



European Association for Chemical and Molecular Sciences

High Level Group - Competitiveness of the European chemicals industry

Prof. Luis Oro, President EuCheMS

Ladies and gentlemen, thank you very much for inviting me to speak at your conference.

I am here as the President of EuCheMS, the European Association for Chemical and Molecular Sciences. EuCheMS provides a single voice for chemists in Europe. We are 41 member societies, in 34 countries across Europe. We have a membership of over 140,000 chemists working in academia, industry and government.

IYC 2011

2011 has been designated, as the International Year of Chemistry by UNESCO and IUPAC. The International Year aims to promote the creative power of chemistry. There will be many activities to inspire the young to learn about chemistry and to underline the central role it plays in our future. Some of you may have seen the large banner on the Berlaymont building this morning, 'Chemistry Innovating for a Sustainable Future'.



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EuCheMS has been extremely active in supporting IUPAC and promoting a European dimension to the International Year of Chemistry at two levels, as a catalyst for member societies and a “task force” for European actions.

CHEMISTRY

Chemistry is a science that is committed to finding solutions. In a multi-disciplinary world chemistry is the most pervasive science. It is central to progress in many fields from molecular biology, to the creation of advanced materials. Jean-Marie Lehn, the French Nobel Laureate has described it as the bridge between biology and physics. However, I feel there is still something more unique about Chemistry. Chemistry, like other disciplines, has done much to probe and to understand, but no other science has done more to create, to synthesise. Chemistry has done nothing short of transforming the way we live and in doing so, it has transformed commerce and manufacturing.

HIGH LEVEL GROUP REPORT

The HLG’s final report recognised the important role that chemicals play at every stage in the value chain and the critical role that the sector plays in wealth and job creation. Support for the chemical sciences will be critical to Europe’s success. In order to lead, Europe needs to support cutting edge research in the



Chemical Sciences. Europe must also ensure that she has the right skills and investment structure to take research from the lab to the economy. In order to do this, we will need to see more support for fundamental chemistry research. We also need more chemists and a greater understanding of chemistry for all scientists, engineers and product designers.

The European Research Council will be key in supporting frontier research, the Scientific Council should reflect an inter-disciplinary approach and the major disciplines should be present in the membership of this Council. At the moment the chemical sciences are poorly represented. As the Commission Task Force on the ERC examines how 'to equip the ERC (for) the key role it will have in the Innovation Union and in the Eighth Framework Programme', we hope that there will be greater support for basic research that is relevant to innovation, this will include areas such as advanced synthesis, catalysis, or nano science.

We are living in difficult economic times. The EU's Innovation Union Flagship, is unambiguous – 'our future standard of living depends on our ability to drive innovation'. The High Level Group report makes a number of recommendations to improve our competitiveness. We believe that greater urgency needs to be attached to the report's recommendations and we call on all partners to make a renewed commitment to the implementation



of the High Level Group's recommendations. In EuCheMS we will play our part.

GREEN CHEMISTRY

EuCheMS has taken a lead in promoting 'smart' and 'sustainable' solutions by launching the 'European Sustainable Chemistry Award'. The award recognises outstanding contributions to sustainable development through green chemistry. EuCheMS members are also actively involved and support, SusChem, the European Technology Platform for Sustainable Chemistry, where we work in close partnership with Cefic.

Sustainable thinking shouldn't be limited to the 'end of life' of a substance or product, instead each stage in the life cycle should be considered. EuCheMS has a long established Working Party on Green and Sustainable Chemistry and has actively contributed to the EU's discussions on water and energy. A 'Resource Efficient Europe' will not be possible without the application of the principles of Green Chemistry.

EDUCATION

The High Level Group's report calls for states to improve their science education, from primary school onwards. 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 in the production of high quality educational materials.

QUALIFICATIONS

EuCheMS' European Chemist Designation ensures that there is an easily understood title to indicate a high level of competence in the practice of chemistry. The award of EurChem is a quality insurance for industry that recognises that academic qualifications alone have limited value. In providing an acceptable common professional standard, the European Chemist requires experience in the application of knowledge, skill, safety, environmental consciousness, sense of responsibility and last, but certainly not least, the ability to communicate.

ROADMAP

There are many other areas where EuCheMS has a role and can have a role.

One of the main recommendations in the High Level Group report, is the need for 'a road mapping exercise'. EuCheMS is uniquely positioned to provide insight, analysis, expertise and



foresight in the creation of such a roadmap. Over the next six months we will be working with internationally recognised experts to develop the 'Roadmap for the Chemical Sciences', the roadmap will identify critical gaps in knowledge and research, which are limiting technological progress.

Global change is creating enormous challenges. EuCheMS is fully committed to meeting these challenges head on. Working with a wide range of experts we have identified six key areas where advances in chemistry will be needed in finding solutions : Breakthrough science; Food; Energy; Health; Water; and, Resource Efficiency.

After the coffee break, José-Lorenzo Valles, will present the future of innovation partnerships. We welcome the Commission's Innovation Union document and we share the Commission's concern that although Europe produces some world class research, it is failing to do enough to capitalise on this investment. As the most industrially relevant science, chemists, and chemistry research, will play a pivotal role in ensuring that the European Union is able to realise its vision of becoming an 'Innovation Union'.

Innovation Partnerships will be 'challenge driven' and aim to ensure that innovative ideas are realised in products and services that create growth and jobs. Breakthroughs will require advances



in fundamental knowledge. For the chemical sciences, this means areas like advanced electrochemistry to improve energy storage, catalytic processes that reduce energy use and by-products, and chemical biology that takes a molecular approach to understanding complex biological systems. The European Research Council's support for cutting edge frontier research is a very real demonstration of the EU's commitment to creating a 'knowledge based economy'. Scientific breakthroughs and the resulting innovation require continued investment by the EU in advances in fundamental knowledge. The EuCheMS Roadmap will highlight a number of areas where breakthrough science is required.

The roadmap will form our main contribution to the Commission's consultation on the future of the EU's research framework programme, we also hope that it opens a dialogue with those working in each area, from resource efficiency to health.

In conclusion, we hope that in the forthcoming year, we can look forward to working with you and your colleagues, to ensure that our road map addresses 'societal challenges' and plays its part in creating an Innovation Union.

Thank you very much, again for inviting me to your meeting. It only rests with me to wish you all, a very happy International Year of Chemistry.

