



# Member Society News - October 2016

## INTRODUCTION

Welcome to this, the third societies newsletter, which provides our members with the opportunity to showcase their latest news and details on forthcoming events across Europe which we hope you and your members will find of interest. As you will see from the content of this newsletter we have received a significant number of contributions from our members for this issue. There are also a number of forthcoming events taking place in November that I'd like to draw your attention to. Firstly, on Wednesday 2nd November we will be celebrating the FEMS World Materials Day. SPM (Portugal) are hosting their annual Masters competition which has been running for a number of years now. I will be attending representing FEMS and look forward to what promises to be an enjoyable event. We are in early stage discussions to develop this event and to make this more of an open European competition for all of our member societies to compete in next year. Next year also coincides with the 30th Anniversary of FEMS. This will be an important year for FEMS and we will mark the occasion by organising a number of activities throughout the year. If you have an event or activity which you would like to co-organise with FEMS to celebrate this important anniversary then please contact Dr Hugh Dunlop, our Executive

Secretary to discuss further ([secretary@fems.org](mailto:secretary@fems.org)). Secondly, on the 4th November we will be hosting the third regional societies meeting which will take place in Madrid for the societies from the Southern region in Europe, this includes: Portugal; Spain; Italy; Greece. This gives FEMS the opportunity to discuss current issues directly with our members and also inform them about on going FEMS strategies and matters which they will find of interest.

At the last EC meeting in Lausanne in July we voted on the proposals for the next two sets of EUROMAT and Junior EUROMAT events. I am pleased to report that Junior EUROMAT in 2018 will take place in Budapest, Hungary and EUROMAT 2019 will take place in Stockholm, Sweden. Finally, the online registration system for EUROMAT 2017 is now live and I would encourage you to promote this widely amongst your various networks.

I would like to thank you for your continued support and I look forward to an exciting year ahead as we mark the 30th Anniversary of FEMS.

*With Warmest Regards,  
Brett Suddell, FEMS President*

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## FEMS JUNIOR EUROMAT 2016

### **Ecole Polytechnique Fédérale de Lausanne, EPFL Switzerland, 10.-14.7. 2016**

For the first time the FEMS Junior EUROMAT was organised by EPFL in collaboration with MatSearch Consulting. Prof. Heinrich Hofmann, EPFL and Dr. Margarethe Hofmann, FEMS Immediate Past President, supported by a Scientific Committee under the lead of Prof. Nikolaos Michailidis from Aristotle University of Thessaloniki have undertaken another approach for Junior EUROMAT by inviting speakers from academia and industry, having a scientific board for the evaluation of abstracts and giving the young scientists longer presentation

times for selected presentations. On Sunday afternoon, the Granta Design Workshop took place with about 40 people (many more were interested but the workshop could not accept more), Thursday, the last day of the conference was devoted to 8 tutorials, covering the various topics over the value chain of material sciences and technologies and addressed also areas such as writing publications and the creation of a company. About half of the 315 participants and lecturers took the opportunity to go more in depth of the different topics. It was a wish of the participants to continue with the tutorials for a next edition. A special session was dedicated to

the European Project MATCH in which FEMS is an important partner. The outcome of the project was presented by partners from IOM3 (Ian Warrington), CEA Liten (Jérôme Gavillet) and KMN VIN (Michal Basista, who also served the conference as member of the Scientific Committee) and M. Hofmann from FEMS.

During the FEMS Lecturer Award Session presentations from 6 scientists from France, Greece, Portugal and Spain were given. The award winners Jonathan Cormier, Institut Pprime - UPR CNRS 3346, Physics and Mechanics of Materials Department, ISAE - ENSMA, France and David Maestra Varea, Departamento de Física de Materiales, Facultad de Ciencias Físicas, Universidad Complutense de Madrid (UCM), Spain are invited to give a lecture at EUROMAT 2017 in Thessaloniki. Congratulations!



Professor Paloma Fernandez-Sanchez (left), Dr. Brett Suddell (middle) and Prof. Eric Le Bourhis (right) with the FEMS lecturer Award Winners David Maestra Varea (left) and Jonathan Cormier (right)

The feedback of the survey that was carried out, was very encouraging and most of the participants were very satisfied. It turned out that most of the participants (more than 50%) were informed by their colleagues or friends, 20% by direct mail and 10% by the Junior EUROMAT webpage. All services prior to the event and at the event were ranked as very good as well as the oral presentation organisation and of course the barbecue evening with live music. The other activities were ranked between neutral and very good. Most of the participants were very happy with the length of the conference. The most appreciated tutorial beside

the Granta Workshop was that about the creation of a start-up, given by Willem Bulthuis, followed by the EPFL tutorial about colloidal systems, given by Heinrich Hofmann. Functional materials and the failure aspects in materials systems followed in this ranking. Still many of the participants are not profiting from the reduced fees offered through a membership in a national society and only 30% are interested in FEMS working with the national society to try and secure you a complimentary membership for one year. This is a point to improve. More than half of the participants will recommend Junior EUROMAT 2018 to their friends.



The barbecue evening on the EPFL Campus

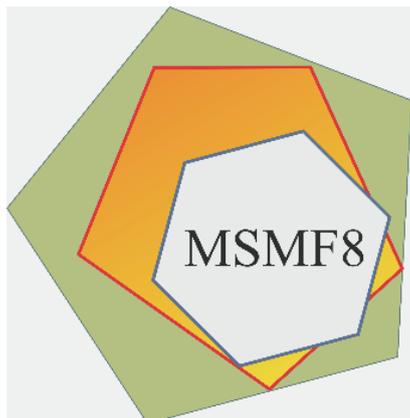
As organisers we would like to thank again the invited speakers and tutorial lecturers, the Scientific Committee and especially Nikolaos Michailidis for continued support. We would like to also make a big thanks to the young investigators who have strongly contributed to this success. They assisted the organisation with their support for the Web, social media and the continuous response to all e-mail and questions. Our great gratitude is given to our sponsors, because the prices we could offer this year for Oral and Poster Presentations in the 6 categories would have been impossible without their financial support. We like to congratulate all award winners, amongst whom about 50% were women. For complete information including the Abstract Book with ISBN number please visit the website [www.junior-euromat.org](http://www.junior-euromat.org).

*Margarethe Hofmann & Heinrich Hofmann*



Delegates together at the last day of the conference

## Czech Society for New Materials and Technologies



The Eighth International Conference on Materials Structure & Micromechanics of Fracture (MSMF8) was held in Brno, Czech Republic from 27 to 29 June 2016. This conference was organised by the Faculty of Mechanical Engineering and

the Central European Institute of Technology, Brno University of Technology under the auspices of Prof. Petr Štěpánek, rector of the Brno University of Technology and co-organised by the Czech Society for New Materials and Technologies and ESIS Czech Chapter. MSMF8 conference was recommended by the Federation of European Materials Societies and approved by European Structural Integrity Society. Two sub conferences were held as part of MSMF8, the third International Symposium on Atomistic Modelling for Mechanics and Multi-physics of Materials (ISAM4) and the eleventh Meeting of the Technical Committee on Micromechanisms of the ESIS (TC2). The symposium ISAM4 provided an opportunity for active researchers to present and discuss recent findings and developments in and around the field of atomistic modelling simulation for mechanics and multi-physics of materials and TC2 meeting contained many interesting presentations and fruitful discussions on the micro- and nano-mechanisms of fatigue and fracture. Professor Jaroslav Pokluda from Brno University, the conference chair, together with his colleague, Professor Pavel Šandera, the chairman of the Organising Committee, have created a pleasant event where 210 participants from 29 countries spent 3 days full of discussions in 10 sections with 39 program session and 1 poster ses-

sion. Three plenary lectures were given by Prof. Zhiliang Zhang (Norwegian University of Science and Technology, Trondheim, Norway), Prof. Alexander Hartmaier (Ruhr-Universität Bochum, Bochum, Germany) and Dr. Takahiro Shimada (Kyoto University, Kyoto, Japan). Each conference session was introduced by invited keynote speakers: Prof. Matthew R. Barnett (Geelong, Australia), Prof. Stefano Beretta (Milano, Italy), Prof. Angelika Brückner-Foit (Kassel, Germany), Prof. Guocai Chai (Sandviken, Sweden), Prof. Radim Chmelík (Brno, Czech Republic), Prof. Antonín Dlouhý (Brno, Czech Republic), Dr. Véronique Doquet (Palaiseau, France), Dr. Martin Friák (Brno, Czech Republic), Dr. Roman Gröger (Brno, Czech Republic), Dr. Petr Haušild (Prague, Czech Republic), Dr. Anton Hohenwarter (Leoben, Austria), Dr. David Holec (Leoben, Austria), Prof. Haruyuki Inui (Kyoto, Japan), Prof. Hajime Kimizuka (Osaka, Japan), Prof. Tomáš Kruml (Brno, Czech Republic), Prof. Ulrich Krupp (Osnabrück, Germany), Dr. Alexander I Landa (Livermore, CA, United States of America), Dr. Kristián Máthi (Prague, Czech Republic), Prof. Shigenobu Ogata (Toyonaka, Japan), Prof. Andrey A Shanyavskiy (Moscow, Russia), Prof. Yoji Shibutani (Osaka, Japan), Prof. Setsuo Takaki (Fukuoka, Japan), Prof. Václav Vitek (Philadelphia, PA, United States of America), Prof. Junichiro Yamabe (Fukuoka, Japan), Prof. Kisaragi Yashiro (Gifu, Japan).

The Proceedings of MSMF8 traditionally appear as a special issue of the journal Key Engineering Materials. All papers appearing in the Proceedings will be indexed in the well-known scientific databases (such as CPCI Web of Science, SCOPUS, Ei Compendex, Google Scholar, etc). Besides the scientific program, a rich social program was arranged for all participants and especially for the accompanying persons where sightseeing tours of Brno and South Moravia were arranged, including the villa Tugendhat, a pioneering prototype of modern architecture in Europe protected by UNESCO.

The ninth MSMF conference will be held in Brno in June 2019 (exact dates will be announced in due course).





The National network of metallurgy hosted by SF2M organized the symposium entitled “La Métallurgie, quel avenir!” at Ecole des Mines de St-Etienne from 27 June to 1st July 2016. This is an important topic discussed also at a European level.

The French symposium was organised in five academic sessions plus five applicative sessions and was well attended. More details at [http://www.sf2m.asso.fr/200ans\\_StEtienne/default.htm](http://www.sf2m.asso.fr/200ans_StEtienne/default.htm)

**During Junior EUROMAT Jonathan Cormier (France) was awarded the FEMS lecturer prize together with David Maestre Varea (Spain).**

This had a high impact on returning back home as shown in the related interview. This distinction encourages selected young materials scientists who have contributed significantly to a recently emerging topic of materials science and engineering to lecture throughout Europe as “ambassadors” of the materials community.

<http://www.lanouvellerepublique.fr/Vienne/Actualite/Education/n/Contenus/Articles/2016/08/12/Jonathan-Cormier-moteurs-de-recherche-2808184>



**Symposium and Exhibition on Friction, Wear and Wear Protection, Ettlingen (Germany)  
21. - 23. February 2017, Ettlingen, Germany**

Downsizing of mechanical components and the application of novel, greener lubricants as a means to improve energy efficiency and to meet the strict environmental regulations in mechanical machines and manufacturing processes comes with the danger of reducing the wear life of sliding surfaces. New materials and coatings must therefore withstand harsher tribological conditions and at the same time provide lower friction than ever. This leaves no room for trial-and-error solutions and requires a deep understanding of the underlying microscopic mechanisms in the tribological contact.

The **symposium** focuses on the latest developments in materials and coatings development for ultra-low friction and wear, as well as friction materials, polymers and PMC's. Since 2008, it is held every three years under the auspices of the technical committee “Materials aspects of tribology and machining” of the German materials society, DGM.

The organizers invite prospective authors to submit an abstract for lectures or posters relating to the conference topics. Don't miss the deadline to submit an abstract : 30th October 2016 !

**Conference Topics :**

- A : Wear resistant materials and coatings
- B : Friction materials and linings (brakes, clutches)
- C : Ultra-low friction materials and coatings
- D : Material-lubricant interactions and tribochemical effects
- E : Ceramics F : Polymers and PMCs

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### DVM - Understanding Components.

According to DVM, understanding the term “Materials Research and Testing” is not limited to materials. Rather material behaviour in components is regarded under any relevant load and environmental conditions. Thus the various DVM activities commonly contribute to the topic of “Structural Integrity”. DVM defines “Structural Integrity” as “Ensuring the Safety and Reliability of Systems or Components”. Verification of Structural Integrity is the object and aim of DVM and its working groups and members. Our slogan “DVM - Understanding Components.” stands for these strategic guiding principles.

DVM German Association for Materials Research and Testing e.V. is a non-profit registered NGO promoting knowledge transfer in the field of structural integrity, materials research and materials and component testing since 1896. In twelve multidisciplinary networked working groups and various event formats professionals from science, research, industry and service companies to industry meet to exchange and discuss latest research results and to define future research goals.

### Qualified speakers from academia, research, industry and service companies are conveying the current state of research and technology to the participants in :

- national meetings
- international conferences
- workshops
- serial education seminars

### DVM Workshops

- Test Methodology for Fatigue Tests in Automotive Industry

- Numerical Simulation in Structural Durability
- Reliability and Probabilistics

### DVM Training Seminars

- Specific Issues of Fatigue Strength
- Specific Issues of Fracture Mechanics and Structural Integrity
- Component Damage - Review, Conclusions and Corrective Action
- Material and Component Testing
- Fracture Mechanics Test Methods Qualification Program for Inspection Personnel
- Destructive Materials and Component Testing

### Committee “Materials Testing”

DVM proceedings present a collection of methodological approaches and practical examples providing valuable input to solve problems in daily business. DVM special issues convey historical developments of materials research and testing or are explaining the state of the art. Take part in DVM events, get informed about the benefits of a membership or be active in one of our working groups! Discuss in our events interdisciplinary latest research and find out solutions for current problems with our experts. Take part in defining future research goals!

### DVM German Association for Materials Research and Testing e.V.

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## GREECE

### The Hellenic Metallurgical Society (HMS)



City of Ioannina: Panoramic View

The 6th Panhellenic Conference on **Metallic Materials**, will be held in Ioannina Greece on 7-9 December 2016. The Conference is Co-organized by the Laboratory of



Applied Metallurgy, Department of Materials, University of Ioannina (<http://users.uoi.gr/metallab/en/index.html>) and the Hellenic Metallurgical Society. 95 papers have been submitted covering the whole spectrum in the field of Metallic Materials (Processing, Physical Metallurgy, Characterization & Modelling, and Environment).

Invited lectures will be given by Prof. George Kaptay (Vice-Director on Scientific Affairs of the BAY-NANO Research Institute on Nanotechnology & part-time professor at the University of Miskolc, Hungary) and Ass. Prof. Spyros Diplas (SINTEF, Norway).

The event is organized every three years since 2000, and attracts 180 delegates, from the Greek Universities, Research Centers and Industries.

Information regarding the Conference can be found at the official website : <http://met.gr/conference/view/19>

## Hellenic Society for the Science & Technology of Condensed Matter (HSSTCM)

2016 Training Workshop on Advanced Material Characterisation Techniques.

The Hellenic Society for Science and Technology of the Condensed Matter (HSSTCM), is pleased to announce the 2016 Training Workshop on Advanced Material Characterisation Techniques, that will be held in Athens on the 25th and the 26th of November 2016. This is the second workshop in this series, organised by the Society, and it follows the success of the first workshop that was organised in November 2015. These workshops aim to introduce young researchers in advanced material characterisation techniques such as, NMR spectroscopy, Ellipsometry, Magnetic and Electric methods of characterisation, Raman spectroscopy, Electron microscopy, XAFS spectroscopy and XPS. The workshop's language is English and besides HSSTCM, it is being organised by the National Centre for Scientific Research "Demokritos", the Federation of European Materials Societies, the Foundation for Research and Technology Hellas. More info can be found on the society's web site: <http://www.hsstcm.eu>

## HMS-HSSTCM



EUROMAT 2017 International Conference  
HMS and HSSTCM are co-organising the next EUROMAT Conference in Thessaloniki, Greece from 17 - 22 September, 2017. EUROMAT 2017 will be one of the largest conferences on advanced materials research and it is expected to host about 2000 participants. Conference Chair is Panos Tsakiroopoulos, University of Sheffield, UK. The conference topics are categorised into seven Areas: Functional Materials, Structural Materials, Processing, Characterization and Modelling, Energy and Environment, Biomaterials & Healthcare and Education & Technology Transfer. During 2017 FEMS will be 30 years old. This milestone in the history of FEMS will be celebrated with special events in the Conference, organised to highlight this special occasion. <http://euromat2017.fems.eu>

## ITALY

**IWSQ 2016**  
**International Workshop Surface quality of continuously cast products**  
**Bergamo, Italy, 1st-2nd December 2016**

**International Workshop**  
**Surface quality of continuously cast products**  
**Bergamo - Italy, 1st-2nd December 2016**

The surface quality of billets, blooms and slabs is a particularly important issue in order to assure the required surface quality of the final rolled products. This aspect is becoming increasingly significant especially nowadays, when a lot of steelmakers are refocusing their activity on the search for better surface quality or new specialty steels requiring high quality surface features. Moreover, the production of large size semi products and the use of electromagnetic equipment have to be carefully performed to avoid any detrimental effects on surface quality.

This international meeting aims to share the knowledge about the improvement of the surface quality of the continuously cast products and this scope will be achieved by clear lectures about:



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- The state of the art on defect analysis;
- The root cause of defects;
- Presentation of innovative lubricating products;
- Updated criteria for the definition of correct casting parameters;
- Application of electromagnetics

The conference will cover the following topics: Lubrication technology in continuous casting; Mould fluxes; Oil; Defect sources; Defect analysis; Primary Cooling; Secondary Cooling; Mould design; Electromagnetic equipment; Corrective action for the surface improvement; Billet and bloom casting; Slab Casting; Thin slab casting

### Deadlines:

Submission of abstracts: 30 September 2016

Information on acceptance: 15 October 2016

Opening online registration: 15 October 2016

Submission of presentation: 15 November 2016

e-mail: [aim@aimnet.it](mailto:aim@aimnet.it)

Conference website: <http://www.aimnet.it/iwsq2016.htm>

**ESSC 2017 & DUPLEX 2017**  
**9th European Stainless Steel Conference – Science & Market**  
**5th European Duplex Stainless Steel Conference & Exhibition**  
**Bergamo, Italy 21-23 May 2017**



After the successful experience of Graz 2015, once again, the 9th European Stainless Steel Conference Science & Market and the 5th European Duplex Stainless Steel Conference & Exhibition will be jointly organized, as a single event, by AIM, the Italian Association for Metallurgy.

The Conference will focus on all aspects of development, production technology (hot and cold rolling, heat treatment, etc.) and corrosion of stainless steels and duplex stainless steels and address delegates with both academic and industrial backgrounds.

The results shall contribute to the advancement of existing and potential applications and will help to guide future development. The event will bring together developers, manufacturers and users of stainless steel from industry and academia and will compare the present and future needs to satisfy these demands now or in the future. Short and medium term perspectives of European stainless steel flat and long products will be widely discussed during the Stainless Steel Market Outlook session. It is expected the presence of speakers representing the most important European stainless steel associations and reports coming from the big stainless steel companies.

The Conference will be enhanced by an Exhibition of table-top units at which companies will have the opportunity to inform all delegates of their latest developments. The Exhibition area will be a focal point of the Conference. Companies will be able to reinforce their participation and enhance their corporate identification by taking advantage of benefits offered to them as Contributing Sponsors of the Conference. The detailed sponsorship packages will be available on the Conference website, starting from September 2016: <http://www.aimnet.it/essc2017.htm>.

The Conference is devoted to all aspects of stainless steels with emphasis on basic research, engineering application as well as market aspects. In particular, it will cover:

- Austenitic stainless steels
- Ferritic stainless steels
- Martensitic stainless steels
- Duplex stainless steels
- Metallurgy
- Simulation and modelling
- Corrosion and in service problems
- Surface properties
- Fabrication, forming and welding
- Applications
- Oil & gas applications
- Environmental aspects
- Design with stainless steels
- Market issues

**Deadlines:**

Submission of abstract: 18 November 2016

Information on Acceptance: 10 January 2017

Opening online registration: 10 January 2017

Submission of full paper: 15 March 2017

e-mail: [aim@aimnet.it](mailto:aim@aimnet.it)

Conference website: <http://www.aimnet.it/essc2017.htm>

**ThermoMechanical Processing Milano, 26-28 October 2016**



The TMP 2016 Conference, organized by AIM, aims at examining the key aspects involved in ThermoMechanical Processing (TMP): phase transformations, complex microstructures, in-line heat treatments, measurement techniques and the technological forming operations (rolling, forging, extrusion etc.).

This edition of TMP Conference will be held in Milan, at the FAST Congress Centre in Piazzale R. Morandi, 2 (<http://www.fast.mi.it/>). The FAST Congress centre

is set in the heart of Milan, very near to its Cathedral, known as Duomo and to the best hotels of the city. It can be easily reached from the Central railway station and it's well served by the public transportation. Historically named "House of the scientific and technical societies", it was built on the area of the old Politecnico. Since its opening in 1961, it hosts many of the most important scientific and cultural events, both national and international.

The main topics of the Conference are:

**PROCESS AND PRODUCT DEVELOPMENTS IN TMP**

- Steels
- Aluminium alloys
- Rolling
- Forging
- Extrusion

- Wiredrawing
- Thin Slab Casting and Direct Rolling
- Hot Strips
- Cold Rolling and Annealing
- Finishing Operations
- Heavy Plates
- Long Products (rails, pipes, rods, beams etc.)

#### INVESTIGATIONS INTO THE METALLURGY OF TMP

- Plastic deformation
- Rolling
- Forging

- In-Line Rolling
- In-Line Heat Treatment
- Control of physical and mechanical anisotropy
- Recrystallization Control
- Phase Transformation Control and Precipitation Engineering
- Complex Microstructures
- Ultra-Fine Microstructures
- Mathematical simulation

e-mail : [info@aimnet.it](mailto:info@aimnet.it)

Conference website : <http://www.aimnet.it/tmp2016.htm>



LMRS



This year Latvian Materials Research Society organizes annual international conference – *The 25th International Baltic Conference of Engineering Materials & Tribology* – BALTMATTRIB 2016. Each year conference BALTMATTRIB takes place in one of the three Baltic States – Latvia, Lithuania or Estonia. Conference gathers experts from various countries (this year 9) in materials engineering and tribology to share lectures about fundamental aspects and latest advances. Conference dates are November 3–4. This year conference location is the beautiful capital of Latvia – Riga. Submission of abstracts is already closed, but anyone is welcome to attend the conference and hear about the latest findings in several conference sections. In total 98 participants have registered. Talks are divided into following sections:

Polymers and Composites; Chemical Synthesis and Technologies of Chemical Engineering; Materials and Technologies in Environmental Engineering and Waste Recycling; Biomaterials and Applications in Biomedical Engineering; Semiconductors; Materials for Micro- and Optoelectronics; Ceramics and Powder Materials; Technologies of Powder Metallurgy; Hardening, Coatings, Surface Engineering and Tribology. A large poster session (45 presentations are submitted) will be held on November 4. During the conference Student Speech Contest will take place as well; best student poster presentations will be awarded by Latvian Materials Research Society. Each participant of the BALTMATTRIB 2016 conference had a chance to submit one paper to peer reviewed conference proceedings in journal *Key Engineering Materials* (indexed in Scopus database). 87 papers have been assigned to publication and proceedings will be published before BALTMATTRIB 2016 conference. Therefore, ideas discussed in conference will be available to a wide audience – the whole research community. Please visit the conference site for more information <http://baltmattrib2016.lmpb.lv> and site of Latvian Materials Research Society <http://lmpb.lv/en/author/lmpb> We look forward to seeing you in Riga!



Riga from the River Daugava (Photo: Zilgma Irbe)

## Meeting Materials

“Meeting Materials” is an initiative of the Society for Materials Knowledge (BvM in Dutch: Bond voor Materialenkennis), the Materials Innovation Institute (M2i, The Netherlands) and the Strategic Initiative Materials (SIM, Belgium). Two times a year Meeting Materials brings together people with an interest in materials science and technology. Participants gather in an informative and informal atmosphere with lots of networking opportunities. The symposiums include talks by industrial and academic speakers, exposing a number of practical and theoretical topics on specifically chosen themes.

The Society for Materials Knowledge looks forward to welcome you at the next Meeting Materials.

When? **Tuesday December 13th 2016**

Where? **NBC Congrescentrum, Nieuwegein, The Netherlands**

### This Meeting Materials the main topics are:

- Circular economy
- Maritime and Offshore materials
- 3D printing

- Smart production
- Packaging Applications
- Functional coatings and surfaces
- Binding (layered) materials
- Composites

The complete program will be available from on November 1st on [www.materialenkennis.nl](http://www.materialenkennis.nl).

REGISTER NOW and join a group of 400 participants, team members of SME's, industrial manufacturing companies, universities and other research centers. WELCOME to this exciting, informative network-event.

### Links

Meeting Materials announcement, with link to the registration-page: [http://www.materialenkennis.nl/Projecten/Meeting\\_Materials/74/meeting\\_materials.html](http://www.materialenkennis.nl/Projecten/Meeting_Materials/74/meeting_materials.html)

Society for Materials Knowledge: [http://www.materialenkennis.nl/Home/English\\_version/114/bvm\\_english.html](http://www.materialenkennis.nl/Home/English_version/114/bvm_english.html)

Materials Innovation Institute: <http://www.m2i.nl>

Strategic Initiative Materials: <http://www.sim-flanders.be>

## Students Materials Challenge: A new initiative of the Society for Materials Knowledge

Want to learn from high-tech companies and the cases they are struggling with? What would you do if you would work for one of them? Which student team can give them the best possible advice after they explain their most challenging cases to you?

That in short is what you will do during the Student Materials Challenge 2016, taking place on November 8th 2016, during Materials Science Day at the De Ruwenberg, Sint-Michielsgestel, close to Eindhoven in The Netherlands. This year's competition will be about two trendy issues you will come across more often in the future. Experts in the field introduce the challenges and guide the competition. Are you able to impress them? This year's themes for the challenge and the Materials Science Day are:

- Additive Manufacturing (3D printing)
- Circular Economy, with focus on Recycling and CO<sub>2</sub> footprint

Both themes will be introduced during the morning sessions. Admission to the Materials Science Day is free for competing teams; lunch and drinks are provided.

### The challenge

Teams of 5-6 students work with experts and companies on a challenge pertaining to one of the themes. In about 2.5 hour ideas are gathered and worked out into a pitch of 2 minutes. The pitches are presented to the audience of the Materials Science Day. The audience will choose the winning team.

### Who can join the competition?

The challenge is open to all student teams with a Bachelor degree and with affinity to materials, materials science engineering, physics or chemistry.

Teams can sign up **before October 8th 2016**:

[Challenge@materialenkennis.nl](mailto:Challenge@materialenkennis.nl)

The Students Materials Challenge is an initiative of the **Society for Materials Knowledge** (Bond voor Materialenkennis), representing members of The Netherlands and Belgium.

For more information on the Students Materials Challenge, please contact Amarante Böttger: [challenge@materialenkennis.nl](mailto:challenge@materialenkennis.nl)

**ENEM 2016 – National Meeting of Materials Students  
An Initiative of the Junior SPM**

This is the Fifth Meeting of Materials Students (ENEM 2016) organized under the auspices of SPM and in collaboration with the Association of Engineers.

The first ENEM was held at the University of Aveiro in 2006, when the new Division J-SPM (Junior SPM) was created, in order to attract undergraduated students to be interested in the thematic of Materials Science and Engineering.

ENEM 2016 is going to take place at UBI-Universidade da Beira Interior (Covilhã, central Portugal, near the boarder with Spain) in September 29-30. With a program prepared to a young audience of Materials Science and Engineering students from all over Portugal, it will consist of presentations, round-tables, workshops and poster sessions.

The discussions will be organized in order to cover the importance of materials in the development of the economy, as well as the vision of the industrialists and the experience of Materials Engineers working in the industry.

**“Seminars in Materials” an initiative of the board of directors of SPM. Energy and Materials**

A new initiative of the responsibility of the board of directors of SPM is launched in 2016, designated Cycle of “Seminars in Materials.”

Framed within the objectives of the current direction and in accordance with its program of action, this initiative aims to highlight the importance of materials for the development of a modern and sustainable society and highlight their impact on the national Portuguese economy.

The topics chosen by the board of directors of SPM, to be covered and discussed by a panel of experts in one-day seminars will address issues on the agenda and on which it deems there urgency of public debate, clarification, or which are of industrial relevance.

Seminars in Materials, board of directors of SPM initiative are public and are intended for all stakeholders in development, manufacturing, characterization and application materials. Annual seminars will be held each December.

Board of directors of SPM is pleased to announce the 1st Seminar: Energy and Materials, which will take place on 14th December 2016 at the headquarters of the Portuguese Association of Engineers in Lisbon. Due to the importance of the topic and the targeted impact this seminar will be organized in collaboration with the General Directorate of Energy in Portugal, University of Aveiro and Portuguese Association of Engineers.

To discuss the role of Materials Science and Engineering in the new technologies of energy production, storage and conversion, the Seminar aims at:

- Assessing the effects of the variability and intermittence of renewable energies on the industries which produce and transform materials
- Using these problems to identify opportunities for both the materials and the energy sectors
- Identifying capacities of energy generation/co-generation in the materials industries
- Stimulating partnerships involving the industry and research & development centers



## World Materials Day

The World Materials Day is commemorated by SPM since 2003, in collaboration with the Materials Committee of the National Association of Engineers.

The next event will take place on the 2nd November, at the University of Minho, Guimarães. As usual, a contest is organized in order to award prizes to the best thesis on

Science and Engineering of Materials presented by students of the Materials Engineering Courses of Portuguese Universities. Two prizes are awarded: the SPM Prize (500 EUR) and the Association of Engineers Prize (500 EUR).

The program of the day covers topics related to science, technology and innovation and the transfer of research and development results to the industry.



## UNITED KINGDOM

### News from IOM3:

#### IOM3 Member Benefit Developments for 2017

During the last 12 months, a significant number of changes have positively affected the capability for IOM3 to broaden its service provision for members. During the remainder of 2016, the final elements to support these changes will be put in place.

<http://bit.ly/2d3sFjS>



### IOM3 Awards 2017



The prestigious IOM3 Awards are now open for nomination, deadline 13 January. The awards cover personal achievement and published work in a range of materials sectors and applications.

<http://bit.ly/iom3awards17>

### Upcoming events organised by IOM3: Mining and Mineral Processing in Europe 12 October 2016, London, UK



To become viable, the development of innovative mining techniques and beneficiation processes is essential to enable the optimal exploitation of the many complex, but rather small scale

mineral deposits in Europe.

This one-day conference brings together speakers from a wide range of backgrounds, but with a common thread of experience, to address this issue, citing examples within Europe and further afield.

<http://bit.ly/2cCjGbk>

### Sir Henry Bessemer Lecture 13 October 2016, Swansea, UK

Professor Alan W Cramb, President, Illinois Institute of Technology, Chicago, USA will present his lecture - Steel Processing Technology: Potential Futures.

<http://bit.ly/2bimvO8>

### Advances in Particulate Engineering for Defence, Safety and Security Applications

23 November 2016, Cambridge, UK

<http://bit.ly/2cBW70s>

## Innovations in Rubber Design 7-8 December, London, UK



This conference will focus on the design cycle in the rubber industry and how recent innovations can result in better, longer lasting and more functional products.  
<http://bit.ly/1X6GKyB>

## Emerging Trends in Minerals Engineering 12-13 December, London, UK

This 2 day conference is aimed at allowing the new generation of researchers and innovators in the Minerals Engineering field to present their work to an international audience from both academia and the minerals industry. The event will provide a platform to discuss the latest research and developments in the fields of minerals processing, extractive metallurgy and process mineralogy  
<http://bit.ly/2d5u50e>

## PVC 2017



PVC 2017 welcomes first keynote speaker. Professor Michael Braungart will present Beyond Sustainability - Cradle to Cradle as an Innovation Engine for the Industry. PVC 2017 will be held in

Brighton from 25-27 April, 2017. The event is organised by PVC professionals for the PVC industry in conjunction with IOM Communications Ltd on behalf of the Polymer Society, a division of the Institute of Materials, Minerals and Mining, with support from the British Plastics Federation and the European Council of Vinyl Manufacturers



Professor Dr Michael Braungart, founder of EPEA, Environmental Protection Encouragement Agency - established in 1987, and holds the Academic Cradle to Cradle® Chair for Innovation and Quality at Rotterdam School of

Management, Erasmus University (RSM) and is professor at the Leuphana University in Lüneburg  
<http://bit.ly/2a9fgnP>



**online registration  
for Euromat 2017  
now open, visit :**

<http://euromat2017.fems.eu/registrations>

### FEMS newsletter

Editorial Committee : Hugh Dunlop (Chairman), Margarethe Hofmann-Antenbrink, Jana Hornikova, Brett Suddell, Ehrenfried Zschech  
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### FEMS Member Societies :

**Austria :** Austrian Society for Metallurgy and Materials (ASMET)

**Belgium :** Benelux Métallurgie (BM)

**Czech Republic :** Czech Society for New Materials and Technologies (CSNMT)

**Czech Republic :** Metal Science Society of the Czech Republic (MSS)

**Estonia :** Estonian Material Science Society (EMSS)

**France :** Société Française de Métallurgie et de Matériaux (SF2M)

**Germany :** Deutsche Gesellschaft für Materialkunde (DGM)

**Germany :** Deutscher Verband für Materialforschung und -prüfung (DVM)

**Greece :** The Hellenic Metallurgical Society (HMS)

**Greece :** Hellenic Society for the Science and Technology of Condensed Matter (HSSTCM)

**Hungary :** Hungarian Society of Materials Science (MAE, Magyar Anyagtudományi Egységlet)

**Italy :** Associazione Italiana di Metallurgia (AIM)

**Italy :** Associazione Italiana d'Ingegneria dei Materiali (AIMAT)

**Italy :** Associazione Italiana Compositi & A ni (Assocompositi)

**Latvia :** Latvian Materials Research Society (LMRS)

**Lithuania :** Lithuanian Materials Research Society (LTMR)

**Netherlands :** Bond voor Materialenkennis (BvM)

**Norway :** Norsk Metallurgisk Selskap (NMS)

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**Portugal :** Sociedade Portuguesa de Materiais (SPM)

**Serbia :** Materials research Society of Serbia (Serbia-MRS)

**Slovak Republic :** Society for New Materials and Technologies in Slovakia (SNMTS)

**Slovenia :** Slovensko Društvo za Materiale (SDM)

**Spain :** Sociedad Española de Materiales (SOCIEMAT)

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