

European Materials Modelling Council

MATERIALS 2030 MANIFESTO

Systemic Approach of Advanced Materials for Prosperity – A 2030 Perspective

Statement by EMMC ASBL

The <u>European Materials Modelling Council</u> (EMMC ASBL) welcomes and strongly supports the <u>EU position on Advanced materials</u> and the recently published <u>Materials 2030 Manifesto</u>.

In particular, the Manifesto calls for *Uniting Digital and Material capacities and competences* and a systemic approach to develop the next generation solution-oriented advanced materials that are able to meet the challenges of European society, economy and environment.

The EMMC association and its wide ranging community have been leading the way towards this very objective, i.e. to *Unite Digital and Materials capacities and competences* in building a highly interdisciplinary ecosystem. EMMC merges the many strands of modelling and digitalisation advances to accelerate materials development and manufacturing. The EMMC community is hence at the forefront of addressing the challenges outlined in the Manifesto, such as "digital innovations must be applied within materials development" and "it is critical for Europe to create a unique world-wide ecosystem that connects discovery-led low-TRL research with application-orientation and links it synergistically with industry." Key developments of EMMC and related projects include advancing open and integrated modelling and innovation platforms, connected to powerful knowledge systems based on interoperability and ontologies to support the Industry 5.0 transition.

EMMC is ready to respond to the call for action in the Manifesto, by contributing to a consolidated strategic roadmap through the EMMC community's deep and diverse modelling and digitalisation competences, supporting the agile and inclusive European governance of advanced materials and the drawing up of a novel European strategic next-generation advanced materials agenda for a sustainable society.

In particular, EMMC calls for a strategic roadmap and related actions to include support for a *Materials and Process Acceleration Platform*: an ecosystem uniting digital and materials capacities and competences in materials modelling, characterisation, robotics, data documentation, ontologies and ML/AI, which are orchestrated to accelerate the design, development and application of solution-oriented advanced materials and related processes/manufacturing. EMMC is looking to work with, support and coordinate all actors contributing to this systemic approach.

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