

New laboratory to ensure electric vehicles and smart grids can work on both sides of the Atlantic

29 October 2015



Electric and hybrid vehicles testing at the European Interoperability Centre. Credit: EU, 2015

Following the Transatlantic Economic Council's decision to promote electric vehicles and smart grid interoperability, on 29 October the European Commission inaugurated a dedicated state-of-the-art laboratory, operated by the Commission's in-house science service, the Joint Research Centre.

Together with its partner facility in the US Department of Energy's Argonne National Laboratory, it will ensure that the next generation of electric cars and smart grids are fully interoperable, based on harmonised standards, technology validation and testing methods. This is an important step towards creating "a single language" for all components that will benefit both the industry and the environment on both sides of the Atlantic.

Maroš Šefčovič, Vice-President of the European Commission, responsible for the Energy Union, said at the inauguration: Smart grids and electric

vehicles are rapidly evolving, but we have not yet harnessed their full potential. Developing harmonised standards across the Atlantic will minimise trade barriers and increase the global market for innovative products and services for the EU and US producers and consumers.

Interoperability within and between electric vehicles and the smart grid is a key issue for the deployment and full exploitation of transport electrification, the integration of [renewable energy sources](#) and storage, and the deployment of innovative energy-related services to consumers/prosumers. It will allow for effective communication and functioning of any plug-in vehicles with recharging devices and the effective functioning of the [smart grid](#) architecture. It should also enable further features such as automatic billing, electric vehicles roaming and a more efficient energy management. Both the EU and the US have a shared interest in the rapid development of cost-efficient solutions in order to achieve cleaner, smarter and integrated transport and energy systems.

EU and US twin interoperability centres

The European Interoperability Centre combines four state-of-the-art laboratories, focused on the energy efficiency of electric and hybrid vehicles, the interoperability of smart grids, the electromagnetic compatibility and battery testing.

This unique centre will allow for testing system architectures, technologies and communication protocols. The resulting harmonised industrial standards and test procedures should minimise trade and technical barriers. This in turn will create enhanced incentives for companies to invest in innovation that can be commercialised in bigger markets.

The twin facility, the US Smart Grid Interoperability Centre, located at the Argonne National Laboratories (Chicago, Illinois), is already operational and will work with its European partner to ensure that future [electric vehicles](#) and charging stations work together seamlessly.

Provided by European Commission Joint Research Centre

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