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FusionCAT: Fusion in Catalonia

Description

The objective of FusionCAT is to establish an active fusion community in Catalonia. FusionCAT is formed by 7 partners that are leading institutions in Catalonia in their respective fields. Most of them have on-going involvement in fusion R&D through participation in the EU fusion research programme, contracts with ITER and Fusion for Energy (F4E), national fusion projects as well as collaborations with CIEMAT.

FusionCAT consists of 11 original R&D projects, organized in 3 focused work packages building on the complementary fields of well-recognized expertise of the partners and the synergies between them, as well as a strong dissemination and technology transfer programme. It aims to establish technology transfer from the partners to industry in order to develop industrial competences in Catalonia for the realization of fusion energy. Transfer of relevant know-how is sought in particular. This is essential and timely because the development of fusion energy requires that the role of the industry changes from being a provider of high-technology components to being the driver of fusion development.

The projects focus on numerical modelling, analysis and design of fusion reactor components and processes, fusion reactor software development (including high performance computing) and validation as well as diagnostic methods and instrumentation. The key fusion technologies addressed are tritium breeding blankets, high temperature superconducting magnets and fusion reactor materials. Seven companies have already expressed their interest to participate in the Industrial Advisory Board of the project. It facilitates the exchange of ideas and contacts with industrial stakeholders. In addition, an Advisory Board is formed by invited world-leading experts in the field. The main key indicators will be the number of highly-skilled jobs created and the number of contracts and collaboration agreements with industry.

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