

# European Advanced Materials Congress

70<sup>th</sup> Assembly of  
IAAM Fellow Summit, AMC

25 – 27 August 2026  
Stockholm, Sweden

## Symposium 01: Solid Mechanics, Materials & Structures

### Chair(s) and Keynote Speakers:

- **Tianhong Cui**, University of Minnesota, USA
- **Francesco Rossella**, University of Modena and Reggio Emilia, Italy
- **Kazumasa Kawasaki**, Sanjo City University, Japan

This symposium focuses on mechanical reliability, lifetime performance, and structural optimization of materials and systems for low-carbon infrastructure and industrial applications. Emphasis is placed on durability, damage mitigation, lightweight design, and performance-driven engineering approaches that reduce embodied carbon, extend asset lifetime, and support climate-neutral construction and manufacturing.

### Why Industry Should Attend

- Reduce lifecycle emissions through material-efficient and durable designs
- Improve structural reliability and asset longevity for ESG compliance
- Learn methods to lower embodied carbon in infrastructure and industrial systems

## Symposium 02: Computational Chemistry & Materials Science

### Chair(s) and Keynote Speakers:

- **Hongpeng Zhou**, The University of Manchester, United Kingdom
- **Frederico Tavares**, Federal University of Rio de Janeiro, Brazil
- **Mohan Chen**, Peking University, China

This symposium highlights computational and data-driven tools that accelerate development of low-carbon materials and chemical processes. Focus areas include digital materials design, catalyst optimization, and simulation-based screening that reduce experimental waste, energy consumption, and time-to-market for net-zero technologies.

### Why Industry Should Attend

- Shorten R&D cycles while reducing energy and resource use
- Lower development risk using predictive digital design tools
- Support ESG targets through data-driven materials innovation

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## Symposium 03: Structural & Engineering Materials

### Chair(s) and Keynote Speakers:

- **Ernestos Sarris**, Aristotle University of Thessaloniki, Greece
- **Jing Tao Wang**, Nanjing University of Science and Technology, China
- **Luca Spiridigliozzi**, Universitas Mercatorum, Italy

This symposium addresses structural and engineering materials for low-carbon construction, transportation, and manufacturing. Emphasis is placed on material selection, processing routes, corrosion resistance, and lifecycle performance to support circular material use, emission reduction, and compliance with EU climate-neutral infrastructure goals.

### Why Industry Should Attend

- Identify materials that meet EU sustainability and durability standards
- Enable circularity and recyclability in engineering systems
- Improve compliance with ESG and climate-neutral construction policies

## Symposium 04: Environmental & Green Materials

### Chair(s) and Keynote Speakers:

- **Simona Liguori**, Clarkson University, USA
- **Andreas Taubert**, University of Potsdam, Germany

This symposium focuses on scalable green materials and technologies that reduce environmental impact and support circular economy models. Topics include recyclable and bio-based materials, waste-derived materials, low-carbon processing, and materials enabling pollution control and climate resilience.

### Why Industry Should Attend

- Integrate circular economy materials into products and supply chains
- Reduce Scope 1–3 emissions using low-impact material solutions
- Strengthen ESG reporting through measurable sustainability outcomes

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## Symposium 05: Biomaterials & Biodevices

### Chair(s) and Keynote Speakers:

- **Mingxu You**, University of Massachusetts Amherst, USA
- **Yuan Cheng**, Monash University, Australia

This symposium focuses on deployable biomaterials and medical devices designed with reduced environmental footprint. It addresses sustainable materials, biodegradable implants, energy-efficient manufacturing, and next-generation diagnostics aligned with climate-conscious healthcare systems.

### Why Industry Should Attend

- Develop medical devices with lower environmental and regulatory risk
- Align healthcare innovation with EU sustainability and ESG frameworks
- Reduce manufacturing energy use and material waste

## Symposium 06: Catalytic Materials

### Chair(s) and Keynote Speakers:

- **Monica Bertoldo**, University degli Studi di Ferrara, Italy
- **Marta Mohedano**, Universidad Complutense de Madrid, Spain

This symposium addresses catalytic materials for decarbonizing industrial chemical and energy processes. Focus areas include scalable catalysts for hydrogen production, CO<sub>2</sub> utilization, green fuels, and emission control technologies that support carbon-neutral and carbon-negative industrial pathways.

### Why Industry Should Attend

- Access catalytic solutions aligned with EU Fit-for-55 and Net-Zero goals
- Improve energy efficiency and reduce process emissions
- Enable scalable CO<sub>2</sub> utilization and green fuel production

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## Symposium 07: Energy Materials & Technology

### Chair(s) and Keynote Speakers:

- **Samy Merabia**, CNRS and University of Lyon, France
- **Ranjita Bose**, University of Groningen, Netherlands
- **Nobuto Yoshinari**, The University of Osaka, Japan

This symposium focuses on deployable materials and technologies for decarbonized energy systems. Emphasis is placed on batteries, hydrogen technologies, photovoltaics, energy storage, and energy-efficient systems that support secure, scalable, and climate-neutral energy infrastructure.

### Why Industry Should Attend

- Identify materials enabling clean energy transition and grid resilience
- Support decarbonization of energy systems and industrial operations
- Align energy innovation with EU Green Deal and ESG commitments