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**COMPET 37
IND 11
MI 67
ENV 90
RECH 23
EDUC 28
ENER 23
TRANS 34
COMER 32**

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COMMISSION STAFF WORKING DOCUMENT

**Report on the implementation of the recommendations of the High Level Group on the
Competitiveness of the European Chemicals Industry**

1. INTRODUCTION

In 2007 the Commission set up a High Level Group (HLG) on the Competitiveness of the European Chemicals Industry¹ in order to “conduct economic and statistical analysis of the factors determining the structural changes in the chemicals industry” and “to formulate a set of policy recommendations addressed to policy makers, industry and civil society organisations”.

In February 2009, the HLG adopted its final report (HLG Report) including 39 policy recommendations², which were agreed unanimously and addressed to a wide range of actors, including the Commission services, Member States and regional authorities, as well as industry and other stakeholders.

In May 2009 the Competitiveness Council adopted conclusions on the HLG Report and invited the Commission to report – in close consultation with all stakeholders - on the implementation of the recommendations by the end of 2010. This report is based on information the Commission has collected through a series of meetings with individual stakeholders and a workshop on 15 September 2010 and presents a selection of the main activities implementing the recommendations of the HLG – a more comprehensive overview is presented in the annex to this Commission Staff Working Paper.

2. SETTING THE SCENE

The chemicals industry is at the basis of most industrial value chains. It is not only an important economic sector in its own right but has a key role as a major innovation motor for the whole economy and a solution provider for most societal challenges identified in the Europe 2020 Strategy. It is, therefore, a key contributor to most of the Strategy’s Flagship Initiatives. At the same time, an adequate regulatory framework and good corporate governance are necessary to avoid adverse effects of chemicals on human health and the environment.

The chemicals industry has been one of the manufacturing sectors most affected by the economic crisis, largely due to the severe downturn in its most important customer sectors (automotive, construction, machine tools producers).

The worst point of the crisis was reached at the end of 2008. Since January 2009, sales and production levels have been steadily recovering, without however reaching pre-crisis levels. The chemicals industry registered in 2009 -18.3% in sales and -11.3% compared to 2008. In 2009, 59,000 jobs out of 1.2 million were lost, around 35,000 of which were due to the economic crisis. When considering the first ten months of 2010, output in the EU chemicals industry experienced an increase of 11.3% compared to the same period of 2009.

With a trade surplus up to € 35.6 billion in the first nine months of 2010 (€ 3.1 billion more than in Jan-Aug 2009), the European chemicals industry remains highly competitive on a

¹ Commission Decision 2007/418/EC of 14 June 2007 setting up the High Level Group on the Competitiveness of the Chemicals Industry in the European Union (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:156:0034:0036:en:PDF>)

² http://ec.europa.eu/enterprise/sectors/chemicals/files/final_report/hlg_final_report_july09.pdf

global scale. Nevertheless, the crisis has accelerated the reshaping of the world chemicals markets. Strong growth in some emerging countries – most notably China and India - creates new market opportunities but also new competing industries benefitting from lower costs and proximity to growing markets. Moreover, in the petrochemicals industry, the Middle East has emerged as an important player, benefitting from lower raw materials costs. As a result, the share of the European chemicals industry in sales worldwide fell from 29% in 2007 to 24% in 2009.

Against this background, the implementation of the HLG recommendations becomes even more important to foster the global competitiveness of the European chemicals industry.

3. INNOVATION AND RESEARCH

One of the strongest points of the European chemical industry is its integration into **research and innovation networks and clusters**, often multi-locational and strongly interlinked with major downstream industries. **European Technology Platforms** (ETPs) provide a framework for stakeholders to define research and innovation priorities, roadmaps and plans. Innovation Partnerships under the **Innovation Union**³ flagship initiative of the Europe 2020 strategy can integrate the work of ETPs and improve the market uptake of innovative products.

The ETP for sustainable chemistry **SusChem** has been successful in orientating research initiatives and supporting the participation of chemical companies in EU R&D programmes. SusChem refocused its activities and now covers the full knowledge triangle research, innovation and education. Recognising that innovation has to start simultaneously at various stages of the value chain, SusChem has increased co-operation with relevant partners to address sustainability across sectors and underlined the importance of expanding this integrated approach through an active involvement in the upcoming Innovation Partnerships.

The UK established a **Chemicals Innovation Knowledge Transfer Network**⁴ (CIKTN) in 2006 to stimulate and support product and process innovation in the UK chemicals-using industries. In Italy, the **Technological Innovation Fund**⁵ finances experimental development in start up companies.

Many **regions** have developed policies to support **clusters**. There is also increasing international co-operation between clusters, such as those between *Axelera* (Lyon) and *Chemie-Cluster Bayern* (Munich) or Flanders, Limburg and North Rhine-Westphalia. Nevertheless, information on the key factors for success of particular clusters or chemicals regions is still limited. **ChemClust** is a 1.7m € project of the European Chemical Regions Network (ECRN) with 10 chemical regions in 7 Member States, co-financed by Interreg IIIC. The three-year initiative started at the end of 2009 to improve the effectiveness of regional development policies within innovation and cluster policies.

The **European Cluster Observatory**⁶ provides a wide variety of data, e.g. mapping of regional clusters, policy reports, case studies, an analysis of which might allow criteria for success, to be identified.

³ http://ec.europa.eu/enterprise/policies/innovation/innovation_union/index_en.htm

⁴ <https://ktn.innovateuk.org/web/chemistryinnovationktn>

⁵ <http://www.riditt.it/>

⁶ <http://www.clusterobservatory.eu/>

There is a very wide range of **research and innovation** activities, both in the private and the public sectors. However, the EU still lags behind some other world regions both in terms of R&D spending (in particular by the private sector) and effectiveness in turning knowledge into new products and services. It is one of the main objectives of the **Innovation Union** to strengthen every link in the innovation chain, from research to commercialisation.

The **Lead Market Initiative**⁷ intended to speed up and facilitate the translation of technological and non-technological innovation into commercial products and services through prioritised regulation, public procurement, standardisation and additional supporting activities. It covered six sectors, most of which (bio-based products, sustainable construction, recycling, protective textiles, renewable energies) are strongly linked to the chemicals industry.

The **Key Enabling Technologies**⁸ (KETs) initiative intends to ensure the deployment of technologies to facilitate the transition of the EU's industrial base to a knowledge-based, low carbon and resource-efficient economy. The European chemicals industry is fully involved in: nanotechnology, micro and nano-electronics, advanced materials, bio-technology, photonics, advanced manufacturing systems and carbon capture and storage. A High Level Group on KETs has been set up and started its work in July 2010 in order to provide policy recommendations and concrete proposals.

Under the initiative **FIT-REACH**, Italy has allocated 120 million € from its Technological Innovation Fund to support projects of experimental development, including industrial research, on product and/or process innovation aimed at substituting or eliminating Substances of Very High Concern, as defined in the REACH Regulation.

The **Centre for Process Innovation**⁹ (North East England) is an open access innovation centre for the chemistry and process industries. CPI has helped hundreds of businesses and created over 12 new businesses of its own. It has helped in creating and preserving 3,350 jobs, worked with over 850 SMEs, created over 30 new products and helped leverage £545m of private sector investment.

The chemical industry has made progress in implementing a **more effective dialogue with society**. Nevertheless, gaining the confidence of all stakeholders in the sustainability and safety of chemical products and processes requires continued and long-term efforts.

The Dutch Chemical Industry Association (VNCI) has launched the initiative “**Chemistry is everywhere**”¹⁰, explaining the importance of chemistry and the solutions it can provide for the social problems of today and tomorrow. The UK **Chemicals Stakeholder Forum** with members from all stakeholder groups advises on how industry should reduce the risks to human health and the environment from hazardous chemicals.

The protection of **Intellectual Property Rights** and an efficient system to gain and enforce them remains a major strategic concern for the European chemicals industry. In 2009 the Council adopted a General Approach and conclusions on an enhanced patent system for

⁷ Communication from the Commission “A lead market initiative for Europe”, COM(2007) 860 final

⁸ Communication from the Commission “Preparing for our future: Developing a common strategy for key enabling technologies in the EU”, COM(2009) 512 final

⁹ <http://www.uk-cpi.com/>

¹⁰ <http://www.chemieisoveral.nl/>

Europe including a common patent court structure, a common understanding on renewal fees and partnership arrangements between patent offices¹¹. Despite initial progress, the Council failed to reach agreement on a unified EU patent regime due to an inability to agree on translation requirements. Following failure to reach agreement, a group of Member States requested that the Commission prepare a proposal for a Council Decision to continue work on a unified patent in a smaller group of Member States via enhanced cooperation. The Council will consider the proposal in 2011. Work on a unified patent court has been suspended pending an opinion by the European Court of Justice on the compatibility of the court with the European Treaties. The opinion is expected to be published by March 2011.

In the fight against **counterfeiting and piracy**, the Commission has issued two Communications on industrial property rights¹² and IPR enforcement¹³ and set up a European Observatory on Counterfeiting and Piracy.

The **Anti-Counterfeiting Trade Agreement**¹⁴ (ACTA) is a multilateral agreement (agreed in December 2010) for the purpose of establishing international standards on intellectual property rights enforcement¹⁵.

4. HUMAN RESOURCES

There is a need to **attract more talented people to studies related to science and to innovation management**. Studies and vocational training should address the future skills needed by companies and provide knowledge about science, technology and business reality. There are many interesting initiatives by authorities and/or companies and industry associations to provide practical tools and better understanding of chemistry and company reality which could inspire initiatives in other parts of the EU:

From primary schools...

The Chemical Industry Association of Hesse has developed a wide range of initiatives to increase children's knowledge of science and chemistry through scientific experiments, involving also teachers and families.

...to higher studies...

The Ministry for Innovation, Science, and Research of North Rhine-Westphalia launched the project "Zukunft durch Innovation" (Future through innovation) implementing a wide range of initiatives inviting young people to explore their technical and scientific talents.

... to University

¹¹ Council document 17229/09

¹² Communication from the Commission "An Industrial Property Rights Strategy for Europe" COM(2008) 465 final

¹³ Communication from the Commission "Enhancing the enforcement of intellectual property rights in the internal market", COM(2009) 467 final

¹⁴ <http://ec.europa.eu/trade/creating-opportunities/trade-topics/intellectual-property/anti-counterfeiting/>

¹⁵ http://trade.ec.europa.eu/doclib/docs/2010/october/tradoc_146699.pdf

Since 2000, the Christian-Albrechts-Universität in Kiel has offered a study program called "Wirtschaftschemie" (business chemistry) which combines chemistry and business administration curricula.

In 2009 the Commission presented a set of measures to develop and strengthen the **University-Business Dialogue** as part of a wider effort to support the modernisation of higher education¹⁶ and proposed to expand the role of its University-Business Forum, which has met annually since 2008¹⁷.

The "**New Skills for New Jobs**" initiative intends to address skills needs by building stronger bridges between education and training and the work environments. Concrete recommendations have been provided by a group of independent high-level experts¹⁸. Two studies, one by the Commission¹⁹ and another by CEFIC²⁰, analyse future skills needs in the chemical industry.

The Commission set up a thematic working group currently composed of 19 European countries²¹, around the specific theme of "**Maths, Sciences and Technology (MST)**" to improve participation in MST studies and careers.

The International Union of Pure and Applied Chemistry (IUPAC) and UNESCO designated 2011 as the **International Year of Chemistry**²². The European Association for Chemical and Molecular Sciences (EuCheMS) is the European coordinating partner. The goals of IYC2011 are to improve the public image of chemistry, create interest in chemistry among young people and to underline the critical role it plays in a sustainable future. The Commission plans to mark IYC2011 through a number of activities.

5. REGULATION

Regulation remains of key importance for the chemicals industry. It needs to strike a balance between protecting public interest and limiting costs and administrative burden for companies.

As part of its **Better Regulation** initiative, the Commission has extended the use of impact assessments and has introduced an Impact Assessment Board to scrutinise the quality of impact assessments across the Commission. Impact assessments have been prepared for all recent major initiatives in the chemicals area, involving stakeholders from the outset.

¹⁶ Commission Communication "A new partnership for the modernisation of universities: the EU Forum for University Business Dialogue", <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0158:FIN:EN:PDF>

¹⁷ Report of the last meeting: <http://ec.europa.eu/education/higher-education/doc/business/forum2010/report.pdf>

¹⁸ "New Skills for New Jobs: Action Now - A report by the Expert Group on New Skills for New Jobs" <http://ec.europa.eu/social/main.jsp?catId=88&langId=fr&eventsId=232&furtherEvents=yes>

¹⁹ "Investing in the Future of Jobs and Skills Scenarios, implications and options in anticipation of future skills and knowledge needs - Sector Report - Chemicals, Pharmaceuticals, Rubber & Plastic Products", May 2009 <http://ec.europa.eu/social/main.jsp?langId=en&catId=782&newsId=555&furtherNews=yes>

²⁰ <http://www.cefic.be/Files/Publications/Skills-for-Innovation-in-the-European-Chemical-Industry-corr.pdf>

²¹ AT, BE, BG, CY, CZ, DE, DK, EE, ES, IE, LV, MT, NL, NO, PT, SE, SK, TR, UK

²² <http://www.chemistry2011.org/>

Major efforts have been made to improve the **understanding of regulation**. For example, under REACH and CLP extensive guidance has been prepared with close involvement of the chemicals industry. ECHA information activities include stakeholder events, webinars and assistance online, a newsletter, workshops and the publication of short practical guides. The network of the REACH National Help Desks answered more than 7.500 inquiries in 2009. In order to address critical questions and find practical solutions, a so-called Directors Contact Group has been set up, involving representatives from the chemicals industry, the Commission services and ECHA.

There is still more work to do to streamline and increase **coherence** between different pieces of legislation. As a recent example, the Commission has proposed to align REACH and RoHS procedures with regard to restricting hazardous substances in the RoHS recast, which has eventually been supported by the Council and the European Parliament. The Commission has launched a study in the preparation of the review of the scope of REACH by 1 June 2012 as mandated by Article 138 (6) and has invited all stakeholders to contribute.

The Commission has also stepped up its work regarding more harmonised and correct application of agreed rules by monitoring closely infringements and complaints.

6. ENERGY AND RAW MATERIALS

Reliable access to raw materials and energy at fair prices is crucial for the competitiveness of the chemicals industry. Progress has been made on a number of initiatives relating to improvements of infrastructure and efficiency of markets. Nevertheless, the EU's dependency on external supplies remains critical and further efforts are needed to stabilise supplies in co-operation with trading partners and Member States.

In July 2009, the Commission proposed a new Regulation on security of **gas supply**²³ addressing weaknesses that became evident in the 2009 gas crisis.

Also in July 2009, the third **Internal Energy Market Package**²⁴ was adopted. It aims at making open markets more effective in achieving the lowest possible energy prices while guaranteeing better energy security and sustainability.

The **European Energy Programme for Recovery**²⁵ (EPR) of 2009 provided 2.365 bn € to 31 gas and 12 electricity projects.

In 2010 the Commission submitted a report on measures to safeguard the security of **electricity supply** and infrastructure investment²⁶. It provides a positive assessment of network capacity and generation in the short term while in the medium/long term large investments will be necessary.

In spring 2010, the Commission adopted new **transparency rules** to ensure effective access to natural gas transmission systems and to provide a minimum guarantee of equal market

²³ http://ec.europa.eu/energy/security/gas/gas_en.htm

²⁴ http://ec.europa.eu/energy/gas_electricity/third_legislative_package_en.htm

²⁵ http://ec.europa.eu/energy/eepr/index_en.htm

²⁶ COM(2010)330

access conditions in practice²⁷. The Commission is currently preparing a new **Energy Infrastructure Package**, which will build upon the current TEN-E (Trans-European energy networks) framework.

In 2008 the Commission launched the **Raw Materials Initiative** aiming at undistorted access to raw materials, sustainable supply from domestic sources and resource efficiency and recycling. A new Communication in 2011 will outline the future development of this initiative.

In line with the EU 2020 objective of building a bio-based economy, the chemicals industry needs to **progressively shift its raw material basis towards renewables**. This is complex and will require time, in-depth research and substantial investments. Subsidies for the use of renewables as fuel and import tariffs on renewables affect their availability as feedstock for the chemicals industry. Moreover, stability and predictability of subsidies as well as long-term profitability of subsidized products and projects remain important. However, progress on these issues is often slow due to the need to strike a balance between different and often competing interests of various stakeholders.

In the framework of the **Lead Market Initiative**, an ad-hoc Advisory Group provided specific recommendations for the development of the market for **bio-based products**. The Commission issued two standardisation mandates to CEN and published Green Public Procurement Guidelines²⁸.

Research into **biorefineries** has been supported by the 7th Framework Programme for Research and Development (FP7). A coordination and support action was launched in 2009 and three large research projects started in 2010.

The **BioChem** project, co-financed by Europe Innova, started in 2010. It supports companies to enter the emerging market for bio-based products in the chemicals sector.

7. LOGISTICS

Improvements to the transport systems and infrastructure for chemicals will be important factors for keeping the chemicals industry in the EU or to attract new investments. Sustainability and chemical safety, as well as a well-managed dialogue with the public are essential to get acceptance for such improvements.

ChemLog²⁹ - Chemical Logistics Cooperation in Central and Eastern Europe - is a cooperation project between regional authorities, chemical industry associations and scientific institutions from Germany, Poland, the Czech Republic, Slovakia, Hungary and Italy to improve framework conditions for supply chain management in Central and Eastern Europe.

²⁷ http://ec.europa.eu/energy/gas_electricity/gas_committee_en.htm

²⁸ http://ec.europa.eu/environment/gpp/guideline_en.htm

²⁹ <http://www.chemlog.info/>

The Commission adopted a **Communication on the Future of Transport**³⁰ in June 2009, aiming at identifying policy options for the next White Paper on a European Transport Policy, expected in 2011.

In the framework of **railway freight policies**, the Commission has proposed a Regulation concerning a rail network for competitive freight, which foresees the establishment of nine international railway corridors with favourable conditions for freight train traffic within the next 3-5 years³¹. A study on **Single Wagonload Traffic** is in preparation³².

A new Regulation on access to the international road haulage market³³ entered into force in May 2010. Along with the Directive on road charging³⁴ (Eurovignette) which is currently being revised, this Regulation aims at reducing the number of empty lorries on European roads and to ease **road traffic congestion**. The Commission is also carrying out studies to assess the costs and benefits of increasing the mass and/or size of trucks.

In the context of the **Freight Transport Logistics Action Plan**³⁵, the Commission launched a “bottleneck exercise” in cooperation with industry.

In December 2008 the Commission adopted the Action Plan for the deployment of **Intelligent Transport Systems**³⁶ (ITS) in the field of road transport and for interfaces with other transport modes (the **ITS Action Plan**), in order to coordinate and accelerate their deployment and therefore make road transport in the EU more sustainable, efficient and clean. Its associated legal instrument, the **ITS Directive**, has been adopted in July 2010³⁷.

8. CLIMATE CHANGE

The chemicals industry is a major provider of solutions to fight **climate change** by providing materials for insulation, generation of energy from renewable sources, storage and transport of energy and capture of CO₂. It is also a major consumer of fossil fuels and has to continue efforts to reduce greenhouse gas (GHG) emissions where possible.

In line with the provisions of the ETS Directive, in December 2009 large parts of the chemicals industry were deemed to be exposed to a significant risk of **carbon leakage**³⁸. On the basis of a thorough evaluation of emission and production data, the Commission has presented a draft Decision determining transitional Union-wide rules for the harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC, including

³⁰ COM(2009) 279, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0279:FIN:EN:PDF>

³¹ COM(2008)852, <http://www.europeanlawmonitor.org/legislation/2008/COM2008852text.pdf>

³² Single wagon load is a flexible system which allows companies to choose how many wagons he wants to dispatch instead of running a block train

³³ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:300:0072:0087:EN:PDF>

³⁴ COM (2008)436, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0436:REV1:EN:PDF>

³⁵ COM (2007)607 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52007DC0607:EN:NOT>

³⁶ COM (2008)886 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52008DC0886:EN:NOT>

³⁷ Directive 2010/40/EU <http://eur-lex.europa.eu/JOHtml.do?uri=OJ:L:2010:207:SOM:EN:HTML>

³⁸ Commission Decision 2010/2/EC <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:001:0010:0018:EN:PDF>

benchmarks for 15 chemical products in a manner that sets an incentive for further reduction of GHG emissions while providing for the necessary free allocation of emission certificates to avoid carbon leakage. In December 2010, the Member States approved the draft Decision in the Climate Change Committee.

Even though the Copenhagen Accord fell short of the EU's expectations, it continues efforts at international level to engage other countries to take on more ambitious climate actions, and consequently level the playing field between producers in the EU and other countries. The Commission published a Communication in May 2010 revising the estimated costs of the 20% reduction target, and assessing options and costs for moving to 30%. In the absence of a global agreement on binding reduction targets, the Commission is considering further studies on **sectoral approaches**, some of which concern the chemicals industry (oil refining, fertilisers, inorganic chemicals).

9. TRADE

The European chemicals industry operates globally and fair access to raw materials and markets is essential.

The EU pursued its efforts to obtain agreement in the **WTO Doha Development Agenda negotiations** despite of some reluctance from major trading partners. Discussions on the sectoral proposal on chemical tariffs liberalisation and negotiations on trade facilitation have been ongoing, and the Commission will continue to make all efforts to bring these negotiations to a successful conclusion and secure the participation of all major actors.

More progress has been made with regard to Free Trade Agreements (FTA). The new **FTA with the Republic of Korea** will significantly improve access of the EU chemicals industry to this important market, inter alia by including a mediation and dispute settlement mechanism and will serve as a model for future FTAs. Other ongoing negotiations of importance for the chemicals industry, notably with Ukraine, India, Canada and Singapore are making progress and negotiations with MERCOSUR have been reopened.

The Commission services are examining how to address practices detrimental to the chemicals industry such as double pricing, and will continue applying **trade defence instruments** where justified.

In 2009, the Commission compiled an **inventory of trade barriers** for raw materials and assessed their economic impact. Increased efforts to fight these barriers include a WTO case on Chinese export restrictions on certain key raw materials for the chemicals industry and bilateral agreements.

During the Swedish Presidency of the **Trade Policy Committee**, the Commission analyzed the main impediments to trade faced by the chemicals industry and identified a range of follow-up actions. Amongst them, the Commission set up a **Market Access Working Group** on chemicals to agree on action and strategies to remove such trade impediments.

The Commission worked to find stable and low cost **access to bio-based raw materials** to meet the trade interests of the EU and to balance the needs of producers and users of these raw materials.

Difficulties experienced by EU economic operators in their dealings with certain customs authorities have also been regularly discussed in the relevant bilateral **customs cooperation fora**.

10. CONCLUSIONS

This report and its annex, which contains for each recommendation of the HLG a more detailed list of actions, have identified a very wide range of initiatives taken by the Commission, the Member States, Chemical Regions, industry and other stakeholders in the context of the implementation of the HLG recommendations. Even though several activities had already been launched before 2009, the HLG recommendations have served

- to get a comprehensive overview of all relevant actions and initiatives,
- to better understand the role and relevance of the chemical industry and
- to reinforce efforts to maintain and strengthen the attractiveness of the EU for the chemicals industry while ensuring safety and sustainability of chemicals.

Most of the actions and initiatives are mid- to long-term and it is rather early to draw conclusions on which recommendations have been implemented most successfully. However, it is fair to say that implementation is still rather uneven, both in terms of individual recommendations and actors involved.

There have been a lot of new developments in innovation policy and networks, initiatives to better interlink energy infrastructures and to more concretely identify and address trade barriers. On the other end, progress in other areas such as intellectual property rights, global or sectoral agreements on climate change, transport and logistics, or multilateral trade negotiations has been slow. However, it has to be recognised that progress often depends on factors outside the direct influence of authorities and stakeholders dealing with chemicals policy.

The level of implementation in the various Member States or regions is very uneven. Whereas this can to a certain degree be explained through the presence or absence of significant chemicals industries, there is clearly scope to make better use of best practice examples and evaluate, transfer and adapt these practices to Member States and regions which have so far been less active.

The recommendations of the HLG are still valid as a roadmap for the competitiveness of the European chemicals industry. Their further implementation will take place in the new context of the Commission's Europe 2020 Strategy and its flagships initiatives, such as "Innovation Union", "Resource efficient Europe", "An industrial policy for the globalisation era" and "An agenda for new skills and jobs". The follow-up of the implementation of the HLG recommendations has been identified as an action under the Industrial Policy Communication³⁹.

³⁹ COM (2010) 614

ANNEX

This Annex provides a comprehensive overview of the activities implementing the recommendations of the HLG, including also more detailed information and references of those mentioned in the main part of the Staff Working Paper.

On the basis of the available information, several Member States have organised a follow-up to the recommendations of the HLG at national level:

- **Belgium** set up a High Level Group on the chemicals industry to analyse at national level the implementation of the HLG Recommendations. The Belgian HLG was organised around five topics: innovation, energy, logistics, taxation and employment. The group has presented a Memorandum for the future Government.
- A High Level Working Group on the Chemicals Industry (HLWG) has been set up by the Ministry of Industry and Trade (MIT) and the Association of the Chemicals Industry in 2009 in the **Czech Republic** to search for an exit strategy from the economic crisis in the chemicals industry and to propose recommendations to mitigate the impacts of the recession. In May 2010, a conference on the conclusions and the recommendations of the HLWG has been organised with the participation of 80 experts.
- **Germany** has organised a number of activities that culminated with a national conference on the implementation of the recommendations of the High Level Group, organized in Berlin on July 1, 2010

The implementation of the HLG recommendations

1. INNOVATION AND RESEARCH

<p>1 Industry, in cooperation with governments, should set up topical innovation networks to promote key strategic innovations and foster best practices and exchange of knowledge and experience between them. One such network should deal with ‘energy and climate change’</p>	<p><i>Member States</i></p> <p>CZ: <i>Czech technological platform for bio-components</i>: co-financed by the Czech Industry Agency in the frame of technological platforms programme</p> <p>UK: <i>CIKTN</i> – Chemistry Innovation Knowledge Transfer Network⁴⁰ established in 2006 to stimulate and support product and process innovation in the UK chemistry-using industries</p> <p><i>Regions</i></p> <p><i>Chemie-Cluster Bayern - Chemical Assisted Living</i>⁴¹ (Bavaria) : a contact and competence network for all areas in which chemical products make a sustainable contribution to improve quality of daily life, e.g. e-mobility, renewable energy, CO₂ prevention, new materials, building chemistry and polymer chemistry.</p> <p><i>Baxel</i>: cooperation and staff exchange between Chemie-Cluster (Bavaria) and Axelera (Rhône-Alpes)</p> <p><i>Wilton Innovation Connector</i> in the Wilton Chemical Site (North East England): in 2009 was formed the Innovation Accelerator, hosted by the Centre for Process Industry on the Wilton Chemical Site. Its goal is to assist SMES and stimulate innovation amongst North East process industry by encouraging new business growth. The construction of an incubator at the Wilton site, designed specifically for new process industry start-ups will has been completed in 2010. Community outreach and visitor engagement centre and a training centre are additional projects for which funding has still to be found.</p>
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⁴⁰ <https://ktn.innovateuk.org/web/chemistryinnovationktn>

⁴¹ <http://www.chemiecluster-bayern.de/en/>

	<p>Industry</p> <p><i>Elastopôle</i>: Rubber and polymers competitiveness cluster, France, aims to harness the strengths of industry, science and universities in the rubber and polymer industry. The goal is to promote business and employment through innovative technological developments covering the whole product life cycle: raw material, applications, process and environment. Four regions have been engaged: Pays de la Loire, Auvergne, Ile de France and Centre region⁴².</p> <p><i>Axelera</i>: this association was created by the cluster's founding members, namely Arkema, CNRS, IFP, Rhodia and Suez, to act as the vehicle for the "Lyon Rhône-Alpes Chemicals and Environment competitiveness cluster" project. The activities of the cluster, which has more than 170 members to date, are focused on 12 R&D (Research & Developments) programs, implementation and equipment projects and 'Strategy and Prospective' missions⁴³.</p>
<p>2 Industry and public authorities at all levels should strengthen clusters (and open innovation processes) which facilitate cooperation across sectors and across borders, with the aim of further stimulating, accelerating and facilitating cross-cutting innovation throughout the value chain.</p>	<p>Regions</p> <p><i>ChemClust</i> (10 partners, 7 Member states): it is a three year 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 practice⁴⁴.</p> <p><i>Humber Chemical Focus ltd</i>⁴⁵ (<i>HCF</i>) runs a number of conferences, events and network groups as well as community liaison panels. The purpose of the network groups is to bring members together to discuss topical issues, share best practice and to ensure positive progression of the</p>

42

<http://www.elastopole.com/>

43

http://www.axelera.org/srt/axelera_en/home

44

http://lsa-st52.sachsen-anhalt.de/documents/ECRN_11_Newsletter_May2010.pdf

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<http://www.humberchemicalfocus.org/>

	<p>Humber Chemical Industry within the region (Humber, UK)</p> <p><i>Yorkshire Chemical Focus Limited</i>⁴⁶, (YCF) is a not-for-profit company funded in 2005 by Regional Development Agency Yorkshire Forward, and industry members to provide an independent voice for chemical and related businesses in Yorkshire. (Yorkshire, UK)</p> <p><i>Plastiwin</i>⁴⁷: vertically integrated plastic cluster (Wallonia) brings together three key players in the plastics industry (manufacturers of raw materials, designers of molds, tooling and machinery, processors such as injectors, extruders, blowers, etc.) to facilitate contacts, the establishment of commercial partnerships and innovation.</p>
<p>3 As part of further strengthening existing networks, the technology platform SusChem should explore opportunities beyond the defined key areas to include innovation leadership issues ('bringing good ideas to the market') in a new SusChem+ structure.</p>	<p>Regions</p> <p><i>Proof of Concept Programme</i>⁴⁸, from research in labs to marketplace (Scotland): The Proof of Concept Programme helps researchers from Scotland's universities, research institutes and NHS Boards export their ideas and inventions from the lab to the global marketplace and create new sustainable businesses for Scotland. It supports the pre-commercialisation of leading-edge technologies emerging from Scotland's universities, research institutes and National Health Service Boards.</p> <p><i>FISCH – Flanders Strategic Initiative for Sustainable Chemistry</i>⁴⁹ (now SusChem Flanders - Flanders) targets the creation of a Flemish platform for sustainable chemistry, where small, medium and large companies, associations, knowledge centres, service providers, authorities and investment companies co-operate in an open way on experiments, programmes and projects related to sustainable chemistry.</p>

⁴⁶ <http://www.ycf.org.uk/default.aspx>

⁴⁷ <http://www.plastiwin.be/>

⁴⁸ <http://www.scottish-enterprise.com/proofofconcept>

⁴⁹ <http://www.innovatienetwerk.be/projects/1410>

	<p>Industry</p> <p><i>SusChem</i>⁵⁰ Cooperation with other technology platforms: “Water Supply and Sanitation Technology Platform” in the project “Re-thinking water as a resource” and “Advanced Engineering Materials and Technologies”. SusChem is the only technology platform having 11 national platforms enabling an effective alignment for innovation partnership proposals.</p>
<p>4 Private sector should increase efforts to speed up innovation</p>	<p>Industry</p> <p>Investment in R&D and innovation has been kept almost at pre-crisis levels during the economic downturn, at least in large companies.</p> <p><i>European Sustainable Chemistry Award</i>: has been launched by EuCheMS⁵¹ (European Association for Chemical and Molecular Sciences) in order to raise the profile of sustainable chemistry and be a spur to innovation and competitiveness⁵².</p>
<p>5 Public sector should provide effective support to private sector efforts</p>	<p>European Union</p> <p>Communication from the Commission “<i>A lead market initiative for Europe</i>”, COM(2007)860 final⁵³: The Lead Market Initiative is the European policy for 6 important sectors (eHealth, sustainable construction, protective textiles, bio-based products, recycling and renewable energies) that are supported by actions (Standardisation Labelling Certification, Legislation, Public procurement and Complementary Actions) to lower barriers to bring new products or services onto the market. The European Commission, Member States and industry work together to carry out the action plans for the 6 Lead Markets.</p> <p>Communication from the Commission “<i>Preparing for our future: Developing a common strategy for key enabling technologies in the EU</i>”, COM(2009)512 final⁵⁴. Key enabling technologies (KETs) are an important factor in the industrial and economic future as they can be</p>

⁵⁰ <http://www.suschem.org/>
⁵¹ <http://www.euchems.org/AboutEuCheMS/index.asp>
⁵² <http://www.euchems.org/esca/>
⁵³ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0860:FIN:en:PDF>
⁵⁴ http://ec.europa.eu/enterprise/sectors/ict/files/communication_key_enabling_technologies_sec1257_en.pdf

	<p>used to improve the industrial capacities of the EU, enhance the competitiveness and sustainability of the EU's economy, and enable the EU to fulfil its ambition of becoming a principal player when facing global societal challenges. The EC identified nanotechnology, micro- and nanoelectronics, photonics, advanced materials and biotechnology as KETs.</p> <p>These technologies need to be developed further to help the EU better address global societal challenges. These technologies may help the development of energy efficient and low carbon technologies that will help the EU reach its energy and climate change targets. Due to potential scientific concerns regarding safety aspects as well as social concerns legitimate health and environmental consequences of these KETs need to be addressed upfront.</p> <p>The flagship initiative “<i>Innovation Union</i>”⁵⁵ sets out a comprehensive innovation strategy for Europe focussed on major areas of concern for citizens. It pursues a broad concept of innovation, involving all actors and all regions in the innovation cycle in order to: make Europe into a world-class science performer; revolutionize the way public and private sectors work together, notably through Innovation Partnerships; and remove bottlenecks – like expensive</p>
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55 http://ec.europa.eu/research/innovation-union/index_en.cfm
56 http://www.a-b.tugraz.at/ACIB/index_en.htm
57 <http://www.micinn.es/portal/site/MICINN/menuitem.dbc68b34d11ccbd5d52ffeb801432ea0/?vgnextoid=6ad81bb06b598210VgnVCM1000001d04140aRCRD>
58 <http://www.tem.fi>
59 <http://www.tekes.fi>
60 <http://www.aka.fi>
61 http://www.tekes.fi/en/community/StrategicCentresforScience_TechnologyandInnovation/360/StrategicCentresforScience_TechnologyandInnovation/1296
62 <http://www.riditt.it/>
63 <http://alfa.fct.mctes.pt/index.phtml.en>
64 <https://ktn.innovateuk.org/web/chemistryinnovationktn/overview>
65 <http://www.nationalcompositescentre.co.uk/>
66 <http://www.bis.gov.uk/assets/bispartners/goscience/docs/u/10-825-uk-nanotechnologies-strategy>
67 http://www.scottish-enterprise.com/grow-your-business/develop-your-business/~media/publications/Develop%20your%20business/growing_innovation1.ashx
68 <http://www.scottish-enterprise.com/proofofconcept>
69 <http://www.uk-cpi.com/>
70 <http://planmarshall2vert.wallonie.be/>
71 <http://economie.wallonie.be/competitiveness/Competitiveness-policy.htm>
72 <http://www.science4life.de/>
73 <http://www.hessen-nanotech.de/>

patenting, market fragmentation, slow standard setting and skill shortages - that currently prevent ideas getting quickly to market.

Member States

AT: financing to R&D and clusters: *Austrian Centre for Industrial Biotechnology*⁵⁶; *Action Plan on Nanotechnology*;

BE: fiscal benefits for innovation, patents, R&D

ES: *Innpacto*, financial support to cooperative projects to promote cooperation between enterprises and R&D public agents⁵⁷; Programme to foster competitiveness of strategic industries (chemical industry included);

FI: *National Innovation Strategy*⁵⁸ sets the political framework; *Finnish Funding Agency for Technology and Innovation*⁵⁹ and *Academy of Finland*⁶⁰ most important financing bodies; *Strategic Centres for Science, Technology and Innovation*⁶¹ public-private partnerships for speeding up innovation processes.

IT: *FIT REACH*: in March 2009, the Ministry of Economic Development launched a tender of the Technological Innovation Fund, to support projects of experimental development, including a smaller part of industrial research, concerning product and/or process innovation aimed at substituting or eliminating Substances of Very High Concern, as defined in the REACH Regulation. Companies, predominantly downstream users, submitted 136 project proposals totalling about 150 million € and mainly focussing on chromium, formaldehyde and phenol free leather applications and PFOA and PFOS free applications in the textile industry. Through the same Fund, the Ministry of Economic Development launched another tender in July 2009 in order to finance (with both grants and loans) projects of experimental development for product and/or process innovation by medium and high-tech start ups including also in the chemicals sector.

IT: *RIDITT*⁶²: the Italian Ministry of Economic Development has been funding and promoting since 2003 the RIDITT Programme, an initiative aimed at improving the competitiveness of the national productive system by strengthening and integrating the available supply of services for innovation. RIDITT has several actions lines such as information services, technical assistance,

	<p>training services, funds for technology incubators and funds to promote the vertical (along the value chain) and horizontal (technological) clustering of industrial association and technology centres to develop research, development or innovation projects. From 2007 to 2010 RIDITT has been further strengthened by enhancing technology transfer from the research system to enterprises and supporting the setting up of high technology enterprises.</p> <p>NL: TASC - <i>Technology Areas for Sustainable Chemistry</i>: R&D programme on catalysis and sustainable processes.</p> <p>PT: <i>Fundação para a Ciência e Tecnologia</i>⁶³ (FCT) supports R&D activities in all fields; involved in pilot project with the International Union for Pure and Applied Chemistry (IUPAC) for transcontinental research; <i>Operational Programme for Competitiveness Factors</i> provides a range of incentives to private investment; <i>Competitiveness and Technology Centre</i> (PCT) for the Refining, Petrochemical and Industrial Chemicals Industries (with Associação das Indústrias da Petroquímica, Química e Refinação)</p> <p>UK: <i>Chemistry Innovation KTN</i>⁶⁴ (provides a national focus and stimulus to drive improved innovation performance across the UK chemistry-using industries) <i>National Composites Centre</i>⁶⁵ (part of the 2009 UK Government “<i>Composites Strategy</i>” and brings together companies and enterprising academics to develop new technologies for the design and rapid manufacture of high-quality composite products) <i>Nanotechnology Strategy for the UK</i>⁶⁶ (the UK Government supports innovation and promotion of the use of these technologies in a safe, responsible and sustainable way reflecting the needs of the public, industry and academia. It. published in 2010 “<i>UK Nanotechnologies Strategy: Small Technologies, Great Opportunities</i>” identifying a number of actions under four categories: Business, Industry and Innovation; Environmental, Health and Safety Research; Regulation; The Wider World).</p> <p>Regions</p> <p><i>Innovation through Collaboration</i>⁶⁷ (Scotland). Developed by Scottish Enterprise, the Innovation through Collaboration (ITC) project specifically supports the chemicals sciences sector. The ITC project supported the facilitation of collaborative research and development projects to offer growth potential for Scottish companies. New product and market opportunities were explored based around equipment/skills/knowledge available within the Scottish company</p>
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base and/or Higher Education. The project was evaluated in 2009 and this indicated considerable success in encouraging collaboration with 58 connections made and under development, 20 Innovation audits carried out, and 3 large scale projects in progress to date. This has as resulted in a new revised programme being developed for and with Industry to ensure collaborative development projects can continue to be facilitated and grown. It is anticipated this will be launched early in 2011.

Project Crystal (Scotland): aims to establish a world leading, industry led Centre of Excellence (named CMAC, Continuous Manufacturing and Crystallisation Centre) dedicated to the creation and delivery of market driven expertise in continuous manufacturing and crystallisation. It is aimed primarily at application in the pharmaceutical, fine-chemicals and high tech consumer products fields. The Centre will bring together academic excellence in fundamental and applied research, supply chain technology innovators and a variety of end-users, to create breakthrough continuous manufacturing platforms.

*Proof of Concept Programme*⁶⁸: refer to recommendation 3 for more information.

*Centre for Process Innovation*⁶⁹ (North East England). It is a technology innovation centre that uses market knowledge and technology understanding to develop and prototype products and processes quickly and efficiently with minimal risk to its public and private sector partners. CPI works in the innovation space between the discovery of an idea and the delivery of a product or service to the commercial market. It has far outgrown its regional beginnings and has created a national and international reputation in two main technology areas one of which is Advanced Manufacturing for the Process Industries. CPI develops advanced manufacturing technologies for high value chemicals, carbon capture and pharmaceuticals. This business unit is home to the National Industrial Biotechnology Facility (NIBF).

*Plan Marshall 2.Vert*⁷⁰: 6th Competitiveness Pole Environmental Technologies⁷¹ (Wallonie). It aims at consolidating scientific research in cooperation with the governments of Région de Bruxelles-Capitale and of the Fédération Wallonie-Bruxelles. One of the envisaged actions is WILL (Walloon Institute for Leadership in Life Sciences).

*Science4Life Venture Cup*⁷²: support to start ups (Hesse). Science4Life has been running since 1998. It is an association initiated and supported by the government of Hesse, the company

	<p>Sanofi-Aventis and about 100 other companies and institutions, forming a network of expertise from all over Germany. Next to providing information and seminars helpful for start ups it organizes a yearly competition in which start ups and young entrepreneurs are awarded for their innovative business ideas in the field of life sciences and chemistry. The goal of the project is to get young entrepreneurs together with experts and so help to transform new ideas into successful new companies.</p> <p><i>Alliance Hessen-Nanotech</i>⁷³ (Hesse): The alliance Hessen-Nanotech of the Hessian Ministry of Economy is the regional platform for communication and cooperation in order to strengthen the innovation capabilities of the Hessian companies in this sector. Activities include the provision of information on current developments in the field of nanotechnology, brochures and seminars and workshops. For companies and universities, the platform offers free marketing, the participation of experts in events, congresses and fairs, and free initial advice including the search for partners for cooperation. Hessen-Nanotech also supports different clusters and co-operations, such as the Hessian NanoNetwork in which five universities and five universities of applied sciences are working together.</p> <p><i>FISCH - Flemish Strategic Initiative for Sustainable Chemistry</i> (now SusChem Flanders - Flanders) targets the creation of a Flemish platform for sustainable chemistry, where small, medium and large companies, associations, knowledge centres, service providers, authorities and investment companies co-operate in an open way on experiments, programmes and projects related to sustainable chemistry.</p>
<p>6 The chemicals industry needs to develop a more effective dialogue with society based on mutual understanding and trust</p>	<p>Member States</p> <p>ES: <i>Forum on Chemistry and Society</i> (established 2005) to establish a permanent dialogue between chemical stakeholders and society⁷⁴; <i>Chemicals Day</i>: 8 editions so far, to promote and raise awareness about chemicals⁷⁵.</p> <p><i>UK Chemicals Stakeholders Forum</i>⁷⁶: wide range of stakeholders with different interests come together to explore views on the chemicals industry and provide advice to the government on</p>

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<http://www.quimicaysociedad.org/>

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http://www.quimicaysociedad.org/dia_quimica.php

	<p>how the industry should reduce the risks from hazardous chemicals to the environment and to human health through the environment. The Forum operates in an open and transparent manner while respecting the need to protect commercially sensitive information provided to it.</p> <p>Industry</p> <p>“<i>Chemistry is everywhere</i>” to promote the positive image of the chemical industry in the Netherlands (Netherlands Chemical Industry Association - VNCI)⁷⁷</p> <p><i>NanoDialogue</i>: Enhancing dialogue on Nanotechnologies and Nanosciences in society at European level One: co-funded by the EU under FP6 involving 8 countries⁷⁸.</p> <p>The International Council of Chemical Associations (ICCA) set up a portal for global chemicals safety information, providing free public access to safety and health information on chemical substances⁷⁹.</p>
<p>7 The Commission and Member States are encouraged to continue their efforts to reach agreement on the creation of a Community patent and a common jurisdictional framework within which European and Community patents can be enforced.</p>	<p>European Union</p> <p>Continue negotiations on a unified patent via enhanced cooperation.</p> <p>At the end of 2010, a Commission proposal for a language regime (“<i>Proposal for a Council Regulation on the translation arrangements for the European Union patent</i>” (COM(2010) 350 final)⁸⁰) was not supported by all Member States, even with further compromises suggested by the Belgian EU presidency. Council therefore concluded that negotiations on an EU patent had failed to reach agreement. As a result, a group of Member States requested the Commission to prepare a proposal for working towards a unified patent system via enhanced cooperation, which</p>

⁷⁶ <http://www.defra.gov.uk/environment/quality/chemicals/csf/index.htm>

⁷⁷ <http://www.chemieisoveral.nl/>

⁷⁸ http://cordis.europa.eu/fetch?CALLER=EN_NEWS&ACTION=D&SESSION=&RCN=24075

⁷⁹ <http://www.icca-chem.org/en/Home/ICCA-initiatives/Global-product-strategy/>

⁸⁰ http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2010/com_2010_0350_en.pdf

	would enable a smaller group of Member States to reach agreement of a unified patent with smaller coverage ^{81 82} . This process would be open to all Member States who wished to participate. Council will take a Decision on the process in early 2011.
8 The Commission and Member States should pursue international patent law harmonisation through the World Intellectual Property Organisation (WIPO) and initiatives such as the Transatlantic Economic Council (TEC).	<i>European Union</i> Ongoing discussions at OECD level and within IP5 (EU, US, Japan, China, Korea); US is revising its patent legislation, which could facilitate harmonisation.
9 The Commission and Member States should recognise the protection of confidential business information as an important IPR and ensure that the proportionality principle is systematically applied when striking the balance between the legitimate protection of confidential business information and other policy objectives, such as the right to know, transparency and access to documents, as has been done, for example, in the Aarhus Convention. Awareness of this IPR should be emphasised by relevant industry associations in their information activities to members and by the Commission and Member states when developing innovation policies relevant to SMEs.	<i>European Union</i> “Best Practice Project: Strengthening the IPR Enforcement of EU Industry and SMEs” (DG ENTR, 2009): the project has drawn on the knowledge and experience of a broadly based group of experts on the management of intellectual property rights. The aim of the IPR Enforcement project, then, has been to help SMEs enforce their intellectual property rights by improving the support that is available to them. This Report gives nine clear messages to policy makers and business support organisations to improve the way SMEs should enforce their intellectual property rights. Moreover it provides also an overview of the relationship between the Key Messages and the corresponding Recommendations and Case Studies ⁸³ . Regulation (EC) No 1907/2006 on <i>REACH</i> : protection of sensitive information is regulated in Articles 118 and 119. The European Chemicals Agency (ECHA) is required to publish information it holds on registered substances on the internet, except in some cases where such information can be regarded as confidential. If the registrant submitting the information also submits a justification as to why publishing the information would be potentially harmful to its commercial interests the information may be withheld. The justifications will be assessed by

⁸¹ Press release on enhanced cooperation: <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1714&format=HTML&aged=0&language=EN&guiLanguage=en>
⁸² Commission proposal for a Council Decision authorising enhanced cooperation: [http://ec.europa.eu/internal_market/indprop/docs/patent/COM\(2010\)790-final_en.pdf](http://ec.europa.eu/internal_market/indprop/docs/patent/COM(2010)790-final_en.pdf)
⁸³ http://www.innovaccess.eu/enforcement_best_practices.html

	<p>ECHA that has produced a manual on the content and assessments of such confidentiality claims⁸⁴. If the justification for keeping the IUPAC name of a substance that fulfils the conditions set out in Article 119 (2) of REACH is accepted, that name will not be made publicly available by ECHA nor will the structural information for that substance. However, an alternative or public name will be available on the ECHA website. This will be in addition to any other substance identifier available (e.g. a registration number). ECHA is preparing a manual to provide rules for registrants on how to generate a public name for most substances.</p> <p><i>Biocides</i>: in its proposal for a Regulation concerning the placing on the market and use of biocidal products⁸⁵ of June 2009 the Commission has proposed align the confidentiality provisions with those of REACH.</p> <p>Member States</p> <p>FI: <i>IPR University Centre</i>⁸⁶: coordination of 5 universities to promote education and research on IPR</p> <p>Industry</p> <p><i>“Intellectual property, innovation and competitiveness: a manifesto for the chemical industry”</i>⁸⁷ (Cefic). Among others, Cefic calls for the enhancement of the legal protection of confidential business information and trade secrets and to recognise them as important IPRs. Any new chemical legislation should align with REACH on this.</p>
10 The Commission and all players involved in the fight against counterfeiting and product piracy in Member States, including European industry, should cooperate to facilitate investigations and	<p>European Union</p> <p>Communication from the Commission “<i>An Industrial Property Rights Strategy for Europe</i>” COM(2008)465 final⁸⁸. In July 2008, the Commission adopted a Communication on an industrial property rights strategy for Europe which outlines actions to ensure Europe has a high</p>

⁸⁴ “Registrants REACH-IT Data Submission Manual - Part 16 - Confidentiality Claims: How to make confidentiality claims, and how to write Art 119(2) confidentiality claim justifications” http://echa.europa.eu/doc/reachit/dsm_16_confidentiality_claims.pdf

⁸⁵ Proposal for a Regulation of the European Parliament and of the Council concerning the placing on the market and use of biocidal products COM/2009/267 final

⁸⁶ <http://www.iprinfo.fi>

⁸⁷ <http://www.cefic.org/files/downloads/IPR-Manifesto-Final-23September08.pdf>

⁸⁸ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0465:FIN:en:PDF>

conduct strong enforcement activity against counterfeiters in Europe and elsewhere in the world, and develop public educational initiatives.

quality industrial property rights system in the years to come. The Communication provides a horizontal strategy across the spectrum of different industrial property rights and includes initiatives on enforcement, innovation support for small and medium-sized enterprises, and the quality of industrial property rights. It complements the 2007 Communication on the patent system, which set out a way forward towards the adoption of a Community patent and an integrated EU-wide jurisdiction for patents.

Communication from the Commission “*Enhancing the enforcement of intellectual property rights in the internal market*”, COM(2009)467 final⁸⁹. The European Commission adopted the Communication on enhancing the enforcement of intellectual property rights in the internal market to set out a series of practical initiatives to respond to the dramatic and damaging effect that counterfeiting and piracy is having on EU economies and on society in general. The Commission proposes to complement the existing legal framework by more focused enforcement through greater collaboration between the private sector, national authorities and consumers, throughout the internal market. Following this Communication, the Commission has set up the European Observatory on Counterfeiting and Piracy.

The *Anti-Counterfeiting Trade Agreement*⁹⁰ (ACTA) is a proposed plurilateral agreement for the purpose of establishing international standards on intellectual property rights enforcement. ACTA would establish a new international legal framework that countries can join on a voluntary basis and would create its own governing body outside existing international institutions such as the World Trade Organization (WTO), the World Intellectual Property Organization (WIPO) or the United Nations. The scope of ACTA includes counterfeit goods, generic medicines and copyright infringement on the Internet. Official negotiations began in June 2008 with the participation of Australia, Canada, the European Union, Japan, Korea, Mexico, Morocco, New Zealand, Singapore, Switzerland and the United States. The final text of the agreement has been agreed by the Parties in early December 2010. The final text was released in December 2010⁹¹.

⁸⁹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0467:FIN:EN:PDF>

⁹⁰ <http://ec.europa.eu/trade/creating-opportunities/trade-topics/intellectual-property/anti-counterfeiting/>

⁹¹ http://trade.ec.europa.eu/doclib/docs/2010/december/tradoc_147079.pdf

2. REGULATION

<p>11 The Commission should ensure that all relevant considerations are addressed in impact assessments accompanying new legislative proposals. These should include the impact on sustainable development, health, international competitiveness, SMEs and innovation. Where appropriate, further research needs should be specified.</p>	<p><i>European Union</i></p> <p>Consistent implementation of the principles of Better Regulation by the Commission – in particular through reinforced rules concerning impact assessments. The Commission has extended the use of impact assessments to ‘Comitology’ proposals with significant impact on stakeholders. It has introduced an Impact Assessment Board to scrutinise the quality of impact assessments across the Commission.</p> <p>The Communication "<i>An integrated industrial policy for the globalisation era</i>", a flagship initiative of the Europe 2020 strategy adopted by the European Commission on the 28th of October 2010, foresees both “<i>fitness checks</i>” of existing legislation, to identify the potential for reducing the cumulative effects of legislation so as to cut the costs for businesses in Europe, and an explicit and thorough “<i>competitiveness proofing</i>” of new legislation to properly analyse and take into account the impact on competitiveness of all policy proposals.</p>
<p>12 The Commission and Member State authorities should improve communication with industry and other stakeholders to facilitate proper understanding of, and compliance with, regulatory requirements.</p>	<p><i>European Union</i></p> <p>A broad range of support/communication initiatives on REACH, CLP and other legislation concerning chemicals ECHA conducts substantial information activities to improve companies’ understanding and compliance with REACH and CLP. An Internet site⁹², stakeholder events, webinars and assistance online, a newsletter in 22 languages regularly sent to 10,000 subscribers, awareness campaigns, workshops and the publication of ten practical guides to help companies comply with their obligations. The network of the REACH National Help Desk answered in 2009 more than 7.500 inquiries.</p>
<p>13 The Commission and Member States should aim to avoid unnecessary divergence of rules and implementation requirements while ensuring correct application of EU rules, in order to reduce the administrative burden. Regulation</p>	<p><i>European Union</i></p> <p>Consistent implementation of the principles of Better Regulation by the Commission – in particular through increased attention to correct transposition and implementation of EU legislation in the Member States, follow-up of complaints by companies and citizens, and informal mechanisms such as SOLVIT.</p>

⁹²

http://echa.europa.eu/help_en.asp

<p>should form a consistent framework and provide a reasonably stable long term perspective.</p>	<p>A recent example of the attempts to streamline and increase coherence between different pieces of legislation, is the Commission's proposal to align REACH and RoHS procedures with regard to restricting hazardous substances in the RoHS recast, which has eventually been supported by the Council and the European Parliament. The Commission has launched a study in the preparation of the review by 1 June 2012 as mandated by Article 138 (6) of REACH to assess whether or not to amend the scope of REACH to avoid overlaps with other relevant EU legislation and has invited all stakeholders to contribute⁹³.</p> <p><i>Member States</i></p> <p>FR: France has consolidated existing environmental legislation under a unique <i>Code de l'Environnement</i>⁹⁴.</p>
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3. HUMAN RESOURCES

<p>14 Member States should step up promotion of chemical and science education, starting with primary schools.</p>	<p><i>European Union</i></p> <p><i>Maths, Sciences and Technology</i> (MST): 19 European countries are participating in a thematic working group to improve participation in MST studies⁹⁵</p> <p><i>Member States</i></p> <p>DE: <i>BioTechnikum</i>⁹⁶, intends to act as a platform for information and dialogue and encourage discussion and exchange about biotechnology. It includes an exhibition vehicle moving a chemical lab to offer pupils the opportunity to run scientific tests.</p> <p>ES: <i>Conoce</i>, since 2007 fosters the relationship between enterprises and education, promoting a real vision of chemicals among young people. Joint initiative of the Ministry of Education and FEIQUE (Federación Empresarial de la Industria Química Española).</p>
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⁹³ http://ec.europa.eu/environment/chemicals/reach/review_scope_en.htm

⁹⁴ <http://www.legifrance.gouv.fr/affichCode.do?cidTexte=LEGITEXT000006074220>

⁹⁵ AT, BE, BG,CY, CZ, DE, DK, EE, ES, IE,LV, MT, NL, NO, PT, SE, SK, TR, UK

⁹⁶ <http://www.biotechnikum.eu/>

	<p>UK: <i>STEM</i>: education engagement and enrichment activities to inspire young people to choose to study Science, Technology, Engineering and Mathematics. <i>ChemNet</i>⁹⁷: guide to students into the chemical world (Royal Society of Chemistry).</p> <p>Regions</p> <p><i>Zukunft durch Innovation (ZDI)</i>⁹⁸ This Community initiative aims to inspire young people with challenging opportunities to become students of engineering and natural sciences. Children and young people discover and use their technical and scientific talent. ZDI relies on 27 centres with academic and extracurricular offerings in technical and natural sciences, the ZDI-school labs in which students can research and experiment in a professional environment, the ZDI-engineer days when universities and businesses open their doors to students. (North-Rhine Westphalia)</p> <p>Industry</p> <p><i>Chemistry Box</i>⁹⁹: teachers training to run chemical experiments + chemical kit (Chemical Industry Association of Hesse)</p> <p><i>Research Lab for Kids</i>¹⁰⁰: everyday's life chemistry in primary schools (Chemical Industry Association of Hesse)</p> <p><i>Science Camps</i>¹⁰¹ for kids 6-10 and families (Chemical Industry Association of Hesse)</p>
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⁹⁷ <http://www.rsc.org/Membership/Networking/ChemNet/>
⁹⁸ <http://www.innovation.nrw.de/zdi/index.php>
⁹⁹ <http://www.vcihessen.de/BildungNetzwerk/Seiten/default.aspx>
¹⁰⁰ <http://www.vcihessen.de/BildungNetzwerk/Seiten/default.aspx>
¹⁰¹ <http://www.science-camp.de/>
¹⁰² <http://www.chemicalsnorthwest.org.uk/>
¹⁰³ http://www.chemicalsnorthwest.org.uk/key_activities/image/schools_programmes/cii/
¹⁰⁴ http://www.chemicalsnorthwest.org.uk/key_activities/image/schools_programmes/new-2/
¹⁰⁵ www.chemistry2011.org/
¹⁰⁶ <http://www.xperimania.net/ww/en/pub/xperimania/homepage.htm>
¹⁰⁷ <http://www.petrochemistry.net/>
¹⁰⁸ <http://www.eun.org/web/guest;jsessionid=E6312D0A130C2ABBC0186809EFEDE727>

Chemicals Northwest¹⁰², the industry-led chemical cluster support organisation in Northwest England, coordinates two programmes that ensure schools can deliver relevant and exciting science teaching, and give children and students an opportunity to visit chemicals companies and see science in action: *Primary School Programme – Children Challenging Industry*¹⁰³, that gives to pupils aged 8-11 an opportunity to work with a science advisory teacher in the classroom on practical science investigations set within an industrial context, and *Secondary School Programme – Collaboration of Schools and Industry*¹⁰⁴, that comprises two initiatives - *Science for Life* and *Positive Perceptions of Industry* - which aim to improve the image of the industry and assist young people's education and personal development. Both schemes link secondary schools with local industry.

Others

IUPAC (International Union of Pure and Applied Chemistry) and UNESCO (United Nations Educational, Scientific and Cultural Organization) declared 2011 the *International Year of Chemistry*, to increase public appreciation of chemistry, encourage interest in chemistry among young people, generate enthusiasm for the creative future of chemistry and underline the critical role it plays in a sustainable future¹⁰⁵.

Europe's Chemistry Societies support many national activities to promote the study of chemistry and to attract more students into the subject. Many societies work closely with national teaching associations to provide support for continuing professional development and the production of high quality educational materials.

*Xpermania*¹⁰⁶: is a joint project of the Association of Petrochemicals Producers in Europe¹⁰⁷ (Appe) and European Schoolnet¹⁰⁸. It concentrates on chemistry and physics, to boost young people's interest in science. It helps students in lower and secondary school classes and their teachers to understand the wide variety of applications of petrochemistry and how this relatively new and fascinating science has contributed to the evolution of many day-to-day items. Started in 2007 it has already involved students from 7.000 schools.

15 Chemistry or/and chemical engineering faculties should define the profiles of new professions in cooperation with industry.

European Union

*Leonardo da Vinci*¹⁰⁹: the programme helps to fund thousands of vocational education and training courses across Europe. Since 1995, the EU has helped more than 600,000 young people to go on training placements abroad. It has also funded 110,000 exchanges for trainers and more than 3,000 projects aimed at modernising the sector. Around 50% of all students in upper secondary education receive vocational education and training.

*New Skills for New Jobs*¹¹⁰ an initiative launched in December 2008, when the Commission set out its priorities, in particular about how to best forecast the needs of tomorrow's labour market and how these needs then can be matched with the skills that people acquire.

Skill needs in sectors: the European Centre for the Development of Vocational Training (Cedefop) looks into selected sectors of the economy to identify new and emerging skill needs¹¹¹.

Cedefop *Skillsnet* network¹¹² welcomes researchers and experts active in early identification of skill needs and forecasting or in the transfer of research results on future skill requirements into policy and practice. Skillsnet members are involved in Cedefop activities related to identification of skill needs (forecasting, employer surveys, sectoral analysis) and receive privileged access to information.

"*Comprehensive Sectoral Analysis Of Emerging Competences And Economic Activities In The European Union - Chemicals, Pharmaceuticals, Rubber & Plastic Products in the EU* " by TNO/ZSI/SEOR, 2009¹¹³. The Commission has conducted 18 Sectoral Level Analyses that seek to identify emerging competences and future skills needs. By applying a common foresight scenario-based approach, these studies provide options both for anticipating and adapting to change. The studies cover 18 sectors, including chemicals, pharmaceuticals, rubber and plastic

¹⁰⁹ http://ec.europa.eu/education/lifelong-learning-programme/doc82_en.htm

¹¹⁰ http://ec.europa.eu/education/focus/focus2043_en.htm

¹¹¹ <http://www.cedefop.europa.eu/EN/about-cedefop/projects/identifying-skill-needs-in-sectors-and-enterprises/index.aspx>

¹¹² <http://www.cedefop.europa.eu/EN/about-cedefop/networks/skillsnet/index.aspx>

¹¹³ <http://ec.europa.eu/social/main.jsp?langId=en&catId=782&newsId=555&furtherNews=yes>

	<p>products. The study concludes that the sector's workforce structurally older than in other sectors poses a potential skills gap. The trend from lower skilled to medium- and high-skilled employment can be observed in the chemicals industry and it is especially pronounced in the technical occupations. This general trend of up-skilling across job functions is bound to continue in the coming years. Across all job functions soft skills will become increasingly important, especially for high skilled professional jobs. Due to the changing nature of jobs, predefined technical knowledge capabilities will become less important. Skills to adapt and learn new competences and life-long learning will be put at a premium.</p> <p>Council Conclusions on "<i>New Skills for New Jobs: the way forward</i>", June 2010¹¹⁴: The conclusions call on the Commission to propose further steps to develop the "New Skills for New Jobs" initiative and to consider strengthening the role of the EU funding mechanisms in the development of measures to anticipate skills demand and supply. The Council also calls the Commission to improve the analysis of labour market trends and labour market forecasting, develop tools and services that will improve the quality of guidance, promote labour mobility and help to tackle mismatches between supply and demand as regards skills. Examples include the development of a European taxonomy on Skills, Competences and Occupations (ESCO), and the EURES "Match and Map" service.</p> <p><i>Agenda for new skills and jobs</i>¹¹⁵ is the Commission's contribution to reaching the EU employment rate target for women and men of 75 % for the 20-64 years age group by 2020 and part of the Europe 2020 Strategy. It also highlights the EU's targets to reduce the early school leaving rate to under 10% and increase the number of young people in higher education or</p>
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¹¹⁴ http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/lsa/114962.pdf

¹¹⁵ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "An Agenda for new skills and jobs: A European contribution towards full employment", COM/2010/0682 final (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0682:FIN:EN:HTML>)

¹¹⁶ http://ec.europa.eu/education/higher-education/doc1261_en.htm

¹¹⁷ http://ec.europa.eu/education/higher-education/doc/business/com158_en.pdf

¹¹⁸ <http://ec.europa.eu/education/higher-education/doc/business/forum2010/report.pdf>

¹¹⁹ http://ec.europa.eu/education/lifelong-learning-policy/doc62_en.htm

¹²⁰ http://ectn-assoc.cpe.fr/network/wg_pres/ECTN40n_EmployabilityUnivGradChem.htm

¹²¹ http://ectn-assoc.cpe.fr/network/ectn5_ec2e2n.htm

equivalent vocational education to at least 40%. To make Europe's labour markets function better the Commission proposes thirteen concrete actions that will help: 1) to step up labour market reform to improve flexibility and security of labour markets ('flexicurity'); 2) to give people and businesses the right incentives to invest in training to continuously upgrade people's skills in line with labour market needs; 3) to ensure decent working conditions while improving the quality of employment legislation; 4) to ensure the right labour market conditions are in place for job creation such as less administrative burdens or lowering the taxes on labour and mobility. The Agenda for New Skills and Jobs complements the Commission's 'Youth on the Move' initiative, which aims to help young people to gain the knowledge, skills and experience they need to make their first job a reality.

*University-business dialogue and co-operation*¹¹⁶ and *EU Forum for University Business Dialogue* - COM(2009)158¹¹⁷ The European University-Business Forum took place on February 2008, February 2009 and May 2010¹¹⁸. The Commission is considering the development of sectoral approaches, one possibility being chemistry.

*Higher Education in Europe*¹¹⁹. It plays an essential role in society, creating new knowledge, transferring it to students and fostering innovation. The EC has published, as part of the Lisbon Strategy for Growth and Jobs, a modernisation agenda for universities which was welcomed by the Member States and the main stakeholders in higher education. The main fields of reform are: Curricular (the three cycle system bachelor-master-doctorate, competence based learning, flexible learning paths, recognition, mobility); Governance (University autonomy, strategic partnerships, including with enterprises, quality assurance); Funding (Diversified sources of university income better linked to performance, promoting equity, access and efficiency, including the possible role of tuition fees, grants and loans). The European Commission helps EU member states and neighbouring countries in their modernising efforts through policy initiatives, discussion papers and events, as well as through EU programmes promoting mobility in education such as Erasmus, Tempus and Erasmus Mundus.

Member States

UK: *Higher Education Innovation Fund* supports capacity for knowledge exchange; *Engineering and Physical Research Council* operates in close cooperation with industry; *Cogent*, Sector Skill Council for the chemical industry.

	<p><i>Sector skills councils</i> established in: BE, CZ, ES, FI, FR, UK</p> <p><i>Regions</i></p> <p><i>Science Bazaar</i> (Bavaria). The “science bazaar” has been developed by the Bavarian association of chemical industry VCI as a platform to identify joint needs and activities in chemical research and development of companies and academia. Though cooperation between chemical industry and research in Bavaria is well established, both VCI and Chemie-Cluster Bayern have agreed that a second “science bazaar” would be helpful to see whether there is still a fit between industrial research needs and academic standards in education. Originally planned for 2010, this platform is yet to be discussed and organized in detail.</p> <p><i>Industry and Academia</i></p> <p>Doctoral Course in Refining, Petrochemical and Chemical Engineering, launched in 2009 by Industry/Universities (AIPQR – Association of Petrochemical, Chemical and Refining Industries, Portugal)</p> <p><i>Others</i></p> <p><i>European Chemistry Thematic Network Association</i>: Erasmus academic network in the area of chemistry/chemical engineering published, in cooperation with industry (Cefic), a report on the employability of chemistry graduates¹²⁰.</p> <p><i>European Chemistry and Chemical Engineering Education</i> project (EC2E2N), supported in 2009 through the EU’s Life Long Learning programme, brings together all actors in higher education chemistry and chemical engineering fields in Europe (schools, universities, industries, national chemical societies, accreditation bodies). The project, supported by EuCheMS and Cefic, brings all actors together to collaborate in the development of a knowledge based economy in chemistry and chemical engineering. It increases the attractiveness of studies in chemistry and chemical engineering and helps those involved to develop entrepreneurial skills¹²¹.</p>
16 Industry, in cooperation with education and employment agencies, should intensify efforts to	<p><i>European Union</i></p> <p>" <i>Comprehensive Sectoral Analysis Of Emerging Competences And Economic Activities In The</i></p>

<p>assess its human resource requirements in the short and long term in various locations and regions and identify probable changes in skill profiles.</p>	<p><i>European Union - Chemicals, Pharmaceuticals, Rubber & Plastic Products in the EU "</i> TNO/ZSI/SEOR (financed by EC) May 2009¹²². Refer to recommendation 15 for further information.</p> <p>Commission Communication "<i>A new partnership for the modernisation of universities: the EU Forum for University Business Dialogue</i>", COM(2009)158 final, 2 April 2009¹²³: The University-Business Forum, launched on the basis of the Commission communication of 10 May 2006 on modernising universities, provides a European platform for dialogue. This communication follows from the forum's call to improve the links between businesses and universities, with a view to strengthening Europe as a knowledge-based society and aims at: taking stock of challenges and barriers to university-business cooperation, as well as of good practices; proposing future work for the forum; establishing follow-up actions to foster cooperation.</p> <p><i>"New Skills for New Jobs: Action Now - A report by the Expert Group on New Skills for New Jobs"</i> prepared for the European Commission - February 2010¹²⁴: the report stresses the need to provide the right incentives for people to upgrade their skills, to better link education, training and work, to develop the right mix of skills, and to better anticipate those skills needed in the future. It calls for action in four main areas: Provide better incentives for employers and individuals to up-skill, and investment in skills must be significant, smart and not just financial; Open up the worlds of education and training by making education and training institutions more innovative and responsive to both learners' and employers' needs, and by developing relevant qualifications that focus on concrete learning outcomes; Offer a better mix of skills that is more suited to labour market needs; Better anticipation of future skill needs. The report is a key follow-up to the European Commission's 2008 'New Skills for New Jobs' initiative and was presented in February 2010.</p>
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¹²² <http://ec.europa.eu/social/main.jsp?langId=en&catId=782&newsId=555&furtherNews=yes>
¹²³ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0158:FIN:EN:PDF>
¹²⁴ <http://ec.europa.eu/social/main.jsp?catId=88&langId=fr&eventsId=232&furtherEvents=yes>

	<p>Member States</p> <p><i>Inncorpora</i>, co-financing the cost for companies of hiring graduates and technicians as researchers or innovation managers in R&D projects (ES)¹²⁵</p> <p>Regions</p> <p><i>Centres of Industrial Collaboration</i> (CIC's) based at regional universities (Yorkshire & Humber) as part of the national UK initiative Centres of Industrial Collaboration covering different technological areas, e.g. polymers¹²⁶. The CICs created in the Yorkshire & Humber region over the last 5 years, hosted in regional universities to provided opportunities to support business utilizing university expertise in near market development. In Yorkshire & Humber the CICs cover Green Chemistry (York), Particulate Science (Bradford) and Environmental Technologies¹²⁷ (Hull). A REACH training course was set up in 2007 to support expertise development to support the introduction of REACH to local industry and SMEs.</p> <p><i>CATCH</i>¹²⁸ - Centre training environment (Yorkshire & Humber): In 2006 HCF Ltd with its local regional network and collaboration partners collected over €10 million to build a new and innovative facility (CATCH) which replicates the scale and operating protocols of a real chemical manufacturing site. The idea is to train young apprentices (16+) is as real an industrial environment as possible. CATCH has been a major local success in the Humber and over 400 young apprentices have trained on the site. Currently the site is due to expand with a further €8 million expansion to double the training capacity of the site.</p> <p>Industry</p> <p>CEFIC: Survey on future skills for scientists and engineers¹²⁹. The survey asked for the first time company Board members to identify their skills needs to implement innovation in the</p>
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125 <http://www.micinn.es/portal/site/MICINN/menuitem.dbc68b34d11ccb5d52ffeb801432ea0/?vgnextoid=9c67aa23df768210VgnVCM1000001d04140aRCRD>

126 <http://www.polycic.com/>

127 www.etcic.com

128 www.catch-uk.org/

129 <http://www.cefic.be/Files/Publications/Skills-for-Innovation-in-the-European-Chemical-Industry-corr.pdf>

130 <http://quimica.laboris.net/>

	<p>coming years. This “wish list” is currently discussed with the education community and academia to integrate it into higher education curricula and training of existing work force. Based on this survey, issues such as integration of business and related skills in scientific curricula, or multidisciplinary skill base have been addressed in order to ensure innovation can successfully transfer research into real products and processes. The survey highlighted that multidisciplinary broad skills integrating understanding of different scientific and technical disciplines, as well as business and personal skills, will be required to ensure scientists and engineers can successfully transform research results into innovation for the benefit of society.</p> <p><i>Chemicals Employment Portal</i>, created to receive and manage both job vacancies and demands related to the chemical sector by FEIQUE, the Permanent Chemistry and Society Forum, and the Ministry of Education, Social Policies and Sports of Spain¹³⁰</p>
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4. ENERGY AND FEEDSTOCK

<p>17 In order to support the competitiveness of the petrochemicals sector in Europe, measures, such as strengthening clusters and improving infrastructure, should be taken to consolidate existing competitive advantages and secure the integration of Europe’s chemicals industry as a whole.</p>	
<p>18 Improved performance of an effectively liberalised gas market, at least in the Community, and securing reliable imports of gas at competitive non-distorted prices are of very high importance for substantial parts of the chemicals industry.</p>	<p><i>European Union</i></p> <p>New <i>Regulation on security of gas supply</i>¹³¹ focuses on transparency and solidarity, introduces obligatory preventive action and emergency plans at national (and/or regional) level, defines common standards for security of supply and sets compulsory technical features – such as reverse flows – that aim at efficiently mitigating any future shortages at regional level. The</p>

¹³¹ Regulation 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, OJ L 295/1, 12.11.2010, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:295:0001:0022:EN:PDF>

	<p>Regulation repeals Directive 2004/67/EC.</p> <p><i>TEN-E</i>: the Commission supports politically and financially, the development of projects of European added value: Out of 32 electricity projects of European interest, 5 have been completely finalised, 3 partly. Of those under construction, 4 have been completed, 5 partly completed. Among the 10 gas projects of European interest, 2 have been completely finalised, 2 partly. Of those under construction, 1 has been completed, 2 partly completed</p> <p><i>Second Strategic Energy Review</i>¹³² (November 2008) is a forward-looking political agenda to achieve Europe's core energy objectives of sustainability, competitiveness and security of supply. This agenda means substantial change in Europe's energy system over the next years, with public authorities, energy regulators, infrastructure operators, the energy industry and citizens all actively involved. The European Commission has proposed a wide-ranging energy package that includes: putting forward a new strategy to build up energy solidarity among Member States and a new policy on energy networks to stimulate investment in more efficient, low-carbon energy networks; proposing a Energy Security and Solidarity Action Plan to secure sustainable energy supplies in the EU and looking at the challenges that Europe will face between 2020 and 2050; adopting a package of energy efficiency proposals aims to make energy savings in key areas, such as reinforcing energy efficiency legislation on buildings and energy-using products.</p> <p><i>European Energy Programme for Recovery</i>¹³³, launched by Regulation 663/2009, is intended to help to speed up and secure investments on infrastructure and technology projects in the energy sector, help to improve the security of supply of the Member States and help to speed up the</p>
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¹³² http://ec.europa.eu/energy/strategies/2008/2008_11_ser2_en.htm

¹³³ http://ec.europa.eu/energy/eepr/index_en.htm

¹³⁴ "Report from the Commission to the Council and the European Parliament on the implementation of the European Energy Programme for Recovery" COM(2010)0191, 27/04/2010 at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0191:EN:HTML:NOT>

¹³⁵ http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/misc/108740.pdf

¹³⁶ http://ec.europa.eu/governance/impact/planned_ia/docs/19_ener_energy_infrastructure_package_en.pdf

¹³⁷ Communicatio from the Commissione to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "Energy 2020 - A strategy for competitive, sustainable and secure energy" COM(2010)639 - <http://www.energy.eu/directives/com-2010-0639.pdf>

¹³⁸ [http://ec.europa.eu/energy/infrastructure/strategy/doc/com\(2010\)0677_en.pdf](http://ec.europa.eu/energy/infrastructure/strategy/doc/com(2010)0677_en.pdf)

implementation of the 20/20/20 objectives for 2020. A Report from the Commission to the Council and the European Parliament on the implementation of the European Energy Programme for Recovery has been published in April 2010¹³⁴. The Report underlines how the EEPR supports mature projects that, once they are operational, will supply the European Union with about 50 Bcm/y of additional gas from outside Europe entering through the pipelines Nabucco, ITGI-Poseidon, GALSI, and the new liquid natural gas terminals in Poland and Cyprus and help strengthen the European gas pipeline network by developing new interconnections, or reinforcing existing ones, between Portugal / Spain / France (bi-directional), Germany / Belgium / UK (bi-directional), Romania / Bulgaria / Greece / Italy, Slovakia / Hungary (bidirectional) and the Baltic countries / Poland / Denmark / Germany.

*Internal Energy Market Package*¹³⁵: This package consists of five new legal acts: Directive 2009/72/EC concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC; Directive 2009/73/EC concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC; Regulation (EC) No 713/2009 establishing an Agency for the Cooperation of Energy Regulators; Regulation (EC) No 714/2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003; Regulation (EC) No 715/2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005.

*Energy Infrastructure Package*¹³⁶ has the following general objectives: completing the Internal Energy Market; ensuring the development of networks to permit the achievement of the EU's energy and climate objectives; guaranteeing EU security of energy supply, through assistance for key infrastructure projects within and outside the EU.

*Energy 2020 - A strategy for competitive, sustainable and secure energy*¹³⁷: The Communication defines the energy priorities for the next ten years and sets out the actions to be taken in order to tackle the challenges of saving energy, achieving a market with competitive prizes and secure supplies, boosting technological leadership, and effectively negotiate with our international partners. On the basis of these priorities and the action presented, the Commission has announced in its Work Programme the intention to present concrete proposals within the next 18 months. This communication also sets the agenda for the discussion by Heads of States and Governments at the first EU Summit on Energy on 4 February 2011.

	<p>On 17 November 2010, the European Commission has adopted the <i>Communication "Energy infrastructure priorities for 2020 and beyond - A Blueprint for an integrated European energy network"</i>¹³⁸. In the Communication, the Commission defines EU priority corridors for the transport of electricity, gas and oil. A toolbox is also proposed in order to enable a timely implementation of these priority infrastructures.</p>
<p>19 Due to the long term nature of the high investments required and the need to achieve high capacity utilisation, stable long term electricity supply is a key element of competitiveness for important parts of the chemicals industry. Long term contracts with power generators or increased own generation in e.g. combined heat and power facilities to cover inherent heat demand are the main options</p>	<p>European Union</p> <p><i>Second Strategic Energy Review</i> (November 2008)</p> <p><i>European Energy Programme for Recovery</i></p> <p><i>Internal Energy Market Package</i></p> <p><i>Energy Infrastructure Package</i></p>
<p>20 At present, it seems too early to make a robust assessment of the economic viability of renewable feedstock in the chemicals industry as a replacement for fossil feedstock, but the expected significant potential available in the longer term provides sufficient justification to continue research and industrial development activities as a priority.</p>	<p>European Union</p> <p><i>"Taking bio-based from promise to market - Measures to promote the market introduction of innovative bio-based products - A report from the Ad-hoc Advisory Group for Bio-based Products in the framework of the European Commission's Lead Market Initiative"</i>, 3 November 2009¹³⁹. In 2008, the Commission set up an expert group composed of representatives from national governments, industry and academia, entitled the Ad-hoc Advisory Group for Bio-based Products. It has analysed the current market conditions and how the legislative framework affects the introduction of products made from renewable raw material. In November 2009 it delivered a report identifying 44 recommendations to promote bio-based products.</p> <p><i>Green Public Procurement</i>¹⁴⁰ (GPP) is defined as the "process whereby public authorities seek</p>

¹³⁹ http://ec.europa.eu/enterprise/sectors/biotechnology/files/docs/bio_based_from_promise_to_market_en.pdf

¹⁴⁰ http://ec.europa.eu/environment/gpp/index_en.htm

to procure goods, services and works with a reduced environmental impact throughout their life cycle¹⁴¹”. GPP is a voluntary instrument, which means that individual Member States and public authorities can determine the extent to which they implement it. To support the introduction and use of GPP the European Commission published a handbook on environmental public procurement¹⁴². The use of renewable raw materials is specially addressed as part of the core and award GPP criteria for e.g. food and catering services¹⁴³.

Standardisation: Mandate 52/2008 for the programming of standards for all types of bio-based products and 53/2008 for the elaboration of pre-standards for bio-lubricants and bio-polymers. The following first standardisation document is available: CEN/TR 15932 "Plastics - Recommendation for terminology and characterisation of biopolymers and bioplastics" already issued. Two more are in the issuing process: *Plastics - Determination of the bio-based carbon content* and *Plastics - Declaration of the bio-based carbon content*. The definition of standards will help the development of markets for bio-based products.

European ECO-Label: Commission Decision 2005/360/EC on establishing ecological criteria and the related assessment and verification requirements for the award of the Community eco-label to lubricants¹⁴⁴. The definition of these criteria will contribute to strengthen the market position of bio-based lubricants.

EuroBioRef project¹⁴⁵ (European Multilevel Integrated Biorefinery Design for Sustainable Biomass Processing) coordinated by CNRS, France, has been launched in March 2010 and will last 4 years. It is supported by a 23 million euros funding from the EU's 7th Framework Program. EuroBioRef will deal with the entire process of transformation of biomass, from fields to final commercial products. It will involve 28 partners from 14 different countries into a highly collaborative work. *BIOREF-INTEG*¹⁴⁶ is a "Coordination and Support Action Project" within

141 Communication COM(2008)400 "Public procurement for a better environment", <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0400:FIN:EN:PDF>
 142 "Buying Green! – A Handbook on environmental public procurement", http://ec.europa.eu/environment/gpp/pdf/buying_green_handbook_en.pdf
 143 http://ec.europa.eu/environment/gpp/pdf/toolkit/food_GPP_product_sheet.pdf
 144 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:118:0026:0034:EN:PDF>
 145 <http://eurobioref.org/>
 146 <http://www.bioref-integ.eu/>
 147 <http://www.be-basic.org/>

the framework of the 7th Framework Program (Theme Energy). The project is funded by the European Commission from June 2008 until May 2010 and is co-ordinated by the Energy Research Centre of the Netherlands (ECN). It is supported by a further 12 partners from all over Europe who vary from SME'S and industrial partners, to Universities and RTD institutes.

Member States

BE-NL: *Bio Base Europe*: launched in 2009 by Biopark Terneuzen in the Netherlands and Ghent Bio-energy Valley in Belgium has an overall budget of 21 million Euros and is financially supported by the European Union, Belgium and the Netherlands within the framework of an Interreg program. It will set up a Bio Base Europe Pilot Plant (operational mid-2010) in Ghent and will scale up and optimise biobased processes to prepare them for industrial applications. It will serve as an open innovation centre for commercial companies and research institutes looking to develop new biobased activities. It will also create a Bio Base Europe Training Centre in Terneuzen, which will help to address the industry-wide shortage of skilled process operators and technical maintenance specialists for biobased industries. The new training facility will be fully operational in 2011.

DE: the Chemical-Biotechnology Process Development Center (CBP) Leuna is a 50 million euros project launched in 2010 and supported by the German federal Ministry for Education and Research, Ministry of Food, Agriculture and Consumer Protection, Federal Ministry of Environment and the state government of Saxony-Anhalt. It will set up the world's first lignocellulose biorefinery for the production of chemicals, fuels, electricity and heat, at the Leuna chemical location in Saxony-Anhalt. It is planned to complete the construction of the refinery by 2012. Researchers at CBP will focus on scale up from the laboratory the processes that transform biomass from many different sources into chemical materials.

DK: *Inbicon Biomass Refinery* at Kalundborg. The total cost of the investment (54 million euros) has been supported by European funds (9 million euros for demonstration under the 7th Framework Programme) and by the Danish Energy Technology Development and Demonstration Programme (EUDP, 10 million euros). The plant currently produces 1.4 million gallons of cellulosic ethanol, 14,333 tons of lignin pellets and 12,128 tons of C5 molasses.

FI: *BioRefine 2007-12*: this programme is managed by Tekes, the Finnish Funding Agency for Technology and Innovation, opens up international opportunities for top-level Finnish expertise,

	<p>based especially on the forest and energy industries. Multilateral and bilateral collaboration are key factors in developing innovative biomass-based products, technologies, and services. It has a budget of 137m€ on biomass processing and biorefinery</p> <p>NL: <i>BE-Basic Bioprocess Pilot Facility</i>¹⁴⁷. The European Regional Development Fund, the Ministries of Agriculture, Nature & Food Quality and Economic Affairs, the Province of South Holland and the Municipalities of Rotterdam, Delft and The Hague, knowledge institutions and industry have planned a mutual investment of more than 100 million euros in a pilot facility in Delft. This will enable companies and knowledge institutions to scale up from laboratory to industrial scale, a step that represents a bottleneck when it comes to converting bio-based residues such as agricultural waste into raw materials for building materials, chemical and pharmaceutical products and biofuels.</p> <p>Regions</p> <p>Study on current/future capability in industrial biotechnologies, linked to BioChem project managed by Chemistry Innovation (Scotland).</p>
<p>21 Incentives (e.g. subsidies or regulation) in agriculture or energy policy can seriously jeopardise attractive established uses of bio-based raw materials in the chemicals industry by favouring other applications (e.g. threat to tallow availability as feedstock for the detergent industry due to higher subsidies for bio-fuel use). Policy makers at European, national and local level, should seek to avoid such unwanted side effects.</p>	<p>European Union</p> <p>In the Renewable Energy Directive of 2009¹⁴⁸ the impact of incentives on specific uses of renewable raw materials on other applications has been taken into account. Article 23 lays down that “[...] the Commission shall report every two years to the European Parliament and the Council. The first report shall be submitted in 2012. [...] In its reports, the Commission shall, in particular, analyse: [...] the impact of increased demand for biomass on biomass using sectors”.</p>

¹⁴⁸

Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32009L0028:EN:NOT>)

5. CLIMATE CHANGE POLICY

22 Action on climate change provides significant business opportunities for the European chemicals industry. At the same time, it will remain an important research and development focus in chemistry. This potential should be fully exploited.

European Union

*Europe 2020 Strategy*¹⁴⁹: one of the seven Flagship Initiatives is devoted to establish a “Resource efficient Europe” to help decouple economic growth from the use of resources, support the shift towards a low carbon economy, increase the use of renewable energy sources, modernise our transport sector and promote energy efficiency. The chemical industry can play a major role in its implementation.

*Key Enabling Technologies (KETs)*¹⁵⁰: the Commission identified the KETs that strengthen the EU’s industrial and innovation capacity to address the societal challenges ahead and proposed a set of measures to improve the related framework conditions as part of the development of EU industrial and innovation policy. The Communication set up a high-level expert group tasked with developing a shared longer term strategy and action plan on the identified KETs. This group started its work on July 2010 and has a mandate for one year. The Communication is complemented by the Staff Working Document¹⁵¹ that explains why advanced materials, nanotechnology, micro- and nano-electronics, biotechnology and photonics have been identified as Key Enabling Technologies for improving European industrial competitiveness.

Industry

CARE+: a European project – co-financed by the programme Intelligent Energy for Europe - to help small and medium sized enterprises in the chemical industry to realize energy savings and improve energy efficiency. First target countries are Bulgaria, Italy and Poland. Main instruments developed are an *Energy Management Best Practice Manual* and a *Self Audit*

¹⁴⁹ “Europe 2020 – A European strategy for smart, sustainable and inclusive growth”

¹⁵⁰ <http://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20-%20Europe%202020%20-%20EN%20version.pdf>

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "Preparing for our future: Developing a common strategy for key enabling technologies in the EU" COM(2009) 512 final

¹⁵¹ (http://ec.europa.eu/enterprise/sectors/ict/files/communication_key_enabling_technologies_sec1257_en.pdf)

"Current situation of key enabling technologies in Europe" SEC(2009)1257,

¹⁵² http://ec.europa.eu/enterprise/sectors/ict/files/staff_working_document_sec512_key_enabling_technologies_en.pdf

<http://www.cefic.be/en/careplus.html>

	<i>Guide</i> ¹⁵² .
<p>23 As the chemicals industry is truly globalised, adequate measurable action by emerging economies is needed to mitigate climate change. This would contribute to creating a more level playing field, allowing the European chemicals industry to compete. Europe should do its utmost to create the conditions for such action.</p>	<p>European Union</p> <p>Communication from the Commission “<i>International climate policy post-Copenhagen: Acting now to reinvigorate global action on climate change</i>” COM(2010) 86 final¹⁵³.</p> <p>The Commission published a post-Copenhagen communication in March 2010 setting out a strategy to help maintain the momentum of global efforts to tackle climate change. In May 2010, the Commission published a communication revising the assessment of the costs of the 20% target, giving an estimation of the costs of moving to 30% and analysing the options to do so¹⁵⁴.</p> <p>The Environment Council, on October 14, 2010, adopted conclusions on the EU position for the Cancún climate conference. The EU expects the meeting to adopt a balanced set of decisions that contribute to establishing an international regime to protect the climate after 2012. The Council reiterated its preference that this should take the form of a single legally binding instrument. At the same time, it confirmed its willingness to consider a second commitment period under the Kyoto Protocol if this were part of a wider outcome including the perspective of a global framework engaging all major economies.</p>
<p>24 In view of the complexity of sectoral agreements in the chemicals industry, support by all actors (industry, governments, including those of emerging countries, and the Commission) to bring these initiatives to a successful conclusion in as many subsectors of the chemicals industry as possible is to be welcomed.</p>	<p>European Union</p> <p>Global sectoral study: final report¹⁵⁵ published in 2010 to provide a "proof-of-concept" of the feasibility of sectoral approaches in a post-2012 international framework for climate policy. The study initially investigated a transnational approach in which all countries face similar benchmarks, a sectoral CDM approach emphasizing carbon credits, and a bottom-up approach envisaging financial and technology assistance from advanced economies to support ambitious no-lose crediting baselines in developing countries. In “Sectoral Approaches,” developing countries undertake efforts to reduce Green House Gases emissions intensity or growth in key</p>

¹⁵³ http://ec.europa.eu/environment/climat/pdf/com_2010_86.pdf

¹⁵⁴ "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Analysis of options to move beyond 20% greenhouse gas emission reductions and assessing the risk of carbon leakage", 26.5.2010, COM(2010) 265 final; <http://register.consilium.europa.eu/pdf/en/10/st10/st10230.en10.pdf>

¹⁵⁵ http://ec.europa.eu/enterprise/policies/sustainable-business/climate-change/sectoral-approaches/files/global_sectoral_study_final_report_en.pdf

	<p>economic sectors with assistance from advanced economy countries. Sector programs offer a promising avenue for scaling up emission reductions in developing countries and the transfer of financial and technology assistance from advanced economy countries.</p> <p><i>Industry</i></p> <p>In the course of 2009, the chemical industry started an attempt to develop a cross-sectoral approach at international level via the International Council of Chemical Associations (ICCA), which was eventually not successful in the absence of an international political agreement at the Copenhagen conference.</p>
<p>25 Robust and verifiable information on the emissions and the emission reduction potential of the chemicals industry is crucial for decisions on measures to mitigate climate change and for setting benchmarks for the future implementation of the European emissions trading system. Closure of the current information gap is of the utmost priority.</p>	<p><i>European Union</i></p> <p>Commission Decision of 24 December 2009 determining, pursuant to Directive 2003/87/EC of the European Parliament and of the Council, a list of sectors and subsectors which are deemed to be exposed to a significant risk of carbon leakage¹⁵⁶.</p> <p>In line with the provisions of the ETS Directive, large parts of the chemicals industry are deemed to be exposed to a significant risk of carbon leakage.</p> <p>On the basis of a thorough evaluation of emission and production data, the Commission has presented a draft Decision determining transitional Union-wide rules for the harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC, including benchmarks for 15 chemical products in a manner that sets an incentive for further reduction of GHG emissions while providing for the necessary free allocation of emission allowances to avoid carbon leakage. Extensive work to define benchmarks has been carried out by the Commission, in cooperation with industry and member states. The Draft Commission Decision on free allocation rules in ETS as of 2013 has been approved by the Member States in the Climate Change Committee and submitted to the European Parliament and the Council for a three month scrutiny period before its final adoption expected for April 2011¹⁵⁷.</p> <p><i>Industry</i></p>

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<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:001:0010:0018:EN:PDF>

¹⁵⁷

http://ec.europa.eu/clima/policies/ets/benchmarking_en.htm

	<p>Cefic coordinated a global study on carbon life cycle assessment and is currently participated in a technology roadmap project highlighting the significant contribution of the chemicals industry to global energy and climate challenges, in cooperation with IEA and ICCA (to be published in 2011)¹⁵⁸.</p> <p>The chemical industry worked closely with the Commission in the crucial phase of the definition of Union-wide implementing measures to be set under the revised ETS directive. Extensive data collection on GHG emissions and efficiency performance has been made through European industrial organisations. Independent verification of submitted data has been carried out.</p>
<p>26 Member States and the Commission should make strong efforts for the full implementation of the revised ETS Directive within the ambitious timelines set and in cooperation with all stakeholders.</p>	<p><i>European Union</i></p> <p><i>Community Union-Wide wide Implementing Measures</i>, in particular the adoption of the list of sectors deemed to be at a significant risk of carbon leakage, and to approval of the establish free allocation rules and product benchmarks for the chemicals industry¹⁵⁹.</p> <p>The chemicals industry may also benefit from a major new funding programme for low carbon technologies, the so-called <i>NER 300 programme</i>¹⁶⁰ that was launched in November 2010. It aims to co-fund at least 8 carbon capture and storage (CCS) demonstration projects, including on industrial applications, and at least 34 innovative renewable energy technology demonstration projects at commercial scale in the territories of the EU Member States.</p> <p><i>Member States</i></p> <p>UK: Carbon Reduction Commitment Energy Efficiency Scheme¹⁶¹, Climate Change Agreements¹⁶².</p> <p><i>Regions</i></p> <p><i>CO2Sense Ltd</i> created by the regional development agency to support the development of carbon</p>

¹⁵⁸ http://www.icca-chem.org/ICCADocs/ICCA_A4_LR.pdf

¹⁵⁹ Same as in note 73

¹⁶⁰ Commission Decision 2010/670/EU <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:290:0039:0048:EN:PDF>

¹⁶¹ http://www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/crc/crc.aspx

¹⁶² http://www.decc.gov.uk/en/content/cms/what_we_do/change_energy/tackling_clima/ccas/what_are_ccas/what_are_ccas.aspx

	capture technology and deployment across the energy & processes sectors (Yorkshire & Humber).
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6. LOGISTICS

<p>27 In many cases the development of local cluster platforms with active cooperation between industry and (local) public authorities would improve their logistical efficiency and overall management. A multi-stakeholder approach to cluster leadership may enable the development of long term perspectives and guarantee consistency.</p>	<p>Regions</p> <p>Region cluster organisations for chemicals are developing new Supply Chain Networks to support SME logistics and competitive opportunities (Yorkshire & Humber).</p> <p><i>ChemLog</i> is a European cooperation project between regional authorities, chemical industry associations and scientific institutions from Germany, Poland, Czech Republic, Slovakia, Hungary and Italy with the objective to strengthen competitiveness of the chemical industry by improving framework conditions for supply chain management in Central and Eastern Europe. It aims at overcoming barriers for transnational transport in the West-East and East-West dimension by initiating a broad process of exchange of experience and facilitating the development of transnational infrastructure projects with high relevance for the chemical industry.</p> <p><i>Logistics in Wallonia</i>¹⁶³ (Wallonia, Belgium) is the Transport and Logistics Centre of Competence, created to promote the transport and logistics sector of Wallonia both within the country and abroad, by coordinating activities, by defining a common strategy and by optimising human and technological resources.</p> <p><i>Flemish Institute for Logistics</i>¹⁶⁴ – VIL (Flanders) is a competence centre, ie, a Flemish research institute which helps businesses to implement innovative logistics projects. VIL is an Incubator of innovative state-of-the art logistics concepts and technologies, matches knowledge from research institutes with the business community and develops promotional activities.</p>
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¹⁶³ www.logisticsinwallonia.be

¹⁶⁴ www.vil.be

28 Stakeholders should work together with authorities on a Member State and Community level to further identify and address key bottlenecks which prevent wider use of intermodal transport.

European Union

Communication from the Commission “*Freight Transport Logistics Action Plan*” COM(2007/0607¹⁶⁵ is one of a series of policy initiatives jointly launched by the European Commission to improve the efficiency and sustainability of freight transport in Europe. It presents a number of short- to medium-term actions that will help Europe address its current and future challenges and ensure a competitive and sustainable freight transport system in Europe. The external dimension of all of these actions will need to be considered with a view to efficiently integrating third countries and in particular neighbouring countries into the logistic chain.

"*Action Plan for the Deployment of Intelligent Transport Systems in Europe*" COM(2008)886¹⁶⁶: the Action Plan suggested a number of targeted measures and included the proposal for Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport. The goal is to create the momentum necessary to speed up market penetration of rather mature ITS applications and services in Europe. The initiative is supported by five co-operating Directorates-General: DG Mobility and Transport (lead), DG Information Society and Media, DG Research, DG Enterprise and Industry and DG Climate Action.

“*A sustainable future for transport - Towards an integrated, technology-led and user-friendly system*” COM(2009) 279¹⁶⁷ The Communication is at the same time a strategy document summarises the results of a wide reflection and a consultation document, aiming at identifying policy options to be tested and eventually included in the next Transport White Paper in 2011.

Member States

NL: The Dutch government has studied all modes of transport (rail, waterways, roads and pipelines) for transporting chemicals, oil and gas. This study has indicated that the transport

¹⁶⁵ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52007DC0607:EN:NOT>

¹⁶⁶ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52008DC0886:EN:NOT>

¹⁶⁷ http://ec.europa.eu/transport/publications/doc/2009_future_of_transport_en.pdf

	<p>arrangements for the future must take account the needs of a healthy chemical industry in the Netherlands. In formulating further policies on land use and transportation, this will be taken into consideration.</p> <p>Regions</p> <p><i>LosamedChem</i>¹⁶⁸: 10 partners from all Mediterranean basin (Novara). The project originates from the development of transport of chemicals in the Mediterranean and aims to reach the following main objectives: promote cooperation among chemical districts and between them and the main harbours; improve integration between harbours/hinterlands; sustain intermodality; reinforce the railways/waterways transportation for chemical products; promote a transfer of know-how and safety technologies; harmonize regulations and policies.</p>
<p>29 National and European authorities should carefully assess possibilities for revitalising railway freight transport.</p>	<p>European Union</p> <p>Communication from the Commission “<i>Freight Transport Logistics Action Plan</i>” COM/2007/0607¹⁶⁹ is one of a series of policy initiatives jointly launched by the European Commission to improve the efficiency and sustainability of freight transport in Europe. It presents a number of short- to medium-term actions that will help Europe address its current and future challenges and ensure a competitive and sustainable freight transport system in Europe. The external dimension of all of these actions will need to be considered with a view to efficiently integrating third countries and in particular neighbouring countries into the logistic chain.</p> <p>Regulation 913/2010 of the European Parliament and of the Council of 22:09/2010 concerning a European rail network for competitive freight COM/2008/0852 final¹⁷⁰. The proposal is based on the creation of nine international corridors with three principal objectives in view of a more competitive rail freight with a better quality of services: to strengthen cooperation between rail infrastructure managers; to guarantee to freight trains appropriate treatment in terms of allocation on lines that cater also to passengers trains; to allow the development of</p>

¹⁶⁸ <http://www.losamedchem.eu/web/>

¹⁶⁹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52007DC0607:EN:NOT>

¹⁷⁰ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52008PC0852:EN:NOT>

	<p>multimodality, in particular in ports.</p> <p>Member States</p> <p>ES: interministerial commission and a workgroup, managed by Ministry of Public Works and Ministry of Industry, Tourism and Trade to promote the development of railroad freights and intermodality according to the needs of the chemicals industry¹⁷¹.</p>
<p>30 Massive congestion of the road network is a major problem for chemical logistics and the Commission's work in investigating solutions to the problem is strongly supported.</p>	<p>European Union</p> <p>Regulation (EC) No 1072/2009 of the European Parliament and of the Council of 21 October 2009 on <i>common rules for access to the international road haulage market</i> (Articles 8 and 9 only)¹⁷²: intends to simplify and harmonise further the current rules by consolidating and merging previous legislation on access to the road transport market. The main objective is to eliminate legal uncertainty for Community hauliers and adapt legislation to market needs.</p> <p>Study on the <i>Single Wagonload Traffic</i> (2010/11): single wagon load is a flexible system which allows companies to choose how many wagons they want to dispatch instead of running a block train, which greatly increases flexibility.</p> <p><i>Eurovignette</i>¹⁷³: <i>Proposal for a Directive of the European Parliament and of the Council amending Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures</i>, COM(2008)436 seeks to amend Directive 1999/62/EC to establish a framework which enables Member States to calculate and vary tolls on the basis of the costs of traffic based pollution and of congestion in a way compatible with the internal market. Such charges will encourage transport operators to use cleaner vehicles, to choose less congested routes, to optimise the loading of their vehicles, and ultimately to make more efficient use of</p>

¹⁷¹ <http://www.mityc.es/industria/Observatorios/Paginas/Index.aspx>

¹⁷² http://ec.europa.eu/transport/road/haulage/cabotage_en.htm

¹⁷³ http://europa.eu/legislation_summaries/internal_market/single_market_for_goods/motor_vehicles/interactions_industry_policies/124045b_en.htm

	<p>infrastructure.</p> <p>Communication from the Commission "<i>Action Plan for the Deployment of Intelligent Transport Systems in Europe</i>" COM(2008)886¹⁷⁴: the Action Plan suggested a number of targeted measures and included the proposal for Directive 2010/40/EU (see next point). The goal is to create the momentum necessary to speed up market penetration of rather mature ITS applications and services in Europe. The initiative is supported by five co-operating Directorates-General: DG Mobility and Transport (lead), DG Information Society and Media, DG Research, DG Enterprise and Industry and DG Climate Action.</p> <p>Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of <i>Intelligent Transport Systems</i> in the field of road transport and for interfaces with other modes of transport¹⁷⁵ The Directive establishes a framework in support of the coordinated and coherent deployment and use of Intelligent Transport Systems (ITS) within the Union, in particular across the borders between the Member States, and sets out the general conditions necessary for that purpose. It provides for the development of specifications for actions within the priority areas, as well as for the development, where appropriate, of necessary standards.</p>
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¹⁷⁴ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52008DC0886:EN:NOT>
¹⁷⁵ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:207:0001:0013:EN:PDF>

<p>31 The question of closing gaps in the olefin pipeline network and public support for such an initiative needs to be pursued in order to establish an appropriate basis for decisions on investments and political priorities in this field. The High Level Group welcomes the Commission's 2nd Strategic Energy Review which is expected to provide clarification on the way ahead.</p>	<p><i>European Union</i></p> <p><i>European Energy Programme for Recovery</i>¹⁷⁶: refer to recommendation 18 for further information.</p> <p><i>Regions</i></p> <p>Propylen and CO pipelines (under construction in North Rhine Westphalia), ethylene pipeline to connect the northern Germany chemical parks (Schleswig-Holstein)</p>
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7. GLOBALISATION, INTERNATIONAL COMPETITIVENESS AND TRADE

<p>32 Notwithstanding the difficulties in reaching an agreement in the framework of the WTO trade negotiations, the multilateral approach towards trade liberalisation, currently being pursued through the DDA negotiations, remains the preferred option. In order to foster increased competitiveness for the European chemicals industry, the EU should therefore continue to actively pursue an overall NAMA-agreement complemented by an ambitious sectoral agreement on chemicals. All countries with a substantial chemicals industry should participate in this, particularly the emerging economies. The EU should continue its efforts to conclude an agreement on trade facilitation in the framework of the WTO and strengthen the Agreement on Trade-Related Aspects of Intellectual Property</p>	<p><i>European Union</i></p> <p>The EU continued its efforts to obtain a deal in the WTO Doha Development Agenda negotiations despite the reluctance of some major trading partners. Discussions on the sectoral proposal on chemical tariffs and negotiations on Trade Facilitation are ongoing but show only limited advancement. Adherence to a sectoral tariff liberalization agreement of all major actors of the world chemicals market remains the goal pursued by the EU in the NAMA negotiations.</p> <p>As a follow-up to the HLG work the Commission carried out under the Swedish Presidency of the Trade Policy Committee carried out a sectoral task within the Trade Policy Committee on identifying and discussing main tariff and non-tariff issues faced in trade affairs by the chemicals industry, with the help of Member State trade experts. As an outcome, the Committee presented a sectoral fiche taking stock of the discussion, including with regard to key liberalization target markets, and relevant non-tariff barriers. The fiche has also outlined specific points for policy action,</p> <p><i>A Market Access Working Group (MAWG) on chemicals was set up by the Commission</i></p>
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http://ec.europa.eu/energy/cepr/index_en.htm

Rights.	following the completion of the sectoral fiche and held its first meeting in March 2010. The objective of this MAWG is to identify priority market access barriers specific to the chemical sector and to agree on action and strategies to remove them, in line with the spirit of the market access strategy as a complementary tool to multilateral and bilateral negotiations. A second meeting took place in July 2010, during which a list of priority issues has been identified.
33 As for new accessions to the WTO, the EU should strive to ensure that trade distorting practices, such as double pricing policies for energy and feedstock by acceding countries are effectively addressed.	<i>European Union</i> The Commission pursues efforts to ensure that distorting practices of new WTO members are effectively addressed.
34 The EU should pursue Free Trade Agreements with key trading partners, in particular if these are so-called WTO plus agreements that go further in promoting openness and integration than is currently the case in the multilateral negotiations. The selection of potential FTA partners should give priority to economic criteria with due consideration given to the EU's Policy for Development. The EU should strive for consistency between all FTAs and aim to achieve conditions comparable to those granted by our FTA partner to other key countries. FTAs need proper enforcement and balanced and reliable dispute settlement procedures.	<i>European Union</i> A new <i>free trade agreement</i> with Korea, which may serve as a model for future, modern FTAs has been finalised. It will significantly liberalise access of the EU chemicals industry to its 10 th -largest individual market Other ongoing negotiations, notably with Ukraine, India, Canada and Singapore are making progress and negotiations with Mercosur have been reopened.
35 In the absence of progress in multilateral trade negotiations, there should be no unilateral weakening of the current European TDI legislation and practice. If improvements in current practice are considered necessary, these could include: (1) faster implementation of provisional measures (six months instead of the	<i>European Union</i> The Commission pursued its use of trade defence instruments against violations of anti-dumping and anti-subsidization rules, where justified, for example via anti-dumping measures extended against Ukraine for ammonium nitrate and against the US for ethanolamines at the beginning of 2010.

<p>current minimum of nine); (2) making disclosure of provisional findings mandatory; (3) more severity in cases of fraud and circumvention; and (4) consolidation of energy and other raw materials adjustments, by allowing for adjustments in the calculation of the ‘normal’ price to tackle dual pricing.</p>	
<p>36 In the WTO, the EU should seek to ensure stringent common rules leading to a global level playing field with an alignment of anti-dumping practices. TDIs will continue to be needed to offset the impact of unfair trade practices. This includes measures to tackle double pricing and below-cost pricing. However, a realistic and balanced approach should be followed and it must be recognised that TDIs are part of a wider package being negotiated within the WTO.</p>	<p><i>European Union</i></p> <p>The EU continued its efforts to obtain a deal in the WTO Doha Development Agenda negotiations, which could also translate in enhanced rules on trade defence. However, progress in these talks has been so far limited.</p>
<p>37 The EU should continue to strive for more global harmonisation in customs procedures within the relevant international organisations such as the World Customs Organisation and the WTO. This will enhance the fight against black and grey customs clearance schemes which are currently a major problem for chemicals exporters and traders to some countries, such as Russia. The EU should further pursue multilateral and bilateral cooperation between customs authorities and governmental dialogue as ways to counter illegal activities.</p>	<p><i>European Union</i></p> <p>Customs-related problems and issues faced by EU operators in Russia and Ukraine are regularly raised in for a such as the EU-Russia and EU-Ukraine Sub-Committees on Customs and Border Cooperation and the EU-Russia Working Group on Customs Border Issues.</p> <p>In the EU-Russia Industrial and Enterprise Policy Dialogue, the subgroup on chemicals kept on raising the most relevant industry concerns on custom organisation and procedures.</p>

<p>38 The EU should continue to promote the development of permanent new WTO rules addressing trade problems related to the discriminatory supply of raw materials. In bilateral trade negotiations, the EU should continue to address trade and subsidy distortions that cause problems in accessing raw materials.</p>	<p><i>European Union</i></p> <p>In 2008 the European Commission adopted a new integrated strategy – the <i>Raw Materials Initiative</i>¹⁷⁷ - which sets out targeted measures to secure and improve access to raw materials for the EU based on three pillars: ensure access to raw materials from international markets under the same conditions as other industrial competitors; set the right framework conditions within the EU in order to foster sustainable supply from European sources; and boost overall resource efficiency and promote recycling to reduce the EU's consumption of primary raw materials and decrease the relative import dependence. Since then annual reports have been taking stock of progress made, including with regard to chemical raw materials.</p> <p>In addition the Commission completed an <i>inventory of trade barriers</i> in the field of raw materials (2009), an assessment of their economic impact and took consequent actions (e.g. WTO case on Chinese export restraints on certain raw materials key for the chemicals industry).</p>
<p>39 The EU should assess the competitive advantages gained by the elimination or reduction of import tariffs and by opening import quotas for the raw material inputs, including renewables, of the various subsectors of the domestic chemicals industry. For environmentally and socially sensitive renewable raw materials, further market opening should go hand in hand with sustainability guarantees with due consideration of WTO rules. Wherever possible, the EU should strive for internationally agreed standards.</p>	<p><i>European Union</i></p> <p>The Commission is working on solutions for a stable and low cost access to bio-based raw materials which would reflect the trade interests of the EU, would balance the needs of various actors involved in the production and use of these raw materials and would also take into account sustainability aspects.</p> <p><i>Industry</i></p> <p>The European Chemicals Industry Association (Cefic) has repeatedly called for improved access to renewable raw materials at world market prices, either sourced from within or outside the EU, which is one of the key conditions for a move towards a bio-based chemical industry.</p>

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http://ec.europa.eu/enterprise/policies/raw-materials/index_en.htm