



DigIPlat

Digital Solutions for Interoperability of Flexibility Platforms

” *The definition of international standards for flexibility platforms and standardized flexibility requirements within DigIPlat are crucial to achieve interoperability between platforms on a national and international level.*

The energy transition aims to make Europe carbon-neutral by the middle of the century. This is accompanied not only by a further expansion of power generation from renewable sources, but also by the decentralization of energy resources and the coupling of different sectors of the energy system. The integration of market participants offering flexible capacities for generation, storage and load shifting requires scalable digital flexibility platforms. However, standards for such platforms, interoperability, and specifications of flexibility requirements have yet to be defined. These questions are addressed by the research project "Digital Solutions for Interoperability of Flexibility Platforms" (DigIPlat).

Project Duration

01.05.2022 - 30.04.2025

Project Budget

Total Budget: € 1,901,000. -

Funding: € 1,222,000. -

Project Coordinator

Technische Hochschule Ulm (Germany)

Project Partners

- TransnetBW GmbH (Germany)
- Karlsruher Institut für Technologie KIT (Germany)
- Technische Hochschule Ulm (Germany)
- Fichtner IT Consulting GmbH (Germany)
- AIT Austrian Institute of Technology (Austria)
- Austrian Power Grid AG (Austria)
- Universität St. Gallen (Switzerland)

Project Website

www.digiplat.eu

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ERA-Net Smart Energy Systems



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ERA-Net Smart Energy Systems Joint Call 2020 (MICall20)

This project has been awarded funding within the ERA-Net SES Joint Call 2020 for transnational research, development and demonstration projects. 22 Mio EUR of funding have been granted to 21 projects active in 17 regions and countries.

Main Objectives

In the Digital Solutions for Flexibility Platform Interoperability (DiglPlat) project, digital solutions aimed at the interoperability of flexibility platforms and products include a combination of different ICT, economic or procedural measures. To develop these solutions, stakeholders from all relevant parts of the value chain are involved in the project activities. Field tests will look at a unique use case of cross-border and cross-platform coordination of flexibility for redispatch, balancing energy and intra-day markets to implement prototypes of the developed interoperability solutions. The technical evaluation of the field test will place a particular emphasis on resilience, cyber-security, and data security. Potential welfare gains from platform interoperability and flexibility standardization for the DACH region and beyond will be measured using market and network simulations.

The main objective of this project, to accelerate the implementation, deployment and knowledge building of digital solutions targeting flexibility platform interoperability, will make a significant contribution to advancing the energy transition in the DACH region (DE, AT, CH) towards the 2050 targets while ensuring security of supply. The coalition agreement of the new German government reinforces this development.

Main Results

A key project outcome will be a proposed framework for standardized requirements for the transnational use of flexibility by different flexibility platforms. This encompasses technical, ICT and economic aspects, in a proposed flexibility framework. To accelerate the adoption of the developed and demonstrated interoperability solutions, adaptations of the relevant technical requirements and regulatory framework are proposed. Implementation of the proposed flexibility framework and recommended regulatory and technical changes will help create new transnational business models and investment opportunities for flexibility providers, aggregators, and equipment manufacturers (OEMs), as well as new value chains for innovative and cost-effective energy solutions. Taking into account electricity marketplaces and business models, the interoperability solutions developed in the project, including technical and ICT standardization, will facilitate market entry and thus support sector coupling of traditional energy actors with actors and partners in other sectors such as agriculture, mobility or manufacturing companies. The project partners will work closely together as an interdisciplinary consortium with the support of an experienced project manager to integrate and improve existing solutions.

**Joint Programming for Flourishing Innovation –
from Local and Regional Trials
towards a Transnational Knowledge
Community**

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By involving industry and research partners in Germany, Austria and Switzerland, the project offers a unique opportunity to generate breakthrough results for the successful transformation of the European energy sector and to unlock the potential of digital transformation for sustainable energy systems and grids. The project also promotes exchange and knowledge transfer within the DACH region and beyond and builds a bridge between different national developments in the use of flexibility.



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