

THE ROLE OF THE EERA JOINT PROGRAMME SMART CITIES IN EUROPEAN ENERGY RESEARCH

STARTING SESSION

Brigitte Bach,
European Energy Research Alliance Executive Committee vice-chair

In 2018 the European Energy Research Alliance (EERA) celebrates its 10th anniversary. Founded with the aim to accelerate the development of innovative energy technologies and to pave the way towards a low-carbon Europe, this strong alliance of European public research centres and universities has developed from originally ten organisations to over 200 members across 30 countries. It forms the research pillar of the European Strategic Energy Technology Plan (SET-Plan), which is designed to develop the technologies required to meet Europe's targets on greenhouse gas emissions, renewable energy and energy efficiency over the coming decades. Building on national research initiatives, EERA has since launched 17 Joint Programmes enabling research organisations from different European countries to work together on shared priorities and research projects in fields ranging from wind and solar energy to smart grids and smart cities.

Smart Cities and communities play a prominent part in the SET Plan as fundamental building blocks of tomorrow's low-carbon energy system. The two most pressing challenges in this respect are urbanisation and climate change. Today, more people worldwide live in cities than in rural areas and around 75% of all energy is consumed in and around cities. This concentration together with the characteristics of urban morphology give cities enormous leverage in increasing energy efficiency and reducing greenhouse gas emissions. However, transforming cities into sustainable cities using innovative technology and integrated approaches requires concerted research efforts and innovation. EERA therefore launched the Joint Programme (JP) on Smart Cities in 2011 headed by AIT (Austrian Institute of Technology) to foster scientific collaboration in this field with the aim to create sustainable and energy-efficient cities, enhance research expertise, promote collaboration for a low-carbon Europe and secure European leadership in Smart Cities research.

The EERA JP on Smart Cities has made valuable contributions to the development of this important topic at the European level. It has forged strong networks and is actively involved in the SET Plan Temporary Working Group 3.2 "Smart Cities and Communities" and in the European Innovation Partnership on Smart Cities and Communities. It will also present its results at the SET Plan Conference 2018, which is due to be held in November in Vienna and contributes relevant ideas and feedback to the upcoming Framework Programme 9 for the period 2021 to 2027.

These networking activities are complemented by joint research in integrated energy planning, thermal and electrical networks, sustainable interactive buildings and renewable supply technologies. This peer-reviewed special issue on "European Pathways to Smart Cities" takes stock of the comprehensive research carried out over the past years. The EERA Executive Committee welcomes this initiative, which provides an impressive overview of the state of the art in European Smart City research aimed at supporting European cities in their urban transformation.