



EUROCITIES standards & interoperability management guide

04/10/2017



Why should smart and sustainable cities and communities be more involved in the European standardisation process?

Smart cities are based on a holistic approach to urban planning. Yet, the main standardisation bodies at national, European and international level have been created and controlled by industrialists and governments working in a more siloed way. By being involved from the beginning of the standardisation process, city authorities will be able to push for the creation of open standards, without hindering innovation, for a more fair and multi-vendor market which will drastically reduce both capital as well as operating costs.

What is the current situation?

The lack of usable standards for smart cities solutions makes it difficult for city authorities to commit to a specific solution, without creating significant dependencies on a single vendor. There is a fear of vendor lock-in that can affect further choices and limit the roll out of such technologies. Thus, city administrations are often reluctant to invest widely in smart city infrastructures.

It is also important to avoid lock-in for city administrations in defining standardised data-sources and data-formats at least at a European level. Flexibility should allow for smart city models to be shared and adapted between cities.

What do you mean by standards?

We use various standards every day (e.g. A4 size paper). Many standards are voluntary but they save money, create interoperable equipment and avoid vendor lock-in. Standards help to develop or outsource well-established and recognised services; they help users to conform with the regulations or norms of the market and facilitate companies' integration in the value chain and trade.

Where do these standards come from?

There are standards developing organisations (SDOs) and standards setting organisations (SSOs) by technology or industry designation. Standards organisations may be governmental, semi-governmental or non-governmental entities, which are often non-profit organisations. European standards are the responsibility of the European

Standardisation Organisations (ESOs): CEN, CENELEC, ETSI¹ and can be used to support EU legislation and policies.

How do these organisations work?

Each standardisation body allows industry and market actors to create and manage technical committees (TC) dedicated to a specific technology. TC are almost exclusively composed of industry representatives that voluntarily contribute to designing common specifications by consensus.

Can you give me an example?

A few years ago, each mobile phone provider used a specific interface for their phone charger. In 2009, the GSMA² committee decided to define a common interface for all the smartphones at an international level, the UCS - universal charging solution. From 2012, except for Apple products, all the providers use the same interface: the micro-USB. On the other hand, today there are at least four different types of electric vehicle chargers (depending on the trade mark of the cars): American cars, VW group cars, PSA cars and Renault cars which are totally incompatible with one another. This results in additional costs and inconveniences for users.

What is the European Commission doing about it?

The European Commission acknowledges the importance of standardisation and interoperability for industrial competitiveness. Regulation 1025/2012 on European standardisation sets the legal framework in which the actors in standardisation operate.

In March 2017, the Commission published a new European Interoperability Framework (COM (2017)134)³. The framework gives specific guidance on how to set up interoperable digital public services.

The Commission also financially supports the work of the 3 ESOs (ETSI, CEN, CENELEC)⁴.

How can my city get involved?

By being active or represented in the European standardisation bodies: ETSI, CEN and CENELEC. This is already the case for many European city authorities which are involved in several WGs of ETSI as well as in the advisory board of the sector forum on smart and sustainable cities and communities managed by CEN and CENELEC.

With better standardisation processes in place, smart cities would be able to identify the needs of city governments in new common standards that take into account existing infrastructures, reversing the existing process.

¹ ESO: European standard organisation (ESO) - European Committee for Standardisation (CEN), the European Committee for Electrotechnical Standardisation (CENELEC) and the European Telecommunications Standards Institute (ETSI).

² A trade body that represents the interests of mobile operators worldwide

³ <http://bit.ly/2kCsTWw>

⁴ <http://bit.ly/2wJLYb8>