

ANNEX

1. Context

Currently, the level of urbanisation in the European Union is above 75%, and is due to rise to 80% by 2020. Cities consume over 70% of energy and emit as much of greenhouse gases in EU⁰.

Traffic (mobility more general) congestion makes more and more cities dysfunctional and degrades the quality of life of their citizens and the competitiveness of the local economy and, over time, the attractiveness of those cities. This and other trends and pressures have various effects also on the social cohesion and citizen quality of life in EU cities (a good reference point on this matter is the regularly issued EU survey called Eurobarometer¹).

At the same time however, and because of this concentrated activities in them, cities represent important economic opportunities. Cities represent a huge economic and purchasing power in Europe and account for 19% of the total expenditure in the EU⁰.

Whereas neglecting the problematic issues with mobility and environment represent a major risk, mobilising local creativity and innovative capacity to address these challenges would greatly enhance the economic potential of not just those local economies but that of the EU at large.

At EU-level, cities are attracting funding from the EU Structural Funds, have the potential to attract much more and they have an unprecedentedly prominent role in the H2020 research programme, (represented by their local authority or one of its agency across many projects). Despite this, cities and communities struggle to find their place as active agents in their own economic future. In the coming years, cities will be heavily relied upon to play a much more active role in reaching European targets notably in relation to energy and carbon emissions, jobs creation and environmental sustainability. Putting it in different words, the European objectives in the above areas cannot be reached without addressing city issues and supporting cities effort to reach their potentials.

In order to achieve their goals to become more environmentally and economically sustainable, most EU cities will come to regard and use Data as the key resource. This is most evident for developments involving smart cities solutions which rely primarily on the integration and analysis of data from different sectors, e.g. transport, energy, water and waste. ICT is playing a key role among others in this integration and data-handling and use.

These solutions require data in all its forms; access to and rights of data use underpin the operation of cities and the provision of city services. Moreover, access to data will become essential for innovative solutions to pressing urban problems, for which

⁰ http://ec.europa.eu/eip/smartcities/files/sip_final_en.pdf

¹ "Quality of life in cities – Perception survey in 79 European cities"

http://ec.europa.eu/regional_policy/activity/urban/audit/index_en.cfm

"Survey on perception of quality of life in 75 European cities" in 2009

http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/urban/survey2009_en.pdf

"Survey on perception of quality of life in 75 European cities" in 2007

http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/urban/survey062007_en.pdf

stakeholders that are often not core-participants to smart-cities projects (ex: SMEs, Local Cooperatives and other) are nonetheless critical.

Data handling, on the other side, is closely linked to platforms (in particular, software-based ones over which city services are provided). Platforms access data, process data, and facilitate data storage and retrieval. In this context, data and platform policies and technology are in close relation to each other.

As an example, services combining data from different sectors (e.g. energy and transport) require a certain level of interoperability/compatibility at both platform and data level. Further, security and trust in service-provision can only be built when holistic approaches (in this context, taking both data and platforms into account) are taken.

Problems occur, in particular, when extending access and re-use of data is a pre-condition to the implementation of a particular smart-city project but prior contractual and/or technical arrangements prevent or make excessively costly, an agreement to satisfy that precondition.²

The purpose of the Commission through this study is to identify which legal, financial and technical conditions governing control of data collected through the operations of networks and platforms represents costs to future urban developments in excess of legitimate privacy and security concerns. The contractor is not expected to come to a judgement on these matters but rather to provide the evidence base, such as contracts related to data , that will help determine future policy and regulatory decisions.

For this purpose, it is important that the documentary evidence be completed where necessary by qualitative research and interviews to help identify whether restrictive controls over data (legal and technical) are in place due, for example, to long standing preferences of a specific sector, or the application of specific standards and rules (such as those governing metrology or equipment security) or the particular market strategy of an operator or vendor (ex: walled garden approach) or any combination of these and other factors.

References current data related regulation: (N.B: the list below is not intended to be exhaustive)

Data protection:

- Directive 95/46/EC of the European Parliament and the Council of 24 October 1995³ on the protection of individuals with regard to the processing of personal data and on the free movement of such data ("the data protection Directive") *and its revision soon to be adopted ('General Data Protection Regulation')*.

² *An example of such case could be that of a public authority that is mandated to plan and cost for a comprehensive electro-mobility project. In the course of its work, it discovers that a smart-meter vendor collects granular behavioural information from the customers of a utility but that this data, held exclusively by the smart-meter provider, is not available or too onerous for re-use by the public authority despite its high relevance to the planning efforts.*

³ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31995L0046:en:HTML>

Data in the field of electronic communications:

- Directive 2009/136/EC of the European Parliament and of the Council of 25 November 2009 amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services,
<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32009L0136>
- Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector,
<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32002L0058>
- Regulation (EC) No 2006/2004 on cooperation between national authorities responsible for the enforcement of consumer protection laws (the "ePrivacy directive"),
<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52009AP0360>
- Use of public sector data: Directive 2013/37/EU of the European Parliament and of the Council of 26 June 2013 amending Directive 2003/98/EC on the re-use of public sector information,
<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013L0037>

Sectorial application:

- ITS and application concerning real time data in the field of transport - Directive 2010/40/EU of the European Parliament and the Council of 07 July 2010⁴ on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport and its implementation acts (Commission delegated regulation of 18.12.2014 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide real-time traffic information services.

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| <ul style="list-style-type: none">- Summaries of EU legislation: http://eur-lex.europa.eu/browse/summaries.html- Information on the Smart Cities and Communities activity of the European Commission: http://ec.europa.eu/eip/smartcities/- Information on the Water Management activity related information http://ec.europa.eu/environment/water/innovationpartnership/- Information on the Digital Single Market, DSM: http://ec.europa.eu/priorities/digital-single-market/index_en.htm- Information on H2020 can be found here http://ec.europa.eu/programmes/horizon2020/- Information on the structural funds can be found here: http://ec.europa.eu/dgs/regional_policy/index_en.htm- Information on the European investment plan can be found here: http://ec.europa.eu/priorities/jobs-growth-investment/plan/index_en.htm |
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⁴ <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32010L0040>

2. Subject, objectives and tasks

2.1. Subject

The degree of control held locally is determined, at least initially, by the relationship between the local stakeholders (public authorities and private organisations) and the ICT service and infrastructure providers.

Existing models can be placed on a continuum between the turnkey approach - where the ICT provider builds, owns and operates the core infrastructure, centered around the integration platform - and the local ad-hoc approach where the core ICT infrastructure is built, owned and operated by the local authorities (or local utility operator) with services and data procured as they are needed.

Between these two models, intermediary solutions have emerged which tend to be sector specific (mobility, energy). These intermediary solutions often involve local organisations with limited mandate beyond the sector in which they operate (public utility, public transport). As such intermediary options multiply in the same urban area; they can evolve into patchy solutions, difficult to integrate. This creates supplementary legal and technical barriers to the re-use of data beyond the narrow purpose for which it was originally collected. Overall, this study needs to identify and analyse most common data use cases in cities, identify relevant stakeholders and roles, understand evolutions and trends in data (always in a city context), identify gaps and examine possible actions. Sectors to be considered are ICT, energy and transport, always at the interaction with ICT. Sectors such as water & waste management could be considered as well as complementary ones.

2.2. Objectives

More specifically, the objective of this study is to gain insights into the current data-related situation (taxonomy, mapping, gap analysis, players, market structure, business models, applicable legislation, bottlenecks and their cause) in the context of the adoption and application of smart cities solutions - as defined above - for cities, communities and local stakeholders.

The expected results are:

- An understanding of the most relevant use cases linked to smart city services or solutions.
- An understanding of the most relevant data related considerations around these use cases.
- An understanding of the precise nature of the players and related business models around these use cases.

Special focus has to be put on:

- Providing evidence that goes beyond anecdotal situations.
- Focusing on the service level rather than the equipment level.
- Differentiating between larger trends and particular situations.

2.3. Tasks

- i. Identify representative use cases for smart city solutions and provide mapping, taxonomy and analysis of the main data issues in relation to the most common use cases for smart city solutions.
 - Issues of relevance could involve those linked to physical collection, storage, quality, interoperability, ownership, access and use of data, as well as aggregation, structuring, correlating and exploitation of data or other issue that would prove relevant in the course of the analysis.
 - Besides examining secondary sources (produced for academic, auditing or business consultancy purposes for ex.), the study should include, whenever possible, an examination of primary sources (contracts, technical manual, written instructions and agreements between parties involved) and complement it with interviews.
- ii. Provide an analysis of the state of play addressing in particular the following questions:
 - Who are the players (city administration, data brokers, DSOs, citizens, data analysts, SME...) and which data do they need access to for their business/daily functioning? And what limitations (regulatory, technical or other) are they experiencing with regards to data affecting their current activities or future plans? The link to urban platforms is to be considered.
- iii. Organize a workshop with relevant stakeholders before the final analysis is provided.
 - The workshop should be attended by city representatives providing a good geographical balance (more than 15, where some contacts to be provided by EC) and other stakeholders (data brokers, DSOs, Telecom operators, service providers, SMEs...).

3. Duration

Duration of the tasks, including the period of approval of the deliverables, must not exceed **8 months** and is subject to the provisions of Article I.2.3 of the contract.

4. Price

A **total fixed** price expressed in **Euro** must be included in the offer.

The contract price must be **firm and not subject to revision**.

The price quoted must **be exclusive of all taxes**:

The European Commission, pursuant to the provisions of Articles 3 and 4 of the Protocol on the Privileges and Immunities of the European Union, is **exempt** from all duties, taxes and dues, **including value added tax (VAT)**.

The **maximum total** amount to be paid by the Commission under the contract **must not exceed EUR 60 000 (Sixty thousand euros)**. **Tenders with a higher total price will be rejected.**

The price must fall within the scope of these tender specifications and be broken down into unit prices and quantities per each of the following categories:

(a) Professional fees. The daily fee and total number of man/days for each category of staff working on the contract must be specified.

(b) Travel and Subsistence Costs. In the event of travel being necessary to carry out the duties specified in the tender, travel and subsistence expenses shall be paid as indicated in the tender.

5. Selection criteria

In accordance with the terms set in Article 146.6 of the Rules of Application of the Financial Regulation, the contracting authority chose not to ask candidates to provide documentary proof of their financial and economic, technical and professional capacity.

The selection criteria are hereby listed:

- Proven knowledge of the context as outlined in §3 above.
- Multidisciplinary of the consortium.
- Relevant experience in the field (CVs of staff involved).