



Il Portale Europeo dei Dati

**Ciclo di webinar per la Settimana
dell'amministrazione aperta 2017**

8/3/2017: Come organizzarsi per gli open data

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Open (public) data: Why it matters for Europe

- The public sector is an important component of the data ecosystem: key user and producer of data
- Untapped business and economic opportunities: data is the new gold. Between 2016-2020, the direct market size for open data is expected to increase by 36.9%, to a value of 75.7 bn €
- Better governance and citizen empowerment: open data increases transparency, citizen participation and administrative efficiency and accountability
- Addressing societal challenges: data can enhance sustainability of health care systems; essential for tackling environmental challenges
- Accelerating scientific progress: e-science essential for meeting the challenges of the 21st century in scientific discovery and learning



- **2011**
 - **Communication on Open Data ([COM\(2011\)882](#))**
 - **Update of the Commission's decision on re-use ([2011/833/EU](#))**
- **2012**
 - **Launch of the [EU Institutions Open Data portal](#)**
- **2013**
 - **Adoption of the Directive ([2013/37/EU](#)) amending the PSI Directive**
- **2014**
 - **Commission Communication "[Towards a thriving Data-Driven Economy](#)"**
- **2014-2020**
 - **Digital Service Infrastructure for Public Open Data in the [Connecting Europe Facility programme](#)**
- **2015**
 - **Adoption of the [Digital Single Market Strategy](#)**
 - **Launch of the [European Data portal](#)**
- **2017**
 - **[Communication COM\(2017\)9](#) of 10/1/2017
Building a European data economy**



Access to re-usable Public Sector Information (PSI)

- **Information produced and collected by the public sector** can benefit EU citizens and businesses when made available as open data
- Directive 2003/98/EC and its revision 2013/37/EU on the re-use of public sector information
 - ✓ creation of a genuine right to re-use public information
 - ✓ new default charging rule based on the marginal cost



Commission Decision 2011/833/EU

- Reuse of Commission Documents, open to other EU institutions
- Establishes the EU institutions open data portal <http://data.europa.eu/euodp>
- Charges for re-use limited to the marginal costs (in exceptional cases, not applied to electronic products)



Communication COM(2017)9 of 10/1/2017 Building a European data economy

- Per sfruttare al massimo i dati a vantaggio dell'economia europea, la Commissione intende:
- avviare dialoghi strutturati con gli Stati membri e le parti interessate per discutere sulla proporzionalità delle restrizioni alla localizzazione dei dati, puntando anche a raccogliere ulteriori elementi concreti sulla natura di queste restrizioni e sul loro impatto sulle imprese, in particolare le PMI e le start-up, e le organizzazioni del settore pubblico;
- adottare, se necessario e opportuno, misure di esecuzione e, all'occorrenza, intraprendere ulteriori iniziative per ovviare alle restrizioni ingiustificate o sproporzionate in materia di localizzazione dei dati.
- La Commissione ha inoltre esaminato le incertezze giuridiche derivanti dalle questioni emergenti all'interno dell'economia dei dati e sta valutando le possibili risposte politiche e giuridiche sui seguenti aspetti:
- **Accesso e trasferimento dei dati** un ampio uso dei dati automatici non personali potrebbe dar vita nell'UE a grandi innovazioni, start-up e nuovi modelli aziendali all'avanguardia a livello mondiale.
- **Responsabilità per i prodotti e i servizi basati sui dati.** Le norme vigenti dell'UE in materia di responsabilità non sono adatte agli attuali prodotti e servizi basati sui dati.
- **Portabilità dei dati.** Nel contesto attuale può essere difficile garantire la portabilità dei dati non personali, ad esempio quando un'impresa intende trasferire notevoli quantitativi di dati aziendali da un fornitore di servizi cloud a un altro.

[Public consultation on Building the European data economy](#) open until 26/4/2017



data.europa.eu



The [European Union Open Data Portal](#) is your single point of access to open data produced by **EU institutions and bodies**.



The [European Data Portal](#) harvests the metadata of Public Sector Information available on public data portals across **European countries**.

Resources with persistent URIs of the EU institutions and bodies

- [ADMS Controlled Vocabularies](#)
- [Core Vocabularies](#)
- [DCAT-AP](#)
- [Digital Object Identifier \(DOI\)](#)
- [EU Budget Vocabulary](#)
- [European Interoperability Reference Architecture \(EIRA\)](#)
- [European Legislation Identifier \(ELI\)](#)
- [European Skills, Competences, Qualifications and Occupations \(ESCO\)](#)
- [Joint Research Centre Data Catalogue](#)

“We harvest Open Data made available by all public administrations across Europe.”

What do we do?

- 1. We offer metadata in 24 languages, we visualise, we offer quality checks for over 600K datasets**
- 2. We train a suite of learning experiences in the field of Open Data from publishing to the re-using Open Data**
- 3. We showcase Open Data events, Open Data news, Open Data best practices, Open Data reports, etc**
- 4. We collect by inviting stakeholders to share their stories, their feedback, their portals**
- 5. We convene: meetings, webinars, events to discuss open data best practices, challenges and next steps**
- 6. We share our source code and promote open source and re-use of components and standards**



Launched on 16 November 2015 in beta
V2 March 2017

- +600K metadata sets
- 34 countries covered
- 76 catalogues
- 13 categories to structure metadata
- Metadata quality assessments
- 24 languages for static content and metadata
- Visualisations & maps applications
- A Goldbook for data holders
- Training and eLearning material
- A library with learning material, re-use examples, presentations
- Featured highlights & featured data
- Weekly Open Data news

The European Data Portal is a central hub providing access to all the information (metadata) about the data made accessible throughout Europe

The screenshot shows the European Data Portal website. At the top, there is a navigation bar with the logo and the text 'PORTALE EUROPEO DEI DATI'. Below the navigation bar, there is a search bar with the text 'Ricerca dati' and a search button. The main content area is divided into several sections: 'Cerca set di dati per categoria di dati' (Search for data sets by category), 'Uttime notizie' (Latest news), 'Eventi sui dati aperti in Europa' (Open data events in Europe), 'Punti salienti' (Highlights), and 'Tweet di @EU_DataPortal'. The 'Cerca set di dati per categoria di dati' section includes a grid of icons representing various categories such as Agriculture, Energy, Regional and cities, etc. The 'Uttime notizie' section features a list of recent news items with dates and titles. The 'Eventi sui dati aperti in Europa' section displays a calendar of events. The 'Punti salienti' section highlights key news items. The 'Tweet di @EU_DataPortal' section shows a tweet from the European Data Portal.





European

A Goldbook for data providers

 Open Data in a Nutshell

 How to build an Open Data Strategy

 Technical preparation & implementation

 Putting in place an Open Data lifecycle

 Ensuring and monitoring success

<http://www.europeandataportal.eu/sites/default/files/goldbook.pdf>
<http://www.europeandataportal.eu/en/content/providing-data/open-data-goldbook>

eLearning Modules

Step 1: Introduction to Open Data



Step 3: Technical deep dive




Step 4: Where next with Open Data?

<http://www.europeandataportal.eu/en/content/training-library/elearning>

Library

-  Economic analysis
-  Landscaping report
-  Source code
-  Use cases
-  Further training material
-  Country reports
-  Featured highlights

Training Companion

-  Practicalities to run own Open Data workshops

<http://www.europeandataportal.eu/en/content/training-library/library>
<http://www.europeandataportal.eu/en/content/training-library/training-companion>

Online learning is complemented by tailored support to countries

Guida alla formazione

Benvenuto nella guida alla formazione del Portale europeo dei dati. Ti offriamo una serie di moduli di formazione sulle nozioni di base dei dati aperti e materiali di supporto che potrebbero esserti utili.



Di seguito troverai una lista di 13 brevi sessioni di formazione (1-3 ore) create appositamente per scoprire i dati aperti. Le sessioni corrispondono ai 13 moduli di formazione online [🔗](#) creati dal Portale europeo dei dati.

Ogni sessione copre un aspetto diverso della formazione sui dati aperti. Le sessioni sono adatte per tutti i livelli, dai principianti agli esperti.

Come usare il nostro materiale di formazione

Il Portale europeo dei dati non offre alcun supporto per l'utilizzo del materiale di formazione messo a disposizione. L'utilizzo del materiale è a discrezione del singolo formatore e non dovrebbe essere presentato come rappresentazione del parere o della posizione della Commissione europea, del Portale europeo dei dati o delle istituzioni partner coinvolte nella creazione del portale.

Licenza

Tutti i materiali sono messi a disposizione sotto licenza CC-BY-SA (Creative Commons Share-Alike Attribution). Nella tua presentazione è necessario inserire un'adeguata citazione delle fonti e un link a qualsiasi slideshare o altro account sul quale il materiale è messo a disposizione via email.

What is Open Data?	Unlocking value from Open Data	Open Data as an agent of change	Open Data licensing	Making data usable
Measuring success in Open Data initiatives	Open Data sustainability	Open Data platforms	Open Data formats	When & How to use the 3 Stars of Open Data
Cleaning Open Data	Unlocking hidden data from the web	Introduction to linked data		



European Commission

Factsheets - Information on specific topics regarding Open Data portals

- Controlled vocabularies:** Learn what controlled vocabularies are and how to use them
- Data formats:** Common data formats Open Data
- DCAT-AP:** Information on the DCAT application profile for data portals in Europe
- Short overview of CKAN:** Short overview of CKAN
- Short overview of licences:** Introduction to licences for Open Data
- The EDP harvester:** Detailed information on how to be harvested by the European Data Portal

Controlled vocabularies

Important aspects while using controlled vocabularies

- A controlled vocabulary is a restricted list of words or terms used because only terms from the list may be used for the subject area. Vocabularies also have some form of cross-references pointing from designated "preferred" term.
- Specific types of controlled vocabularies:
 - Thesaurus:** A thesaurus is a more structured kind of controlled vocabulary.
 - Taxonomy:** Has become a popular term now for any hierarchical classification
 - Ontology:** Set of concepts with attributes and relationships between the various domain of knowledge, and is expressed in a format that is machine-readable.
- The controlled vocabulary used to describe metadata is DCAT, Data <http://www.w3.org/TR/vocab-dcat/>
- The European Commission has created a Linked Open Data vocabulary about DCAT-AP can be found in the dedicated DCAT-AP v1.1 overview <http://www.europeandataportal.eu/en/content/training-library/library/edp-reports>
- For more general information and training about metadata, please see <http://w3c.github.io/dwbp/bp.html#metadata>
 - <http://europeandataportal.eu/en/content/training-library/library>
 - <https://theodi.org/guides/mark-up-your-dataset-with-dcat>
- Examples of important controlled vocabularies are available on the <http://www.europeandataportal.eu/en/content/training-library/library/edp-reports>

Why do you license?

In order for data to be open, it should be accessible (this usually means for anyone to access, use and reuse)

- The data is not freely re-usable if you do not attach a licence to it.
- There are many different types of licences you can apply, for instance one of the Creative Commons (CC) licences.
- A Public Domain Dedication is part of the CC licences and important to attach as it indicates that the public domain is the author of the data. More information is available on their website: <https://creativecommons.org/licenses/publicdomain/>
- The Open Data Institute created a comprehensive publishers guide to Open Data licensing: <https://theodi.org/guides/publishers-guide-open-data-licensing>
- Furthermore, the European Commission has published an introduction to data and metadata licensing: http://www.europeandataportal.eu/sites/default/files/d2.1.2_training_module_1.4_introduction_to_metadata_management_en_eop.pdf
- Some examples of licences that are used most often and key tips are shown on the next slide.

DCAT-AP v1.1

Important aspects to keep in mind

- The DCAT Application profile for data portals in Europe (DCAT-AP) vocabulary (DCAT) for describing metadata of public sector datasets. It is the standard used by the European Data Portal as well.
- Version 1.1 is released end of 2015 and available here: https://joinup.ec.europa.eu/asset/dcat_application_profile/asset
- DCAT-AP validation tool is available here: https://joinup.ec.europa.eu/software/dcat-ap_validator/asset
- The next slide provides the mandatory and recommended classes.

Benefits of DCAT-AP

By using a common metadata schema to describe:

- Data publishers increase the discoverability of their data
- Data re-users can search across platforms without the use of separate models or language

How to be harvested by us

Important aspects for the EDP harvester

- Metadata standard: CKAN / INSPIRE / DCAT-AP
- Metadata representation: XML / JSON
- API type: CKAN / OAI-PMH / dump file
- Controlled vocabulary is used for the categorization, consisting of 13 categories. The harvested portal should use the same categorisation or map their categories against the 13 provided
- The European Data Portal harvester is configured manually per portal by the EDP team using the information provided

Overview Comprehensive Knowledge Archive Network (CKAN)

What is CKAN?

- CKAN is an open source data management system for powering data hubs and portals. The most popular way of publishing Open Data is by uploading it to a portal.
- CKAN makes it easier to publish, share and use data. It is open source code and therefore, it is continuously improved and free of charge.
- CKAN is used by governments, organisations and communities.
- An internal model is used to store metadata about different records, and presents it on a web interface that allows users to browse and search this metadata.
- To use CKAN, a content management system (CMS) is required. Some recommendations are:
 - Drupal, more information can be found [here](#)
 - Wordpress, more information can be found [here](#)
 - Django, more information can be found [here](#)

How to use CKAN?
For a live demo, click [here](#)

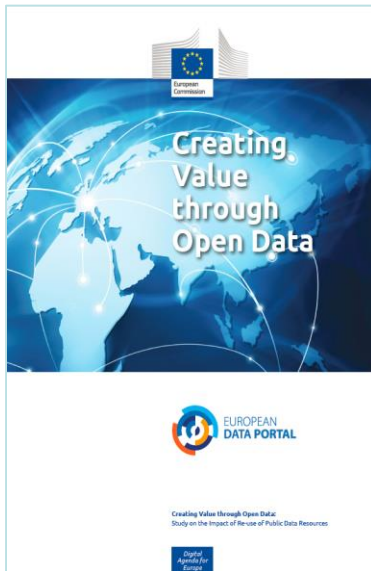
More information on CKAN can be found on their [website](#)



The European Data Portal also aims at fostering the reuse of public data resources

Economic Benefits of Open Data

Metrics to measure economic impact




https://www.europeandataportal.eu/sites/default/files/edp_creating_value_through_open_data_0.pdf

Community Engagement

Reports to drive understanding and reuse

Analytical report Open Data & Digital Transformation

Follow us 

Is Open Data used equally throughout all industry sectors? What do most companies use the data for? Learn more!

Digital Transformation is the increasing adoption of digital tools and technologies by any organisation to fundamentally enhance both its internal and external processes and functions. It consists of three key areas every organisation needs to focus on: customer experience, operational process and business model. In order to study the relation between Open Data and Digital Transformation, more than 600 use cases from the private sector were gathered, from all over the world.


Customer Experience	Operational Process	Business Model
<ul style="list-style-type: none"> Customer understanding Top line growth Customer touch points 	<ul style="list-style-type: none"> Process digitisation Worker enablement Performance management 	<ul style="list-style-type: none"> Digitally-modified business New digital business Digital globalisation

Why is it important for companies to digitally transform their business? Research has shown that companies that have both a digital capability and digital leadership are 26% more profitable than their competitors. Multiple examples exist of the use of Open Data to transform business. A French example is Infisfera that uses satellite images to monitor growing crops allowing the production of digital maps that serve as a pattern for the appropriate fertilizer rate to be applied as required to a section of a field. More examples are described in the report.


Find out more about

- How Open Data is used for organisational purposes
- Most frequently used data
- Which industry sectors use Open Data
- What type of companies use Open Data
- Revenue sources for Open Data companies

To learn more about the results, barriers and recommendations, you can read the full report here.

 Download

Analytical report Open Data & e-skills

Follow us 

Which skills are needed to work with Open Data? Are only technical skills required or should a data scientist be able to do everything?

The rise in the number of Chief Data Officers emphasises the growing importance of data. But what skills are really needed to work with Open Data? What so-called e-skills? Interviews were held with people with different backgrounds to discuss whether only technical skills are required to work with Open Data and explore what other skills matter. Are companies still chasing "Open Data unicorns", people with well-developed skills in different disciplines that are very difficult to find? Do data scientists know all there is to know about everything? Are they the only ones suitable for the job?

To obtain value from data, soft and hard skills are needed


- Hard skills are subject matter expertise, mathematic and statistical knowledge as well as technical skills
- Soft skills include problem solving, storytelling, collaboration, curiosity, communication and creativity.

Is there a skill gap? Are there so many job vacancies that the demand for data scientists or people that work with data is much higher than the supply of employees with these required skills? If so, what should we do about it?

Key next steps to work on the challenges ahead

- Raise awareness around the existence of Open Data
- Manage cultural change by emphasizing the benefits and discuss misperceptions
- Make basic statistical and mathematical skills a requirement for primary education

To learn more about the perceptions, skills required and skills gap you can read the full report here.

 Download

https://www.europeandataportal.eu/sites/default/files/edp_analytical_report_n1_digital_transformation.pdf

https://www.europeandataportal.eu/sites/default/files/edp_analytical_report_n2_-_e-skills.pdf



European Commission

Pannello comandi

???navigation.select_catalogue???

Scarica report

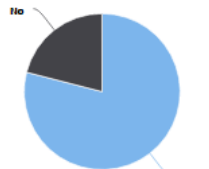
Pannello comandi della qualità dei metadati

L'analisi della qualità attuale si basa su 3 criteri: l'accessibilità delle distribuzioni, la loro leggibilità a macchina e la loro conformità al DCAT-AP specifica. Per ogni catalogo tutti i set di dati e loro distribuzioni corrispondenti vengono controllati. Questa pagina fornisce una panoramica generale per tutti i cataloghi. Per una visualizzazione più dettagliata per catalogo, selezionare la visualizzazione dettagliata dal menu. Ulteriori chiarimenti si possono trovare cliccando sull'icona "i" nell'angolo in alto a destra dei diagrammi. La qualità dei metadati viene verificata su base settimanale. Il controllo successivo è previsto per 14-mar-2017 17.53.00.

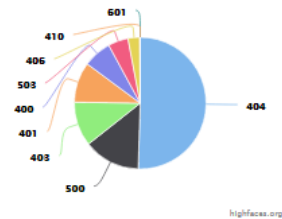
Statistiche delle distribuzioni

I seguenti diagrammi forniscono una panoramica dell'accessibilità delle distribuzioni di tutti i set di dati. Tutte le distribuzioni di ciascun set di dati sono verificate. In conformità alle specifiche DCAT-AP, ciascun set di dati deve avere una AccessURL; una DownloadURL è consigliabile. Per ogni URL di una distribuzione, una richiesta HTTP GET viene eseguita e la corrispondente risposta verificata. Il test di leggibilità a macchina di una URL usano le liste di formati leggibili a macchina, published by the Open Data Monitor.

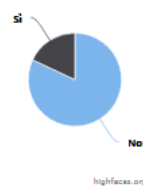
Distribuzioni disponibili



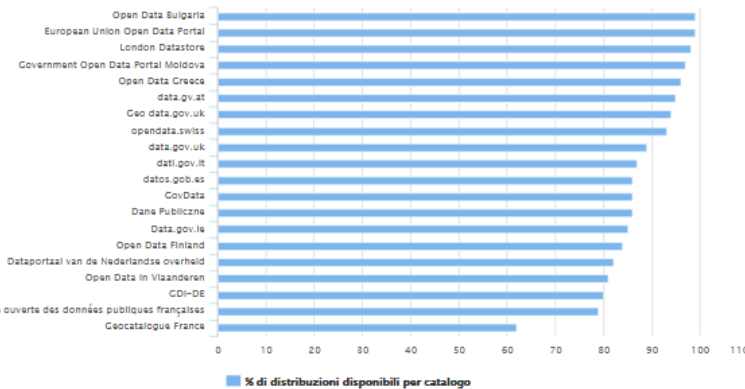
Codici di stato degli errori



esiste DownloadUrl



I primi 20 cataloghi con le distribuzioni più accessibili



Catalogue dashboard

Distributions 2738

Violations 0

dati.gov.it

Catalogue dashboard

This page shows the general status of the catalogue regarding distributions and DCAT-AP compliance.

Show harvester information

Repository / Harvester

Type: jsonld_dump, Incremental, No icon, Frequency: weekly, Next schedule: Mar 12, 2017 7:00:00 AM, Publisher: Agenzia per l'Italia Digitale, Email address: info@dati.gov.it, Homepage: http://www.dati.gov.it, Default language: it

Show transformation script

Last harvesting run

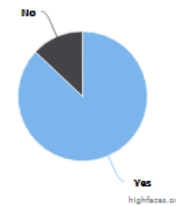
Status: Finished, Start time: Jul 10, 2016 7:00:00 AM, End time: Jul 10, 2016 7:22:16 AM, Duration (days hours:minutes:seconds): 00 00:22:16, Added, Updated, Skipped, Rejected, Deleted

Show log entries of last run

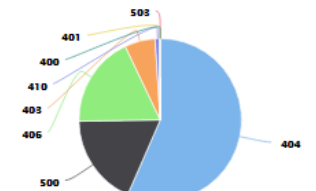
Distribution Statistics

The following diagrammes providing an overview of the accessibility of the distributions of all datasets. All distributions of each dataset are checked. According to the DCAT-AP specification, each dataset must have an AccessURL; a DownloadURL is recommended. For each URL of a distribution a HTTP GET request is executed and the corresponding answer is checked. The testing of the machine readability of a URL uses the list of machine readable formats, published by the Open Data Monitor.

Accessible Distributions



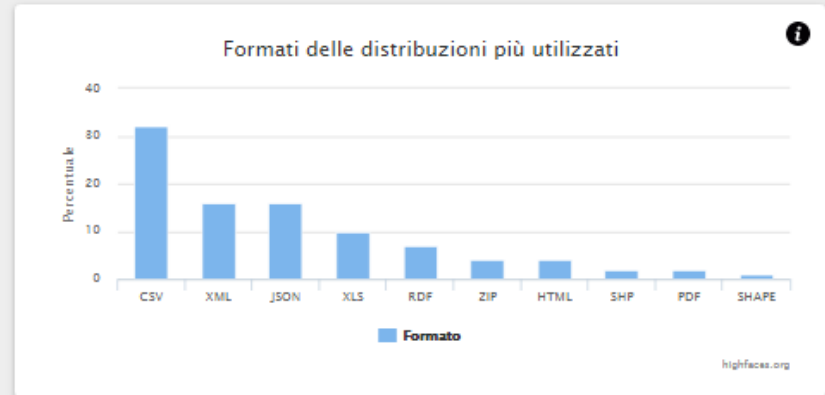
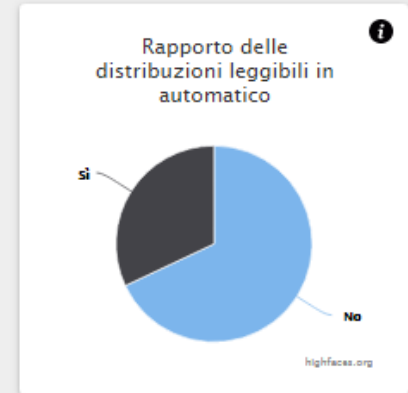
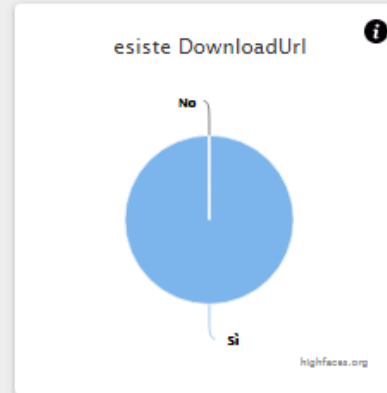
Error Status Codes





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dati.gov.it										
A	B	C	D	E	F	G	H	I	J	
1	dati.gov.it									
2										
3										
4										
5	Distribuzioni disponibili									
6	Si	No								
7	87 %	13 %								
8										
9	Codici di stato degli errori									
10	404	500	406	403	410	503	401	400		
11	56	18	18	6	1	0	0	0		
12										
13	esiste DownloadUrl									
14	Si	No								
15	100 %	0 %								
16										
17	Rapporto delle distribuzioni leggibili in automatico									
18	No	Si								
19	68 %	32 %								
20										
21	Formati delle distribuzioni più utilizzati									
22	CSV	XML	JSON	XLS	RDF	ZIP	HTML	SHP	PDF	SHAPE
23	32 %	16 %	16 %	10 %	7 %	4 %	4 %	2 %	2 %	1 %
24										
25										
26										
27										



Statistiche dei set di dati a norma

I seguenti grafici offrono una panoramica dell'attuale stato della conformità dei set di dati alle specifiche DCAT-AP. Al fine di verificarne la conformità, i metadati sono caricati sulla CKAN API e verificati con la funzionalità di convalida dello schema JSON

Tutti i set di dati sono a norma DCAT-AP.

Broader Communication Channels



- *The Portal is used as main communication source and includes*
 - **Latest News**
 - **Featured highlights**
 - **Featured Data**
 - **Email newsletters**
 - **Surveys**
- *Several other communication channels are used to promote the above*
- **Social media to increase the visibility of the communication:**
 - Twitter https://twitter.com/EU_DataPortal
 - Facebook <https://www.facebook.com/EuropeanDataPortal>
 - Google+ <https://plus.google.com/103679408419810180085/about>
 - LinkedIn <https://www.linkedin.com/groups/8428984>
- **Physical participation in relevant events and workshops to promote the Portal.**
 - Articles by or on external sites
 - Blogs
 - Publications
- **Brochures and factsheet summarizing main goals, approach and findings, conclusions and recommendations**