

Factsheet

Aspern Smart City Research (ASCR)

Organisation	Aspern Smart City Research GmbH & Co KG (ASCR) Christine-Touaillon-Strasse 11/Top 22 1220 Vienna www.ascr.at
History	Foundation: 2013 First program phase 2014-2018 Second program phase 2019-2023 Third program phase 2024-2028
Management	Matthias Gressel Harald Loos
Shareholders	Siemens AG Österreich (49,1%) Wiener Netze GmbH (25%) Wiener Stadtwerke GmbH (19,95%) Wirtschaftsagentur Wien (4,66%) Wien 3420 Holding GmbH (1,29%)
R&D-Team	More than 100 developers / employees from different fields of profession of the ASCR shareholders are directly involved in the ASCR projects.
Business Content & Objectives	The fundamental goal of ASCR is to develop solutions for the energy future in urban areas and to make our energy system more efficient and climate-friendly.
Current program ASCR NeXt Level. 2028 (2024-2028)	R&D areas: <ul style="list-style-type: none"> • Replacement of natural gas and sustainable alternatives in the building sector: The Wiener Stadtwerke Group and the Vienna Business Agency, together with ASCR, have selected a residential building from the Gründerzeit period and an office building from the 1980s for the phase-out of gas. The solutions serve as models for further buildings. • From smart to autonomous building: This research focus pursues the strategy of developing buildings from smart, networked systems into fully autonomous entities through advanced AI and automation. These systems optimise themselves independently for maximum efficiency, sustainability, and user well-being, ushering in a new era of building management. • The digital power grid of the future: To ensure that electricity supply remains secure during times of change driven by the energy transition, ASCR is addressing three key topics:

We operate a **test network** in which new technologies are tested. A **digital power grid** is simulated to better understand future situations. We are developing a **new concept for customers** so that their electricity consumption and generation (e.g., through photovoltaics or batteries) can be used flexibly and optimally.

• **Intelligent infrastructure for e-mobility:**

Electromobility is being researched and further developed as a flexible component of the energy system. The focus is on intelligent charging strategies that benefit the power grid and building energy management. Furthermore, the key objectives are the optimised communication between users, vehicles, charging infrastructure, buildings, and the grid, to reach an efficient, stable, and future-proof energy system.

• **Smart City Services:**

The digitalisation of services enables maximum efficiency of processes for the city of Vienna. Data marketing, metering management, sensor benchmarking, widespread sensor deployment, as well as a new and therefore more precise location tracking system for mobile devices are some highlights of the ASCR projects in the third phase.

The guiding principle of the third program phase is an agile approach with many small projects in the various R&D areas of the ASCR shareholders. Therefore, results can be delivered faster and can thus also be the basis for new projects.

Budget:

36 million Euros

<p>Awards</p>	<ul style="list-style-type: none"> • World Smart City Project Award, 2016 • Smart Energy Systems Awards, 2018
<p>Externally funded projects</p>	<ul style="list-style-type: none"> • Perks - (ongoing) • Smart Cities Demo Aspern (SCDA) - (completed) • integrated Network Information System (iNIS) - (completed) • Flexible AC-Distribution Systems (FACDS) - (completed) • Power System Cognification (PoSyCo) - (completed) • Self Assessment Towards Optimization of Building Energy (SATO) - (completed) • Adapt-&-Play holistic cost-effective and user-friendly innovations with high replicability to upgrade smartness of existing buildings with legacy equipment (Phoenix) - (completed) • Semantics-based Explanation of Cyber-physical Systems (SENSE) - (completed)
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