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The current accelerated urbanisation and the progressing climate change go along with many big challenges. While current progress in energy efficiency, cutting CO₂ emissions and the use of renewables is encouraging, far more needs to be done. A smart city should be first of all the city that people want to live in because it provides a healthy, safe and creative ecosystem to live and work in.

The EU actively fosters an urban development that is economically and environmentally sustainable, taking full advantage of the opportunities that digital solutions provide through the Internet of Things, broadband communication networks, big data, and artificial intelligence. Already in 2012 the Commission launched the European Innovation Partnership for Smart Cities and Communities to mobilise the main actors across the areas of energy, transport and ICT to this effect. The EIP SCC has already delivered on:

- creating a smart city market place where suppliers and cities meet in order to find the most cost-efficient Smart Cities solutions;
- taking concrete steps to avoid vendor lock-in and/or the implementation of non-interoperable solutions. As a first example, a standardised reference architecture and design principles for urban platforms were created. As a second example, the EIP SCC facilitated the delivery of a smart lamp-post standard and the aggregation of demand for procurement purposes.

The European Commission has also triggered the development of a common ontology for smart appliances called SAREF, allowing different devices to exchange information with any energy management system and the smart grid for a more efficient and flexible energy use. Work is ongoing to extend SAREF to smart cities.

This work was closely linked to the EU research and innovation funding programmes FP7 and H2020, where we have dedicated specific calls for Smart Cities and Communities since 2013. More than 200 projects have been granted to stimulate the take up and large-scale deployment of smart-city technologies and many significant outputs of them have been obtained in the fields of energy, mobility and digital solutions. A good example of these are the 12 Horizon2020 Smart Cities Lighthouse projects representing approx. € 270 million of EU funding are operational in 78 cities working with partners from industry, SMEs and research to improve quality of life of European citizens and competitiveness of our cities. Relevant stakeholders have also met in the Smart Grids Task Force in order to share insights and good practices to overcome existing technical and regulatory barriers in the take up of smart energy solutions; helping to shape EU smart grid policies.

In the 2016 Energy package the European Commission included important digital elements such as the equipment of building automation and control systems in residential and non-residential buildings which are above a certain size and/or energy consumption level or installed power. Another significant release has been the setup of the Smart Readiness Indicator. This indicator will assess the readiness of a building to interact with their occupants and the energy grid. Because of this, smart buildings linked to autonomous electric vehicles, being able to optimise their energy consumption and CO₂ emissions, will be a key component within the forthcoming smart city scenario.

The European Commission appreciates the work of the EERA Joint Programme on Smart Cities and their drive to create a deeper understanding of all the underlying elements and their interdependencies. This knowledge will help to create citizen-centred, progressive and attractive smart cities that with these attributes will also gain a competitive edge.



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