R&D projects since 2005, including 946 million from the Government
- R&D projects represent a total of **€ 3.95 bn**
- **14,000 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)
- **2,097 R&D projects** received agency support (ANR and Oséo) in 2006, 2007 and 2008
- **€ 4 million** in funding came from the DGE in 2008 and 2009 to support international development

71
COMPETITIVENESS
CLUSTERS



MAPPING THE 71 COMPETITIVENESS CLUSTERS



(1)
Santé tropicale
(Lyonbiopôle)
Guyane

(2)
Technologies écoefficientes
(Capenergies)
Guadeloupe

Qualitropic
(Agronutrition en milieu tropical)
St-Denis de la Réunion



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).

COMPETITIVENESS
CLUSTERS
TO INVENT



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



To learn more about french competitiveness clusters:

www.competitivite.gouv.fr



Subscribe to our monthly cluster newsletter from the home page of our web site.

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