

## 2022 FEMS Winter Newsletter

*2022 was the year more normal business resumed and we were very pleased to meet up with colleagues in person. As we look forward to 2023 and working equally hard to raise the profile of FEMS and its Member Societies (despite the challenges), we want to look back to our highlights and our Member Societies' achievements.*

*We wish you and your families all the best this festive season and look forward to seeing you at FEMS EUROMAT 2023!*

FEMS MC

### FEMS Statutes

The revised FEMS Statutes presented and adopted at the December 2021 Extraordinary General Assembly were submitted to the Belgian Authorities for final approval and became official in June 2022.

According to the new statutes, the FEMS Executive Committee will be known as FEMS Board, the financial year will run from 1 April to 31 March and the General Assembly can be held online or as a hybrid event.

Another important change in the FEMS Statutes is the appointment of a permanent representative to the General Assembly who will be attending and voting on the Member Society's behalf. In case the permanent representative is unable to attend the General Assembly, a replacement representative will be attending and voting on their behalf.

[Read more](#)

### FEMS Junior EUROMAT 2022

After the sad [postponement of FEMS Junior EUROMAT 2020](#) and the virtual [FEMS EUROMAT 2021](#), 306 delegates from 26 countries enjoyed the 3-day conference featuring 6 plenary and keynote talks from ERC grant awardees, 215 abstracts from 25 countries and 98 presentations spread over 27 sessions covering 5 areas (Functional Materials, Structural Materials, Processing Technologies, Characterisation & Modelling, Materials for Sustainability), a satellite event hosted by BIOREMIA and the FEMS Master Thesis Award final. [Read more](#)

### 2022 FEMS Master Thesis Final

Narea García de Albeniz from SOCIEMAT won first place for her presentation on Laser-assisted surface modification of zirconia-based materials to guide osteoblast response for dental applications. Her thesis is aimed at improving the osseointegration of zirconia dental implants. Laser treatment approach was employed to engrave a microgroove pattern on the surface of dental zirconia, which enhanced mesenchymal stem cell adhesion and promoted cell elongation and alignment. Moreover, advanced characterization techniques were employed to characterize the surface damage and microstructural changes after the laser processing. On her win Narea said, 'it has been a real pleasure to attend FEMS Junior EUROMAT Conference, even more to be one of the finalists and winner at the FEMS Master Thesis Award. There were really excellent research works and I am sure that we demonstrated the importance that material science has on everyday life'.

After running virtually for 2 years, the event was held as in-person during FEMS Junior EUROMAT 2022 in Coimbra, Portugal. Professor Eric Le Bourhis, Immediate past President of FEMS and Chair of the judging panel said, 'I was very impressed by the FEMS Master Thesis finalists' level and achievements so far in their research'.

Second place went to Ivânia Trêpo of SPM for Transparent and flexible ECoG electrode arrays of metallic nanostructures for neural recordings, third place to Yann Bami-Chatener (SF2M) for Elaboration of super-hydrophobic bio-inspired surfaces by hybrid 3D-manufacturing and fourth to Chrysoula Aivalioti (HSSTCM) for Nanostructured doped nickel oxide thin films made by rf sputtering as hole transfer layers for transparent optoelectric devices. [Read more](#)



FEMS is pleased to invite and welcome everyone at the FEMS EUROMAT 2023 in Frankfurt (3-7 September), organised by DGM.

Abstract submission is now open

(deadline: 31 January 2023)

Consider publishing at the FEMS European Journal of Materials and take advantage of the 10% discount

For more information, visit [euromat2023.fems.eu/](http://euromat2023.fems.eu/)



## EUROPEAN MATERIALS DAY

The 2022 European Materials Day will be celebrated on Wednesday 2 November and the FEMS Member Societies organised a series of events:

IOM3 - Materially Challenged

DGM - FEMS Master Thesis Award national final

HMS - Event for PhD students

AIM - Event for PhD students

[SPM](#) - FEMS Master Thesis Award national final

[SOCIEMAT](#) - Lectures & events

## FEMS Prestigious Awards

FEMS is pleased to announce that nominations are now invited for the prestigious FEMS Awards:

- FEMS European Materials Gold Medal
- FEMS Materials Science & Technology Prize
- FEMS Materials Innovation Prize

The FEMS Awards recognise outstanding contributions technological development and innovation at various career stages in the field of Materials Science and Engineering.

The winners will be invited to 2023 FEMS EUROMAT in Frankfurt, Germany (3-7 September) where they will be presented with their prize and give a plenary lecture. [Find out more](#)

## FEMS Junior EUROMAT 2024 – Expression of interest

FEMS Board would like to invite any Member Society who wishes to organise FEMS Junior EUROMAT 2024, to send a letter of interest to Ms Efi Fragkou at [secretary@fems.org](mailto:secretary@fems.org) by 28 February.

## FEMS Member Societies



2022 was a very positive year for Assocompositi, full of activities and new national synergies and international collaborations. The issue of the circularity of composites has been at the centre of the activities of our Working Tables, which led to the publication of two important documents: the 'Position paper on the circularity of composite materials' and the technical document 'Circularity of composite materials: a guide for newcomers,' which we can consider the first Italian guidelines for a circular management of composite products. Assocompositi also cooperated to relevant regulatory documents for the construction industry i.e., FRP, FRC, FRCM national Guidelines. In 2023 we will

organize JEC Forum Italy in Bologna (June 6-8) in partnership with JEC Group, the first Italian business and technical event gathering the composites community.



IOM3 is the global network for the materials cycle, based in the UK, with professional members in over ninety countries.

In 2022, IOM3 continued its work to advance and develop all aspects of materials, minerals, and mining by being the best professional membership body it can be. It also launched [Material Change: Resourcing Net Zero](#), a multimedia digital campaign to highlight the importance of materials, minerals and mining in supporting the transition to a low-carbon, resource-efficient society.

IOM3 also restructured its technical communities this year, where it now has 22 covering the entire materials cycle from exploration to end of life. It saw growth in engagement across our communities, where the extensive range of webinars, podcasts, conferences, training events and policy papers that the IOM3 community has produced is hugely impressive. It also simplified our membership structure, making progression easier to understand for all.

IOM3 itself organised 38 events with almost 4,000 registrations from 44 countries. Its member magazine *Materials World* received a redesign to help showcase the diversity of multidisciplinary content and it won Highly Commended for Best In-house Magazine by Memcom.



All this year's activities of the Materials Research Society of Serbia were to support and engage in the organization of the YUCOMAT & WRTCS 2022 Conferences.

We have had a great and a very successful conferences, with more than 150 lectures were held in the form of oral and poster presentations, programme included virtual oral and poster lectures by authors who were not able to come and presented their latest research in person. [The Program and Book of Abstract](#)

This year's Award of MRS Serbia winner for the lasting and outstanding contribution to materials science is Prof Dr Richard W Siegel. He is awarded for his achievements in the materials science and nanotechnology- science and innovation.

The preparations for the next [24th Annual Conference YUCOMAT 2023](#) are already underway and it will take place 4-8 September, at the Hunguest Hotel Sun Resort, Herceg Novi, Montenegro. The impressive list of Confirmed Plenary speakers 2023 is already on our [website](#).

High quality presentations of distinguished plenary speakers among the highest in the field of materials science and meeting opportunities with colleagues from around the world show that YUCOMAT Conference is internationally recognized as a leading conference, exhibition and meeting place for scientists working on the field of advanced materials.

Our project topics are designed to build effective cooperation between science and society, to develop a new generation of world class creative researchers, pair scientific excellence with social awareness and responsibility by bringing outstanding academics and institutions. [Watch 2022 conference video](#)



SOCIEMAT's activities during 2022 have been carried out mainly in 2 areas.

Scientific knowledge - this year we recovered the face-to-face celebration of the National Materials Congress, CNMAT, at the University of Castilla-La Mancha in Ciudad

Real, with the participation of more than 400 attendees. Besides, the online meetings that came with the pandemic have become a useful tool that SOCIEMAT has continued to develop with the 2022 Cycle of Conferences and Surface Treatments Meetings led by prestigious speakers.

Science communication: SOCIEMAT's efforts to be at the forefront of scientific dissemination culminated this year with the organization of the first National Congress of Materials Science Communication, MATERDIVULGA and the launch of the exhibition 'MATERLAND, the Materials around us'. Finally, SOCIEMAT joined other member societies of FEMS to celebrate the European Materials Day with events in Madrid, Ciudad Real and Seville, presentation of the SOCIEMAT Awards and contests on social networks.



**POLISH MATERIALS  
SCIENCE SOCIETY**

In 2022, the Polish Materials Science Society (PTM) celebrated its 27th anniversary. During this time, about 370 scientists joined the Society. This year's PTM seminar was co-organized with the Czestochowa University of Technology. While in the competition for the best doctoral dissertation in the field of Materials Science, two equivalent prizes were awarded, for Izabella Kwiecień from IMIM PAN in Krakow (supervisor: Prof Joanna Wojewoda-Budka) and for Maria Wątroba from AGH UST in Krakow (supervisor: Prof Piotr Bała). Among other events patronized by the Society, it is worth mentioning the 10th International Conference on High Temperature Capillarity, Implants 2022, Materials Science – Materials and Technologies 2022 and Material Technologies in Silesia'2022. In 2022, PTM announced a competition for students entitled Material Movie for the best short film and screenplay aimed at popularizing Materials Science among school and university students in Poland.



The German Materials Society (DGM e.V.) has been established as a professional society and organizer of conferences, training courses and trade fairs in the field of materials science and engineering for many decades. The events held by the DGM virtually, hybrid or in presence are attended by several thousand (inter)national participants every year. Ten hybrid DGM conferences with more than 3,000 participants allow us to look back on a successful year 2022.

Following on from this, DGM as organizer of the 17th FEMS EUROMT 2023 (3-7 September) is looking forward to welcoming you to the largest European technical congress of its kind in Frankfurt am Main or online. For more information, visit [euromat2023.fems.eu/](https://euromat2023.fems.eu/)



After a limited activity in 2021 due to the pandemic, a strong re-start was observed in 2022, with the organization or co-organization of a number of events such as ICRS 11 (Nancy, 27-30 March), Matériaux 2022 (Lille, 24-28 October), FSWP2022 (Lüneburg, 28-30 September), and other smaller events. A new Board was elected, and eminent scientists of the community were recognized by our annual prizes and medals, in

particular Prof Y. Bienvenu and Prof H. Voggenreiter. The work of the commissions, also limited during the pandemic, has been very active in 2022, showing the dynamism of the SF2M and of its regional components. To stick to the new challenges regarding materials and processes for the energy transition, an opinion poll has been launched to accompany the evolution of the different commissions, along with an annual cycle of meetings labelled 'Meetings Materials & Society'. Special attention was paid to young members, for a better integration into the community, as well as to the youngest in schools to raise public awareness of the essential present and future role played by materials, and to anticipate the necessary flux within our education system.



CSNMT activity was significantly affected by the two-year pandemic period, during which all professional activity and co-operation was practically moved to virtual space, and many events were even cancelled. The substantial work in 2022 was represented by the renewal of personal ties and meetings, especially at traditional summits. Therefore, the reduction of restrictions allowed the CSNMT and its

partners to organize e.g., the following national and international conferences with personal participation:

31<sup>st</sup> International Conference on Metallurgy and Materials - METAL 2022, May 18 – 20, 2022, Brno.

10<sup>th</sup> International Conference on Recent Trends in Structural Materials COMAT 2022, September 6 – 9, 2022, Plzeň.

10<sup>th</sup> International Conference on Materials Structure & Micromechanics of Fracture MSMF10, September 12 – 14, 2022, Brno.

17<sup>th</sup> Conference on Lifetime of Energy Equipment Components, October 18 – 20, 2022, Srní.

14<sup>th</sup> International Conference on Nanomaterials: Research & Application NANOCON 22, October 19 – 21, 2022, Brno.

28<sup>th</sup> National Conference on Heat Treatment, November 22 – 24, 2022, Jihlava.

All members of CSNMT hope that the year 2023 will fully allow the recovery of rich face-to-face professional activity.



In 2022, after the so-called Covid times, the Slovenian Society for Materials was mainly active in the field of education of young scientists in the field of materials and metallurgy, corrosion, microscopy, as well as physics and chemistry. We tried to expand

our activities also among the younger generation, undergraduate students, and high school students, who are crucial for progress in the development and research of modern materials. We helped organize international conferences in Slovenia and held several workshops. We plan to continue with education and dissemination of knowledge to the younger generations and to organize an international conference at which we will host both the research and industrial spheres. Special emphasis will be placed on the presentation of the research of young postdoctoral students who will compete for the title of the most promising young researcher.



SOCIETY for NEW MATERIALS & TECHNOLOGIES

The Society for New Materials and Technologies (SNMT) aims to disseminate of state-of-the-art information about new materials and technologies bridging academic and production fields. During the Strategic meeting held on 21st June 2022 at the Institute of Materials and Machine Mechanics, Slovak Academy of Sciences (IMSAS), the companies from Slovakia could meet members of academics and university. Meeting provides an excellent opportunity for networking of all participants and accelerates collaboration between partners.

Furthermore, on 6th October 2022, SNMT and IMSAS held a meeting organized together with the innovation-driven association of companies INOVA.TO. Production companies associated with INOVA.TO had an opportunity to access the laboratory and technological premises of IMSAS as one of the strategic partners of SNMT and establish new perspective partnerships for future innovations. SNMT participated as a partner at the organization of the International Conference Functional Materials 2022 on 25th October 2022.

As required by the status of the SNMT, the General Assembly of SNMT members and associates was organized at IMSAS on 22nd June 2022. Executing board of the SNMT accepted the resignation of the Chairman of the board, Dr Iždinský. He was thanked for his unique personal contribution, time and effort while chairing the society. Consequently, present members of the general assembly were elected new Chairman, Dr Martin Kusý, and two deputy chairmen, Dr Martin Nosko and Dr Iždinský.



ASSOCIAZIONE  
ITALIANA DI  
METALLURGIA



AIM, the Italian Association for Metallurgy, had a great 2022, with more than 30 events, especially face-to-face ones. Although online activities are still planned, especially courses, it has been a real pleasure to go back to on-site seminars and conferences. Several initiatives were focused on decarbonization, hydrogen and in general sustainability; those topics of great importance for the metallurgical industry will be discussed next year as well. Significant results in terms of attendance were reached by all our Conferences: the national Heat Treatment conference organised in Genoa at the end of May; AIM 39th national Congress held in Padua in September, the ROLLING-12 International Conference that took place in Trieste at the end of October and the International Workshop on Surface Quality of continuously cast products, held in Bergamo at the beginning of December. [Read more](#)



Bond voor Materialenkennis

After a few years in which only online meeting could be held, in 2022 several sections of the Dutch Bond voor Materialenkennis (BvM, Materials Knowledge Association) provided their members with the opportunity to meet again in person. The metals, laser, tribology, corrosion and heat treatment communities within the BvM gathered and had an exchange of knowledge by organizing several successful lectures and workshops. Early June, to just mention a few, the subsection *Fractography* of the metals community had a meeting about Failure in Additive Manufacturing and in September, the colleagues within the section of *Tribology* had a workshop on wind turbines. Also the Symposium *Tribology of the Low Countries*, held at Ghent University at the end of April, was a successful event. In the meantime, the board of the BvM started the initiative to give students free membership in order to attract the youth and improve the transfer of knowledge and experience. Information about this initiative can be found on the [BvM website](#).



The Hellenic Society for the Science and Technology of Condensed Matter (HSSTCM) is a Greek non-profit scientific society founded in 1981. Its main objective is to promote the exchange of new developments and achievements in the field of Condensed Matter and Materials Science, and to support their applications. During 2022, HSSTCM took the following actions and organized the following events:

- On the 10 December, HSSTCM organized the one-day-long intensive 'Workshop on Computational Materials Science-2022'. This was the 8<sup>th</sup> workshop in a series that started in 2015. Talks on Electronic and Atomistic Simulations as well as on Superconductivity, Photonics, Plasmonics and Magnetism were offered to mainly young scientists (MSc, PhD students and Post-Doctoral Fellows). [LINK](#)
- HSSTCM covered the registration fees of 11 young scientists for their participation in the 36<sup>th</sup> Pan-Hellenic Conference on Solid State Physics and Materials Science held in Heraklion-Crete (September 2022) [LINK](#)
- On the 19 February, HSSTCM organized the on-line competition for the Best Greek MSc Thesis Award in the field of Condensed Matter and Materials Science-2021. The winner, Ms Chrysoula Aivalioti, represented HSSTCM at the FEMS Master Thesis final which took place at the FEMS Junior EUROMAT Conference (Coimbra, July 2022). [LINK](#)
- HSSTCM supports the initiative of Greek scientists for the participation of Greece in the European Synchrotron Radiation Facility- ESRF [LINK](#)

**Best wishes to you and your loved ones during the festive season and Happy New Year!**

