

## What next? Or how to deliver the results of the High Level Group

**At the final session of the High Level Group on the Competitiveness of the Chemical Industry in Europe on February 19<sup>th</sup> this year, it became apparent that the real task of the work of the Group lies ahead of us.**

Even though everyone in the group felt satisfied with the outcome of the 17 months work of the group, clearly the success of that work will only be measured by how far its recommendations are taken up.

Since the group did not limit its focus to EU level competencies, this is also a challenge for the national and regional levels in Europe. Particularly in fields such as innovation, skills development, logistics and infrastructure development, the chemical regions play a crucial role in many Member States. This is why the European Chemical Regions Network started to think ahead early last year. One result of these efforts is the Ústí conference on April 16<sup>th</sup> and 17<sup>th</sup> this year together with DG Industry of the European Commission and the Czech EU-Presidency. This conference will provide the opportunity to highlight the specific regional dimension of the competitiveness agenda of the European chemical industry.

The conference is also strategically placed before the Competitiveness Council of the European Union at the end of May, which will also take account of the HLG - recommendations. A first consultation in the Council Working Group on Competitiveness on March 16<sup>th</sup> where the ECRN was invited as an observer showed a wide support of the HLG report among the Member States. If and how the Council will follow up the initiative of the Czech Presidency to discuss the High Level Group recom-

mendations will particularly rest on the ideas and interests of the incoming EU presidencies and particularly the Belgian and Spanish presidencies in 2010.

The ECRN is also active at the regional and even national level to foster consultations on the final report of the High Level Group and discuss what can be implemented at those levels.

Another challenge will be the engagement of the European Parliament. Since the factions decided in September 2007 due to institutional reasons not to take part directly in the High Level Group work it is unclear how and in what form the European Parliament can take the HLG findings on board. ECRN will investigate possibilities for a consultation with the newly elected European Parliament to discuss the HLG recommendations.

It is therefore obvious that a follow up process to the HLG has to be in place



*ECRN President Dr. Reiner Haseloff and Commissioner Janez Potočnik*

rather sooner than later. Particularly with regard to the current economic crisis, which has also hit the chemical industry hard, it is obvious that further actions and a follow up process has to be in place. The ECRN has proven an active and motivated

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stakeholder in the process and looks forward to playing a constructive role in the future. The HLG process itself has shown the strong added value of a sectoral strategy dialogue as part of the European industrial policy, despite recent criticism. The discussions in the group were always transparent, fair and constructive. This experience gives hope that the chal-

lenges ahead can be met. The ECRN aims to be an active partner in the future.

Thomas Wobben

Director of the Representation of Saxony-Anhalt to the EU

## Lombardy as an innovator on its way to host EXPO 2015

**Cultural and historical richness combined with being one of the most important European industrial locations which is at the forefront of technological innovation, fashion, design and media industries makes the Lombardy region with its capital Milan a consequent choice for hosting the Universal Exhibition (EXPO) in the year 2015.**

Under the title "Feeding the Planet, Energy for Life", EXPO 2015 in Milan will deepen great issues of sustainable development which are of world-wide interest. This will be done in projects, actions and events concerning 9 main areas: tourism and culture; promoting human capital/resources; environmental and hydro-geological assets; improvement of rural and agricultural and food systems; urban regeneration and environmental improvement; health; security; public utilities. With a plan for new infrastructures to enhance accessibility and mobility for the 29 million expected visitors, the preparations are ongoing. The last working group on Expo 2015, *Tavolo Lombardia*, called on 23rd February 2009 by the President of Regione Lombardia, Roberto Formigoni, has been a milestone in the road map towards the final results. Several Ministers and representatives of the national government participated in the meeting and the regional government undertook a leading role within the management of the whole event and the fulfillment of the infrastructures. In this view, the working group, suggested by Assessore Buscemi, aims at coordinating common actions for the Expo 2015 and has thereby also a strategic importance for the development and the strengthening of the ECRN network. Also apart from the EXPO 2015 preparations, the Lombardy Region as one of the "4 motors for Europe" and the leading industrial region in Italy has always put a strong focus on innovation and research - and seeks

to further strengthen these areas, especially in regard to the Lisbon Strategy of the EU. The new regional statute, approved by the regional law No. 1 on 30th August 2008, therefore ratifies the central role of scientific research and innovation carried out in collaboration with universities, research centers and technical, scientific and professional communities. Moreover, the region focuses its actions on the principle of subsidiarity, increasing the value of good practices and the number of players active at a local level.

One measure to implement these aims is an innovative evaluation system: In order to manage all actors in research and innovation in a synergic way, in 2003 the QuESTIO system has been created by Regione Lombardia in cooperation with the regional institute of research (IReR). QuESTIO is an evaluation system that represents a mapping of research centres and that identifies who does what in the field of research, innovation and technological transfer by collecting, managing and publishing information about each registered centre. It also provides an evaluation about how each centre works and it allows a comparison of competences, activities carried out and services, thus monitoring development trends of the research system. As far as the whole chemical sector is concerned, there are about 100 entities dealing within this area: in the fields of organic and inorganic chemistry, nuclear chemistry, physical chemistry, chemical engineering, agricultural chemistry and biochemistry.

Lombardy Region

Research and Innovation Unit



Image: Federico Brunetti



RegioneLombardia

## First quarter 2009: Activities of the European Chemical Regions

**The European Chemical Regions Network continues to grow regarding its range of activities and projects as well as in number of member regions** – a fact which is probably the best proof of its success and legitimacy, especially in times of global crisis.

After the first internal meeting of the ECRN Working Group in 2009 in Milan/Lombardy, the General Assembly met in Brussels in mid-February. The two latest new member regions, Bavaria and Wallonia, were officially welcomed to the ECRN on this occasion. They present themselves on pages 6 and 7 in this newsletter. The ECRN now consists of 20 member regions from 9 different countries.

Thematically, the ECRN continues to focus on the areas of innovation, logistics and skills, on which seminars and workshops are being organized. Please check the ECRN website for details. The implementation of strategic dialogues in the member regions is another important focus, as is a close contact to Euro-

pean policymakers. A Parliamentary evening took already successfully place on 18<sup>th</sup> February and will be followed by



*ECRN Team April 2009*

one in November with the newly elected MEPs. In autumn, also the 7<sup>th</sup> Congress of the European Chemical Regions will take place.

After the end of the HLG on Chemical Industry where the ECRN successfully participated, it is now important to spread the results in the regions – the opening is the Follow-up Conference to the HLG in Ústí on 16<sup>th</sup>/17<sup>th</sup> April, which the ECRN under the patronage of the Czech EU Presidency and the European Commission co-organizes with the Ústí region. This event can be followed by conferences in other ECRN regions, one taking place in North Rhine-Westphalia on 29<sup>th</sup> April.

For more details on the ECRN and its projects, please check [www.ecrn.net](http://www.ecrn.net) or contact us!

## Biofuels made in the Ústí region



**One recent ecological and economic trend is research in production of biofuels.**

Reasons are a.o. the effort to decrease CO<sub>2</sub> emissions, agricultural subsidies causing ever increasing surpluses and the aim to lower the dependency on oil reserves in politically unstable countries. Alarming images of oil running out without having any alternative to this raw material are leading to attempts to find renewable resources based on hydrocarbons. It is exactly this field where Spolchemie, one of the biggest players in chemical industry in the Ústí region, has found its potential. Its efforts have led to the registration of a patent for the production of dichlorohydrin, which is a by-product in the epichlorohydrin production. The basic compound is glycerin, created when processing animal and vegetable fats. In addition, glycerin can be obtained during the production of biodiesel, which is supported by the European Union. The laboratory tests lasted

until 2002. Then a pilot experimental unit, which was to verify the potency of the suggested method in large scale, was built. "It was a unique lab of this kind in the whole world. There was nowhere to turn to, all the problems and mishaps had to be solved on our own." The production of epichlorohydrin in Spolchemie was launched in 2007. During an only 6-year research period the first and completely original technology of epichlorohydrin production was invented. To reach this has been a big success for the by international comparison small Czech chemical company, as Pavel Kubiček explains, Head of the Inorganic Chemistry Research Department. "We were able to estimate the development of the market with biofuels, which appeared to be a crucial moment."

N.B. The project was co-financed from the European Regional Development Fund and Ministry for Industry and Trade of the Czech Republic.

Dr. Zdenek Rytir

Spolchemie

## Energy security – impressions from Brunsbüttel/ Schleswig Holstein

**Energy security is a key issue for the European chemical regions. One example for the situation in a North-Sea region is Schleswig-Holstein:**

The accessibility for large over-sea ships, the port-infrastructure and the availability of water for cooling measures make the Lower Elbe area a perfect location for energy generation.

Between Hamburg and the North Sea three nuclear power plants were built in the 1970s and 1980s. Since the current German government aims at shutting down all nuclear power plants, however, one of them, in Stade, shut already down in 2003, and the shut-down of the two other nuclear plants in Brunsbüttel and Brokdorf is planned for 2010/11 and 2018. As the future of nuclear plants in Germany is unclear for the moment (a policy change after the elections in autumn 2009 is possible but not foreseen by now), the erection of 9 new coal- or waste-fired plants in the region is discussed. The plans also include to build up to 3 new coal-fired plants in the Brunsbüttel area, which is the reason of some debate since at the same time, the government of Schleswig-Holstein also intends to strengthen energy production through renewable sources, mostly wind-energy. The goal is to quintuple the wind-energy production from 4 tWh in 2005 to 20 tWh in 2020.

The political decisions concerning energy supply are essential for the industrial park Bruns-

büttel and other local energy-intensive clusters. The debates between those arguing that the implementation of e.g. international energy networks (or smart grids) of various renewable energy sources would provide a safe and clean electricity base and those pointing out that the technology necessary is not yet developed far enough, are well-known in many European regions.



However, what do these debates actually mean for the energy-intensive industry in general and the Brunsbüttel industrial park in particular? From a business point of view, long-term energy security at reasonable prices is a main priority. Facing the current situation, therefore, the construction of 3 new coal-fired power plants in the Brunsbüttel area would mean that energy supply could be warranted in the future, independent from any developments concerning renewable energies and their replacement for nuclear power plants. It should be kept in mind by all stakeholders in Schleswig-Holstein that the timely substitution of production-capacities (by whatever source) after the scheduled shut down of the nuclear power plants is crucial for the Brunsbüttel industrial park and the whole region.

Volker Ziedorn

Development Company Brunsbüttel (egeb)

## Asturias plans new chemical cluster



GOBIERNO DEL  
PRINCIPADO DE ASTURIAS

**Asturias as most other ECRN members knows about the advantages of cluster building and is very active in this regard.**

The chemical sector in Asturias comprises chemicals (especially carbochemicals), rubber products and plastic materials. One key element for the future of the chemical industry in Asturias is the logistical infrastructure. Located at the Atlantic Ocean, logistics counts already as a regional strength due to the two big modern seaports (Puerto de Avilés and Puerto de Gijón, the latter currently being hugely enlarged). These strengths are even more im-

proved with e.g. a new logistic area (ZALIA), and the new sea highway which will link Gijón to Nantes-St. Nazaire (France) in the frame of the EU Short Sea Shipping programme. As result, there are recent projects to build chemical plants in the area, underlining the importance of logistics in an business plan. Other regional strengths are good availability of power supply and water, and highly skilled staff, plus the University of Oviedo and a number of scientific and technical centres specialised e.g. in the research of green coal technologies and materials. However, a challenge



is the specialisation of the research centres in subjects related to the industrial interest.

Recently, the Economic Development Agency of the Principality of Asturias is promoting the creation of a cluster of chemical industries in order to foster an even more sophisticated environment which brings added value by encouraging collaboration between different actors in the business model (existing companies, start-ups, R&D, distribution...), and by linking chemical factories to non-chemical companies in an interconnected way, such as between materials, paper, steel, surface treat-

ment industries. The Asturian Association of Chemical & Process Industries will play an important role in supporting this cluster. Other cluster objectives will be to identify common areas of development and cooperation. This new chemical cluster can facilitate collaboration in subjects like training, safety, processing of industrial wastes, logistics, environmental issues, management, design of new products.

Asturian Association of Chemical & Process Industries (AIQPA) and Agency for Economic Development of the Principality of Asturias (IDEPA)

## Three regions, a common success: Rhine-Neckar Metropolitan Region



**The Rhine-Neckar Metropolitan Region is one of the leading business locations in Europe. Its success is also linked to successful interregional cooperation.**

Numerous large international corporations such as BASF, SAP or Heidelberger Druckmaschinen, a good number of strong mid-sized enterprises and numerous highly innovative start-ups make up the Rhine-Neckar area. Over 56% of all goods produced in the region are exported – strong proof of its international focus and competitiveness. The site of BASF with an area of 10 km<sup>2</sup> is the world's largest integrated chemical complex. 146 chemical companies in the greater area have a total of approx. 33,200 employees, BASF employs an additional 32,800 people.

It is due to this intensely dynamic economic development that economy, research, politics and administration co-operate exceptionally well. And this although the Rhine-Neckar Metropolitan Region embraces parts of three different federal German states: Baden-Wuerttemberg, Hesse and Rhineland-Palatinate. A new treaty signed among these

regions and gaining the title to be one of Europe's Metropolitan Regions have been key enablers of a joint productive regional development. Since mid-2006 the regional development agency "Metropolregion Rhein-Neckar" successfully

serves as the operative platform in this development.

The three federal states, two of them ECRN members, strongly support the positioning of the Rhine-Neckar Metropolitan Region as a chemical region. The region's cluster initiatives, among them the "Forum Organic Electronics" and "nanoValley.eu", focus on key technologies. Developed in the region, marketed in the region - this is the idea behind a new, application oriented research and transfer platform implemented by the universities of Heidelberg and Mannheim together with BASF, Freudenberg, Heidelberg, Merck, Roche Diagnostics and SAP. "InnovationLab GmbH" enables new ways of cooperating between universities and businesses. It focuses on bringing all cooperation partners from different fields along the value added chain together under one roof. The "nanoValley.eu" initiative is a cooperation of businesses, institutions and research laboratories in the area of nano technology. The private-public partnership aims at bringing together universities, research institutions and businesses situated along the Rhine or close-by in a network of all those SMEs focusing on nano technology, be it the technological, the scientific or the business aspect. By linking research results more closely to these companies' product development, a significantly quicker market access can be achieved.

Klemens Gröger

Regional Economic Development Agency  
Metropolregion Rhein-Neckar GmbH



# Region profile: Bavaria



Bavaria is the largest and oldest state in the Federal Republic of Germany and the heritage of more than 1,000 years of history is still very much alive today. Bavaria is unmistakable and at the same time inextricably bound up in German and European culture and history, and located at the intersection of major European transport routes between North and South and Eastern and Western Europe.

## Technical and economic innovator

Bavaria is in the forefront of technical and economic progress. The two big conglomerations of Munich and Nuremberg and other cities such as Augsburg, Würzburg, Regensburg and Ingolstadt are booming centres of business and industry. More than 12% of the working population work in the high technology sector, more than anywhere else in Europe. Names like Siemens, EADS, and MTU stand for the most modern technological developments. International companies come to Bavaria to set up production facilities and also many new high technology and state-of-the-art technology firms are being set up.

## Chemical industry

Bavaria's chemical sector operates on a worldwide scale (export rate of 52%) and is highly innovative due to global players as Wacker Chemie and Süd-Chemie (both headquartered in Bavaria), BASF, Clariant and Roche Diagnostics, and by some 250 SMEs. It is one of the largest in the state's manufacturing sector and covers nearly all chemicals marketed.

The business area of the Altötting, Mühldorf am Inn and Traunstein districts is Bavaria's Chemical Triangle. It accounts for more than 25% of the people employed by Bavaria's

chemical industry, and more than a third of its sales. Main products are petrochemicals, plastics, silicones, ultra-pure silicon, and construction and special purpose chemicals. Furthermore, there are several small-sized areas of activity (often in form of integrated chemical parks).



## Research, education and training

Nearly all chemical companies are dedicated to R&D. Prime are the Munich-based Consortium for the Electrochemical Industry research center (by Wacker Chemie), the Heufeld-based main research department of Süd-Chemie AG, and the Trostberg-based center of expertise in construction chemicals of the AlzChem group. There is constant research-exchange between industry and universities and chemistry is one of the main subjects taught and researched at six of the Bavarian universities, where a broad-ranging and in-depth approach to chemistry is taken. The Technical University Munich (TUM) has been accorded top rankings in the ISI and CEST surveys. The success registered by Bavaria's chemical industry is attributable to the highly qualified employees.

Bavaria's chemical companies are also highly active in on-the-job training. Vocational education is currently being conducted by some 125 companies and involves more than 2,750 young persons. The professions being learnt include traditional ones as chemical technicians or laboratory staff members. Other professions involve handling business and technical operations.

## Facts and Figures

**Inhabitants:** 12.5 million

**Area:** 70,000 km<sup>2</sup>

**Gross Domestic Product (GDP):** 434 billion EUR (2007)

**Main business sectors:** automotive, mechanical engineering, electrical engineering and electronics, food products, chemical industry

## Chemical and Pharmaceutical Industry

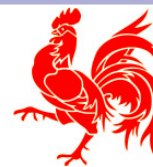
**Number of companies:** 273

**Number of employees:** 58,000

**Export rate:** 52%



# Region profile: Wallonia



Wallonia accounts for more than half of the Belgian territory and is a federated entity with own competences (a.o. economic policy and employment, applied scientific research and the capability to conclude international treaties with other regions of the world) and its own government settled in Namur, its capital city.

For many years, heavy industry was the driving force behind the region's economy. Today Wallonia plays a leading role in major cutting-edge technology sectors to which 65,000 innovative, flexible and creative SMEs contribute.

## An ideal location at the heart of Europe

Wallonia is a land of exchanges which takes advantage of its ideal geographical situation at the heart of Europe. Wallonia's motorway network is the densest and one of the best-equipped in the world and the region bears a highly efficient pipeline distribution network for basic raw materials and energy fluids.

## Highest concentration of brainpower

Wallonia counts 9 university centres, 13 higher education colleges, 30 research centres, 6 university science parks, numerous shared research centres and a wide "centres of excellence" network. The percentage of highly qualified human resources in Wallonia rates amongst the highest in the world.



Thanks to the strong ties between universities and business, globally recognised centres of excellence in the most innovative sectors have developed, e.g. the Centre of Technological Resources in Chemistry (CERTECH).

## Chemicals: Industrial potential focused on the future

Chemical industry in Wallonia includes 370 companies, 60,000 jobs of which 25,000 direct jobs and a turnover of 10.9 billion EUR. It is the second largest industrial employer.

Basic chemical manufacturing activities are mainly concentrated in the province of Hainaut (the Feluy-Manage-Seneffe triangle and Terte). In addition, Wallonia has an important bio-technological pole (BioWin) and high-tech pharmaceutical industry in the Walloon Brabant and North Hainaut areas. The Liege area

hosts large companies such as Prayon group (phosphate chemicals) or NMC group (synthetic foam). Wallonia also facilitates the development of young chemical companies by creating incubators or shared infrastructures to limit young companies' initial investments. The Region has recently welcomed the *Plastwin* cluster creation, aiming at gathering



stakeholders active in the plastic value chain (<http://clusters.wallonie.be/federateur/en>).

## The competitiveness poles

Five competitiveness poles ([http://www.polesdecompetitivite.eu/home/en\\_poles/index.html](http://www.polesdecompetitivite.eu/home/en_poles/index.html)) concentrate the public and private resources of Wallonia (in research, investments, training, access to capital etc.) on booming and cutting edge sectors. The aim is to build up a critical mass and a level of excellence in these areas. One of these poles is BioWin (Bio-technologies Wallonia Innovation). Its members are active in the main health biotechnology sectors, namely pharmacy and biopharmacy, diagnoses, medical devices and equipment. Other poles are e.g. on Transport and Logistics or Agro-industry.

### Facts and Figures

**Inhabitants:** 3.4 million

**Area:** 16,844 km<sup>2</sup>

**Gross Domestic Product (GDP):** 74.1 billion EUR

**Main business sectors:** chemicals (basic chemicals, pharmaceutical, synthetics, biotechnology), plastics, agribusiness chemistry

### Chemical and Pharmaceutical Industry

**Number of companies:** 370

**Number of employees:** 60,000

**Added value:** 2.8 billion EUR

**Trade balance:** 4.4 billion EUR



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## "Science4Life" - public-private cooperation in supporting start-up companies

**The idea is as easy as it is successful: Initiated and supported by the Government of the State of Hesse and the pharmaceutical company sanofi-aventis, for over ten years now the initiative "Science4Life" gets young entrepreneurs together with experts in the fields of life sciences and chemistry and helps to bring new ideas to entrepreneurial success.** The main objective is the creation of new companies which will have sustained economic success - and the results have been very good so far.

"Science4Life" is focused on the annual competition of business plans specializing in Life Sciences and Chemistry - the "Science4Life Venture Cup". The aim is to give young entrepreneurs the opportunity to exchange information and experiences and to give them a head start when founding a new company. Coaches and experts from over 100 institutions are supporting the initiative, combining lawyers, consultants, managing directors of biotech companies as well as top researchers from the pharmaceutical industry.

Participation of the "Science4Life Venture Cup" is open to everyone with a business idea in the field of life sciences or chemistry. If a company has already been founded, it should at the start of the Cup be no older than one year. The participants get easy access to economic, scientific and legal information free of charge.

Projects and companies are judged through three phases, each including prizes and a written feedback by an experienced team of experts: the conceptual phase, where candidates hand in a general business concept, the business plan - phase where candidates hand in a complete business plan, and finally the founder workshop - phase, where chosen business plans are optimized together with a panel of experts during a two-day workshop. The final goal is to present in front of a top-class jury the quality of the idea, the qualification of management and the market chances of the project. All winners participate also in the investment forum "Seed4Money", which includes a presentation in front of external sources and industrial companies. The 11<sup>th</sup> round of competition is currently ongoing, with the final awards ceremony being planned for 29<sup>th</sup> June 2009 in Frankfurt. For the 12<sup>th</sup> round of the "Science4Life Venture Cup", the kick-off will be in autumn 2009. For further information, please check [www.science4life.de](http://www.science4life.de). There is an English version of the website.



Dr. Gerhard Hahner

Science4Life e. V.