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Neutrons for Industry: SINE2020 "Industry Consultancy" work package aims at increasing industrial use of European neutron sources

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Started in October 2015, the H2020 project SINE2020 will create an innovationfriendly environment around European neutron sources to tackle societal challenges by coupling research and innovation. Analytical techniques, like provided at neutron sources, are the basis of understanding how materials and processes work and essential for innovation in a knowledge-based approach. The work package "Industry Consultancy" will strengthen cooperation between European industry and neutron facilities.

In recent years, neutron facilities have increasingly faced the prospect of opening their services to industrial users. Not only is there an increasing demand from industry for advanced analytical research tools, but there is also continuous demand to bridge the gap between basic research on advanced materials and industrial applications.

While many experiments at large scale facilities are performed by academic groups doing fundamental research funded also by industry, direct industrial use of facilities to solve application oriented problems is very limited. Compared to e.g. synchrotron facilities, neutron facilities are less known among industrial researchers. Nevertheless, neutron sources have the potential to deliver novel solutions and societal impact in a knowledge-based economy also in direct collaboration with industry. Recent initiatives at national facilities, as well as EU funded projects with partners at European both synchrotron- and neutron sources, indicate that a much higher level of direct industry use can be achieved.

The "Industry Consultancy" work package aims to enhance knowledge in industry about neutron based analytical methods and to establish the potential for a broader industrial user-base for existing neutron facilities European Spallation Source (ESS) in the near future. Specifically it will address the following points: • Enhancing knowledge in industry about neutron characterization techniques by creating a Europe-wide network for outreach

• Training and education of industrial researchers in the application of neutron-based techniques

• Offering a structured and direct access for industrial research to European Neutron facilities through feasibility studies in this project

• Providing a business model for the future use neutron scattering by industry, covering key issues like access, IP and regional variations.

A central activity of SINE2020 Industry Consultancy is the offer for EU supported test measurements or feasibility studies. These measurements will be free of charge for the participating companies and will enable neutron facilities to show their capabilities in advanced analytical techniques and their value as a cooperation partner in innovation driven research. Companies have the opportunity to submit a short application via the project website. The application will then be discussed by an evaluation panel on short notice. Detailed knowledge about neutron techniques is not mandatory.

SINE2020 follows a problem oriented approach and will evaluate if the applicants questions can be answered by using neutrons as a probe. The evaluation panel, consisting of industrial liaison officers at the facilities will clarify the feasibility and decide which technique and which facility is best suited to help the applicant with their problem. The service includes data analysis and interpretation of the results, which will be sent to the applicant in form of a detailed report.

The first call for industry proposals will be open at the beginning of April 2016.

Further Information about neutron techniques and the application process are available at http://sine2020.eu/industry.html

Keywords

Neutrons, Materials science, large scale facilities,

Countries

Austria, Belgium, Switzerland, Czechia, Germany, Denmark, Estonia, Greece, Spain, Finland, France, Hungary, Italy, Lithuania, Latvia, Netherlands, Poland, Portugal, Sweden, Slovenia, Slovakia, United Kingdom

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