

GUIDANCE FOR THE DEPLOYMENT OF DATA PORTALS

Good practices and recommendations for designing, developing and deploying open data portals at the municipal level



STRATEGIC FRAMEWORK

It is not a stand-alone project: the open data initiative must be integrated within a strategic plan that includes:

- Main purpose.
- Target groups.
- Priority areas for action.
- Human, technological and financial resources.

An open data portal project involves the development of a **data governance model and a Plan of measures to boost openness and reuse of open data (RISP Plan in Spanish)**, where:

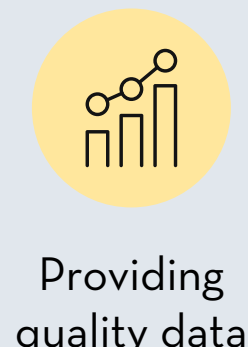
- A governance model for open data is established.
- The reuse conditions are defined with their licensing model.
- A tentative agenda for opening datasets is proposed.
- Actions are indicated to stimulate internal and external diffusion and reuse.
- A clear methodology for selecting datasets is included.



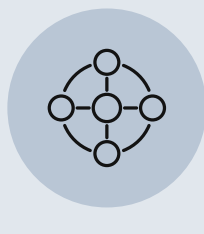
SOME SUPPORTING RESOURCES:

- [80 minimum datasets to be published](#) (Spanish Federation of Municipalities and Provinces - FEMP).
- [FEMP Model Ordinance on Data Governance in Local Entities](#) (Spanish Federation of Municipalities and Provinces - FEMP)
- [Standard UNE 178301:2015 "Smart Cities.. Open Data"](#) (Spanish Association for Standardisation and Certification - AENOR).
- [Guidance and templates for the RISP Plan](#) (datos.gob.es).

GENERAL REQUIREMENTS



Providing quality data



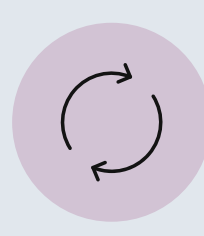
Ensuring interoperability



Prioritising accessibility



Complying with regulations



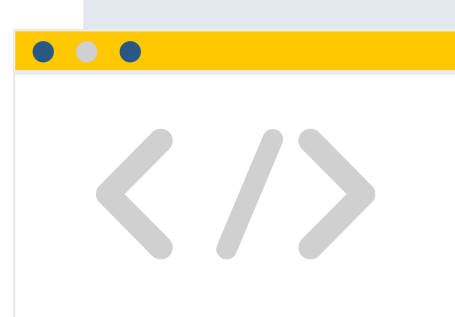
Promoting re-use



Providing support tools



Sustainability must not be forgotten



TECHNICAL AND FUNCTIONAL GUIDELINES

TECHNICAL INFRASTRUCTURE:

- **Scalable and robust architecture**, leveraging cloud technologies.
- **Efficient storage** combining several systems (relational, time series, NoSQL, hybrid and multi-modal databases, object storage services, triplestores, etc.).
- **Integration of tools that automate** data flows from primary sources to the portal (one ETL for each primary source).
- **Compatibility of the portal with nodes and infrastructures IoT (Internet of Things)** to integrate constant real-time data streams.
- **Performance and availability management** through an infrastructure that manages load balancing, sessions and content distribution.
- **Monitoring and maintenance** with tools that identify problems in real time.
- **Implementation of APIs**, with comprehensive and complete documentation to ensure high availability and fast response times.

PORTAL STRUCTURE (NAVIGATION AND USABILITY)

- **User-centred design**, simple and clear.
- **Clear navigation structure**, with a precise and fast search engine.
- **Compliance with web accessibility standards**, including content in more than one language and optimised for mobile.
- **User assistance tools**, such as tutorials and support systems.
- **Elements that help visualise the data** and facilitate the interpretation of the information.
- **User experience monitoring**, with continuous feedback mechanism and data request forms.

INTEROPERABILITY AND STANDARDS

- **Compatible and reusable formats**, both technical (JSON, GeoJSON, RDF) and non-technical (CSV, XLS).
- **Use of controlled vocabularies** to describe and classify data in a coherent and understandable way.
- **Descriptive and comprehensive metadata** based on open standards (DCAT-AP).

IDENTIFICATION AND PRIORITISATION OF DATASETS

- **Criteria for identifying datasets**, starting with a comprehensive inventory of available data.
- **Prioritisation of datasets based on common criteria**, such as their social and economic impact, citizen demand, technical effort, etc.
- **Planning for progressive opening**, starting with those with the highest quality, high demand and for which publication is a reasonable effort.

QUALITY METRICS AND INDICATORS

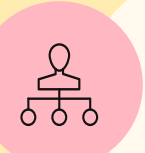
Measurement domains for the maturity of the openness process and the use and impact of the data published



Strategic: assesses the capacity and implementation of the agency's strategic policy.



Legal: assesses the existence and verification of laws and regulations that facilitate the implementation of policies and activities.



Organisational: assesses management and capacity building, together with the degree of openness, re-use, impact and commitment.



Technical: assesses the availability, access, quality and updating of data, together with the enablement and management of dataset catalogues.



Economic and Social: assesses the mechanisms linking data producers (public agencies) and re-users.

Do you want to go deeper into the subject?
You can read the full article [here](#)



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