

Date: 19.09.2025

PRESS RELEASE

TITLE: ***INTEREST Project Achieves Key Milestone in Global Renewable Energy Data Collection***

MAIN BODY: As global energy systems evolve toward decentralization and sustainability, the INTEREST project — funded by Horizon Europe — is making significant strides in enabling smarter, more resilient renewable energy infrastructures. The project has now successfully delivered its first major milestone: **the collection and compilation of asset-related data from three international demonstration sites** in Germany, Brazil, and Australia.

“This milestone is foundational,” says Dr. Balram Panjwani, Senior Researcher at SINTEF and lead coordinator of the INTEREST project. “By gathering real-world data from diverse climates and grid configurations, we’re laying the groundwork for building high-fidelity digital twins of renewable energy systems.”

These digital twins — virtual representations of physical energy assets — will serve as dynamic tools to simulate, monitor, and optimize energy flows across diverse energy networks in real time. As part of this milestone, comprehensive datasets were compiled from the three pilot sites: Wunsiedel (Germany), UFSC (Brazil), and UTS (Australia). These datasets span power, thermal, and gas grids, and include a wide array of assets such as wind turbines, photovoltaic systems, combined heat and power (CHP) units, electrolysers, pellet production facilities, and other critical components of modern renewable energy infrastructures.

“This data enables us to model the dynamic behavior of multi-carrier energy systems,” explains Dr. Panjwani. “It’s the first step toward predictive control, fault detection, and smart maintenance — all essential for future-proofing our energy infrastructure.”

The milestone also marks the beginning of integrating these datasets into the INTEREST simulation framework, which will support the development of distributed model predictive control (DMPC) algorithms. These algorithms will allow energy systems to autonomously adapt to changing conditions, improving efficiency, reliability, and sustainability.

With this achievement, INTEREST moves closer to its goal of creating a scalable, secure, and intelligent energy management platform — one that can be replicated across continents and energy sectors.

ABOUT THE INTEREST PROJECT:

The **EU-funded INTEREST project** was launched in 2023 under the **Horizon Europe** programme. Bringing together **9 partners from 7 countries**, it aims to develop and demonstrate integrated smart city solutions, with a focus on **energy flexibility, citizen engagement, and systemic resilience**.

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Funded by
the European Union

The INTEREST project is Funded by the European Union with GA No. 101160594. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.