Factsheet

Aspern Smart City Research (ASCR)

Organisation	Aspern Smart City Research Gmbh & Co KG (ASCR) Wangari-Maathai-Platz 3/Top 8 AT – 1220 Vienna www.ascr.at
Established	2013
Management	Mag. Robert Grüneis Dr. Georg Pammer
Shareholders	Siemens AG Österreich (44,1%) Wien Energie GmbH (29,95 %) Wiener Netze GmbH (20%) Wirtschaftsagentur Wien (4,66%) Wien 3420 Holding GmbH (1,29%)
Employees	Over 100 employees, with varying scientific backgrounds, from the shareholding companies are directly involved with ASCR research.
Business objectives	The fundamental goal of ASCR is to find and develop solutions for the future of energy within urban environments, thereby increasing efficiency and sustainability of energy production. The research aims to benefit the city of Vienna and all of its citizens. It is the first and, to date, the only co-operational model of this size. **Research Areas:** • **Smart Building:** Buildings that optimize their energy demand • **Smart Grid:** The path to an intelligent power grid • **Smart User:** User-oriented technology • **Smart ICT:** Interconnected research through Information and Communication Technology
Current Program period ASCR 2023 (2019-2023)	**Focus** • Further connectivity of buildings, grids and markets • Extensive research into the use of heat exhaust, further to aid the cooling of the interior of buildings • Questions of smart charging of electric vehicles as well as their usage for energy storage **Research Projects:** • Self Assessment Towards Optimization of Building Energy (SATO) • Power System Cognification (PoSyCo)

	• Adapt-&-Play holistic, cost-effective and user-friendly innovations with high replicability to upgrade smartness of existing buildings with legacy equipment (PHOENIX) **Financial Resources:** 45 Million Euros

Initial Program period (2013-2018)	**Achievements and Results**
	• **60 research questions answered**
	• **15 prototypical solutions** in relation to intelligent buildings and grid infrastructure
	• **11 patents** pending
	• 3 research environments with state of the art building technology **(BEMS);** established, evaluated, optimized
	  ○ Residential building: 111 participating units
	  ○ Education campus: 900 People (Primary school, Kindergarten)
	  ○ Student dormitories: 313 bed spaces
	• Realized concept of a **virtual Powerplant (DEMS)** as a System that allows for the flexibility of buildings to be utilised.
	• Transformation of the local passive distributive power grid into an intelligent power grid with **active grid management** including the necessary adaptations to/of connected buildings (**Smart Grid ready**)
	• Insights gained from integrating power storage systems into common use
	• **New analytic methods** and **data visualisation options** for energy suppliers, grid- and building operators
	
	Awards
	• World Smart City Project Award, 2016
	• Smart Energy Systems Awards, 2018
	
	Sponsorship projects
	• Smart Cities Demo Aspern (short SCDA)
	• Integrated Network Information System (short iNIS)
	• Flexible AC Distribution Systems (short FACDS)
	
	Financial Resources:
	38,5 Million Euros

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