SPA – Coordinated Metadata Catalogue

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1. Introduction
The Single Point of Access is an intermediary digital platform and it is part of 3 Delegated Regulations following Priority Actions b, c and e of the EU ITS Directive 2010/40/EU. One of the main functions is providing information about existing traffic relevant data to interested persons or companies. A detailed and standardized dataset description – the so-called metadata - is needed to create a searchable, easy manageable and high quality register.

There is more than one approach to find a practical way for an interoperable compatible minimum data description method. The working group composed by representatives from the Netherlands, Germany and Austria decided to limit its work to the definition of the attribute names and data field definitions. This approach has several benefits for the potential user seeking for information via a Single Point of Access (SPA). In case an international user accesses SPAs of several EU Member States, there should be no difference in wording and their meaning between the metadata provided, even in different languages. Thus, the considerations laid down in this document aim to support easy data exchange and to prevent data errors when exchanging data between databases. Therefore it is necessary to define data fields and data field definitions which we call metadata catalogue.

2. Purpose
Regarding to EU Regulations 885/2013, 886/2013 and 2015/962 every EU Member State has to implement a Single Access Point to data for its country. For reasons of data exchange, compatibility and interoperability the responsible partners of the Netherlands, Germany and Austria started a working group to develop a common minimum metadata set which describes all data covered by the EU Directive and the respective specifications. This minimum metadata set describes the most important data elements, a technical description of the data elements and contains all necessary information for the metadata definition necessary to fulfil the duties of the national SPAs.

The objectives of this paper are:

- Definition of data elements which are necessary to describe a dataset in a minimal but adequately way
- Definition of wordings and semantics
- Definition of predefined categorisations
- Definition of data field name
- Definition of data value type
- Recommendations of data field length

The definition of data elements, wordings and predefined categorisations form the core element for data exchange and interoperability. For a technical information exchange and later database operations technical parts like value type and length need to be harmonised.

The common minimum dataset should be compatible with the INSPIRE regulation (2007/2/EG), where appropriate, and take into account the DCAT - AP (Application profile for data profiles in Europe) specification. Every national implementation is free to add more metadata elements then described in this document. However it should adhere to the minimum metadata set as specified here.
This paper focuses only on content and the technical aspects of the minimum metadata set. It does not cover recommendations about the user interface, front end, data presentation or any other web part including all national laws (e.g. privacy).

3. Definition
Certain terms and definitions need to be specified to achieve a common understanding.

This figure is used for an easy understanding and the common idea of the metadata that describes both, the content of data and the publication i.e. the way data is accessible:

**Publication**

A publication is an abstract information element that covers the (recurring) data set(s) of a distinct content provided in a specific data format based on a specific communication method.

So a publication is the combination of a data set and the way the data is published (made accessible). The same data set (e.g. static parking information for truck drivers) can be provided in different ways e.g. as downloadable zip file or as XML using a SOAP web service. These are two publications based on one data set.

**Metadata set**

Metadata contain information about a publication facilitating discovery services.

Metadata set is the collection of all metadata elements.

**Data set**

A data set contains the road and traffic data which are provided by the data owner.

**Publisher**

A Publisher is the entity (company, authority or person) who publishes a dataset. He holds up the data access and defines data routines.

**Contact Point**

A Contact Point is the entity (company, authority or person) who registered the dataset at the SPA and is liable for the correctness of the metadata. In most case this will be the data owner.
Data Owner

A Data owner is the entity (company or authority) which owns or produces data. It is liable for processing, aggregation, quantity and quality of the data.

4. Minimum Metadata Elements - Description

In case of data exchanges between two databases concerning metadata, the element name, field type and recommend field size have to be the same and type equal. To enhance the usability the name should also be the same. In this chapter data fields will be described, but without any order or categorisation.

This paper does not cover with the exchange format and the communication protocol that shall be used for automatic (meta)data exchange. In a further step these formats and protocols should also be specified to facilitate automated search functionalities.

\[^{1}\text{A possible specification would be a XML-schema for the metadata (like INSPIRE do) and the definition of a SOAP web service for communication.}\]
### 4.1. Overview

<table>
<thead>
<tr>
<th>Name of Metadata element</th>
<th>Mandatory for Nation</th>
<th>Field name (proposal)</th>
<th>Type of value</th>
<th>Field length (proposal)</th>
<th>Technical description</th>
<th>Example</th>
</tr>
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<td>-</td>
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<td>2015-10-23T09:00:00+01:00</td>
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<tr>
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<td>md_language</td>
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<td>ger; eng;</td>
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<td></td>
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<td>Temporal information</td>
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</tr>
<tr>
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<td>-</td>
<td>YYYY-MM-DD'T'hh:mm:ssTZD; NULL</td>
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</tr>
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<td>Geographical coverage</td>
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<td></td>
<td></td>
<td></td>
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</tr>
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<td>val_area</td>
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<td>-</td>
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<td>-</td>
<td>Predefined; UTF8; multiple choice; NOT NULL</td>
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<td>Responsibilities/Contact Information</td>
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<td></td>
<td></td>
<td></td>
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<td>Text; utf8; NOT NULL</td>
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<tr>
<td></td>
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<td>50</td>
<td>Text; utf8; NULL</td>
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<td></td>
<td>True</td>
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<td></td>
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<tr>
<td></td>
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<td>p_website</td>
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<td>50</td>
<td>Text; utf8; NULL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>False</td>
<td>p_tel</td>
<td>Free text</td>
<td>50</td>
<td>Text; utf8; NULL</td>
<td></td>
</tr>
<tr>
<td>Data owner</td>
<td>False</td>
<td>do_name</td>
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<td>50</td>
<td>Text; utf8; NULL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>True</td>
<td>do_org_name</td>
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<td>50</td>
<td>Text; utf8; NOT NULL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>False</td>
<td>do_address</td>
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<td>50</td>
<td>Text; utf8; NULL</td>
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<tr>
<td>Condition for use</td>
<td>True if con_lic is used</td>
<td>con_description</td>
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<td>1000</td>
<td>Text; utf8; NOT NULL</td>
<td><a href="http://data.at/terms.pdf">http://data.at/terms.pdf</a></td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------</td>
<td>-----------------</td>
<td>-----------</td>
<td>-------</td>
<td>---------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Structure of publication</td>
<td>True</td>
<td>tech_structure</td>
<td>Predefined Text</td>
<td>-</td>
<td>Predefined; single choice; utf8; NOT NULL</td>
<td>Datex II XML</td>
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<td>Publication structure description</td>
<td>True if con_lic is used</td>
<td>p_structure_description</td>
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<td>1000</td>
<td>Text; utf8; NULL</td>
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</tr>
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<td>interface</td>
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<td>-</td>
<td>Predefined; single choice; utf8; NOT NULL</td>
<td>SOAP;</td>
</tr>
<tr>
<td>Communication method</td>
<td>True</td>
<td>com_method</td>
<td>Predefined Text</td>
<td>-</td>
<td>Predefined; Multiple choice; utf8; NOT NULL</td>
<td>push;</td>
</tr>
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<td>Access URL</td>
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<td>access_url</td>
<td>Free text</td>
<td>250</td>
<td>Text; utf8; NOT NULL</td>
<td><a href="http://data.at/access.csv">http://data.at/access.csv</a></td>
</tr>
<tr>
<td>Update frequency</td>
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<td>update_freq</td>
<td>Predefined Text</td>
<td>-</td>
<td>Predefined; Single choice; utf8; NOT NULL</td>
<td>yearly</td>
</tr>
<tr>
<td>Quality Indicator</td>
<td>True</td>
<td>qm_indicator</td>
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<td>1000</td>
<td>Text; UTF8; NOT NULL</td>
<td>According to the EIP+ quality measures</td>
</tr>
<tr>
<td>National Body assessment date</td>
<td>False</td>
<td>assessment_date</td>
<td>DateTime</td>
<td>-</td>
<td>YYYY-MM-DD'T'hh:mm:ssTZD; NULL</td>
<td>2015-10-23T09:00:00+01:00</td>
</tr>
</tbody>
</table>
4.2. Metadata elements for minimum metadata set

4.2.1. Metadata information

4.2.1.1. Metadata Date

Description and References
The element “Date of metadata” is the date stamp (date and time) when the current version of the metadata set was created or last modified. It will be generated by the system. Therefore it’s mandatory.

Reference to:
DCAT-AP: catalogue-record: modified (mandatory)
INSPIRE: Metadata date (mandatory)
ISO8601 and W3C for the description

Obligation: mandatory
Type: DateTime
Description: YYYY-MM-DD’T’hh:mm:ssTZD [2015-10-23T09:00:00+01:00]; NOT NULL

Proposed Database features

Proposed Fieldname: metadata_date
Proposed length: -

4.2.1.2. Metadata language

Description and References
This element indicates the language in which the metadata is described. Next to the national operators and publishers there are international operators which use their own language for descriptions. According to the ISO 639 standard part 2, there is a 3 letter code for 24 EU languages, which should be used. In the minimum data set at least one language has to be set. According to the international character of each SPA and in consideration of MS having multiple official languages it should be possible to select more than one language. It is preferred to have a predefined selection of languages.

The list of codes for the 24 official EU languages is:
Bulgarian – bul  Irish – gle
Croatian – hrv  Italian – ita

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Czech – cze
Danish – dan
Dutch – dut
English – eng
Estonian – est
Finnish – fin
French – fre
German – ger
Greek – gre
Hungarian – hun
Latvian – lav
Lithuanian – lit
Maltese – mlt
Polish – pol
Portuguese – por
Romanian – rum
Slovak – slo
Slovenian – slv
Spanish – spa
Swedish – swe

The list of all the codes is defined at http://www.loc.gov/standards/iso639-2/
Regional languages also are included in this list.

Reference to:
DCAT-AP: catalogue-record: language (mandatory)
INSPIRE: Metadata language (mandatory)

Obligation: mandatory
Type: Predefined text
Description: Predefined; UTF8; NOT NULL

Proposed Database features
Proposed Fieldname: md_language
Proposed length: -

4.2.1.3. Metadata point of contact

Description and References
The contact point describes an organisation, if applicable a person, which is responsible for creation
and maintenance of the metadata. This person or company is the direct contact for the single access
point and data searching users. This information is mandatory but each user can decide if the
information is shown in the SPA-Interface.

For the data fields the common vCard-format is used. The vCard standard defines up to 40 fields,
which could be filled in. To simplify metadata input, only a selection of fields are part of the
minimum meta data set and might be shown in the user interface.

Reference to:
DCAT-AP: n/a

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**INSPIRE: Metadata point of contact (mandatory)**

**Obligation:** Organisation Name and E-Mail: mandatory, other fields: optional

**Type:** vCard-Textfields

<table>
<thead>
<tr>
<th>Title</th>
<th>Proposed DB_Name</th>
<th>DB_Type</th>
<th>Proposed DB_Field_length</th>
<th>DB_description</th>
</tr>
</thead>
<tbody>
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</tr>
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<td>cp_org_name</td>
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</tr>
<tr>
<td>Address</td>
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</tr>
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</tr>
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<td>50</td>
<td>Text, utf8, NULL</td>
</tr>
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<td>Telephone number</td>
<td>cp_tel</td>
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<td>50</td>
<td>Text, utf8, NULL</td>
</tr>
</tbody>
</table>
4.2.2. Content Information

4.2.2.1. Name of dataset

Description and References

The field “Name of dataset” is a free text entry. It describes the data set in a generic term or short description. The author is encouraged to write a meaningful description. This field is only for a brief overview, because free text fields are unsuitable for searches, due to spelling mistakes, different wordings and other aspects. The categorisation of the data sets is done within other fields.

Reference to:
DCAT-AP: dataset: title, free text with opt. further language versions (mandatory)
INSPIRE: Resource title, free text (mandatory)

Obligation: mandatory

Type: Free text

Description: Free Text (e.g. Highway Network); utf8; NOT NULL

Proposed Database features

Proposed Fieldname: d_name

Proposed length: 200

4.2.2.2. Description of dataset

Description and References

To give the user more information about content of the dataset a brief description is mandatory. It’s a free text field. The used language for the description should be the language from the field “metadata language”. If more than one language is marked at “metadata language”, for each language there should be another description.

Reference to
DCAT-AP: dataset: description, free text with opt. further language versions (mandatory)
INSPIRE: Resource abstract, free text (mandatory)

Obligation: mandatory

Type: Free text

Description: Free Text (Contains static high priority network of Austria: Road Name, Lane number, Direction); NOT NULL
Proposed Database features

Proposed Fieldname: d_ description
Proposed length: 1000

4.2.2.3. Dataset type category / Dataset detailed information

Description and References

The “Data Set Type” is the main classification of the publication content. It contains an aggregated dataset and detailed dataset. According to the EU-Regulations there are predefined categorisations for Data Sets of priority b/c/e. For the reason of usability it is not feasible to show all 50 categories in the user interface. But in case that these categories are needed for validation by the national body they have to be mentioned in the SPA data system. The currently agreed assembling method can be found as ANNEX 1

Reference to:
DCAT-AP: dataset: theme (definable categories, recommended)
INSPIRE: Keyword: free text (may originate from a controlled vocabulary, mandatory)

Dataset type category

Obligation: mandatory
Type: predefined list
Description: lookup Table, NOT NULL

Proposed Database features

Proposed Fieldname: data_agr_type
Proposed length: -

Dataset detailed information

Obligation: optional (mandatory for self declaration)
Type: predefined list
Description: lookup Table, NULL

Proposed Database features
Proposed Fieldname: data_org_type

Proposed length: -

4.2.2.4. Dataset language

Description and References

This element indicates the language of the data itself (text fields, addresses etc.). Depending on the data source the language will be different. Selection of one language is mandatory. According to the ISO 639 standard part 2, a 3 letter code for 24 EU languages is available. For implementation of this item in the metadata registry, it is recommended to have a predefined selection of languages.

The list of codes for the 24 official EU languages is:
Bulgarian – bul Irish – gle
Croatian – hrv Italian – ita
Czech – cze Latvian – lav
Danish – dan Lithuanian – lit
Dutch – dut Maltese – mit
English – eng Polish – pol
Estonian – est Portuguese – por
Finnish – fin Romanian – rum
French – fre Slovak – slo
German – ger Slovenian – slv
Greek – gre Spanish – spa
Hungarian – hun Swedish – swe

The list of all the codes is defined at http://www.loc.gov/standards/iso639-2/
Regional languages also are included in this list.

Reference to:
DCAT-AP: dataset: language (worldwide), multiple languages possible (optional)
INSPIRE: Resource language (European subset) (mandatory)

Obligation: mandatory

Type: predefined list

Description: Text; UTF8; NOT NULL

Proposed Database features

Proposed Fieldname: ds_language

Proposed length: -
4.2.3. Temporal information

4.2.3.1. Start date of publication

Description and References

This field describes from which date on the data delivery is applicable. In the metadata registry, this field can be set optional for the user input but for the data base it is mandatory. If there is no entry it means that the publication gets valid immediately and the timestamp is the same as the metadata timestamp.

Reference to:
DCAT-AP: n/a (validity of data set: dataset: temporal coverage – start date)
INSPIRE: n/a (validity of data set: temporal extent – starting date)

Obligation: mandatory (no entry means that the publication gets valid immediately)

Type: DateTime

Description: YYYY-MM-DD'T'hh:mm:ssTZD [2015-10-23T09:00:00+01:00]; NOT NULL

Proposed Database features

Proposed Fieldname: p_start_date

Proposed length: -

4.2.3.2. End date of publication

Description and References

This field describes the date when data delivery to this publication terminates. This field is optional, if there is no entry it means that the publication does not expire.

Reference to:
DCAT-AP: n/a (validity of data set: dataset: temporal coverage – end date)
INSPIRE: n/a (validity of data set: temporal extent – end date)

Obligation: optional

Type: DateTime

Description: YYYY-MM-DD'T'hh:mm:ssTZD [2015-10-23T09:00:00+01:00]; NOT NULL

Proposed Database features
Proposed Fieldname: p_end_date

Proposed length: -

4.2.4. Geographical coverage

4.2.4.1. Area covered by publication

Description and References

This attribute describes the geographic area that is covered by datasets of the publication. Datasets can be valid for more than one region, for that reason a multiple choice selection should be applied. A dataset without an area is not valid, therefore this field is mandatory.

NUTS (Nomenclature des unités territoriales statistiques) provide a clearly clarification of regional levels. The “NUTS Level” defines a possible selection of area level (city, district, and region).


The standard selection is “Nuts 0”. It is the country level and tells that the data are valid in one or more countries. The Nuts-Level is another categorisation field.

Reference to:
DCAT-AP: dataset: spatial/geographical coverage – A spatial region or named place (free text, optional)
INSPIRE: Geographic bounding box (westbound and eastbound longitudes, and southbound and northbound latitudes in decimal degrees, mandatory)

Obligation: mandatory

Type: Predefined text

Description: Predefined NUTS 0-3; UTF8; Multiple choice; NOT NULL

Proposed Database features

Proposed Fieldname: val_area

Proposed length: -
4.2.4.2. Network coverage

Description and References

The field “Network coverage: main category” describes the part of the transport network (functional road classes) that is covered by datasets of the publication in a general way. The idea is to provide more detailed information about the data coverage. Since it should be searchable and compatible to other SPA’s, the categorisation has to be harmonized.

The categories are (proposal from the working group, as no commonly agreed European definition is existing):

- Motorways
- arterial_road_network (in the meaning of state roads or federal roads)
- Regional roads
- Urban and local roads
- other

Reference to:
DCAT-AP: n/a
INSPIRE: n/a

Obligation: mandatory

Type: Predefined text

Description: Predefined; multiple choice; NOT NULL

Proposed Database features

Proposed Fieldname: net_category

Proposed length: -

4.2.4.3. Network coverage description

Description and References

The field “Network coverage: Description” describes details of transport network (functional road classes) on a national basis. This is necessary due to different meanings and understanding of different terms in each country. This field is optional and free text, so each country can describe the parts of the road network covered by the data set.

Reference to:
DCAT-AP: n/a
INSPIRE: n/a
4.2.5. Responsibilities / contact information

4.2.5.1. Publisher

Description and References

The “publisher” describes an entity (company and person) that publishes datasets of a publication. He is responsible for the given information and concludes a contract if applicable. The contact information has to be as complete as possible to establish a direct contact to the publisher. The publisher contact information is mandatory.

For the data fields the common vCard is used. But there are up to 40 fields available. For efficiency reasons, only a selection of fields of the possible 40 data fields of the vCard standard is used. For privacy reasons only non-person datafields (e.g. organisation name, organisation address etc.) might be displayed in the user interface.

Reference to:
DCAT-AP: dataset: publisher – only organisation name is given (free text);
dataset: contact point (contact details for feedback); recommended
INSPIRE: Responsible party, role: publisher – organisation name and e-mail address; mandatory

Obligation: Organisation Name and E-Mail: mandatory, other fields: optional

<table>
<thead>
<tr>
<th>Title</th>
<th>DB_Name</th>
<th>DB_Type</th>
<th>DB_Field_length</th>
<th>DB_description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>p_name</td>
<td>Free text</td>
<td>50</td>
<td>Text, utf8, NULL</td>
</tr>
<tr>
<td>Organisation Name</td>
<td>p_org_name</td>
<td>Free text</td>
<td>50</td>
<td>Text, utf8, NOT NULL</td>
</tr>
<tr>
<td>Address</td>
<td>p_address</td>
<td>Free text</td>
<td>50</td>
<td>Text, utf8, NULL</td>
</tr>
<tr>
<td>E-Mail</td>
<td>p_email</td>
<td>Free text</td>
<td>50</td>
<td>Text, utf8, NOT NULL</td>
</tr>
<tr>
<td>Website</td>
<td>p_website</td>
<td>Free text</td>
<td>50</td>
<td>Text, utf8, NULL</td>
</tr>
<tr>
<td>Telephone number</td>
<td>p_tel</td>
<td>Free text</td>
<td>50</td>
<td>Text, utf8, NULL</td>
</tr>
</tbody>
</table>
4.2.5.2. Data Owner

Description and References

The Data Owner defines the company that owns the dataset of a publication and is responsible for content and quality of the dataset. In case that the publisher is also the data owner the contact data will be copied from the publisher entry.

Reference to:
DCAT-AP: dataset: creator – authority under whose responsibility the dataset is made available (free text; optional)
INSPIRE: responsible party, role: owner (organisation name, e-mail address; mandatory if applicable)

Obligation: Organisation Name and E-Mail: mandatory, other fields: optional

<table>
<thead>
<tr>
<th>Title</th>
<th>DB_Name</th>
<th>DB_Type</th>
<th>DB_Field_length</th>
<th>DB_description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>do_name</td>
<td>Free text</td>
<td>50</td>
<td>Text, utf8, NULL</td>
</tr>
<tr>
<td>Organisation Name</td>
<td>do_org_name</td>
<td>Free text</td>
<td>50</td>
<td>Text, utf8, NOT NULL</td>
</tr>
<tr>
<td>Address</td>
<td>do_address</td>
<td>Free text</td>
<td>50</td>
<td>Text, utf8, NULL</td>
</tr>
<tr>
<td>E-Mail</td>
<td>do_email</td>
<td>Free text</td>
<td>50</td>
<td>Text, utf8, NOT NULL</td>
</tr>
<tr>
<td>Website</td>
<td>do_website</td>
<td>Free text</td>
<td>50</td>
<td>Text, utf8, NULL</td>
</tr>
<tr>
<td>Telephone number</td>
<td>do_tel</td>
<td>Free text</td>
<td>50</td>
<td>Text, utf8, NULL</td>
</tr>
</tbody>
</table>
4.2.6. Condition for use

4.2.6.1. Contract or licence

Description and References

The field “Contract or licence” indicates the condition of use: whether a free and unrestricted use is possible, a contract has to be concluded or a licence has to be agreed on to use a dataset. Therefore there are predefined tags where only one can be selected. “No licence – No contract” is preselect, for this mandatory field.

Predefined tags:

- No licence – No contract
- Licence and Free of charge
- Licence and Fee
- Contract and Free of charge
- Contract and Fee

Reference to:
DCAT-AP: n/a (indirectly if licence and/or right statement is provided)
INSPIRE: conditions for access and use (free text with predefined suggestions); mandatory

Obligation: mandatory

Type: Predefined text

Description: Predefined values; UTF8; NOT NULL

Proposed Database features

Proposed Fieldname: con_lic
Proposed length: -

4.2.6.2. Condition for use

Description and References

If licence or contract in field “contract or licence” is selected the condition of use has to be clarified. Here a sample contract or the terms of use need shall be provided as part of the metadata set, in order to allow potential data consumers to check and prove terms and conditions before getting in touch with the publisher. This field contains an URL to a PDF document, which contains all important information. The operator of SPA can decide to store that document on the SPA server to ensure that the document is accessible.
Reference to:
DCAT-AP: catalogue record: licence / dataset: access rights (complex structure); optional
INSPIRE: conditions for access and use (free text with predefined suggestions); mandatory

**Obligation**: mandatory if contract or license is selected

**Type**: Free text

**Description**: URL; NULL

**Proposed Database features**

**Proposed Fieldname**: con_description

**Proposed length**: 1000
4.2.7. Access information

4.2.7.1. Structure of Publication

Description and References

The “structure of publication” describes the technical format of the data set. There are predefined tags of the common data formats.

The options to be used are:

- DATEX II XML
- tpegML
- RSS
- KML
- JSON
- XML
- Mpeg4
- MDM_Container
- Vlog
- Other

Reference to:
DCAT-AP: distribution: format (media type / extent: ods, csv, xls, xlsx, rdf, ttl, xml); recommended
INSPIRE: n/a

Obligation: mandatory

Type: Predefined text

Description: Predefined Text (DATEX II XML); NOT NULL

Proposed Database features

Proposed Fieldname: tech_structure

Proposed length: -

4.2.7.2. Publication Structure Description

Description and References

If the “structure of publication” identifies the technical format of the data set as “other”, here a definition needs to be done.

Reference to:
DCAT-AP: n/a
INSPIRE: n/a

**Obligation:** mandatory, if the “structure of publication” identifies the technical format of the data set as “other”

**Type:** Free text

**Description:** Free Text; NULL

**Proposed Database features**

**Proposed Fieldname:** p_structure_description

**Proposed length:** 1000

### 4.2.7.3. Access interface – Application layer protocol

**Description and References**

The access interface describes the IT protocol of the data interface that will be used to transfer data. For error minimising there are predefined tags. It is mandatory and the minimum selection is “other”.

Options to be used are:

- SOAP
- OTS2
- HTTP/HTTPS
- FTP
- RSS
- Other

Reference to:
DCAT-AP: n/a
INSPIRE: n/a

**Obligation:** mandatory

**Type:** Predefined text

**Description:** Predefined Values; UTF8; NOT NULL

**Proposed Database features**

**Proposed Fieldname:** interface

17.12.2015
4.2.7.4. Communication method

Description and References

The communication method describes the transmitting procedure from data provider to data receiver. It differs between push and pull. This mandatory field gives the service provider the opportunity to check the common data procedure on compatibility. If the data could be received by more than one method, a multiple choice selection could be done.

Reference to:
DCAT-AP: n/a
INSPIRE: n/a

Options to be used are:

- Push
- Pull

Obligation: mandatory

Type: Predefined text

Description: Predefined Values; UTF8; NOT NULL

Proposed Database features

Proposed Fieldname: com_method

Proposed length: -
Reference to:
DCAT-AP: distribution: Access URL; mandatory
INSPIRE: resource locator; optional

**Obligation**: mandatory

**Type**: Free text

**Description**: URL (http://nap.austriatech.at/sampledata/asf.html); NOT NULL

**Proposed Database features**

**Proposed Fieldname**: access_url

**Proposed length**: 250
4.2.8. Quality information

4.2.8.1. Update frequency

Description and References

The update frequency describes the update rate of the data set. If there is a specific time interval or data only provided on occurrence precise information should be given. It is mandatory to select one update category.

Pre definitions to be used:

- On occurrence
- Up to 1min
- Up to 5min
- Up to 10 min
- Up to 15 min
- Up to 30 min
- Up to 1h
- Up to 2h
- Up to 3h
- Up to 12h
- Up to 24h
- Up to Weekly
- Up to Monthly
- Up to every 3month
- Up to every 6month
- Up to yearly
- more

Reference to:
DCAT-AP: Dataset: Frequency (minutely, daily ..., half yearly, annual) optional
INSPIRE: n/a

Obligation: mandatory

Type: Predefined text

Description: Predefined (up to yearly); NOT NULL

Proposed Database features

Proposed Fieldname: update_freq

Proposed length: -

17.12.2015
4.2.8.2. Quality Indicator

Description and References

The quality indicator describes means and results of a quality assessment. This information shall assist data consumers in determining the value of data for their own services. Furthermore, it can be helpful for the validation process by a national body, where necessary. In accordance to INSPIRE and because of the ongoing quality analysis, it is proposed to describe of the Quality indicator by free text and link by an additional URL to further quality information.

Reference to:
DCAT-AP: n/a
INSPIRE: lineage (free text; “Where appropriate it may include a statement whether the data set has been validated or quality assured, whether it is the official version (if multiple versions exist), and whether it has legal validity.”) rec. if appropriate

Obligation: mandatory

Type: Free text

Description: Text/URL (Quality Indicators); NOT NULL

Proposed Database features

Proposed Fieldname: qm_indicator

Proposed length: 1000

4.2.8.3. National Body Assessment Date

Description and References

For the future validation process by the national body an indicator field is necessary. It indicates if a self-declaration was cross checked for correctness by a national body or not. If the dataset is cross-checked the date is mentioned in the data storage. It’s optional and only needed for the assessment of compliance process.

Obligation: optional

Type: DateTime

Description: YYYY-MM-DD’T’hh:mm:ssTZD [2015-10-23T09:00:00+01:00]; NOT NULL

Proposed Database features

Proposed Fieldname: assessment_date
Proposed length: -
## ANNEX I – Clustering of Dataset Types

<table>
<thead>
<tr>
<th>Dataset type (Category)</th>
<th>Detailed information (necessary for self-declaration)</th>
<th>Priority action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static road network data</td>
<td>Geometry, Road width, Number of lanes, Gradients, Junctions, Road classification</td>
<td>Action B: RTTI</td>
</tr>
<tr>
<td>Traffic regulations and identifying dangers</td>
<td>Access conditions for tunnels, Access conditions for bridges, Speed limits, Permanent access restrictions and other traffic regulations, other traffic regulations, traffic circulation plans</td>
<td>Action B: RTTI</td>
</tr>
<tr>
<td>Toll information</td>
<td>Location of tolling stations, Identification of tolled roads and applicable static road user charges, Variable road user charges</td>
<td>Action B: RTTI</td>
</tr>
<tr>
<td>Parking information</td>
<td>Location of parking places and service areas, Availability of parking places, Cost of parking</td>
<td>Action B: RTTI</td>
</tr>
<tr>
<td>Filling and charging stations</td>
<td>Location of charging points for electric vehicles and the conditions for their use, location of compressed natural gas, liquefied natural gas, liquefied petroleum gas stations, Availability of charging points for electric vehicles</td>
<td>Action B: RTTI</td>
</tr>
<tr>
<td>Freight logistics</td>
<td>Freight delivery regulations, Location of delivery areas, Availability of delivery areas</td>
<td>Action B: RTTI</td>
</tr>
<tr>
<td>Location of public transport stops and interchange points</td>
<td>Location of public transport stops and interchange points</td>
<td>Action B: RTTI</td>
</tr>
<tr>
<td>Dynamic access information</td>
<td>Road closures, Lane closures, Bridge closures</td>
<td>Action B: RTTI</td>
</tr>
<tr>
<td>Temporary traffic regulation</td>
<td>Direction of travel on reversible lanes, Dynamic overtaking bans on heavy goods vehicles</td>
<td>Action B: RTTI</td>
</tr>
<tr>
<td>Road Work information</td>
<td>road works</td>
<td>Action B: RTTI</td>
</tr>
<tr>
<td>Unexpected events and conditions (not being safety related)</td>
<td>Accidents and incidents, Poor road conditions, Weather conditions affecting road surface and visibility</td>
<td>Action B: RTTI</td>
</tr>
<tr>
<td>Traffic management measures</td>
<td>Dynamic access conditions for tunnels</td>
<td>Action B: RTTI</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>--------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td>Dynamic access conditions for bridges</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dynamic Speed limits</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dynamic access restrictions and other traffic regulations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>temporary traffic management measures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Traffic management plans</td>
<td></td>
</tr>
<tr>
<td>Real-time traffic data</td>
<td>Traffic volume</td>
<td>Action B: RTTI</td>
</tr>
<tr>
<td></td>
<td>Speed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Travel times</td>
<td></td>
</tr>
<tr>
<td></td>
<td>locations of queues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Traffic data at border crossings to third countries</td>
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<tr>
<td></td>
<td>Estimated travel times</td>
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<tr>
<td></td>
<td>waiting time at border crossings to non-EU Member States</td>
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<tr>
<td></td>
<td>Expected delays</td>
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</tr>
<tr>
<td>Safety Related Traffic Information</td>
<td>Temporary slippery road</td>
<td>Action C: SRTI</td>
</tr>
<tr>
<td></td>
<td>Animal, people, obstacle, debris on the road</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unprotected accident area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short term road works</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reduced visibility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wrong-way driver</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unmanaged blockage of a road</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exceptional weather conditions</td>
<td></td>
</tr>
<tr>
<td>Truck parking information</td>
<td>Static Truck parking information</td>
<td>Action E: Truck parking information</td>
</tr>
<tr>
<td></td>
<td>Dynamic Truck parking information</td>
<td></td>
</tr>
</tbody>
</table>
ERROR: undefined filename
OFFENDING COMMAND: C:\Windows\Temp\PDFCreator\Spool\C4CDA3E7FFBD40638B3557E6649154B1.mtd
STACK: