

Project IES

Integrating the Energy System

Meta objective

Interoperability for national and international Smart Grid products used primarily within the Smart Energy Sector

Project target

The focus of the IES project is to adapt and implement an existing, vendor-neutral and cooperative method to achieve interoperability within smart grids. This method – originating from ICT in healthcare - is based on a modular, well-defined process that achieves interoperability by starting with the definition of use cases, followed by cooperatively developing “interoperability profiles” which select, optimise and specify the normalised use of existing technology standards that address the well-defined use cases. These profiles assemble specific “base standards” which together provide complete technical specifications that cover all interoperability issues (e.g. data formats, transport protocols, semantics and security methods). The process ends with profile implementation and vendor neutral testing, which enables vendors to meet profile conformance and ensures that multi-vendor interoperability is realised. In the tests the methods, e.g. syntax and semantics, but also security, engineering, run time and archival purposes, will be evaluated at different interoperability levels and times (as required for multiple vendor testing).

The transparency of the method and the open platform that is used for technical specifications and profile development will be accessible by technology providers of interoperable products and services. Using this process helps foster investment protection and grow markets with increased competition for product innovation, quality and security.

Technologies

As a basis, the project utilises the CEN-CENELEC-ETSI Smart Grid Coordination Group (SGCG) and SGAM from Smart Grids Mandate M/490 standards and applies the well-established Integrating the Healthcare Enterprise (IHE, <http://www.ihe.net>, ISO/TR 28380) approach for interoperability.

In the EU Commission Decision 2015/1302 the IHE-profiles were released for public procurement.

Additionally, the “European Interoperability Framework (EIF) for European public services” recommends “formalised cooperation arrangements in interoperability agreements”, addressing legal, organisational, semantic and technical interoperability. With the IHE and EIF process (TOGAF-based architectural development), there is a proper way to assess and test for interoperability of sector-independent ICT solutions.

Project partners

Technologieplattform Smart Grids Austria
FH Technikum Wien (eHealth und EE)
OFFIS e.V., D
Sprecher Automation GmbH, AT
AICO EDV-Beratung GmbH, AT
Tiani Spirit GmbH, AT

Qualifications

Head of consortium, platform for energy sector Austria
IHE, interoperability, EnergyLab, renewable energies
SGAM, smart grid standards, interoperability, IHE, EIF
EI-Equipment manufacturer, ict standards, security
Software, platforms for testing, ict standards/security
IHE, EIF, software, data exchange, ict security/privacy

European Commission

This project „IES“ completely conforms with the targets of the European Commission and meets the content of their latest press release „Commission sets out path to digitize European industry“ (Brussels, 19th of April, 2016), which covers the strategy to create a Digital Single Market (cross sector, cross border).

Europe 2020 strategy: <https://ec.europa.eu/digital-single-market/en/europe-2020-strategy>
Press release: http://europa.eu/rapid/press-release_IP-16-1407_en.htm

To achieve this goal of comprehensive ICT standardisation, Europe needs the convergence of essential digital technology building blocks: 5G communication, cloud computing, IoT, (big) data technologies and cyber security to reach interoperability within the clearly named focal areas: **Smart Energy, eHealth, ITS, Advanced Manufacturing** and Intelligent Transport Systems (ITS).

Communication ICT Standardisation Priorities for the Digital Single Market:
<https://ec.europa.eu/digital-single-market/en/news/communication-ict-standardisation-priorities-digital-single-market>

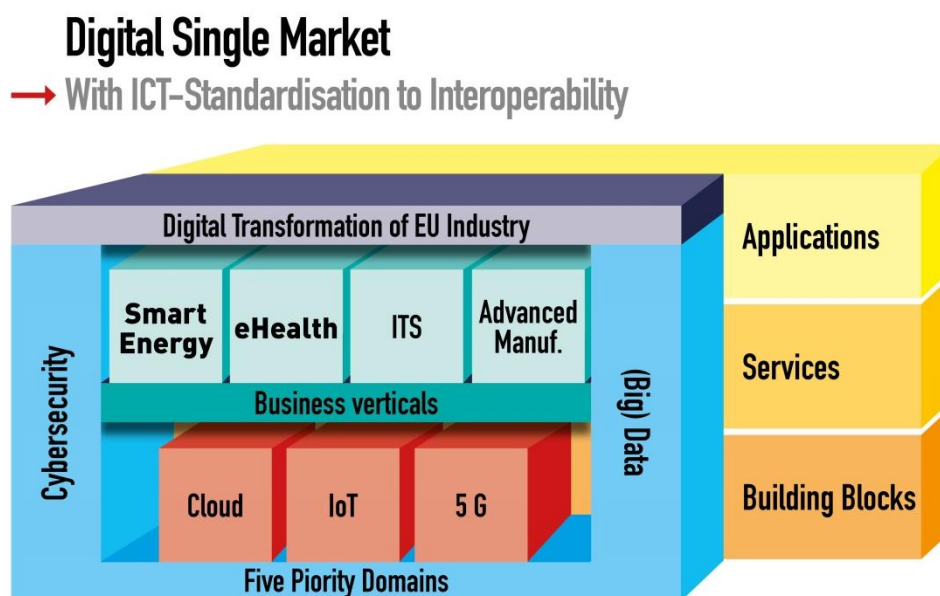


Image by the author, created from the source of European Commission:
<https://ec.europa.eu/digital-single-market/en/news/communication-ict-standardisation-priorities-digital-single-market>

Project site

www.iesaustria.at

Project duration

Start date: 01.03.2016
End date: 28.02.2019

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