4.1   Final publishable summary report

Executive Summary

The READY4SmartCities project, ICT Roadmap and Data Interoperability for Energy System in Smart Cities, intended to **increase awareness and interoperability** for the adoption of **ICT** and **semantic technologies** in **energy systems** to obtain a reduction of energy consumption and CO_2 emissions at **smart city** communities' level relying on ICT-based **RTD and innovation needs** and solutions.

The key objectives of the READY4SmartCities project, as a Coordination and Support Action (CSA), were to:

1) **Investigate and identify energy-related vocabularies and ontologies towards dynamic and interoperable Energy Management Systems** that deal with different Smart City aspects;

2) **Elaborate a clear set of requirements and guidelines** that facilitate the Smart City community generating, publishing and exploiting their datasets;

3) **Support energy data interchange among the Smart City communities (companies, cities, individuals, etc.) through various European-scale actions** towards spanning research, innovation, standards-setting and deployment in Smart Cities;

4) **Elaborate a clear vision and produce the corresponding roadmap for the development of ICT for energy systems at the city scale;**

5) **Ensure awareness towards a community of experts via dedicated workshops (VoCamp, Summer School, etc.)** in strong collaboration with the **eeSemantic** initiative.

With this background, a backbone of a total of 70 ontologies and 18 datasets were certified, and a set of tools such as **the online catalogues and alignment server** and reference documents such as **guidelines for generating, publishing and exploiting Linked Energy Data** were released and made available by READY4SmartCities project partners for a free usage in supporting open linked data and interoperability for efficient energy systems in smart cities.

Furthermore, the **innovation and research roadmap** was released, consisting of four main domain area sub-roadmaps and one integrating section related to energy data and its usage. The significant domain areas investigated by READY4SmartCities project were: **citizens, building sector, energy sector and municipality level**. Each road map section introduced relevant drivers, needs and requirements, visions, barriers, expected impacts and key stakeholders. Each sector had its own RTD and innovation focus topics, with the description of the general background, state of the art, and suggested RTD and innovation needs identified in the short, medium and long term.

The repeating theme throughout the roadmap was a strong need for broad collaboration, communication and interoperability within various stakeholder networks. This requires standardisation (of data models, data exchange and communication, as well as interfaces and systems themselves) to enable cross-organisational operation.

The close collaboration with the ETSI M2M Smart Appliance working groups, and with the newly formed W3C Linked Building Data Community Group as well as the buildingSMART Linked Data Work Group has been relevant for ensuring the awareness **towards a community of experts** such as **standardisation bodies** and for increasing the overall project success.