

EuCheMS supports employment survey of European chemists



Working in the lab: Mismatch between industry requirements and taught courses. (photo: Cewe)

Two thirds of chemical companies currently have difficulty in filling vacancies. Some shortages arise from a mismatch between the requirements of industry and taught courses, e.g. academia focuses on synthetic chemistry but 40 percent of EU chemical production involves formulation chemistry.

The American Chemical Society (ACS) regularly publishes an employment survey in *Chemical & Engineering News*. Data are collected from ACS members working within the USA. The survey results clearly show in which sub-discipline the graduates received their highest qualification and in which sub-discipline they are working after starting their professional career. It would be of utmost interest for decisions within the EU to access similar numbers.

A European employment survey in chemistry was recently initiated by the European Chemistry Thematic Network Association (ECTNA). This survey is supported by EuCheMS, the Joint Research Centre of the European Commission, the European Chemistry and Chemical Engineering Education Network and the Euro-

pean Chemical Industry Council (Cefic). The survey will be web-based and cover all aspects of basic knowledge, soft skills and entrepreneurial attitude. It addresses the content of education – from the Bachelor of Science to lifelong learning. The survey includes both chemists and chemical engineers. Details of the survey are being developed by ECTNA.

EuCheMS currently has ca. 160 000 individual members organised in 41 national member societies. Those societies who agreed to participate in the survey account for approximately 80 percent of EuCheMS membership. EuCheMS stays in close contact to its member societies, who in turn will contact and encourage their membership in order to ensure a reasonable participation in the survey. Each participating society nominated a national delegate, who is expected to check to web-based questionnaire for compatibility with national particularities, advertise the survey within her or his society and answer possible questions over the span of the survey. The survey shall be performed during the year 2013.

The significance of the collected data shall primarily depend upon participation of chemists across Europe, across all branches of chemistry and across all kind of employers. In particular we hope for active participation of chemists from industry, since industry is less represented in some national societies. Details about the survey and the questionnaire are published by your national society after the initial meeting of the delegates of the participating societies in April.

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The committee for Istanbul

During the next issues of the EuCheMS Newsletter, the scientific committee of the 5th European Chemistry Congress (ECC) 2014 in Istanbul will be introduced, starting here with Helena Grennberg, Peter Edwards and Katharina Landfester.

Helena Grennberg serves as scientific chair of the 5th ECC (see interview in EuCheMS Newsletter September 2012). She is Professor of Organic Chemistry at Uppsala University, Sweden. She received her BSc in 1988 and her PhD in 1992, both from Uppsala. She became docent and senior lecturer in 1996 and was promoted to a professorship in 2005. Her research interests include organometallic chemistry, synthesis and catalysis.



Peter Edwards is Professor of Inorganic Chemistry at Cardiff University, Wales. His research interests are in organometallic and coordination chemistry. He has keen interests in promoting public understanding of science and supporting pre-university chemistry education. He chairs the RSC local SE Wales section and is a member of the Board of the International Conference on Organometallic Chemistry and EuCheMS Inorganic Chemistry Division. He also serves on European Research Council committees.



Katharina Landfester studied chemistry in Darmstadt, Germany. Her diploma thesis was from the Ecole d'Application des Hautes Polymères in Strasbourg, France. In 1995, she received her doctoral degree. After a postdoctoral stay at the Lehigh University, USA, she returned to Germany in 1998 joining the Max Planck Institute of Colloids and Interfaces in Golm. In 2003, she accepted a chair of Macromolecular Chemistry at the University of Ulm. Since 2008, she is Director at the Max Planck Institute for Polymer Research in Mainz.





EuCheMS vacancies

At the EuCheMS General Assembly to be held in Budapest on 24 and 25 October 2013, the vacancies of President Elect (to become President in 2014) and five Elected Members of the Executive Board will be filled.

You are asked to submit your nomination using the form available from EuCheMS website, which incorporates a signed declaration by the nominee that he or she is willing to make the necessary commitments if elected. The nomination must be supported by a signed letter from the President or General Secretary of the candidate's member society. Members may also request a nomination form and additional information by email to nineta.majcen@euchems.eu. Nominations must be received by 21 June 2013. *Nm*

Call for Lecture Award 2013

EuCheMS invites proposals for the EuCheMS Lecture Award 2013. The Lecture must be of a very high scientific level. It serves to strengthen the image of EuCheMS and of European chemistry in general. It should also emphasize the scientific cooperation among chemists in Europe. The Lecturer will be selected by the EuCheMS Executive Board. EuCheMS member organisations are invited to make proposals. The Lecture is scheduled to be given at the EuCheMS Chemistry Congress 2014 in Istanbul (www.euchems2014.org). Deadline for nomination is 31 May 2013. For details and nomination form please check www.euchems.eu. *Nm*

Solving global challenges

The human population doubles every 50 years. That creates global problems, including limitations on energy, raw materials, food, water, health and clean air. However, the future of humankind seems bright thanks to the even faster growth of human knowledge, doubling every 18 months, and the unpredictability of science. Our global challenges are likely to be met by yet unknown technologies, mostly invented by chemists, writes Ehud Keinan, member of EuCheMS Executive Board, in *Angewandte Chemie International Edition*, 2013, Volume 52, Issue 10.

Annual meeting of young chemists in St. Petersburg

The Mendeleev Russian Chemical Society will host the 8th Delegates Assembly of the European Young Chemists' Network (EYCN) in St. Petersburg from 17 to 19 June. Young chemists' representatives from each of the EuCheMS chemical societies are invited to join as well as colleagues from North and South America.

Although there are occasional meetings of EYCN representatives during the year when we organise various local and national events, this is the only annual meeting where all of the representatives can meet and plan ahead together. This gives a very tight schedule over the two and a half day meeting in June. As well as the traditional topics of the EYCN meeting (discussing and sharing experiences from the individual chemical societies, deciding the action plan for the coming year, etc.), this year the Delegates Assembly has a few focus points:

- Preparation of the EYCN programme for the EuCheMS Congress in Istanbul 2014



St. Petersburg: Venue of the 8th EYCN Delegates Assembly. (photo: C. and K. Brennan)

- Finalising of the details of EYCN Career Day events organised within different events around Europe
- Fixing the final details for the 3rd Young Chemist Crossing Borders Programme along with the Younger Chemists Committee of the American Chemical Society

The meeting this year is particularly important since 2013 is an election year for EYCN. During the Delegates Assembly a new board will be formed to foster the ongoing activities and to develop new ones. For further details about the EYCN Delegates Assembly please contact us at communication@eycn.eu.

Cristina Todasca, cris@eycn.eu

EuCheMS is partner in EC₂E₂N

In autumn 2012 the European Chemistry and Chemical Engineering Education Network (EC₂E₂N) accepted another project proposal, in which EuCheMS is involved. The project "Chemistry and Chemical Engineering Skills for Europe in 2020" was submitted within the Erasmus Lifelong Learning Programme and officially started on 1 October 2012 for a three year period i.e. to 30 September 2015. The project includes the following work packages:

- Towards excellence in school and university teaching
- Enhancing professional activities
- Sustainable entrepreneurship
- Impact of chemistry on everyday life
- The virtual education community
- Broadening student horizons
- Re-tuning for competences in chemistry/chemical engineering for Europe 2020
- Project management
- Dissemination



- Exploitation of project outcomes
- Quality assurance

EuCheMS contributes to most of these, however its key contribution is the employability study led by Reiner Salzer (see page 1), Germany, which forms part of work package "Sustainable entrepreneurship". The coordinator of the project is Anthony Smith, France.

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Resources that don't cost the earth

Numerous everyday products like mobile phones and rechargeable batteries depend on elements with a limited supply, such as rare earth metals. Many European countries are almost exclusively dependent on importing such resources to support existing and emerging industries. Thus they are more vulnerable to shortfalls in supply, as the global demand for these strategic elements increases. Maximising resource efficiency is crucial to addressing these challenges. In December 2011, the Royal Society of Chemistry (RSC) and the UK Science Innovation Network hosted a workshop that brought together scientific experts, industrialists, government agencies and policymakers at the British Embassy in Berlin to discuss ways in which this could be achieved.

A summary of the challenges and opportunities associated with resource efficiency was subsequently published in the report "Resources that Don't Cost the Earth: Encouraging European collaboration and solutions". The document, which was launched at the British Embassy in Berlin in



October 2012, highlights the scope for technological advances and the development of new processes and materials to improve resource efficiency. It also recognizes that a shift to more resource-efficient supply chains will require substantial support and collaboration from governments internationally. The importance of international collaboration was reiterated by UK Foreign Secretary William Hague at the report launch.

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125 years *Angewandte Chemie*

The flagship journal of the GDCh, *Angewandte Chemie*, celebrated its 125th anniversary with a special symposium on March 12 in Berlin. More than 1200 participants listened to talks by prominent speakers, including three Nobel laureates. The event was also broadcasted live over the internet and can be viewed at www.chemistryviews.org/view/0/angewandtechemie125.html.

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Slovakia: New SCHS President

Mária Omastvá has been elected president of the Slovak Chemical Society (SCHS) for the period 2013/2014. She is the head of the Department of Composite Materials at the Polymer Institute, Slovak Academy of Sciences, Bratislava (PI SAS). She received her PhD in macromolecular chemistry in 1993 from PI SAS, and her DSc in 2009. Her research interests focus on conducting polymers, con-

ductive polymeric micro- and nano-composites and characterization of materials by X-ray photoelectron spectroscopy. She is the author of three chapters in monographs, 80 articles in scientific journals and co-author of 185 communications and posters at conferences.

Hungary: Chemistry roadshow

The Hungarian Chemical Society and BASF have founded an educational portal where the fascinating world of chemistry is introduced for younger generations through state-of-the-art web applications. "Now it leaves the virtual world and a roadshow begins," says Livia Sarkadi, president of the Hungarian Chemical Society. In the framework of the roadshow, elementary and high school students have an opportunity to carry out experiments in the laboratories of Hungarian universities and colleges.

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44th IUPAC World Chemistry Congress in Istanbul

The next IUPAC World Chemistry Congress will be held in Istanbul, Turkey from 11 to 16 August 2013. Three Nobel Laureates in chemistry and other distinguished chemists will be plenary and keynote speakers during the congress. Scientific topics are:

- Clean energy through chemistry
- Chemical analysis
- Chemistry for cultural heritage
- Chemical synthesis
- Physical chemistry
- Macro and nano science and technology
- Environmental and sustainable chemistry
- Life chemistry
- Materials science
- Chemistry education
- Chemical industry and innovation

Symposia will deal with eight specific topics, among them advancements in petroleum refining, preserving water resources and converting biomass to energy as well as nanomaterials, marine pollution and chlorine-free chemistry. For more information please visit www.iupac2013.org.

Mehmet Mahramanlioglu
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Istanbul travel grants

The Gesellschaft Deutscher Chemiker (German Chemical Society, GDCh) encourages young chemists to participate in the IUPAC Congress (see above) by offering three travel grants for young chemists from Germany and three for young chemists from Eastern Europe, each of 1200 Euro. The recipients should be under the age of 35 and are expected to take part in the World Chemical Leadership Meeting, which is part of the General Assembly, to discuss their vision of the future of chemistry. Applicants are required to provide a letter of application, a brief CV, a confirmation of their current status and affiliation, a publication list and a letter of support from the appropriate supervisor. Applications should be sent preferably by email to Barbara Köhler at GDCh (b.koehler@gdch.de). Deadline is 15 May.

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Physical Chemistry Conference

The German Bunsen Society for Physical Chemistry invites all EuCheMS physical chemists to participate in the Bunsentagung, 9 to 11 May 2013 in Karlsruhe, Germany. The conference, a EuCheMS co-sponsored event, covers all areas of physical chemistry. The main theme "Theory meets spectroscopy" addresses explicitly the interchange between experiment and theory to understand the behaviour of matter. Additional highlights include a special symposium on electrochemical interfaces and an industrial symposium.

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European Energy Conference

On 27 to 30 October, the 3rd European Energy Conference (E2C) will be organised in Budapest. It will cover various recent outstanding energy-related research developments as well as some policy aspects. Additionally, it will offer a platform for young researchers to present the results of their research. The conference was initiated by the European Physical Society and is organised by EuCheMS and the European Materials Research Society.

www.euenergy2013.mke.org.hu

Synthetic biology debate

Is synthetic biology really the much-hailed miracle cure to so many of mankind's problems? The Royal Society of Chemistry (RSC) recently teamed up with the Biochemical Society, think tank BioCentre and the University of Bristol to host a panel discussion. In the lively debate scientists stressed that despite the potential of synthetic biology, claims about its world-saving capabilities are often overhyped. Critics are concerned that synthetic biology could be potentially harmful to human health or the environment. Lionel Clarke from the UK's Department for Business, Innovation and Skills argued that existing legislations are sufficient to mitigate the greatest risk. A public dialogue showed the importance to inform the public to gain public acceptance.

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Events 2013

9 – 11 May 2013, Karlsruhe, Germany

112th Bunsentagung
www.bunsen.de/bunsentagung2013.html

10 – 12 June 2013, Barcelona, Spain

5th European Conference on Chemistry for Life Sciences, <http://5eccsbarcelona.com>

25 – 28 June 2013, Barcelona, Spain

EuCheMS International Conference on Chemistry and the Environment, www.icce2013.org

30 June – 4 July 2013, St Andrews, Scotland

20th EuCheMS Conference on Organometallic Chemistry, www.eucomcx.com

3 – 5 July 2013, Limerick, Ireland

5th Eurovariety in Chemistry Education Conference
www.eurovariety2013.ul.ie

7 – 12 July 2013, Marseille, France

18th European Symposium on Organic Chemistry (ESOC 2013), www.esoc2013.eu/index.html

7 – 11 July 2013, Tel-Aviv, Israel

17th European Carbohydrate Symposium (Eurocarb 17), www.eurocarb2013.org

25 – 29 August 2013, Warsaw, Poland

Euroanalysis, www.euroanalysis2013.pl

28 August – 1 September 2013, Wrocław, Poland

XII International Symposium on Inorganic Biochemistry, www.henryk.uni.wroc.pl/12.html

30 August – 3 September 2013, Camerino, Italy

9th International School of Organometallic Chemistry, <http://d7.unicam.it/isoc>

1 – 5 September 2013, Sopron, Hungary

9th European Conference of Computational Chemistry, www.euco-cc9.mke.org.hu/home.html

1 – 4 September 2013, Darmstadt, Germany

GDCh Wissenschaftsforum Chemie
www.gdch.de/wissenschaftsforum2013

11 – 13 September 2013, Leipzig, Germany

EuCheMS conference Flavors & Fragrances 2013
www.gdch.de/flavorsfragrances2013

15 – 19 September 2013, Thessaloniki, Greece

Instrumental Methods of Analysis – Modern Trends and Applications, <http://ima2013.web.auth.gr>

13 – 15 October 2013, Budapest, Hungary

1st EuCheMS Congress on Green and Sustainable Chemistry, www.1eugsc.mke.org.hu

27 – 30 October 2013, Budapest, Hungary

3rd European Energy Conference E2C
www.euenergy2013.mke.org.hu

Events 2014

31 August – 4 September 2014 Istanbul, Turkey

5th EuCheMS Chemistry Congress
www.euchems-istanbul2014.org

Congress on Green Chemistry

EuCheMS announces its First Congress on Green and Sustainable Chemistry which will be held between October 13 and 15 in Budapest, Hungary. The congress offers an interactive forum to exchange ideas among scientists and industrial professionals. Topics include bio-resources, novel synthetic methodologies and educational aspects of green chemistry as well as climate change and energy issues. Wolfgang Hölderich (Germany), Ferenc Joó (Hungary), Rafael Luque (Spain), Kenneth Sheddon (UK), Marco Mihovilovic (Austria) and Tibor Soos (Hungary) are confirmed invited speakers.

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