

# TRAFFIC DATA ECOSYSTEM - DATASET AND SERVICE DESCRIPTIONS

**Version control:**

<b>Version</b>	<b>Date</b>	<b>Authors</b>	<b>Comments</b>
0.1	7.10.2021	Lautanala, Kallio, Majala, Venäläinen, Lausvaara	Initial draft
0.2	12.12.2021	Lautanala	Minor mods
0.3	03.06.2022	J Lautanala	Minor Mods

## Purpose for Data and Service Description

In order to allow potential data and service users to successfully and cost-efficiently discover the relevant data, it is necessary to properly describe the content and structure of this data using appropriate Metadata. There is a need to harmonise Metadata descriptions and structures for the following

reasons:

- to help to make data and services available and searchable for pan-European service providers,
- to ensure Metadata to be machine-readable in a later stage, and
- to ensure a common understanding of the listed data content and services.

This document describes the most important Metadata elements, a technical description of the Metadata elements.

The objectives of this paper are:

- Definition of data elements which are necessary to describe a dataset/service 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.

## Definitions

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 (Source: EU EIP Metadata Catalogue):

EU EIP\_Coord. Metadata Catalogue\_Annex I\_v2.0\_191115.xlsx

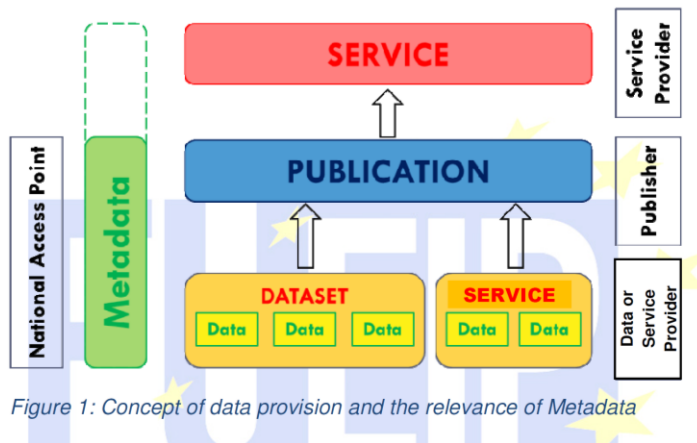


Figure 1: Concept of data provision and the relevance of Metadata

**Dataset:** A data set contains the data which are provided by the data owner.

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

**Service:** A combination of data and application logic provided (either a publication or a end user).

## Metadata descriptions - Dataset

The following table shows an overview of the Metadata elements, as defined in this document. The most-right column shows an example, how the Metadata elements could be filled for a specific data set.

Area	Element name	Element type	Mandatory	Example
<b>Metadata info</b>	Metadata date	Date	Yes, automatic	4.10.2021
	Metadata language	Predefined (en/se/fi)	Yes, automatic	en
<b>Content info</b>	Dataset name	Free text	Yes	Finnish traffic cameras
	Dataset description	Free text	Yes	Pictures of public Fintraffic owned traffic cameras
	Data provider	Free text	Yes	Fintraffic
	Data contact	Free text	Yes	<a href="mailto:Mika.Ahvenainen@fintraffic.fi">Mika.Ahvenainen@fintraffic.fi</a>
	Resource type	Predefined	no	Pictures, JPEG
	Dataset category	Predefined	no	Road/Safety/Cameras
	Keywords	Free text list	No	Cameras, Finland, Traffic
	Data use cases and value	Free text	no	Check status of Finnish main roads
	Data coverage	Free text	no	Finland main roads
	Data origin	Free text	No	Fintraffic cameras
Data size	Free text	No	1.5MB / picture	

	Contains PID	Yes/no	No	No
<b>Access info</b>	Data encoding	Predefined / Free text	No	JPEG
	Data format	Predefined / Free text	Yes	JSON
	Access URL / Location:	Free text	Yes	<a href="https://tie.digitraffic.fi/api/v1/data/camera-data">https://tie.digitraffic.fi/api/v1/data/camera-data</a>
<b>Quality info</b>	Update frequency	Predefined	Yes	Every 10 mins
	Quality description	free text	no	680 x 380 pixels, XYZ Certified data
	Service levels	Predefined / free text	No	Best effort
<b>Rights</b>	Rights to use	Predefined / free text	Yes	CC4.0
	Restrictions for use	Predefined / free text	no	Please see digitraffic.fi
	Fees and payment terms	Predefined / free text	no	Free
	Authentication / Authorization	Yes/no	no	No authentication required
<b>Additional info</b>	Additional info	Free text	No	Fintraffic provides also other datasets. Please see provider URL for more info.
	Data provider URL:	URL	No	<a href="http://www.digitraffic.fi">www.digitraffic.fi</a>

## Metadata descriptions - Service

Area	Element name	Element type	Mandatory	Example
<b>Metadata info</b>	Metadata date	Date	Yes, automatic	6.10.2021
	Metadata language	Predefined	Yes, automatic	en
<b>Content info</b>	Service name	Free text	Yes	Liikennetilanne
	Service description	Free text	Yes	Liikennetilanne provides info about Finnish traffic situation. For more info <a href="https://liikennetilanne.fintraffic.fi/palvelukuvaus">https://liikennetilanne.fintraffic.fi/palvelukuvaus</a>
	Service provider	Free text	Yes	Fintraffic
	Service contact	Free text	Yes	<a href="mailto:mika.ahvenainen@fintraffic.fi">mika.ahvenainen@fintraffic.fi</a>
	Service type	Predefined	no	Web site

	Service category	Predefined	no	Situational awareness
	Keywords	Free text list	No	Finland, traffic, situational awareness
	Service use cases and value	Free text	no	Check traffic in Finland
	Service coverage	Free text	no	Finland main roads.
	Data origin	Free text	No	Digitraffic.fi
	Data size	Free text	No	
	Reused components and data	Free text	No	Digitraffic data, latausasemat.fi data
<b>Access info</b>	Security and authentication	Free text	Yes	Free access
	Access URL	Free text	Yes	<a href="https://liikennetilanne.digitraffic.fi">liikennetilanne.digitraffic.fi</a>
<b>Quality info</b>	Update frequency	Predefined / Free text	Yes	Real time
	Quality description	free text	no	High quality data
	Service levels	free text	No	Best effort
<b>Rights</b>	Rights to use	free text	Yes	Free access
	Restrictions for use	free text	no	None
	Fees and payment terms	free text	no	Free service
<b>Additional info</b>	Additional info	Free text	No	<a href="mailto:mika.ahvenainen@fintraffic.fi">mika.ahvenainen@fintraffic.fi</a>