European technology catalyses electrification of the chemical industry

A European consortium will be responsible for the implementation of PERFORM (PowER platFORM) a project under the European Commission Horizon 2020 SPIRE programme. It aims at developing highly efficient and integrated electrochemical systems which will substantially improve sustainable production of valuable building blocks from bio-based feedstocks.

This consortium led by TNO (The Netherlands) and formed by VITO (Belgium), Avantium (The Netherlands), INSTM (Italy), University of Hohenheim (Germany), Hysytech (Italy), Sustainable Innovations (Spain), Perstorp (Sweden), Radici Chimica (Italy), AVA Biochem (Switzerland) and Novamont (Italy) will work for 48 months in order to develop and build an electrochemical pilot reactor, a direct conversion to the targeted products.

For this purpose, TNO, VITO and Hysytech will construct a flexible PowerPlatform pilot plant in order to demonstrate technologies and innovations, leading to the implementation of more sustainable electrochemical processes. PERFORM pilot plant will continue to serve after the project, as a platform to validate innovative electrochemical process routes. The other consortium parties will support the project with research.

PERFORM is expected to reduce the environmental impact of chemical production by lowering CO2 emissions thanks to the advanced use of bio-based products and renewable energy. It will also be key to the future of sustainable society using local resources.

Likewise, PERFORM and the future development of its technologies will have a deep impact on the European chemical industry and economy thanks to the based production facilities that will create high end jobs and associated positive downstream effects in the communities they are based at.

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