Environmental Noise Directive
Reporting guidelines

DF1_5 Noise sources

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Authors:

Núria Blanes (UAB), Guillem Closa (UAB), Maria José Ramos (UAB), Miquel Sáinz de la Maza (UAB), Eulàlia Peris (EEA), Darja Lihteneger (EEA)

European Environment Agency
European Topic Centre on Air pollution,
transport, noise and industrial pollution

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Author(s)
Núria Blanes, Guillem Closa, Maria José Ramos, Miquel Sáinz de la Maza(UAB)
Eulàlia Peris, Darja Lihteneger (EEA)

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Summary

The reporting guidelines are intended to support reporters that will be conducting the submission of data required under the Environmental Noise Directive. The document provides an overview to the reporting process in Reportnet 3.0 and it describes the quality checks that are undertaken during the submission process. In addition to this, reporting examples are also provided. A key goal of this document is to ensure a common understanding among data providers working on the implementation of the Environmental Noise Directive. This document should further be of assistance to both thematic and IT experts.

Acknowledgements

1 Introduction

1.1 Purpose of this document

This document aims to provide detailed guidance on the practicalities and processes for reporting environmental noise data to Reportnet 3.0, the central hub from which all e-Reporting activities handled by the EEA with Eionet and other partners will be performed.

In this context, a user is assumed to be a representative of an EU Member State or other reporting country who is submitting relevant country-level noise data to Reportnet 3.0.

These reporting guidelines are intended to support reporting countries in providing high quality noise reports in an efficient manner following the new Implementing Decision on *Setting up a mandatory data repository and a mandatory digital information exchange mechanism according to Directive 2002/49/EC.*

Specifically, this document is focused on the reporting of DF1_5 Noise sources and covers :

- The legal basis of the END requirements addressed in the Implementing Decision on Setting up a mandatory data repository and a mandatory digital information exchange mechanism according to Directive 2002/49/EC

- The technical requirements for the data submission

- The structure of Reportnet 3.0 in relation to this dataflow

- The practicalities involved in reporting and submitting data using Reportnet 3.0

These reporting guidelines are intended to be a stand-alone document that contains all necessary information for reporting. However, other documents and video recordings may offer additional detail on certain aspects and are available in the webpage : https://www.eionet.europa.eu/reportnet/docs/noise.

1.2 The legal basis

Reporting noise data under the Environmental Noise Directive (END) will occur in Reportnet 3.0 from 2022. The END reporting is defined in the Directive 2002/49/EC and the reporting requirements are further defined in the implementing decision *Setting up a mandatory data repository and a mandatory digital information exchange mechanism according to Directive 2002/49/EC*. The current reporting obligations of the Environmental Noise Directive have been adapted to also fulfil the new INSPIRE directive which is based on the harmonisation and sharing of spatial data and infrastructures based on the 2019 regulation[1] which amends different articles of the END. Firstly, the regulation obliges countries to produce *noise maps and action plans according to the Inspire Directive* and secondly, it obliges the EC and the EEA to develop a *mandatory digital information exchange mechanism* that countries have to use to report and share the data under the END directive. Therefore, the use of the Reportnet 3.0 platform and the use of data that is INSPIRE compliant will be mandatory for the reporting of data under the END. In order to support countries in their reporting obligations, we developed new templates and a new Reporting system that fulfils both the END and the INSPIRE requirements.

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[1] Regulation (EU) 2019/1010 of the European Parliament and of the Council of 5 June 2019 on the alignment of reporting obligations in the field of legislation related to the environment, and amending Regulations (EC) No 166/2006 and (EU) No 995/2010 of the European Parliament and of the Council, Directives 2002/49/EC, 2004/35/EC, 2007/2/EC, 2009/147/EC and 2010/63/EU of the European Parliament and of the Council, Council Regulations (EC) No 338/97 and (EC) No 2173/2005, and Council Directive 86/278/EEC (Text with EEA relevance). ELI: http://data.europa.eu/eli/reg/2019/1010/oj

Figure 1.1. Overview on new noise reporting mechanism
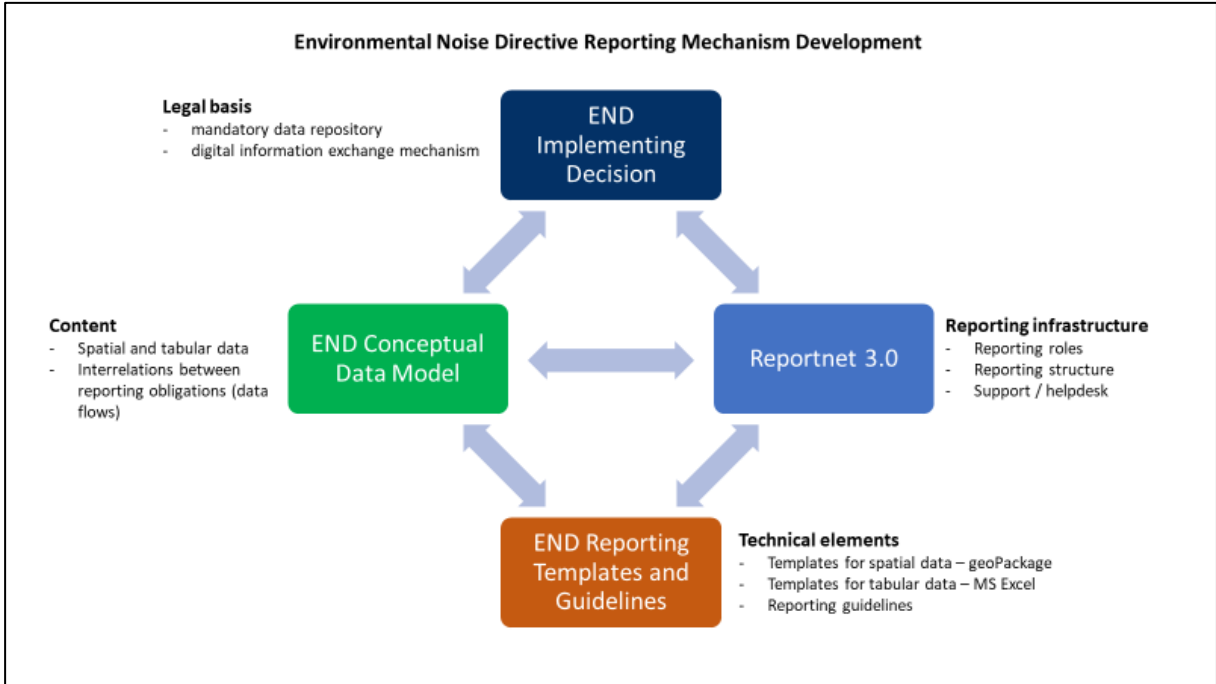
1.3   Alignment with the INSPIRE Directive

The alignment between the Environmental Noise Directive and the INSPIRE Directive has been included throughout the development process of establishing the mandatory digital information exchange mechanism.

Based on the legal basis, explained in the section above (1.2), the END conceptual data model has been developed on the basis of the INSPIRE conceptual data models for spatial data themes by combining specific END reporting requirements and INSPIRE requirements.

Further on, the END conceptual data model has been used to develop the encoding guidelines for the END spatial data in the GeoPackage file format. The encoding guidelines are based on the INSPIRE work on simplification and alternative encodings following the OGC standard on Geopackage[2]. Development of the INSPIRE Good Practice for GeoPackage is supported by the INSPIRE ad-hoc Working Group on GeoPackage[3] which joins interests of geospatial communities for GeoPackage implementation, and considers the END reported data in GeoPackage as one of the implementation examples.

The flexibility of the reporting infrastructure Reportnet 3.0 allows providing reported data into infrastructure in different ways, from importing files, programmatically by configuring the Reportnet 3.0 API, or in the future by harvesting INSPIRE services for spatial data.

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[2] https://www.geopackage.org/
[3] https://github.com/INSPIRE-MIF/gp-geopackage-encodings

Figure 1.2. Overview on the integration of INSPIRE directive into noise reporting obligations
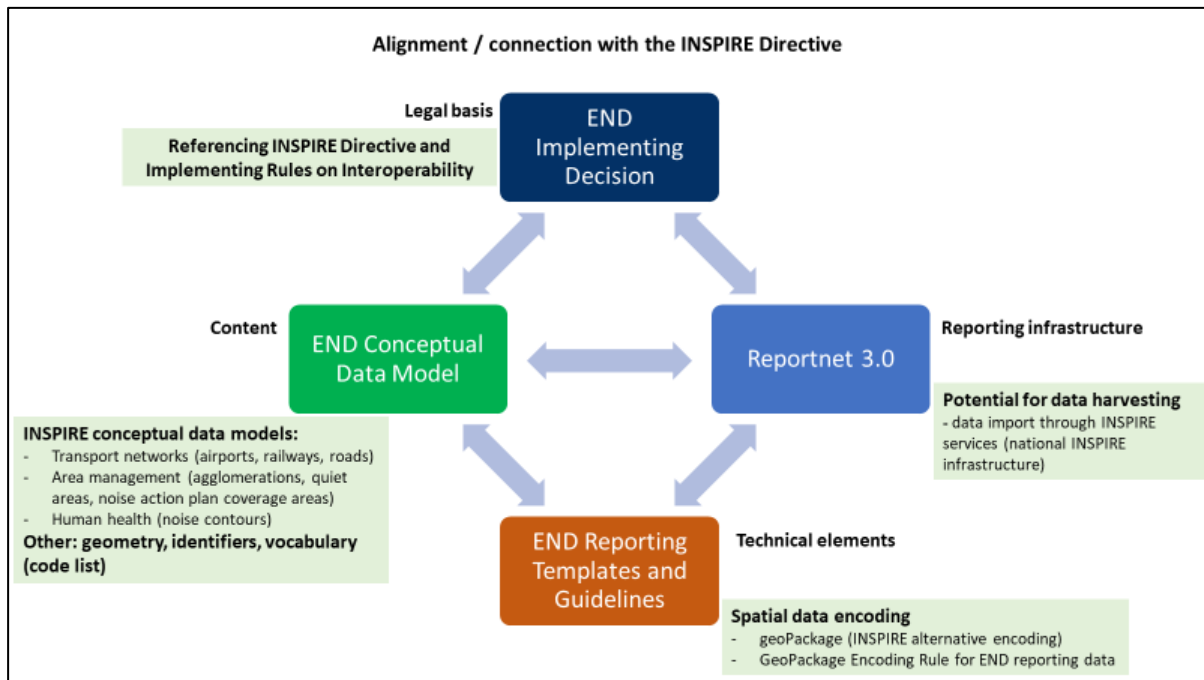
2 Understanding the new END data model

The structure and details of the data model are described in the *Data model documentation* and can be accessed at https://www.eionet.europa.eu/reportnet/docs/noise/data-model-documentation.

In order to develop the data model for Noise Sources (DF1_5) we considered the following:

- the END requirements;

- the INSPIRE requirements for spatial data; and

- additional or optional data that links the spatial data to reference data set(s) available in the INSPIRE infrastructure.

The streamlined data model combines and optimises all the input form the END and INSPIRE into one data model.

The data model described in the data model documentation is used for several interrelated purposes:
- It is used for presenting the content of the noise data that needs to be reported.
- It is used to develop the encoding templates in spatial file format GeoPackage
- It is used to design the schemas in Reportnet 3.0 that will be used for data reporting.

The relevant sections of the document for the reporting of dataflow DF1_5 are section 7, 8, 9 and 10.

Figure 2.1. Streamlined data model of END and the INSPIRE requirements
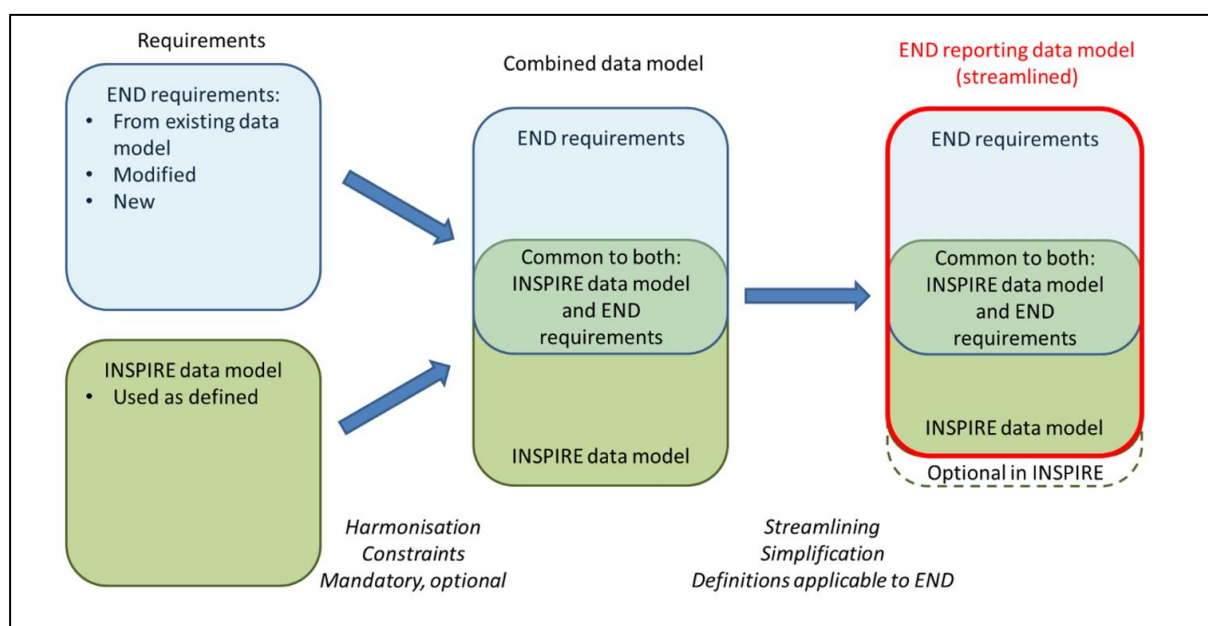
3 Understanding the basic principles of Reportnet 3.0 from a reporter point of view

The Regulation (EU) 2019/1010 on the alignment of reporting obligations in the field of legislation related to the environment and the implementing decision on setting up a mandatory data repository and a mandatory digital information exchange mechanism according to Directive 2002/49/EC, specifies that a digital information exchange mechanism should be used for reporting on all dimensions of the Environmental Noise Directive (END) by Member States.

A key element of the new reporting system, Reportnet 3.0 is being developed by the European Environment Agency. Reportnet 3.0 (https://reportnet.europa.eu/) is the next generation platform for reporting environmental data to the EEA and also host several reporting tasks for the European Commission. Reportnet 3.0 is a centralized e-Reporting platform, aiming at simplifying and streamlining the data flow steps across all environmental domains. The system acts as a one-stop-shop for all involved stakeholders.

> **Important links**
> - Reportnet 3 reporters' manual :
>   https://www.eionet.europa.eu/reportnet/docs/prod/reporter_howto_reportnet3.0
> - Training videos:
>   https://www.eionet.europa.eu/reportnet/docs/noise/videos

Once the reporter is successfully logged-in in Reportnet 3.0, the dataflows assigned to the reporter will show up as illustrated in Figure 3.1. In Reportnet 3.0, the reporter is able to see the list of dataflows along with information related to the role, the delivery date, the dataflow name, the dataflow description, the associated obligation and instrument, the status of the reporting obligation.

Figure 3.1. Dataflows overview: main page and list of dataflows assigned to the reporter
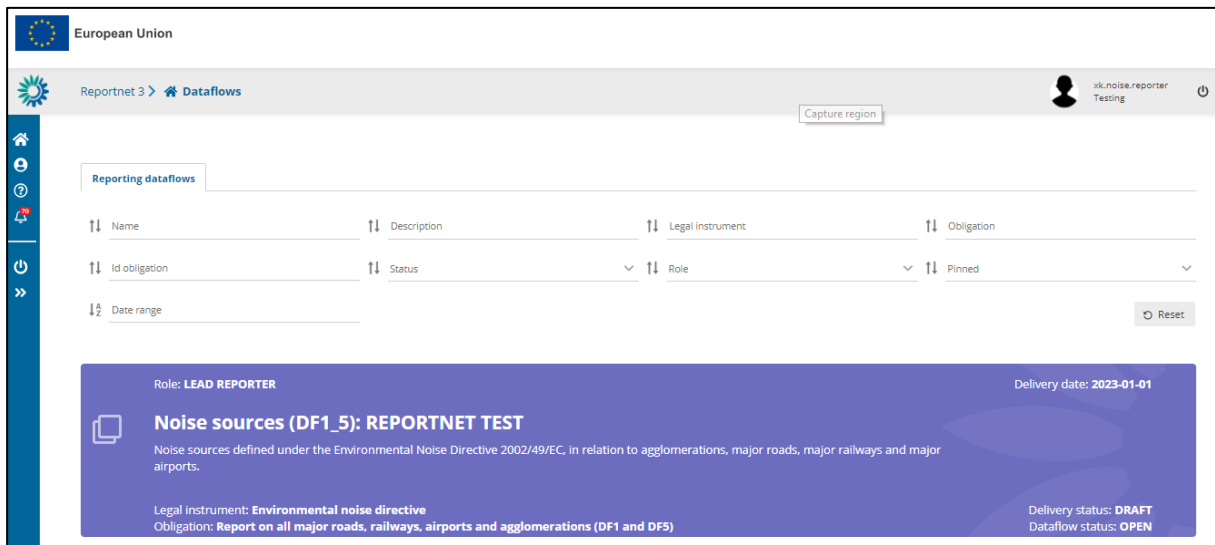
Figure 3.2 shows the general structure of the dataflow view. Figure 3.3 shows more specifically the reporting window of the dataflow *Noise Sources (DF1_5)*.

Figure 3.2. Reportnet – Reporter view: general dataflow structure
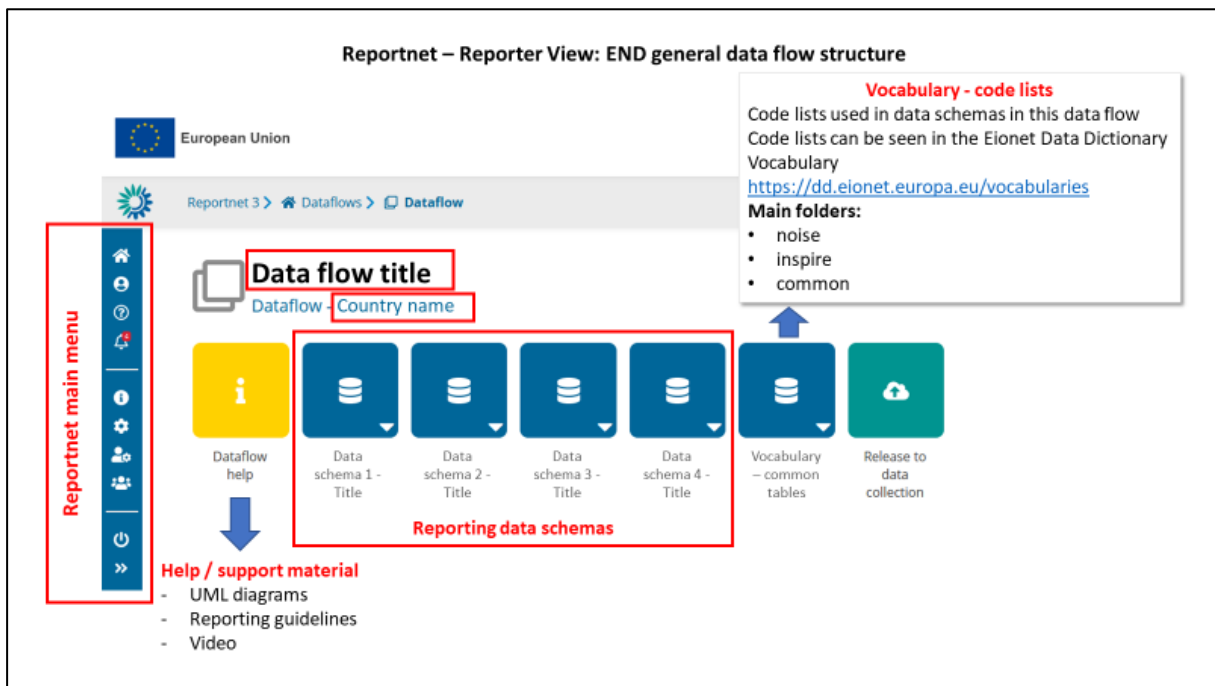
Figure 3.3. Reportnet – Reporter view: general dataflow structure for the END noise sources (DF1_5) reporting
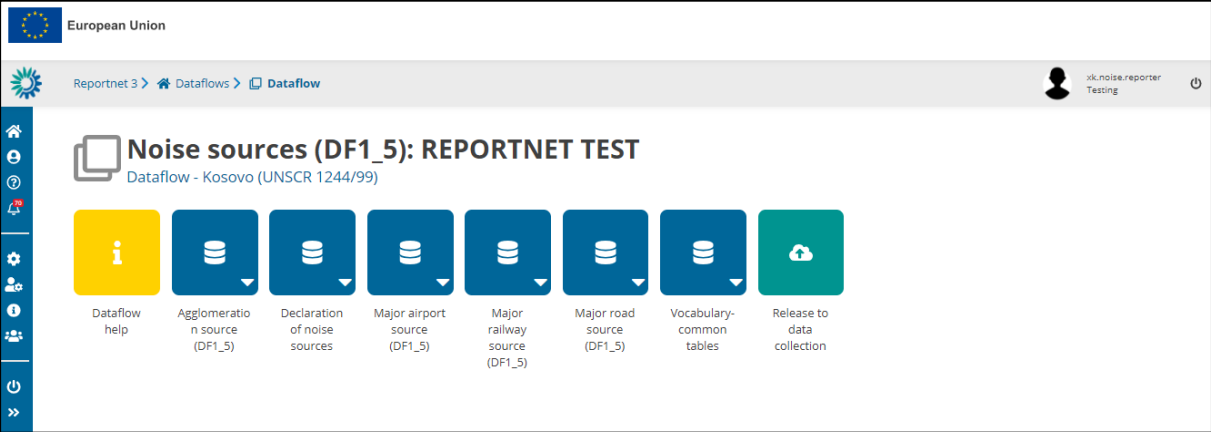
The dataflow is organised by schemas. In *Noise Sources (DF1_5)* there are four data schemas, one for each source (i.e. major roads, major railways, major airports and agglomerations). In addition, another schema called "Declaration of noise sources", which is a form for declaring the existing sources in the country, needs to be filled in in order to successfully upload the other schemas.

Finally, there is another data schema called *Vocabulary – Common tables* . This is a read-only schema and contains the different code list that are applicable to this dataflow as well as several tables that are used for data validation (see Figure 3.4).

Figure 3.4. Vocabulary – Common tables for Noise sources (DF1_5)
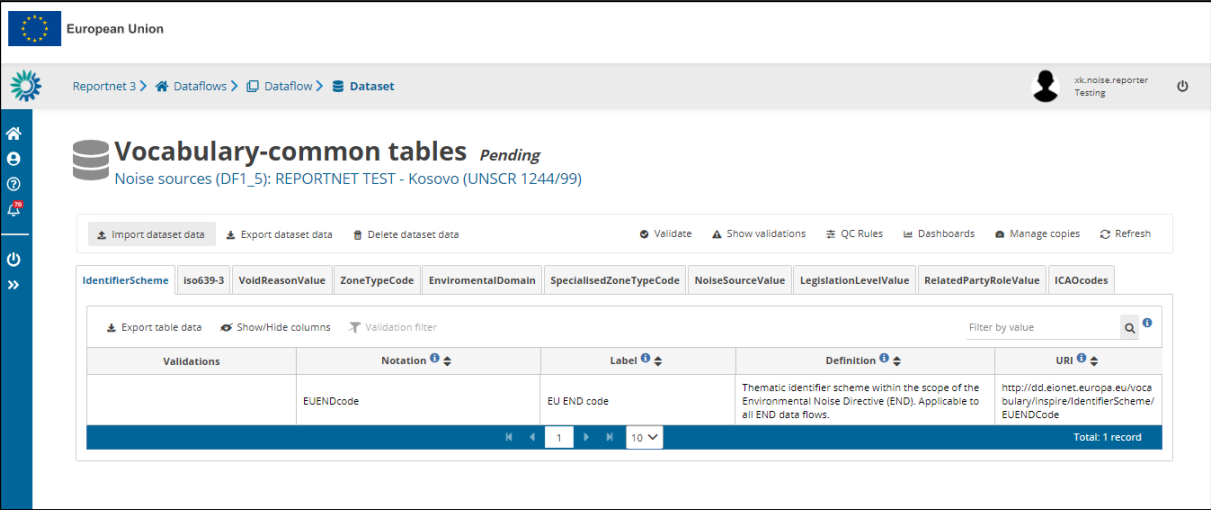
Finally, the *Dataflow Help* contains relevant help documents, including the GeoPackage templates, the links to all supporting materials, all the information on quality controls and validation rules, as well as the description of the different tables and attributes applicable to this dataflow (see Figure 3.5).

Figure 3.5. Dataflow help page: supporting documents tab, web links tab and dataset schemas tab
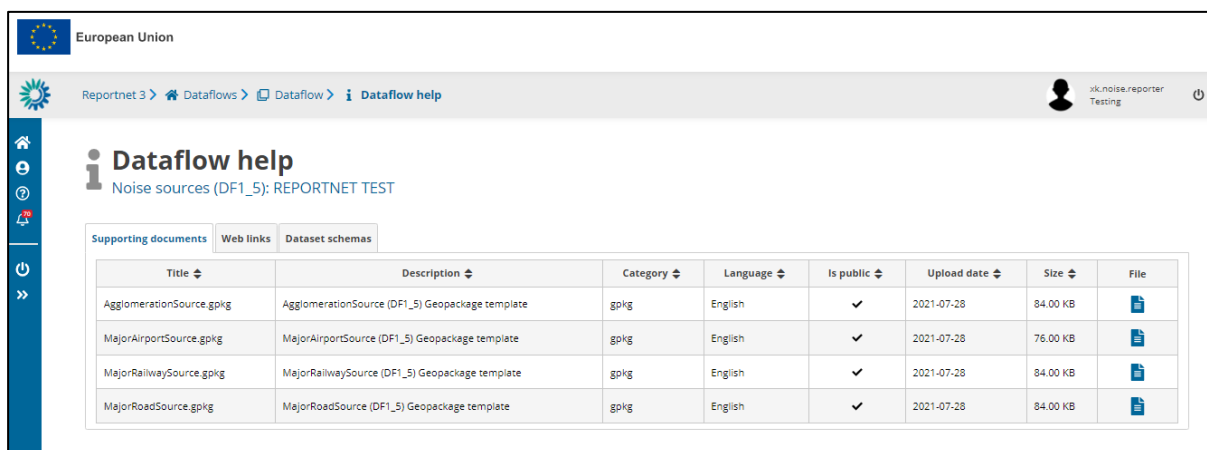
If the system doesn't react click refresh/reload page   **⟳ Refresh**
If problems with Reportnet 3.0 persist please contact **helpdesk@reportnet.europa.eu**
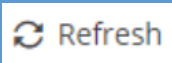
3.1   Validation

The following level error types have been implemented in Reportnet 3.0.:

- BLOCKER: Blocker messages indicate that the detected error will prevent data submission (data release is not possible).

- ERROR: Error messages indicate issues that clearly need corrective action by the data reporter.

- WARNING: Warning messages indicate issues that may be an error. Data reporters are expected to double-check relevant records.

- INFO: Informative message. Neutral or statistical feedback about the delivery, e.g. number of species reported.

The applicable validations and error types into the different data schemas of the *Noise Sources (DF1_5)* dataflow are outlined in Table 3.1.

Table 3.1. Applicable validation levels in the different schemas of Noise Sources (DF1_5) dataflow

	Declaration of noise sources	Agglomeration Source (DF1_5)	MajorAirport Source (DF1_5)	MajorRailway Source (DF1_5)	MajorRoad Source
Applicable validation level	Blocker Error	Blocker Error Warning Info	Blocker Error Warning Info	Blocker Error Warning Info	Blocker Error Warning Info

The detailed validations applicable to the Noise Sources (DF1_5) dataflow can be consulted in: https://www.eionet.europa.eu/reportnet/docs/noise/guidelines/document_qcs_df1_5.xlsx/view

Validations need to be run for each data schema. In each schema, data can be validated manually by clicking on "Validate" (Figure 3.6).

Figure 3.6. Manual validation of the data being loaded
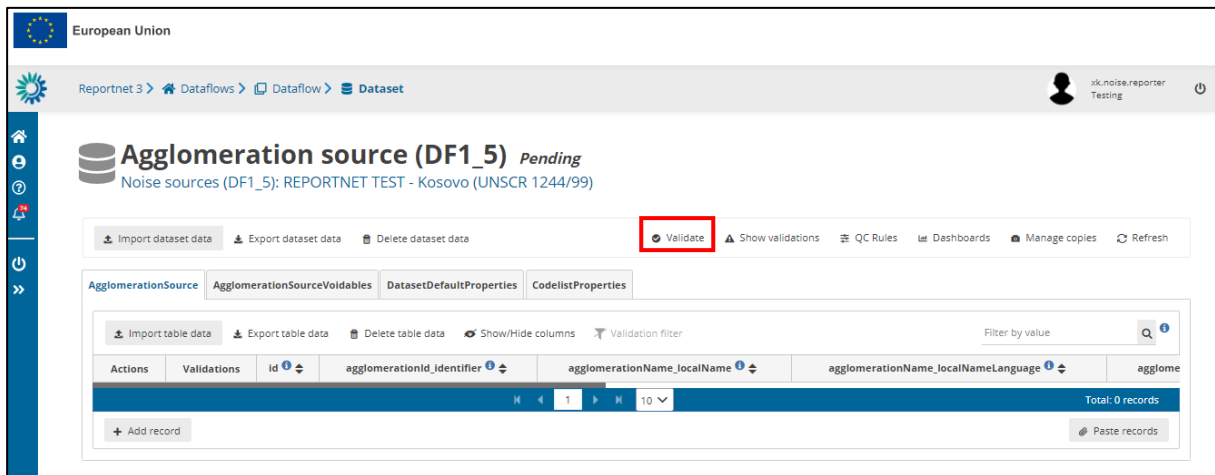
Once the validation has been performed a notification will pop up on the top-right hand of the screen. After clicking "Refresh", errors, if any, will be displayed at four types:

- Field error

- Record error

- Table error

- Dataset error

The column "*Validations*" shows for each record which level of errors at field and record level can be found.

Finally, the button "*Show validations*" in the dataset menu (Figure 3.7) shows the list of all errors in the dataset, displayed in a summary table grouped by a particular error type (more information can be found in https://www.eionet.europa.eu/reportnet/docs/prod/reporter_howto_reportnet3.0).

Figure 3.7. Show validations function in the dataset menu
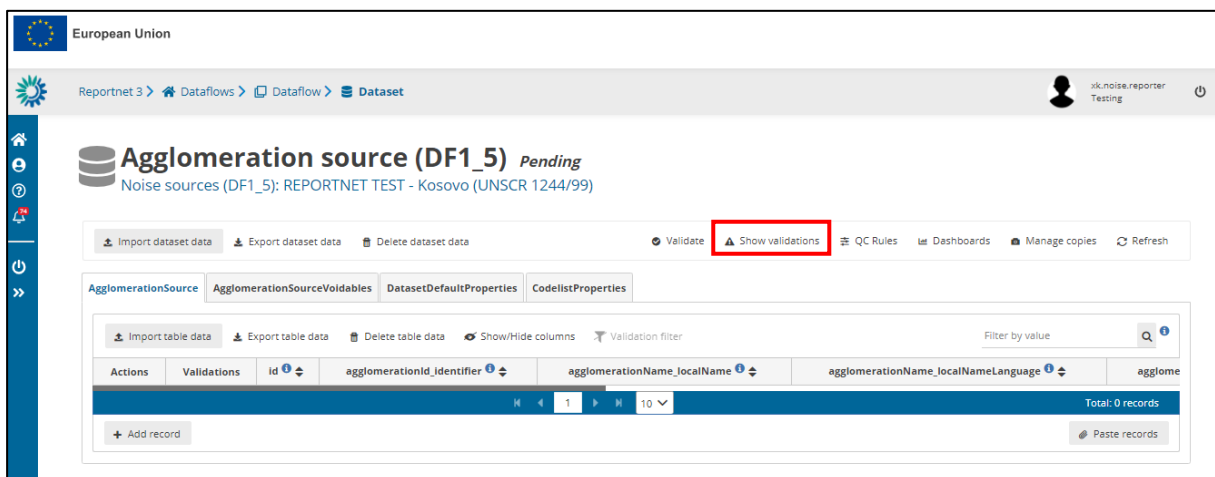
A BLOCKER in the dataflow will prevent the reporter to officially submit any data in Reportnet 3.0.

4 Key concepts in relation to *Noise sources (DF1_5)*

4.1 Reporting data schemas structure for DF1_5

The data schemas developed in Reportnet 3 are based on the specific UML diagrams illustrated in the *END Data model documentation* (https://www.eionet.europa.eu/reportnet/docs/noise/data-model-documentation). The GeoPackage templates follow the same schemas and principles as the UML diagrams.

Figure 4.1. Data schemas for Noise sources (DF1_5) delivery in Reportnet 3.0
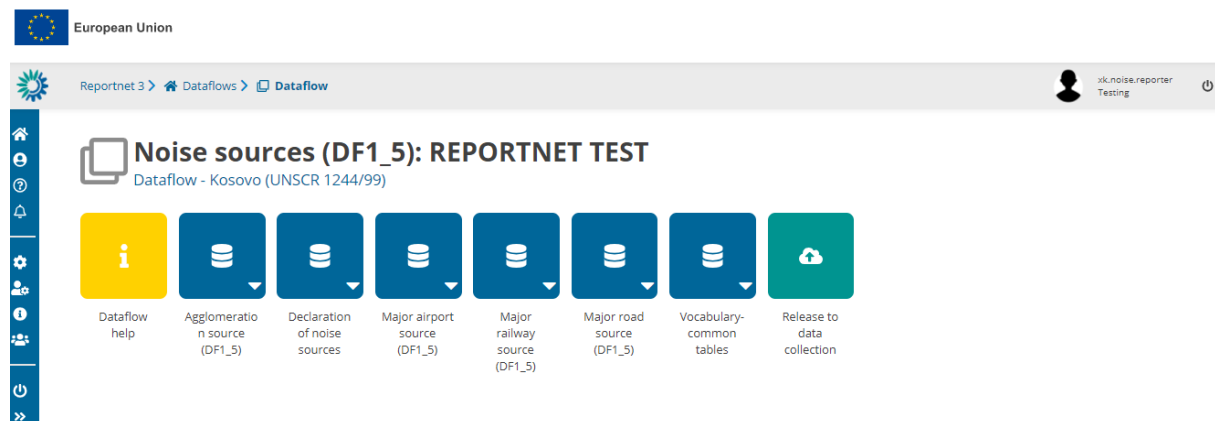
4.2 Identifiers

4.2.1 *Thematic identifiers*

The concept of thematic identifiers is re-used in the END reporting scope from the INSPIRE data specifications. Thematic identifiers may have been established to meet data exchange requirements within thematic domains, e.g. different reporting obligations at International, European or national levels, and/or internal data maintenance requirements. A property that is considered a thematic identifier will use data type **ThematicIdentifier** which is composed of two mandatory parts:

- **identifier** : Unique identifier used to identify the spatial object within the specified identification scheme;

- **identifierScheme** : Identifier defining the scheme used to assign the identifier.

This concept of thematic identifiers and data type ThematicIdentifier are re-used across the complete END data model to uniquely identify spatial objects and all other objects – entities, e.g.: major road segments, major railway segments, agglomerations, competent authorities, quiet areas, reports of limit values, noise control programmes and noise action plans. The internationally defined ICAO code for airports is also used as a thematic identifier.

Providing thematic identifiers in the END reported data

Identifier scheme EUENDCode

The unique identifier scheme with the name **EUENDCode** is defined for the END reporting scope. It is published in the Eionet Data Dictionary as http://dd.eionet.europa.eu/vocabulary/inspire/IdentifierScheme/EUENDCode.

It is used across the END reporting data flows and reporting data as the default value and it is stored (pre-filled) in the table DatasetDefaultProperties. This table is included in the pre-defined data

templates in MS Excel (for tabular data) and GeoPackage (spatial data), and in the Reportnet 3.0 data schemas.

To make data preparation easier, the table DatasetDefaultProperties is pre-filled with all applicable default values in the reporting data flow, therefore it doesn't require any changes.

Object identifier

The only value required to be provided for each object is "identifier". The guidelines "Proposal on how to build the unique thematic identifiers for the new END data model" provides detailed information and coding system to create thematic identifiers.

Identifier will be provided in a specific field defined in each data flow and Reportnet 3.0 data schema. For example, in the END data flow DF1_5:

- The field agglomerationId_identifier in the data schema Agglomeration source will be used for identifier of an agglomeration;

- The field roadId_identifier in the data schema Major road source will be used for identifier of a road;

- The field railId_identifier in the data schema Major railway source will be used for identifier of a railway;

- The field ICAOCode in the data schema Major airport source will be used for identifier of an airport (ICAO code to be provided).

4.2.2   INSPIRE identifiers

Spatial objects in the END reporting scope that are designed on the basis of the INSPIRE data specifications include the external unique object identifiers defined as the INSPIRE data type **Identifier**, which is composed of the three attributes:

- **localId**: A local identifier, assigned by the data provider, unique within the namespace;
- **namespace**: Namespace uniquely identifying the data source of the spatial object;
- **versionId**: The identifier of the particular version of the spatial object, voidable - optional.

For the END reporting scope, the INSPIRE identifiers are provided in the Reportnet 3.0 data schema and in the recommended data templates with three separate fields (attributes) corresponding to the type Identifier: localId, namespace and versionId.

Data providers who will prepare the END reporting geospatial data can apply own rules for creating external unique object identifiers according to the INSPIRE specifications. Additional information and recommendations are provided in "Creating INSPIRE external unique object identifiers in the scope of the END reporting data".

4.3   Spatial data

4.3.1   General recommendations for spatial data sets

For the END reporting scope, the following recommendations are provided for spatial data sets:

- Use of coordinate reference system ETRS89-extended / Lambert azimuthal equal-area LAEA (EPSG:3035) (one of the coordinate reference systems defined in the INSPIRE specifications that facilitates creation of the pan-European spatial data sets);

- Spatial data sets should be provided accordingly to the pre-defined templates in the file format GeoPackage (INSPIRE good practice for GeoPackage is in development to become INSPIRE alternative encoding to GML);

- The predefined templates in GeoPackage include geometry (e.g. point, line, polygon) and coordinate reference system information, therefore the previous reporting of location data as a list of coordinates is not used in the new reporting mechanism;

- The predefined templates in GeoPackage ensure the highest compatibility with the Reportnet 3.0 data schemas, therefore those templates shall not be modified.

4.3.2 From conceptual data model (UML) to templates in GeoPackage

The templates for spatial data in file format GeoPackage have been developed from the conceptual data models in UML by using a set of model transformation rules created for the END reporting scope on the basis of outcomes of the development of INSPIRE alternative encodings. More information is available in the document "GeoPackage Encoding Rule for Environmental Noise Directive Reporting Data".

The GeoPackage templates are aligned with the Reportnet 3.0 data schemas (names, types, cardinality, use of code lists) to facilitate reporting in the Reportnet 3.0 infrastructure. This section provides generic information of the GeoPackage template structure and the next chapters provide details of the Reportnet 3.0 data schemas.

The GeoPackage templates combine spatial and tabular data together in a data set. The conceptual data models (presented in the UML diagram) for data flow DF1_5 are transformed into four typical tables in the GeoPackage template :

- Primary (or core)

- Voidables

- DatasetDefaultProperties

- CodelistProperties.

The **Primary (or core) table** includes the essential properties (slim primary table).

The table **Voidables** is a companion table to the primary table. It includes voidable properties which values can be assigned for individual spatial objects instead of default values. The values in the Voidables table prevail over the pre-defined default values. If default values are applicable to all spatial objects in the data set, the Voidables table can remain empty. If the conceptual data model does not include voidable properties, the table Voidables is not created in the GeoPackage template (e.g. DF1_5 Major Airports GeoPackage template does not include voidable properties nor Voidables table).

Properties than can have default values – same values in the complete data set are provided in the table **DatasetDefaultProperties**. This table can include default void reason for voidable properties, or other properties with default values. The origin of voidable properties are the underlying INSPIRE conceptual data models for spatial data. All expected properties and default values are already pre-defined and pre-filled in each GeoPackage template.

CodelistProperties table includes the list of properties that use values from agreed vocabularies – code lists. This table is already pre-filled in each GeoPacakge template and helps finding the correct values for the properties from the related code lists. The code lists defined for the END reporting scope are published in two registers:

- INSPIRE code list registry for INSPIRE code lists (re-using INSPIRE code lists), and

- Eionet Data Dictionary – Vocabularies for other code lists used in the END reporting scope.

The following diagram in Figure 4.2 summaries the GeoPackage template structure.

Figure 4.2 Transformation from conceptual data model (UML) to GeoPackage structure
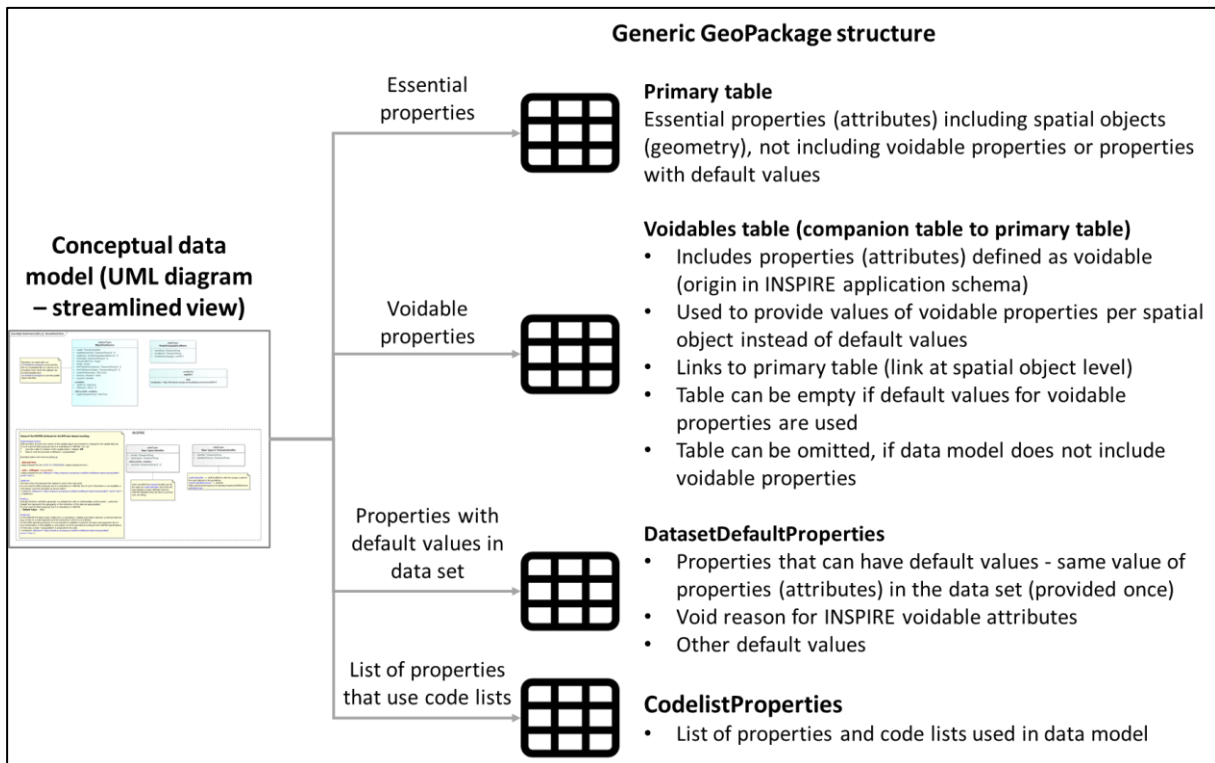
The GeoPackage templates have been already designed to facilitate data preparation in the following way:

- The pre-filled tables DatasetDefaultProperties and CodelistProperties don't need modifications;
- If the recommended and pre-filled void reasons or other values for voidable properties are applicable, the Voidables table can remain empty;
- The main table for reporting data is therefore the primary table.

The GeoPackage templates that have been created to support data reporting can be found in the Dataflow Help page in Reportnet 3.0.

Figure 4.3. Screenshot of the Dataflow help page where all GeoPackage templates are available for download
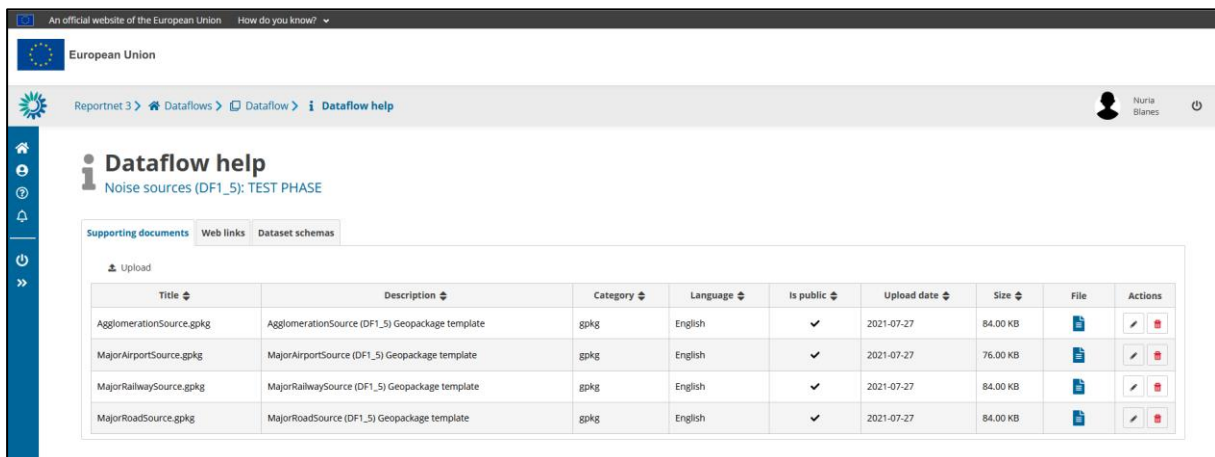
GeoPackage templates are also available for download at:
https://www.eionet.europa.eu/reportnet/docs/noise .

5   Data schema: Declaration of noise sources

5.1   Description

Declaration of existing noise sources in the country/region.

The Declaration of noise sources data schema only includes one table:

- Declaration of noise sources

5.2   Table Declaration of noise sources

The table *Declaration of noise sources* includes the four noise sources specified in the END (i.e. major roads, major railways, major airports and agglomerations). In this table it should be indicated which of those sources are existing in the country/region.

Table 5.1. Declaration of noise source table overview

Mandatory /optional	Name	Reportnet 3.0 Type	Code list
M	declarationAgglomerationSource	Single select	
M	declarationMajorRoadSource	Single select	
M	declarationMajorRailwaySource	Single select	
M	declarationMajorAirportSource	Single select	

The following section includes detailed information of each field, i.e. description, type, format, use of code lists (where applicable), additional information of expected data or guidelines to prepare data, and data samples.

5.2.1   Field declarationAgglomerationSource

Requirement	Mandatory
Description	There is one or more agglomerations of more than 100,000 inhabitants to be declared as part of this dataflow.
Reportnet 3.0 type	Single select
Format	Yes No
Information	This attribute declares if the data schema AgglomerationSource need to be filled in or not.
Example	Yes

Reporting constraints	A blocker in reporting data is implemented if the noise source is declared as "Yes" and the information is not included in the corresponding data schema Agglomeration source (DF1_5). A blocker in reporting data is implemented if the noise source is declared as "No" and the information is included in the corresponding data schema. A blocker is implemented if not all the attributes are filled in in this table.

5.2.2   Field declarationMajorRoadSource

Requirement	Mandatory
Description	There is one or more major roads of more than 3,000,000 vehicle passages a year to be declared as part of this dataflow
Reportnet 3.0 type	Single select
Format	Yes No
Information	This attribute declares if the data schema MajorRoadSource need to be filled in or not.
Example	Yes
Reporting constraints	A blocker in reporting data is implemented if the noise source is declared as "Yes" and the information is not included in the corresponding data schema Major road source (DF1_5). A blocker in reporting data is implemented if the noise source is declared as "No" and the information is included in the corresponding data schema. A blocker is implemented if not all the attributes are filled in in this table.

5.2.3   Field declarationMajorRailwaySource

Requirement	Mandatory
Description	There is one or more major railways of more than 30,000 vehicle passages a year to be declared as part of this dataflow
Reportnet 3.0 type	Single select
Format	Yes No
Information	This attribute declares if the data schema MajorRailwaySource need to be filled in or not.
Example	No
Reporting constraints	A blocker in reporting data is implemented if the noise source is declared as "Yes" and the information is not included in the corresponding data schema Major railway source (DF1_5). A blocker in reporting data is implemented if the noise source is declared as "No" and the information is included in the corresponding data schema. A blocker is implemented if not all the attributes are filled in in this table.

5.2.4   Field declarationMajorAirportSource

Requirement	Mandatory
Description	There is one or more major airports of more than 50,000 movements a year to be declared as part of this dataflow
Reportnet 3.0 type	Single select
Format	Yes No
Information	This attribute declares if the data schema MajorAirportSource need to be filled in or not.

Example	Yes
Reporting constraints	A blocker in reporting data is implemented if the noise source is declared as "Yes" and the information is not included in the corresponding data schema Major airport source (DF1_5). A blocker in reporting data is implemented if the noise source is declared as "No" and the information is included in the corresponding data schema. A blocker is implemented if not all the attributes are filled in in this table.

5.3 Validations

The complete list of all the validations applied in the data schema Declaration of noise sources, the type of quality control and the error level are detailed in the document https://www.eionet.europa.eu/reportnet/docs/noise/guidelines/document_qcs_df1_5.xlsx/view.

6 Data schema: Agglomeration source (DF1_5)

6.1 Description

Part of a territory delimited by the Member State having a population in excess of 100.000 persons and a population density such that the Member State considers it to be an urbanised area.

The AgglomerationSource data schema includes four tables :

- AgglomerationSource : primary content including spatial data

- AgglomerationSourceVoidables : table includes attributes defined as « voidable in the INSPIRE context »

- DatasetDefaultProperties: Information about the default values of objects in a data set or a table (read only schema, and already filled in in Reportnet 3.0)

- CodelistProperties (read only schema, and already filled in in Reportnet 3.0) : list of applicable code lists in that data schema.

6.2 Table AgglomerationSource

AgglomerationSource table includes the primary content of agglomerations, i.e. size, name of agglomeration, number of inhabitants, including also the spatial delineation in a type of polygons or multipolygon geometry.

Table 6.1. AgglomerationSource table overview

Mandatory /optional	Name	Reportnet 3.0 Type	Code list
M	id	Number - Integer	
M	agglomerationId_identifier	Text	
M	agglomerationName_localName	Text	
M	agglomerationName_localNameLanguage	Link	https://dd.eionet.europa.eu/vocabulary/noise/iso639-3/

M	agglomerationName_nameEng	Text	
M	size	Number - Decimal	
M	numberOfInhabitants	Number - Integer	
M	applicableSource	Link	https://dd.eionet.europa.eu/vocabulary/noise/NoiseSourceValue/
M	inspireId_localId	Text	
M	inspireId_namespace	Text	
O	inspireId_versionId	Text	
M	geometry	Multiple polygons	

The following section includes detailed information of each field, i.e. description, type, format, use of code lists (where applicable), additional information of expected data or guidelines to prepare data, and data samples.

6.2.1 Field id

Requirement	Mandatory
Description	Unique identifier automatically created in Geopackage file (primary key in the SQLite database). It is mandatory.
Reportnet 3.0 type	Number - Integer
Format	Maximum of 20 characters
Information	This attribute is primarily required by the OGC GeoPackage standard. It must be unique within a GeoPackage file.
Example	1

6.2.2 Field agglomerationId_identifier

Requirement	Mandatory
Description	Unique identifier assigned to each agglomeration.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Information	The value of this field follows the coding system to create thematic identifiers provided in the guidelines "Proposal on how to build the unique thematic identifiers for the new END data model". It belongs to the common END identifier scheme named EUENDCode. The identifier scheme is provided as default value in the table DatasetDefaultProperties.
Example	AG_AT_00_1
Reporting constraints	agglomerationId_identifier will be re-used across the complete END data model to uniquely identify spatial objects and all other objects – entities.

6.2.3 Agglomeration name

Agglomeration name is based on the complex data type (SimpleGeographicalName) which is represented in the table by three interrelated fields: agglomerationName_localName, agglomerationName_localNameLanguage and agglomerationName_nameEng. Values for all three fields must be provided as agglomeration name.

Field agglomerationName_localName

Requirement	Mandatory
Description	Name of the agglomeration in the national or local language.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Example	Wien

Field agglomerationName_localNameLanguage

Requirement	Mandatory
Description	Specification about the national or local language by providing a three-letter language code from ISO 639-3.
Reportnet 3.0 type	Link
Code list	Code list URL: https://dd.eionet.europa.eu/vocabulary/noise/iso639-3/ Applicable code list values: bul, ces, dan, deu, ell, eng, est, fin, fra, gle, hrv, hun, ita, lav, lit, mlt, nld, pol, por, ron, slk, slv, spa, swe
Example	deu

Field agglomerationName_nameEng

Requirement	Mandatory
Description	Name of the agglomeration in English language.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Information	An established name of agglomeration in English language can be used, or a simple transliteration of name into English / latin alphabet (without specific language characters).
Example	Vienna

6.2.4 Field size

Requirement	Mandatory
Description	Area of coverage of the agglomeration, in km2.
Reportnet 3.0 type	Number – Decimal
Format	Maximum of 40 characters

Information	Decimal separator character is ".". Number of decimal places allowed : 2
Example	100.00

6.2.5   Field numberOfInhabitants

Requirement	Mandatory
Description	Number of inhabitants living inside the boundary of the agglomeration.
Reportnet 3.0 type	Number - Integer
Format	Maximum of 20 characters
Information	Number is provided as integer number without 1000 separator character.
Example	1862251

6.2.6   Field applicableSource

Requirement	Mandatory
Description	Sources in the agglomeration for which strategic noise maps and action plans need to be provided.
Reportnet 3.0 type	Link
Format	Multiple values are allowed Value separated list with the separation character ";" (semicolon)
Code list	Code list URL: https://dd.eionet.europa.eu/vocabulary/noise/NoiseSourceValue/ Applicable code list values: - agglomerationAir - agglomerationIndustry - agglomerationRoad - agglomerationRailway - agglomerationMajorAirport - agglomerationMajorRoad - agglomerationMajorRailway
Information	Cities need to declare all the noise sources from which their inhabitants are exposed to. For instance cities that have roads and railways but no airports are expected to select "agglomerationRoad", "agglomerationRailway", "agglomerationMajorRoad", "agglomerationMajorRailway". However, if the city does not have roads and railways that are of more than 3 million vehicles and no railways of more than 30,000 passages a year the values "agglomerationMajorRoad", "agglomerationMajorRailway" do not need to be selected. For the city of Berlin we expect that the values declared are: agglomerationAir agglomerationIndustry agglomerationRoad agglomerationRailway agglomerationMajorAirport agglomerationMajorRoad agglomerationMajorRailway

	This is because Berlin has roads, railways, airports, industries as well as major roads, major railways and major airports.
Example	agglomerationRoad; agglomerationMajorRoad; agglomerationRailway; agglomerationMajorRailway; agglomerationAir; agglomerationMajorAirport; agglomerationIndustry.
Reporting constraints	The declaration of sources will be used in subsequent dataflow reporting of DF4_8. Noise contours and population exposure values will need to be provided for all the sources declared in "applicableSource". Submission of DF4_8 will be blocked if the information on population exposure is not provided for the sources declared in "applicableSource"

6.2.7   Spatial object identifier inspireId

Following the underlying INSPIRE conceptual data model, each agglomeration includes also the external unique object identifier published by the responsible body. The field inspireId is based on the complex data type (Identifier) which is represented in the table by three interrelated fields: inspireId_localId, inspireId_namespace and inspireId_versionId. The external unique object identifier is provided by the mandatory values in the fields inspireId_localId and inspireId_namespace. The field inspireId_versionId is optionally used when different versions of the same spatial object are provided in the data set.

Additional information and recommendations on creating INSPIRE external unique object identifiers are provided in "Creating INSPIRE external unique object identifiers in the scope of the END reporting data".

Field inspireId_localId

Requirement	Mandatory
Description	External object identifier of the spatial object, defined in the INSPIRE Implementing Rules on Interoperability. When possible the inspireId_localId can be the same as agglomerationId_identifier, but if a Member State has already in place different rules for INSPIRE identifiers these rules could be used.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Information	See more information in "Creating INSPIRE external unique object identifiers in the scope of the END reporting data"
Example	AG_AT_00_1

Field inspireId_namespace
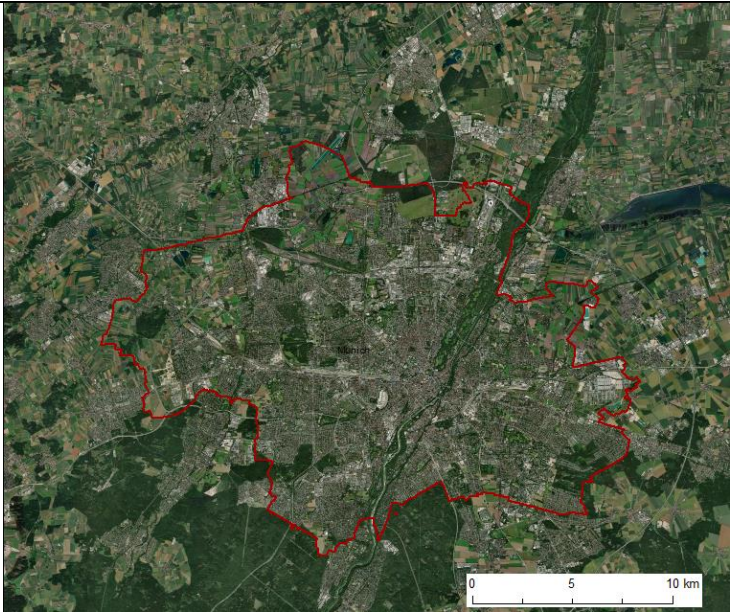
Requirement	Mandatory
Description	Part of inspireId - external object identifier of the spatial object, defined in the INSPIRE Implementing Rules on Interoperability. The attribute namespace uniquely identifies the data source or data set of the spatial object.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

Information	See more information in "Creating INSPIRE external unique object identifiers in the scope of the END reporting data"
Example	end_agglomeration_AT

Field inspireId_versionId

Requirement	Optional
Description	The attribute versionId identifies a particular version of a spatial object, defined in the INSPIRE Implementing Rules on Interoperability. This attribute can be used together with life-cycle information to distinguish between the different versions of a spatial object.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Information	See more information in "Creating INSPIRE external unique object identifiers in the scope of the END reporting data". It is proposed to omit spatial object versions (no value – empty field).

6.2.8   Field geometry

Requirement	Mandatory
Description	Spatial extent of the agglomeration, according to the definition in the INSPIRE Implementing Rules on Interoperability. Geometry of the agglomeration shall be presented as area, by using polygon geometry type. It is mandatory.
Reportnet 3.0 type	Multiple polygons
Information	Geometry type of polygon or multipolygon is allowed.
Example (polygon geometry)	Source: END reported data from Munich (Germany)

Example (multipolygon geometry)	Source: END reported data from Dublin (Ireland)
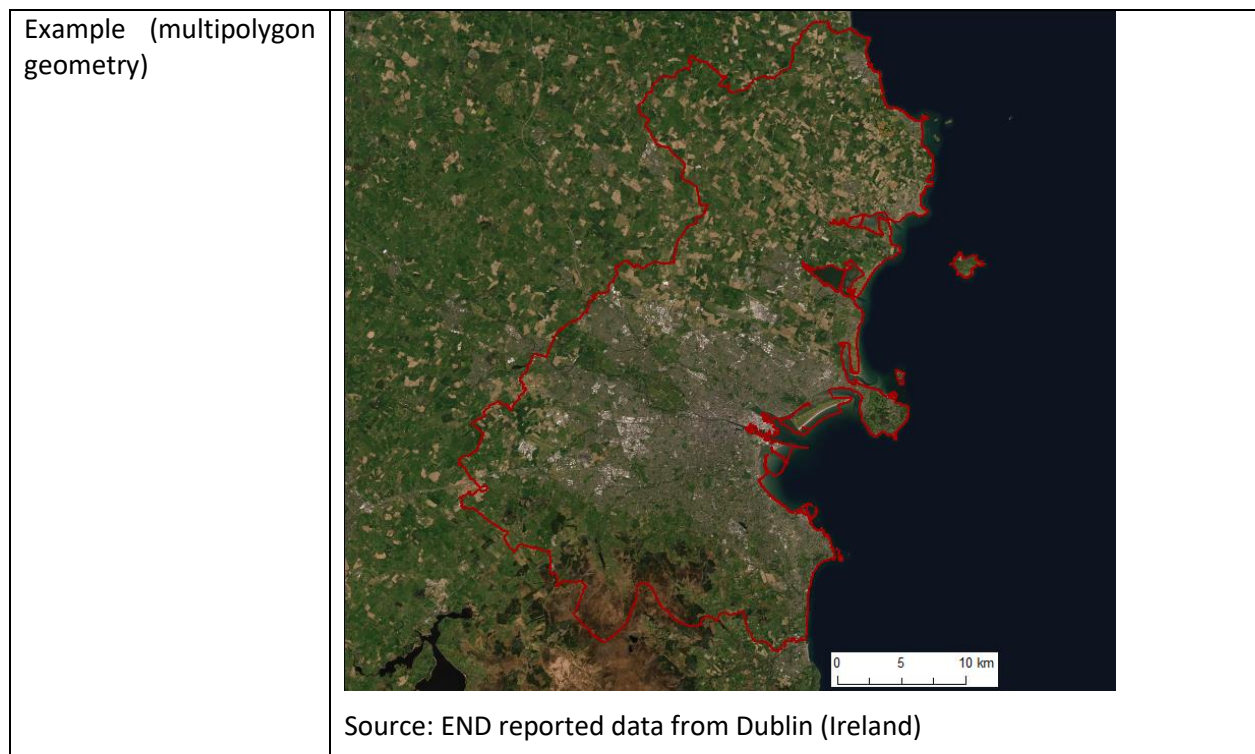
6.3 Table AgglomerationSourceVoidables

This table includes attributes that are defined as voidable in the data model. Only the attributes defined in the INSPIRE specifications are voidable. This table is used in case a value is assigned to a voidable attribute for an individual spatial object which is already provided in the primary (core) table AgglomerationSource. Otherwise, the default value of these attributes is used and therefore this table can be left empty.

It is recommended to use DatasetDefaultProperties as default values applicable to the complete data schema. By doing this, AgglomerationSourceVoidables can be left empty.

In case a value for a voidable property for each special object is provided, the following constraints apply to individual voidable property :

1) DateTime format requires UTC information (Z parameter or +/- offset time). It is applicable to the fields designationPeriod_beginPosition, designationPeriod_endPosition, beginLifespanVersion;

2) If designationPeriod_beginPosition is provided and designationPeriod_endPosition is not known it can be left empty (it is assumed it is not known);

3) If information about the competent authority is provided it shall be provided with at least the following information:

   o One of the fields competentAuthority_indivName (individual name), competentAuthority_orgName (organisation name) or competentAuthority_posName (position name) must be provided;

   o Field competentAuthority_role must be provided with the value "authority" from the designated code list;

4) If a legal instrument is provided in legalBasis, it must be provided in both fields legalBasis_link and legalBasis_level;

5) If any value for a voidable property of a spatial object is provided, a correct linking between both tables AgglomerationSource and AgglomerationSourceVoidables must be provided: the field AgglomerationSource_id in the table AgglomerationSourceVoidables must include the corresponding id of the spatial object from the table AgglomerationSource, see example below.

AgglomerationSource	
id	… other fields …
10	

AgglomerationSourceVoidables	
AgglomerationSource_id	… other fields …
10	

Detailed information about requirements of voidable properties in the INSPIRE application schema can be also found in the INSPIRE Data Specification on Area Management/Restriction/Regulation Zones and Reporting Units – Technical Guidelines and in the Implementing Rules on Interoperability of spatial data sets and services.

Table 6.2. AgglomerationSourceVoidables table overview

Mandatory /optional	Name	Reportnet 3.0 Type	Code list
M	id	Number - Integer	
O	designationPeriod_beginPosition	Text (DateTime)	
O	designationPeriod_endPosition	Text (DateTime)	
O	competentAuthority_contact	Text	
O	competentAuthority_indivName	Text	
O	competentAuthority_orgName	Text	
O	competentAuthority_posName	Text	
O	competentAuthority_role	Link	https://dd.eionet.europa.eu/vocabulary/noise/CompetentAuthorityRoleValue/
O	legalBasis_link	URL	
O	legalBasis_level	Link	https://dd.eionet.europa.eu/vocabulary/inspire/LegislationLevelValue/
O	beginLifespanVersion	Text (DateTime)	
M	AgglomerationSource_id	Number - Integer	

6.4   Table DatasetDefaultProperties

This table includes all properties that can have a default value in a data set. Typically, it includes: default values or void reason for voidable attributes defined in the INSPIRE specifications, and default values of other attributes. The table is prefilled and read-only.

Table 6.3. DatasetDefaultProperties table overview

Mandatory /optional	Name	Reportnet 3.0 Type
M	tableName	Text
M	propertyName	Text
O	attribute	Text
M	defaultValue	Text

Table 6.4. Applicable values for the DatasetDefaultProperties

tableName	propertyName	attribute	defaultValue
AgglomerationSource	zoneType	href	http://inspire.ec.europa.eu/codelist/ZoneTypeCode/noiseRestrictionZone
AgglomerationSource	environmentalDomain	href	http://inspire.ec.europa.eu/codelist/EnvironmentalDomain/noise
AgglomerationSource	competentAuthority	nilReason	http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unpopulated
AgglomerationSource	beginLifespanVersion	nilReason	http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unpopulated
AgglomerationSource	agglomerationId_identifierScheme	href	http://dd.eionet.europa.eu/vocabulary/inspire/IdentifierScheme/EUENDCode
AgglomerationSource	specialisedZoneType	href	http://dd.eionet.europa.eu/vocabulary/inspire/SpecialisedZoneTypeCode/ENDAgglomeration
AgglomerationSource	designationPeriod	nilReason	http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unpopulated
AgglomerationSource	legalBasis_link	href	http://data.europa.eu/eli/dir/2002/49/oj
AgglomerationSource	legalBasis_level	href	http://inspire.ec.europa.eu/codelist/LegislationLevelValue/european

6.5 Table CodelistProperties

This table includes a list of the code lists that have to be used for reporting data on the DF1_5 agglomerations data model. The complete code lists used in the END data model are also published in the Eionet Data Dictionary (https://dd.eionet.europa.eu/vocabularies) and are used in the Reportnet 3 data schemas.

The specific applicable code lists can also be found in the Vocabulary – common tables data schema of this dataflow.

The table is prefilled and read-only.

Table 6.5. CodelistProperties table overview

Mandatory /optional	Name	Reportnet 3.0 Type
M	tableName	Text
M	propertyName	Text
M	codelist	Text

Table 6.6. Applicable values for the CodelistProperties

tableName	propertyName	codelist
AgglomerationSource	specialisedZoneType	http://dd.eionet.europa.eu/vocabulary/inspire/SpecialisedZoneTypeCode
AgglomerationSource	agglomerationName_localNameLanguage	http://dd.eionet.europa.eu/vocabulary/common/iso639-3
AgglomerationSource	applicableSource	http://dd.eionet.europa.eu/vocabulary/noise/NoiseSourceValue
AgglomerationSource	environmentalDomain	http://inspire.ec.europa.eu/codelist/EnvironmentalDomain
AgglomerationSource	zoneType	http://inspire.ec.europa.eu/codelist/ZoneTypeCode
AgglomerationSource	competentAuthority_role	http://inspire.ec.europa.eu/codelist/RelatedPartyRoleValue
AgglomerationSource	legalBasis_level	http://inspire.ec.europa.eu/codelist/LegislationLevelValue

6.6 Validation

The complete list of all the validations applied in the data schema AgglomerationSource (DF1_5), the type of quality control and the error level are detailed in the document https://www.eionet.europa.eu/reportnet/docs/noise/guidelines/document_qcs_df1_5.xlsx/view.

6.7 GeoPackage format

6.7.1 Support to data transformation into GeoPackage

GeoPackage template

The GeoPackage template AgglomerationSource.gpkg that has been created to support data reporting can be found in the:

- Dataflow Help page in Reportnet 3.0. (see 4.3.2), and

- https://www.eionet.europa.eu/reportnet/docs/noise.

Sample data

Sample data containing information as an example of reporting best practices is available at: https://www.eionet.europa.eu/reportnet/docs/noise/reporting-examples/sample-data-noise-sources-df1_5 . It is important to notice that the sample data is simulated data adapted from an official reporting, including additional simulated data especially in the case of new information included in the new END data model.

Demonstration of data transformation with the ETL tool HALE Studio

A demonstration video on how to create the new GeoPackage file has been issued, using HALE Studio tool, which is accessible in: https://www.eionet.europa.eu/reportnet/docs/noise/videos.

The data transformation project (HALE Studio) details with test data (note: using simulated data for feasibility of data transformation, not exact data for noise reporting) can also be found in the repository https://github.com/wetransform-os/geopackage-end/tree/main/DF1_5. It shows possibilities to create a mapping between a source schema and target GeoPackage schema and transform source data into the Geopackage file format.

6.7.2 Use of GeoPackage file format in the Reportnet 3.0

The GeoPackage template for DF1_5 agglomerations includes the same tables as the ones that are included in Reportnet 3.0, see example below. The data import process in the Reportnet 3.0 transfers data from the GeoPackage file into the correlated tables into the Reportnet 3.0 data schema *Agglomeration source (DF1_5)*.

GeoPackage template AgglomerationSource.gpkg – list of tables	Reportnet 3.0 data schema *Agglomeration source (DF1_5)* – list of tables
AgglomerationSource	AgglomerationSource
AgglomerationSourceVoidables	AgglomerationSourceVoidables
DatasetDefaultProperties (pre-filled)	DatasetDefaultProperties (pre-filled, read-only)
CodelistProperties (pre-filled)	CodelistProperties (pre-filled, read-only)

7 Major airport source (DF1_5)

7.1 Description

Civil airport, designated by the Member State, which has more than 50.000 movements per year (a movement being a take-off or a landing), excluding those purely for training purposes on light aircraft.

The MajorAirportSource data includes three tables, as following:

- MajorAirportSource : primary content including spatial data

- DatasetDefaultProperties: Information about the default values of objects in a data set or a table (read only schema, and already filled in in Reportnet 3.0)

- CodelistProperties (read only schema, and already filled in in Reportnet 3.0) : list of applicable code lists in that data schema.

7.2 Table MajorAirportSource

MajorAirportSource table includes the primary content of major airport, i.e. name of major airport, ICAO code, annual traffic, including also the spatial location in a type of point geometry.

Table 7.1. MajorAirportSource table overview

Mandatory /optional	Name	Reportnet 3.0 Type	Code list
M	id	Number - Integer	
M	ICAOCode	Text	
M	airportName_localName	Text	
M	airportName_localNameLanguage	Link	https://dd.eionet.europa.eu/vocabulary/noise/iso639-3/
M	airportName_nameEng	Text	
M	annualTrafficFlow	Number - Integer	
O	linkToReferenceDataset	Text	
O	linkToReferenceObject	Text	
M	geometry	Point	

The following section includes detailed information of each field, i.e. description, type, format, use of code lists (where applicable), additional information of expected data or guidelines to prepare data, and data samples.

7.2.1 Field id

Requirement	Mandatory
Description	Unique identifier automatically created in Geopackage file (primary key in the SQLite database). It is mandatory.
Reportnet 3.0 type	Number - Integer
Format	Maximum of 20 characters
Information	This attribute is primarily required by the OGC GeoPackage standard. It must be unique within a GeoPackage file.
Example	1

7.2.2 Field ICAOCode

Requirement	Mandatory
Description	Unique international code of airport defined by the International Civil Aviation Organization. It is mandatory.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Example	LOWW
Reporting constraints	ICAOCode will be re-used across the complete END data model to uniquely identify spatial objects and all other objects – entities.

7.2.3 Airport name

Airport name is based on the complex data type (SimpleGeographicalName) which is represented in the table by three interrelated fields: airportName_localName, airportName_localNameLanguage and airportName_nameEng. Values for all three fields must be provided as airport name.

Field airportName_localName

Requirement	Mandatory
Description	Name of the major airport in the national or local language.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Example	Flughafen Wien

Field airportName_localNameLanguage

Requirement	Mandatory
Description	Specification about the national or local language by providing a three-letter language code from ISO 639-3.
Reportnet 3.0 type	Link
Code list	Code list URL: https://dd.eionet.europa.eu/vocabulary/noise/iso639-3/ Applicable code list values:

	bul, ces, dan, deu, ell, eng, est, fin, fra, gle, hrv, hun, ita, lav, lit, mlt, nld, pol, por, ron, slk, slv, spa, swe
Example	deu

Field airportName_nameEng

Requirement	Mandatory
Description	Name of the major airport in English language.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Information	An established name of major airport in English language can be used, or a simple transliteration of name into English / latin alphabet (without specific language characters).
Example	Vienna International Airport

7.2.4   Field annualTrafficFlow

Requirement	Mandatory
Description	Number of movements in a year at the major airport. It is mandatory.
Reportnet 3.0 type	Number - Integer
Format	Maximum of 20 characters
Information	Number is provided as integer number without 1000 separator character.
Example	78650

7.2.5   Field linkToReferenceDataset

Requirement	Optional
Description	Reference to airport (spatial object) in the reference dataset of airport network that is provided in the attribute linkToReferenceDataset, through matching ICAO code of a major airport. It is optional.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

7.2.6   Field inkToReferenceObject

Requirement	Optional
Description	Reference to airport (spatial object) in the reference dataset of airport network that is provided in the attribute linkToReferenceDataset, through matching ICAO code of a major airport. It is optional.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

7.2.7 Field geometry

Requirement	Mandatory
Description	Location of the major airport. This attribute corresponds with the INSPIRE geometry attribute. For the END reporting purpose, point geometry is required. It is mandatory
Reportnet 3.0 type	Point

7.3 Table DatasetDefaultProperties

This table includes all properties that can have a default value in a data set. Typically, it includes: Default values or void reason for voidable attributes defined in INSPIRE specifications, and Default values of other attributes.

In the case of major airports, no default properties are established, but the table has been included in alignment with the rest of data schemas, however the table is empty.

Table 7.2. DatasetDefaultProperties table overview

Mandatory /optional	Name	Reportnet 3.0 Type
M	tableName	Text
M	propertyName	Text
O	attribute	Text
M	defaultValue	Text

7.4 Table CodelistProperties

This table includes a list of the code lists that have to be used for reporting data on the DF1_5 major airports data model. The complete code lists used in the END data model are also published in the Eionet Data Dictionary (https://dd.eionet.europa.eu/vocabularies) and are used in the Reportnet 3 data schemas.

The specific applicable code lists can also be found in the Vocabulary – common tables data schema of this dataflow.

The table is prefilled and read-only.

Table 7.3. CodelistProperties table overview

Mandatory/ optional	Name	Reportnet 3.0 Type
M	tableName	Text
M	propertyName	Text
M	codelist	Text

Table 7.4. Applicable values for the CodelistProperties

tableName	propertyName	codelist
MajorAirportSource	airportName_localNameLanguage	http://dd.eionet.europa.eu/vocabulary/common/iso639-3

7.5   Validation

The complete list of all the validations applied in the data schema *MajorAirportSource (DF1_5)*, the type of quality control and the error level are detailed in the document https://www.eionet.europa.eu/reportnet/docs/noise/guidelines/document_qcs_df1_5.xlsx/view.

7.6   GeoPackage format

7.6.1   *Support to data transformation into GeoPackage*

GeoPackage template

The GeoPackage template MajorAirportSource.gpkg that has been created to support data reporting can be found in the:

- Dataflow Help page in Reportnet 3.0. (see 4.3.2), and

- https://www.eionet.europa.eu/reportnet/docs/noise/templates/df1_5.

Sample data

Sample data containing information as an example of reporting best practices is available at: https://www.eionet.europa.eu/reportnet/docs/noise/reporting-examples/sample-data-noise-sources-df1_5. It is important to notice that the sample data is simulated data adapted from an official reporting, including additional simulated information especially in the case of new information included in the new END data model.

Demonstration of data transformation with the ETL tool HALE Studio

A demonstration video on how to create the new GeoPackage file has been issued, using HALE Studio tool, which is accessible in: https://www.eionet.europa.eu/reportnet/docs/noise/videos.
The data transformation project (HALE Studio) details with test data (note: using simulated data for feasibility of data transformation, not exact data for noise reporting) can also be found in the repository   https://github.com/wetransform-os/geopackage-end/tree/main/DF1_5.   It   shows possibilities to create a mapping between a source schema and target GeoPackage schema and transform source data into the Geopackage file format.

7.6.2   *Use of GeoPackage file format in the Reportnet 3.0*

The GeoPackage template for DF1_5 major airports includes the same tables as the ones that are included in Reportnet 3.0, see example below. The data import process in the Reportnet 3.0 transfers data from the GeoPackage file into the correlated tables in the Reportnet 3.0 data schema Major airport source (DF1_5).

GeoPackage template MajorAirportSource.gpkg – list of tables	**Reportnet 3.0 data schema *Major airport source (DF1_5)* – list of tables**

MajorAirportSource	MajorAirportSource
DatasetDefaultProperties (empty table)	DatasetDefaultProperties (empty table, read-only)
CodelistProperties (pre-filled)	CodelistProperties (pre-filled, read-only)

8   Major railway source (DF1_5)

8.1   Description

Railway, designated by the Member State, which has more than 30.000 train passages per year.

The MajorRailwaySource data schema includes four tables, as following :

- MajorRailwaySource : primary content including spatial data

- MajorRailwaySourceVoidables : table includes attributes defined as « voidable in the INSPIRE context »

- DatasetDefaultProperties: Information about the default values of objects in a data set or a table (read only schema, and already filled in in Reportnet 3.0)

- CodelistProperties (read only schema, and already filled in in Reportnet 3.0) : list of applicable code lists in that data schema.

8.2   Table MajorRailwaySource

MajorRailwaySource table includes the primary content of major railways, i.e. length, annual traffic, including also the spatial delineation in a type of lines or multiple line geometry.

Table 8.1. MajorRailwaySource table overview

Mandatory /optional / conditional	Name	Reportnet 3.0 Type	Code list
M	id	Number - Integer	
M	railId_identifier	Text	
O	railNationalCode	Text	
O	railName_localName	Text	
O	railName_localNameLanguage	Link	https://dd.eionet.europa.eu/vocabulary/noise/iso639-3/
O	railName_nameEng	Text	
M	annualTrafficFlow	Number - Integer	

M	length	Number - Integer	
O	linkToReferenceDataset	Text	
O	linkToReferenceObject	Text	
M	inspireId_localId	Text	
M	inspireId_namespace	Text	
O	inspireId_versionId	Text	
C	geometry_line	Line	
C	geometry_multiline	Multiple lines	

The following section includes detailed information of each field, i.e. description, type, format, use of code lists (where applicable), additional information of expected data or guidelines to prepare data, and data samples.

8.2.1 Field id

Requirement	Mandatory
Description	Unique identifier automatically created in Geopackage file (primary key in the SQLite database).
Reportnet 3.0 type	Number - Integer
Format	Maximum of 20 characters
Information	This attribute is primarily required by the OGC GeoPackage standard. It must be unique within a GeoPackage file.
Example	1

8.2.2 Field railId_identifier

Requirement	Mandatory
Description	Unique identifier assigned to each major railway segment.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Information	The value of this field follows the coding system to create thematic identifiers provided in the guidelines "Proposal on how to build the unique thematic identifiers for the new END data model".

	It belongs to the common END identifier scheme named EUENDCode. The identifier scheme is provided as default value in the table DatasetDefaultProperties.
Example	RL_AT_00_1
Reporting constraints	railId_identifier will be re-used across the complete END data model to uniquely identify spatial objects and all other objects – entities.

8.2.3   Field railNationalCode

Requirement	Optional
Description	Railway code (railway identification number) used within Member State.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

8.2.4   Rail name

Rail name is based on the complex data type (SimpleGeographicalName) which is represented in the table by three interrelated fields: railName_localName, railName_localNameLanguage and railName_nameEng. Values for all three fields must be provided as rail name.

Field railName_localName

Requirement	Optional
Description	Official rail name used within Member State in the national or local language.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

Field railName_localNameLanguage

Requirement	Optional
Description	Specification about the national or local language by providing a three-letter language code from ISO 639-3.
Reportnet 3.0 type	Link
Code list	Code list URL: https://dd.eionet.europa.eu/vocabulary/noise/iso639-3/ Applicable code list values: bul, ces, dan, deu, ell, eng, est, fin, fra, gle, hrv, hun, ita, lav, lit, mlt, nld, pol, por, ron, slk, slv, spa, swe
Example	deu

Field railName_nameEng

Requirement	Optional
Description	Official rail name used within Member State in English language
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

8.2.5   Field annualTrafficFlow

Requirement	Mandatory
Description	Number of train passages in a year on the major railway segment.
Reportnet 3.0 type	Number – Integer
Format	Maximum of 20 characters
Information	Number is provided as integer number without 1000 separator character.
Example	65800

8.2.6   Field length

Requirement	Mandatory
Description	Actual length of the major railway segment, in metres.
Reportnet 3.0 type	Number - Integer
Format	Maximum of 20 characters
Information	Number is provided as integer number without 1000 separator character.
Example	1345

8.2.7   Field linkToReferenceDataset

Requirement	Optional
Description	Information about INSPIRE reference dataset of railway network to which major railway could be linked.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

8.2.8   Field linkToReferenceObject

Requirement	Optional
Description	Reference to railway (spatial object) in the reference dataset of railway network that is provided in the attribute linkToReferenceDataset.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

8.2.9 Spatial object identifier inspireId

Following the underlying INSPIRE conceptual data model, each major railway includes also the external unique object identifier published by the responsible body. The field inspireId is based on the complex data type (Identifier) which is represented in the table by three interrelated fields: inspireId_localId, inspireId_namespace and inspireId_versionId. The external unique object identifier is provided by the mandatory values in the fields inspireId_localId and inspireId_namespace. The field inspireId_versionId is optionally used when different versions of the same spatial object are provided in the data set.

Additional information and recommendations on creating INSPIRE external unique object identifiers are provided in "Creating INSPIRE external unique object identifiers in the scope of the END reporting data".

Field inspireId_localId

Requirement	Mandatory
Description	Part of inspireId - external object identifier of the spatial object, defined in the INSPIRE Implementing Rules on Interoperability. The attribute localId is a local identifier that is unique within the namespace.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Information	See more information in "Creating INSPIRE external unique object identifiers in the scope of the END reporting data"
Example	RL_AT_00_1

Field inspireId_namespace

Requirement	Mandatory
Description	External object identifier of the spatial object, defined in the INSPIRE Implementing Rules on Interoperability. The attribute namespace uniquely identifies the data source of the spatial object.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Information	See more information in "Creating INSPIRE external unique object identifiers in the scope of the END reporting data"
Example	end_majorrailway_AT

Field inspireId_versionId

Requirement	Optional
Description	The attribute versionId identifies a particular version of a spatial object, defined in the INSPIRE Implementing Rules on Interoperability. This attribute can be used together with life-cycle information to distinguish between the different versions of a spatial object.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

Information	See more information in "Creating INSPIRE external unique object identifiers in the scope of the END reporting data". It is proposed to omit spatial object versions (no value – empty field).

8.2.10 Field geometry_line

Requirement	Conditional
Description	It presents geometry of major railway, according to the definition in the INSPIRE Implementing Rules on Interoperability. Geometry shall be represented as a centreline of a major railway.
Reportnet 3.0 type	Line
Information	This field is used to store geometry type line only, depending on if the line geometry is provided in the reported data. It is recommended.
Example	 Source: END reported data from Germany

8.2.11 Field geometry_multiline

Requirement	Conditional
Description	It presents geometry of major railway, according to the definition in the INSPIRE Implementing Rules on Interoperability. Geometry shall be represented as a centreline of a major railway.
Reportnet 3.0 type	Multiple lines
Information	This field is used to store geometry type multiple lines only, depending on if the multiple lines geometry is provided in the reported data.

8.3   Table MajorRailwaySourceVoidables

This table includes attributes that are defined as voidable in the data model. Only the attributes defined in the INSPIRE specifications are voidable. This table is used in case a value is assigned to a voidable attribute for an individual spatial object which is already provided in the primary (core) table

MajorRailwaySource. Otherwise, the default value of these attributes is used and therefore this table can be left empty.

It is recommended to use DatasetDefaultProperties as default values applicable to the complete data schema. By doing this, MajorRailwaySourceVoidables can be left empty.

In case a value for a voidable property for each special object is provided, the following constraints apply to individual voidable property :

1) DateTime format requires UTC information (Z parameter or +/- offset time). It is applicable to the fields validFrom and beginLifespanVersion;

2) If any value for a voidable property of a spatial object is provided, a correct linking between both tables MajorRailwaySource and MajorRailwaySourceVoidables must be provided: the field MajorRailwaySource_id in the table MajorRailwaySourceVoidables must include the corresponding id of the spatial object from the table MajorRailwaySource, see example below.

MajorRailwaySource	
id	… other fields …
10	

MajorRailwaySourceVoidables	
MajorRailwaySource_id	… other fields …
10	

Detailed information about requirements of voidable properties in the INSPIRE application schema can be also found in the INSPIRE Data Specification on Transport Networks – Technical Guidelines and in the Implementing Rules on Interoperability of spatial data sets and services.

Table 8.2. MajorRailwaySourceVoidables table overview

Mandatory /optional	Name	Reportnet 3.0 Type	Code list
M	id	Number - Integer	
O	validFrom	Text (DateTime)	
O	inNetwork	Text	
O	beginLifespanVersion	Text (DateTime)	
M	MajorRailwaySource_id	Number - Integer	

8.4   Table DatasetDefaultProperties

This table includes all properties that can have a default value in a data set. Typically, it includes: default values or void reason for voidable attributes defined in INSPIRE specifications, and default values of other attributes. The table is prefilled and read-only.

Table 8.3. DatasetDefaultProperties table overview

Mandatory /optional	Name	Reportnet 3.0 Type
M	tableName	Text
M	propertyName	Text
O	attribute	Text
M	defaultValue	Text

Table 8.4. Applicable values for the DatasetDefaultProperties

tableName	propertyName	attribute	defaultValue
MajorRailwaySource	inNetwork	nilReason	http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unpopulated
MajorRailwaySource	validFrom	nilReason	http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unpopulated
MajorRailwaySource	beginLifespanVersion	nilReason	http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unpopulated
MajorRailwaySource	ficticious		false
MajorRailwaySource	railId_identifierScheme	href	https://dd.eionet.europa.eu/vocabulary/inspire/IdentifierScheme/EUENDCode

8.5   Table CodelistProperties

This table includes a list of the code lists that have to be used for reporting data on the DF1_5 major railways data model. The complete code lists used in the END data model are also published in the Eionet Data Dictionary (https://dd.eionet.europa.eu/vocabularies) and are used in the Reportnet 3 data schemas.

The specific applicable code lists can also be found in the Vocabulary – common tables data schema of this dataflow.

The table is prefilled and read-only.

Table 8.5. CodelistProperties table overview

Mandatory /optional	Name	Reportnet 3.0 Type
M	tableName	Text
M	propertyName	Text
M	codelist	Text

Table 8.6. Applicable values for the CodelistProperties

tableName	propertyName	codelist
MajorRailwaySource	railName_localNameLanguage	http://dd.eionet.europa.eu/vocabulary/common/iso639-3
MajorRailwaySource	railId_identifierScheme	http://dd.eionet.europa.eu/vocabulary/inspire/IdentifierScheme

8.6   Validation

The complete list of all the validations applied in the data schema *MajorRailwaySource (DF1_5)*, the type of quality control and the error level are detailed in the document https://www.eionet.europa.eu/reportnet/docs/noise/guidelines/document_qcs_df1_5.xlsx/view.

8.7   GeoPackage format

8.7.1   Support to data transformation into GeoPackage

GeoPackage template

The GeoPackage template MajorRailwaySource.gpkg that has been created to support data reporting can be found in the:

- Dataflow Help page in Reportnet 3.0. (see 4.3.2), and

- https://www.eionet.europa.eu/reportnet/docs/noise/templates/df1_5.

Sample data
Sample data containing information as an example of reporting best practices is available at: https://www.eionet.europa.eu/reportnet/docs/noise/reporting-examples/sample-data-noise-sources-df1_5. It is important to notice that the sample data is simulated data adapted from an official reporting, including additional simulated information especially in the case of new information included in the new END data model.

Demonstration of data transformation with the ETL tool HALE Studio
A demonstration video on how to create the new GeoPackage file has been issued, using HALE Studio tool, which is accessible in: https://www.eionet.europa.eu/reportnet/docs/noise/videos.
The data transformation project (HALE Studio) details with test data (note: using simulated data for feasibility of data transformation, not exact data for noise reporting) can also be found in the repository   https://github.com/wetransform-os/geopackage-end/tree/main/DF1_5.   It   shows possibilities to create a mapping between a source schema and target GeoPackage schema and transform source data into the Geopackage file format.

8.7.2   Use of GeoPackage file format in the Reportnet 3.0

The GeoPackage template for DF1_5 major railways includes the same tables as the ones that are included in Reportnet 3.0, see example below. The data import process in the Reportnet 3.0 transfers data from the GeoPackage file into the correlated tables in the Reportnet 3.0 data schema *Major railway source (DF1_5)*.

GeoPackage template MajorRailwaySource.gpkg – list of tables	Reportnet 3.0 **data schema** *Major railway source (DF1_5)* **– list of tables**
MajorRailwaySource	MajorRailwaySource
MajorRailwaySourceVoidables	MajorRailwaySourceVoidables
DatasetDefaultProperties (pre-filled)	DatasetDefaultProperties (pre-filled, read-only)
CodelistProperties (pre-filled)	CodelistProperties (pre-filled, read-only)

9   Major road source (DF1_5)

9.1   Description

Regional, national or international road, designated by the Member State, which has more than three million vehicle passages a year

The MajorRoadSource data schema includes four tables, as following :

- MajorRoadSource : primary content including spatial data

- MajorRoadSourceVoidables : table includes attributes defined as « voidable in the INSPIRE context »

- DatasetDefaultProperties: Information about the default values of objects in a data set or a table (read only schema, and already filled in in Reportnet 3.0)

- CodelistProperties (read only schema, and already filled in in Reportnet 3.0) : list of applicable code lists in that data schema.

9.2   Table MajorRoadSource

MajorRoadSource table includes the primary content of major roads, i.e. length, annual traffic, including also the spatial delineation in a type of lines or multiple line geometry.

Table 9.1. MajorRoadSource table overview

Mandatory /optional / conditional	Name	Reportnet 3.0 Type	Code list
M	id	Number - Integer	
M	roadId_identifier	Text	
O	roadNationalCode	Text	
O	roadName_localName	Text	
O	roadName_localNameLanguage	Link	https://dd.eionet.europa.eu/vocabulary/noise/iso639-3/
O	roadName_nameEng	Text	

O	EURoadId	Text	
M	annualTrafficFlow	Number - Integer	
M	length	Number - Integer	
O	linkToReferenceDataset	Text	
O	linkToReferenceObject	Text	
M	inspireId_localId	Text	
M	inspireId_namespace	Text	
O	inspireId_versionId	Text	
C	geometry_line	Line	
C	geometry_multiline	Multiple lines	

The following section includes detailed information of each field, i.e. description, type, format, use of code lists (where applicable), additional information of expected data or guidelines to prepare data, and data samples.

9.2.1   Field id

Requirement	Mandatory
Description	Unique identifier automatically created in Geopackage file (primary key in the SQLite database).
Reportnet 3.0 type	Number - Integer
Format	Maximum of 20 characters
Information	This attribute is primarily required by the OGC GeoPackage standard. It must be unique within a GeoPackage file.
Example	1

9.2.2   Field roadId_identifier

Requirement	Mandatory
Description	Unique identifier assigned to each major road segment.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

Information	The value of this field follows the coding system to create thematic identifiers provided in the guidelines "Proposal on how to build the unique thematic identifiers for the new END data model".
	It belongs to the common END identifier scheme named EUENDCode. The identifier scheme is provided as default value in the table DatasetDefaultProperties.
Example	RD_AT_00_1
Reporting constraints	roadId_identifier will be re-used across the complete END data model to uniquely identify spatial objects and all other objects – entities.

9.2.3 Field roadNationalCode

Requirement	Optional
Description	Road national code (road identification number) used within Member State.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

9.2.4 Road name

Road name is based on the complex data type (SimpleGeographicalName) which is represented in the table by three interrelated fields: roadName_localName, roadName_localNameLanguage and roadName_nameEng. Values for all three fields must be provided as rail name.

Field roadName_localName

Requirement	Optional
Description	Official road name used within Member State in the national or local language.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

Field roadName_localNameLanguage

Requirement	Optional
Description	Specification about the national or local language by providing a three-letter language code from ISO 639-3.
Reportnet 3.0 type	Link
Code list	Code list URL: https://dd.eionet.europa.eu/vocabulary/noise/iso639-3/ Applicable code list values: bul, ces, dan, deu, ell, eng, est, fin, fra, gle, hrv, hun, ita, lav, lit, mlt, nld, pol, por, ron, slk, slv, spa, swe
Example	deu

Field roadName_nameEng

Requirement	Optional
Description	Official road name used within Member State in English language
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

9.2.5 Field EURoadId

Requirement	Optional
Description	European road code used to reference the road.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

9.2.6 Field annualTrafficFlow

Requirement	Mandatory
Description	Number of vehicle passages in a year on the major road segment
Reportnet 3.0 type	Number – Integer
Format	Maximum of 20 characters
Information	Number is provided as integer number without 1000 separator character.
Example	4500000

9.2.7 Field length

Requirement	Mandatory
Description	Actual length of the major road segment, in metres.
Reportnet 3.0 type	Number - Integer
Format	Maximum of 20 characters
Information	Number is provided as integer number without 1000 separator character.
Example	629

9.2.8 Field linkToReferenceDataset

Requirement	Optional
Description	Information about INSPIRE reference dataset of road network to which major road could be linked.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

9.2.9 Field linkToReferenceObject

Requirement	Optional
Description	Reference to road (spatial object) in the reference dataset of road network that is provided in the attribute linkToReferenceDataset.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters

9.2.10 Spatial object identifier inspireId

Following the underlying INSPIRE conceptual data model, each major road includes also the external unique object identifier published by the responsible body. The field inspireId is based on the complex data type (Identifier) which is represented in the table by three interrelated fields: inspireId_localId, inspireId_namespace and inspireId_versionId. The external unique object identifier is provided by the mandatory values in the fields inspireId_localId and inspireId_namespace. The field inspireId_versionId is optionally used when different versions of the same spatial object are provided in the data set.

Additional information and recommendations on creating INSPIRE external unique object identifiers are provided in "Creating INSPIRE external unique object identifiers in the scope of the END reporting data".

Field inspireId_localId

Requirement	Mandatory
Description	Part of inspireId - external object identifier of the spatial object, defined in the INSPIRE Implementing Rules on Interoperability. The attribute localId is a local identifier that is unique within the namespace.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Information	See more information in "Creating INSPIRE external unique object identifiers in the scope of the END reporting data"
Example	RD_AT_00_1

Field inspireId_namespace

Requirement	Mandatory
Description	External object identifier of the spatial object, defined in the INSPIRE Implementing Rules on Interoperability. The attribute namespace uniquely identifies the data source of the spatial object.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Information	See more information in "Creating INSPIRE external unique object identifiers in the scope of the END reporting data"
Example	end_majorroad_AT

Field inspireId_versionId

Requirement	Optional
Description	The attribute versionId identifies a particular version of a spatial object, defined in the INSPIRE Implementing Rules on Interoperability. This attribute can be used together with life-cycle information to distinguish between the different versions of a spatial object.
Reportnet 3.0 type	Text
Format	Maximum of 10000 characters
Information	See more information in "Creating INSPIRE external unique object identifiers in the scope of the END reporting data". It is proposed to omit spatial object versions (no value – empty field).

9.2.11 Field geometry_line

Requirement	Conditional
Description	It presents geometry of major road, according to the definition in the INSPIRE Implementing Rules on Interoperability. Geometry shall be represented as a centreline of a major road.
Reportnet 3.0 type	Line
Information	This field is used to store geometry type line only, depending on if the line geometry is provided in the reported data. It is recommended.
Example	 *S*ource: END reported data from Austria

9.2.12 Field geometry_multiline

Requirement	Conditional
Description	It presents geometry of major road, according to the definition in the INSPIRE Implementing Rules on Interoperability. Geometry shall be represented as a centreline of a major railway.

Reportnet 3.0 type	Multiple lines
Information	This field is used to store geometry type multiple lines only, depending on if the multiple lines geometry is provided in the reported data.

9.3   Table MajorRoadSourceVoidables

This table includes attributes that are defined as voidable in the data model. Only the attributes defined in the INSPIRE specifications are voidable. This table is used in case a value is assigned to a voidable attribute for an individual spatial object which is already provided in the primary (core) table MajorRoadSource. Otherwise, the default value of these attributes is used and therefore this table can be left empty.

It is recommended to use DatasetDefaultProperties as default values applicable to the complete data schema. By doing this, MajorRoadSourceVoidables can be left empty.

In case a value for a voidable property for each special object is provided, the following constraints apply to individual voidable property :

3) DateTime format requires UTC information (Z parameter or +/- offset time). It is applicable to the fields validFrom and beginLifespanVersion;

4) If any value for a voidable property of a spatial object is provided, a correct linking between both tables MajorRoadSource and MajorRoadSourceVoidables must be provided: the field MajorRoadSource_id in the table MajorRoadSourceVoidables must include the corresponding id of the spatial object from the table MajorRoadSource, see example below.

MajorRoadSource	
id	… other fields …
10	

MajorRoadSourceVoidables	
MajorRoadSource_id	… other fields …
10	

Detailed information about requirements of voidable properties in the INSPIRE application schema can be also found in the INSPIRE Data Specification on Transport Networks – Technical Guidelines and in the Implementing Rules on Interoperability of spatial data sets and services.

Table 9.2. MajorRoadSourceVoidables table overview

Mandatory /optional	Name	Reportnet 3.0 Type	Code list
M	id	Number - Integer	
O	validFrom	Text (DateTime)	
O	inNetwork	Text	
O	beginLifespanVersion	Text (DateTime)	
M	MajorRailwaySource_id	Number - Integer	

9.4   Table DatasetDefaultProperties

This table includes all properties that can have a default value in a data set. Typically, it includes: default values or void reason for voidable attributes defined in INSPIRE specifications, and default values of other attributes. The table is prefilled and read-only.

Table 9.3. DatasetDefaultProperties table overview

Mandatory /optional	Name	Reportnet 3.0 Type
M	tableName	Text
M	propertyName	Text
O	attribute	Text
M	defaultValue	Text

Table 9.4. Applicable values for the DatasetDefaultProperties

tableName	propertyName	attribute	defaultValue
MajorRoadSource	inNetwork	nilReason	http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unpopulated
MajorRoadSource	validFrom	nilReason	http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unpopulated
MajorRoadSource	beginLifespanVersion	nilReason	http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unpopulated
MajorRoadSource	ficticious		false
MajorRoadSource	roadId_identifierScheme	href	https://dd.eionet.europa.eu/vocabulary/inspire/IdentifierScheme/EUENDCode

9.5   Table CodelistProperties

This table includes a list of the code lists that have to be used for reporting data on the DF1_5 major roads data model. The complete code lists used in the END data model are also published in the Eionet Data Dictionary (https://dd.eionet.europa.eu/vocabularies) and are used in the Reportnet 3 data schemas.

The specific applicable code lists can also be found in the Vocabulary – common tables data schema of this dataflow.

The table is prefilled and read-only.

Table 9.5. CodelistProperties table overview

Mandatory /optional	Name	Reportnet 3.0 Type
M	tableName	Text
M	propertyName	Text
M	codelist	Text

Table 9.6. Applicable values for the CodelistProperties

tableName	propertyName	codelist
MajorRoadSource	roadName_localNameLanguage	http://dd.eionet.europa.eu/vocabulary/common/iso639-3
MajorRoadSource	roadId_identifierScheme	http://dd.eionet.europa.eu/vocabulary/inspire/IdentifierScheme

9.6   Validations

The complete list of all the validations applied in the data schema MajorRoadSource (DF1_5), the type of quality control and the error level are detailed in the document https://www.eionet.europa.eu/reportnet/docs/noise/guidelines/document_qcs_df1_5.xlsx/view.

9.7   GeoPackage format

9.7.1   Support to data transformation into GeoPackage

GeoPackage template

The GeoPackage template MajorRoadSource.gpkg that has been created to support data reporting can be found in the:

- Dataflow Help page in Reportnet 3.0. (see 4.3.2), and

- https://www.eionet.europa.eu/reportnet/docs/noise/templates/df1_5.

Sample data
Sample data containing information as an example of reporting best practices is available at: https://www.eionet.europa.eu/reportnet/docs/noise/reporting-examples/sample-data-noise-sources-df1_5. It is important to notice that the sample data is simulated data adapted from an official reporting, including additional simulated information especially in the case of new information included in the new END data model.

Demonstration of data transformation with the ETL tool HALE Studio
A demonstration video on how to create the new GeoPackage file has been issued, using HALE Studio tool, which is accessible in: https://www.eionet.europa.eu/reportnet/docs/noise/videos.

The data transformation project (HALE Studio) details with test data (note: using simulated data for feasibility of data transformation, not exact data for noise reporting) can also be found in the repository https://github.com/wetransform-os/geopackage-end/tree/main/DF1_5. It shows possibilities to create a mapping between a source schema and target GeoPackage schema and transform source data into the Geopackage file format.

9.7.2   Use of GeoPackage file format in the Reportnet 3.0

The GeoPackage template for DF1_5 major roads includes the same tables as the ones that are included in Reportnet 3.0, see example below. The data import process in the Reportnet 3.0 transfers data from the GeoPackage file into the correlated tables in the Reportnet 3.0 data schema *Major road source (DF1_5)*.

GeoPackage template MajorRoadSource.gpkg – list of tables	Reportnet 3.0 data schema *Major road source (DF1_5)* – list of tables
MajorRoadSource	MajorRoadSource
MajorRoadSourceVoidables	MajorRoadSourceVoidables
DatasetDefaultProperties (pre-filled)	DatasetDefaultProperties (pre-filled, read-only)
CodelistProperties (pre-filled)	CodelistProperties (pre-filled, read-only)

10 Reporting process

10.1 Reporting data in Reportnet 3.0: overall workflow

Figure 10.1 illustrates the different processes involved in the reporting of DF1_5 Noise Sources. The direct link to access to the all the available supporting material of the noise sources can be found here: https://www.eionet.europa.eu/reportnet/docs/noise. The preparation of the data involves using predefined templates in GeoPackage with the spatial information of the country's major roads, major railways, major airports and agglomerations. The dataflow is organised by data schemas and a GeoPackage template is available for each source. Four data schemas will need to be uploaded, one for major roads, one for major railways, one for major airports and one for agglomerations. In addition, an online declaration of the sources existing in the country will need to be filled in in Reportnet. Once the data files have been uploaded, they can be assessed based on the quality assurance validations that are programmed inside Reportnet 3.0. The description of these quality checks can be downloaded here:
https://www.eionet.europa.eu/reportnet/docs/noise/guidelines/document_qcs_df1_5.xlsx/view.
Once the data is correct, without any blocking errors in the quality checks, the delivery can be completed by releasing the data collection. In case of blocking errors in the validation, the data cannot be released and the reporter will need to correct the content, replace the files and release the data collection again. After the data has been released, a confirmation receipt will be issued and will be available in the dataflow page. The data submitted will be available in Reportnet3.0 and if there are other errors, you will receive a standard notification that a correction and a resubmission is needed. All the submissions will be integrated in the EU noise database.

Figure 10.1. Reporting workflow
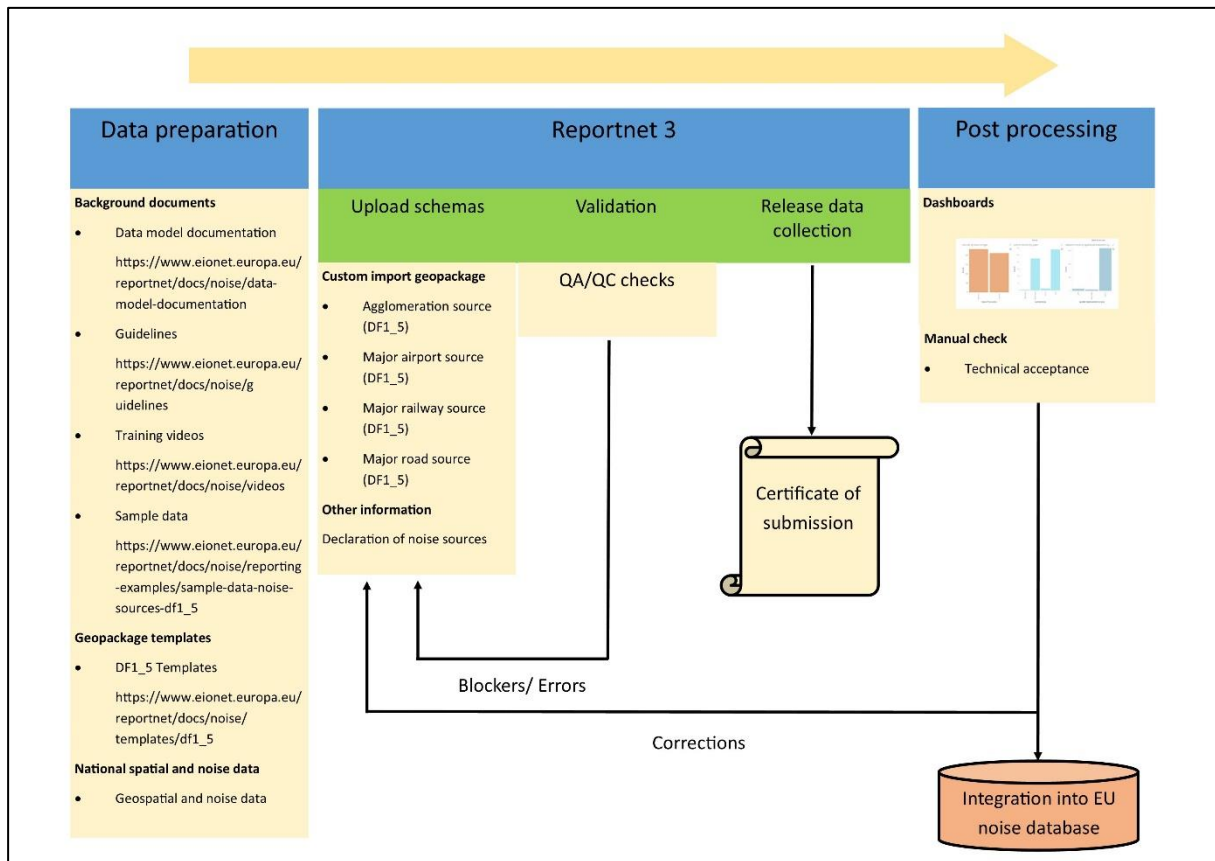
Further information on the reporting process of DF1_5
- Reportnet 3 reporters' manual :
  https://www.eionet.europa.eu/reportnet/docs/prod/reporter_howto_reportnet3.0
- Training video:
  https://www.eionet.europa.eu/reportnet/docs/noise/videos/df1_5_reportnet_final_v4.mp4/view

10.2 User accounts and permissions

The official reporting will be done through the following URL: https://reportnet.europa.eu/ . The log in will be done through the EU login portal and the reporter will have to use the EU login details. Therefore, reporters will not be managing an Eionet login account but they will use an EU login account which is separately maintained and that can be more easily updated. Creating an EU account can be done at https://webgate.ec.europa.eu/cas/about.html .

Figure 10.2. Log in into Reportnet 3.0 using EU-login
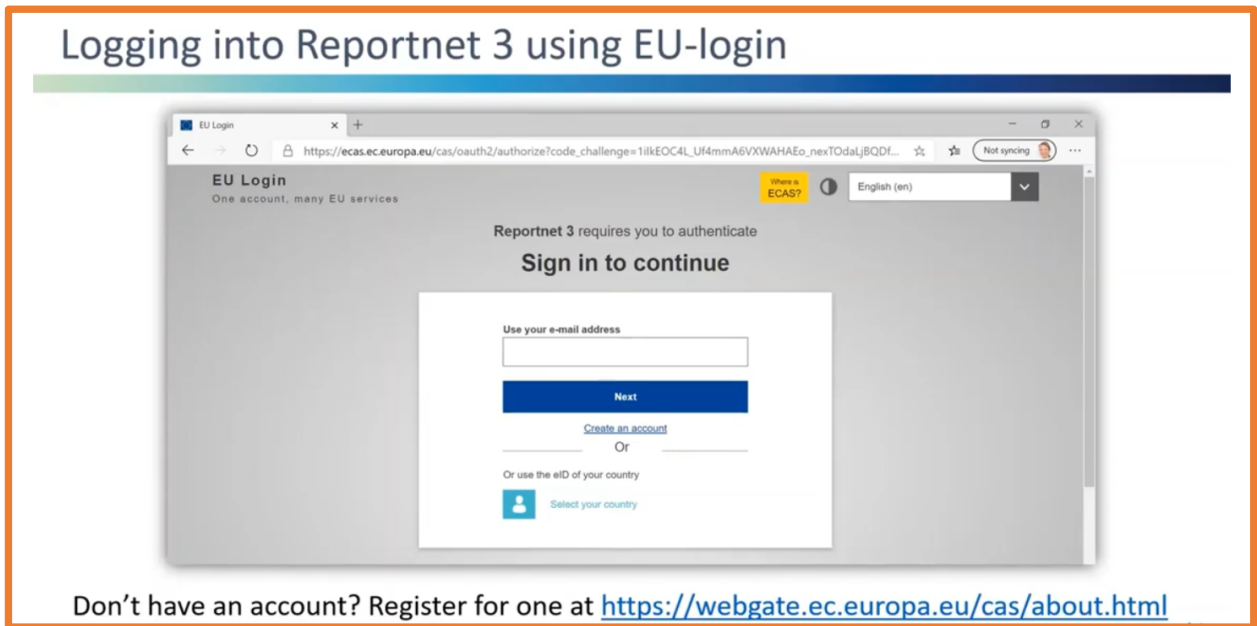
In Reportnet 3.0 there are two main roles for reporters, one is the lead reporter's role and the other is the supporting reporter's role. Prior, in Reportnet 2, all reporters were registered by the EEA and the lists were maintained by the agency. In the new reporting mechanism, the supporting reporters can prepare the data and can access the reporting platform. The number of supporting reporters is unlimited but those will be managed by the lead reporter. The lead reporter will be in charge to submit the final data and needs to be formally nominated.

Figure 10.3. Roles in Reportnet 3.0
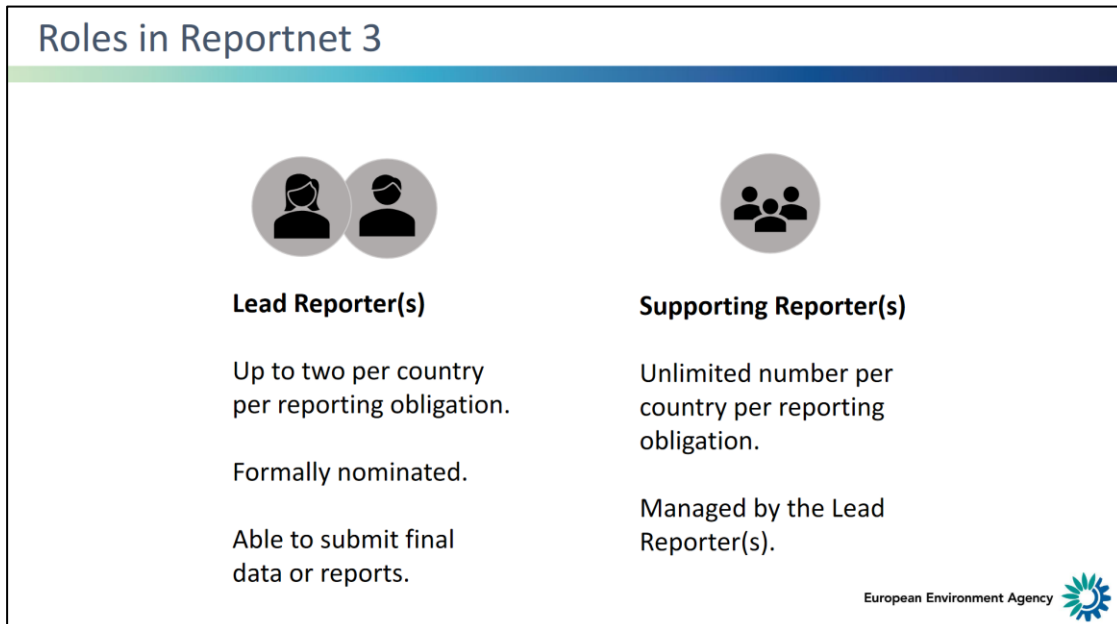
10.3 Importing data

To import the GeoPackage file, the custom imports (gpkg) needs to be selected as indicated in Figure 10.4. The reporter will be asked to select a file and upload it. If the reporter is replacing the existing data, *Replace data* can be selected (see Figure 10.5).

Figure 10.4. Import dataset data
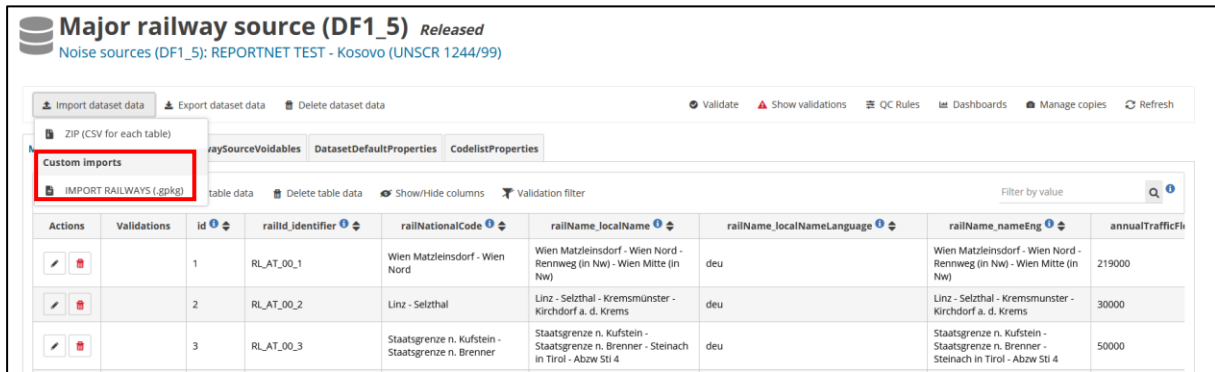
Figure 10.5. Replace data
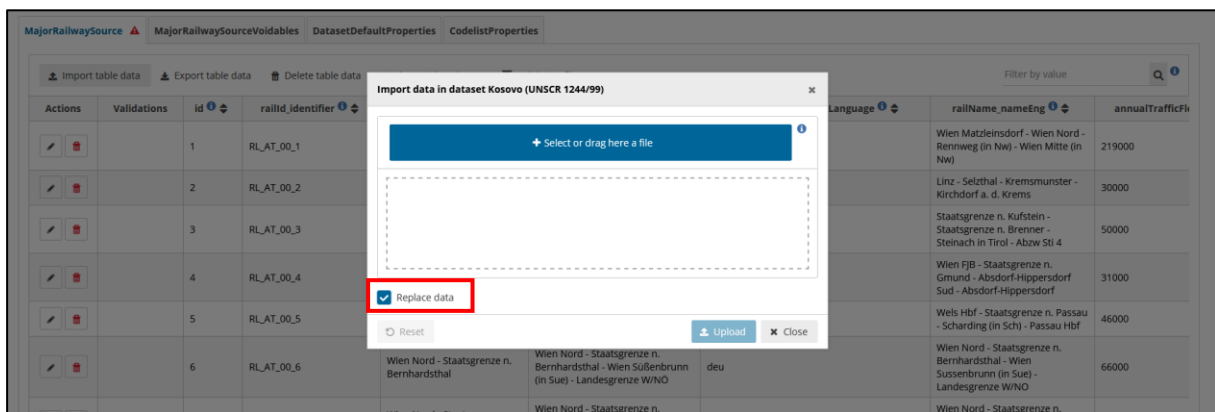
10.4 Validations

The data to be submitted can be assessed with the validation tools provided in Reportnet 3.0 as shown in Figure 10.6.

Figure 10.6. Show validations

The description of the quality checks are included in an Excel file which can be accessed here: https://www.eionet.europa.eu/reportnet/docs/noise/guidelines/document_qcs_df1_5.xlsx/view. The validations are run automatically when the data is uploaded and the reports can be consulted as shown in Figure 10.7. Corresponding error reports will be displayed at the schema level.

Figure 10.7. Validations report

If there are no blockers, errors, warnings, or information messages in the data uploaded, the message shown in Figure 10.8 will be given. Errors identified as "blockers" will not allow the reporter to release the data collection. Obtaining blockers in the validation process means that the data delivered has missing or erroneous elements that may corrupt the integrity of the European noise database or undermine the consistency of the reported data.

Figure 10.8. Successful validation message
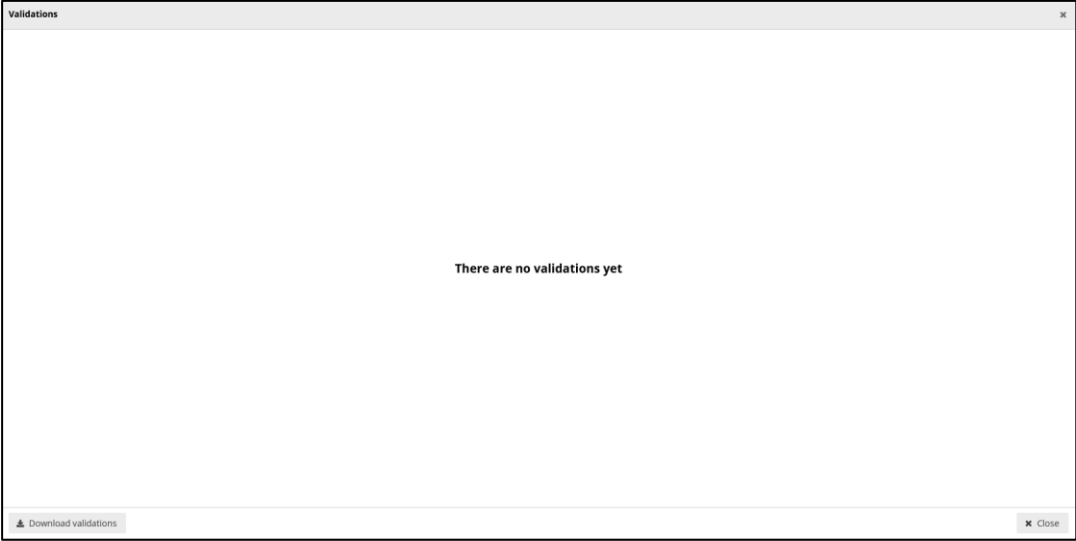
10.5 Official submission of the report

The reporter will be able to submit the data by clicking on "Release to data collection" as shown in Figure 10.9. If there are blockers in any dataset schema, the release will be stopped and the reporter will receive a message indicating that releasing the data is not possible due to errors in the dataset. The reporter can make copies of the data submitted. After the submission a new icon will appear with the confirmation receipt as shown in Figure 10.10. The confirmation receipt is a pdf with a confirmation of the submission which indicates the data schemas that were submitted. If the reporter changes the data and resubmits a new copy to the data collection, then a new confirmation receipt will be available for download.

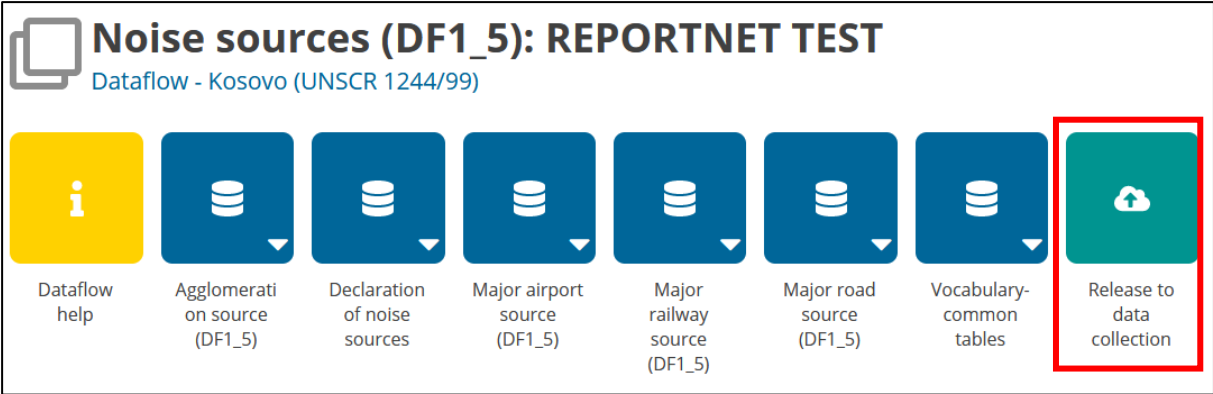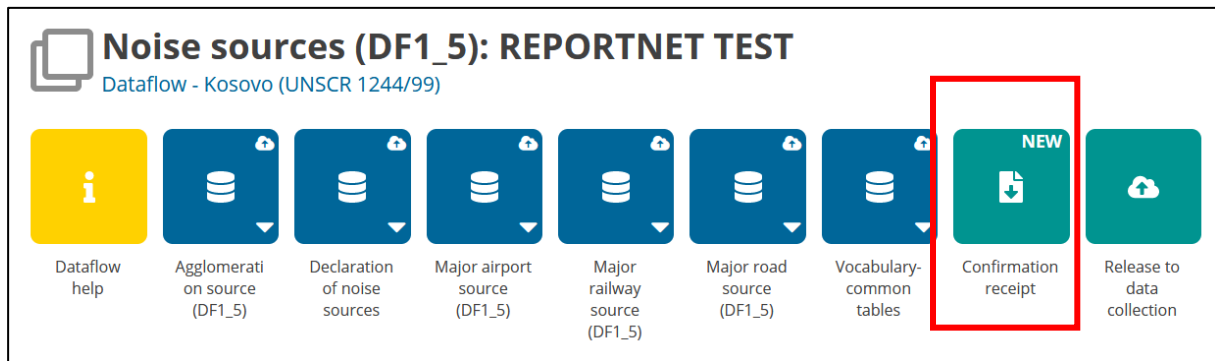*Figure 10.9. Release data collection*

Figure 10.10. Confirmation receipt

10.6 Resubmission

The reporter will be able to replace/update the submission until the deadline. According to Article 10 (see below), if the reporter wishes to modify the submission after the deadline, an official communication to the EEA and the EC will have to be provided stating the changes from the previous submission and the reasons for the update.

Article 10 – paragraph 2: 'Member States shall ensure that the information from strategic noise maps and summaries of the action plans as referred to in Annex VI are sent to the Commission within six months of the dates laid down in Articles 7 and 8 respectively. For that purpose, Member States shall only report the information by electronic means to a mandatory data repository to be established by the Commission by means of implementing acts. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 13(2). **In the event that a Member State wants to update information, it shall describe the differences between the updated and original information and the reasons for the update when making the updated information available to the data repository**.'

European Environment Agency
European Topic Centre on Air pollution,
transport, noise and industrial pollution