



**INSPIRATION** – Spatial Data Infrastructure in the Western Balkans



**inspiration**  
Spatial Data Infrastructure in the Western Balkans

# Open Data Initiative

2nd INSPIRATION National Workshop, Serbia  
June 6th, 2013

Christian Ansorge



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# Content

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## Open Data

- What is 'open' data?
- History & Tradition
- OGD vs. INSPIRE?
- Examples



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# Open Data



## What is Open Data?

- Initiative and idea of the free accessibility and availability of data for everyone
- Movement of data providers and users
- Beyond legal obligations



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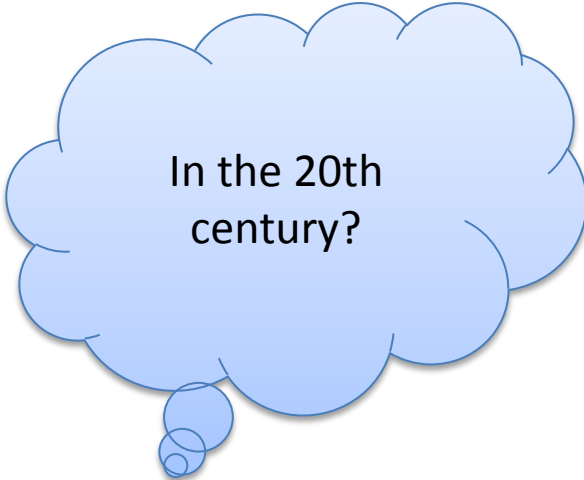


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# Open Data

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In the 20th  
century?

## When did it start?



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# Open Data



- History & Tradition
  - Result of Open Government and E-Government movements
    - Economic liberalism
    - Government transparency to trigger increased efficiency
  - Early roots go back to 17<sup>th</sup> century in Asia resp. period of European Enlightenment in Europe
    - China: Peking Gazette, starting 8<sup>th</sup> century, China
    - Sweden: Freedom of the Press, 1766
    - USA: United States Constitution, 1787



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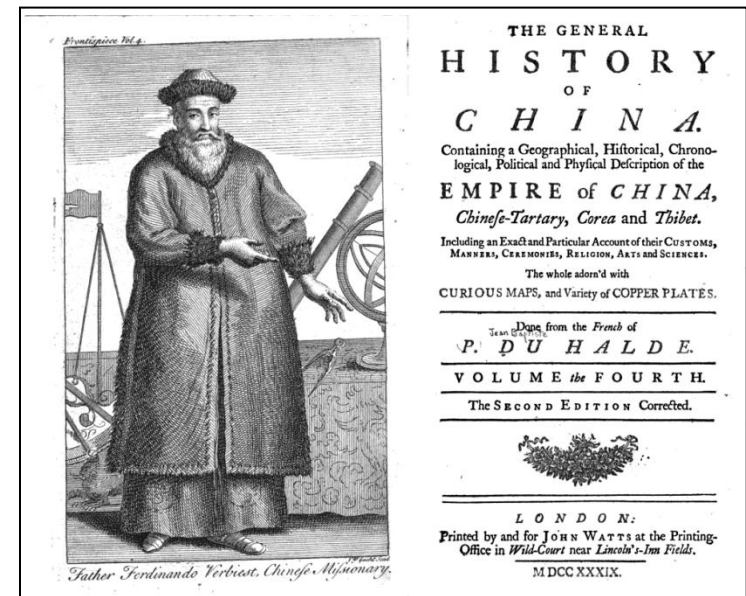
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- **Peking Gazette**
  - Traces of Open Government in Chinese legislation recorded by Jean Baptiste du Halde's 1736 '*The General History of China*'
  - '*Peking Gazette*' goes back to the 8<sup>th</sup> century
  - '*Peking Gazette*' as first media to publish governmental data and measures to increase government efficiency and create competition among government bodies



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- **Freedom of the Press, 1766, Sweden**
  - 6. *[A]ll exchanges of correspondence, species facti, documents, protocols, judgments and awards . . . when requested, shall immediately be issued to anyone who applies for them.*
  - 7. *[I]n order to prevent the several kinds of hazardous consequences that may follow from imprudent votes, likewise graciously decided that [judges] shall no longer be protected behind an anonymity that is no less injurious than unnecessary; for which reason when anyone, whether he is a party to the case or not, announces his wish to print older or more recent voting records in cases where votes have occurred, they shall, as soon as a judgment or verdict has been given in the matter, immediately be released for a fee, when for each votum the full name of each voting member should also be clearly set out . . . and that on pain of the loss of office for whosoever refuses to do so or to any degree obstructs it.*

Peter Hogg, 2006



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- United States Constitution, 1787, USA
  - **Congressional Record**
  - *‘Each House shall keep a Journal of its Proceedings, and from time to time publish the same, excepting such Parts as may in their Judgment require Secrecy; and the Yeas and Nays of the Members of either House on any question shall, at the Desire of one fifth of those Present, be entered on the Journal.’*

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# Open Data

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- Recent development of Open Government legislation
  - Open Government movements in the 50' and 60' as reaction on the governmental developments during and after WWII in the US
    - Freedom of Information Act (FOIA), 1966
      - idealistic principles of having an informed citizenry
    - FOIA amendments, 1974
      - strengthening right-to-know



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# Open Data

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## What '*data*' can be open?

- Data which may of use for other purposes or communities than those it was created for
- Data be it scientific, historical, geographic or otherwise (e.g. Open Science Data)
- Government and other administrative information (e.g. Open Governmental Data)



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# Open Data



What is *'open' data*?

**“A piece of content or data is open if anyone is free to use, reuse, and redistribute it — subject only, at most, to the requirement to attribute and/or share-alike.”**

<http://opendefinition.org/>



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# Open Data

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## What is '*open*' data?

- Availability and Access
- Reuse and Redistribution
- Universal Participation

<http://opendefinition.org/>



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# Open Data



- Availability and Access
  - Most be available to no more than reasonable reproduction cost
    - marginal costs of data or information are near zero if internet technology is used for distribution
  - Data most be available in a convenient and modifiable form
    - Open data formats & standards



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# Open Data

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## Reuse and Redistribution

- Data must be provided under ‘terms’ which allow reuse and redistribution
  - Technical & legal accessibility
- Data must be intermixable with other data sources



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# Open Data



## Universal Participation

- Everyone should be able to use the data under the same conditions
  - No discrimination against communities or activities
  - Commercial as well as non commercial use of data



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# Open Governmental Data



- Part of Open Data movement
  - Mainly government bodies with close relations to the public or interested in visibility/transparency
  - 10 Principles of OGD
    - Completeness
    - Primacy
    - Timeliness
    - Machine readability
    - ...



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# Open Governmental Data



## Is Open Governmental Data a SDI?

- OGD data are mainly spatial data
- Organisational SDI approach

BUT

- Agreements on commonly used standards and technologies are widely missing
- OGD is rather focusing on content than on infrastructure and interoperability



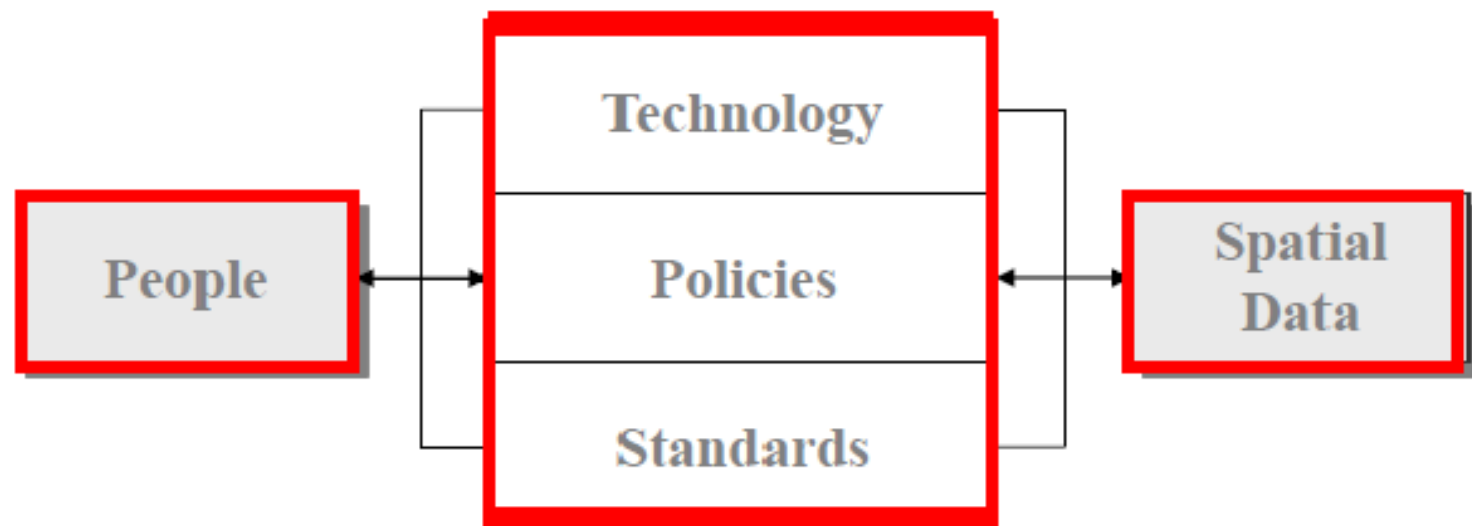
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# Open Governmental Data



Kuhn, Jaansen



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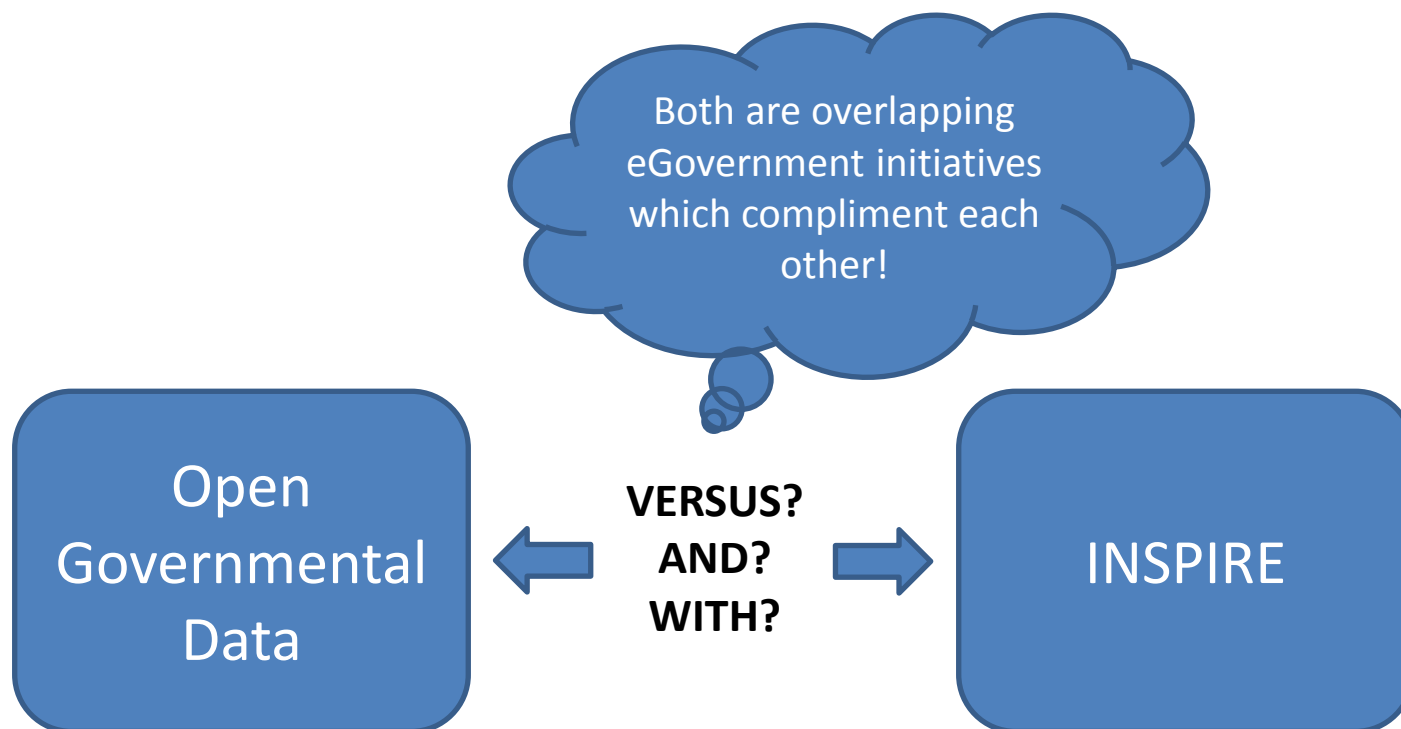
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# Open Governmental Data



## Open Governmental Data & INSPIRE



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# Open Governmental Data



## Open Governmental Data & INSPIRE

- Open Data from information system viewpoint



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# Open Governmental Data



## Legal & Institutional framework

	OGD	INSPIRE
Approach	<ul style="list-style-type: none"><li>• Bottom-Up</li><li>• Driven by provider and user communities</li></ul>	<ul style="list-style-type: none"><li>• Top-Down</li><li>• Driven by EU and economy</li></ul>
Legal framework	<ul style="list-style-type: none"><li>• Legally not binding and no obligation</li><li>• Voluntary movement</li><li>• OGD is an initiative which goes beyond the existing legal obligations</li></ul>	<ul style="list-style-type: none"><li>• EU Directive 2007/2/EC</li><li>• National transposed EU Directives</li></ul>
Availability	<ul style="list-style-type: none"><li>• Operational and growing</li><li>• Regional coverage highly heterogeneous</li></ul>	<ul style="list-style-type: none"><li>• Fully with European coverage operational by 2020</li></ul>



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# Open Governmental Data



## Content

	OGD	INSPIRE
Content	<ul style="list-style-type: none"> <li>• Data across all field which are hold by government institution</li> <li>• From raw data to aggregated data and indicators</li> <li>• Not limited to spatial data</li> <li>• Content provided in highly heterogeneous formats</li> </ul>	<ul style="list-style-type: none"> <li>• Data in according to the annex themes</li> <li>• Mainly spatial reference data</li> <li>• Spatial data only</li> <li>• Content provided in harmonized format</li> </ul>
Licences	<ul style="list-style-type: none"> <li>• Data is '<u>Open</u>' by definition</li> <li>• No restriction regarding licenses as long the are open</li> <li>• Mainly Creative Commons (CC BY 3.0)</li> </ul>	<ul style="list-style-type: none"> <li>• Data has to be <u>accessible</u> in case of emergency</li> <li>• Fees (ecommerce) and restrictions (security) are possible</li> <li>• INSPIRE proposes standard (basic) licenses similar to CC</li> </ul>



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# Open Governmental Data



## Infrastructure

	OGD	INSPIRE
Infrastructure	<ul style="list-style-type: none"><li>• Unconnected 'data islands'</li><li>• No central coordination body</li><li>• No discovery service for the whole OGD</li><li>• Search portals on national level only (if any)</li><li>• No use of widely established (spatial) standards</li><li>• High technological flexibility</li></ul>	<ul style="list-style-type: none"><li>• Infrastructure is (over-) developed and (over-) regulated</li><li>• Based on (spatial) standards</li><li>• International and national coordination bodies</li><li>• Connected search portals on national and international level</li><li>• Low technological flexibility</li></ul>



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# Open Governmental Data



## Community

	OGD	INSPIRE
Community	<ul style="list-style-type: none"><li>• Governmental data provider on voluntary base</li><li>• Communities &amp; Economy needed to customize data and provide services (Downstream)</li><li>• Public benefits from free or fee based services based on INSPIRE</li><li>• No direct communication channel with the public (indirect communication through service provider)</li></ul>	<ul style="list-style-type: none"><li>• Governmental data provider legally bound by law</li><li>• Communities &amp; Economy needed to customize data and provide services (Downstream)</li><li>• Public benefits from free or fee based services based on INSPIRE</li><li>• No direct communication channel with the public</li></ul>



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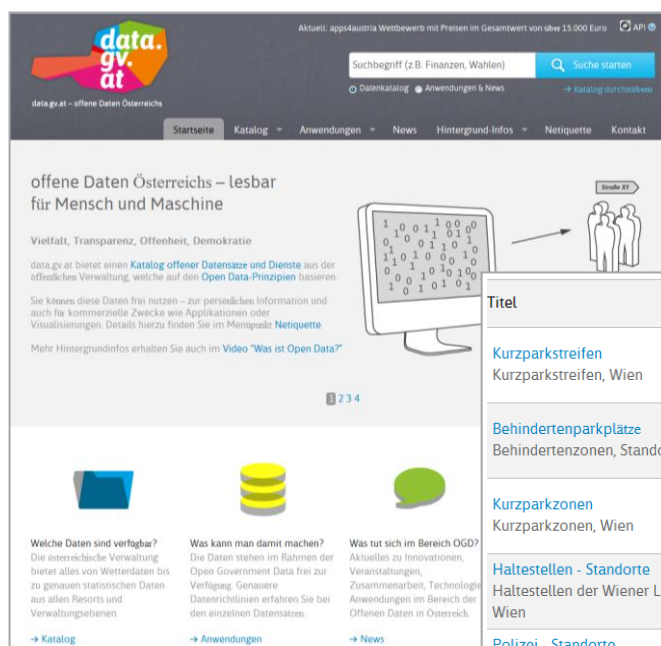




# Open Data



- Example data.gv.at (<http://data.gv.at/>)



Titel	Letzte Änderung	Veröffentlichende Stelle	Format
<a href="#">Kurzparkstreifen</a> Kurzparkstreifen, Wien	19.11.2012	Stadt Wien / MA 46 - Verkehrsorganisation und technische Verkehrsangelegenheiten	GML, JSON, KML, RSS, CSV, SHP
<a href="#">Behindertenparkplätze</a> Behindertenzonen, Standorte, Wien	19.11.2012	Stadt Wien / MA 46 - Verkehrsorganisation und technische Verkehrsangelegenheiten	GML, JSON, KML, RSS, CSV, SHP
<a href="#">Kurzparkzonen</a> Kurzparkzonen, Wien	19.11.2012	Stadt Wien / MA 46 - Verkehrsorganisation und technische Verkehrsangelegenheiten	GML, JSON, KML, RSS, CSV, SHP
<a href="#">Haltestellen - Standorte</a> Haltestellen der Wiener Linien, Standorte, Wien	19.11.2012	Stadt Wien / Wiener Linien, Verkehrsverbund Ost-Region	GML, JSON, KML, RSS, CSV, SHP
<a href="#">Polizei - Standorte</a> Polizeinspektionen und Stadtpolizeikommandos, Standorte, Wien	19.11.2012	Stadt Wien / MA 14 - Automationsunterstützte Datenverarbeitung, Informations- und Kommunikationstechnologie	GML, JSON, KML, RSS, CSV, SHP



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- Example UNdata (<http://data.un.org>)

The screenshot displays the UNdata website interface. The top navigation bar includes links for Data, Glossary, Metadata, and More. A search bar is present with the text "34 databases - 60 million records" and an "Update calendar" checkbox. The main content area is divided into several sections:

- Databases:** Lists various data sources such as UNODC Homicide Statistics 2012, UNODC Education, and UIS Data Centre, UNESCO UIS.
- Updates:** Features a "Follow Us On Twitter" button.
- Country data:** Lists countries including Afghanistan, Albania, Algeria, and Andorra.
- MBS:** Monthly Bulletin of Statistics and other UNSD data resources.
- Popular searches:** A section for frequently accessed data.
- Feedback and reviews:** A section for user feedback.

The right-hand side of the screenshot shows a detailed view of a data series titled "Table 2.4 Value added by industries at current prices (ISIC Rev. 4)". It includes a table with the following data:

Country or Area	Year	Value
Afghanistan	2010	50
Afghanistan	2009	50
Afghanistan	2008	50
Afghanistan	2007	50
Afghanistan	2006	46
Afghanistan	2005	42
Afghanistan	2004	38
Afghanistan	2003	33
Afghanistan	2002	30
Afghanistan	2001	26



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# Open Data

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**Хвала!**

Питања?



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# Contact & Information

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Belgrade ■ 6th June 2013



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