



Sustainability as a catalyst for innovation

“The chemical sector in Europe is vitally important as a provider of chemical solutions and as a key player in our search for Sustainable Development”.

Report on Innovation from the High Level Group on the Competitiveness of the European Chemical Industry 2007, endorsed by EU Commissioners, Member States, academia and NGOs.

“Europe must retain a strong manufacturing base in chemicals, not only because of its own huge contribution to wealth and jobs, but also because of its ability to generate innovations throughout industry as a whole. We need to promote innovation and competitiveness to ensure that the chemicals industry will always have a strategic place in the EU’s economy”

EU Commission Vice-President Verheugen, December 2007

Major challenges such as global warming or sustainable development cannot be tackled without the development of new technologies and products. However new technologies and products do not just happen - industry is willing to take the lead but needs support from policy-makers.

Innovations in chemistry: a world of difference

Behind chemical innovations, there is rarely a new molecule. Innovation rather comes from the combination of different chemicals, materials, processes and systems to create new technologies and products. It also requires new business models throughout the value chain. The chemical industry enables solutions for other industry sectors (e.g. IT, cars), provides active ingredients (e.g. pharmaceuticals) and is a consumer industry itself (e.g. paints, household products). The nature of innovation is changing - so what is the best way forward?

Unlocking the virtuous circle of innovation

In Europe today, technology development and societal acceptance do not always go hand in hand. This can delay or even prevent society benefitting from the new opportunities and prosperity created by the demand for innovation. Industry, politicians and other stakeholders have to develop common tools to bridge the gap, in the most sustainable and responsible way.

In EU policies, innovation is often a synonym for research. In practice, **Innovation goes well beyond research**: it is about turning ideas into sustainable markets and thus competitiveness which in turn enables a sustainable society. Many ideas born in the EU did not necessarily benefit EU sustainability (e.g. flat screen TVs or solar panels were invented in Europe but are today imported from Asia)

There is a lot of goodwill in creating innovation policies but these do not build on each other. Thus, they need to be **checked for coherence**. Industry has adjusted its business models to meet societal demands.

Research funding is available in abundance (FP7 or national funding schemes). However more research investment is nothing without a strong, **reliable innovation framework** that transforms ideas into sustainable products and technologies. A coordinated framework of harmonised policies and messages is necessary to increase investor/consumer confidence, encourage innovation and strengthen value chain cooperation.

A **focus on solutions** – and not on problem description – should shape EU policy-making. Many policies could benefit from involving the chemical industry in its role as solution provider (e.g. EU Environment & Health Action Plan).

Policy has to strengthen all phases of the innovation path to help optimise the whole value chain.

Chemical Industry engagement

To help bridge the gap between technology development and consumer/investor confidence Cefic has developed its own Research & Innovation programme. Led by Board members from the industry, it develops and implements strategies in various fields:

- **High Level Group on Competitiveness of the European Chemicals Industry**
 - Industry together with EU and member states authorities is committed to share responsibility and tackle major innovation challenges such as human resources, the role of SMEs, sustainable chemistry and barriers to marketing.
- **EU Technology Platform for Sustainable Chemistry (SusChem)**
 - Cefic and its member companies have developed pilot projects like the Smart Energy Home. It also provided input into the EU Research programmes in areas such as efficient processes, renewable resources or biotech. (www.suschem.org)
- **WHO and EU Environment & Health Action Plans**
 - The chemical industry is the first industry sector to actively contribute to the Environment and Health Action Plan of the World health Organisation (e.g. Climate change and health). (www.euro.who.int/eehc)
- **Long-range Research Initiative**
 - Under its own voluntary research programme Cefic invests several millions € per year in high quality research in academia and government agencies in the areas of potential health impact of chemicals, intelligent testing strategies and societal acceptance of new technologies and products. (www.cefic-lri.org)
- **Cefic Young Scientist Award**
 - To support a knowledge-based society and to encourage young researchers to challenge existing paradigms Cefic bestows every year the LRI Innovative Science Award (worth € 100,000) to an early-career scientist. (www.cefic-lri.org)
- **European Platform for Alternatives to Animal Testing (EPAA)**
 - The chemical industry is responding to public concerns to reduce animal testing by being a founding member and treasurer of the EPAA - a cooperation of the EU Commission with seven industry sectors to progress the work to reduce, refine and replace the use of animals in regulatory testing (e.g. under REACH). (<http://ec.europa.eu/enterprise/epaa/>)

The chemical industry is responding to the calls from today's society to march towards Sustainability.

But industry cannot do it alone

Policies will be critical to the development and adoption of new technologies and products needed to deal with major challenges such as global warming. To keep Europe competitive, well-crafted, harmonised policies must create a setting for continuing innovation where technological improvements build upon one another:

- A reliable, supportive policy framework for the innovation path beyond research
- Positive signals to support a strong manufacturing base in Europe
- Coherent policies to strengthen investor and consumer confidence to support innovation and reduce time to market
- Integrated policies that target and encourage value chain cooperation in order to complement industry's efforts,
- Level playing field in the enforcement of existing regulations

Innovation policies should strengthen the innovation path

Translate research ideas into solutions

Improve consumer and investor confidence

Reduce time to market

Balance technology and societal aspects

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