ECRN - NEWS

European Chemical Regions Network

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ChemClust - Improving Innovation Capacity in Chemical Clusters

On the 25th and 26th February 2010 ChemClust stepped into real life.

The kick-off meeting and a first training seminar organised at the Bavarian Representation in Brussels with all partner regions gave the start to the ambitious project. During the next 3 years the 10 partners from all over Europe will discuss topics with relevance for regions being highly affected by the chemical industry.

The ChemClust project is an initiative of the European Chemical Regions Network (ECRN) established as a result of an INTERREG IIIC project. ChemClust's objective is to improve the effectiveness of regional development policies in the area of innovation and cluster policies for the chemical sector by interregional cooperation and exchange of best practice.

In this context the project intends to initiate mutual learning between regions with more and less experience to improve the capacity and the knowledge of regional stakeholders and the efficacy of the regional innovation system. ChemClust also seeks to contribute to the transition of regions from traditional industries (bulk chemicals) towards new businesses (new materials, biotechnology etc). With these activities the ChemClust project indirectly aims to support entrepreneurship and the development of new businesses in the chemical sector, with a particular focus on new products and processes which are highly knowledge-based and innovative.

The project's expected results include achieving a new quality of cooperation between "chemical regions". This entails an in-depth exchange and transfer of experience and of best practices related to regional policies on cluster development and innovation promotion, as well as on a deeper cooperation of chemical clusters. ChemClust aims at the development of an innovation-friendly regulatory environment in chemical clusters; in this context, also policy recommendations at European and regional levels will be issued. The final project output is improved efficiency of regionally-based R&D.

All ECRN members will of course benefit from these results and are invited to visit the several open measures within the frame of the project.

Duration: 01/2010 – 12/2012;

Total budget: € 1,762,400.00;

ERDF contribution: € 1,231,950.00;

Partnership: Ministry of Economy and Labour of Saxony-Anhalt (DE) (Lead Partner); Ministry of Economy, Medium-sized Businesses and Energy, North Rhine-Westphalia (DE); Regional Development Agency of Asturias (ES); Mazowieckie Voivodeship (PL); Ústí Region (CZ); Cheshire West and Chester (UK); Province of Novara (IT); Province of Limburg (NL); Tees Valley Joint Strategy Unit (UK); Development Company Brunsbuettel (DE).

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Inside this issue:

Chemicals industry needs backing by the public - efforts in North Rhine-Westphalia

The chemicals industry does not cause but solves the troubles in major political fields, as the High Level Group stated. Therefore it must continuously work for public acceptance – best by becoming more visible.

This seems easier to be declared than to be realized, especially when accidents in chemical plants happen or when a pipeline project between two chemical parks causes resistance amongst the population. Both has happened in Europe's largest chemical region of North Rhine-Westphalia. A series of some accidents in 2008/09 – after many years of no accidents – suddenly fuelled discussions about the safety of the chemicals industry. Debates became very political as political parties initiated a discussion about the safety of a planned CO pipeline between the chemical parks of Dormagen und Krefeld. Suddenly the chemicals industry had become very visible – but again, after years of campaigns and declining numbers of working accidents, as a troublemaker.

In this situation the government of North Rhine-Westphalia invited the employers' associations, trade unions and major players in industry to discuss measures for a better acceptance of the industry in general since also other industrial projects were emotionally debated like new coal-fired power plants etc. Already the initial meeting made clear that acceptance needs many players and that all actions should fit under one umbrella. More important: acceptance needs confidence. All measures must be backed by reality. No one would believe in the safety of a player, to give an example, while the same player cuts the safety budget in the company. Form and content must fit together. A pure media campaign would not change any person's mind.

All partners discussed the issue at a congress in Düsseldorf in June 2009 and formed an "Alliance for Industry and Sustainability in North Rhine-Westphalia". Following that first congress, local alliances are going to be built aiming to discuss the matter with local administrations, local companies, local trade unions, population and local environmental organizations. The first of these local alliances have already started to work. A professional office in the Ministry for Economic Affairs attends and analyzes the local activities and helps to exchange experiences and good examples.

Although it is much too early for final reviews it is obvious that communication has to be improved between industry, politics and the population. Companies which work with dangerous materials like in the chemicals industry are used (at least since the 1960's) to communicate openly and inform society about their activities. By today, general public acceptance around the chemical parks for instance could be reached. In this respect the chemicals industry can help other branches to learn. And still: Public awareness and public opinion continuously change, too. People want to know what happens at their front-door. They want to know the risks, how they are under control and what their benefits (material and immaterial) are. Just to state how many workplaces are created or "not threatened" will no longer do. That means: From the first planning processes onwards communication has to be done. That also means: Communications units in the companies have to rethink their work as well as planning units in public administration. That also means: NGO's thus being early enough involved in projects and planning have to rethink ritualized forms of communication. Participation also implicits responsibility.

Conclusion: North Rhine-Westphalia is one of Europe's industrial heartlands. Problems in acceptance are in so far a challenge for Europe's industry. In so far it is also a matter for Europe's chemical regions and the ECRN. Public administrations and industry have to work together. We offer to report about our experiences in the next ECRN meetings and reflect about them with similar experiences in other ECRN regions.

Dirk Meyer

Head of Unit Chemical Industry and Polymers, Electrical industry

Ministry of Economic Affairs and Energy of the State of North Rhine-Westphalia

Bavaria & Rhône-Alpes: Teaming up for Chemical Innovation

Chemie-Cluster Bayern and the cluster Axelera of Rhône-Alpes push internationalisation to the next level by realizing a staff exchange.

Since October 2009 the two cluster organisations with strong competencies in "green chemistry" conduct various cooperative actions in the framework of a bilateral project. Supported by the German Ministry of Research (BMBF) the 10-months project "Baxel" serves as an example for successful "inter-clustering" beyond regional and national borders.

The intense cooperation profits from the benefits of a real hand-in-hand collaboration during a 3-months-staff exchange: From January until April this year the Bavarian project leader was sent to Lyon's team of the French excellence cluster Axelera. The teamwork on the spot takes equal partnership, mutual commitment and common actions to a next level: the Bavarian-Rhône-Alpes connection becomes a perfect incubator catalysing the immediate set-up of joint projects and future actions.

Axelera and Chemie-Cluster Bayern are a perfect match: Chemie-Cluster Bayern combines the special know-how of its companies and research institutions to create product systems (e.g. intelligent coatings etc.) for new market segments such as the health sector, environmental protection and electronic mobility by promoting its strategy of „Chemical Assisted Living". Axelera has positioned itself as the only "excellence cluster with global scope" to "compound" chemistry and environment in France. The challenges taken up by both clusters include i.e. increasing the use of renewable raw materials, developing clean energy-efficient production processes and innovative recycling solutions for all materials. The two clusters dispose of the necessary economic strength and competitiveness to meet these aims, as both represent core zones of chemical production and research in Europe and have formed a competitive and fast growing network of highlight research institutions, universities and companies. In order to remain competitive the chemical industry focuses on innovation and internationalisation. The tight cooperation of Bavaria and Rhône-Alpes is set up in this context and aims at creating true added value for members of both clusters:

The intense collaboration in Lyon has given deep insights for both partners. Best practices in the fields of network animation, managing methods, successful partnering and the set-up of scientific conferences are detected and exchanged pushing forward the development of the two networks. Moreover both benchmark their internal performances in terms of market driven R&D as well as the successful marketing of chemical innovations.

Axelera-Team with the Bavarian visiting partner in Lyon

Secondly, the cross-border cooperation aims at mutual promotion and joint communication activities: Various publications resume the realisations and experiences made during the project. Cluster members are kept informed about the activities of the partner cluster on a regular basis. Thanks to the deep insight the two partners are able to elaborate a joint inter-cluster strategy: "Chemical Assisted Living" could be shouldered by a close international alliance. On the one hand it will enhance the perception of the importance and the potential of the chemical industry at customer level, on the other hand it will help to position the two partner clusters as experts in the development of innovative and sustainable production processes, products and systems at the interface of important fields of social concern (health, environment, construction and mobility).

Furthermore Baxel has already led to a push forward for the internationalisation of its cluster members: ten requests of both commercial and R&D nature have been submitted by cluster adherents and are currently being treated.

In order to fortify exchange between academic research and industry a Bavarian-Rhône-Alpes student programme including internships is being built up, as well as joint R&D projects favouring the participation of SMEs: At a common workshop in Bayreuth close exchange on R&D activities was discussed, e.g. on bio-sourced mono- and polymers, new polymer materials and polymer recycling designed to meet the needs of the transportation market (especially automotive field). A joint R&D project will be submitted to European project calls supporting international partnerships.

The partnership is facing a continued collaboration even after project conclusion: The action plan for 2010-2011 shows many synergies: joint participation in or respective representation of the cluster partner at international trade fairs in Europe and Asia, joint scientific conferences and workshops on topics of social importance ("green chemistry"), the set up of international learning networks (management and business knowhow, intensification of processes, etc.) and finally the French "retour": Munich awaits to welcome its Lyon partner!

Magdalena Appel

Project leader internationalization, Chemie-Cluster Bayern

SusChem steps up to the challenge

Since 2004 the European Technology Platform for Sustainable Chemistry (SusChem) has helped to coordinate and implement a comprehensive research agenda for sustainable chemistry.

'SusChem thinking' has helped to boost funding for molecular science and engineering at European and national levels. An analysis of the first two calls in FP7 showed that well over €700 million of project funding had been 'inspired by SusChem'. To continue this success the SusChem Strategic Research Agenda and Implementation Action Plan are now subject to annual review to ensure that they are relevant to societal needs and responsive to new science and technology. Ensuring the quantity and quality of the chemistry community's input to research programmes is however only one of three principal tasks.

The second main thrust is fostering innovation in the chemical and related industries. Innovation was always within the SusChem remit, but the activity has been boosted following the recent report of the High Level Group (HLG) on the competitiveness of the European chemicals industry which asked SusChem to consider promoting innovation networks in key strategic areas – including support to SMEs. In fact SusChem's first pan European Innovation project - BIOCHEM - kicked off in February this year. This project is part-funded by the European Commission under its INNOVA scheme. The BIOCHEM project aims to stimulate demand driven bio-based business in the chemical sector and improve the innovation capacity of bio-based chemistry start-ups and SMEs. BIOCHEM will define and promote bio-based product opportunities and facilitate and help finance new bio-based business ideas to proof-of-concept, including facilitating access to European test facilities. The project will develop tools, methodologies and processes targeted towards SMEs who want to innovate in the bio-based products market. BIOCHEM wants to reach at least 250 companies across eight European countries with these tools.

Sustainable chemistry can be a catalyst for innovation along the value chain and SusChem is extending its network to ensure that SusChem thinking can inspire innovation in many sectors: A workshop on hybrid materials jointly organised by SusChem with support of the Dutch Polymer Institute (DPI) and the European Commission's NMP directorate in March in Luxembourg brought together representatives from the whole value chain to discuss future materials needs. The workshop's recommendations will be fed into the formulation process for the next European Research Framework Programme FP8.

This value chain approach is also demon-

strated by collaboration between technology platforms: SusChem has recently announced a partnership with the Water Supply and Sanitation Technology Platform (WSSTP). The cooperation has set out a high-level roadmap for sustainable water use in an integrated water management system between the chemical industry, urban water and other value chain partners. This new approach to water management means that water for public and industry use would no longer compete for the same resources. The integrated water management system will include water reuse, complementary water streams, and reduced water consumption. An FP7 project proposal is currently under evaluation.

SusChem's cooperation along the value chain shows how working in a complementary way is far superior to competing for resources. This value chain cooperation also responds to the European Commission's recommendations in the Expert Group on Technology Platforms published in October 2009.

Extending and managing the SusChem network is the third main task before the platform. Managing successful collaboration with other European-level actors - other platforms, ERA-nets and organisations like ECRN - is one side of it. The other is organising at the national level. SusChem has established, or will soon establish, National Technology Platforms (NTPs) in Belgium, Czech Republic, France, Germany, Italy, Netherlands, Poland, Romania, Slovenia, Spain, and the UK. These NTPs grew as 'bottom up' national initiatives and look to interact with national research programmes and also work bilaterally to establish joint programmes where appropriate.

In a complementary move SusChem centrally is adapting its advisory Member State Mirror Group into a National Programme Owners Group. These developments are building a durable foundation for a true European Research (and Innovation) Area in sustainable chemistry that can provide practical solutions to the challenges facing society in the 21st century.

Ger Spork

Innovation Manager, Cefic / SusChem

Yorkshire and Humber region: chemical initiatives which make a difference

With Humber Chemical Focus (HCF) and Yorkshire Chemical Focus (YCF) two success stories for the sector can be told.

The Yorkshire and Humber region of the UK has had chemical interests since before the industrial revolution. During the 16th century industrial scale manufacture of Alum could be found in the region to supply the medieval textile producers. Today the regional chemical and chemistry using industries has an output that exceeds €10 billion and represents one of the largest and most successful manufacturing sectors. The sector is very diverse with most of the major sub-sectors present in the region.

The modern chemical industry is one of the most capital, skills and innovation intensive sectors in the business world. The size, scale and quality of economic contribution is also well understood by UK Government as well as the region's local elected authorities. This has led to support for economic development by the Regional Development Agency (Yorkshire Forward) as well as Local Authorities such as North East Lincolnshire Council, North Lincolnshire Council, East Riding County Council, Kirklees Council and the City Regions of Hull and Leeds, all of who have significant presence of the chemical sector close to or within

Representatives from The Humber and ECRN Director Michael Hack at the CATCH center

their boundaries. A key feature has been the development of strong partnership relationships between the regional public sector agencies and with business. For Yorkshire and Humber the instruments for delivering real action and change from these partnerships have been two regional chemical initiatives:

Humber Chemical Focus (HCF) and Yorkshire Chemical Focus (YCF). HCF and YCF have been operating for over 10 and 5 years respectively with the aim to create strong and enduring public-private sector partnerships. Today they have together a membership of over 200 local organisations and companies and operate over 15 networks on a wide range of topics e.g. Innovation, REACH, Major hazards, Bio-Fuels, Environmental Management and Skills. HCF and YCF run and operate these networks on a professional, industry led basis, which provides forums and opportunities for information to be exchanged as well as providing the platform to work together at both public and private sector level. One recent successful example of these networks has been the creation in the Humber of the innovative skills facility CATCH (Centre for Assessment of Technical Competency) which recreates the scale and working protocols of a real chemical site and allows students to train in a real industrial environment. Today over 140 technical and engineering apprentices are undertaking their early training at this facility.

HCF and YCF are also strong reminders to the regional chemical business sector that it hasn't been forgotten by government. Overall since 2000 some €15 million has been deployed to support chemical regional programmes and drive economic development with a further €5 million raised of match funding from industry.

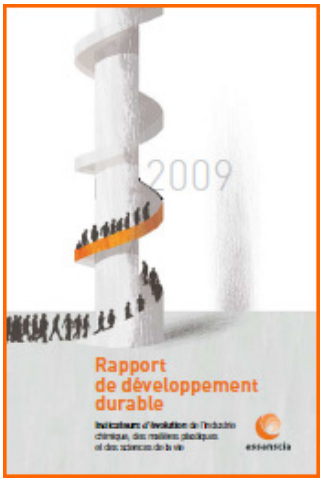
The Yorkshire & Humber region hosts one of the UK largest clusters for energy and power generation as well as one of the country's most dynamic SME sector supplying core engineering, materials, formulation capability and professional services. The natural maritime position of the region is also driving an investment wave in major renewable energy projects as well as attracting some of the EU's first scale carbon capture projects. Although highly focused on the chemical agenda HCF and YCF have further developed their mutual, not for profit, business models to support broader economic development programmes and initiatives. For example, new networks embrace bio-fuels and renewable energy developments centred on the Humber with YCF now hosting major programmes focussed on SME innovation in formulation sciences as well as the water sector. Over the last 10 years this expansion of economic development has led to a natural growth in HCF and YCF interests and activities. This has included developing international connections too. The recent application to join ECRN is a natural and positive aspect of expanding the region's interests and both YCF and HCF look forward to working alongside European colleagues to deliver benefits to the sector and regions as a whole.

Dr Glyn R Hughes

Humber Chemical Focus Ltd

essenscia's sustainable development approach in practice

Continuous improvement commitments of Belgium's chemical sector are shown in essenscia's 2009 sustainable development report:



By presenting its first report on Sustainable Development, essenscia, the Belgian Federation for Chemistry and Life Sciences Industries, would like to implement its mission statement and show the sector's performance through a set of evolution indicators. The report is directly in line with "Responsible Care", the industry's commitment for continuous improvement in health, safety and environmental performance and with its aim of an ongoing dialogue with society. The indicators in the report are based on the Global Reporting Initiative (GRI), a universally recognized methodology developed by the United Nations, and all data are based on official sources. The report follows the logic of the 3 P's of Sustainability: Profit, People, and Planet. essenscia added a fourth P of Products.

On the economic front (the first of the P's), the presented figures show that the Chemical and Life Sciences Industry is a key sector, creating an added value of more than €11 billion, representing ¼ of all industrial activities of Belgium. Chemistry and Life Sciences Industries

are also the largest export sector of Belgium, and highly innovative: The sector is responsible for more than half of the R&D expenditures and employs ¼ of Belgian private sector's researchers. The healthy financial position of the industry enables massive investments in upgrade and new installations. It is also remarkable that the workforce productivity is 50% higher than in the rest of the Belgian industry.

Coming to the second P (people), the sector generates 94,000 direct and 150,000 indirect employments. Most are highly qualified and specialized staff. Although the sector invests a lot in human capital and offers an attractive working environment and salary package, it still faces major difficulties to attract young staff, which is a key challenge for the future. Finally, health and safety records are much better than in the other manufacturing industries, showing the good risk management.

As for the third P (planet), chemicals are an energy intensive industry, especially in Belgium, but the sector is also part of the worldwide leaders in energy efficiency. The total production was multiplied by 4 over the last 40 years but the energy consumption only doubled (factor 2). Thanks to a continuous improvement of industrial processes and energy efficiency measures, the greenhouse gas emissions per unit of production decreased by 60% over the last 20 years. Air and water emissions are under control. Priority is given to the reuse of industrial packaging and valorization of waste. Multimodal transport is the future with more emphasis on rail and pipelines.

Concerning its products (as the fourth P), the sector has the following priorities: first, consumer safety. Implementation of REACH will better organize and generalize the communication of risks related to the production and use of chemical substances. In practice, this means "no data, no market". CLP harmonizes the communication towards the consumers.

The sector is constantly improving the impact of its products on global warming and is maximizing their contribution to the 5 identified challenges: energy, raw materials, water, food and health. As demonstrated by McKinsey, the main contributors to CO2 emission reductions are insulation materials, chemical fertilizers and crop protection, new lighting materials, plastics packaging and antifouling paints for maritime transport. Each ton CO2 emissions emitted during the production process of these products is compensated by 2.6 tons CO2 saved during the use of those products (McKinsey study, 07/2009). The sector also encourages voluntary industry initiatives for a responsible consumption of its products from detergents, paints, phyto products, plastics.

As general conclusion, the essenscia report on Sustainable development highlights the fact that the Chemical and Life Sciences Industry is a sector with a sustainable future, a growth potential and in search of young talents. The next edition is expected in 2011!

Yves Verschueren

Managing Director essenscia

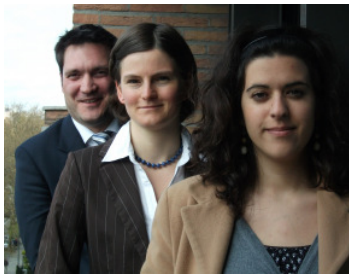
The complete report is available in French and Dutch on www.essenscia.be. Further information can be obtained by contacting Isabelle Chaput : ichaput@essenscia.be

8th ECRN Congress — Save the date

On 7th October 2010 the ECRN organizes with its Flemish and Walloon partners the 8th ECRN Congress.

The High Level Group and the reflections of the regions concerning the implementation of its recommendations will be the headline for the 2010 Congress in Brussels. ECRN expects experts from administration, industry, associations as well as academia. Due to the expected high number of participants, an early registration is suggested.

This year's ECRN Congress will be officially labelled as an event with the support of the Belgian Presidency to the Council of the European Union. The agenda and more information will be available on the ECRN website and invitations will be sent out in due time. Please contact the secretariat for more information.



ECRN Secretariat Team in spring 2010

We look forward welcoming you to our 8th Congress!

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ECRN member regions in May 2010

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- Catalonia, E
- Cheshire West and Chester, UK
- Flanders, B
- Hesse, D
- Ida-Viru, EST
- Limburg, NL
- Lombardy, I
- Lower Saxony, D
- North Rhine-Westphalia, D
- Novara, I
- Rhineland-Palatinate, D
- Rhône-Alpes, F
- Saxony-Anhalt, D
- Schleswig-Holstein, D
- Scotland, UK
- Tees Valley, UK
- Ústí Region, CZ
- Wallonia, B
- Yorkshire and The Humber, UK