

NEWSLETTER - July 2012

Industrial Technologies Conference: European Materials Researchers for a More Competitive and Sustainable Industrial Economy in Europe

At the EU Danish Presidency Industrial Technologies Conference 2012 which was held in Aarhus, Denmark, in



Aarhus Declaration - During the signature celebration (from left to right): Rodrigo Martins, President E-MRS, Ehrenfried Zschech, President FEMS, Marco Falzetti, Chairman EuMaT, Herbert von Bose, Director Industrial Technologies at Directorate-General for Research and Innovation, European Commission.

June, the European materials research societies and the technology platform EuMaT have engaged themselves in the efforts to realise a stronger, more competitive, and sustainable economy in Europe. At the end of the 3-day's conference, on 21 June 2012, the Aarhus Declaration was formulated and signed by a range of industrial partners, and co-signed by materials research societies including FEMS. The Aarhus Declaration was the

climax of the Industrial Technologies Conference 2012, and represents a major commitment by industry to support European research and innovation activities for the common good of European society and its citizens. This strategic document addresses challenges facing our society and it demonstrates clearly that innovative products and processes provide the only sustainable way for our manufacturing industries to thrive in global competition and to continue to create jobs in Europe.

The large materials societies FEMS and E-MRS as well as the technology platform EuMAT, representing a broad community of academic and industrial researchers and innovators, support the commitments expressed in the "Aarhus Declaration". They committed them to contribute actively to the goal of a stronger, more competitive and sustainable industrial economy in Europe. The demand of improved strategic partnerships between industry and research, to take research closer to market introduction by working on applied research and prototypes, was also the topic of Ehrenfried Zschech's talk at the conference. In his talk he explained potential new forms of liaison between industry, research centers and universities, e. g. the idea of a university-based European collaborative research consortium, supporting research in the field of materials science and engineering. ■

FEMS and E-MRS Presidents “We speak with one voice”



Ehrenfried Zschech (left) and Rodrigo Martins met at Nanofair 2012 in Dresden

The presidents of the two largest European materials associations, FEMS and E-MRS, Ehrenfried Zschech and Rodrigo Martins, met in Dresden in June, during the Nanofair 2012 Conference. During the meeting, they aligned their strategies for upcoming meetings like the Industrial Technologies 2012 Conference in Aarhus, Denmark, and the STOA workshop “Materials for the 2020 Challenges” with the representatives of the European Parliament. In addition, of course, both researchers talked about new developments in the field of materials for silicon-based and organic electronics. ■

European Parliament: Materials for the 2020 Challenges

A workshop on “Materials for the 2020 Challenges” took place on 10 July 2012 in Brussels to discuss the role of materials as a key enabler element for boosting the industrial and technological growth in Europe. The workshop was organised by STOA (the Parliament’s own Science and Technology Options Assessment body), together with four organisations representing the science and technology materials community at European level: E-MRS, FEMS, EMF, EuMaT. The Workshop was chaired by Prof. António Correia de Campos and Dr. Paul Rubig, members of the European Parliament and STOA Committee and was supported by the presence of selected eminent speakers from the European organisations and from major European industrial firms. Of particular relevance was the attendance of Dr. Herbert Von Bose, Director responsible for Industrial Technology within the Directorate-General for Research and Innovation of the European Commission, who provided essential information and comments on the role and position of Materials research in the future “Horizon 2020”.

Through a pre-recorded video, Prof. Jerzy Buzek, EP President during the first half of the 7th legislative period, insisted on the crucial role of Materials for achieving success in all three main “Horizon 2020” pillars, and asked for a clear dedicated space for Materials R&D within the future implementing structures of “Horizon 2020”. Relevant benefit from Materials Science for all

industrial sectors could be expected through a radical change in the approach to Materials Science by moving to a materials design approach, where the design of the materials and components/systems is regarded as one single integrated exercise.

Dr. Von Bose stressed the importance of ensuring coherence among the future Commission initiatives involving aspects of Materials R&D in order to achieve a real continuum from basic research to applied research. This will imply a real need to “work together”, both at the level of Commission services and at that of external systems/organisations representing the materials community at the different stages of the value chain. Prof. Yuan Tseh Lee (Nobel laureate) spoke about the importance of sustainability and the potential role of Materials Science and Technology in this respect: Innovations from materials science play a huge role, such as enabling us to harvest solar energy ever more efficiently.

In their concluding remarks, Prof. Correia de Campos and Dr. Rubig confirmed the commitment of the European Parliament to consider Materials R&D a crucial element in supporting and driving the future European industrial and societal growth. ■

Advanced Materials Research and Innovation - A Cross-Cutting Element of Horizon 2020

On May 30, 2012, representatives of FEMS, E-MRS, EuMaT and EMF were invited to a breakfast debate of the European Parliament to explain the needs of the European materials research community from both the academic and the industrial point of view. The event was organized and chaired by Maria da Graça Carvalho, Member of the European Parliament. Members of the ITRE committee who are particularly active within the Horizon 2020 dossier, Cristina Gutiérrez-Cortines, Amalia Sartori, Patrizia Toia and Antonio Cancian, as well as representatives of the European Commission, DG Research & Innovation, Herbert von Bose, Director Industrial Technologies Programme, and Renzo Tomellini, Head of Division Materials, took part in this event. FEMS was represented by Margarethe Hofmann-Amttenbrink.

In the convivial surrounding of a common breakfast, Rodrigo Martins, President of E-MRS, and Marco Falzetti, Chairman of the Steering Committee of EuMaT, explained the implementation need of the three pillars of advanced materials strategies, (i) to link fundamental research with the industrial competitiveness and the societal challenges, (ii) to be aware of the relevance

of advanced materials as enabling technology for any major innovation and societal challenge, and (iii) to foster the intrinsic value of materials research in the Triangle education, research and innovation. The objective of the four materials associations was to promote a discussion about the relevant role of materials along the whole value chain and to highlight the crucial role of advanced materials research and development. Maria da Graça Carvalho promised to consider the recommendations given within the Horizon 2020 programme. Herbert von Bose was particularly excited by the power of the European materials community, and he underlined the importance of a so-called “Materials R&D&I Tower” to monitor and conduct activities, with the goal to use synergies between different programs and avoid duplication. Moreover, the need to generate a pipeline of innovation from research to market was discussed. Particularly, the creation and testing of prototypes, mainly by SMEs and spin-off/start-up companies, has to be considered more in future. This idea was further elaborated by MEP Cristina Gutiérrez-Cortines, who suggested special pilot lines for prototype testing using regional funds, to support particularly SMEs. ■

Materials scientists met in Cracow, Poland

An international workshop on Advanced Materials and Nanoanalysis took place on June 25/26, 2012, in Cracow to discuss advanced materials and analysis techniques. The topics were focused particularly on high-resolution microscopy methods, including electron and ion microscopy, X-ray microscopy and scanning probe techniques. This workshop was organized jointly by the Institute of Metallurgy and Materials Science of the Polish Acad-

emy of Sciences and the Dresden Fraunhofer Cluster Nanoanalysis under the patronage of FEMS, the Polish Materials Society, the Committee on Materials Science and Metallurgy of the Polish Academy of Sciences and in cooperation with the AGH University of Science and Technology. ■

<http://www.imim.pl/nano/>



Dr. Paul McIntyre (1945 – 2012)

Paul McIntyre, Honorary Member of FEMS, passed away on 26 June 2012 after a long and courageous battle against cancer.

Paul McIntyre received his BSc degree in metallurgy from Kings College Durham/University of Newcastle upon Tyne. His PhD was granted in 1970 by the same institute for his thesis on "Hydrogen Embrittlement of Niobium and Vanadium". His professional career was centred on different aspects of corrosion and hydrogen assisted cracking of materials, having worked at the British Iron and Steel Research Association in Sheffield, British Steel Corporation in Rotherham, CEGB/NPTEC/NPRT in Leatherhead and National Power in Swindon. Paul was the Editor of Corrosion Engineering, Science and Technology for 10 years. He was awarded the Saville Shaw Medal of the Society of Chemical Industry in 1970, and the T. B. Marsden Award of the Institute of Materials, Minerals and Mining in 2003, for his technical-scientific contributions.

Paul was Secretary of the Federation of European Materials Societies between 2003 and 2010. With his



friendly and precise nature, Paul was a key person in keeping the contact with our member associations and running the FEMS administration. In recognition of his services, the FEMS General Assembly nominated Paul as an Honorary Member of our Federation in 2011.

Paul was also a consultant at the National Physical Laboratory in Teddington, and was the Scientific Secretary to the European Federation of Corrosion for fourteen years. The Honorary Life EFC Membership was conferred to Paul for his commitment to EFC during EUROCORR 2011 in Stockholm.

We will always remember Paul for his kindness, empathy and reliability.

Prof. Ehrenfried Zschech
President

EFC is organizing a condolence book for the messages of the materials community to the relatives of Paul McIntyre
<http://www.efcweb.org>

Upcoming Conferences and Workshops

FEMS/DGM: Junior EUROMAT

Lausanne, 23-27 July 2012

<http://www.dgm.de/dgm/junior-euromat/>

FEMS/SOCIEMAT/SPM

EUROMAT Sevilla, 8-12 Sept 2013

<http://euromat2013.fems.eu>

MRS-Serbia: YUCOMAT 2012

Montenegro, 3-7 Sept 2012

<http://www.mrs-serbia.org.rs/>

E-MRS 2012

Fall Meeting Warsaw, 17-21 Sept 2012

www.emrs-strasbourg.com/

NANOSMAT

Prague, 18-21 Sept 2012

<http://www.nanosmat-conference.com/>

DGM: MSE 2012

Darmstadt, 25-27 Sept 2012

<http://www.dgm.de/dgm/mse-congress/>

CSNMT: NANOCON

Brno, 23-25 Oct 2012

<http://www.nanocon.cz/en/>

SIWAN5: Szeged, 24-27 Oct 2012

www.sivan2012.com/

PTM: AMT 2013 Kudowa Zdroj, 9-12 June 2013

HMS: ICEAF III Kos Island, 26-28 June, 2013

DGM: Intelligent Materials Kiel, 25-27 Sept 2013

IOM3: Adhesion '13 York, 4-6 Sept 2013

FEMS newsletter

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