Cooperation OGD Austria: **Working Group on Metadata**		**White Paper** **OGD Metadata – 2.3** **Working Group Result**
short description	The Working Group on Metadata developed a metadata structure as a recommendation for Open Government Data (OGD) in Austria. Relevance for INSPIRE was also taken into account. The result includes a metadata core, as well as optional attributes plus relevant vocabulary for the metadata catalogue Austria.	
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Version 2.3: **06.11.2014**

Contents

OGD Cooperation Austria:

Recommendation of the Working Group on Metadata

(1) General remarks

Cooperation OGD Austria, at its meeting in Vienna on 13 July 2011, decided to establish a Working Group on Metadata (AG Metadaten) with the objective to prepare a recommendation for the metadata structure for Open Government Data (OGD) in Austria.

The report of the Working Group presided by the City of Vienna was published as a White Paper "OGD Metadata – 1.0" on 24 October 2011.

Consultations were held with additional stakeholders, such as INSPIRE, the results of which provided the basis for "OGD Metadata - 1.1" published on 12 March 2012.

"OGD Metadata - 2.0" contains observations on version 1.1, as well as experience made with OGD implementations since publication of "OGD Metadata - 1.1", especially when integrating OGD portals of cities and provinces into the main portal data.gv.at.

For better readability and ease of comprehension the tables, annotations and several designations were amended.

A detailed version history was introduced with version 2.2.

Trigger for the version 2.3 was the implementation of legal regulations PSI Directive 2013/37/EU, Federal Act of the Re-use of Information from Public Sector Bodies (IWG) and Freedom of Information Act (IFG).

For the metadata transfer an XML specification of the metadata interface was developed in the BLSG - Working Group Infrastructure-Interoperability (AG - II), which is compatible with OGD metadata 2.3.
Related documents and files see http://reference.e-government.gv.at/.

The BLSG - Working Group Infrastructure-Interoperability (AG-II) developed a XML-specification, which is compatible with OGD metadata standard 2.3.

Related documents and files can be found at conventions on the reference server http://reference.e-government.gv.at/KONVENTIONEN-WEITERE-KONZEPT.506.0.html.

(2) Management Summary

The document contains a proposal for the OGD – metadata definition 2.3 of Cooperation OGD Austria.

Results are available for

- the **metadata core** consisting of 12 mandatory fields
- 21 additional recommended **optional metadata fields**

The annex contains:

- an overview of the OGD formats
- a catalogue of criteria
- the code list "update frequency"
- RDF namespace prefixes plus full URIs
- version history

(3) Notes on implementation

CKAN based aggregation portals, such as data.gv.at, assign a separate ID (CKAN field "id") by default. This also applies to harvested data from other portals.

The field "metadata modified on" is also rebuilt automatically when generating a new data set/schema.

To ensure traceability across several data portals (e.g. local - national - EU) it is imperative to take over the unique identifiers from the source system to the target system. When using CKAN the CKAN field "extras:metadata_identifier" (ID=1) must be applied for unique identification - harvesters must be configured accordingly and the message window/display at the front end must also take this into account.

When using the field "metadata modified on" the CKAN field "extras:metadata_modified" (ID=5) must be applied instead of the standard field "metadata_date".

To implement the above logic for filling in metadata sheets in the base portals it is recommended to resort to a database procedure which automatically copies the value of the CKAN field "id" into the field "extras:metadata_identifier" and that of the field "metadata_date" into the field "extras:metadata_modified" when generating a data set.

Alternatively these fields can also be filled in manually. When doing so it is important to assign a UUID (according to RFC:4122) because assigning IDs, such as 1, 2 or 3 would not guarantee uniqueness following aggregation through metadata portals.

(4) Basics of the metadata structure

- The metadata core contains mandatory fields only.
- As a guiding principle the number of attributes in the metadata core, i.e. the mandatory attributes, must be kept to a necessary minimum.
- The mandatory fields in the metadata core must be listed for the OGD metadata set/schema to be considered valid. This is important as otherwise the integrity of the different catalogues in the event of linking would be at risk or downright impossible.
- Additional optional metadata fields are available for the metadata structure OGD Austria which are not part of the metadata core and therefore do not constitute mandatory fields.
- However, optional OGD metadata fields should be listed and documented provided sufficient relevant information is available.
- ALL OGD metadata fields are to be stated for documentation of Austrian OGD data sets or services (documents, services, media, etc.).
- OGD communities are welcome to define their own additional metadata fields and integrate them in their community profile. These metadata fields do not constitute part of the metadata structure for OGD Austria.
- OGD metadata sets take over or harvest INSPIRE data relevant to them. It is not intended that INSPIRE harvests OGD metadata.
- Metadata sheets must be easily readable and interpretable both by humans and machines.
- The metadata structure must be expandable, i.e. it should allow for further attributes to be added. In other words, several versions of the recommended metadata structure are admissible, provided the versions are clearly distinguishable.
- The metadata structure is to be compatible in respect of existing international metadata structures for Open (Government) Data.

(5) Overview OGD Metadata fields 2.3

	ID	Identifier	OGD short name	CKAN field
Metadata core	**1**	Metadata identifier	metadata_identifier	extras:metadata_identifier
	5	Metadata modified on	metadata_modified	extras:metadata_modified
	8	Title	title	title
	9	Description	description	notes
	10	Categorization	categorization	extras: categorization["…","…"]
	11	Keywords	keywords	Tags
	14	Resource URL	resource_url	resources:url
	15	Resource format	resource_format	resources:format
	19	Maintainer	maintainer	maintainer
	20	Publisher	publisher	extras:publisher
	21	Licence	license	license
	24	Begin date and time	begin_datetime	extras:begin_datetime
Additional Optional Metadata Attributes	**2**	Schema name	schema_name	extras:schema_name
	3	Schema language	schema_language	extras:schema_language
	4	Schema character set code	schema_characterset	extras:schema_characterset
	6	Metadata linkage	metadata_linkage	extras:metadata_linkage
	12	Attribute description	attribute_description	extras:attribute_description
	13	Maintainer link	maintainer_link	extras:maintainer_link
	16	Resource name	resource_name	resources:name
	17	Resource created or published on	resource_created	resources:created
	18	Resource last modified on	resource_lastmodified	resources:last_modified
	22	Geographic coverage/location	geographic_toponym	extras:geographic_toponym
	23	Geographic range	geographic_bbox	extras:geographic_bbox
	25	End data and time	end_datetime	extras:end_datetime
	26	Update frequency	update_frequency	extras:update_frequency
	27	Data quality and lineage	lineage_quality	extras:lineage_quality
	28	English title and description	en_title_and_desc	extras:en_title_and_desc
	29	Resource size	resource_size	resources:size
	30	License citation	license_citation	extras:license_citation
	31	Resource language	resource_language	resources:language
	32	Resource character set code	resource_encoding	resources:characterset
	33	Metadata original portal	metadata_original_portal	extras:metadata_original_porta
	34	Maintainer e-mail	maintainer_email	maintainer_email

ID … consecutive unique numbering in the OGD metadata catalogue for Austria

(6) Metadata core

The "metadata core" consists of 12 mandatory fields.

Metadata identifier

ID	Identifier	OGD short name	CKAN field	Amount
1	**Metadata identifier**	**metadata_identifier**	**extras: metadata_identifier**	**1**

Definition	Unique identifier for metadata set. The entry describes unique identification for a metadata set. Select UUID (according to RFC:4122).
Explanation	The system (software) automatically generates the identifier. Existing identifiers (where existing metadata sets are harvested) must be taken over.
Example	550e8400-e29b-11d4-a716-446655441234
ON A 2270:2010	1.1
ON/EN/ISO 19115:2003	mdFileID (2)
RDF property	dcterms:identifier
Definition English	Unique Identifier for metadata set. Select UUID conforming to RFC:4122

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Metadata modified

ID	Identifier	OGD short name	CKAN field	Amount
5	**Metadata modified**	**metadata_modified**	**extras: metadata_modified**	**1**

Definition	Date of metadata creation or update. Dates are given in accordance with ÖNORM ISO 8601, i.e. YYYY-MM-DD.
Explanation	Date of metadata creation or update. This metadata element is to be filled in automatically by the system (software). It is required for incremental updates (harvesting) in a metadata network.
Example	2011-05-22
ON A 2270:2010	1.6
ON/EN/ISO 19115:2003	mdDateSt (9)
RDF property	dcterms:issued
Definition English	Metadata creation or update timestamp. Specification according to ÖNORM ISO 8601 as YYYY-MM-DD

Title

ID	Identifier	OGD short name	CKAN field	Amount
8	**Title**	**title**	**title**	**1**

Definition	Title of the resource described
Explanation	Title of the resource (metadata set, document, data set or service) described
Example	Locations of schools, commuter statistics Linz 2010
ON A 2270:2010	2.1.1
ON/EN/ISO 19115:2003	resTitle (360)
RDF property	dcterms:title (mit language tag “de”)
Definition English	Resource title

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Description

ID	Identifier	OGD short name	CKAN field	Amount
9	**Description**	**description**	**notes**	**1**

Definition	Description of the resource content (data set, service or document).
Explanation	Brief description of the resource content for users.
Example	Number of people with main residence in Linz in 2010, by gender, age, etc.
ON A 2270:2010	2.2
ON/EN/ISO 19115:2003	idAbs (25)
RDF property	dcterms:abstract
Definition English	Description of the resource content.

Categorization

ID	Identifier	OGD short name	CKAN field	Amount
10	**Categorization**	**categorization**	**extras: categorization["…","…"]**	**N**

Definition	Categorization of resource content. Predefined schema of categories for Austria, see annex b).
Explanation	The resource (data set, service or document) must be assigned according to the predefined schema of categories. Multiple assignments are permitted.
Example	Health care
ON A 2270:2010	2.7.1 & 2.7.2
ON/EN/ISO 19115:2003	keyword (53) & thesaName (55)
RDF property	dcat:theme
Definition English	Categorization of the resource content.

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Keywords

ID	Identifier	OGD short name	CKAN field	Amount
11	**Keywords**	**keywords**	**tags**	**N**

Definition	Assigning keywords to the resource (data set, service or document).
Explanation	Assigning a free choice of keywords to the resource. Thus, keywords may also be used for additional categorization and reference to resources.
Examples	Habitat model, brown bear, Ursus arctos
ON A 2270:2010	2.7.1
ON/EN/ISO 19115:2003	keyword (53)
RDF property	dcat:keyword
Definition English	Key words describing the resource

Resource URL

ID	Identifier	OGD short name	CKAN field	Amount
14	**Resource URL**	**resource_url**	**resources:url**	**N**

Definition	URL for accessing the resource.
Explanation	URL for accessing the resource (data set, service or document). This field takes into account different formats. Comparable information only may be mapped in any given resource group. In case of doubt separate metadata sets must be created.
Example	http://www.wien.gv.at/statistik/ogd/b05-countrybirth-vie-dc.csv
ON A 2270:2010	6.1.4.1.1
ON/EN/ISO 19115:2003	linkage (397)
RDF property	dcat:accessURL
Definition English	URL to the resource

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Resource format

ID	Identifier	OGD short name	CKAN field	Amount
15	**Resource format**	**resource_format**	**resources:format**	**N**

Definition	Specifies the resource format as file type, download or service link. For a list of OGD formats see annex a).
Explanation	OGD formats in principle should be open machine-readable formats. In other words, there are published specifications and the formats may be used without legal restrictions. Use lower cases without dots.
Example	csv
ON A 2270:2010	6.1.2.1
ON/EN/ISO 19115:2003	formatName (285)
RDF property	dcterms:format
Definition in English	Specification of the resource. This may be a file type, download or service link. List of defined OGD formats in appendix a).

Maintainer

ID	Identifier	OGD short name	CKAN field	Amount
19	**Maintainer**	**maintainer**	**maintainer**	**1**

Definition	Name of the person or entity responsible for the resource
Explanation	Name of the person or entity responsible for the resource. May be the publisher at the same time.
Example	Magistrat Wien - Magistratsabteilung 33 - Wien Leuchtet; Magistrat der Landeshauptstadt Linz, Stadtkämmerei; Tirol Werbung GmbH.
ON A 2270:2010	2.5.1 / 2.5.2
ON/EN/ISO 19115:2003	rpIndName (375) / rpOrgName (376)
RDF property	dcelements:creator
Definition in English	Name of the person or entity responsible for the resource.

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Publisher

ID	Identifier	OGD short name	CKAN field	Amount
20	**Publisher**	**publisher**	**extras:publisher**	**1**

Definition	Name of the organisation publishing the metadata set.
Explanation	Name of the organisation responsible for the metadata set. The publisher is not necessarily the maintainer.
Example	City of Vienna, Province of Tirol
ON A 2270:2010	2.5.1 / 2.5.2
ON/EN/ISO 19115:2003	rpIndName (375) / rpOrgName (376)
RDF property	dcelements:publisher
Definition in English	Name of the publishing entity or person

Licence

ID	Identifier	OGD short name	CKAN field	Amount
21	**Licence**	**license**	**license**	**1**

Definition	Legal information on the use of the resource (data set, service or document).
Explanation	Information on the licence type for the resource. In the case of OGD data this refers to “Creative Commons Namensnennung 3.0 Österreich (CC BY 3.0 AT)".
Example	Creative Commons Namensnennung 3.0 Österreich (CC BY 3.0 AT)
ON A 2270:2010	2.8.1.1
ON/EN/ISO 19115:2003	othConsts (72)
RDF property	dcterms:license (URI of the licence document)
Definition in English	Legal information concerning the usage of the resource

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Begin date and time

ID	Identifier	OGD short name	CKAN field	Amount
24	**Begin date and time**	**begin_datetime**	**extras:begin_datetime**	**1**

Definition	Element specifying the valid from date of the resource
Explanation	Element specifying the begin date and time of a resource. The information is entered as YYYY-MM-DDThh:mm:ss. TM_Primitive (in accordance with ON EN 8601 and ON EN ISO 19108 respectively).
Example	2008-12-23T22:30:12
ON A 2270:2010	2.9.6.2.1
ON/EN/ISO 19115:2003	exTemp (351)
RDF property	dcterms:temporal
Definition in English	Date specifying valid from of the resource according to ON EN 8601 or ON EN ISO 19108 respectively.

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

(7) Additional optional metadata attributes

The metadata structure OGD for Austria offers 21 additional optional metadata fields which do not constitute part of the metadata core and which are therefore not mandatory.

Each optional OGD metadata element should, however, be listed and documented, provided sufficient relevant information is available.

In some cases, e.g. with CKAN instances, optional fields, such as ID16, may also be implemented as mandatory fields. On no account must mandatory fields be implemented as optional fields.

Resource name

In OGD Metadata - 1.1 this element was part of the metadata core, i.e. it as was a mandatory field. As of OGD Metadata - 2.0 it is now an optional metadata field!

ID	Identifier	OGD short name	CKAN field	Amount
16	**Resource name**	**resource_name**	**resources:name**	**N**

Definition	Name for individual data sets, services or individual documents. The attribute corresponds with the resource URL (ID 14).
Explanation	CKAN uses this optional element to specify individual resource URLs.
Example	People with main residence
ON A 2270:2010	2.1.1 + 6.1.2.1
ON/EN/ISO 19115:2003	-
RDF property	rdfs:literal
Definition in English	Specifier for the single resource link within a metadata sheet. Will be used as an end user friendly text instead of the resource link.

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Schema name

ID	Identifier	OGD short name	CKAN field	Amount
2	**Schema name**	**schema_name**	**extras:schema_name**	**1**

Definition	Name of the metadata structure
Explanation	This element for OGD metadata is optional but highly recommended. Consistent metadata maintenance is facilitated when adapting the OGD metadata structure. The element is to be filled in automatically by the system (software)
Example	OGD Austria Metadata 2.3
ON A 2270:2010	1.4
ON/EN/ISO 19115:2003	mdStanName (10)
RDF property	dcterms:alternative
Definition in English	OGD Austria Metadata 2.3

Schema language

ID	Identifier	OGD short name	CKAN field	Amount
3	**Schema language**	**schema_language**	**extras: schema_language**	**1**

Definition	ISO 639-2 three digit ISO language code for the metadata set
Explanation	Language the metadata set was prepared in. The element is to be filled in automatically by the system (software)
Example	ger
ON A 2270:2010	1.2
ON/EN/ISO 19115:2003	mdLang (3)
RDF property	dcterms:language
Definition in English	Metadata language, always ger (German)

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Schema character set code

ID	Identifier	OGD short name	CKAN field	Amount
4	**Schema character set code**	**schema_characterset**	**extras: schema_characterset**	**1**

Definition	Character set code to specify the metadata set according to ISO\IEC 10646-1
Explanation	This element will be imperative for European integration, as consolidation would otherwise not be possible. The element is to be filled in automatically by the system (software).
Example	utf8
ON A 2270:2010	1.3
ON/EN/ISO 19115:2003	mdC (4)
RDF property	cnt:characterEncoding
Definition in English	Metadata payload character encoding, always utf8

Metadata linkage

ID	Identifier	OGD short name	CKAN field	Amount
6	**Metadata linkage**	**metadata_linkage**	**extras: metadata_linkage**	**N**

Definition	Links to further information on a dataset or service. Links to datasets used or interpreted in the document.
Explanation	Links to data and metadata descriptions.
Example	http://data.wien.gv.at/pdf/wienerlinien-echtzeitdaten-dokumentation.pdf http://data.wien.gv.at/katalog/bevoelkerung-geburtsbundesland-wien.html
ON A 2270:2010	6.1.4.1.1 - Link for online access to a resource (for data sets) 2.1.6.3 - Coupled Resource (for services)
ON/EN/ISO 19115:2003 19119:2005	linkage (397) operatesOn (C 2.2 Punkt 9 ISO 19119)
RDF property	dcat:dataDictionary
Definition in English	Links providing further descriptive metadata

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Attribute description

ID	Identifier	OGD short name	CKAN field	Amount
12	**Attribute description**	**attribute_description**	**extras: attribute_description**	**1**

Definition	Describes the attribute information of a dataset or service
Explanation	Human-readable description of the significance of data fields in a dataset or service
Example	ADRESSE: Address (street name, orientation number); OEFFNUNGSZEITEN1-6: opening times; TELEFON: telephone number, DISTRICT_CODE: district code, ACCOUNTS_TRANSFER: current transfer payments
ON A 2270:2010	2.11.3 & 2.11.4
ISO 19110:2005	memberName (4.1) & definition (4.2)
RDF property	dcterms:description
Definition in English	Human-readable description of dataset fields

Maintainer link

ID	Identifier	OGD short name	CKAN field	Amount
13	**Maintainer link**	**maintainer_link**	**extras: maintainer_link**	**1**

Definition	Contact page of the maintaining entity
Explanation	URL to the dataset maintaining entity
Example	http://www.wien.gv.at/freizeit/bildungjugend/
ON A 2270:2010	6.1.1.1.6
ON/EN/ISO 19115:2003	Linkage (397)
RDF property	dcterms:creator
Definition in English	URL to the dataset maintaining entity

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Resource created or published on

ID	Identifier	OGD short name	CKAN field	Amount
17	**Resource created or published on**	**resource_created**	**resources:created**	**1**

Definition	Resource publication date.
Explanation	Describes the date a data set, service or document is published (e.g. the date the resource was made available on the authority's website).
Example	2011-03-21 (YYYY-MM-DD)
ON A 2270:2010	2.1.3.1 & 2.1.3.2
ON/EN/ISO 19115:2003	refDate (394) & refDateType (395)
RDF property	dcterms:issued
Definition in English	Resource publication timestamp

Resource last modified on

ID	Identifier	OGD short name	CKAN field	Amount
18	**Resource last modified on**	**resource_lastmodified**	**resources: last_modified**	**1**

Definition	Date the resource was last modified on.
Explanation	Date the resource was last updated on.
Example	2012-01-15 (YYYY-MM-DD)
ON A 2270:2010	2.1.3.1 & 2.1.3.2
ON/EN/ISO 19115:2003	refDate (394) & refDateType (395)
RDF property	dcterms:modified
Definition in English	Resource last update timestamp

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Geographic coverage/location

ID	Identifier	OGD short name	CKAN field	Amount
22	**Geographic coverage/location**	**geographic_toponym**	**extras: geographic_toponym**	**1**

Definition	Geographic identification of a data set, service or document
Explanation	Human-readable description of the resource's geographic location.
Example	Linz
ON A 2270:2010	2.9.6.1.3.1.1
ON/EN/ISO 19115:2003	identCode (207)
RDF property	dcterms:description
Definition in English	Human-readable description of the resource's spatial context

Geographic range

ID	Identifier	OGD short name	CKAN field	Amount
23	**Geographic range**	**geographic_bbox**	**extras: geographic_bbox**	**1**

Definition	Documentation of the resource's geographic range using a bounding box.
Explanation	Description of the geographic range of a data set, service or document using a bounding box. Specifications are given in a coordinate system EPSG:4326 (WGS84) with a minimum accuracy of two decimal places in a "Well Known Text String" representation. A total of five coordinate pairs must be given. The first and the last coordinate pair are identical indicating that the bound box is closed. The coordinate pairs are enclosed by double brackets.
Example	POLYGON ((-180.00 -90.00,180.00 -90.00,180.00 90.00, -180.00 90.00, -180.00 -90.00))
ON A 2270:2010	2.9.6.1.1.1 & 2.9.6.1.1.2 & 2.9.6.1.1.3 & 2.9.6.1.1.4
ON/EN/ISO 19115:2003	westBL (344) & eastBL (345) & southBL (346) & northBL (347)
RDF property	dcterms:spatial
Definition in English	Bounding box specifying the resources spatial coverage

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

End date and time

ID	Identifier	OGD short name	CKAN field	Amount
25	**End date and time**	**end_datetime**	**extras:end_datetime**	**1**

Definition	Specifies the valid to date of a data set, service or document
Explanation	Element specifying the end date and time of a resource. The information is entered as YYYY-MM-DDThh:mm:ss. TM_Primitive (according to ON EN 8601 and ON EN ISO 19108 respectively)
Example	2009-11-23T20:36:00
ON A 2270:2010	2.9.6.2.1
ON/EN/ISO 19115:2003	exTemp (351)
RDF property	dcterms:temporal
Definition in English	Date specifying valid to of the resource according to ON EN 8601 or ON EN ISO 19108 respectively.

Update frequency

ID	Identifier	OGD short name	CKAN field	Amount
26	**Update frequency**	**update_frequency**	**extras: update_frequency**	**1**

Definition	Human-readable update frequency of a data set, service or document. For a code list see annex c)
Explanation	Update sequence for a data set or service
Example	Monthly, annually
ON A 2270:2010	2.9.7.1
ON/EN/ISO 19115:2003	maintFreq (143)
RDF property	dcterms:accrualPeriodicity
Definition in English	Human readable resource update frequency

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Data quality and lineage

ID	Identifier	OGD short name	CKAN field	Amount
27	**Data quality/lineage**	**lineage_quality**	**extras:lineage_quality**	**1**

Definition	Human-readable description of the quality and/or origin of a data set or service, e.g. the method of data collection.
Explanation	General information on the quality and/or origin of a data set or service
Example	The data set was digitalised based on ÖK50/ 2011. All forests in the municipality of Kopfing were recorded.
ON A 2270:2010	3.2.1
ON/EN/ISO 19115:2003	statement (83)
RDF property	dcat:dataQuality
Definition in English	Human readable indication of resource quality and / or data origin, such as the methodology describing the data collection or acquisition.

English title and description

ID	Identifier	OGD short name	CKAN field	Amount
28	**English title and description**	**en_title_and_desc**	**extras: en_title_and_desc**	**1**

Definition	English title and description of a data set, service or document
Explanation	English title of a data set, service or service plus brief description of contents for users.
Example	Population of Vienna 2010. Contains the population of permanent residents of Vienna and its districts as a moving average in the census period 1 January, 2010 to 31 December, 2012.
ON A 2270:2010	2.1.1 & 7.1
ON/EN/ISO 19115:2003	resTitle (360) & language
RDF property	dcterms:abstract (with language tag "en")
Definition in English	Resource title and description in English

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Resource size

ID	Identifier	OGD short name	CKAN field	Amount
29	**Resource size**	**resource_size**	**resources:size**	**1**

Definition	Resource size
Explanation	Size of a data set in byte. Information on size of services not relevant l.
Example	899652
ON A 2270:2010	-
ON/EN/ISO 19115:2003	-
RDF property	dcat:bytes
Definition in English	Resource size

Licence citation

ID	Identifier	OGD short name	CKAN field	Amount
30	**Licence citation**	**license_citation**	**extras:license_citation**	**1**

Definition	Correct name (CC-BY) of the data source according to the conditions of use for the relevant data portal. Corresponds to the field “data source“ in OGD-Metadata – 1.1.
Explanation	Facilitates correct citation in the event of automated reuse of data from one or more data sources.
Example	Data source: City of Linz - data.linz.gv.at
ON A 2270:2010	2.8.1.2
ON/EN/ISO 19115:2003	accessConsts (70)
RDF property	cc:attributionName
Definition in English	Attribution as required by CC-BY license

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Resource language

ID	Identifier	OGD short name	CKAN field	Amount
31	**Resource language**	**resource_language**	**resources:language**	**1**

Definition	ISO 639-2 three-digit ISO language code for data set, service or document
Explanation	Language used by the data set or service or the document was written in
Example	ger
ON A 2270:2010	2.9.3
ON/EN/ISO 19115:2003	dataLang (39)
RDF property	dcterms:language
Definition in English	Resource language

Resource character set code

ID	Identifier	OGD short name	CKAN field	Amount
32	**Resource character set code**	**resource_encoding**	**resources:characterset**	**1**

Definition	Character set code of the data set or service in accordance with ISO 19115:2003
Explanation	Character set code used in the document, data set or service
Example	utf8
ON A 2270:2010	2.9.4
ON/EN/ISO 19115:2003	dataChar (40) (B.5.10 MD_CharacterSetCode)
RDF property	cnt:characterEncoding
Definition in English	Resource character encoding

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Metadata original portal

ID	Identifier	OGD short name	CKAN field	Amount
33	**Metadata original portal**	**metadata_original_portal**	**extras:metadata_original_portal**	**1**

Definition	Link to the original metadata sheet
Explanation	This value is set by data portals so that metadata portals can take over the link to the original source in a defined field. In the event that this value is not set by the portal providing the data the portal taking over the data can set it automatically.
Example	https://gis.tirol.gv.at/ogd/sport_freizeit/TW_Adlerweg-Etappen.csv
ON A 2270:2010	6.1.4.1.1- Link for online access to a resource.
ON/EN/ISO 19115:2003	Linkage (397)
RDF property	dcat:landingPage
Definition in English	Link to metadata description of originating data portal

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

Maintainer e-mail

ID	Identifier	OGD short name	CKAN field	Amount
34	**Maintainer e-mail**	**maintainer_email**	**maintainer_email**	**1**

Definition	E-mail of the entity or person responsible for the data set, service or document
Explanation	E-mail address of the entity or person responsible for the data set, service or document. In small organisations the maintainer may at the same time be the publisher.
Example	poststelle.magistratsabteilung33@wien.gv.at
ON A 2270:2010	2.5.4.5 - electronicMailAddress
ON/EN/ISO 19115:2003	eMailAdd (386)
RDF property	adms:contactPoint
Definition in English	Email address of the person or entity responsible for the resource.

ID … consecutive unique numbering in the OGD metadata catalogue for Austria
Amount… 1= single-value field N=multi-value field

(8) Vocabulary for the metadata structure

a) OGD-Formats

Texts and tables	Format[1]
Comma Separated Value	csv
Hypertext Markup Language for unstructured texts (HTML)[2]	html
JSON (JavaScript Object Notation)	json
Open Document Formats	odt, ods,...
Resource Description Framework	rdf
Newsfeed/Webfeed Syndication	rss, atom
Classical text files	txt
Extensible Markup Language	xml

Images and graphics	Format
Graphics Interchange Format	gif
JPEG	jpeg
Portable Network Graphics	png
Scalable Vector Graphics	svg+xml
Tagged Image File (TIFF)	tiff

Geo formats	Format
Geography Markup Language	gml
GPS Exchange Format	gpx
Keyhole Markup Language	kml, kmz
GeoRSS	rss+xml
ESRI Shapefile	shp
GeoJSON	json

[1] Format listed with the data set or service in the OGD portal. Media types registered with IANA (http://www.iana.org/assignments/media-types) must use the assigned formats, others may deviate. Lower cases are used for all formats.

[2] HTML documents conform with the OGD principles, provided HTML is used as a logical structure for data. HTML pages with visualisation and logical structure as a rule do not meet the OGD requirements. Reference to existing websites containing visualised and unstructured information is not considered a valid OGD data set.

b) OGD interfaces

Web Catalogue Service (WCAS) and/or Catalogue Service for the Web (CSW [2.0.2 ISO profile])
Web Coverage Service (WCS 2.0)
Web Feature Service (WFS 1.1.0 & WFS 2.0)
Web Map Service (WMS 1.1.1 & WMS 1.3)
Web Map Tile Service (WMTS 1.0)
Sensor Observation Service (OGC SOS 1.0 & OGC SOS 2.0)

Documentation of GeoWebservices

When documenting GeoWebservices please note:

1. GeoWebservices must be documented as separate metadata sets and the ServiceURL be given as a GetCapabilities request:

   Example

   Dataset or service

Name	Modified on	format
WMS GetCapabilities		wms

2. The geodata retrievable via the GeoWebService must also be documented as separate metadata sets. The ServiceURL in this case must be given both as a GetCabaililties request and as an example request (GetMap) for the formats supported by the service.

   Example

   Dataset or service

Name	Modified on	format
WFS GetCapabilities		wfs
WFS GetFeature (CSV Example)		csv
WFS GetFeature (GML Example)		gml
WFS GetFeature (JSON Example)		json
WFS GetFeature (SHP Example)		shp

c) Categories

OGD categories Austria	English	publicdata.eu	Theme categories according to EN ISO 19115
Arbeit	Employment	Employment	Society, economy
Bevölkerung	Population	Population	Society
Bildung und Forschung	Education and science	Education and Communication	Geoscientific information, environment, buildings
Finanzen und Rechnungswesen	Finance	Finance and Budgeting	
Geographie und Planung	Geography and planning	Geography	Boundaries buildings altitude readings planning documents/land registers statements of place geosciences image data/base maps/land cover Biota
Gesellschaft und Soziales	Society	Social Questions	Society
Gesundheit	Health	Health	Health care
Kunst und Kultur	Culture	Culture and Arts	Buildings
Land- und Forstwirtschaft	Agriculture	Agriculture, Fisheries, Forestry	Agriculture, environment
Sport und Freizeit	Recreation		Buildings
Umwelt	Environment	Environment	Agriculture, environment, biology climatology/meteorology/atmosphere oceans inland waters
Verkehr und Technik	Transport	Transportation	Transport and traffic, supply and disposal/communications
Verwaltung und Politik	Government and politics	Government Services Politics and Transparency	Reconnaissance/military, borders, planning register, environment, buildings
Wirtschaft und Tourismus	Economy and tourism	Economy and Industry	Economy

- 11 of the 14 categories are based on the Sector Delimitation Regulation (E-Gov-BerAbgrV, StF: Federal Law Gazette. II No. 289/2004, attachment to section 3 para. 1, part 1) and the BLSG Convention "E-Government Procedural and Service Areas" (vlb 1.3) (http://reference.e-government.gv.at/EP-VV-vlb-1-3-0-Version-vom.563.0.html).
- The categories of Open Government Data for Vienna, Linz, Berlin, publicdata.eu, London, Seattle, Great Britain, Belgium, Canada und Kenya and the menu page for Statistics Austria were assessed for consistency.
- 3 categories from OGD practice were added (shown in *italics* in the table).
- The thematic classification derived from these sources is used as a basis for standardisation and from the best practice perspective of Cooperation OGD Austria is suitable for expansion.
- The English terms may be used for the URL convention.
  The table may also be used to create a mapping for the categories from publicdata.eu and EN ISO 19115.

d) Update frequency

Entry is based on the code list defined in ON EN ISO 19115:2003, section B5.18: "MaintFreqCd frequency with which modifications and deletions are made to the data after it is first produced"

German	Name	Domain code	Definition
kontinuierlich	continual	001	data is repeatedly and frequently updated
täglich	daily	002	data is updated each day
wöchentlich	weekly	003	data is updated on a weekly basis
14-tägig	fortnightly	004	data is updated every two weeks
monatlich	monthly	005	data is updated each month
quartalsweise	quarterly	006	data is updated every three months
halbjährlich	biannually	007	data is updated twice each year
jährlich	annually	008	data is updated every year
nach Bedarf	asNeeded	009	data is updated as deemed necessary
unregelmäßig	irregular	010	data is updated in intervals that are uneven in duration
nicht geplant	notPlanned	011	there are no plans to update the data
unbekannt	unknown	012	frequency of maintenance for the data is not known

e) RDF namespace prefixes and their complete URIs

dcterms	http://dublincore.org/documents/dcmi-terms
dcelements	http://purl.org/dc/elements/1.1/
dcat	http://www.w3.org/ns/dcat#
cnt	http://www.w3.org/2011/content#
cc	https://creativecommons.org/ns#
rdfs	http://www.w3.org/2000/01/rdf-schema#

f) DCAT-AP

DCAT-AP (https://joinup.ec.europa.eu/asset/dcat_application_profile/description) is an expansion of DCAT (http://www.w3.org/TR/vocab-dcat/) created to describe data and data portals. Originally launched as a project of the European Commission DCAT is now further developed by W3C. DCAT-AP is the format the European data portal will be using to describe its data.

Members of Cooperation OGD Austria were actively involved in the public assessment of DCAT-AP, making sure that existing expertise from the discussions on the OGD metadata structure for Austria was considered and a high degree of conformity between the two description formats was achieved. Thus, the OGD Metadata structure for Austria in its current version is easily converted to DCAT-AP without incurring losses, making it easy to find Austrian administration data on a European data portal. DCAT-AP in its final version (Version 1.0, https://joinup.ec.europa.eu/system/files/project/DCAT-AP_Final_v1.00.docx) refers to the Austrian metadata structure as an implementation (profile) of DCAT-AP.

(9) Version history

Changes in OGD Metadata 2.3

- Table of content is updated.
- Reference to the XML schema added .
- Field ID 20 – Publisher becomes a mandatory field in metadata core

Changes in OGD Metadata 2.2

- Introduction of version history.
- Chapter 3 from OGD Metadata 2.1 is integrated into the version history.
- All denominations "dataset or service" were expanded to read "dataset, service or document" where appropriate. This takes into account documents with the metadata set structure Austria. Consequently identifiers for metadata fields have changed (ID 14,15,16, 17, 18, 29, 31, 32).
- Field ID 6 – Metadata linkage: definition, explanation and example have been changed for ease of clarity, use of referencing on data basis, ONA 2270:2010 reference corrected, ON/EN/ISO 19119:2005 reference added.

- Field ID 8 – Title: definition added, explanation of the element indicating that the title of the 'resource' may also be used (to ensure compatibility with profil.AT and OGD Metadata Profile Germany)
- Field ID 11 – Keywords: explanation added.
- Field ID 19 – Maintainer: explanation and description have been changed for ease of clarity.
- Field ID 20 – Publisher: definition, explanation and example have been changed for ease of clarity.
- Field ID 21 – Licence: explanation adapted.
- Field ID 23 – Geographic range: explanations changed for ease of clarity, example corrected so that geographic range is defined as WKT.
- Field ID 32 – Resource character set code: reference in definition changed to ISO 19115:2003. List of character codes for data and services expanded.
- Fields ID 33 and ID 34 added.
- In chapter 9 – Vocabulary for the metadata structure
  Item a): heading changed, formats instead of endings, OGD interfaces shown in a separate subitem (b), chapter documentation of GeoWebservices and examples added.
  Item d): allocation of theme categories in accordance with EN ISO 19115 now possible.
  Item f): added, DCAT-AP

Changes in OGD Metadata 2.1

Not specified.

Changes in OGD Metadata 2.0

- In OGD Metadata - 1.1 the terms "dataset" and "resource" are often used to have the same meaning. OGD Metadata - 2.0 uses "dataset or service" instead of the two above terms. Consequently the names of some metadata fields have changed (ID 14,15,16,29).
- Each metadata field is clearly described with all its elements.
  For better readability headings for the describing elements have been changed:

OGD Metadata - 1.1	OGD Metadata - 2.0
Description German	Definition
Description English	Definition in English
Commentary	Explanation

- Metadata fields are given additional describing elements (CKAN field, example, ON A 2270:2010 and ON/EN/ISO 19115:2003 and RDF Properties).
- RDF properties are mapped with the DCAT model, providing full compatibility with the EC Recommendation (ISA Programme), as well as W3C (GLD Working Group Recommendation).
- Contents of the field "explanation" are designed to also serve as help texts, e.g. in CKAN.
- Definitions for metadata fields, categories and the code list of the update frequency are available in English (international verifiability, vocabulary recommendation, first evaluation of lists for specifying categories, etc.).
- Field ID=1: CKAN assignment changed.
- Field ID=5: Name and CKAN assignment changed.
- Field ID=6: Explanation adapted and cardinality/amount changed to N.
- One of the main changes concerns the metadata field ID=14 "Resource URL" (in OGD Metadata -1.1 "Ressourcen-Link")

  OGD Metadata - 2.0 recommends that links to more than one data set in "Resource URL" are provided only if these are guaranteed to have comparable contents.
  This would be the case where identical data sets are available in different formats.
  This would not be the case with data sets for a time series developed with different collection methods that are not comparable with each other.
  In case of doubt separate metadata sheets must be prepared for each data set!
- As most datasets have their own metadata sheets the metadata field ID=16 "**Resource name"** (in OGD Metadata – 1.1 "Ressourcen-Titel") was made **optional** and therefore removed from the metadata core. This has no bearing on implementations to date.

  Implementation of metadata sheets is thus made simpler: the field ID=16 "Resource name" is no longer mandatory, i.e. it need not have the same value as field ID=8 "Title".

- OGD Metadata – 1.1 uses the CKAN field **author** for ID=19 "Maintainer". To emphasise the significance of the maintainer OGD Metadata – 2.0 uses the CKAN field **maintainer**.
- OGD-Metadata - 2.0 introduces optional fields ID=30 "Licence citation", ID=31 "Resource language" und ID=32 "Resource character set code".
- The CKAN attribute "name" is no longer used in OGD-Metadata - 2.0.