Technology Code of Practice

Authors: Francesca Bria, Paco Rodríguez, Malcolm Bain, Joan Batlle, Ana Bastida Vila, Xabier Barandiaran Fernández, Marius Boada Pla, Guillem Marpons, Xavier Roca Vilalta, Xavier Bes Segovia, Josep Carles Collazos, Joan Domènech Bas, Oscar Sanz García, Carlos Echevarría Meseguer, Lluís Girona Frisach, Anna Majó Crespo, Tomás Gea Calza, Javier Ruiz, Gemma Galdon, John Michaelides, Esther Bretschneider.

Reviewers: Richard Stallman, Roberto di Cosmo, Javier Ruiz, Boris van Hoytema.

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1. Aim and scope

1.1. AIM

This document constitutes the Technology Code of Practice which sets out the agile digital transformation strategy for Barcelona City Council, in a practical format and under the city's digital services standards issued in September 2017.

This Code consists mainly of a list of clear and direct principles and requirements, enabling a rapid understanding of the various elements of the digital transformation being carried out in Barcelona. It aims to enable those in charge of governance and management of digital service projects to ensure that they are in line with Barcelona City Council's strategy in this area.

The Code is designed to be a practical reference document and does not contain theoretical justifications for the policies proposed or references to examples, except in a few cases.

The specific guidelines are based on the best practices of various other countries and contexts. The United Kingdom, the United States, Sweden and the Netherlands, among many other places, have implemented innovative state-level policies on free technologies and agile developments.

1.2. SCOPE AND APPLICATION

This Technology Code of Practice applies to the management and governance of technology and innovation projects carried out within the agile digital transformation Plan, not only for the Municipal Institute of Information Technology (IMI) but also for other entities and departments that are accountable to Barcelona City Council. It also covers the design and construction of all the City Council's digital services, understood as services for the management and delivery of information through digital platforms and devices.

It is aimed at all the leaders and managers of the municipal group's business units, programme administrators and staff involved in putting this strategy into action. Those in charge of each management office are ultimately responsible for ensuring that the strategy guidelines and this Code are implemented. These principles and guidelines will be put into operation through performance of the City Council's agile digital transformation projects, which are largely managed by the IMI. These projects will enable resources to be dedicated, infrastructures to be created and skills to be acquired for carrying out these transformations. So changes involved in the application of these practices within the City Council will be managed in an iterative way through specific projects. Some of the projects and their extensions (e.g. Decidim. Barcelona, Sentilo, BIMA) already comply in good measure with the guidelines outlined here, while others will gradually do so in a more progressive manner.

1.3. STRUCTURE

The document is divided up into a set of general principles, backed by the guidelines that correspond to the three main cornerstones of Barcelona City Council's agile digital transformation strategy.

• The development of agile digital services

• Technological sovereignty, based on the use of free standards and free software

- The ethical and secure management of data and open data policies

This document complements but does not replace any of the organisation's policies or regulations, municipal or otherwise.

This Technology Code of Practice is accompanied by three supporting documents to promote the Agile Digital Transformation Plan:

- Agile Methodologies Guide

- Technological Sovereignty Guide

- Government Measure on Ethical Data Management

In addition, the Plan is being implemented through the City Council's Procurement Guides, particularly the following documents:

- ICT Procurement Guide

- Innovative Public Procurement Guide

2. Principles for designing and developing digital services

The following general principles and guidelines form the basis of Barcelona City Council's agile digital transformation Strategy and digital services standards, in terms of their design, development and maintenance.

1. Compliance with the digital services standards and responsible data management

Every new digital service must follow the City Council's Digital Services Standards and the Responsible Data Management Strategy.

2. Aimed at citizens

Barcelona City Council's digital services are focused on covering users' needs. All systems and services are ultimately at the service of the citizens and have to bring utility and added value to their experience.

3. Clarity in objectives and resources

Projects have to show clarity in the objectives they aim to achieve, in the impact of these objectives and in how they are integrated into the City Council's strategic plans. It is not sufficient for a project to be consistent internally and well developed; it must explain how the digital service will meet the specific needs of the City Council and the citizens.

Projects must specify the technical and organisational resources needed for their performance and how these will be provided for. It is not necessary for all the details to be defined in the projects' initial stages; however, large projects must not be approved without sufficient analysis of these aspects.

4. Options analysis

Every new service must begin with a strategic analysis of the options, to determine whether it has to be built within the municipal organisation, by external providers or by a mixed team involving both. Similarly, it must establish the development method to be used (by default, Agile), and whether free software will be created, used or reused. Part of this process requires looking at the implications in choosing technologies and methodologies as regards the management and training of the City Council's internal and external staff.

5. Principle of simplicity

The services to be developed will be designed by applying the principles of clarity and simplicity in their use and architecture. The aim will be to unify the various versions of applications used within the organisation and to avoid the proliferation of different versions. Transversal solutions to be used across the organisation will prevail over vertical (sectoral) solutions.

Whenever possible, new services will minimise the number of modifications made to "standard" software packages (both proprietary and free software), to make them easier to deploy and use, to maintain the advantages in terms of cost and speed that standard solutions may have as opposed to custom developments and to avoid problems in updating or replacing them. Any modification or extension will undergo strict technical controls of its budgetary implications beyond those of the project itself (over time and across the organisation).

6. Agile development methodologies and continuous innovation

All of the IMI's technological projects will by default use Agile development methodologies, centred on users, , putting the focus on continuous innovation in accordance with the principles of the Agile Manifesto. Projects will be developed using iterative and incremental processes, testing hypotheses and cre-

ating prototypes, and using analytical and experimental methods. Projects will use the City Council's Agile methodology, Scrum@IMI.

7. Reusing and providing shared components and services

Projects will reuse existing shared digital components and services wherever possible and, where these do not exist or can be improved, contribute to their creation or development, before considering creating parallel alternatives. This permits costs to be reduced and brings consistency to the users' experience and to service maintenance.

8. Integrated and comprehensive services

New digital services must demonstrate how the components and technology needed to provide them will be vertically integrated. Systems must be designed taking into account all aspects from user experience to the implications for the system's architecture and its maintenance. This will require collaboration between teams in various departments and specialities.

9. Maintenance and documentation

Services will follow the corporate classification of information (Service Catalogue) and operate following ITIL best practices. New digital services must maintain high quality documentation, including guides and manuals made available to the public so that they can be accessible to all stakeholders, both internal and external (such as providers), so that they may contribute to the documentation process. Documents will be kept in a centralised platform in standard formats, with version and authoring control.

10. New service architecture

Whenever possible, the City Council's new digital services will avoid traditional client-server architectures, giving preference to web solutions that comply with W3C standards, as these offer more flexibility, interoperability and independence over the machinery and operating systems they run on. Every new project must contribute to the phasing out of obsolete services, to reduce the number of services and technologies in use. Where appropriate, development projects for the services will use application programming interfaces (APIs) which will be correctly documented.

11. Accessibility and dual language

Digital services will be conceived from their initial stage in both Catalan and Spanish and will be accessible for all users, both internal users and citizens, in accordance with the linguistic and accessibility style guides in force at any time for the City Council's services.

12. Security

Services and projects will be designed taking security into account from their initial conceptualisation. Services must follow the corporate security Policy and standards based on standard ISO27002 and the National Security Framework.

13. Procurement

The acquisition and procurement of technological services will apply Barcelona City Council's procurement guides, namely, the Social Public Procurement Guide and the Environmental Public Procurement Guide from the Mayoral Decree on sustainable public procurement (S1/D/2017-1271 of 24 April), and the Guides on Technology Procurement and Innovative Procurement. By default new services will be procured through procurement-framework agreements.

To support the principle of technological sovereignty of the city, services must avoid dependency on a sole provider; this is also a key factor in increasing the capacity for innovation in public services. Systems integration must be carried out by a supplier that is different from the manufacturers of these systems. Whenever possible, the procurement of digital services will increase the diversity of providers and limit the budget volume of contracts.

Compliance with the legal framework and competition regulations will help to promote procurement with SMEs in the city and its area of influence, though where necessary, the city will work with specialist companies from Spain and other countries within the EU.

14. Technological sovereignty and free software

Projects must promote technological sovereignty, based on the principles that guide Barcelona's Municipal Institute of Information Technology with regard to technology and innovation: interoperability, agility, reuse and ethics, as well as free knowledge and technologies. The IMI will incorporate free software and standards into its technological services and processes, integrated throughout the architecture of its systems.

15. Civic sovereignty of data

Citizens and the common good must be at the heart of all technological plans and platforms within the Barcelona municipality that collect, create or manage data and other information. Citizens must be able to control their data and their privacy standards, the digital divide must be minimised and discriminatory or unethical practices towards the data prevented.

16. Data access and reuse, innovation

Municipal institutions must be open, transparent and responsible towards the public. Municipal information and documents must be accessible, usable and analysable, so as to promote entrepreneurship, social and digital innovation, employment and excellence in scientific research, as well as improving the lives of Barcelona's residents and contributing significantly to the city's stability and prosperity.

3. Guidelines for designing and implementing digital services

The following guidelines, divided into three areas, must be followed when designing and implementing digital services:

1. **Agile Methodologies**

2. **Technological sovereignty**

3. **Responsible data management and open data**

It is the responsibility of both the IMI and the business units that make up the City Council to follow these guidelines in projects implemented by and for Barcelona City Council.

3.1. AGILE PROJECTS

To meet the objective of implementing Agile Methodologies in projects carried out by the City Council's entities, the following principles and guidelines shall apply:

1. Multi-disciplinary collaboration

Multidisciplinary teams will be set up that include the various roles and specialities needed to develop applications, services and processes. Only one or two people will be directly in charge, although the team's success will be shared by each of its members equally.

2. Self-managed teams

Teams that are organised independently and flexibly can create new approaches and adapt to new challenges in their environment. As a consequence, roles and responsibilities within the teams will have a certain level of flexibility and fluidity according to the experience, skills and knowledge of the team's members, as well as the needs of the projects.

3. Communication

A communication plan has to be devised, taking into consideration the need for transparency and the responsibilities of the various parties involved. Key players of the municipal services and processes must be identified, as well as the main players involved on the technical side. These will receive the communications that must be carried out as frequently as appropriate for the objectives and needs of the projects. Face-to-face dialogue will take priority over other means of communication.

4. Transparency

The status of the project, priorities, risks, problems, tasks, landmarks, user-stories, contributions and possible "barriers" must be shared in an open and transparent manner with the key players, so that the challenges may be tackled quickly. This can be done using direct communication or tools adapted to Agile methodology.

5. Continuous improvement

Collaborative work practices will be established to promote a culture of learning and continuous improvement, both in the services provided as well as the capabilities of the teams' members.

6. Rapid feedback

Teams will do their utmost to make iterations as short as possible. Team practices will be implemented in such a way as to facilitate rapid feedback, and incorporate this feedback into the project backlog.

7. Acceptance to change

It is understood that plans and projects evolve and change throughout the provision of the service. Analysis and planning practices will be established to take this into account.

8. Iterative approach

Analysis, design, planning and development activities will adopt an iterative approach in short cycles to enable prompt feedback and changes to priorities according to needs.

9. Rapid and frequent deployment

Emphasis must be placed on providing value for end-users as quickly as possible, reducing the time it takes to put applications into production and receiving feedback from users in the shortest time frame. Priority will be given to the minimum viable product that meets users' priority needs, while the other functionalities will be deployed in subsequent deliveries.

10. Centred on offering value to the user

Users' needs must be put first, in priority to any other need, including those of the key players. Where there is a conflict of needs among the groups, we must ensure there are clear priorities. Diversity within teams will be promoted to foster inclusive designs.

11. Quality

Quality does not just refer to technical quality but also to quality of service. Quality must be present at every step in the process and everybody in the team has a responsibility to guarantee that the service is of a high standard.

12. Measuring progress

Delivering viable software is the main measure of progress. Other measures also need to be applied that reflect the value provided to users and the municipal services to ensure that they meet real needs and give real value to citizens.

3.2. TECHNOLOGICAL SOVEREIGNTY

To meet the objective of technological sovereignty set out in the Agile Digital Transformation Strategy and the Digital Service Standards, in particular to prevent dependency on suppliers (vendor lock-in), the following guidelines, which expand on the principles governing the IMI in technology and innovation (interoperability, agility, ethics and opening knowledge and technologies, both software and data related), are as follows.

3.2.1. Interoperability, free formats and standards

1. Interoperability

All Barcelona City Council's digital services will support interoperability based on the use of free standards and formats.

2. Using free standards

The City Council's digital services will use free standards on a mandatory basis, and in particular those set out in the catalogue of standards from the Technical Interoperability Standard (as implemented under Royal Decree 4/2010) or the internationally accepted free standards that update, replace or complement these standards. Where there is no approved free standard for a required format, a format that is intended to be used will be proposed, in accordance with the provisions of the applicable regulations and the IMI's requirements for free standards (as defined in the Guide to Technological Sovereignty that accompanies this Code).

3. Identifying formats and standards

The IMI will maintain public lists of technical formats and standards in use, classed as mandatory, priority or recommended.

4. Choosing standards

The choice of standards will follow an open and transparent process based on users' needs, flexibility, promotion of free competition and free collaboration and any implications for future interoperability. This process must be formally approved. The areas that have their own legal framework will comply with the specific standards applicable in that area (e.g. Geodata).

3.2.2. General guidelines on free software

5. Acquisition and priority use of free software

Preference will be given to the public procurement and acquisition of tools and systems that use free software, for all the technical architecture of the applications and services that are delivered, avoiding dependency on systems that are not free. The use of non-free solutions will be only be allowed in exceptional circumstances, which will be reviewed on a case-by-case basis, in accordance with criteria established in the Technology Procurement Guide.

6. Freeing software and documentation

Both internal and external projects for the development of digital services will be developed from the outset with a view to their freeing, in line with the best practices of free software development, and based by default on free technologies that allow the final product to be released in accordance with the City Council's policy and the applicable regulations. Documentation, design and other elements (sounds, typographies, etc.) will also be made available to third parties under free content licences.

7. Fostering reuse

Software acquisition will provide incentives for reusing existing solutions. Development projects in which the City Council participates will attempt, on top of being released under free software licences, to offer technical and organisational facilities for their reuse by third parties. Where software owned by the City Council and its associated entities cannot be released under a free software licence (for technical or legal reasons), it will be made available to other administrations without the need for any valuable consideration or agreement, in accordance with applicable regulations.

8. Sharing projects

Where appropriate, the possibility of collaborating with other public authorities and entities in the development of technological projects of interest will be studied, with a view to sharing costs and encouraging interoperability.

3.2.3. Projects

9. Preparation and preliminary projects

The preparation stage of contracts must show that an exhaustive search has been made into already existing and reusable possible solutions, both nationally and in international public repositories.

10. Technical and functional specifications

Proposed projects must not include any specification that prevents solutions with free technologies from being proposed, nor must they mention specific products or suppliers unless they are compatible with existing technologies, in accordance with the Guide to Technological Sovereignty. Architecture and inter-operability requirements, and the right and ability to modify and reuse the software of digital systems and services, will be regarded as part of the technical features and specifications.

11. Calculation of costs

Every decision on technology acquisitions will take into account the total cost of the system over the long-term useful life of the service (TCO, Total Cost of Ownership), including hidden costs (for example, exit costs to replace a technology in the future when formats or interfaces based on free standards are not used) as well as the net social benefits.

12. Procurement of projects and services

Contracts for new projects or extensions of existing projects will use standard clauses based on these principles, even in preliminary projects where a pre-selection of technologies is made, as well as in framework agreements and contracting in lots. These clauses will require the use of solutions based on free technology, except in exceptional circumstances as provided for in the Technology Procurement Guide.

13. Best development practices

The development of digital infrastructures and services will follow best practices in development methodologies for free software, employing by default the IMI's Agile methodology.

14. Code maintenance and documentation

During the lifetime of the contract, providers of ICT development services will collaborate with the IMI to keep the code available at all times in appropriate version-control systems. Similarly, every system and service must be properly documented and include the necessary instructions for the installation, deployment and configuration of services in free environments.

3.2.4. Openness, community and contributions

15. Collaboration with free software communities and other entities

Proposed projects will study the possibility of collaborating with the technology and free software communities, especially with local communities. Collaboration with other interested entities and institutions will also be encouraged, to promote social innovation and local technological products and skills.

16. Sustainability and governance

Projects that produce free systems and tools through a development service promoted and funded by the City Council must include a sustainability and governance model. This model will include an approximate definition of the community, support tools, communication and marketing activities, processes for external contributions, the management of intellectual property and the sustainability of the software beyond the project itself for the City Council.

17. External contributions

External players will be encouraged to make contributions to projects led or freed by the City Council. Specific rules adapted to each case will be established for the management of rights over contributions, with the objective of guaranteeing compliance with third-party rights and applicable law.

18. Upstreaming and forward compatibility

Where projects developed by City Council staff and/or providers improve or transform an existing free software product, such improvements and any corrections will be contributed, as far as possible, to the original project (*upstreaming*). Similarly, projects will ensure forward compatibility, as much as possible, so that software adapted for Barcelona City Council will reduce to the maximum the number of potential problems for updating and maintenance.

3.2.5. Legal aspects

19. Intellectual property in municipal software

City Council projects will establish a legal framework for clearly determining and managing intellectual property rights over software developments. Depending on each case, agreements will establish an ownership model, including options for assigning rights to the City Council or the IMI, leaving them in the hands of the provider, or assigning them to the entities that manage the relevant code for the project, as long as those relating to free projects are available under a free software licence.

20. Licences for freeing software

Software produced within the framework of the City Council's digital services projects, including software resulting from procurement agreements, will be made publicly available under a free software licence that complies with applicable regulations. The City Council will establish the criteria and requirements to determine the type of licence to use for each project.

21. Legal management of software-development projects

Projects must establish processes and documents for managing the legal aspects relating to intellectual property and software licences (in particular, in relation to contributions, licences over components used in development and other dependencies of the software), and in doing so, use best practices and standard or widespread-use tools in the sector, to guarantee the traceability and integrity of the code.

22. Trademarks

Where a trademark is registered to identify a software project freed by the City Council, a public-use policy will be established to allow members of the community of users and developers to use the mark within the framework of the community's activities.

3.3. RESPONSIBLE AND ETHICAL DATA MANAGEMENT

To meet the objective of responsible and ethical data management in the framework of the Digital Service Standards, the following guidelines under this Technology Code of Practice shall apply:

3.3.1. Scope

1. Scope

This Code of Practice covers the entire set of all municipal data. Municipal data can be divided, for conceptual purposes, into three large groups:

a) **Management data:** these are the datasets that the various municipal management offices and entities use for carrying out their work.

b) **Open data**: These are the datasets that the municipal corporation makes available to the public in raw format.

c) **Official statistics**: These are the statistics obtained by the City Council on various datasets, and which are considered Official Statistics. Only the first set (management data) can include **personal data.**

2. Repositories

The City Council has various repositories available for each type of dataset. Their definition and management will be linked to the set of technological requirements set out in this Code, as well as data-protection legislation. There is a transversal comprehensive data repository, within the City OS, which constitutes a single analytical repository of municipal data. The City OS will be able to include an analytical dashboard of any of the management datasets.

3.3.2. Data management

3. Management based on evidence

Municipal services will be managed on the basis of data-based evidence. The datasets currently available to the City Council (the Data Lake) will be managed in a more efficient and transversal way so that they can return much greater value to citizens, and allow more complex analyses developed by Data Science.

4. Planning

In order to support the management needs and mission of Barcelona City Council, each business unit will develop and maintain its own Data Management Plan (PMD) to define the objectives of its own information technology resources. The objectives must be specific, measurable and verifiable so that their progress can be monitored.

5. Inventory and activity records

Business units will keep an inventory of the principal information systems, their containers and dissemination tools, with a level of detail appropriate for their supervision and management. In addition, each business unit will keep a record of all the actions taken in both management and analytical databases The Office of the Municipal Data Director (DMD or CDO) will determine the meta-information of these systems.

6. Data management

Business units will continuously enable the adoption of new technologies and evaluate the entire life-cycle of each information system. Entities will incorporate the following steps, where appropriate, in planning, budget definition and management:

• Municipal data will be ethically managed during their entire life-cycle (creation, collection, storage, use-analysis, dissemination, archiving and destruction).

• Municipal information is managed by enabling its access, consultation and use by the public on the basis of legal provisions in force.

- Activities carried out on the data will be recorded within an extensive set of meta-information.

- Risks to privacy and security will be identified throughout the life-cycle of the data, performing risk analyses and developing security solutions.

- Data management will involve a clear allocation of roles and responsibilities to promote the efficient design and operation of all the management processes.

7. Architecture

Business units will develop an architectural description (AD) that depicts the architecture that is available, the target architecture and the plan to achieve the latter. The AD for each unit must be in line with the PMD. The AD must identify which roles may have access to systems and which profiles have access to particular information, and under which circumstances.

8. Interoperability of data and formats

Business units will promote the opening up of municipal data (Open Data) and interoperability based on free formats, subject to existing technical and legal requirements, to increase the public's access to municipal information and make operations more efficient, reduce costs and improve services for citizens. Open data will be provided in a machine readable format (i.e. CSV, XML, JSON or other similar formats that facilitate fine-grained automatic data processing and transformation), and updated regularly.

9. Risk management

Business units must apply and document appropriate safety measures for designated information and data, records management, transparency, impact assessment and supply chains, and do so during the entire data cycle so that the risks are assessed and managed.

10. Resilience plan

Each unit will develop a Resilience Plan. The Resilience Plan is crucial so that services can continue to operate and carry out tasks during disruptions.

11. Privacy and the protection of personal data

Municipal units will only be able to create, collect, use, store or disseminate personal data when they have the required authorisation. Business units must establish and maintain a data protection programme which ensures compliance with applicable regulations (in particular, Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016) and other privacy requirements, which assesses and manages privacy risks.

12. Privacy by design and pets

Measures must be taken to incorporate when necessary privacy by design strategies and/or privacy enhancing technologies (PETs), through which the privacy of data subjects is taken into account during all the processes for designing, developing and managing the City Council's information systems. When applicable, encryption algorithms, data anonymization or pseudonymisation must be employed.

13. Impact assessments

Business units will carry out privacy impact assessments aimed preventively at ensuring that, where data processing may involve especially serious risks, the necessary measures are taken to reduce, as far as possible, the risk of damaging or prejudicing people or of negatively affecting their rights and freedoms, blocking or restricting their exercise or content.

14. Data security

The physical security of the data will be determined by the standards defined by the IMI. In any event, any third party in charge of data processing must offer sufficient guarantees regarding the implementation and maintenance of required security measures, and the other guidelines defined in this Code and the future Data Strategy of Barcelona City Council.

3.3.3. Roles and governance

15. Roles and responsibilities

The municipal organisation will adapt the roles and responsibilities of managers and business units for the purposes of observing the requirements of this Code. A Municipal Data Manager will be appointed to head the Municipal Data Analytics Office, and each unit will have an officer responsible for data who will carry out this role for each of the bodies in charge of data. Pursuant to Regulation (EU) 2106/679, the City Council will appoint a corporate Data Protection Officer with the functions assigned by this regulation.

16. Corporate management – governance

The management offices and bodies will comply with the regulations and instructions regarding the management of data, information and municipal documents that are passed by the executive bodies, which will be developed on the basis of the Responsible Data Management Strategy led by the Commissioner for Technology and Digital Innovation.

17. Data directive

The Municipal Data Strategy that will be developed under this Code and the corresponding Government Measure on the Barcelona City Council Data Strategy, will establish the technical details for the development of municipal data management.

Appendix A: References

The guides cited this Code have a detailed bibliography for each area (Barcelona City Council Guides on Agile Methodologies and Technological Sovereignty).

A.1. EUROPEAN UNION

- Communication COM (2013) 455 final: "*Against lock-in: building open ICT systems by making better use of standards in public procurement*". Available online at *http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=2327*

- SWD (2013) 224 final: "*Guide for the procurement of standards-based ICT — Elements of Good Practice*". Available online at *http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=2326*

- "*The Sharing and Reuse Framework for IT Solutions*", (2016). Available online at *https://join-up.ec.europa.eu/sites/default/files/sharing_and_reuse_of_it_solutions_framework_final.pdf*

- "*Governance Models for Sharing and Re-use for Common IT Solutions*," 2013. Available online at *https://joinup.ec.europa.eu/sites/default/files/b6/cc/cd/Governance%20Models%20for%20Sharing%20and%20Re-use.pdf*

A.2. SPAIN

- Technical interoperability standard, in the PAE (e-Government Portal) *http://administracionelectronica.gob.es/pae_Home/pae_Estrategias/pae_Interoperabilidad_Inicio/pae_Normas_tecnicas_de_interoperabilidad.html*

A.3. BARCELONA CITY COUNCIL

- Document Management Policy *http://ajuntament.barcelona.cat/arxiumunicipal/sites/default/files/InstruccioPoliticaGD_cat.pdf*

- Geoportalbcn, *http://www.bcn.cat/geoportal/es/estandards.html*

A.4. OTHER DOCUMENTS

- Agile Manifesto: *http://agilemanifesto.org/iso/en/manifesto.html*

- Agile Principles: *http://agilemanifesto.org/iso/en/principles.html*

- Open Standards Requirement for Software, *https://opensource.org/osr*

- Definition of Free Software: *https://www.gnu.org/philosophy/free-sw.ca.html* (original in English at *https://www.gnu.org/philosophy/free-sw.en.html*).

- Definition of Open Source: *https://opensource.org/osd*

- Paris Declaration of the Open Government Partnership, available online at *https://paris-declaration.ogpsummit.org/*

A.5. REFERENCE LIST OF RELATED DOCUMENTS

- Reference list of the Agile Methodologies Guide, https://www.barcelona.cat/digitalstandards/en/agile-methodologies/references

- Reference list of the Technological Sovereignty Guide, https://www.barcelona.cat/digitalstandards/en/tech-sovereignty/references

- Reference list of the Government Measure on Ethical Data Management, https://www.barcelona.cat/digitalstandards/en/data-management/references