



"Linked Open Apps Ecosystem to open up innovation in smart cities"

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Summary

This deliverable gathers information concerning several legal issues (digital security, data privacy, protection of databases, re-use of public sector information, e-access to public services) that may be taken into account to secure that all levels of services can be deployed within the set of pilots in cities. It compiles, descriptively, the most important existing national regulations, most of them derived from previous EU directives, in the countries participating in the project (Italy, Spain and United Kingdom).

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1 Introduction

Implementation of smart cities in European cities necessarily implies that municipal governments must be aware of the regulations that may affect it. These regulations may refer to various legal fields and affect citizens from different administrative levels.

Based on this observation, this deliverable collects legal texts at European and national levels on five key areas: digital security, data privacy, protection of databases, re-use of public sector information and access to public e-services.

The starting point is the legal frame at European level. This is the common framework for all cities as European institutions have forced member states to adapt EU legislation in each country. The deliverable details, therefore, what are the legislative texts regarding the mentioned key areas in Europe and briefly explains its content as a contextualization, given that D3.9 explores regulations at this administrative level in deeper detail.

Subsequently, the deliverable provides an overview of the implementations made at national level in the three countries participating in the iCity project: Italy and Spain. It specifies what laws have been used to comply with the European regulations in each case, and what content has to be considered the most important. Local regulations are directly linked to the national (and regional, in some cases) regulations.

To end up with the review of the regulatory aspects, there are some conclusions which mainly stress similarities between national legislations.

The document also provides a second set of analysis. From a urban governance point of view, implementing the iCity platform is not only about legal and regulatory rules, it is as well a political decision. Thus, iCity is adopted and deployed in different Smart strategies. Thus, in section 6 we will describe how the iCity project adapts to the Smart strategies of Barcelona, Bologna and Genoa and discuss what are the implications for adopting iCity elsewhere from an urban governance perspective.

2 Contextualization: EU legislation.

This section gathers the main European Union legislation regarding digital security, data privacy, protection of databases, reuse of public sector information and e-access to public services. These European directives have been the basis on which the various states of the European Union (including Italy and Spain) have developed national laws on such issues.

D6.7 deals with the concrete expression of these directives in the internal legislation of the countries participating in the iCity project. However, it is useful to describe the content of this European legal framework as a contextualization of the subsequent adaptations made in Italy and Spain.

2.1 Directive 95/46/EC on the protection of individuals with regard to the processing of personal data and on the free movement of such data.

Directive 95/46/EC, also known as Data Protection Directive, regulates the processing of personal data within the European Union. It is an important component of EU privacy and human rights law.

In 1980, in an effort to create a comprehensive data protection system throughout Europe, the Organization for Economic Cooperation and Development (OECD) issued its "Recommendations of the Council Concerning Guidelines Governing the Protection of Privacy and Trans-Border Flows of Personal Data." The seven principles governing the OECD's recommendations for protection of personal data were:

- Notice: data subjects should be given notice when their data is being collected.
- Purpose: data should only be used for the purpose stated and not for any other purposes.
- Consent: data should not be disclosed without the data subject's consent.
- Security: collected data should be kept secure from any potential abuses.
- Disclosure: data subjects should be informed as to who is collecting their data.
- Access: data subjects should be allowed to access their data and make corrections to any inaccurate data.
- Accountability: data subjects should have a method available to them to hold data collectors accountable for following the above principles.

The OECD Guidelines, however, were nonbinding. Indeed, data privacy laws still widely differed across Europe. The European Commission realised that diverging data protection legislation amongst EU member states impeded the free flow of data within the EU and accordingly proposed the Data Protection Directive.

The directive regulates the processing of personal data regardless of whether such processing is automated or not. Personal data are defined as "any information relating to an identified or identifiable natural person ("data subject"); an identifiable person is one who can be identified, directly or indirectly, in particular by reference to an identification number or to

one or more factors specific to his physical, physiological, mental, economic, cultural or social identity" (art. 2a). The notion processing means "any operation or set of operations which is performed upon personal data, whether or not by automatic means, such as collection, recording, organization, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, blocking, erasure or destruction" (art. 2b).

It highlights three main principles:

- **Transparency:** the data subject has the right to be informed when his personal data is being processed. The controller must provide his name and address, the purpose of processing, the recipients of the data and all other information required to ensure the processing is fair (art. 10 and 11).
- **Legitimate purpose:** personal data can only be processed for specified explicit and legitimate purposes and may not be processed further in a way incompatible with those purposes (art. 6b).
- **Proportionality:** personal data may be processed only insofar as it is adequate, relevant and not excessive in relation to the purposes for which they are collected and/or further processed (art. 6).

On 25th January 2012, the European Commission unveiled a draft European General Data Protection Regulation that will supersede the Data Protection Directive. Rapid technological developments and globalisation have brought new challenges for data protection. The Commission's proposals update and modernise the principles enshrined in the current directive to guarantee the right of personal data protection in the future. The adoption is aimed for in 2014 and the regulation is planned to take effect in 2016 after a transition period of two years.

According to the European Commission draft, the key changes will be:

- A 'right to be forgotten' will help people better manage data-protection risks online. When they no longer want their data to be processed and there are no legitimate grounds for retaining it, the data will be deleted.
- Whenever consent is required for data processing, it will have to be given explicitly, rather than be assumed.
- Easier access to one's own data and the right of data portability (i.e. easier transfer of personal data from one service provider to another).
- Companies and organisations will have to notify serious data breaches without undue delay, where feasible within twenty-four hours.
- A single set of rules on data protection, valid across the EU.
- Companies will only have to deal with a single national data protection authority (in the EU country where they have their main establishment).
- Individuals will have the right to refer all cases to their home national data protection authority, even when their personal data is processed outside their home country.
- EU rules will apply to companies not established in the EU, if they offer goods or services in the EU or monitor the online behaviour of citizens.
- Increased responsibility and accountability for those processing personal data.
- Unnecessary administrative burdens such as notification requirements for companies processing personal data will be removed.

- National data protection authorities will be strengthened so they can better enforce the EU rules at home.

2.2 Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases.

Directive 96/9/EC is a European Union directive in the field of copyright law, made under the internal market provisions of the Treaty of Rome. It harmonizes the treatment of databases under copyright law, and creates a new *sui generis* right for the creators of databases which do not qualify for copyright.

Article 1(2) defines a database as "a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means". Non-electronic databases are also covered. Any computer program used to create the database is not included. Copyright protection of software is governed by directive 91/250/EEC.

Databases which, by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation are protected by copyright as collections. Any copyright in the database is separate from and without prejudice to the copyright in the entries.

The acts restricted by copyright are similar to those for other types of work:

- Temporary or permanent reproduction by any means and in any form, in whole or in part.
- Translation, adaptation, arrangement and any other alteration.
- Any form of distribution to the public of the database or of copies thereof, subject to the exhaustion of rights.
- Any communication, display or performance to the public.
- Any reproduction, distribution, communication, display or performance to the public of a translation, adaptation, etc.

Member States may provide for any or all of the following limitations, as well as applying any traditional limitations to copyright:

- Reproduction for private purposes of a non-electronic database.
- Use for the sole purpose of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved.
- Use for the purposes of public security or for the purposes of an administrative or judicial procedure.

Copyright protection usually lasts for seventy years after the death of the last publicly identified author.

Copyright protection is not available for a database which aims to be "complete", that is where the entries are selected by objective criteria: these are covered by *sui generis* database rights. While copyright protects the creativity of an author, database rights specifically protect the qualitatively and/or quantitatively substantial investment in either the obtaining, verification or presentation of the contents: if there has not been substantial investment (which need not be financial), the database will not be protected. Database rights

are held in the first instance by the person or corporation that made the substantial investment.

The holder of database rights may prohibit the extraction and/or re-utilization of the whole or of a substantial part of the contents. Public lending is not an act of extraction or re-utilization. The lawful user of a database which is available to the public may freely extract and/or re-use insubstantial parts of the database. The same limitations may be provided to database rights as to copyright in databases. Database rights last for fifteen years from the end of the year that the database was made available to the public, or from the end of the year of completion for private databases.

2.3 Directive 2003/98/EC on the re-use of public sector information.

Directive 2003/98/EC, known as the PSI Directive, encourages EU member states to make as much public sector information available for re-use as possible. Previous to the creation of this directive this area was left to member states to regulate. This directive now provides a common legislative framework for this area.

The Directive is an attempt to remove barriers that hinder the re-use of public sector information throughout the Union. The ePSIplatform web portal (www.epsiplatform.eu) was set up as a result of this directive.

Charges for re-use have to be limited at a ceiling calculated on the basis of actual costs. Public sector bodies need to calculate charges per re-user in a way so that the total income from charging does not exceed the costs incurred to produce and disseminate the information, together with a reasonable return on investment.

Public sector bodies are encouraged to apply lower charges or to apply no charges at all. On request, public sector bodies must indicate the method used to calculate charges.

Conditions for re-use shall be non-discriminatory for comparable categories of re-use.

The Directive prohibits cross-subsidies, this is, if public sector bodies re-use their own documents to offer added-value information services in competition with other re-users, equal charges and other conditions must apply to all of them.

It also prohibits exclusive arrangements: public sector bodies may not enter into exclusive arrangements with individual re-users, excluding others. Such exclusive rights may only be authorised in exceptional circumstances if they are necessary to provide services in the public interest.

Charges and other conditions for re-use have to be pre-established and published. If a request for re-use is refused, the grounds for refusal and the means of redress need to be explained.

Requests for re-use shall be processed within a specific timeframe (twenty days for standard cases).

Licences should not unnecessarily restrict possibilities for re-use or be used to restrict competition.

In 2013 it was amended to make it more aligned with open government data concepts and also to contemplate cultural heritage information, among other modifications.

3 2. Italian legislation.

Implementation or correspondence of the European Directives to Italian legislation:

- Directive 95/46/EC on the protection of individuals with regard to the processing of personal data and on the free movement of such data: Decreto legislativo 30 giugno 2003, n. 196. Codice in materia di protezione dei dati personali.
- Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases: Decreto legislativo 6 maggio 1999, n. 169. Attuazione della direttiva 96/9/CEE relativa alla tutela giuridica delle banche di dati.
- Directive 2003/98/EC on the re-use of public sector information: Decreto legislativo 24 gennaio 2006, n. 36. Attuazione della direttiva 2003/98/CE relativa al riutilizzo di documenti nel settore pubblico.

Other Italian legislation:

- Decreto legislativo 7 marzo 2005, n. 82. Codice dell'amministrazione digitale.
- Decreto legislativo 30 dicembre 2010, n. 235. Modifiche ed integrazioni al decreto legislativo 7 marzo 2005, n. 82, recante Codice dell'amministrazione digitale, a norma dell'articolo 33 della legge 18 giugno 2009, n. 69.

3.1 Decreto legislativo 30 giugno 2003, n. 196. Codice in materia di protezione dei dati personali.

The law related to the protection of personal data is the Legislative decree of the Italian Republic issued in 30th June 2003, no. 196, and also commonly known as the "Consolidation Act on privacy".

The purposes of the law are intended to recognize the right of the individuals over their personal data and, consequently, to the discipline of the data management concerning its collection, processing, comparison, deletion, modification, disclosure or dissemination.

The first article recognises the absolute right of each person on its own data, in which states: "Everyone has the right to protection of personal data concerning himself".

The right to privacy is different than the law on data because it is not just about information, but more generally encompasses any information relating to a person, even if it is not covered by privacy.

The purpose of the legislation is to prevent that data are processed without the consent of the person entitled or causing injuries. In the Consolidation Act, Title II, Articles 8 to 10, rights of the concerned parties are defined, as well as the mode of data collection and the data requirements, the obligations of those who collect, hold and process personal data, liability and penalties for damage.

The legislation identifies what is understood by (art. 4):

- Personal data: any information concerning a natural person, legal person, entity or association, identified or identifiable, even indirectly, and any other information including a personal identification number.

- Sensitive data: personal data revealing racial or ethnic origin, religious, philosophical or other beliefs, political opinions, membership to parties, unions, associations or organizations (religious, philosophical, political...), personal data disclosing health and sexual life.
- Judicial data: personal data regarding civil sanctions for administrative offenses or as an accused or suspected person under articles 60 and 61 of the Code of Criminal Procedure.
- Treatment: operation or set of operations, carried out without electronic instruments, concerning collection, recording, organization, storage, consultation, processing, modification, selection, extraction, comparison, use, interconnection, blocking, communication, dissemination and destruction of personal data, even if not registered in a database.

Citizens have guaranteed right of access to all relevant information to their person held and processed by third parties. This includes the ability to know the author of the treatment and its purpose and the subjects to which data may be transferred. Citizens have the right to check their data held by third parties by the right of access, being able to require updating or deleting as appropriate, and to request cancellation or blocking.

In case of data collection without consent, consent obtained without providing prior information, processing of data beyond the limits of the consent given, denial or restriction of the right of access, citizens can use civil courts to get compensations.

3.2 Decreto legislativo 6 maggio 1999, n. 169. Attuazione della direttiva 96/9/CEE relativa alla tutela giuridica delle banche di dati.

As its name suggests, the Legislative Decree, of 6th May 1999, n. 169, updates the Italian legislation in this field after the adoption of the European directive. The update is done on a pre-existing law, of 22nd April 1941, no. 633, concerning protection of copyright and other rights related to its operation, to which some articles are added and some others are modified.

Art. 1 adds to the 1941 law scope databases which, for their content or arrangement, constitute the author's own intellectual creation. Databases are designed as collections of works, data or other materials arranged in a systematic or methodical way and individually accessible by any means. The protection of databases does not extend to their content, with no prejudice to any rights subsisting in those contents.

The author of a database shall have the exclusive right to do or to authorize:

- The permanent or temporary reproduction, in whole or partially, by any means and in any form.
- The translation, adaptation, arrangement and any other alteration.
- Any kind of distribution of the original database or copies.
- Any presentation or public communication, including transmission by any means and in any form.

The maker of a database is the person who makes significant investments for the creation of a database or for its verification or presentation, investing, to this aim, financial resources, time or work. The maker of a database shall have the right to prohibit the extraction or re-

utilization of the whole base or a substantial part of it. The exclusive right of the maker shall expire fifteen years.

Extraction or repeated and systematic re-utilization of insubstantial parts of the contents of the database is not allowed.

3.3 Decreto legislativo 24 gennaio 2006, n. 36. Attuazione della direttiva 2003/98/CE relativa al riutilizzo di documenti nel settore pubblico.

The Legislative Decree of 24th January 2006, n. 36, on implementation of Directive 2003/98/EC on the re-use of public sector documents, regulates the procedures for the re-use of documents which contain public data in the availability of public authorities. It comprises 13 sections and includes 30 articles.

The decision to allow or disallow such re-use can only be taken by the concerned administration body. In this regard, public authorities should pursue the aim of making the most of reusable information with procedures that ensure fair, reasonable and non-discriminatory conditions.

This legislative decree provide clear definitions of the most important concepts that appear in it: public authorities, bodies governed by public law, document, public data, re-use, exchange of documents, personal data, standard license for re-using, and owner of data. It also details the eight types of documents that are excluded from the application of the decree.

Section 5 explains the procedure to make a request for re-using documents. This is followed by information of formats and rates.

Finally, it is important to stress section 9, entitled "Tools to search for available documents". It states that public administrations have to promote appropriate information and communication processes on the documents which can be re-used, including their corporate websites, and have to provide practical ways to facilitate the search for documents available for re-use, such as lists, portals and decentralized directory lists.

3.4 Decreto legislativo 7 marzo 2005, n. 82. Codice dell'amministrazione digitale, and Decreto legislativo 30 dicembre 2010, n. 235. Modifiche ed integrazioni al decreto legislativo 7 marzo 2005, n. 82, recante Codice dell'amministrazione digitale, a norma dell'articolo 33 della legge 18 giugno 2009, n. 69

The Digital Administration Code is an act having the force of law of the Italian Republic. It is an organic body of rules that governs the use of information technology as a privileged instrument in relations between the Italian public administration and the citizens.

The Code came into force on 1st January 2006 under the legislative decree of 7th March 2005, n. 82. It ensures and regulates the availability, management, access, transmission, storage and accessibility of information in digital format by using the most appropriate information and communication technologies within the public administration, between

government and private and, in some limited cases, the use of electronic documents in the private area.

In 2006, few months after the entry into force, some corrective measures have been implemented. Important changes and additions were introduced by the Legislative Decree of 30th December 2010, n. 235. Actually, 53 articles were amended on 92, and 9 other articles were introduced.

After the entry into force of this legislative decree, the Digital Administration Code consists of 102 articles, divided into nine titles respectively entitled:

- General principles.
- Electronic document and electronic signatures; payments, books and records.
- Training, management and preservation of electronic documents.
- Electronic transmission of documents.
- Public administration data and network services.
- Development, acquisition and re-use of electronic systems in public administrations.
- Technical Rules.
- Public system of connectivity and international network of public administration.
- Final transitional provisions.

The enactment of the Code provoked different reactions among observers and in legal doctrine. On the one hand, some welcomed the release, considering it an important act for the reorganization of the matter. On the other hand, some were somewhat sceptical because the code seems to contain many statements without operative provisions to allow implementation. Furthermore, according to the sceptical doctrine, the code perverts the original goal of using the computer as a tool for administrative simplification to make it an end in itself. Finally, they state that the code underestimates the risk of a digital divide among citizens who are familiar with the computer tool, and citizens who have difficulties managing personal data electronically.

4 Spanish legislation.

Implementation or correspondence of the European Directives to Spanish legislation:

- Directive 95/46/EC on the protection of individuals with regard to the processing of personal data and on the free movement of such data: Ley Orgánica 15/1999, de 13 de diciembre, de Protección de Datos de Carácter Personal and Real Decreto 1720/2007, de 21 de diciembre, de Desarrollo de la Ley Orgánica de Protección de Datos.
- Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases: Ley 5/1998, de 6 de marzo, de Incorporación al Derecho Español de la Directiva 96/9/CE, del Parlamento Europeo y del Consejo, de 11 de marzo, sobre la Protección Jurídica de Bases de Datos.
- Directive 2003/98/EC on the re-use of public sector information: Ley 37/2007, de 16 de noviembre, sobre Reutilización de la Información del Sector Público.

Other Spanish legislation:

- Ley 11/2007, de 22 de junio, de Acceso Electrónico de los Ciudadanos a los Servicios Públicos.
- Llei 29/2010, de 3 d'agost, de l'ús dels mitjans electrònics al sector públic de Catalunya.

4.1 3.1. Ley Orgánica 15/1999, de 13 de diciembre, de Protección de Datos de Carácter Personal.

The Organic Law 15/1999, of 13th December, on the Protection of Personal Data is a Spanish law which aims to guarantee and protect, with regard to the processing of personal data, civil liberties and fundamental rights of physical persons, and especially their honour, intimacy and personal and family privacy.

Its main objective is to regulate the processing of personal data and files regardless of the format in which they are treated, the rights of citizens on them and the obligations of those who create or deal with them.

The persons to whom personal data is requested must be previously informed explicitly, precisely and unequivocally:

- The existence of a file or processing of personal data, the purpose of collecting the data and the recipients of the information.
- The obligatory or optionally response to the questions posed.
- The consequences of obtaining data or refusing to supply them.
- The possibility of exercising rights of access, rectification, cancellation and opposition.
- The identity of the data controllers or, where appropriate, their representatives.

However, the treatment of personal data without being collected directly from affected or interested, although not exempt from the obligation to report explicitly, precisely and unequivocally by the controller or his representative, is allowed within three months following the start of treatment of the data.

The personal data subject to processing may only be disclosed to a third party for purposes directly related to the legitimate functions of the assignor and the assignee with prior consent. This consent will not be necessary:

- When the transfer is authorized by law.
- When data is collected from public sources.
- When treatment meets the free and legitimate acceptance of a legal relationship whose development, compliance and control necessarily implies the connection of this treatment with third-party files.
- When communication has addressed to the Ombudsman, the Public Prosecutor, the Courts or the Court of Auditors in the exercise of their functions, or to regional institutions with similar functions.
- When the transfer takes place among public authorities and is intended to further processing of data for historical, statistical or scientific purposes.
- When the transfer of personal data concerning health is necessary to resolve an emergency that requires access to a file.

Consent to the communication of personal data to a third party shall be void if the information provided to the person concerned does not allow him/her to know the purpose for which the data are intended.

Consent to the disclosure of the personal data can also be revoked.

4.2 3.2. Real Decreto 1720/2007, de 21 de diciembre, de Desarrollo de la Ley Orgánica de Protección de Datos.

The Organic Law 15/1999, of 13th December, on the Protection of Personal Data has been developed by Royal Decree 1720/2007, of 21st December, on the Development of the Data Protection Organic Law. This regulation develops both the principles of the law and the security measures to be applied in information systems. This applies to files in all formats, digital included. The regulation has 158 articles.

One of the most important parts is the Title VIII (from art. 79 to art. 114), which describes the security measures in the treatment of data, both automated or non-automated processed.

The specific measures that this regulation requires to comply depend critically on the nature of the data. In this regard, measures are structured as follows:

- Low-level measures: applied to any file or processing of personal data.
- Mid-level measures: applied when personal data include information on administrative or criminal offenses, information services on creditworthiness and credit data, tax management, financial services, social security and mutual, and data that can be used to make a personality profile of the subject.
- High-level measures: applied to sensitive data (ideology, union affiliation, religion, beliefs, health, racial or sexual life), to data collected for law enforcement purposes without the consent of the persons concerned and to data on GBV.

Depending on the security level, the regulation defines specific security measures:

- Basics, such as a record of incidents and proper identification and authentication of users accessing personal data.

- Midlevel, such as audits and physical access control.
- High-level actions, such as encryption of communications or detailed access record keeping user identification, date and time, the file accessed, the access type and if it has been authorized or denied.

4.3 Ley 5/1998, de 6 de marzo, de Incorporación al Derecho Español de la Directiva 96/9/CE, del Parlamento Europeo y del Consejo, de 11 de marzo, sobre la Protección Jurídica de Bases de Datos.

For efficiency and legislative economy reasons, Law 5/1998, of 6th March, incorporation into Spanish legislation of Directive 96/9/EC, of the European Parliament and the Council, of 11th March 1996, on the legal protection of databases, is directly incorporated into the revised text of the Law on Intellectual Property, adopted as Royal Legislative Decree 1/1996, of 12th April. The law, which has seven articles, is divided into three chapters: copyright, *sui generis* right and other provisions.

Collections of works, data or other independent elements as anthologies and databases that constitute intellectual creations due to the arrangement of their contents are subject to intellectual property. Databases are collections of works, data or other materials arranged in a systematic or methodical way and individually accessible by any means. Databases protection does not apply to computer programs used in the production or operation of databases accessible by electronic means.

The transformation of a work includes translation, adaptation and any other changes in its form. When it is a database, transformation or rearrangement is also considered transformation. The intellectual property of the result belongs to the author of this transformation.

Users of a protected database or copies can access, with no consent of the database author, to its contents even if they are affected by some exclusive right. Also, the law states that the works already published may be reproduced without permission of the author. Anyway, the author's permission is required when:

- A reproduction is made for private purposes.
- For the purpose of illustration for teaching or scientific research.
- For the purposes of public security or an administrative or judicial procedure.

Regarding *sui generis* right, the maker of a database can prevent extraction and /or reuse of all or a substantial part of it, qualitatively or quantitatively evaluated, when the obtaining, verification or presentation of such content represent a substantial investment in quantitative or qualitative terms. The maker of a database can not ban users to extract and/or re-use insubstantial parts of its contents. Exceptions to the *sui generis* right are the same as those mentioned above.

The period of legal protection expires after fifteen years.

4.4 Ley 37/2007, de 16 de noviembre, sobre Reutilización de la Información del Sector Público.

Law 37/2007, of 16th November, on the reuse of public sector information, concerns the whole public administration, and its purpose is that citizens and companies offer added value products and information services. Other goals are to publish all available documents and to promote the growth of digital content sector. It also establishes the right to knowledge as a basic principle.

This law defines 'document' as collection and representation of acts, facts or information, and any collection, regardless of the medium (paper or digital, audio, visual or audiovisual recording). The law does not apply neither to documents with intellectual or industrial property nor to broadcasting documents, educational and research institutions and cultural institutions.

General conditions for the reuse of documents are to protect personal data, avoid exclusive agreements and set a reasonable payment, when appropriate. Specific conditions are proper use, ensuring no modification, providing the source and a minimum content of licenses (purpose, duration, responsibilities, financial arrangements, price, etc.).

Law 37/2007 establishes how to proceed with the documents to be reused:

- They must be available electronically.
- They should be spread by document management systems (lists and indexes).
- Interested people should request re-using to the competent administration, which has twenty days to answer. After that, there are ten more days to request the applicant for completion of inaccurate information.

Positive resolutions involve making available the requested documentation for reuse to the applicant. When administration does not have the required information but is aware of who does, it must send the request to the owner of the information as soon as possible and report it to the applicant. In case of rejecting resolutions due to the existence of intellectual or industrial property rights, administration should contact the applicant to give information of who is the legal owner of the documentation.

Administration qualifies as very severe, severe or minor offense the denaturalisation of the information to reuse and if the content is altered.

4.5 Ley 11/2007, de 22 de junio, de Acceso Electrónico de los Ciudadanos a los Servicios Públicos.

The Law 11/2007, of 22nd June, on the Electronic Access of Citizens to Public Services is a Spanish law that gives citizens the right to interact electronically with public administrations, as well as the obligation of the government to ensure that right.

It is the first legal regulation having the force of law that focuses entirely on the issue of e-government itself. It is, therefore, the legal standard reference in this field and provides a homogeneous framework for all administrations in the field. Other administrations and citizens, political parties, companies and associations were involved in its development.

Its main objective is to recognize and guarantee the right of citizens to interact electronically with public administrations. It also aims to promote the use of electronic services in government creating conditions to do so. Finally, indirectly, it promotes the implementation of information society in general.

The law is divided into five titles:

- Preliminary Title. Scope and general principles.
- Title I. Right of citizens to interact with public administrations by electronic media.
- Title II. Legal status of e-government.
- Title III. Electronics Management Procedures.
- Title IV. Cooperation among administrations for the promotion of e-government.

In short, Ley 11/2007 promotes recognition of new rights for citizens. Among others, the right to communicate with public administrations by electronic means. In addition, the law creates a specific user Ombudsman. The government must provide access to all electronic services, including records, payment, notifications and queries from 31st December 2009. At regional and local levels this is subject to the available budget.

4.6 Llei 29/2010, de 3 d'agost, de l'ús dels mitjans electrònics al sector públic de Catalunya.

The Law 29/2010, of 3rd August, on the Use of Electronic Media in the Public Sector in Catalonia, is the law adopted by the Parliament of Catalonia which aims to regulate the use of electronic media in the activities of the public sector in Catalonia. The law is divided into five titles.

The purposes of the law are to improve transparency, effectiveness, efficiency and quality in the relations between citizens and the public sector:

- Ensuring that the use of electronic media contributes to an open, transparent, accessible, effective and efficient public administration.
- Promoting activities between public administration and citizens to be more agile, more effective and more efficient through the use of electronic media.
- Consolidating cooperation and coordination means among Catalan administrations in developing policies and services for the introduction and use of electronic media.

In summary, the incorporation of electronic media on the activities of the Catalan public sector should be based on the principles of proximity; transparency and participation; accessibility; quality, simplification, effectiveness, efficiency and economy; security; technological neutrality; cooperation and collaboration; proportionality, and legality.

The law establishes a Catalan model of e-government based on three main axes:

- The multi-channel between user and administration, allowing the incorporation of electronic media in their ordinary activities to improve accessibility, transparency, effectiveness, efficiency and quality of services provision to citizens, and internal management.
- Institutional cooperation and collaboration in the provision of infrastructure and common e-government services to ensure the interoperability of information systems.

- The definition and common development of policies and organizational and technological initiatives that maximize effectiveness efficiency of public administration, as well as the re-use of applications and services to develop them.

The law says that Catalan public administrations must cooperate and collaborate in achieving interoperability, electronic signature, re-use of applications and to ensure the confidentiality, integrity, identity and non-rejection of electronic communications.

The public sector information disseminated by electronic means should be updated, objective, useful and accessible. Local authorities must ensure these principles.

5 Conclusions on legal regulation.

As all national legislations regarding data privacy, protection of databases and re-use of public sector information are adaptations of European directives, they are quite similar in their general terms. In spite of being adaptations made using various procedures (drafting of a new law, addition of new titles to a former law in order to adapt it, union of independent laws into a common legislative text, etc.), the most important content of the Italian, Spanish and British legislation matches with the European directives and does not differ substantially among them.

The principles that constitute the general frameworks of the local bylaws in the four cities (Barcelona, Bologna, Genoa and London) are linked directly to higher administrative level legislation, in this case to national legislation. However, in the case of Barcelona, the region of Catalonia issues laws as it is not only an administrative level of governance but also legislative. For instance, in the case of access to public e-services a Catalan law has been included in the compilation.

As laws are mutable, cities should continuously monitor their validity and be aware of possible changes that may occur in order to keep up to date. It is expected that in 2016 new European legislation regarding data protection will supersede the Data Protection Directive. If this new legislation finally comes to light, it may require at the same time new adaptations of national laws in the following years and will affect successively national, regional and, finally, local norms. Technological advances are happening quickly in these areas; therefore, it is possible that new challenges require further changes in other regulations in the next future.

6 Smart Cities Strategies

In this second part of the document we focus not in the regulatory aspects of iCity but on the strategic role of iCity within the Smart Strategies of the Consortium Cities. This analysis aims to reflect the different ways iCity platform plays in the three cities, Barcelona, Bologna and Genoa and help understand how iCity can

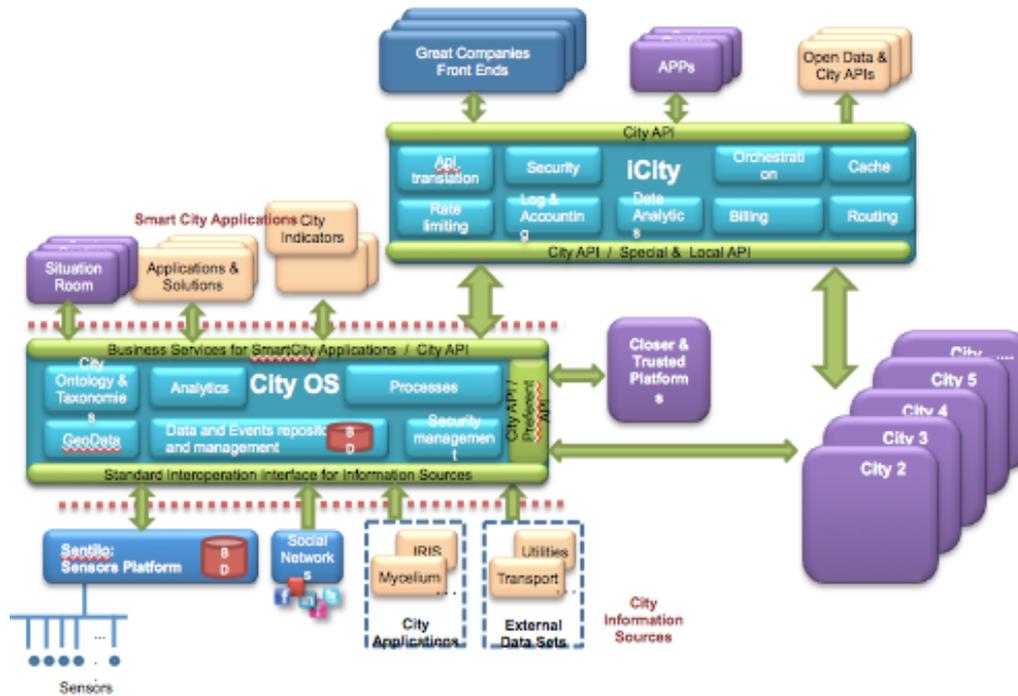
6.1 Barcelona

Barcelona is possibly one of the European cities that have embraced more ambitiously the Smart City paradigm not only to transform the city but to position Barcelona in the map of innovative cities at the global scale. The main aim is to make Barcelona a self-sufficient city of productive neighbourhoods at human speed, inside a hyper connected metropolis, of high speed and zero emissions. The goal, as the former deputy mayor, Mr. Vives, pointed out is to make Barcelona “the platform for innovation in the century of cities, to become a Smart City based on the principles of efficiency, quality of life and social equity”. The new synthesis has been the reworking of this into the exporting of a “new” model based on global new models. This meant the re-shuffling of the whole planning and economic strategy of the city towards the Smart City concept: merging the planning and information systems, housing, environment and ICT departments in one now called Urban Habitat; creating a *Smart City Campus*, an interactive space for companies and organizations devoted to the development of Smart Cities; inaugurating the Barcelona Institute of Technology for the Habitat in partnership with Cisco; developing the *City Protocol Society*, an international non-profit organization integrated by cities, business and research centres from across the world to promote a (Smart) City Protocol; and participating and also leading several pan-European projects on Smart Cities.

Within this framework, the iCity project plays at two levels. On the one hand it is a central feature of what is becoming Barcelona Urban Platform. Barcelona has developed its own City Operating System (OS), a decoupling layer between data sources and Smart cities solutions. The Barcelona OS allows decoupling the technological solutions of its suppliers; defining complex processes of the city which allow the prisoner of decisions in real time doing a replicable system (see http://ibarcnelona.bcn.cat/sites/default/files/city_os_-_inside.pdf). The iCity platform is integrated as new layer that allows to open up information systems and data to relevant stakeholders and citizens, providing apps based on data generated by OS or third parties without putting at risk or compromising the Barcelona OS (figure 1). Thus, for the case of Barcelona, the iCity platform is a key embedded technological solution to make city governance more efficient and transparent.

Indeed, for Barcelona the technological side of the project is central to its Smart City strategy. That is building systems that both automate and interrelate the city processes, allowing the information to flow and be shared between different processes and actors. However, iCity also relates with another fundamental aspect of Barcelona smart City, to convert Barcelona in the laboratory of smart solutions. In this respect, it aims to make available to third parties (mainly companies and citizens that can create new business processing and use) data and public infrastructure of the city, in a way that it can be shared and transferred to other cities.

Figure 1. iCity platform and Barcelona OS



6.2 Bologna

Bologna is considered one of the "smartest cities" in Italy. Indeed this is due to two factors. On the one hand, the long term strategic vision of the City Council in adopting and using ITC tools in urban governance, and on the other hand, an active citizenship involved in city projects, that has led to a widespread public awareness on digital issues, and in particular, involved in many activities against different kinds of digital divides in place. The goals of the Bologna Smart City strategy are two:

- Valorisation of knowledge and technological innovation through the extensive use of information and communication technologies
- Moving towards a green economy and lifestyle through the production of renewable energy and sustainable mobility.

By focusing on seven areas:

1. Cultural heritage (valorisation and requalification of the historic downtown, its cultural heritage, arcades and tourism).
2. Iperbole 2002 Cloud and Crowd (redesign of the Civic Network Hyperbole, based on cloud technology and integrated digital identity, to raise the supply of content and services PA, businesses and citizens).

3. Intelligent net (Smart grid, Ultra Wide Band Fiber to the Home (FFTH) and Smart Lightning).
4. Sustainable mobility (development of a network of electric smart mobility).
5. Safe and sustainable neighbourhoods (public property regeneration and private energy efficiency and production, monitoring of building safety, home automation , co-working , new environments and services for knowledge workers and researchers).
6. Health and Welfare (e-care , e-health , process optimization and business intelligence)
7. 7. Education and Technical Education (development projects in education, promotion of new technical and scientific knowledge).

To summarize, the vision of Bologna is based on becoming a “smart metropolitan community/city” by combining and exploiting the potential of information and communication technologies – mobile, social, ubiquitous – with a “human centred-tech enabled” driver. In doing so, it takes a gender balanced approach, in order to consolidate a shared strategy for an intelligent city, starting from the citizenship and a widespread e-rights framework.

Thus, the Smart approach of Bologna pivots around two key concepts: open government (including transparency and open data) and second citizens and stakeholders involvement. Indeed, one of the main features of Bologna in relation to other European cities is the high level of involvement of citizens and stakeholders such as business, research and third sector institutions in designing Smart solutions and Smart City. Both open government and co-creation are at the core of delivering a smart, sustainable and ‘social’ urban environment, also fed by the creative contributions of citizens (civic commons, user generated content and crowdsourcing). In this perspective, Bologna recently launched its metropolitan Civic Network Iperbole2020. It is the first local "civic network" in Europe of this kind – run by a Municipality. It was designed, and still is, in a continuously improving and iterative productive cycle, with the active participation of citizens (multistakeholders approach), a quite similar practice to the engagement and co-creation of iCity methodology. Iperbole is formed by three specific spaces/digital dimensions devoted to three different citizens needs, desires and expectations:

- The first one is the "traditional"/mainstream website mostly top-down - even if open to comments and other kind of interactions - that hosts administrative and organisational information, institutional and political life evidences/events/deliberations, news, thematic channels, etc.
- The second one is the so called 'fascicolo del cittadino' [citizen my page/virtual desk], that allows all the on line interactions and transaction related to a wide set of services, supported and powered by secure and affordable personal credentials (a kind of e-identity).
- The third one, the most innovative and challenging, is a collaborative and participative environment, a community-driven area called "Comunità" that offers a number of social tools enabling collaboration, sharing and cross fertilisation among civic actors, that are and will be supported both on line and off line also with the community managers backing.

In sum, Iperbole2020 promotes and tests a new model of communication, and engages thematic communities in Metropolitan city/territory, empowering p2p and civic practices in the citizenship - digital and physical - in a concrete way.

In addition, the city is experimenting with facilitating participatory design practises with communities and focusing on smart infrastructures through the project Cantieri [yard/construction site] that aims to steer citizens participation in the physical and digital construction of Bologna (website: www.comune.bologna.it/cantieri/).

In this regard, the iCity project and the iCity approach to Smart City is very consistent to Bologna's "holistic" strategy that is designed towards achieving towards Open-Data-by-default, API - application programming interface - and web services both public and private, and disintermediation in data providing, making available infrastructures too. In this regard, it is worth noting that the consistency is not also in terms of adding a new platform to the Smart strategy but to integrate iCity platform within the existing projects already in motion, and in particular, its methodology of engagement with stakeholders to boost local innovation systems and co-creation practices. Obviously, as the iCity platforms consolidates in the next stages after the end of the EU's funding, this can reach full potential.

A second issue to take into account is that from January 2015, the City of Bologna is part of a new local institution "Bologna Metropolitan City" (corresponding to the former territory of the Province of Bologna), that gathers 56 Municipalities which will soon start to integrate infrastructure, services, policies and strategies, and open up data, platforms, hardware and software to the communities of developers and citizens. The Mayor of the Bologna Metropolitan City is the same as the Mayor of Municipality of Bologna, and the Metropolitan Council (just elected) is and will be a very suitable political and planning contest in dealing with a common view of a "digital agenda" and smart community/city that share the same priorities and goals: in the new Metropolitan Statute a specific article to digital rights, e-citizenship, innovation processes, open government, open data and code, e-participation/collaboration in setting policies and services was stated. In this sense, the metropolization of urban governance in Bologna opens up the potentialities for the iCity platform to reach a wider community.

6.3 Genoa

Genoa road to a Smart City started in 2010 with the creation of Genoa Smart City Association. The Association was co-funded by Municipality of Genoa, University of Genoa and Enel (a biggest energy supplier in Italy). The aim of the Association is to improve the quality of life with a sustainable economic development, in an integrating plan. In contrast to Barcelona and Bologna, Genoa is not as well established as Smart City but it is catching up fast.

Genoa Smart City goal is to improve the quality of life of every citizen by the diffusion of networks, technological innovations and sustainable economic development. In particular the focus is in three dimensions: creating sustainable development, effective mobility and opportunities for all. To achieve results on this three areas the main driver is to transform the cultural model of the city in order to change development, economic and community dynamics. In other words, technological and technical solutions are not the goal but one of the means for achieving smart communities.

The guideline for implementing Smart Genoa is a Decalogue that informs any project in the city:

1. The Beautiful and Bright Mediterranean: this through line informs the others. Its aim is to think any smart project as the combination of (universal) technological solutions and the particular context of Genoa as a Mediterranean City (e.g. compact city, its complex orography, different community culture, etc.)
2. Integrated Planning and Management.
3. Energy Awareness.
4. Simplify in order to Improve: that is use smart solutions to reduce red tape and communications with stakeholders.
5. Accessible Information for Everyone (transparency).
6. Moving Around as you Choose (smart and sustainable mobility).
7. Respect for the elderly and disabled (access and equity).
8. Young people choose to study and work.
9. Transferable, Competitive and Excellent Projects.
10. Relationship with Harbour and Sea: focus on the growth of the harbour; and Genoa as a Smart Seaside City.

In this regard, there are two priority areas of smart deployment where iCity plays an important role:

1. Involving stakeholders and citizenship in the Smart city through open data and open infrastructure. In this sense, Genoa is devoting important human and economic resources to guarantee systems interoperability and deliver open data and infrastructures.
2. Helping the transition from an industrial city to a touristic and high-tech one.

Developments in these two areas are based on:

- The increase of local investment on Internet of Things.
- The development of an infrastructure of broadband connectivity.
- A much more compliant coverage of hot spot Wifi.
- The interoperability of existing services through middleware platform.
- The release of application for internal user both for PC and mobile device.
- Local development on mobile apps to citizens.

In this regard, iCity allows City of Genoa to reach these goals quickly and with sharing knowledge and experiences with other cities and companies.

6.4 Conclusions

The iCity platform and co-creation processes have been developed through the collaboration of all partners in the consortium and with a prominent role and coordination between cities. The aim has been to create a smart solution and smart processes of co-creation that is useful to different cities and transferable to others. However, the role of the platform and the project in the three consortium cities Smart strategies has been different. In the case of Barcelona, the emphasis and integration of the project has been more closely related to the construction of the technological backbone of Barcelona Smart City. This might be due to two causes: first, the ambitious construction of the Barcelona OS and the integration of the iCity platform in this architecture; second, that even if the project have also played a fundamental role in the other aspects of the smart city strategy, these aspects were also well covered by a plethora of projects and initiatives, and the increasing attraction of developers and ICT companies in the city, in which iCity complements the strategy. In contrast, for the case of Bologna, the importance of iCity project has to do more with the engagement methodology and the opportunities that opens up for engagement with stakeholders to boost local innovation systems and co-creation practices. That is consistent with the civic tradition and importance that Bologna give to participatory governance. In between these two approaches, Genoa sees iCity as a relevant technological tool and opportunity for boosting local development and local innovation systems – that is the economic dimension – and second, the importance of sharing platform, development processes and experiences with other cities, and thus sharing solutions, knowledge and innovation; helping Genoa position itself in the European Smart Cities networks.

There are, of course, a vast number of technological, legal, financial (e.g. business models) and sociological complexities and issues that the adoption of the iCity implies for any city willing to join the project. These have been dealt in WP5, WP7 and within WP6 the legal ones in the first part of this document and the sociological in D6.4 and D6.5. In this section we have focused on a sometimes forgotten aspect, how technological solutions are integrated in political strategies of urban governance. Indeed, is a project that aims to deal with many aspects of urban governance: open data, open infrastructure, co-creation processes and the generation of services of public interest. This not only shows the versatility and diverse potential of the iCity solution but also the necessity to reflect how iCity is inserted in a wider smart strategy and the importance of local needs that the project can help to solve.