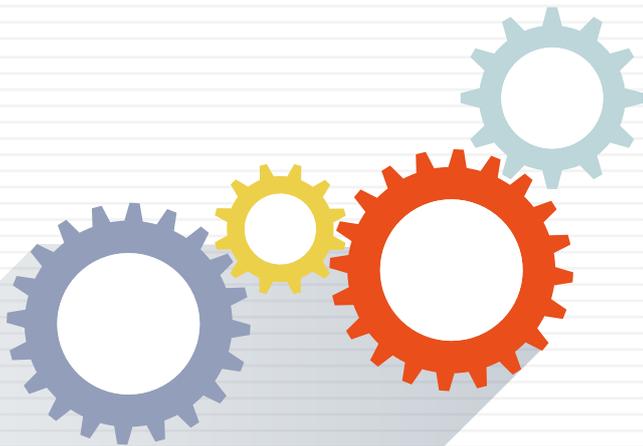


FACILITATING DISCOVERY, EXCHANGE AND REUSE OF INFORMATION

ENSURING INTEROPERABILITY BETWEEN INFORMATION SYSTEMS



METADATA REGISTRY



Today, the concepts of discovery, exchange and reuse of information are omnipresent. But how can we make data understandable between information systems? This is where metadata come into play. Metadata are 'data about data', which are used to describe information (in any format — documents, data, audio files, etc.). They allow easy exchange of information and facilitate search, but in order to do so they need to be standardised, so that various systems can use the same 'language' to talk to each other.

In the context of EU information, metadata are created by many organisations, ranging from EU institutions to other EU offices, bodies and agencies. Therefore it is not surprising that over the years a myriad of codes have been created in different systems to identify concepts such as countries, languages, legislative procedures, etc. This variation of codes and metadata elements may hinder data exchange between applications (interoperability) and lead to poor search results for users. Additionally, extra work is needed for referencing and updating data in multiple systems. And in the environment of EU institutions, agencies and bodies there is one additional complication — multilingualism.

To address the above challenges, the Publications Office of the EU, which is the main centre of competence in the field of documentation, structuring and dissemination of EU information, has launched the Metadata Registry (<http://publications.europa.eu/mdr>).

The Metadata Registry contains standardised metadata and other reference data assets, such as data models, controlled vocabularies and information exchange protocols. All of these resources, which are maintained centrally, are used to facilitate the discovery and retrieval of digital resources managed by EU institutions, agencies and bodies. They are also used by EU Member State public administrations and other organisations.

The Metadata Registry currently contains 90 assets which are regularly updated and checked for accuracy. Moreover, new assets are continually being developed in the context of standardisation activities such as the interoperability solutions for European public administrations (ISA) programme. New versions of assets are always accompanied by documentation in the form of release notes and users have the option of signing up for notifications of new releases of the assets they are interested in. The controlled vocabularies contained in the Metadata Registry are multilingual, with most labels available in all of the official EU languages.



AUTHORITY TABLES



Authority tables, which form an integral part of the Metadata Registry, have been designed to harmonise codes and related labels used across various information systems. The Publications Office currently maintains authority tables that cover concepts of general interest such as countries and languages, as well as more EU-specific concepts such as the names of EU legislative procedures. Each concept in an authority table is identified by a unique identifier and is associated to one or more labels translated into all the official EU languages.

For example, many information systems make use of a countries code list. However, the code used to identify a country often varies per system. This hinders interoperability between systems. As a solution, the countries authority table (<http://publications.europa.eu/mdr/authority/country/index.html>) provides an exhaustive list of countries with associated labels in all the official EU languages, with each country identified by its unique authority code. Additionally, since countries may cease to exist or their names can change, the Publications Office tracks the evolution of concepts over time and updates the codes and labels accordingly.

Where possible, the authority tables are based on existing standards, such as standards and recommendations from ISO, W3C (World Wide Web Consortium), DCMI (Dublin Core Metadata Initiative) and other international standardisation bodies. They are available in human-readable formats (such as HTML) and machine-readable formats (such as SKOS). New versions of the authority tables are published on the MDR website (<http://publications.europa.eu/mdr>) and are also available on the EU Open Data Portal (<https://open-data.europa.eu/en/data/dataset?tags=controlled+vocabulary>) as datasets.

The authority tables are used for the exchange of information not only by the EU institutions but also by EU Member States' public administrations. Additionally, they are used in international standards such as the DCAT application profile, which is used for describing public sector datasets in Europe.

Similar authority tables can be found in national libraries in EU Member States (e.g. in the British Library: <http://www.bl.uk/bibliographic/authority.html>) and in libraries all over the world (e.g. in the Library of Congress: <http://id.loc.gov/>).

EUROVOC



EuroVoc, another important resource maintained by the Publications Office, is a multidisciplinary thesaurus that offers around 6 800 concepts available in 23 official EU languages and three languages of EU candidate countries. The concepts are classified according to EU policies and fields of activity. EuroVoc is used to index the content of EU legislation in EUR-Lex as well as the content of EU publications disseminated by the Publications Office. Since EuroVoc concepts are language independent, users can search for a concept in their own language and get the results in a different language.

EuroVoc users currently include EU institutions, agencies and bodies, national and regional parliaments in Europe, as well as national governments and private users around the world.

EuroVoc is accessible for browsing and searching through its website (<http://eurovoc.europa.eu>). It is also available for download from the EU Open Data Portal (<https://open-data.europa.eu/en/data/dataset/eurovoc>) in machine-readable formats such as XML and SKOS/RDF. Additionally, a number of web services allow users to query EuroVoc and to display or use the results directly in their applications: <http://eurovoc.europa.eu/drupal/?q=webservice&cl=en>. To ensure broader coverage, EuroVoc is aligned with more specialised thesauri, such as the INSPIRE Feature Concept Dictionary, the thesaurus of the Food and Agriculture Organisation (AGROVOC) and the thesaurus of the United Nations (UNBIS).