



ODH demonstrator districts in
Bochum-Weitmar.

ODH@BOCHUM-WEITMAR – ICT-ECOSYSTEM FOR ENERGY SYSTEMS IN CITY DISTRICTS

Fraunhofer Institute for Applied Information Technology FIT

Schloss Birlinghoven
53754 Sankt Augustin | Germany

Director
Prof. Dr. Stefan Decker (executive)
Prof. Dr. Matthias Jarke

Digital Energy
Maria Vasconcelos
Phone +49 241 80-93039
maria.vasconcelos@fit.fraunhofer.de
www.fit.fraunhofer.de

Project partners

Open District Hub e.V.
Vonovia SE
Fraunhofer UMSICHT
Fraunhofer IOSB
Ampeers Energy GmbH
Fraunhofer FIT

The course of action for reaching national and European climate targets envisages on the one hand the deployment of renewable energy sources and, on the other hand, the realization of efficiency measures to reduce energy consumption.

Existing city districts comprising mainly apartment buildings in need of significant remedial action constitute the starting point in the German context. Integrated solutions at district level offer the advantage of enabling the exploitation of synergies across buildings as well as the introduction of new business models, such as new mobility services and energy exchange platforms, with the purpose of obtaining a reliable, economically and ecologically efficient power supply system. A key challenge in this context is the combined realization of different, cross-sectoral services within a secure and resilient environment from a power economics and ICT standpoint.

The goal of the research project “ODH@Bochum-Weitmar” is the development of an ICT-ecosystem for the realization of cross-sectoral energy systems at district level. The technologies integrated district planning, digital market platform and self-learning energy management system are implemented and supported by an interoperable, scalable middleware as well as automatic learning algorithms.

For the demonstration of the integrated planning as well as of the obtained reliable and economically and ecologically efficient power supply, the developed tools are implemented in several districts of Bochum-Weitmar. The identified new business models can be implemented as a service in the digital market platform.

Supported by:

Ministerium für Wirtschaft, Innovation,
Digitalisierung und Energie
des Landes Nordrhein-Westfalen

