



The European Materials Modelling Council

www.emmc.info

H2020-NMPB-CSA-2016

Newsletter 01/2016, December, 2016

EMMC-CSA, the new European network to coordinate and support the industrial uptake of Materials Modelling in Europe

In recognition of the importance of materials modelling for industrial innovation and the strength of Europe, a new Horizon 2020 project “**European Materials Modelling Council Coordination and Support Action (EMMC-CSA)** has been funded to augment and further boost the actions of the **EMMC**. The consortium includes 15 partners and is coordinated by TU Wien.



The EMMC-CSA kick-off meeting of was hosted by Fraunhofer IWM at their office in Brussel on September 26-27, 2016. [Read more](#)

The next M6 Consortium meeting will take place at Uppsala University (SE) on February 21-22, 2016.

Creating the future of materials modelling in Europe

80 European and International Experts meet in Vienna to discuss and contribute in setting a common direction among stakeholders in areas ranging from materials model development, interoperability, metadata, repositories and marketplaces, software development and industrial deployment, best practices for business decision support tools, to articulating economic impact. [Read more](#)



1st EMMC International Workshop

April 5-7, 2017

Vienna

CEN Workshop on materials modelling terminology, classification and metadata (January 17-18, 2017, Brussels, Belgium)



EMMC, in collaboration with the MODENA project (<http://modena.units.it/>), has coordinated the organisation of a CEN Workshop on materials modelling terminology, classification and metadata. The kick-off meeting will take place on January 17-18, 2017 in Brussels. A common terminology in materials modelling should lead to simplified and much more efficient communication and lower the barrier to utilising materials modelling. The end result is the adoption of a CEN Workshop Agreement (CWA), a best practices document for further standardisation efforts and input for the development of a future certification scheme.



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Project acronym: EMMC-CSA
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Coordinator: Nadja Adamovic, TU Wien (AT)
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What makes a material function? Let me compute the ways: modelling in H2020 LEIT-NMBP programme materials and nanotechnology projects



The future of the European industry is associated with a strong modelling capacity. An efficient modelling approach is needed to shorten the development process of materials-enabled products. This Review of Materials Modelling describes modelling of materials, their properties and use in industrial applications illustrated by H2020 LEIT NMBP Materials projects. It does not require prior knowledge of the subject. It is written for anybody interested. It contains no equations. The Review is to provide insight into the work of the modellers and help the reader to see the models as more than mere "black boxes". This Review of Materials Modelling shows that industry is a very active player both in modelling for production and in modelling research areas. Industry identifies the specifications for material properties and the modelling then finds which material composition can meet the specs and how production can be done. This "Materials by Design" approach has been supported during the last decade in the EU Framework Programmes. Application areas of modelling span all industrial sectors. The bulk of the projects are applying existing models to new materials, which shows that the current state of the art of modelling can be characterised as "mature"

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<https://bookshop.europa.eu/en/what-makes-a-material-function--pbKI0616197/?CatalogCategoryID=IR4KABst5vQAAAEjxZAY4e5L>

"OPTiMaDe – Workshop: Open Databases Integration for Materials Design" (October 24-28, 2016, Leiden, The Netherlands)

The "OPTiMaDe" workshop on "Open Databases Integration for Materials Design" was co-organized by Nicola Marzari on October 24-28, 2016 at the Lorentz Center in Leiden. At variance with regular workshops, this was a hands-on discussion meeting gathering around 30 of the core developers of the major databases of calculated materials properties of the electronic DFT community that have appeared in the last few years, both in the US and in Europe. A core deliverable of the meeting was to develop and agree on common community interface standards, to interrogate all these heterogeneous databases with the same syntax (i.e. in practice develop a REST API for which everyone would agree, and sign-on to compliance). The workshop was a big success, and a working group is in place and currently finalizing this standard. Since one goal of the EMMC is to connect all activities on databases and promoting seamless access to all distributed databases of materials properties and data, the Leiden workshop is a promising step on the way. [Read more](#)



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CECAM Workshop “Multiscale Simulation: from Materials through to Industrial Usage” *(September 5-7, 2016, Dublin, Ireland)*



The CECAM Workshop on Multiscale Simulation: from Materials through to Industrial Usage is one of a series of workshops that have been organised jointly by 6 different EU supported projects and actions (DEEPEN, ICMEg, MMP, MoDeNa, NanoSim and SimPhoNy). The Workshop took place at the O’Brien Centre for Science, University College Dublin, Belfield from 5th to 7th September 2016.

On behalf of EMMC, Pietro Asinari provided the talk entitled “Future plans for integration and translation envisioned by the European Materials Modelling Council” and Gerhard Goldbeck provided an overview of the EMMC-CSA highlighting collaboration and networking opportunities.
[Read more](#)

EMMC-CSA Focused workshop on model gaps/widening models for industrial needs *(June 6-7, 2017, Uppsala, Sweden)*



EMMC-CSA partner University of Uppsala is organizing a focused workshop for developing models beyond existing gaps: Strategies for remedies and best inventory procedures.

EuroNanoForum 2017 *(June 21-23, 2017, Valetta, Malta)*



EuroNanoForum 2017 will focus on how nano and materials technologies can strengthen competitiveness across all European industries. EMMC-CSA will be represented in Session 11 “Materials modelling in an industrial context” by Rudy Koopmans (“Show cases on the use of modelling in industry”), Adham Hashibon (“Formulate your problem for getting a broad help! Use MODA Tool”) and Gerhard Goldbeck (“Translators in action: bridging from industrial problems to materials modelling solution”).
[Read more](#)

EMRS-2017 Fall Meeting *(September 18-21, 2017, Warsaw, Poland)*



The 2017 E-MRS Fall Meeting and Exhibit topics are ranging from electronic nanomaterials to biomaterials for applications in Electronics, Energy saving and production and Health sectors.

EMMC-CSA members will participate in the workshop “Integration of modelling in solving industrial problem: Approaches, Models and Licenses”. [Read more](#)



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ICME 2017 - 4th World Congress on Integrated Computational Materials Engineering (May 21-25, 2017, Ypsilanti, MI, USA)



This congress convenes leading researchers and practitioners of ICME to share the latest knowledge and advances in the discipline. The congress is now the recognized hub of interaction among software developers and process engineers along the entire production chain, as well as for materials scientists and engineers developing new materials. This is the only conference dedicated to bringing all stakeholders together from across nations, disciplines, and organizations to focus on integration priorities and gaps that need to be addressed in order to advance the field.

A number of EMMC-CSA members will participate in this congress. [Read more](#)

Public awareness



EMMC-CSA was presented by Denka Hristova-Bogaerds at the Annual DPI Meeting on November 24, 2016 in Arnhem, the Netherlands. A number of industrial and academic partners were present and showed interest in following the activities of the project.

The EMMC-CSA partners wish a very Merry Christmas and a wonderful Happy New Year!



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