

## Frictionless data & DCAT

MATTEO FORTINI - Italian National Department for Digital Transformation 2023-01-26





## **Department for Digital Transformation**

#### **COMMUNITIES**

#### **Developers Italia**

Community of coders and civil servants to cooperate in the development of digital solutions and policies. Promoting the reuse of code through open source.

#### **Designers Italia**

Community of designers and coders which develop accessible, up to date, responsive and flexible solutions for publishing web content. It publishes policies, design kits and sample websites and CMS themes.

#### **Open Goverment and Open Data**

Collaborating with other administrations and the public to promote transparency and open government practices. Using open data to address problems together.



## **Department for Digital Transformation**

#### **PROJECTS**

#### **PDND**

National Digital Data Plaform, API Catalog, National Data Catalog for semantic interoperability, guidelines for technical interoperability

#### **Repubblica Digitale**

Improving digital competencies, not leaving anyone behind.

#### Cloud

Developing policies and infrastructure for digital sovereignity and critical data protection.

#### Connectivity

Connecting all buildings with at least 1Gbps bandwidth

#### **Digital Identity**

SPID/CIE, eIDAS, digital wallet

#### **ApplO**

One application to interact with all the Public Administrations

#### **ANPR**

National registry of resident population

#### **PagoPA**

One single point of contact for making payments to Public Administration

#### **MaaS Italy**

Enabling nation-wide mobility and interoperability

#### e-Health

Developing (inter)national digital services for health support



## DIRECTIVE (EU) 2019/1024 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

# On open data and the re-use of public sector information

Documents produced by public sector bodies [...] constitute a vast, diverse and valuable pool of resources that can benefit society. Providing that information, which includes dynamic data, in a commonly used electronic format allows citizens and legal entities to find new ways to use them and create new, innovative products and services.

#### TRANSPARENCY AND ACCOUNTABILITY

Allowing the re-use of documents held by a public sector body adds value for the benefit of re-users, end users and society in general and in many cases for the benefit of the public sector body itself, by promoting transparency and accountability.

#### **DATA BASED SOCIETY**

The evolution towards a data-based society, where data from different domains and activities are used, influences the life of every citizen in the Union, inter alia, by enabling them to gain new ways of accessing and acquiring knowledge.

#### **ECONOMY**

Public sector information represents an extraordinary source of data that can contribute to improving the internal market and to the development of new applications for consumers and legal entities. Intelligent data usage, including their processing through artificial intelligence applications, can have a transformative effect on all sectors of the economy.



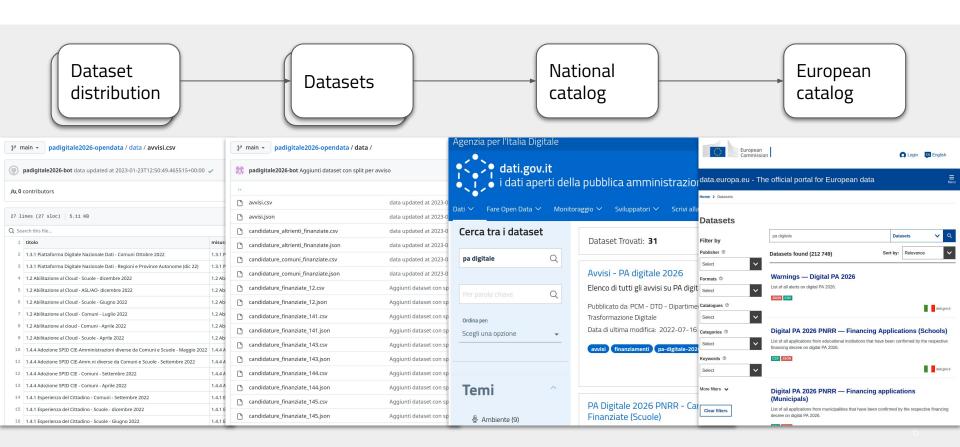
#### **ITALIAN GUIDELINES ON OPEN DATA (PENDING APPROVAL)**

# Application of these guidelines is not limited only to documents, but it applies also to data contained in those documents.

This means, for example, that if a report with embedded tables is published, **both the document** and the tables must be published separately

## Open data publishing chain





Attribution 4.0 International)

Descrizione dataset

Avvisi PA digitale 2026

Candidature finanziate Comuni Candidature finanziate Scuole

Candidature finanziate Altri Enti

## PA Digitale 2026 open data







Link

JSON [7]

JSON [7]

JSON []

JSON [7]

CSV [7]

CSV

CSV 🕜

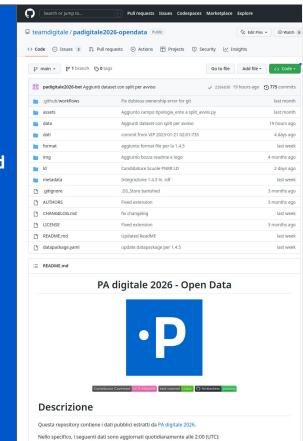
CSV [7]

**Next Generation EU funds** (€191.5 Bln) + Own funds (€30.6 Bln) for a total of €222.1 Bln

€ 6.74 Bln are dedicated to public sector digitalization and innovation (around 20,000 administrations are involved)

PA Digitale 2026 platform to manage all the complexity

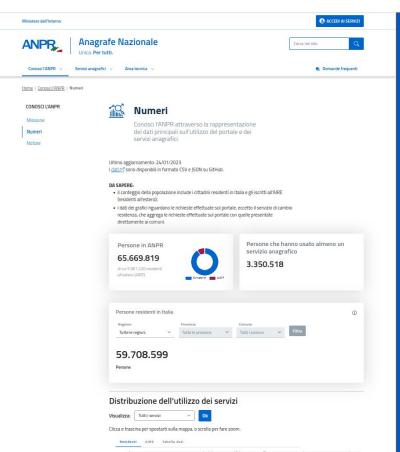
Transparency, accountability, open government



## ANPR open data O PUBLIC DOMAIN





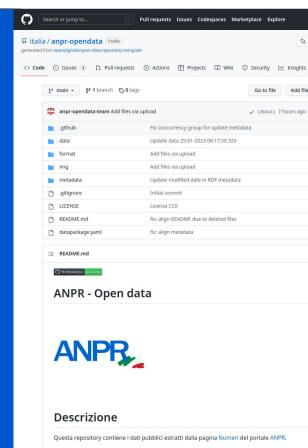


**National Population Registry** 

Interoperability vs all public administrations (once only principle)

Availability of certificates to use outside the public administrations.

Statistics, transparency, accountability, open government





#### **OPEN DATA PUBLICATION**

## How, where and what?

#### **AUTOMATIC DATA PUBLICATION**

We use scripts to publish data typically every day

#### **GITHUB REPOSITORY**

GitHub is flexible and allows a presentation publication along with raw data

#### **CSV and JSON**

One format for the web, the other for data analysis

#### FRICTIONLESS METADATA AND ACTIONS

Frictionless metadata is a standard and effective way to document data and it allows to use Actions for **data quality** 

#### DCAT-AP\_IT

Italian guidelines for data catalogs mandate the insertion of metadata in the DCAT-AP\_IT format (RDF/TTL). Some of the attributes are mandatory, while others are optional. These metadata are harvested and published by the national open data catalog

#### Metadata

Which catalogs are available?

Which datasets in each catalog?

Contents Themes License

DCAT\_AP-IT

Which distributions for each dataset?

Which data in each dataset?

## **Frictionless**

Attributes description Datatypes Constraints



#### THE DREAM...

## One metadata to rule them all...

Adding one file for each dataset describing both the catalog information and the data description and attributes.



# **THANK YOU**

matteo.fortini@teamdigitale.governo.it