

PRESS RELEASE

1. Connectathon Energy lays foundation for successful interoperability in the energy sector

The first Connectathon Energy has successfully implemented interoperability for the energy sector. Four manufacturers from Germany and Austria visiting the IHE Europe Connectathon from April 16-20 in The Hague, the Netherlands successfully tested reference implementations of a virtual power plant (in accordance with VHPready). The open source test platform Gazelle proved it was also able to handle complex standards such as IEC 61850, also in connection with established IHE profiles for instance for security and privacy applications, providing a key success factor for the energy transition.

Vienna, June 4, 2018—Smart energy, the Internet of Things, and Industry 4.0 are just a few of the buzzwords frequently mentioned in the context of digitalization. It's a global trend, and one of the keys to its success is interoperability. All components, even if they are from different manufacturers, must work together across all system levels. That's the only way to create a system capable of functioning as a whole. The use of technical standards is one of the basic tenets of cost-efficient system integration. The energy transition is based upon the principles of decentralization, decarbonization, and of course digitalization. In the future, distributed systems will increasingly require comprehensive, stable, and secure networks. That makes interoperability a key factor for the success of the energy transition. As the computer scientist, thought leader, and author ("Digital Burnout") Dr. Alexander Markowetz has remarked, *"Without interoperability, digitalization cannot succeed."*

Interoperable interfaces—even in the energy sector—demand coordination

How can competing stakeholders work together to achieve results? The Austrian research and development project <u>IES – Integrating the Energy System</u> has developed a methodology for the energy sector that uses a transparent and democratic process to define standardized interfaces for IT systems. This process involves representatives from the energy sector and manufacturers developing technical guidelines based on specific use cases called profiles. Manufacturers use these profiles to develop interfaces for their products while applying existing communications standards and security requirements. Profiles fulfill most requirements. Developers also create system add-ons to ensure compatibility with individual manufacturers.

The second pillar is testing

A central aspect of the IES methodology is testing. Testing determines if the interfaces conform to the standard and are interoperable with other systems. Engineers perform these interoperability tests using the open source testing platform <u>Gazelle</u>. This tool provides test management features for validating individual test steps while documenting the conformity and interoperability of the software components. At the annual international Connectathon Energy testing event, companies test the interoperability of their products—even with products marketed by competitors. Because a successful test benefits everyone in what is becoming an increasingly connected and global market.



The IES methodology is based on established standardization in the energy and health sectors

The IES project is based on the <u>CEN, CENELEC, and ETSI standards</u> and the smart grid architecture model of the Smart Grid Coordination Group (<u>SGAM/SGCG</u>) as specified in the European Smart Grid Mandate <u>M490</u> and the long-established <u>IHEISO/TR 28380</u>. The European Commission's strategic digitalization objectives for 2020 require a unified digital domestic market and thus the implementation of the IES methodology as well. IES was already included in the Strategic Energy Technology Plan (<u>SETplan</u>) of the European Commission entitled "<u>Cross Cutting Action 4</u> (A4-IA0-5)" as a source of expertise on interoperability in line with the Tallinn e-Energy declaration.

About IES—Integrating the Energy System

The technology platform Smart Grids Austria initiated the research project IES—Integrating the Energy System in cooperation with industry and research partners. The project set in motion cross-sector knowledge transfer involving IHE, the healthcare industry, and the energy sector. This project resulted in an adapted project with detailed documentation for the uniform application of standards and the expansion of the open source testing platform Gazelle to include standards specific to the energy sector. It seeks to achieve adoption throughout Europe.

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