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TRANSLATION OF MATERIALS MODELLING: NEEDS AND BENEFITS FOR INDUSTRY

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Materials modelling plays a dominant role for the development of new materials and industrial products. The use of the modelling for business decision is cost-effective and bring for European industry significant benefits. Moreover, it helps to reduce the numbers of tests and experiments. Modelling and simulation tools evolution during scientific research projects as well as innovations of software creators offer wide spectrum of applicable modelling tools ready for industrial use already today [1]. The gap between fundamental research and successful industrial innovation can be avoid by development of the material modelling translation process.

The linking of industrial needs into modelling solution is performed by Translators. Translators are any stakeholder (universities, Research or Technology Organisations), Consultants, Software owners (both commercial and academic or open source, etc.) who analyse industrial problems and identify the parts that can be solved economically and efficiently by simulation based on materials modelling. Knowledge transfer by translators could allow model creators and European industrial end-users to reach the goal of linking materials modelling and industrial progress, by launching a holistic interaction process. Translators have the ability to analyse the industrial problem, to estimate the economic advantage of simulation as tool for solving (parts of) the industrial problem and to propose modelling workflows to solve (parts of) the problem. The translator has the ability to adapt the workflows, when needed/required, to the daily business of industrial clients [2].

European Materials Modelling Council develops the Translation concept to bridge the academic innovations and industrial needs as well as to integrate the material modelling in industry.

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