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TO CLUSTER POLICY

SINGLE INTERMINISTERIAL FUND

15th FUI call for projects: 72 new collaborative R&D projects

Following the 15th call for competitive cluster R&D projects, the state has decided to finance 72 new collaborative projects presented by 50 competitive clusters, representing total funding of € 64 million.

These projects concern various themes. They have been selected for their innovative nature and the economic activity they will generate. They involve at least two companies and one research or training organisation. In addition to \in 64 million in financial aid from the State, they will benefit from \in 44 million in support from local authorities and Community funds (FEDER).

The number, diversity and quality of the chosen projects testify to the impetus towards innovation and partnership created by competitive clusters. Researchers and entrepreneurs mobilise in public-private cooperation to conduct projects which would not have been launched without the competitive clusters' action. These projects help to strengthen the competitiveness of the French economy and create jobs. They will enable the companies involved to win leading positions in the markets concerned.

Since 2005, all FUI calls for projects have enabled support for 1,245 collaborative R&D projects for a total R&D expenditure of nearly 6 billion euros and public financing of 2.3 billion euros, including 1.4 billion by the state.

A few examples of the projects chosen:

- Meatic conducted by the Valorial cluster aims to develop a range of innovative and natural food solutions for charcuterie in order to improve nutritional profiles particularly through reduced use of salt, fat and additives.
- **Previz conducted by the Images & Réseaux cluster** consists in creating an innovative real-time preview platform for the production of special effects contents for films, TV series or commercials.
- Hephaistos conducted by the Minalogic cluster aims to give the integrated circuits used for mobile telephony a capacity to absorb transient thermal energy during activity peaks.
- **SINGLE INTERMINISTERIAL FUND**

For better management of Single Interministerial Fund (FUI) aid

The DGCIS, the DGA and Oséo have signed a new agreement to halve the lead times for payment by Oséo of aid for competitive cluster R&D projects.

The new agreement is in line with the options chosen in the National Pact for Growth, Competitiveness and Employment and phase 3 of the competitive cluster policy. It thus aims to halve the lead time for payment by Oséo of aid for competitive cluster projects. The partnership agreement and the payment of the advances upon notification will thus take place at the latest within two months of the announcement of the chosen projects by the ministers.

Furthermore, in order to increase the economic benefits of the projects and simplify procedures for companies, the agreement arranges for effective and uniform technical and financial follow-up of projects. This new working framework constitutes the basis for a stronger relationship with the regional or local authorities co-financing the R&D projects supported by the FUI. The new agreement will apply as of the 16th FUI call for projects.



COMPETITIVE CLUSTER POLICY

The competitive cluster policy is favourable for small businesses

Small businesses represent more than half of the members of the clusters and nearly 80% of the member companies. They indisputably benefit from the policy. This is the conclusion to be drawn from the second assessment of the competitive cluster policy.

Small businesses represented in increasing numbers in clusters

Small businesses contribute fully to the dynamic growth of competitive clusters. In 2011, they represented 57% of cluster members, or nearly 80% of member companies. In their report submitted to the Government in June 2012, the assessors indicate that small businesses are now well integrated in the governing bodies of the clusters. Furthermore, stronger relationships have been developed between small business and large corporations.

Increasing involvement of small businesses in cluster projects

This increasing involvement of small businesses in competitive clusters can also be seen in the calls for projects. Small businesses benefit from just over 50% of the FUI aid granted to companies. Better still, counting all financing (FUI, ANR and Oséo), they receive approximately 65% of competitive cluster project funding. In 2011, the assessors add that small businesses coordinated 45% of the projects chosen under the FUI calls for projects.

Small businesses at the heart of growth ecosystems

Competitive clusters have made considerable efforts in favour of the development of their innovation ecosystem. The positive impact of these actions for the growth of innovative small businesses belonging to clusters has also been underlined. The most significant achievements have been in the area of international development (organising of partnerships missions, cooperation agreements, etc.) and access to private financing (contact between companies and investors, risk capital funding, etc.).

For phase 3, renewed action in favour of small businesses

This action will be reinforced in the coming years. This is the objective indicated by the government in its January 9 announcement in the Council of Ministers. Stronger assistance to small businesses by competitive clusters is reasserted, in liaison with regional governments, in four main areas: access to private funding, internationalisation, accompanying of small businesses and anticipation of needs for skills.

The offer of collective and individual services proposed by clusters to their members must complement the actions implemented by other public or private players active in their territory. The clusters will specify the content of this offer in a three-year action programme appended to their next performance contract.

STATISTICAL SURVEY

Competitive clusters labelled more than 2,500 R&D projects in 2011

This is one of the results of the latest statistical survey by the DGCIS, which has just published the latest edition of the competitive cluster statistical dashboard.



This dashboard takes the form of individual tables and maps, together with a summary sheet for all clusters. **These** data relate to 2011.

A few extracts from the summary sheet:

Competitive cluster R&D projects in 2011

- The clusters labelled 2,502 R&D projects
- 1,512 small businesses are involved in these projects
- 3,902 projects are currently being implemented
 - of which 1,431 are aimed at developing a product to be marketed
 - 1,230 aim to "produce knowledge which will be applied in the development of new products"
 - 574 are intended to "produce knowledge without any direct application"
- Estimated expenditure of public authorities on R&D projects labelled by clusters: 2.82 billion euros
- The clusters have filed 576 patents related to the projects they have labelled.



PUBLICATIONS

Watch report on state aid for competitive clusters, March 2013 edition

In the news this month:

- 7 The European Commission has authorised aid in favour of La Banque Postale, in the form of public service compensation granted to guarantee access to banking for all via the Livret A.
- 7 The European Commission has authorised temporary rescue aid to the Banque PSA Finance. This aid is granted in the form of a € 1.2 billion guarantee covering this bank's market issues. The Commission's authorisation is subject to presentation in the next six months of a restructuring plan for the whole PSA group.

INTERNATIONAL

INTERNATIONAL PARTNERSHIP

The DGCIS announces 24 new international competitive cluster partnership missions in 2013

Since 2009, these missions have opened the way to nearly 240 technological or industrial partnership agreements in very precise industrial sectors and in targeted geographical regions.



These new 2013 partnership missions concern in particular health care and biotechnologies, mechanical engineering, agri-food, ICT, clean energies, the car industry, textiles and aviation.

They will essentially be conducted in North America, Asia and Latin America, including four missions in Brazil.

Since 2009, the DGCIS has been encouraging the trend towards internationalisation of competitive clusters

These missions follow the signing of the agreement between the DGIS and Ubifrance in December 2011, for the 2012-2014 period. They must meet three criteria:

- Provide inter-cluster coordination (within a sector or between sectors) for each mission proposed by the competitive clusters. The aim is to increase the visibility of the missions in the eyes of foreign clusters. It is intended to enable the delegations to reach a critical size in terms of number of players (large corporations, small businesses, intermediate-sized businesses and research laboratories).
- Meet the needs of small and intermediate-sized businesses in international technological and industrial partnerships. The delegations must include a large proportion of small and intermediate-sized businesses while at the same time benefiting from the presence of large corporations and laboratories.
- Help to implement the strategic objectives of the competitive clusters in their roadmaps.

Advanced discussions which have opened the way to approximately 240 technological or industrial partnerships

In 2012, the DGCIS financed around twenty missions which enabled assistance to approximately 300 competitive cluster members, including 170 small businesses in the automobile, agri-food, ecotechnology / clean energy, biotechnology, aviation, maritime, ICT and textile sectors. Assessment of the 2012 actions is in progress.

The encouraging results will complement the actions conducted during the 2009/2011 period, in which 72 missions were organised, allowing assistance to be provided to 877 cluster members internationally, including 495 small businesses (more than half of the participants).

Over this period, more than 243 technological or industrial partnership agreements were signed or were still being negotiated.



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ZU LANDMARKS

57%

Is the proportion of small businesses in competitive clusters in 2011 representing nearly 80% of member companies.

(Source: evaluation of the second phase of the competitive cluster policy)



CLUSTERS IN ACTION

FOCUS ON COMPLETED PROJECTS

- AGRICULTURE/AGRI-FOOD

PETAAL: a biological method to combat the sycamore lace bug

Protecting plane trees against an insect pest, the sycamore lace bug, determining biological means of combating this insect, and drawing up a precise assessment of the damage and the results of the treatment by means of an automated colour imaging system.



The PETAAL project was labelled by the Végépolys cluster. It received a subsidy as part of the 5th call for projects of the Single Interministerial Fund (FUI).

Context

The sycamore lace bug or *Corythucha ciliata* is an insect pest which feeds exclusively on plane tree leaves. It causes considerable damage in France, particularly in the south of the country. Tree managers identify it as a major plant health problem.

Copyright: Agrocampus T.

In addition to the damage caused to the leaves, which lose their colour, these insects generate other nuisances for residents: production of honeydew, invasion of terraces and homes, early defoliation, etc. At present, the means of combating this insect are essentially chemical. Effective means which are more environmentally friendly therefore needed to be found.

A strategy of biological protection against the sycamore lace bug

The PETAAL project (Protection Environnement et Technologie des Arbres d'Alignements) proposed to work out a strategy for biological protection against the sycamore lace bug. The aims were to acquire better knowledge of the effectiveness of the three biological control auxiliaries and to investigate more thoroughly the conditions under which they could be used while minimising as far as possible the impact they might have on each other and on the natural auxiliary fauna of the plane tree. The project also aimed to develop an innovative colour image analysis technique. This technique had to make it possible to obtain a quantitative analysis of the damage and evaluate the results of the biological control.

The expertise acquired on the model of the sycamore lace bug could then be used at the national and European level, or even internationally. The sycamore lace bug is currently found in Italy, Spain, Austria, southern Germany, the United States, where it originated and is frequently found in urban environments, and in Canada. It was also envisaged that the work carried out on the model of the sycamore lace bug would serve as the basis for the development of methods for combating other pest species.



Project partners

- The project leader is Koppert France SARL (small business)
- IF Tech (small business)
- Agrocampus Ouest, Centre d'Angers
- University of Angers, Laboratoire d'Ingénierie des Systèmes Automatisés (LISA) (Automated Systems Engineering Laboratory)
- Fredon PACA
- Plante & Cité

Work conducted

The programme was implemented over a period of 43 months. The work concerned first of all the development of a method to quantify the damage and nuisance levels, based on a colour image acquisition and analysis system. In parallel with this, the effectiveness and modes of use of nematodes (round worms), fungus and predators were studied, to define a strategy for biological control of sycamore lace bug populations. Lastly, a study was conducted in order to work out a sycamore lace bug control strategy combining effectiveness and appropriate implementation costs.

First technological and economic benefits

Results, products, prototypes, demonstrators and services resulting from the R&D work.

The overall strategy for combating the sycamore lace bug proposed following the PETAAL project comprises four treatments combining the following two products:

- **Tigrador**Chrysolys

 composed of chyrsopa eggs. Chyrsopa (*Chrysoperla lucasina*) are insects which feed on parasites in cardboard tubes. The tube of eggs is positioned in the infested area by hooking the loop of the tube on the branch using the patented telescopic rod. From the moment they hatch until adulthood, the chrysopa will feed on lace bugs;
- Tigranem®/Nemador® composed of entomopathogenic nematodes. These small organisms live in soil at the expense of insect larvae. They penetrate their prey, larvae or adults, via their natural orifices, thus causing their death. Mixed with water, they are sprayed on the trunk and foliage according to the period of the year.

The work highlighted the need for technical mastery of the applications and releases of auxiliaries to obtain optimum effectiveness, particularly the precise date of the applications. This requires knowledge of the biological cycle of the sycamore lace bug, strict monitoring of its spatio-temporal dynamics and application conditions favourable to the auxiliaries (climatic parameters, conditions and periods of application, etc.).

- Patents: 1
- **Publications and conferences**: 3 publications, including 2 peer-reviewed scientific publications, 4 international conferences, 1 national convention
- Jobs created: 3, including 2 fixed-term contracts

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- Brand names of marketed products resulting from the work: the tube Tigrador®/Chrysolys® and the mixture Tigranem®/Némador®
- **Perspective**: the project has been finalised. The products have been marketed since 2012. A communication plan has been set up to inform local authorities of this new solution and the scientific proof acquired via the project. This communication plan will be relaunched in 2013.



Spraying of plane tree leaves with nematodes (round worms) TIGRANEM®/NEMADOR®. Copyright: CETU Innophyt



Tube attachment with telescopic rod TIGRADOR®/CHRYSOLYS®. Copyright IF Tech

CLUSTER NEWS

■ INTERNATIONAL INTER-CLUSTER PARTNERSHIP

Textile 2020 European project: textile clusters prepare for 2013

Meeting in Lyon on the premises of the competitive cluster Techtera, the heads of the eight competitive clusters and partner European textile clusters in the Textile 2020 * programme held two days of discussions. The items on the agenda were to reflect on the international strategy, to draw up an initial assessment of the actions undertaken under the programme launched last September and to finalise their timetable for 2013.

Studying the development potential and key markets of the 800 member companies of the European "super-cluster"



The aim is to define the priority target markets and the synergies on which Textile 2020 could focus its action.

"This work shows that there are interesting trends. The health and well-being market thus appears to be common to all structures and all countries. A strong point, in a sense. The building trade and transport are also markets with high potential, even though in the former we still only have small market shares and in the latter there is a slight downward trend due to the crisis in the car industry in certain countries such as France.



These markets offer potential for future cooperation between countries and business for companies", observed Bill Greenhalgh, a researcher at the Enterprise Centre of the University of Manchester Business School, who directed this work.

Taking stock of the skills, actions and footholds of each cluster internationally

The aim is to work out common proposals for watch and market access, events, network participation and partnerships, promotion of activities, participation in international conferences, etc.

Timetable for action in 2013

Two major events in the first half of the year: an event organised under the Textile 2020 banner at the next Techtextil technical textile exhibition in Frankfurt (11-13 June) and a mission in Brazil in April with the aim of meeting Brazilian professional textile organisations and the local economic players in order to prepare for a corporate mission in which the members of Textile 2020 will participate.

* Financed by the European Union, **Textile 2020 brings together 8 competitive clusters and European textile clusters**: Clutex (Czech Republic), Inntex (Germany), NWTexnet (United Kingdom), Po.in.tex (Italy), AEI textils and Fomentex (Spain) and UP-Tex and Techtera (France).

Objective: to develop **new markets and technological partnerships in five target countries outside Europe:** Japan, South Korea, Canada, Brazil and Tunisia.

The project leader is NFID (Nord France Innovation Développement/France/Nord-Pas-de-Calais).

■ PRIVATE FINANCING

4.4 million euros raised for 9 members of the Nutrition Santé Longévité cluster

The NSL cluster has taken part in the organising of special meetings between its members and "business angels". These meetings usefully complement the regional financing system which proposes customised solutions in the area of capital investment.



The Nutrition Santé Longévité (NSL) competitive cluster, in liaison with the Clubster Santé business cluster and the Eurasanté economic interest group, offers its members the opportunity to take part in meetings between entrepreneurs and "business angels".

Organised since 2009, these meetings are intended for companies who have innovative projects and financing needs. They enable companies to benefit from fund raising via investments from individuals.

"Business angels" offer genuine support to companies and can also place their expertise at companies' disposal, allowing them to benefit from their experience, professional networks and availability.

Within this framework, the cluster has already assisted nine of its members, allowing them to raise nearly 4.4 million euros.



As an example, the following three organisations participated in these meetings and were thus able to benefit from equity contributions:

- Purifunction, a platform for extraction and purification of natural products for nutrition and health purposes,
- Innobiochips, a company specialising in multiplex biological analysis,
- Alzprotect, a company specialising in the development of proprietary therapeutic molecules targeting Alzheimer's disease.

These meetings complement the regional capital investment system which already boasts a wealth of operators such as Finorpa, Nord France Amorçage, the Regional Development Institute, Autonomie et Solidarité, etc. Often specialised by sector of activity and degree of maturity of the company, these organisations offers several "customised" solutions: seed capital, risk capital and development capital.

SKILL MANAGEMENT

Improvement of skills in the equine sector: the Hippolia cluster's hobby-horse

Since its creation, the Hippolia cluster has been active in supporting the development of skills in the equine sector. In 2013, it helped to set up "Equi-learning", an offer of online training in English totally dedicated to this sector.



In 2006, the cluster contributed to the setting up of Equi-ressources, a national agency for employment and training in the sector. In 2008, it took part in the creation of the master's degree in equine science and management.

In March 2013, it participated in the launching of "Equi-Learning". This is a new teaching solution dedicated to equine sector professionals created by the University of Caen Basse-Normandie in collaboration with the cluster.

This sector of activity is becoming increasingly internationally-oriented. Hence the idea of meeting a real need among professionals to master the specific and very extensive terminology of horse-riding in English.

This short training is provided online. It thus enables the players concerned to manage their learning time and free themselves from the time and place constraints frequently encountered in training. Backed by the expertise of the

University of Caen Multimedia Centre (CEMU), it offers wide-ranging and interactive content. Above all, it benefits from the pedagogical support of an English teacher specialising in the equine sector.

"Equi-Learning" reflects the Hippolia cluster's desire to supply its members with the necessary services and tools to allow them to develop their activity, particularly on international markets, and thus strengthen their competitiveness in the face of foreign competition.



Hippolia cluster : Aurore Foursin



INTER-CLUSTER COLLABORATION

Ecodires: the competitive cluster collaborative innovation training programme

Three competitive clusters dedicated to ecotechnologies wish to reinforce their role as a catalyst for innovation. With their university partners, they are creating a training programme to learn how to work together to undertake joint operations in the innovation field.



The three competitive clusters Alsace-Energivie, Fibres and Hydreos are creating Ecodires: the collaborative school for responsible development and innovation. The school offers a programme of training courses adapted to the specific needs of clusters, which constitute veritable innovation ecosystems.

This programme is designed in partnership with the Centre Européen de Recherche en Economie Financière et Gestion des Entreprises (CEREFIGE) and the Universities of Strasbourg and Lorraine.

Assisting companies to help them to work together is the mission which the three clusters have assigned to themselves. Ecodires aims to set up an innovative methodology to lift constraints on collaborative innovation through action training, seminars and a Spring University.

These training sessions will initially be intended for members of the three competitive clusters, for the purposes of their collaborative innovation projects, whether they belong to the corporate, research or regional development world. This training will subsequently be made available to all French competitive clusters.

The Ecodires project runs over 18 months and comprises several milestones

To begin with, a survey (conducted from November to April) will identify the training needs of the parties involved in the innovation ecosystem. This information will then be used for the setting up of the pedagogical model which will be produced by a group of identified experts on the theme. Delivery is scheduled for the autumn of 2013.

The rest of the project will involve an initial test to judge the effectiveness and appropriateness of the training and the setting up of the Spring University in April 2014. The final objective is to launch an operational training cycle in September 2014.

With approximately 300 member companies in the three clusters, these clusters have a vast pool of expertise at their disposal, together with a large number of players who have already expressed needs which the project aims to answer.

Ecodires is fuelled by the conclusions of the CIM-ECO action training programme dedicated to assisting companies in eco-design. Led by the Fibres cluster from 2009 to 2011, CIM-ECO carried out this work with 33 small and medium-sized industrial firms. The conclusions of the CIM-ECO operation indicate that it is now essential for businesses to open up both to other industrial sectors and to new skills, new professions, new operating models, the implications of social responsibility, etc.

Thus 58% of the companies questioned who had followed the CIM-ECO training indicated that they had improved their relationship with their customers and 42% with their suppliers; 33% work according to the principles of open innovation (collaboration of the company with other players: other companies, research centres, customers, suppliers, etc.) and 42% consider that they have developed a new profession or a new skill in their activity.



The project is supported by the Ministry of Ecology, Sustainable Development and Energy, as part of the call for projects entitled "Assistance for notable competitive cluster initiatives in the sustainable development field", launched in 2012.

The project leaders are also launching a call for expressions of interest to all competitive clusters wishing to get involved in this mission, both from an operational point of view (participation in working groups for the definition of the training programme) and via various forms of support (communication, corporate patronage, etc.).



- Charline Masson, coordinator of the Ecodires project
- Consult the archives [http://www.competitivite.gouv.fr/spip.php?article116&lang=fr]
- Sign up [http://competitivite.gouv.fr/]

Legal mentions

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