

# Clusters and Initiatives on Bioeconomy and Green Chemicals

## Workshop

*Cross-sectorial and cross-border  
cooperation of clusters in support of  
green chemicals industries*

**27 February 2014, 9:00-16:30**

**ECRN Secretariat**

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EUROPEAN CHEMICAL  
REGIONS NETWORK

## Green Chemicals Cluster Hotspots in Europe

### Chemie-Cluster Bayern

Chemie-Cluster Bayern is a market-oriented project development network consisting of companies and research institutions in the Bavarian chemical industry and its international partners. As part of the Bavarian State Government's cluster initiative, Chemie-Cluster Bayern promotes product and process innovations for new, usually international markets. The cluster provides management of cross-industry alliances, co-ordinates fundraising, takes over progress monitoring and provides project-related transfer services when required.

The cluster helps the Bavarian chemical industry respond to global challenges with ready-to-market solutions in the new materials sector, as well as applications and processes are developed within a network of large and small companies, universities and research institutes. Young companies and start-ups are also integrated into the activities. Chemie-Cluster Bayern relies on close co-operation with regional networks and strategic alliances with international chemical sites in Europe, Asia and the US strengthen the cluster members' global competitiveness. The cluster's goal is to form networks to promote co-operation projects, innovations and knowledge transfer.

Presented at the workshop by: **Daniel A. Gottschald, Chemie-Cluster Bayern**

Website: [www.chemiecluster-bayern.de](http://www.chemiecluster-bayern.de)

### Chemelot

Chemelot is a unique chemical and materials community that ensures accelerated business growth through the open exchange of ideas. The central idea is to pool knowledge and skills from different organizations, and to apply these within a flexible community of small and large businesses, radically changing the view of the chemical industry. Chemelot is more than just an industrial park. The companies in the Chemelot are creating the most successful and innovative chemical and materials community in the Netherlands. This happens in an environment which allows like-minded companies of any age and size to benefit from shared knowledge, short distances, excellent facilities and open innovation to accelerate the development of new products and applications.

Many different types of companies and industries are based at Chemelot, ranging from base chemicals to fine chemicals, companies producing raw materials to companies developing new products and start-ups to multinationals. However, they all have one thing in common: they are part of the Chemelot community. They are open to the idea of continuous innovation in technology, products, applications, production processes, business models, organization forms and so on in cooperation with, and with the help of, other companies.

Presented at the workshop by: **Frank Schaap, Chemelot**

Website: <http://www.chemelot.nl>

### BioEconomy Cluster e.V.

The BioEconomy cluster in Central Germany focuses on the integrated material and energetic utilisation of non-food biomass to generate materials, chemicals, products made from new materials, and energy sources. The vision of the cluster is to achieve a world-class implementation of bioeconomy in the scale of an entire region. With this objective in mind, the cluster seeks to advance the economic development in the region in the context of the bioeconomy and to create new growth.

The cluster combines the expertise of over 60 research and industry partners and enables collaboration between large and small companies, research institutions and other organizations that pool their research and development capabilities and take advantage of synergies in the field of bioeconomy. In practice, this involves close cooperation across sectors such as chemical and plastics industry, forestry, wood processing, agriculture, and bioenergy in a new way. This broad cross-sectorial collaboration ensures that the entire innovation and value chain across industries is covered. The BioEconomy cluster strengthens existing businesses and creates the basis for the creation of new businesses. Goal of cluster activities is to strengthen the competitive position of the region of Central Germany in a sustainable manner.

Presented at the workshop by: **Horst Mosler, BioEconomy e.V.**

Website: <http://www.bioeconomy.de/>

### **Nano Regions Alliance – NANORA**

NANORA provides facilitated market entrance for nano technology SMEs through a transnational linking of regional support schemes, the development of new, transnational support structures and competence pools. Through the NANORA project, key actors from seven regions, Hessen (DE), Saarland (DE), Nord-Pas de Calais (FR), Ireland (IE), Wallonia (BE), the Netherlands (NL), and Lancaster (UK), have joined forces to develop a coordinated effort to support the economy of nanotechnology at a transnational level. All regions participating in NANORA have specific strengths and expertise on very different fields of nanotechnology. The development of Europe as a nanotechnology hub can only be achieved through the intensive cooperation of Europe's major nanotechnology players.

NANORA fosters cross-sector innovation by establishing and implementing a transnational support framework for nanotechnology. Nanotechnology is cross-sectoral by nature. It spans various disciplines and combines several research methods that aim to influence properties and structures at the molecular level. This produces completely new functions that can be used and applied in a wide and diverse range of industries and fields with applications in areas like electronics, materials, energy efficiency, surface coating, medicine etc.

Presented at the workshop by: **Sebastian Hummel, Ministry of Economics, Transport, Urban and Regional Development, State of Hessen**

Website: [www.nanora.eu](http://www.nanora.eu)

### **Lombardy Green Chemistry Cluster**

The mission of the Green Chemistry Cluster in Lombardy is to create the most favourable conditions for the development of the bio-economy in the region. The cluster is founded by Innovhub-SSI (Innovation Agency of the Chamber of Commerce of Milan), Italbiotec (Industrial Biotechnology Consortium), and the Polytechnic and University of Milan. As a new initiative, the governance and operations of the cluster are defined in close cooperation with Regione Lombardia. Key tasks of the cluster are to foster collaboration along value chains and to facilitate the dialogue between the regional authorities and the stakeholders in the territory, as well as linking the regional bioeconomy and foreign partners.

Furthermore, the Green Chemistry Cluster promotes regional policies in the field of green chemistry and supports alignment of regional needs, European programmes, and the strategies of the national green chemistry cluster in Italy. The goal is to engage and involve the most important organizations in the field of green chemistry, with special attention to applications in the field of agroenergy, biofuel, and green biotech. Services that support research, technology transfer and the promotion of innovation and information, will be at the forefront of the implementation of the cluster strategic plan, together with technical and operational services supporting access to funds, aimed at strengthening the synergies with well-established European and international networks.

Presented at the workshop by: **Daniele Colombo, Camera di Commercio di Milano, Lombardy Region**

Website: [www.chimicaverdelombardia.it](http://www.chimicaverdelombardia.it)

### **Polymer Innovation Cluster, Plastipolis**

Established in 2005, Plastipolis is responsible for developing the plastics cluster in Rhône-Alpes and Franche-Comté. To date PLASTIPOLIS has over 300 members, including 200 companies (90% of which are SMEs), 50 centers of R&D and Training, 30 institutions, and 20 public authorities. The cluster is now entering a new phase of development for the period 2013-2015 with a new road and new ambitions, hoping to engage its members in dynamic efforts that will allow the industry to address key future challenges and cope with economic, ecological, and societal changes.

Plastipolis covers numerous areas of activity, ranging from technologies and markets to competences and skills, or international development and partnerships, as well as financing, investment and industrialisation. Key mission of the cluster is to facilitate SMEs' access to innovation, go towards more value-added, and tap market opportunities for eco-materials and eco-technologies. Plastipolis aims to extend the national dimension of the pole aspire to a European and global basis. Plastipolis cooperates with clusters of materials, mechanical and plastics at European and international level.

Presented at the workshop by: **Patrick Vuillermoz, Plastipolis**

Website: <http://www.plastipolis.fr>

**Industry and Agro Resource Cluster**

The IAR Cluster in the Champagne-Ardenne and Picardy regions of France unites stakeholders from Research, Education, Industry and Agriculture around a shared goal: optimize the added value of the exploitation of the biomass. The cluster has regional roots, but a global mission by integrating external know-how through an opening to other territories within a national and international strategic alliance. IAR Cluster develops industrial innovations for agro-resources through collaborative projects that unite manufacturers, public research, training and the agricultural world. The cluster has over 200 members representing actors throughout the value chain.

With its global orientation, the IAR Cluster generates collaborations between its members and foreign partners. To respond to future challenges, the IAR Cluster promotes plant innovation in designing the biobased materials and products of tomorrow which are needed to manufacture everyday goods. The IAR Cluster thus helps to open up new markets for products created from biomass. Four strategic focus areas/target markets structure IAR Cluster's activities: Agro-materials, Biomolecules, Bioenergy, and Ingredients. IAR Cluster's actions are motivated by a respect for sustainable development and objective evaluation throughout the ecological, social and economic impact chain.

Presented at the workshop by: **Christophe Luguel, IAR**

Website: <http://www.iar-pole.com>

### **Biobased Delta Cluster**

Biobased Delta is the collaboration of businesses, authorities and knowledge institutes in the Southwest Netherlands. Under the slogan 'Agro meets Chemistry' the Biobased Delta is working on up-grading agro-residuals in bio-based innovations. The Southwest region of the Netherlands is a front-runner in the field biobased economy. Entrepreneurs in Zeeland and Brabant are examining the possibilities of green raw materials, such as regionally cultivated crops that could be used as the basis of specialty chemicals. With a large agro and chemical sector, advantageous geographical location (Antwerp-Rotterdam axis), deep sea ports and collaboration between multinationals, SMEs, knowledge institutes and government agencies, the region is entrepreneurial, distinctive and application-oriented.

Biobased Delta is characterised in particular by its work across borders in several respects (in Flanders and the Netherlands), concrete project initiatives, and strong connections between the agricultural (and aquatic) and the chemical industry. The overall ambition of Biobased Delta is to place greater emphasis on the processing of biomass into green raw materials, increase investments on biobased innovations, and create new jobs in the field and spark new business activity in the biobased sector. This comprises activities on themes like "green raw materials", "green building blocks for the chemical industry", and "greenification of the process industry and closing the chain".

Presented at the workshop by: **Ger Spork, Biobased Delta**

Website: <http://www.biobaseddelta.nl/>

## EU and Industry Initiatives in Support of Clusters in the Field of Bio-Economy

### The Biobased Industries Consortium

The Bio-based Industries Consortium (BIC) and the European Commission collaborate on a Public-Private Partnership (PPP) on a Joint Technology Initiative (JTI) on the Bio-based Industries. The PPP is an instrument to support industrial research and innovation, to overcome the innovation 'valley of death', the path from research to the marketplace. It encourages partnership with the private sector to fund and bring together the resources needed to address the challenges involved in commercialising major society-changing new technologies.

The industry is organised in a Bio-based Industries Consortium. The Consortium currently brings together more than 60 European large and small companies, clusters and organisations across technology, industry, agriculture and forestry. They have all committed to invest in collaborative research, development and demonstration of bio-based technologies within the PPP.

Presented at the workshop by: **Dirk Carrez, Executive Director of the Biobased Industries Consortium**

Website: <http://biconsortium.eu/>

### CEFIC & SusChem

Cefic is the forum and the voice of the chemical industry in Europe, representing over 29 000 chemical companies in Europe (20% of world chemical production). Cefic places high priority on innovation, which is an essential element in sustaining the competitiveness of the European chemical industry. The European chemical industry depends on its value chain partners (both upstream and downstream) and they need to be involved in the development of chemical industry innovations to ensure their success and improve competitiveness.

SusChem is the European Technology Platform (ETP) for Sustainable Chemistry. It was created in 2004 as a joint initiative between Cefic, DECHEMA, EuropaBio, GDCh, ESAB and RSC to revitalise and inspire European chemistry and industrial biotechnology research, development and innovation in a sustainable way. ETPs are industry-led stakeholder organizations, supported by both private and public funding, that develop long-term research and innovation agendas for action at European and national level. SusChem addresses challenges that are specific to Research and Innovation in the European chemical industry and in the industrial biotechnology industries. It favours a value-chain vision, in full coordination with other industries and ETPs and in connection to the societal challenges expressed in the Innovation Union and in Horizon2020.

Presented at the workshop by: **Gernot Klotz, Executive Director for Research and Innovation, CEFIC**

Websites: <http://www.suschem.org/>

<http://www.cefic.org>

*Do you think your cluster/initiative should be mentioned on this list?*

Please contact the ECRN Secretariat: [ecrn@ecrn.net](mailto:ecrn@ecrn.net)