



ChemClust

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NEWS LETTER



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UPDATE OF CHEMCLUST BENCHMARK REPORT

The ChemClust project partners have developed an update of the ChemClust Benchmark report, which has firstly been published in 2010. The new benchmark now contains updated information on the development of chemical and plastic industry providing indicators for the partner regions from 2002 until 2010. The data are especially interesting for the analysis of the last years with special focus on the reaction to the world financial and economic crisis from 2008 to 2009. The development of turnover shows for many regions that the level of 2007 has been again reached in 2010. Masovia and Usti region have even experienced growth, whereas especially the North West and North East England and Asturias are in a constant decline of production. In terms of employment figures the crisis has led in many regions to a reduction of numbers of employees in the chemical and plastic industry. Some regions such as Central Germany, Usti and Limburg could see stable or only slight decrease of employment, whereas other regions such as North West England and Schleswig Holstein had to experience a sharper decline of employment (See chart on turnover and employment development). The new benchmark report also provides updated information on the development of chemical clusters in the regions. Also the cluster managements had to cope with the challenge of economic crisis on the one hand in supporting the companies to find

answers to the positioning in the changing market environment and on the other hand in facing reduction of public budgets and hence also reduction of funding for cluster activities. In **Novara** the topic of smart specialization has been discussed with the regional stakeholders in the framework of the IBIS research network. The attention has been focused also on the difficulties encountered by stakeholders towards the European R&D calls and the development of skills related to chemicals. Further meetings are planned in the near future to develop joint position in defining regional innovation strategies.

In **Masovia** the development of a "cluster" in the field of green chemistry has been discussed. Currently this initiative is mainly focused as a research initiative, but in the future also business partners have to be included. During the next year the region will update their regional innovation strategy. Important question is also how to use ESF funds for the promotion of innovation. The cooperation between the actors in **Limburg**, which has been informal so far, is slowly becoming more formal. The large investments for the development of the Campus on the Chemelot site have been further developed in cooperation with DSM and the University of Maastricht. Furthermore cross-border cooperation with Germany e.g. ChemCologne is progressing.

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In **Asturias** a chemical cluster has been created, which is currently in the finding phase with the challenge to attract the contribution of chemical companies. Additional challenge is the unclear situation in the aftermath of the regional elections. The role of cluster management will have to be redefined taking into account the future political framework.

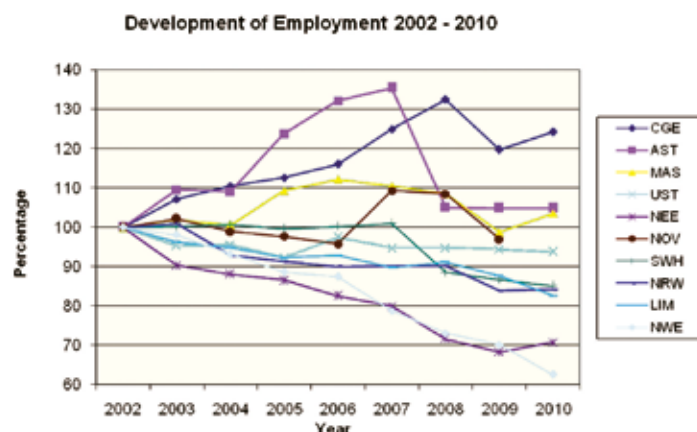
In the **North East** and **North West of England** the cluster management Nepic and North West Chemicals had to experience the deepest change with the abolishment of regional development agencies followed by complete finalisation of public funding for cluster activities. Both clusters, which already had developed a broad membership basis now rely on private funding from their members or chemical industry association. Consequently there had been a strong reduction of staff and activities of the cluster managements. The clusters have now the challenge to position their work in the new political framework for economic promotion with the Local Economic Partnerships.

In **Usti Region** several meetings have taken place with companies and research organisation to speak about the possibility of the establishment of a cluster. Thematic priorities have been identified and also potential funding from CzechInvest is under discussion. Usti Region is continuing the discussion with regional stakeholders, with special focus on involvement of small and medium sized companies.

In **North Rhine-Westphalia** new political priorities after the recent elections have to be considered for the further development of cluster policy. The main aim is to cooperate with the clusters while working on the regional innovation

strategy. In additional NRW aims to make the cluster more international, e.g. by cooperation with NRW.INVEST.

In **Central Germany** the second phase of cluster funding has started, which will provide support for the cluster management until October 2013. The cluster activities have been refocused on the demands of the chemical and plastic industry for the promotion of innovation and answering the challenge of economic crisis. The cluster has initiated some larger cooperation projects such as coal to chemical research project ibi. Furthermore the chemical site network CeChemNet is strengthening their focus on developing innovation profiles for each chemical parks and settling research infrastructure on the sites.



5 CHEMCLUST BEST PRACTICES SELECTED BY THE JTS

One of the primary targets of the ChemClust project is to valorize and disseminate the best practices related to the chemical industry of each partner region, in order to give a clear and concrete example to European policy-makers of the best ideas and techniques applied in Europe.

This effort has brought to the creation of an inventory dedicated to the collection of best practices, furthermore a paper version of this work has already been published and disseminated at European level.

So far, the JTS of the Interreg IV C programme has chosen 5 examples among the best practices proposed by ChemClust project, to publish them in its Best Practice Database. This is an acknowledgement of the work done through the project, allowing these 5 practices to be shared to a wider public and, in the mean time, to get our project to a broader audience.

Here below a quick description of the 5 best practices selected by the JTS:

1) Development of Innovation Location Network of Central German Chemical Parks (Sachsen Anhalt, Germany): Development of innovation profiles of chemical parks alongside the value added chain and networking of innovation locations. Promotion of innovation development on chemical parks by settlement of research infrastructure and better cooperation with regional innovation landscape.

2) Alliance pro industry and sustainability (North Rhine Westphalia, Germany): In public perception, industrial progress and

sustainable development should not be regarded as opposites, but as mutually dependent. To communicate this more effectively to the public and thereby raise more understanding for industrial projects is the aim of the practice. It shall be reached by local and regional activities in North Rhine-Westphalia.

3) A model of a new governance in the framework of the innovative bio-based and sustainable chemistry (Novara, Italy): Creation of the "Polo di Innovazione per la Chimica Sostenibile" (Centre of Innovation for the Sustainable Chemistry), consisting of a light and open structure for clustering chemical companies (IBIS Consortium).

4) Children Challenging Industry Programme (Tees Valley, UK): To promote science teaching in UK primary and secondary schools and improve students' perceptions and understanding of industry and its relationship with science.

5) CHEMaterials Campus (Limburg, Nederland): Open Chemical Innovation: "CHEMaterials Campus" - cooperative venture between DSM and Zuyd University to make the Chemelot Campus in Sittard-Geleen the number one Materials Valley of Europe.

The Good Practice Database can be accessed via www.interreg4c.eu

PARTNER PRESENTATION: **ASTURIAS**



GEOGRAPHICAL APPROACH

The Principality of Asturias is a uni-provincial Autonomous Region, situated in the north west of Spain, having an area of some 10,604 km². The region lies between the Bay of Biscay to the north, with 334 km of Atlantic coastline, and the natural boundary to the south, formed by the Cantabrian mountain range and the Picos de Europa.

The geography of the region presents a series of sharp contrasts. It has high mountains and inland valleys crossed by numerous streams and rivers, and an impressive coast with its rocky headlands and multitude of beaches and coves. Asturias has a population of around one million inhabitants, mostly living in the central metropolitan area, conformed by three cities, Oviedo, the capital of the region, Gijón and Avilés both cities, by the sea and having seaport.

ECONOMY

Asturias GDP was of € 23,115 million in 2011, 65% of it was produced by the service sector, 20% by the industry (3% by the chemical industry and 5% energy industry), 13% construction (buildings and infrastructure) and 2% primary sector.

Together with the historical presence of large companies, a key factor in the region's industrial sector is the activity of numerous small and medium enterprises (SMEs), which have inherited a strong industrial tradition and highly skilled workforce.

The region has successfully completed the restructuring of traditional industries (coal mining, steel and ship building), and now Asturias has embarked upon the diversification of its industrial base in order to lay the foundations for the economy of the future.

ASTURIAS CHEMICAL SECTOR

Formed by around 90 companies with a production site in the region, classified in three big (more than 200

employees), like Arcelor Mittal, Fertiberia and DuPont, 32 medium (between 10 and 199 employees) like Bayer and Ence and 55 small (1 to 9 employees).

The main activities of the chemical industry in Asturias are centred on **carbon-based chemicals, fertilizers, pharmaceutical products, cosmetic and paper.**

ASTURIAS INNOVATION SYSTEM

At a scientific level, the region counts with the "Universidad de Oviedo", with a prestigious Chemistry and Biology departments. On top of that and complementing the scientific offer, there are several university institutions specialized in Organ-Metallic Chemistry, Biology, Oncology and molecular medicine, Nanomaterials & Nanotechnology, etc.

At a technology level, the region counts with technology centres for materials (metallic and non metallic), for the food industry (Fishing, Milk, Meat..) and another private research facilities hosted by companies like Saint Gobain for the glass sector, Thyssen Krupp for the elevator and escalator sector, Arcelor Mittal for the steel sector..

Finally the **Economic Development Agency of the Principality of Asturias (IDEPA)**, as a public body dependent of the Asturias Regional Government, tries to foster local economy through its various activities and programs (subsidies for innovation, for cluster creation, for the use of IT, for the internationalization of the local workforce...), as well as the promotion of new industrial locations within the region, acting as a key player in the intermediation between companies and the different authorities (local, regional and national level) in order to create the conditions for increasing the foreign Direct Investment in Asturias.



ECRN LOOKS FORWARD TO THE OUTCOMES OF CHEMCLUST

The European Chemical Regions Network (ECRN) strives to bring together the chemical regions and regional authorities

across Europe and serve as a platform for exchanging experiences and addressing challenges and possibilities. In this regard, collaboration projects such as ChemClust are of significant importance for the network as well as for the project partners. The ECRN, emerging itself from an EU project, always tries to initiate interregional cooperation. It motivates its members to lead and to participate in INTERREG and other projects, as for instance ChemLog project. This project was focused on chemical logistics, officially ended in 2011 but has sparked continuation and follow-up projects. Moreover, further activities are being planned within the ECRN by a newly established Thematic Working Group exploring future possibilities in the field. Similar follow-up activities are aspired also for ChemClust. This year, the ECRN is working closely with the European Commission in the context of a study titled "Analysis of policies in chemical regions to support the competitiveness of the chemicals industry". The study is carried out by a consultant and it covers 26 different regions across Europe - all ECRN members and some additional regions. The key objective of the study is to provide information on efficient policy measures implemented at the regional level. The policies administered by the regions are analyzed in terms of their effectiveness and transferability to other regions. Hence, the final outcome will be a collection of best practices from different regions and policy recommendations that will benefit regional public authorities and provide valuable information for Member State and EU decision makers. The study runs throughout 2012 and at the moment, the interviews with regional authorities are being finalized and additional input will be collected from beneficiaries and stakeholders. A validation workshop for stakeholders is foreseen to be held in Brussels at the end of September.

The good practices uncovered by ChemClust are also expected to be prominently featured in the final report of the Commission's policy study. Similarly, the ECRN seeks to support the dissemination of the findings from ChemClust at the 10th ECRN Congress that will be organized in Warsaw in October. Moreover, the ECRN hopes to continue collaboration and work further on ChemClust themes and areas such as innovation, chemical parks and clusters, and skills and engage new partners beyond the current project participants. At the moment, the network is developing a project for regional collaboration in the context of European Knowledge Alliances, which open new interesting possibilities for further activities. The ChemClust partners have also expressed interest setting up new Thematic Working Groups within ECRN and plan for further activities to ensure continuity of collaboration in the future and new projects in the 2014-2020 period. The network is thus eagerly waiting for the final outcomes and recommendations from ChemClust and looking forward to starting new activities.

More information about ECRN and activities of the network: www.ecrn.net and from the Network Secretariat in Brussels (ecrn@ecrn.net).



Inter-regional collaboration is also about celebrating the success stories and positive outcomes of cooperative efforts

PKN ORLEN S.A. STUDY VISIT

May 8, 2012, Plock, Poland

On 8 March 2012 the representatives of the ChemClust partners participated in a study visit in PKN ORLEN S.A in Plock, Poland. PKN ORLEN is one of the leading oil majors in Central and Eastern Europe, ranked among the top ten companies in the Refining & Marketing category of Platt's Top 250 Global Energy Company ranking. The Company's business involves the refining of crude oil into gasoline, diesel oil, fuel oil, aviation fuel, plastics and petrochemicals. PKN ORLEN manages seven refineries, located in Poland, the Czech Republic and Lithuania.



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Its integrated refining and petrochemical complex in Plock is regarded as one of the most advanced and efficient ones in Europe. The total throughput capacity of our refineries exceeds 30 million tonnes of crude oil a year. PKN ORLEN operates the largest network of service stations in Central Europe, comprising nearly 2,700 outlets located across Poland, Germany, the Czech Republic and Lithuania. The ORLEN retail network is supported by an efficient logistics infrastructure, including surface and underground storage depots and a transmission pipeline network.

The visit began with a welcome at ORLEN headquarter by Mr. Krystian Pater - Member of PKN ORLEN S.A Management board. Mr. Pater briefly presented short information on current innovation activities carried out by ORLEN for example launching of Europe's most advanced petrochemical PX/PTA complex. He also outlined the future directions for PKN ORLEN.

Next, Director of Investor Relations Department Mr. Dariusz Grebosz presented an overview of ORLEN Capital Group. Partners could learn about all types of businesses of the company, its branding strategy and plans for the future - e.g. investments in new segments: shale gas exploration and electric power generation.

Very important part of the meeting was discussion. The attendees had a chance to get answers directly from the top-level decision-makers in the company. One of the issue raised during the discussion was the impact of the ORLEN

petrochemical plant on other companies in the region and ORLEN measures to encourage other businesses to invest in Plock. For this purpose, ORLEN and Municipality of Plock established a joint stock venture - The Plock Industrial and Technological Park. The area offered by PPPT covers approximately 200 hectares. The Park is divided into investment areas that, among others, welcome chemical, pharmaceutical, paper, rubber, varnish, painting, textile, plastics, automotive, logistics businesses. The investment grounds are the property of PKN ORLEN and the Commune of Plock. The vast majority of the investment area offers newly constructed bitumen roads, water supply and sewage systems, central heating and

fibre-optic telecommunications infrastructure. Partners also learned about ORLEN actions oriented on encouraging young people to study science, which covers to large extent with ChemClust pilot project "Skills foresight". The visit was a great opportunity to exchange the experience. After the meeting partners participated to site visit in ORLEN plant where they could see petrochemical and chemical installations closely.



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CHEMCLUST-INTERREGIONAL WORKING GROUP N. 8 IN CHESTER, CHESHIRE



On the 15th May 2012 the 8th Interregional Working Group for the Chemclust project met again for the first time in Chester, United Kingdom along with the project Steering Group meeting. The project members were also honoured by the presence of the ECRN Secretariat, Dr. Hanny Nover and Mia Itanen who came as observers and also to hold introductory talks about possible future joint ventures.

The delegates were welcomed by Cheshire West and Chester Council as the host project partner by Councillor Johnson, The Lord Mayor of Chester.

The delegates were invited to meet with the Lord Mayor and other invited representatives from the Cheshire chemical cluster, particular those industrialists and specialists in the field of skills provision, at the morning pre- IWG Reception. The Lord Mayor spoke of the need for increased co-operation between the regions in Europe on a wide range of commercial sectors including tourism and automotive manufacturing, as Cheshire West has several clusters in these sectors and the Lord Mayor also commended the ethos behind the INTERREG Programme. Cheshire West and Chester has several ongoing projects, along with many recent Interreg successes and the Chemclust project is a worthy addition to that group.

The pre- IWG Reception was also attended by Councillor Herbert Manley, an Executive Board member for Cheshire West in the European Chemicals Regions Network (ECRN). Councillor Manley is also a Member of the EC Committee of the Regions, and Councillor Manley is keen that the results of the Chemclust project are disseminated at the EU to address the future chemical skills foresight issues.

The Chester IWG meeting was opened by Thomas Steinmetz for the Lead Partner who thanked Cheshire West on behalf of the other partners for the kind welcome to Chester. The partners were then given various reports on the progress of Chemclust in various areas.

Asturias gave the other partners an update on the further development of the ChemClust Best Practice Guide (BPG). The Best Practice Guide will now focus on those practices that offer the best transferability factors, as a roadmap will now be produced that could integrate with the European Commission study currently underway by PWC.

A report was also given as to the development status of the Benchmark Report. Partners were also asked to update the other partners in recent activities in their

respective clusters- along with further news concerning concrete plans for the upcoming year.

Steering Group and Study Visit CATALYST SCIENCE DISCOVERY CENTRE

Chemclust IWG delegates were then taken to continue the meetings at the CATALYST Science Discovery Centre in Widnes, Cheshire.

<http://www.catalyst.org.uk/>



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Mainstreaming- The project delegates were reminded that once the benchmark thematic areas and indicators were fully updated, the benchmark report would be finalised and a smart specialisation agenda discussed, and then the finalised benchmarking report could be finalised. This Report will be distributed at the Mainstreaming workshop to be held in Asturias in September.

Study Visit

Chemclust delegates then visited CATALYST in Widens Cheshire, CATALYST an interactive science centre and museum centred on chemistry and how chemistry is by used by everyone.

The main purpose of CATALYST is to make science exciting

and open to children and adults and to educate and inform people about science based industries.

Chemclust partners were welcomed by Brian Davies, a Catalyst Board Trustee, and a guided tour was then given to the Chemclust project delegates of this impressive building.

Catalyst uses three interactive exhibit areas with over 100 different exhibits. These exhibits are designed to fully engage children and adult visitors into the world of science the history of the chemical industry and a world of scientific discovery.

Chemclust delegates were then invited to visit the Catalytic Discovery lab – where our project members were given a chance to experience an interactive experiment that the schoolchildren- enjoy and were instructed on how to make a real bar of soap!

Chemclust partners were interested in the practical applications of CATALYST. The museum is able to entertain and inform all ages of children and young people, both as formal school activity during term-time .

Cheshire West, Tees Valley, Novara and Masovia are all project partners part of the ChemClust Pilot Action group concentrating on Skills in the Chemical clusters- the provision and use of such valuable chemical science experience centres such as CATALYST are part of the necessary actions to provide the Best Practice needed to address the poor image perception that many in Europe hold wrongly about the chemical industry.

Catalyst is also complemented by the Children Challenging Industry project which is designed to visit schools to inform the children by interactive activities provided in the classroom, and also which organises experiential visits to chemical sites where children can see the workings of a chemical plant or laboratory in action safely and enjoyably. Research by external experts funded by Chemclust, such as the Science Council of Great Britain has shown that negative perceptions among older teenagers still prevail, and this remains a barrier to recruitment that will need to be addressed.

CHEMSKILLS NETWORK EVENT

ChemClust and the ECRN were hosted by Cheshire West and Chester Council later on that evening following the CATALYST visit to a networking event chaired by the Lord Mayor of Chester, who welcomed them all again and encouraged all the invitees to exchange views on the skills elements of the chemical industry. Representatives from the University of Chester, other education institutes, local chemical companies and other partners were given a keynote speech from Dr. Jenny Clucas, UK Skills Strategy Director for COGENT, who is also a former Chief Executive Officer of Chemicals Northwest, the chemical industry sector.

COGENT operate across the UK and deliver nationally approved skill set training for the chemical, oil gas, electrical and nuclear industries. Dr Clucas outlined the main points behind the GOLD STANDARD in chemical skills training- which has been identified a potential Best Practice.

It is hoped that elements of the Cogent GOLD standard will be looked at as part of a proposal to introduce EU-wide Skills Passports to aid in regional labour mobility.

Councillor Manley said: “The chemical industry in the Borough is one of the largest employers in our area and is internationally recognised as a centre of excellence and a key growth sector.

“Supporting the chemical industry and its future skills requirements is of significant importance and we are doing all in our power to maintain this competitive edge.

“It is also extremely important that the European Chemical Regions work together and focus on three key areas which include the use of chemical sites as knowledge centres, promoting open innovation and co-operation between educators, and to use skills foresight to address skills gaps in chemical industry dependant areas, both currently and for future skill needs”.



Major points involving the chemical industry in the Cheshire West and Chester Council area include:

- The sector is Cheshire's West's largest exporter with 50% of production sold in European and world markets.
- With a history of producing salt and alkalis stretching back more than 300 years, Cheshire West is a centre of international excellence.
- Its extensive economic, transport and skills infrastructure has enabled Cheshire West to sustain its remarkable success in attracting inward investment resulting in even greater diversity.
- Cheshire's West's bulk chemical production supplies other local key sectors such as pharmaceuticals, biotechnology, textiles, environmental technologies, food and plastics processing.
- Many world class university research departments are within a 30 minute drive.
- Cheshire West has space for companies to grow on high quality sites, that enjoy prime transport and communication links.
- The External Funding and Partnerships team has been hosting finance, innovation and funding events to support growth in the council area and to ensure a skilled workforce maintains and increases their competitive edge.



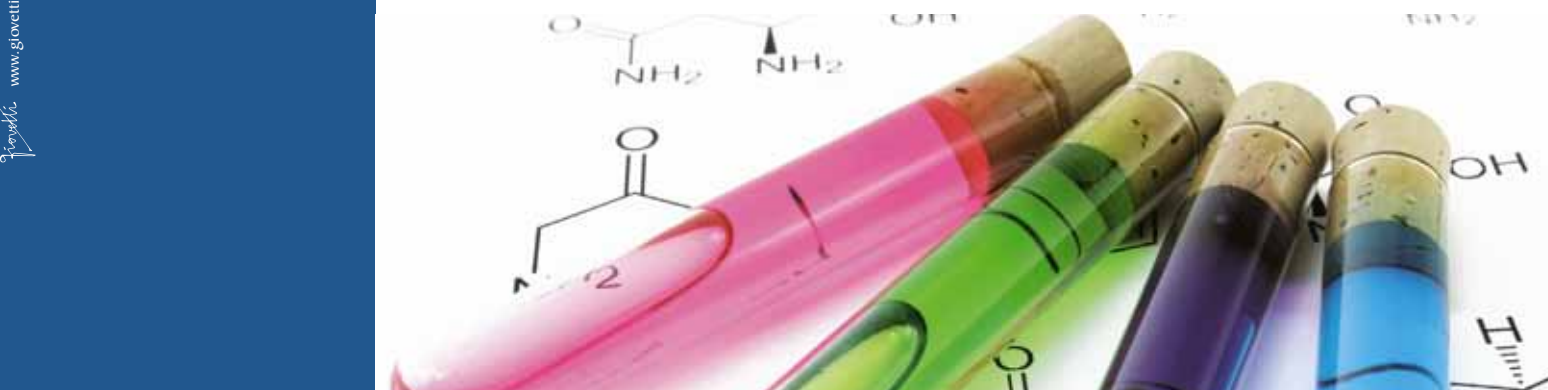
UPCOMING EVENTS

20th September 2012

**> Mainstreaming
Seminar
in Asturias**

November 2012

**> Final
Dissemination
Conference**



Lead Partner Ministry of Science and Economy of Saxony-Anhalt

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