



**THE OMNI-NET PROJECT NEWSLETTER**

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## WELCOME NOTE

### Welcome to the first OMNI-NET newsletter!

Opto-, micro and nanotechnologies belong to the key technologies of the 21st century. Grasping the new potential, companies, research institutions, universities, and public institutions all around the world have teamed up in clusters in order to meet the enormous challenges of the globalized economy.

Some of the leading European clusters joined the European project OMNI-NET, not only to exchange experiences but also to improve the conditions for cluster collaborations.

The overarching goal of the OMNI-NET project is to provide EU national and regional stakeholders with analyses, methodologies, best practices, joint projects and policy re-commendations to facilitate the necessary evolution of clusters in transverse and convergent technologies.

This newsletter will provide an opportunity to inform our cluster members and regional partners about the ongoing project activities, to highlight concrete results and to give more detailed information on the involved partners and their technological competencies.

We wish you a fruitful and pleasant reading experience!

### The OMNI-NET project partners

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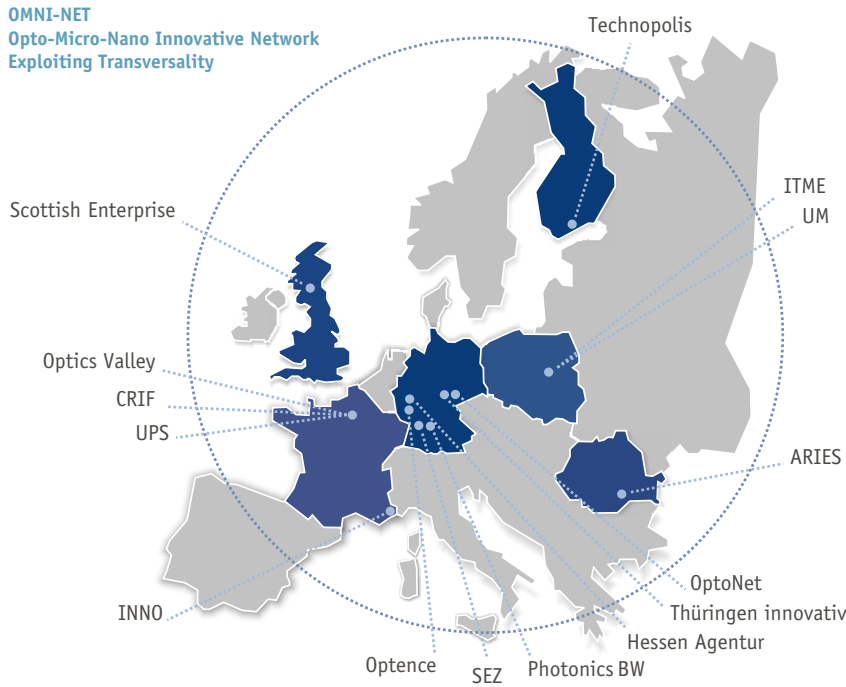
The project is co-financed by the European Commission in the context of the 6th framework programme - Entrepreneurial innovation - Networking the players.

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OPTO  
MICRO  
NANO  
INNOVATIVE  
NETWORK  
EXPLOITING  
TRANSVERSALITY

**PARTNERS**

15



**PARTICIPANT ORGANISATION NAME**

**COUNTRY**

Optics Valley	FRANCE
Conseil Régional Ile-de-France (CRIF)	FRANCE
University of Paris XI (UPS)	FRANCE
INNO TSD	FRANCE
Optence e.V.	GERMANY
Hessen Agentur GmbH	GERMANY
OptoNet e.V.	GERMANY
Thüringen Innovativ	GERMANY
Photonics BW e.V.	GERMANY
Steinbeis-Europa Zentrum (SEZ)	GERMANY
Scottish Enterprise - Microelectronics and Optoelectronics Cluster	UNITED KINGDOM
Technopolis Ventures Ltd. Finnish microelectronics cluster	FINLAND
Romanian Association for Electronic and Software Industry (ARIES)	ROMANIA
Urząd Marszałkowski, Mazovia regional authority (UM)	POLAND
Polish Optoelectronics Consortium (ITME)	POLAND

## PROJECT LIFE

### MEETING IN PARIS | 30-31 JANUARY 2006

The first project meeting from 30th to 31st January 2006 was the occasion to introduce the 15 partners, and to give them an overview of the project.

Nadia Babaali, the project leader (Optics Valley) and Franck LeGall, the administrative manager (INNO) gave the partners information about the project management rules and the administrative and financial procedures.

The second day consisted in presenting the roles and responsibilities of the partners by workpackage. Furthermore, working sessions were organised on more thematic subjects, such as cluster analysis and communication issues.

### FIRST PROJECT CONFERENCE IN HELSINKI 12-14 JUNE 2006

The second project meeting allowed the project partners to discuss the different workpackages and methodologies to work on deliverables.

Some partners already presented their work: the SWOT analysis of clusters, the exchange with the PAXIS workshop and the beginning of cluster benchmarking.

The participants also discussed the project's dissemination plan and communication issues.

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The next project conference will be held in Jena, on the 11th and 12th of december 2006.

## KICK OFF



KICK-OFF IN PARIS



HELSINKI

## PROJECT RESULTS

### FIRST PROJECT RESULTS

The project is divided into 5 main workpackages (WP):

- analysis of clusters and regional economic systems
- exchange of knowledge and best practice
- identifying future joint project and strategies
- methodology
- dissemination and exploitation of the results

During the first nine months of the project, the partners have mainly worked on the first two workpackages.

The **mapping of 6 partners clusters' technologies and players** showed that although there are differences in their scope, all 6 mature clusters identified have overlapping value chains, industries and technologies.

A **SWOT** (Strengths, Weaknesses, Opportunities and Threats) analysis was developed, in order to understand the environment and the conditions in which the clusters perform their activities. This is a key step before going further on the exchange of best practices and identifying joint projects and strategies.

The partners then worked on different **indicators used by the cluster organizations to measure the efficiency of their support actions** to the local industries.

The differences - concerning mainly the use of quantitative indicators in the measurement of cluster organization's activity - can mainly be explained by the difference in size (in term of employees) of the various cluster organizations. Also, all cluster organizations do not have exactly the same goal and activity, thus, each cluster organization will develop its own set of indicators according to its mission.

At the same time, the partners have worked on the **methodology** for the setting up and management of clusters operating in pervasive technologies, taking into account specificities of OMN. A questionnaire and a guide have been prepared for cluster analysis. This questionnaire will also be used to survey external clusters before the end of the year. The results of this enlarged survey and the visit of external clusters will be useful to identify joint projects and strategies between European OMN clusters.

## SPOT ON...

### TECHNOPOLIS, FINLAND

FMNT is a Finnish co-operation network uniting the companies and organisations that benefit from Micro and Nanotechnologies and Adaptive/New Materials. It is a national cluster that enhances knowledge of the international market, exchange of know-how and the emergence of partnerships.

#### Main Objectivities of the FMNT are:

To strengthen application oriented approach through gathering Finnish Micro- and Nanotechnology users and suppliers into one network.

To promote creation of new multifunctional intelligent products and processes by linking various Micro- and Nanotechnologies.

To enhance business information about international Micro- and Nanotechnology markets and actors through networking and studies

To act as a Finnish lobby platform for Micro- and Nanotechnology companies, research units and education.

To move from technology-push to application-pull.

To accelerate business generation through multifunctional intelligent products and processes by making Micro- and Nanotechnologies and applications well-known.

#### FMNT activities include:

- Joint activities, Trade Fairs and exhibitions
- Networking visits and benchmarking Micro- and Nanotechnology business information
- Seminars and workshops
- Forum for cross-technological competence information
- Information on opportunities to use Micro- and Nanotechnology and new materials in products and processes
- Establish projects with FMNT-members.
- Promoting Finnish Micro- and Nanotechnologies in Europe
- Memberships in international Micro- and Nanotechnology networks
- Co-operation with other Micro- and Nanotechnology centres and areas in Europe

## FMNT



#### Members

Companies:	154
Research institutes and universities	11
Other organisations	4

#### Main competencies of member companies and institutes

Micro Electronics, Thin Films and Coatings, Micro&Nano Fluidics, Nanomaterials, MEMS, Micro Mechanics, Micro&Nano Fotonics, Micro&Nano Fotonics (Surface Modifications, Diffractive Optics, Optical Systems, Lasers)

## CONTACT

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## INTERVIEW

**Mrs Plunket, the OMNI-NET project analyses existing cluster structures in European Optical Technologies.**

**You have visited and interviewed the 6 mature cluster organisations in their respective regions in Germany, Finland, Scotland and France. What were your most significant impressions?**

These regions are among the Top 10 in Europe for the High technology sectors. In fact, they have the highest European shares for employment and patenting. Most of these regions have similar structures composed by large firms such as Thales, EADS, Carl Zeiss, Bosch, Trumpf that drive the local industry and a lot of medium small enterprises that are very dynamic and innovative.

These regions are leaders in Europe and the ICT crisis of the recent years have not reduced this leadership; all of them have solid technological and economic roots. Although they have experienced restructuring and closing down of the least competitive companies, they have remained leaders through their capacity to leave low value activities and invest and develop high value added activities in order to limit the East Asian competition.

**Clusters cannot be “created”; they can only be activated. In your opinion, what are the crucial prerequisites for cluster formation?**

The strength of regional clusters comes from the interrelations between three levels, usually called the Triple Helix: Industry, Academia and State or local public institutions.

Industry is constituted by large firms or SMEs, they are the economic force through their production, employment and innovation capacity. But their strength is also linked to academia that has a double role:

They offer education and produce scientists and engineers needed for the local labour market and they produce knowledge through their research centres. Firms and academia are complementary and they drive innovation through research and development activities.

Finally, the State may play a role in financing the activation of these relations and favouring the development of new and risky activities.

ANNE  
PLUNKET



“The success of a cluster is determined by its capacity to remain competitive and to adapt to environmental and economic changes”

## INTERVIEW

### **Isn't it astonishing, that regions are so significant in the era of globalisation?**

I do not think it is. In order to be competitive in a world where globalisation increases rapidly, large firms and SMEs need to be strongly rooted in regions that offer qualified employment, top level research in order to assure the ongoing competitive innovation and production.

### **In comparing individual network structures, what are the major differences?**

The major differences come from the scope of their missions and this is very much linked to the way they are financed and their links to local authorities. Scotland and Paris regions are probably the extreme cases in the sense that their activity is open to all the companies that are located in the region as long as there are in the domains of optics, electronics and related software engineering. The German clusters have a narrower scope in the sense that their activities are essentially oriented towards their paying members. For the rest, they have very similar activities.

### **How can the government support clusters? In how far do national authorities fund network formations?**

Government may support clusters in various ways. First, I think cluster organisations are needed in order to overcome possible market failures by facilitating the diffusion of knowledge and information, and by devoting time and energy to convince people to meet together on a regular basis and collaborate on innovative projects. National and local authorities fund network formations essentially through these "cluster organisations" and through the support of innovative but risky projects. The support to costly infrastructures that may be used and shared by firms and research centres are essential initiatives that offer opportunities that could not otherwise be realised. And as such, they are fundamental support to local innovation and production.

**"A 'meta-cluster' could emerge. This is essential if Europe wants to remain in the world competition"**

## INTERVIEW

### One main task of a network is to create a platform for communication. Did you find out any differences in the individual communication practices?

Although some particular practices may differ from one cluster organisation to another, individual communication practices are very similar. They devote the essential of their time and energy to business development events for firms, information gathering and diffusion, networking and knowledge and technology transfers.

### What determines the success of a cluster?

The success of a cluster is determined by its capacity to remain competitive and to adapt to environmental and economic changes. The fact that the 6 mature clusters have remained leaders despite the ICT crisis is an example of this capacity. These clusters are based on efficient triple helix structures that create tight and essential links between local actors.

### Mrs Plunket, can you give us an outlook: What impact will the OMNI-NET project have?

The strengths described until now may spread out of the regional boundaries and spill over to the other partner regions. The idea of the project is mainly to share best practices among the partners and to offer the opportunity for companies and research labs to collaborate on new projects and benefit from the other regions innovative and productive capacities. A meta-cluster could emerge through these links based on complementarities or further specialisation. This is essential if Europe wants to remain in the world competition which has become stronger in the recent years.

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The next newsletter will be launched in January 2007.

### ANNE PLUNKET

Associate Professor/ Maitre de Conférences at the University Paris Sud 11.

She is an active researcher of the ADIS research centre, specialised in innovation studies, regional economics, and has acknowledged expertise in the industries of electricity, ICT and biotechnology.

She has been working for 10 years in the domains of Innovation and Science Based Industries analysing strategic firm behaviours such as R&D collaborations and cluster activities.

Her most recent work is related to Cluster analyses; she has recently realised an in-depth study of the biotechnology cluster in the Paris Region

#### SEE FURTHER

[www.adislab.net](http://www.adislab.net)