Environmental Noise Directive Reporting guidelines

DF7_10 Noise action plan: Major railway

Authors:

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

European Environment Agency
European Topic Centre
Human health and the environment

HISTORY OF CHANGES

Version	List of changes
December 2022	Issue first version

Contents

Acknowledgements

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 data reporting and validation process in Reportnet 3. 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.

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, 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.

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 DF7_10 Noise action plan in relation to major railways:

- 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 in relation to this dataflow
- The practicalities involved in reporting and submitting data using Reportnet 3.

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 from 2022. The END reporting is defined in the Directive 2002/49/EC and the reporting requirements are further defined in the *Commission Implementing Decision (EU) 2021/1967 of 11 November 2021 on Setting up a mandatory data repository and a mandatory digital information exchange mechanism according to Directive 2002/49/EC[1]*. 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[2] 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 platform and the

---

[1] Commission Implementing Decision (EU) 2021/1967 of 11 November 2021 setting up a mandatory data repository and a mandatory digital information exchange mechanism in accordance with Directive 2002/49/EC of the European Parliament and of the Council (Text with EEA relevance) C/2021/7948 ELI: http://data.europa.eu/eli/dec_impl/2021/1967/oj

[2] 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

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.

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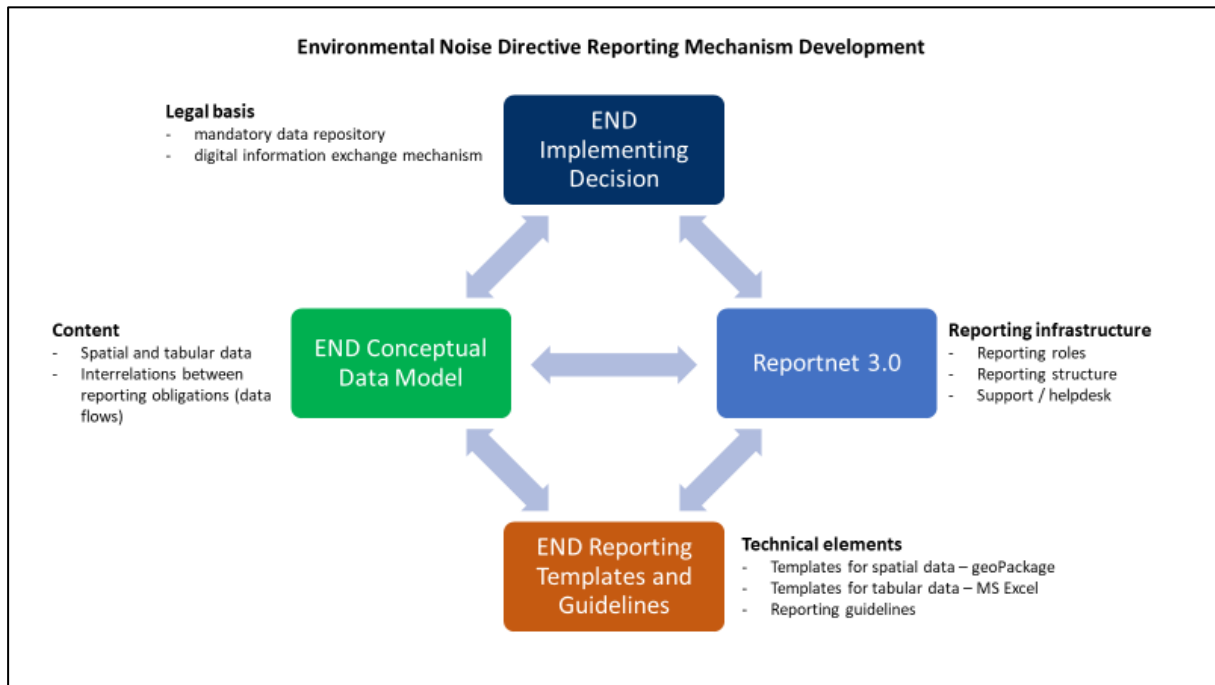
1.3   Alignment with the INSPIRE Directive

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[3]. Development of the INSPIRE Good Practice for GeoPackage is supported by the INSPIRE ad-hoc Working Group on GeoPackage[4] 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 allows providing reported data into infrastructure in different ways, from importing files, programmatically by configuring the Reportnet 3 API, or in the future by harvesting INSPIRE services for spatial data.

(³) https://www.geopackage.org/
(⁴) https://github.com/INSPIRE-MIF/gp-geopackage-encodings

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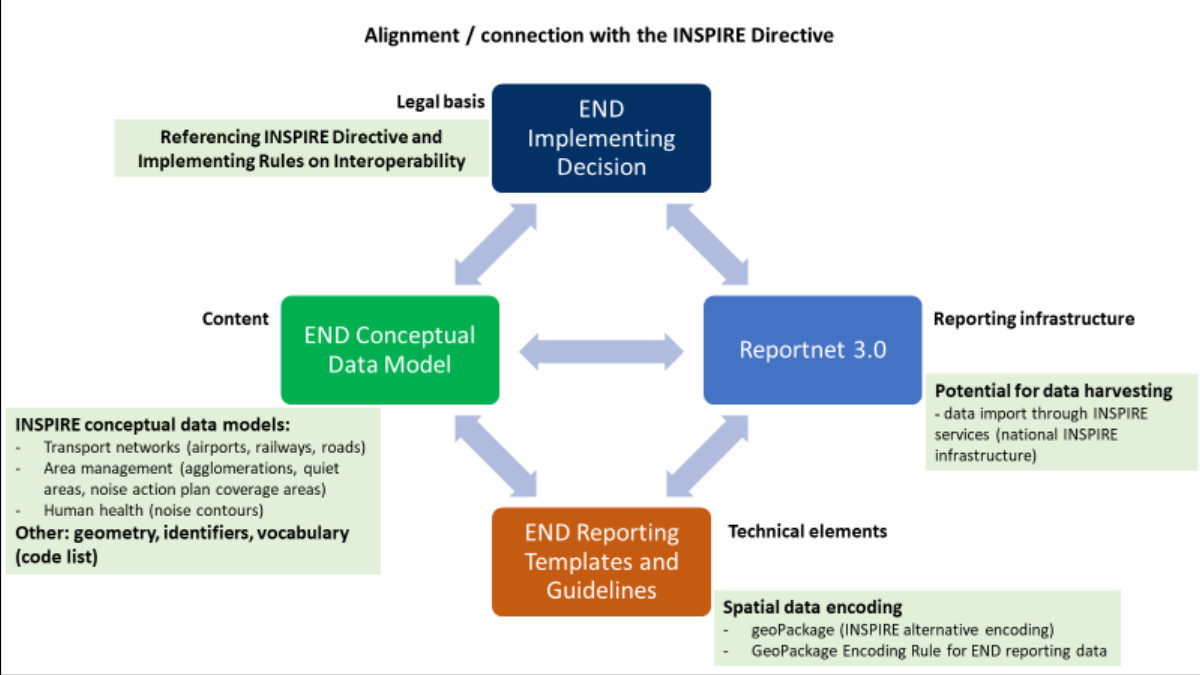
2 Understanding the new END data model

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 action plan (DF7_10): Major railway we considered the following:

- the END requirements; and

- the INSPIRE elements fit for use in the END reporting scope.

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 and in MS excel format.
- It is used to design the schemas in Reportnet 3.0 that will be used for data reporting.

The relevant section of the document for the reporting of dataflow DF7_10 for major railway is section 18.

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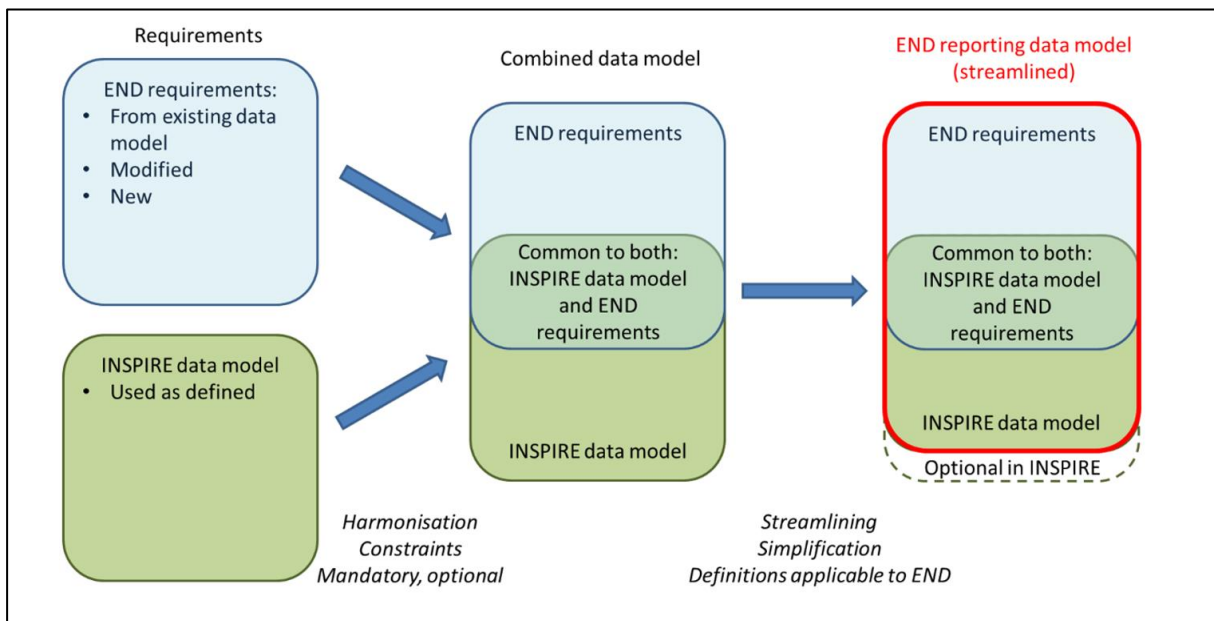
3   Understanding the basic principles of Reportnet 3 from a reporter point of view

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 is being developed by the European Environment Agency. Reportnet 3 (https://reportnet.europa.eu/) is the next generation platform for reporting environmental data to the EEA and also hosts several reporting tasks for the European Commission. Reportnet 3 acts as a central hub for e-Reporting activities, 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, the dataflows assigned to the reporter will show up as illustrated in Figure 3.1. In Reportnet 3, 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

The Noise Directive reporting data flows will typically include several types of dataset schemas:

- Dataflow help includes additional support information, such as templates, UML diagrams, reporting guidelines and reporting videos, as well as the definition of the complete data schema, attributes and quality controls implemented in the dataflow.

- Reference Dataset Vocabulary – common tables include a set of applicable code lists used in the reporting data flow. The code lists can be seen in the Eionet Data Dictionary Vocabulary (https://dd.eionet.europa.eu/vocabularies) in the following folders: noise, inspire and common.
- A set of reporting dataset schemas.

More information will be encountered in Reportnet guidelines (https://www.eionet.europa.eu/reportnet/docs/prod/reporter_howto_reportnet3).

In order to exemplify how to submit data, Austria has been taken as an example throughout this reporting guidelines.

Figure 3.2 shows more specifically the reporting window of the dataflow *Noise action plan (DF7_10): Major railway*.

Figure 3.2. Reportnet – Reporter view: general dataflow structure for the END Noise action plan (DF7_10): Major railway reporting
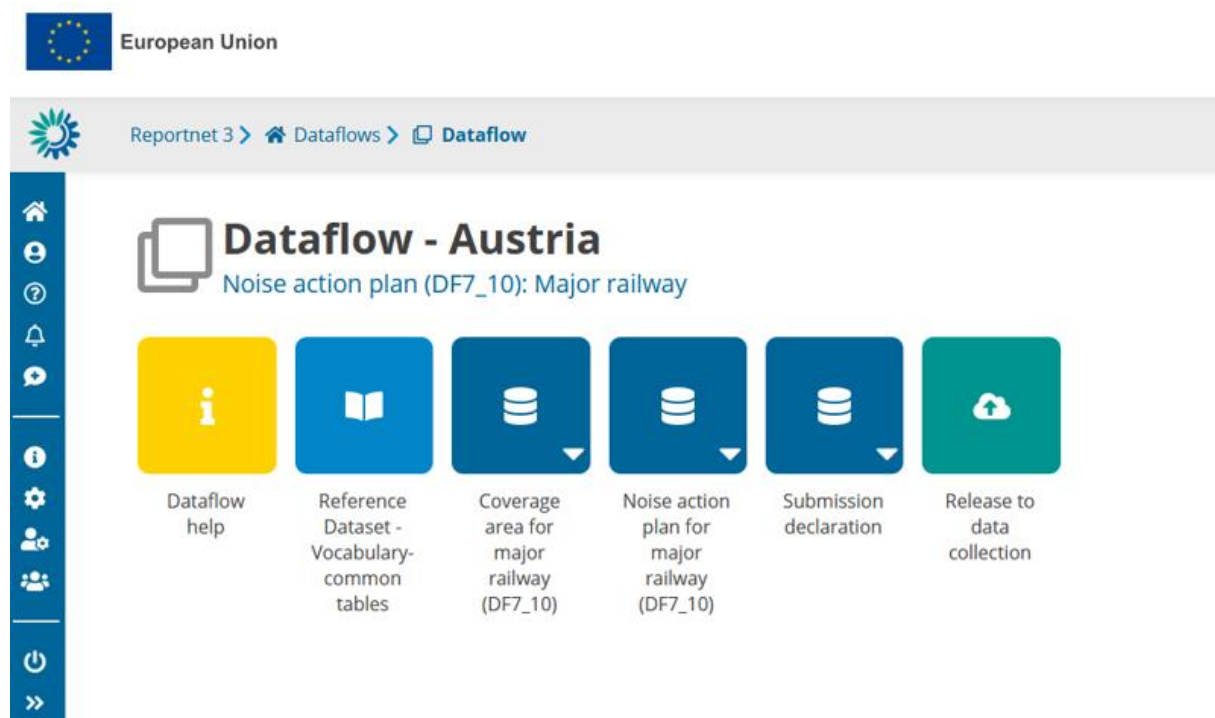
The dataflow is organised by dataset schemas. The reporting data flow *Noise action plan (DF7_10): Major railway* includes the following dataset schemas:

- The dataset schema "Coverage area for major railway (DF7_10)", used to report area that has been evaluated by the competent authority in order to take decisions on reducing the negative health effects of noise and for which the action plan applies. For major railways it is expected to be the area surrounding the noise source which has been evaluated by noise contours during the noise mapping process or the area in which health effects due to noise from the major source are likely to occur.
- The dataset schema "Noise action plan for major railway (DF7_10)", used to report the action plan information, based on strategic noise mapping results, developed to manage, prevent and reduce environmental noise in major railways, in particular in areas where exposure levels can induce harmful effects on human health.

- The dataset schema "Submission declaration", used to provide information on noise action plans for major railways submitted or information on the changes from previous submissions and the reasons for submitting updated data after the deadline; and
- There is another data schema "Reference dataset - Vocabulary – Common tables". This is a read-only schema and contains the different code lists that are applicable to this dataflow as well as tables that are used for data validation (see Figure 3.3).

Figure 3.3. Reference dataset - Vocabulary – Common tables for Noise action plan (DF7_10): Major railway
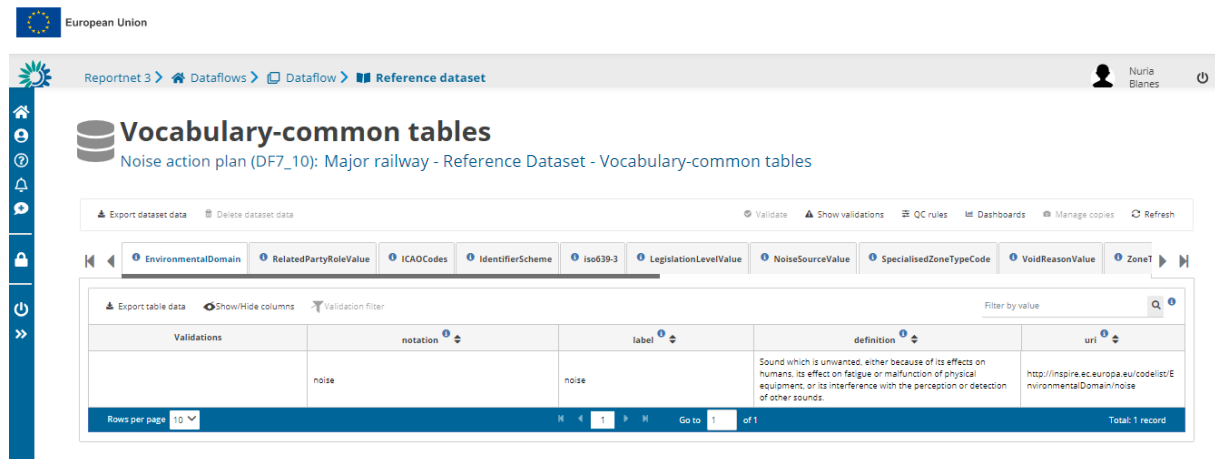
Finally, the *Dataflow Help* contains relevant help documents, including the Geopackage and MS Excel templates for preparation of reported data, the links to all supporting materials, all the information on quality controls and validation rules, as well as the description of the different tables and attributes applicable to this dataflow (see Figure 3.4).

Figure 3.4. Dataflow help page: supporting documents tab, web links tab and dataset schemas tab
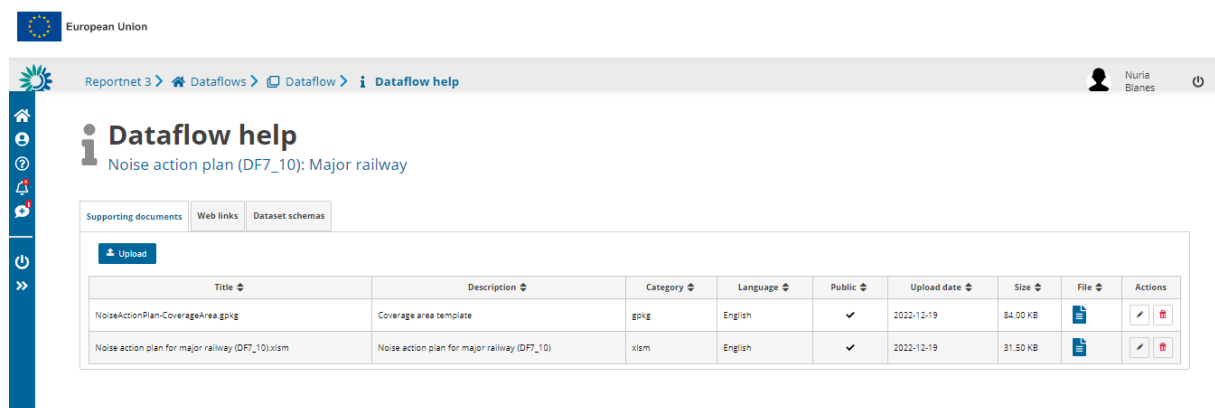
If the system doesn't react click refresh/reload page
If problems with Reportnet 3 persist please contact helpdesk@reportnet.europa.eu
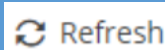
3.1 Validation

The following level error types have been implemented in Reportnet 3:

- 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 dataset schema of *Noise action plan (DF7_10) : Major Railway* dataflow are outlined in Table 3.1.

Table 3.1. Applicable validation levels in the schema of Noise action plan (DF7_10): Major railway dataflow

	Noise action plan (DF7_10): Major railway
Applicable validation level	Blocker
	Error
	Warning

The validations (quality control - QC) are documented in the Reportnet 3 Data Flow Help schema.

Figure 3.5. Dataflow help – Details of the data schemas and applied validations
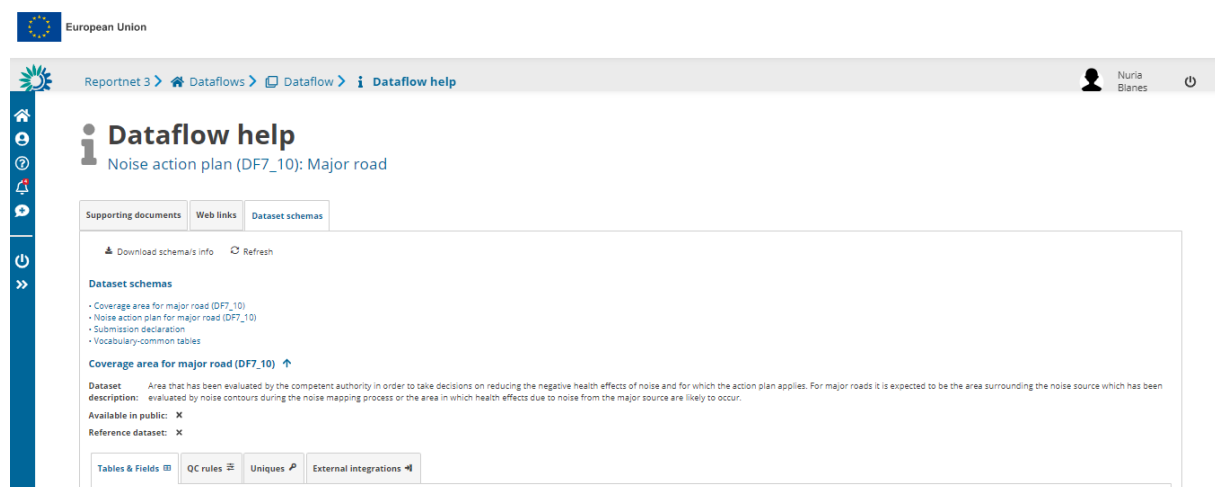
Additionally, a copy of validations applicable to the Noise action plan (DF7_10): Major railway dataflow is published in the Noise Eionet Portal for public consideration. Please note that the original information is always in the Reportnet 3 platform.

The detailed validations applicable to the Noise action plan (DF7_10) : Major railway dataflow can be consulted in: https://www.eionet.europa.eu/reportnet/docs/noise/validation-rules/

They consist primarily in two different sets of validations: the first one relates solely to DF7_10 data submitted and coherence with data being reported (e.g. same entities between the different tables) and the second set refers to the validation of entities reported against the noise sources (DF1_5) and the competent authorities (DF2) being submitted, checking the following:

- Existence of the territorial administrative units (LAU or NUTS codes) provided for major railways noise action plans reporting
- Existence and coherence with the railIdIdentifier declared in DF1_5: Major railways, if provided.
- Existence and coherence of the unique codes provided for the competent authorities for major railways with associated roles to action plans ("actionPlanDevelopment", "actionPlanCollection" and "actionPlanApproval").

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

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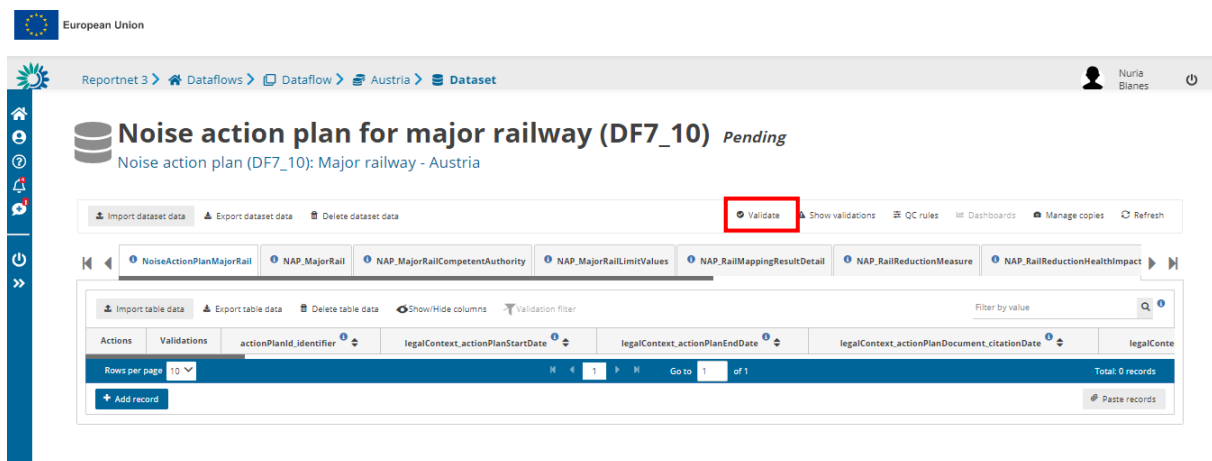
Once the validation has been performed, a notification will pop up on the top-right hand of the screen. After clicking "Refresh", errors, if any, will be displayed at four types:

- 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
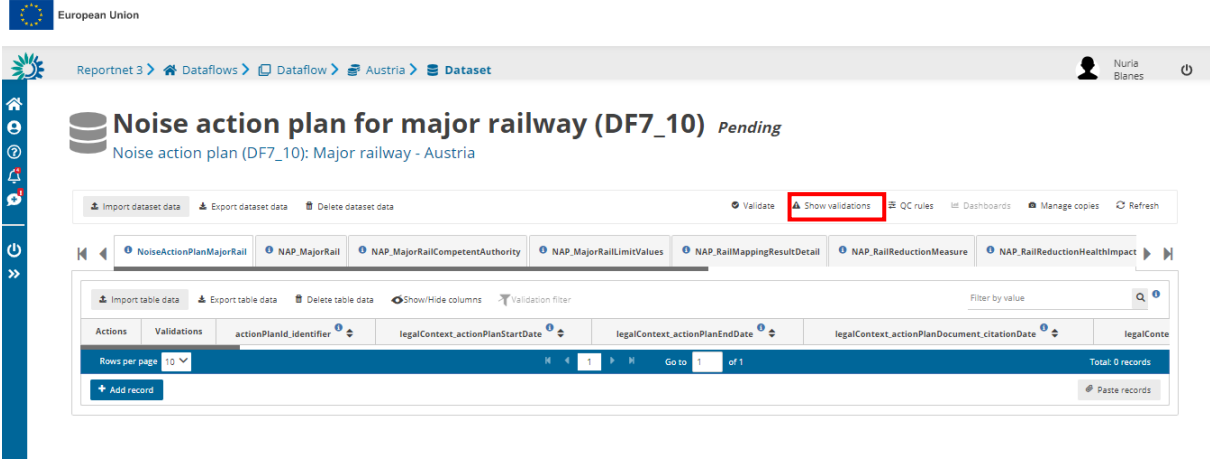
A BLOCKER in the dataflow will prevent the reporter to officially submit any data in Reportnet 3.

3.2 Technical acceptance of the data delivery

To ensure high quality of the noise data submitted under the END, specific quality checks will be performed after the countries submit the data in Reportnet 3. This dataflow has been configured as "manual acceptance" and its status will appear as "Pending" until the delivery has been technically accepted by the EEA-ETC/HE team. The final deliveries will be reviewed to identify any errors that could compromise the quality of the data. The countries will receive feedback document stating if the delivery is technically accepted or if a correction is requested. If a correction is requested the reporter will have to resubmit the data until it is technically accepted. Only deliveries that are technically accepted will be integrated into the EU noise database. Figure 3.8 presents an overview of the process.

Figure 3.8. Overview of the submission process of Noise action plan (DF7_10): Major railway
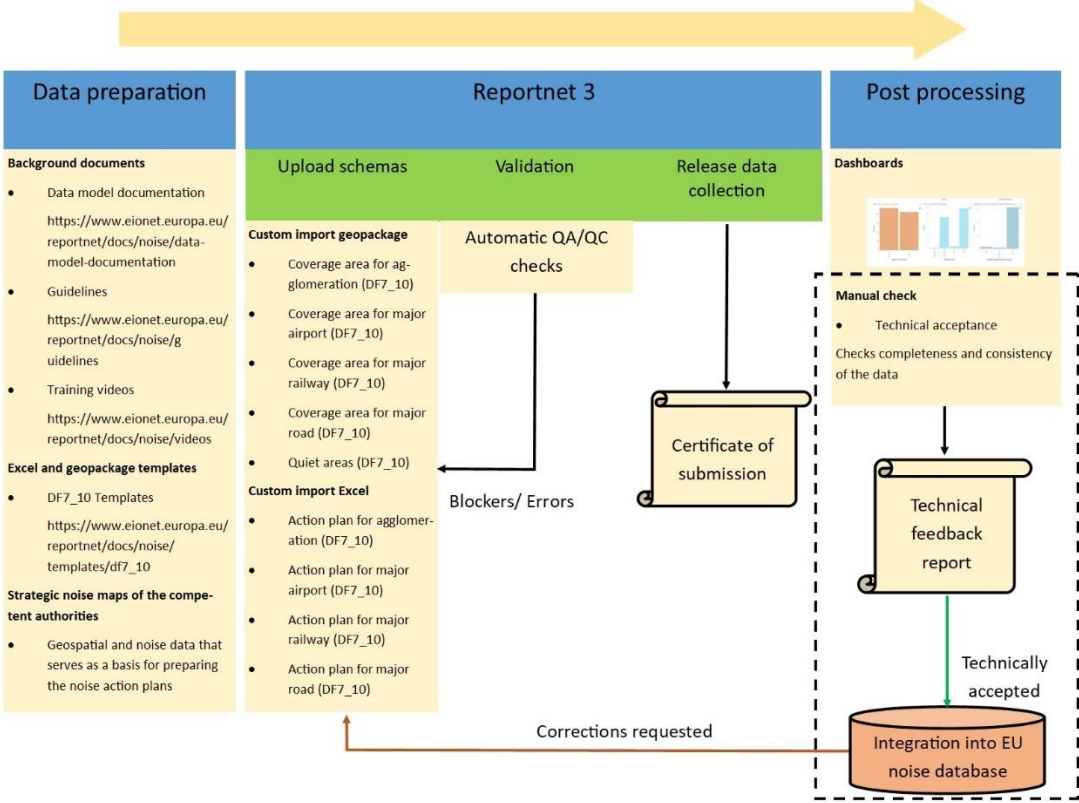
The quality controls performed after the submission will check coherence, completeness and consistency of the data. Completeness checks ensure that all relevant noise information as described in the END are included. The consistency checks ensure that the reported data comply with logical rules of data structure, attribution and relationships. Coherence checks assess positional accuracy of the spatial data as well as whether the reported data are in line with other dataflows and are credible.

Table 3.2 shows an overview of the main quality controls in Technical acceptance to be performed after the submission of the dataflow.

Table 3.2. Overview of main checks in Technical acceptance per Noise action plan (DF7_10): Major railway

Major railway	- Missing LAU/NUTS - Missing unique rail identifiers, if provided - Missing competent authorities responsible for mandatory roles in relation to action plans - Spatial checks: if noise action plan coverage area is coherent with rail segments declared in DF1_5 or with the strategic noise maps submitted in DF4_8.

4 Key concepts in relation to *Noise action plan (DF7_10): Major railway*

4.1 Reporting data schema structure for DF7_10: Major railway

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 and MS Excel templates follow the same schemas and principles as the UML diagrams.

Figure 4.1. Dataset schemas for Noise action plan (DF7_10): Major railway delivery in Reportnet 3
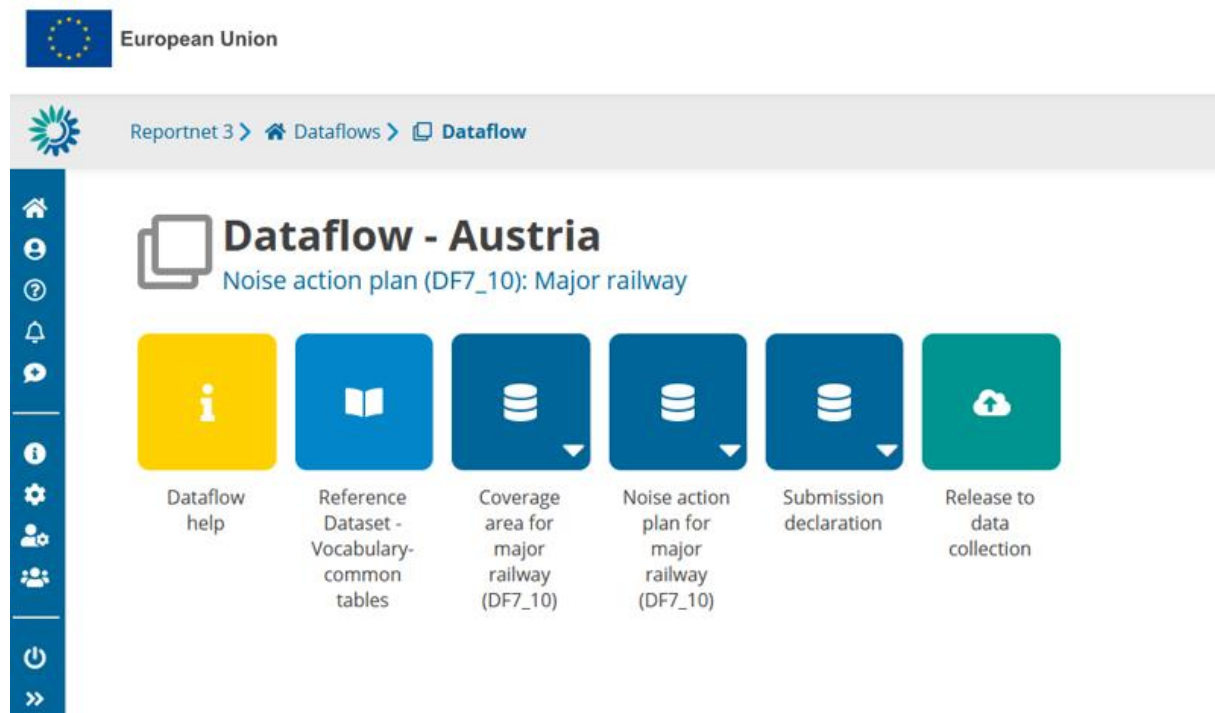
4.2 Identifiers

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.

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. (See more information in: https://www.eionet.europa.eu/reportnet/docs/noise/guidelines/codes_formation_doc.pdf/view).

4.2.2 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 GeoPackage (spatial data), MS Excel templates and in the Reportnet 3 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.

4.2.3 Re-using object identifiers defined in data flows DF1_5 and DF2 for data flow DF7_10

Data flow DF7_10 re-uses object identifiers of agglomerations, major airports, major roads and major railways that have been defined in the data flow DF1_5, and identifiers of competent authorities that have been defined in the data flow DF2.

The only value required to be provided for each object is "identifier".

Identifier will be provided in a specific field defined in each data flow and Reportnet 3 data schema. For example, in the END data flow DF7_10 major railway, the reporting of noise action plan information will include object identifiers in the following way:

- The field railIdIdentifier in the data schema Noise action plan for major railway (DF7_10) will be used for identifier of a rail segment (defined in DF1_5) if provided;
- The field competentAuthorityIdIdentifier in the data schema Noise action plan for major railway (DF7_10) will be used for identifier of a competent authority (defined in DF2)

4.2.4 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 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 From conceptual data model (UML) to GeoPackage and MS Excel templates

4.3.1 General recommendations for spatial datasets

For the END reporting scope, the following recommendations are provided for spatial data sets of noise action plan (DF7_10) : major railway:

- 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);

- Use of coordinate reference system World Geodetic System 1984 (EPSG: 4326) for territories outside of the continental Europe geographical scope. The WGS84 is linked to the ITRS that is in line with the INSPIRE specifications on the datum of the International Terrestrial Reference System (ITRS) or other geodetic coordinate reference systems compliant with ITRS in areas that are outside the geographical scope of ETRS89;

- 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 (i.e. (multi)polygon) and coordinate reference system information;

- The predefined templates in GeoPackage ensure the highest compatibility with the Reportnet 3 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 ([from UML streamlined view](#)) 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 data schemas (names, types, cardinality, use of code lists) to facilitate reporting in the Reportnet 3 infrastructure. This section provides generic information of the GeoPackage template structure and the next chapters provide details of the Reportnet 3 data schemas.

The GeoPackage templates contain the area that has been evaluated by the competent authority in order to take decisions on reducing the negative health effects of noise and for which the action plan applies. For major railways it is expected to be the area surrounding the noise source which has been evaluated by noise contours during the noise mapping process or the area in which health effects due to noise from the major source are likely to occur.

The conceptual data models (presented in the UML diagrams) for dataflow DF7_10 are transformed into the following typical tables in the GeoPackage templates:
- Primary (or core)
- Voidables
- DatasetDefaultProperties
- CodelistProperties.

The **Primary (or core) tables containing spatial data** includes the essential properties of spatial data (slim primary table).

The table **Voidables** is a companion table to the primary tables in relation to spatial data of noise action plan coverage area. 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.

Properties than can have default values – same values in the complete data set are provided in the table **DatasetDefaultProperties**. This table can include a default void reason or another default value for voidable properties, or other properties with default values. The origin of voidable properties is 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 GeoPackage 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 summarizes the GeoPackage template structure.

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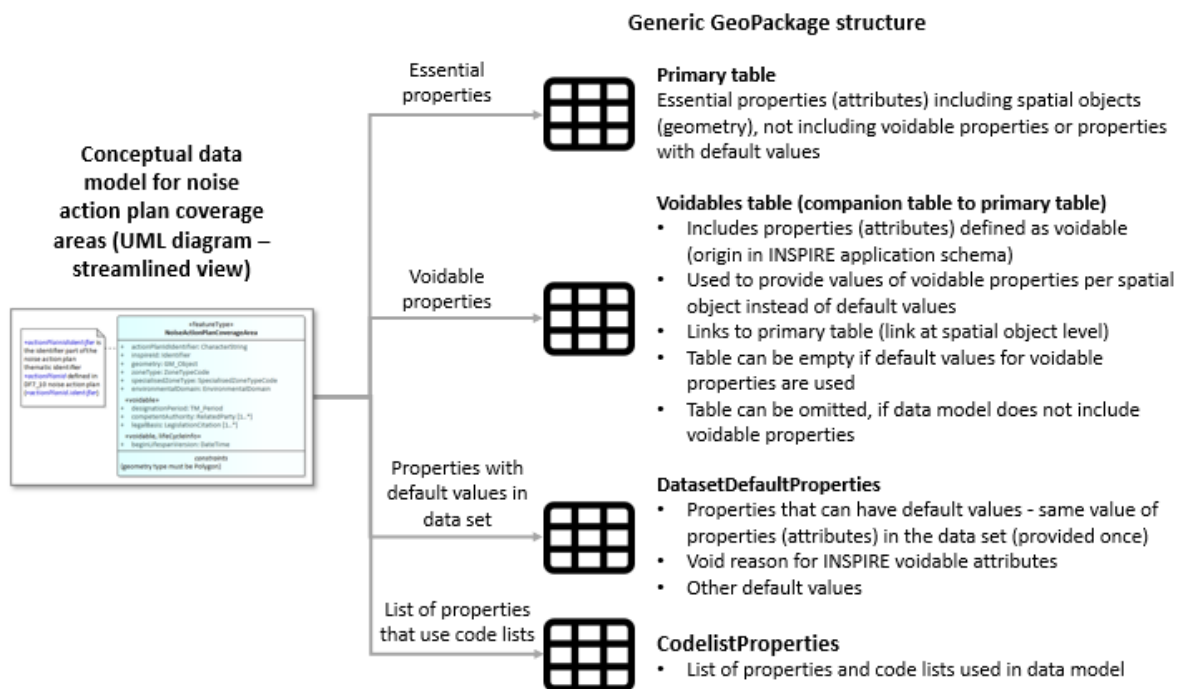
The GeoPackage templates have been already designed to facilitate data preparation in the following way:

- The pre-filled tables DatasetDefaultProperties and CodelistProperties don't need modifications;
- For noise action plan coverage area:
  - If the recommended and pre-filled void reasons or other values for voidable properties are applicable, the voidable properties in the NoiseActionPlanCoverageAreaVoidables table can remain empty;

- The main table for reporting data is therefore the primary table NoiseActionPlanCoverageArea.

The GeoPackage templates that have been created to support data reporting can be found in the Dataflow Help page in Reportnet 3.

Figure 4.3. Screenshot of the Dataflow help page where the GeoPackage and MS Excel templates are available for download

> Geopackage templates and MS Excel templates can be downloaded from: https://www.eionet.europa.eu/reportnet/docs/noise
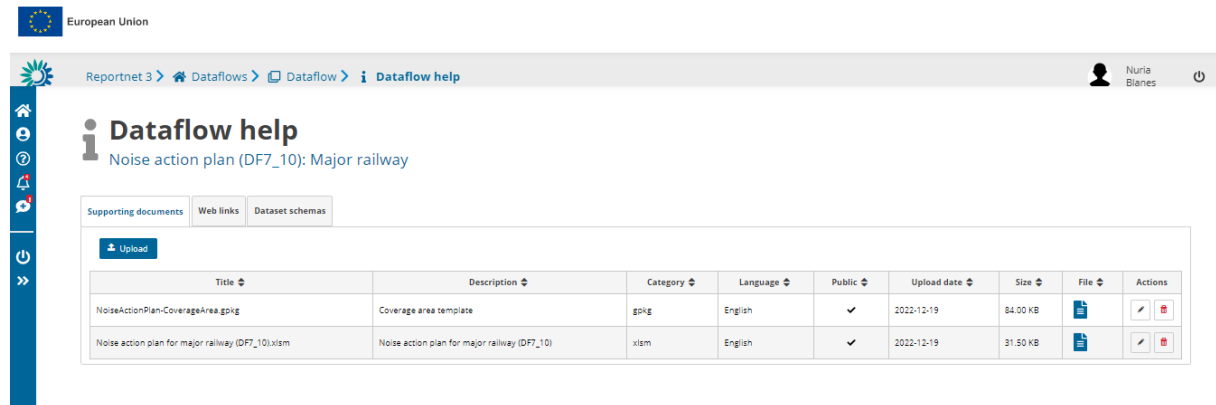
4.3.3 *From conceptual data model (UML) to templates in MS Excel*

The template for non-spatial data in file format MS Excel has been developed from the conceptual data model in UML (from UML streamlined view). It is aligned with the Reportnet 3 data schema (names, types, cardinality, use of code lists) to facilitate reporting in the Reportnet 3 infrastructure. This section provides generic information of the MS Excel template structure and the next chapters provide details of the Reportnet 3 data schemas.

The MS Excel template includes the following tables :
- Table for providing the summary information related to the action plan's reporting for major railways, as determined by the Environmental Noise Directive:
    - NoiseActionPlanMajorRail
- Tables for providing the information about major railways covered in the noise action plan, as well as the competent authorities or its organisational units responsible of developing, approving or collecting action plans for the different major railways:
    - NAP_MajorRail
    - NAP_MajorRailCompetentAuthority
- Table for providing information about the noise limit details applied in the action plan:
    - NAP_MajorRailLimitValues
- Table for providing the summary of information from the strategic noise maps within the area covered by the noise action plans
    - NAP_RailMappingResultDetail
- Table for providing information on the management or noise-reduction measures already in force or planned to be implemented in the next five years:
    - NAP_RailReductionMeasures

- Tables for providing information about the estimates in terms of the reduction of people affected including the reduction of people suffering health effects of noise.
  - NAP_RailReductionHealthImpact_1
  - NAP_RailReductionHealthImpact_2
  - NAP_RailReductionHealthImpact_3
- Table to indicate the information about the reference data set of NUTS and LAU (title and URL of the reference dataset)
  - ESTATUnitReference
- Common and pre-defined tables (see section 4.3.2 for further explanation):
  - DatasetDefaultProperties
  - CodelistProperties.

The following diagram in Figure 4.4 summarizes the MS Excel template structure.

Figure 4.4 Transformation from conceptual data model (UML) to MS Excel spreadsheet

Generic MS Excel table structure for Noise action plan for major railways

Conceptual data model for Noise action plan for major railway (UML diagram – streamlined view)

General information	**NoiseActionPlanMajorRail** General information about the noise action plan, public consultation, implementation evaluation, etc.
Major railways	**NAP_MajorRail** Territorial units or major railway segments covered in the noise action plan
Competent authorities for action plan	**NAP_MajorRailCompetentAuthority** Competent authorities responsible for action plan development, collection and approval
Noise limit values	**NAP_MajorRailLimitValues** Noise limit values
Mapping results	**NAP_RailMappingResultDetail** Summary information of the strategic noise maps within the area covered by the noise action plan
Reduction measures	**NAP_RailReductionMeasure** Management or noise-reduction measures already in force or in preparation, description of actions
Reduction and health impact	**NAP_RailReductionHealthImpact (1,2,3)** Information about the number of people experiencing reduction of noise levels, health effects of noise and estimated cost-benefit
Information on reference data set NUTS / LAU	**Reference data sets of NUTS or LAU** Information about the reference data sets of NUTS or LAU if data is provided through those EUROSTAT classification of territorial units
Properties with default values in data set	**DatasetDefaultProperties** Properties that can have default values - same value of properties (attributes) in the data set (provided once)
List of properties that use code lists	**CodelistProperties** List of properties and code lists used in data model

The MS Excel template that has been created to support data reporting can be found in the Dataflow Help page in Reportnet 3.

Figure 4.5. Screenshot of the Dataflow help page where the GeoPackage and MS Excel templates are available for download

Geopackage templates and MS Excel templates can be downloaded from: https://www.eionet.europa.eu/reportnet/docs/noise
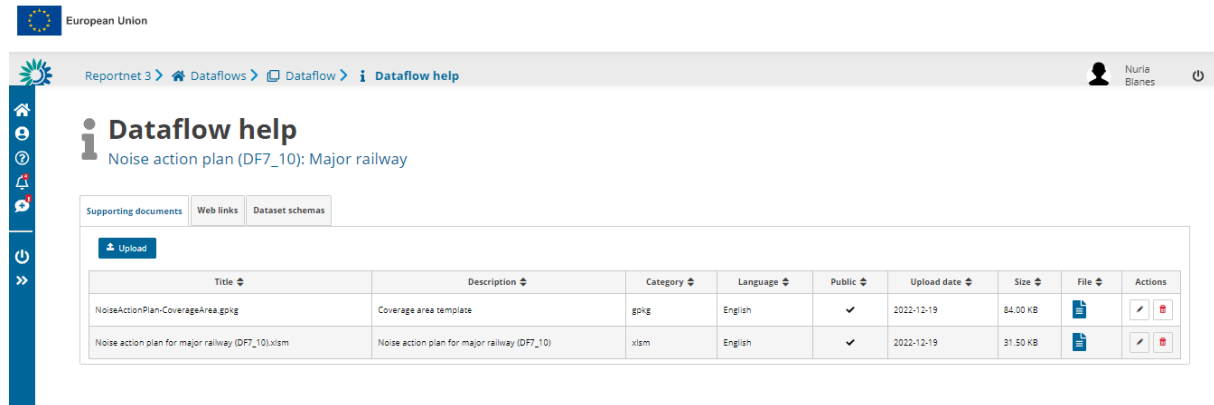
4.4   Reference datasets of statistical (NUTS) and administrative units (LAU)

Reporting of noise action plans (DF7_10) for major roads and major railways can be provided on the level of the territorial units, i.e. statistical units following the NUTS classification (Nomenclature of territorial units for statistics) established in the EU, other statistical classifications (non-EU) or local administrative units (LAU). Establishing the common basis of NUTS / LAU units will serve two main purposes:

- Harmonised provision of information across the complete noise UML data model, and

- Validation of the reported data in the reporting process.

For the common reference datasets of NUTS / LAU units, it is recommended to use the Eurostat European geospatial datasets of NUTS and LAU units that are published in the Geographic Information System of the Commission (GISCO)[5] together with the correspondence table between LAU and NUTS units and codes[6]. Those datasets are compiled from the contributions of the national mapping agencies and statistical offices and are provided as seamless pan-European datasets[7].

The NUTS classification and local administrative units (LAU) are created in a hierarchical structure, dividing up the national territory into the three NUTS levels (NUTS 1, NUTS 2 and NUTS 3). The NUTS 3 units are further composed of a set of local administrative units.

The general rule for selection of NUTS / LAU reference geospatial datasets:

The version of the NUTS and LAU geospatial datasets used for the END reporting purpose should be the version of the European geospatial datasets of NUTS and LAU units published by Eurostat and

---

(5) https://ec.europa.eu/eurostat/web/gisco
(6) https://ec.europa.eu/eurostat/web/nuts/local-administrative-units
(7) The GISCO database includes the country codes according to the EC Publications Office Interinstitutional Style Guide which applies 2-character ISO country codes (ISO 3166 alpha-2) for EU and non-EU countries, with the exception of country code abbreviation EL (instead of GB) for Greece, https://publications.europa.eu/code/en/en-370100.htm .

available for DF7_10 in each reporting cycle. The selected NUTS / LAU geospatial datasets will be used in the whole END reporting cycle including the reporting of noise action plans.

Recommendation for the END reporting cycle 2020 – 2025:

For the reporting of noise action plans in 2025 and for the complete END reporting cycle 2020 – 2025, it is recommended to use the following Eurostat NUTS and LAU geospatial datasets, or national equivalents in a higher scale:

- **Eurostat NUTS 2021**, https://gisco-services.ec.europa.eu/distribution/v2/nuts/nuts-2021-metadata.pdf

- **Eurostat LAU 2020**, https://gisco-services.ec.europa.eu/distribution/v2/lau/lau-2020-metadata.pdf

For the END reporting purpose, the recommended minimum scale of the NUTS / LAU geospatial datasets is 1:100 000. However, it is recommended to use instead the national geospatial datasets in a higher scale that are content wise equivalent to the Eurostat NUTS 2021 and LAU 2020. Highly detailed NUTS and LAU geospatial datasets might be more suitable for a precise calculation of noise exposure data.

> **NUTS / LAU reference datasets and validation in the END reporting cycle 2020 – 2025:**
>
> **The validation process will use as the reference datasets the Eurostat geospatial datasets of NUTS 2021 and LAU 2020 in the scale of 1:100 000 with additional information from the Correspondence table LAU – NUTS 2021.**

The version of the Eurostat NUTS 2021 and LAU 2020 geospatial datasets can be consulted on the Eurostat website. The public datasets in small scale (one million or smaller) can be downloaded from the GISCO Administrative and Statistical Units web site, or through the GISCO Application Programming Interface (API), as following:

- NUTS: https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/administrative-units-statistical-units/nuts

- LAU: https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/administrative-units-statistical-units/lau

- GISCO Data Distribution API: https://gisco-services.ec.europa.eu/distribution/v2/

- Correspondence table LAU – NUTS 2021, https://ec.europa.eu/eurostat/web/nuts/local-administrative-units

The EEA Spatial Data infrastructure (EEA-SDI) also includes the GISCO database and the geospatial datasets of NUTS 2021 and LAU 2020 in the scale of 1:100 000. The EEA-SDI can be consulted at:

- https://sdi.eea.europa.eu/

- NUTS 2021, https://sdi.eea.europa.eu/catalogue/EEA_Reference_Catalogue/eng/catalog.search#/metadata/e4316fd1-db00-428b-8034-61d56c2fe2ca

- LAU 2020, https://sdi.eea.europa.eu/catalogue/EEA_Reference_Catalogue/eng/catalog.search#/metadata/fd30a070-48b7-49e9-a6b6-c37d4f1e15f9

> **The reference NUTS/LAU datasets used for dataflow validations can be found in the link below: https://www.eionet.europa.eu/reportnet/docs/noise/reference-datasets**

Information related to the table ESTATUnitReference

The END conceptual data model and the END reporting mechanism require information about the NUTS / LAU reference datasets in case the major railways included in the noise action plan are indicated as territorial units for statistics.

To provide this information, the pre-defined MS Excel template and the Reportnet 3 dataset schemas include the table ESTATUnitReference.

If the recommended Eurostat NUTS 2021 and LAU 2020 geospatial datasets are used in the noise action plans, the following default information can be included in the table ESTATUnitReference:

ESTATNUTSReferenceTitle	Eurostat, GISCO, Nomenclature of Territorial Units for Statistics (NUTS) 2021 - Statistical Units
ESTATNUTSReferenceLink	https://gisco-services.ec.europa.eu/distribution/v2/nuts/nuts-2021-metadata.pdf
ESTATLAUReferenceTitle	Eurostat, GISCO Local Administrative Units, 2020 - Administrative Units
ESTATLAUReferenceLink	https://gisco-services.ec.europa.eu/distribution/v2/lau/lau-2020-metadata.pdf

If other NUTS and LAU geospatial datasets are used, a dataset title and URL for additional information or access to a dataset must be provided in the table ESTATUnitReference.

5 Data schema: Coverage area for major railway (DF7_10)

5.1 Description

Area that has been evaluated by the competent authority in order to take decisions on reducing the negative health effects of noise and for which the action plan applies. For major railways it is expected to be the area surrounding the noise source which has been evaluated by noise contours during the noise mapping process or the area in which health effects due to noise from the major source are likely to occur.

The Coverage area for major railway (DF7_10) data schema includes four thematic tables and two additional tables supporting the alternative data harvesting process

- NoiseActionPlanCoverageArea: primary content including spatial data
- NoiseActionPlanCoverageAreaVoidables: 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)
- CodelistProperties: list of applicable code lists in that data schema (read only schema, and already filled in in Reportnet 3).
- HarvestSource: URLs from which to harvest the geospatial features needed for the reporting.
- WorkflowLog: log messages from the harvesting process (i.e. harvested resources, errors occurring during harvesting).

5.2 Table NoiseActionPlanCoverageArea

The table *NoiseActionPlanCoverageArea* provides the polygon that represents the area evaluated by the competent authority to take decisions on reducing and preventing negative health impacts of noise and for which the action plan applies. It is linked to a noise action plan.

Table 5.1. NoiseActionPlanCoverageArea table overview

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
M	id	Number - Integer	
M	actionPlanIdIdentifier	Link	
M	inspireId_localId	Text	
M	inspireId_namespace	Text	
O	inspireId_versionId	Text	
M	geometry	Multiple polygons	
M	sourceIdentifier	Text	

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 id

Requirement	Mandatory
Description	Unique identifier automatically created in GeoPackage file (primary key in the SQLite database). It is mandatory.
Reportnet 3 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

5.2.2 Field actionPlanIdIdentifier

Requirement	Mandatory
Description	Unique identifier of the action plan for which the coverage area applies. Shall be filled in with the unique code of the action plan. It is expected to be the same as the identifier from the table NoiseActionPlanMajorRailway (field: actionPlanId_identifier) from the data schema Noise action plan for major railway (DF7_10).
Reportnet 3 type	Link
Format	Only one value is allowed
Information	Need to re-use the unique identifier of the action plan.
Example	AP_RL_AT_00_1

5.2.3 Spatial object identifier inspireId

Following the underlying INSPIRE conceptual data model, each action plan coverage area 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. It could be combined with the unique identifier of the noise action plan which defines the area (actionPlanIdIdentifier). If a Member State have already in place rules for INSPIRE identifiers, these rules could be used.
Reportnet 3 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 below is composed by actionPlanIdIdentifier and a feature id.
Example	AP_RL_AT_00_1_1
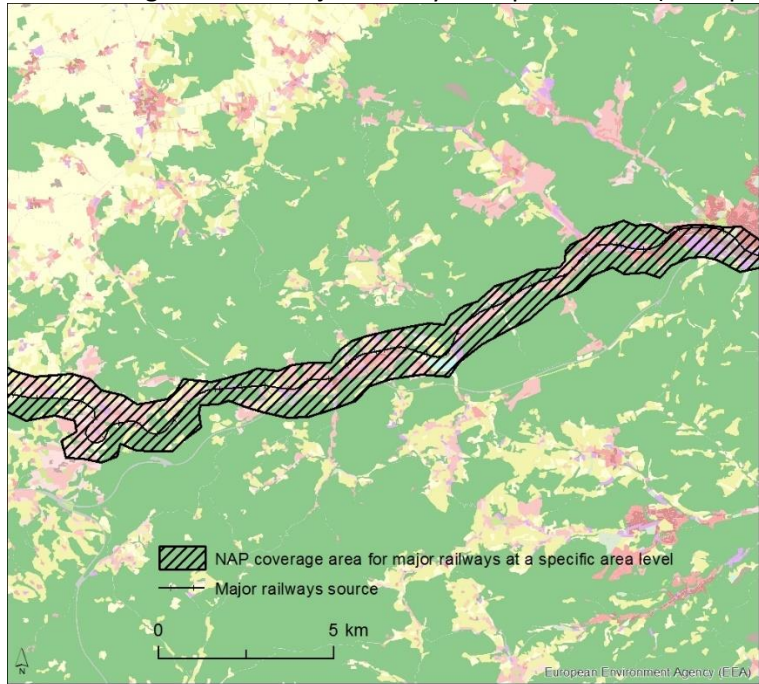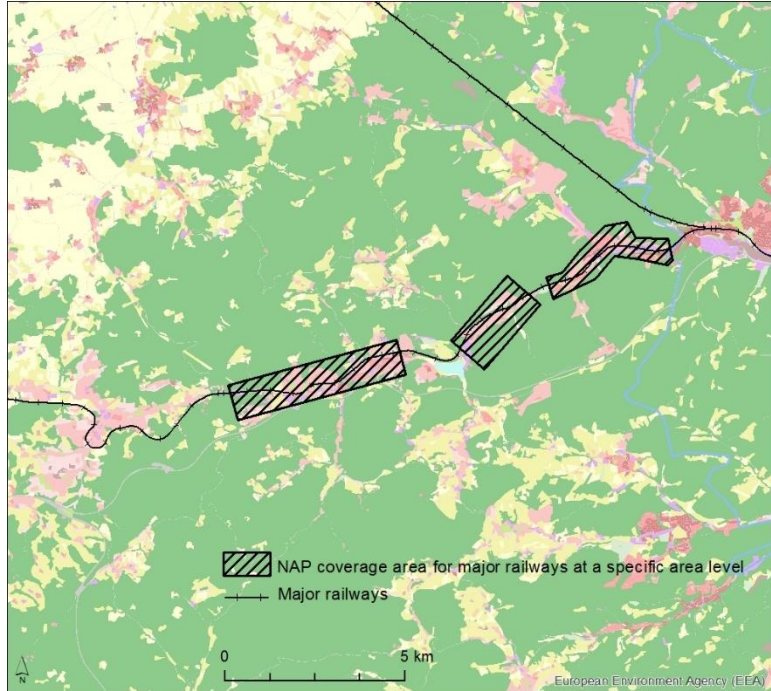
Field inspireId_namespace

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 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_actionplan_majorrailway

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 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).

5.2.4 Field geometry

Requirement	Mandatory
Description	Spatial extent of the area that has been evaluated by the competent authority in order to take decisions on reducing the negative health effects of noise and for which the action plan applies. It is according to the definition in the INSPIRE Implementing Rules on Interoperability. Geometry of the noise action plan coverage area shall be presented as area, by using polygon or multipolygon geometry type.
Reportnet 3 type	Multiple polygons
Information	Geometry type of polygon or multipolygon is allowed.
Example (polygon and mutipolygon geometry)	NAP coverage area for major railway in a specific area (example 1): NAP coverage area for major railway in a specific area (example 2):

NAP coverage area for major railway at LAU level:
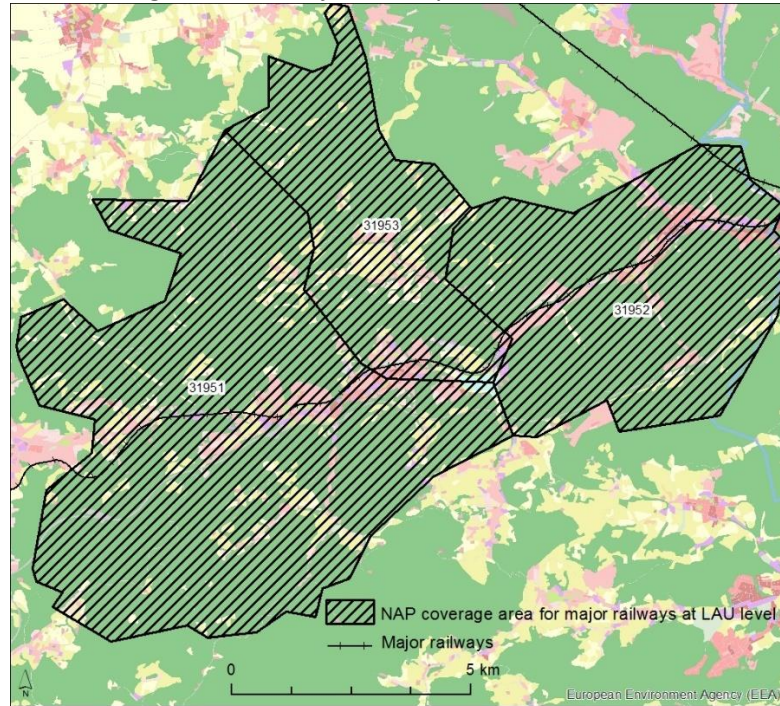
5.2.5 Field sourceIdentifier

Requirement	Mandatory
Description	This field is filled automatically. It indicates the source of the reporting data. It is composed of the source name and time stamp. It can be a name of the directly imported file, or the URL of an external source, from which the data was harvested, as recorded in the HarvestSource table. The field also supports the integrity between the primary table with spatial data and the voidables table.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	The data source will be provided in the form of a time stamp (DateTime format) and the source name (imported file or service URL). It is provided by the import or harvest process and must not be modified.
Example	2025-05-10T10:10:46Z MajorRailwayActionPlanCoverage.gpkg

5.3 Table NoiseActionPlanCoverageAreaVoidables

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 NoiseActionPlanCoverageArea. Otherwise, the default values of these attributes (defined in the DatasetDefaultProperties table) are used and therefore this table can be left empty.

It is recommended to use DatasetDefaultProperties as default values applicable to the complete dataset. By doing this, NoiseActionPlanCoverageAreaVoidables 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 data type requires ISO DateTime format with UTC information. The required format is YYYY-MM-DDThh:mm:ssZ. 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 NoiseActionPlanCoverageArea and NoiseActionPlanCoverageAreaVoidables must be provided: the field NoiseActionPlanCoverageArea_id in the table NoiseActionPlanCoverageAreaVoidables must include the corresponding id of the spatial object from the table NoiseActionPlanCoverageArea, see example below.

NoiseActionPlanCoverageArea	
id	… other fields …
10	

NoiseActionPlanCoverageAreaVoidables	
NoiseActionPlanCoverageArea_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 5.2. NoiseActionPlanCoverageAreaVoidables table overview

Mandatory /optional	Name	Reportnet 3 Type	Code list
M	id	Number - Integer	
O	designationPeriod_beginPosition	DateTime	
O	designationPeriod_endPosition	DateTime	
O	competentAuthority_contact	Text	
O	competentAuthority_indivName	Text	

Mandatory /optional	Name	Reportnet 3 Type	Code list
O	competentAuthority_orgName	Text	
O	competentAuthority_posName	Text	
O	competentAuthority_role	Link	http://inspire.ec.europa.eu/codelist/RelatedPartyRoleValue
O	legalBasis_link	URL	
O	legalBasis_level	Link	http://inspire.ec.europa.eu/codelist/LegislationLevelValue
O	beginLifespanVersion	DateTime	
M	NoiseActionPlanCoverageArea_id	Number - Integer	
M	sourceIdentifier	Text	

Detailed information about voidable properties in the Inspire application schemas are provided in the data model documentation (https://www.eionet.europa.eu/reportnet/docs/noise/data-model-documentation).

5.4 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 5.3. DatasetDefaultProperties table overview

Mandatory /optional	Name	Reportnet 3 Type
M	tableName	Text
M	propertyName	Text
O	attribute	Text
M	defaultValue	Text

Table 5.4. Applicable values for the DatasetDefaultProperties

tableName	propertyName	attribute	defaultValue
NoiseActionPlanCoverageArea	zoneType	href	http://inspire.ec.europa.eu/codelist/ZoneTypeCode/noiseRestrictionZone
NoiseActionPlanCoverageArea	environmentalDomain	href	http://inspire.ec.europa.eu/codelist/EnvironmentalDomain/noise

tableName	propertyName	attribute	defaultValue
NoiseActionPlanCoverageArea	competentAuthority	nilReason	http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unpopulated
NoiseActionPlanCoverageArea	beginLifespanVersion	nilReason	http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unpopulated
NoiseActionPlanCoverageArea	specialisedZoneType	href	http://dd.eionet.europa.eu/vocabulary/inspire/SpecialisedZoneTypeCode/noiseActionPlanArea
NoiseActionPlanCoverageArea	designationPeriod	nilReason	http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unpopulated
NoiseActionPlanCoverageArea	legalBasis_link	href	http://data.europa.eu/eli/dir/2002/49/oj
NoiseActionPlanCoverageArea	legalBasis_level	href	http://inspire.ec.europa.eu/codelist/LegislationLevelValue/european

5.5   Table CodelistProperties

This table includes a list of the code lists that have to be used for reporting data on the DF7_10 Noise Action Plan 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 5.5. CodelistProperties table overview

Mandatory /optional	Name	Reportnet 3 Type
M	tableName	Text
M	propertyName	Text
M	codelist	Text

Table 5.6. Applicable values for the CodelistProperties

tableName	propertyName	codelist
NoiseActionPlanCoverageArea	specialisedZoneType	http://dd.eionet.europa.eu/vocabulary/inspire/SpecialisedZoneTypeCode
NoiseActionPlanCoverageArea	environmentalDomain	http://inspire.ec.europa.eu/codelist/EnvironmentalDomain

tableName	propertyName	codelist
NoiseActionPlanCoverageArea	zoneType	http://inspire.ec.europa.eu/codelist/ZoneTypeCode
NoiseActionPlanCoverageArea	competentAuthority_role	http://inspire.ec.europa.eu/codelist/RelatedPartyRoleValue
NoiseActionPlanCoverageArea	legalBasis_level	http://inspire.ec.europa.eu/codelist/LegislationLevelValue

5.6 Tables supporting data harvesting through INSPIRE download services

The dataset schema includes two additional tables for the alternative reporting method by providing INSPIRE download services and trigger a data harvesting process. The tables HarvestSource and WorkflowLog are described together with the harvesting process in section 8.4 and in Annex 2.

Regardless of the import process, file import or download service harvesting, the expected file format is GeoPackage provided on the pre-defined template.

5.7 GeoPackage format

5.7.1 Support to data transformation into GeoPackage

GeoPackage template

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

- Dataflow Help page in Reportnet 3 (see 4.3), 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/coverage-area-df7_10. It is important to notice that the sample data is simulated data.

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/DF7_10/NoiseActionPlans. It shows possibilities to create a mapping between a source schema and target GeoPackage schema and transform source data into the Geopackage file format.

5.7.2 Use of GeoPackage file format in the Reportnet 3

The GeoPackage template for Noise action plan (DF7_10) coverage area includes the same tables as the ones that are included in Reportnet 3, see example below. The data import process in the

Reportnet 3 transfers data from the GeoPackage file into the correlated tables into the Reportnet 3 data schema *Coverage area for major railway (DF7_10)*.

GeoPackage template NoiseActionPlan-CoverageArea.gpkg – list of tables	Reportnet 3 data schema *Coverage area for major railway (DF7_10)*– list of tables
NoiseActionPlanCoverageArea	NoiseActionPlanCoverageArea
NoiseActionPlanCoverageAreaVoidables	NoiseActionPlanCoverageAreaVoidables
DatasetDefaultProperties (pre-filled)	DatasetDefaultProperties (pre-filled, read-only)
CodelistProperties (pre-filled)	CodelistProperties (pre-filled, read-only)

6   Data schema: Noise action plan for major railway (DF7_10)

6.1   Description

Plan, based on strategic noise mapping results, developed to manage, prevent and reduce environmental noise in major railways, in particular in areas where exposure levels can induce harmful effects on human health.

The Noise action plan for major railway (DF7_10) data schema includes 12 tables:

- NoiseActionPlanMajorRail: contains the summary information related to the action plan's reporting for major railways, as determined by the Environmental Noise Directive

- NAP_MajorRail: contains the unique identifiers of the major railways covered in the noise action plan

- NAP_MajorRailCompetentAuthority: contains the list of unique identifiers of the competent authority responsible for action plan development, collection and approval.

- NAP_MajorRailLimitValues: contains information about the noise limit values applied in the action plan.

- NAP_RailMappingResultDetail: contains the summary information of the strategic noise maps within the area covered by the noise action plan.

- NAP_RailReductionMeasure: contains the management or noise-reduction measures already in force or in preparation as well as well as the description of any actions within the area covered by the action plan to be taken in the next five years.

- NAP_RailReductionHealthImpact_1: contains information about the number of people experiencing a reduction in terms noise levels due to the implementation of the noise action plan and the methodology used to estimate the number of people experiencing reduction.

- NAP_RailReductionHealthImpact_2: contains information about the estimates in terms of reduction of people suffering health effects of noise.

- NAP_RailReductionHealthImpact_3: contains information about the estimated cost-benefit of the measures described in the action plan.

- ESTATUnitReference: contains information on reference datasets of NUTS and LAU

- 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)

- CodelistProperties: list of applicable code lists in that data schema (read only schema, and already filled in in Reportnet 3).

6.2   Table NoiseActionPlanMajorRail

The table *NoiseActionPlanMajorRail* provides the summary information related to the action plan's reporting for major railways, as determined by the Environmental Noise Directive.

Table 6.1. NoiseActionPlanMajorRailway table overview

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
M	actionPlanId_identifier	Text	
M	legalContext_actionPlanStartDate	Date	
O	legalContext_actionPlanEndDate	Date	
O	legalContext_actionPlanDocument_citationDate	Date	
O	legalContext_actionPlanDocument_citationLink	URL	
O	legalContext_actionPlanDocument_citationName	Text	
O	legalContext_actionPlanDocument_citationLevel	Link	http://inspire.ec.europa.eu/codelist/LegislationLevelValue
O	legalContext_actionPlanDocument_citationType	Link	https://dd.eionet.europa.eu/vocabulary/inspire/CitationTypeValue
O	legalContext_additionalDescription	Multiline text	
O	publicConsultation_consultationDocumentationSummary	Multiline text	
O	publicConsultation_consultationDocumentationOnline	Text	
M	publicConsultation_consultationStartDate	Date	
M	publicConsultation_consultationEndDate	Date	
C	publicConsultation_consultationMeans	Link	https://dd.eionet.europa.eu/vocabulary/noise/ConsultationMeansValue
C	publicConsultation_otherConsultationMeans	Text	
O	publicConsultation_stakeholdersType	Link	https://dd.eionet.europa.eu/vocabulary/noise/StakeholdersTypeValue
O	publicConsultation_otherStakeholdersType	Text	

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
O	publicConsultation_numberOfParticipants	Number – Integer	
M	publicConsultation_commentsReceived	Single select	
M	publicConsultation_commentsIncludedInNAP	Single select	
M	publicConsultation_NAPReviewed	Single select	
M	publicConsultation_reviewExplanation	Multiline text	
M	longTermStrategy	Single select	
O	longTermStrategyExplanation	Multiline text	
C	estimatedOverallCost	Number – Decimal	
C	costCurrency	Text	
M	quietAreas	Single Select	
M	implementationMechanism	Single Select	
O	implementationMechanismDescription	Multiline text	
M	resultsEvaluationMechanism	Single select	
O	resultsEvaluationMechanismDescription	Link	https://dd.eionet.eur opa.eu/vocabulary/n oise/EvaluationMech anismValue

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 actionPlanId_identifier

Requirement	Mandatory
Description	Unique identifier assigned to each noise action plan. This attribute is provided according to the data type ThematicIdentifier
Reportnet 3 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	AP_RL_AT_00_1
Reporting constraints	actionPlanId_identifier will be re-used to link the tables in this dataset schema and it is used in the data schema Coverage area.

6.2.2 Field legalContext_actionPlanStartDate

Requirement	Mandatory
Description	Indicates the legal context details of the noise action plan following END demands: Date when the noise action plan is adopted
Reportnet 3 type	Date
Format	YYYY-MM-DD
Example	2025-01-18

6.2.3 Field legalContext_actionPlanEndDate

Requirement	Optional
Description	Indicates the legal context details of the noise action plan following END demands: Date when the noise action plan is expected to be implemented
Reportnet 3 type	Date
Format	YYYY-MM-DD
Example	2030-01-18

6.2.4 Field legalContext_actionPlanDocument_citationDate

Requirement	Optional
Description	Information about the complete action plan document: Date when the action plan was issued
Reportnet 3 type	Date
Format	YYYY-MM-DD
Example	2024-07-18

6.2.5 Field legalContext_actionPlanDocument_citationLink

Requirement	Optional
Description	Information about the complete action plan document: Link to the website where the action plan is available.
Reportnet 3 type	URL
Format	Maximum of 10000 characters
Information	Provision of the link to the website where the action plan is available.
Example	https://www.laerminfo.at/

6.2.6 Field legalContext_actionPlanDocument_citationName

Requirement	Optional
Description	Information about the complete action plan document: Title of the action plan
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	Title of the action plan document
Example	Noise action plan for Austrian major railways (2025-2030)

6.2.7 Field legalContext_actionPlanDocument_citationLevel

Requirement	Optional
Description	Information about the complete action plan document: Legislative or administrative level at which the action plan has been adopted
Reportnet 3 type	Link
Format	Only one value is allowed
Code list	Code list URL: http://inspire.ec.europa.eu/codelist/LegislationLevelValue The following code list values apply: - sub-national - national - international - european
Example	national

6.2.8   Field legalContext_actionPlanDocument_citationType

Requirement	Optional
Description	Information about the complete action plan document: Type of action plan.
Reportnet 3 type	Link
Format	Only one value is allowed
Code list	Code list URL: https://dd.eionet.europa.eu/vocabulary/inspire/CitationTypeValue The following code list values apply: - documentCitation - legislationCitation - resourceCitation
Information	Document citation corresponds to any documentation. Legislation citation can be used for citation of legal acts. Resource citation can be used for any other sources of information.
Example	documentCitation

6.2.9   Field legalContext_additionalDescription

Requirement	Optional
Description	Additional information about the legal framework of the noise action plan
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Example	There is a specific national legislation that competent authorities need to apply for noise action plans. Apart from the END requirements, competent authorities are obligated to present a mid-term report on the implementation of action plans.

6.2.10 Field publicConsultation_consultationDocumentationSummary

Requirement	Optional
Description	Describes the public consultation of the proposed noise action plan: Summary of the public consultation documentation.
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Information	It is expected to provide a summary of the results of the consultation.
Example	There was an online public consultation conducted during 3 months by the competent authority responsible for the major railways (period June – September 2024). Feedback is collected in view of NAP revision. A second consultation was held during November to collect feedback on quiet areas located in areas influenced by the major railways.

6.2.11 Field publicConsultation_consultationDocumentationOnline

Requirement	Optional
Description	Describes the public consultation of the proposed noise action plan: URL links to the public consultation documents.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	Provision of the links (URL) to the documents related to the public consultations being held; separated by ";" if more than one link is provided.
Example	https://www.laerminfo.at/; https://www.laerminfo.at/aktionsplaene/ap_2018.html

6.2.12 Field publicConsultation_consultationStartDate

Requirement	Mandatory
Description	Describes the public consultation of the proposed noise action plan: Start date of the public consultation period.
Reportnet 3 type	Date
Format	YYYY-MM-DD
Example	2024-06-01

6.2.13 Field publicConsultation_consultationEndDate

Requirement	Mandatory
Description	Describes the public consultation of the proposed noise action plan: End date of the public consultation period.
Reportnet 3 type	Date
Format	YYYY-MM-DD
Example	2024-12-15

6.2.14 Field publicConsultation_consultationMeans

Requirement	Conditional
Description	Describes the public consultation of the proposed noise action plan: Means used to consult the public and reach different stakeholders.
Reportnet 3 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/ConsultationMeansValue The following code list values apply: - advertisment - focusGroup - informationCampaign - meeting - publicEvent - survey - workshop
Example	publicEvent; meeting; survey
Reporting constraint	This attribute is conditional. consultationMeans or otherConsultationMeans need to be provided.

6.2.15 Field publicConsultation_otherConsultationMeans

Requirement	Conditional
Description	Describes the public consultation of the proposed noise action plan: Indication of other types of consultation mechanisms not outlined in the code list ConsultationMeansValue.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Example	Interviews to NGOs.
Reporting constraint	This attribute is conditional. consultationMeans or otherConsultationMeans need to be provided.

6.2.16 Field publicConsultation_stakeholdersType

Requirement	Optional
Description	Type of stakeholders participating in the public consultation
Reportnet 3 type	Link
Format	Multiple values are allowed Value separated list with the separation character ";" (semicolon)
Code list	Code list URL: http://dd.eionet.europa.eu/vocabulary/noise/StakeholdersTypeValue/ The following code list values apply: - NGOs - citizens - governmentBodies - privateSector
Example	citizens; governmentBodies

6.2.17 Field publicConsultation_otherStakeholdersType

Requirement	Optional
Description	Indication of other types of stakeholders participating in the public consultation not outlined in the code list StakeholdersTypeValue
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Example	Hospital managers; school managers

6.2.18 Field publicConsultation_numberOfParticipants

Requirement	Optional
Description	Number of people that participated in the public consultation
Reportnet 3 type	Number - Integer
Format	Maximum of 20 characters
Example	173

6.2.19 Field publicConsultation_commentsReceived

Requirement	Mandatory
Description	Indicates if any comments were received during the public consultation process
Reportnet 3 type	Single select
Format	Yes No
Example	Yes

6.2.20 Field publicConsultation_commentsIncludedInNAP

Requirement	Mandatory
Description	Indicates if any comments received during the consultation process have been included in the noise action plan
Reportnet 3 type	Single select
Format	Yes No
Example	Yes

6.2.21 Field publicConsultation_NAPReviewed

Requirement	Mandatory
Description	Indicates if noise action plan has been revised after the public consultation process
Reportnet 3 type	Single select
Format	Yes No
Example	Yes

6.2.22 Field publicConsultation_reviewExplanation

Requirement	Mandatory
Description	Explanation of how a revision of the noise action plan has been conducted and how comments were taken into account after the public consultation process.
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Example	One month after the public consultation, we set up a committee to evaluate the proposals done. The type of the noise barriers were reconsidered due to visibility and accessibility issues that were collected during the public consultation process.

6.2.23 Field longTermStrategy

Requirement	Mandatory
Description	Indicates if a long-term strategy to abate noise pollution is included in the NAP
Reportnet 3 type	Single select
Format	Yes No
Example	Yes

6.2.24 Field longTermStrategyExplanation

Requirement	Optional
Description	Explanation about the action plan long-term strategy.
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Example	Measures proposed will be applied in a time frame of 10 years. In the first five years, time restriction measures both for freight trains and passenger trains will be applied, while the renewal of the fleet and the insulation measures to different buildings will be undertaken in the subsequent 5 years, considering in total 2 reporting cycles for the final accomplishment of the objectives of the presented action plan

6.2.25 Field estimatedOverallCost

Requirement	Conditional
Description	Estimated overall cost of the action plan. If provided, costs must have related currency (and viceversa).
Reportnet 3 type	Number - Decimal
Format	Maximum of 40 characters
Example	17544372,57
Reporting constraints	If the field estimatedOverallCost is provided, then the field costCurrency should also be provided. And viceversa.

6.2.26 Field costCurrency

Requirement	Conditional
Description	Currency in which the cost is provided. If provided, costs must have related currency (and viceversa)
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Example	Euro
Reporting constraints	If the field estimatedOverallCost is provided, then the field costCurrency should also be provided. And viceversa.

6.2.27 Field quietAreas

Requirement	Mandatory
Description	Indicates if the action plan includes any measures to protect quiet areas.
Reportnet 3 type	Single select
Format	Yes No
Example	Yes

6.2.28 Field implementationMechanism

Requirement	Mandatory
Description	Indicates if there are any provisions envisaged for evaluating the implementation of the noise action plan.
Reportnet 3 type	Single select
Format	Yes No
Example	Yes

6.2.29 Field implementationMechanismDescription

Requirement	Optional
Description	Description of the provisions envisaged for evaluating the implementation of the noise action plan.
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Example	A measurement campaign and a socio-acoustic survey will be conducted after the implementation of the measures, approximately in 2027. The results will be compared with the baseline situation from 2022.

6.2.30 Field resultsEvaluationMechanism

Requirement	Mandatory
Description	Indicates if there are any provisions envisaged for evaluating the results of the noise action plan.
Reportnet 3 type	Single select
Format	Yes No
Example	Yes

6.2.31 Field resultsEvaluationMechanismDescription

Requirement	Optional
Description	A description of how the results of the noise action plan will be evaluated.
Reportnet 3 type	Link
Format	Only one value is allowed
Code list	Code list URL: http://dd.eionet.europa.eu/vocabulary/noise/EvaluationMechanismValue/ The following code list values apply: - calculation - measurement - survey_enquiry
Example	survey_enquiry

6.3 Table NAP_MajorRail

The table *NAP_MajorRail* provides the unique identifiers of major railways segments or territorial units covered in the noise action plan

Table 6.2. NAP_MajorRail table overview

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
M	actionPlanId_identifier	Link	
C	railIdIdentifier	Text	
C	allInLAUCode	Text	
C	allInNUTSCode	Text	
C	allInCountry	Text	

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.

6.3.1 Field actionPlanId_identifier

Requirement	Mandatory
Description	Unique identifier assigned to each noise action plan. This attribute is provided according to the data type ThematicIdentifier.
Reportnet 3 type	Link
Format	Maximum of 10000 characters
Information	It is a foreign key related to the table NoiseActionPlanMajorRail by re-using the unique identifier assigned to each noise action plan. 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	AP_RL_AT_00_1
Reporting constraints	actionPlanId_identifier will be re-used to link the tables in this dataset schema and it is used in the data schema Coverage area.

6.3.2 Field railIdIdentifier

Requirement	Conditional
Description	Unique identifier assigned to each major railway. It is expected to be the same as the identifier from the feature type MajorRailwaySource (railId_identifier) from END dataflow DF1_5 for Major Railway.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	The value of this field re-uses the identifier of the major railways defined in DF1_5 (see more information in section 4.2.3).
Example	RL_AT_00_1
Reporting constraints	It is conditional. Only one reporting level per actionPlanIdIdentifier must be provided (railIdIdentifier, allInLAUCode, allInNUTSCode, allInCountry). Rail identifier will be re-used across the complete END data model to uniquely identify spatial objects and all other objects – entities. Each unique identifier used in this dataflow should be already provided in the Noise Sources (DF1_5) dataflow. The submission of DF7_10 will be blocked if the rail identifier is not included in DF1_5 Major railway.

6.3.3 Field allInLAUCode

Requirement	Conditional
Description	Unique code corresponding to one or more LAU codes comprised within the noise action plan.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	It is assumed that all rail segments comprised in these territorial units are included in the noise action plan
Example	41801; 41802; 41803
Reporting constraints	It is conditional. Only one reporting level per actionPlanIdIdentifier must be provided (railIdIdentifier, allInLAUCode, allInNUTSCode, allInCountry). If LAU codes are reported, the table ESTATUnitReference needs to be filled in. The submission of DF7_10 will be blocked if the LAU code is not included in the reference dataset of LAU/NUTS.

6.3.4 Field allInNUTSCode

Requirement	Conditional
Description	Unique code corresponding to one or more NUTS codes comprised within the noise action plan.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	It is assumed that all rail segments comprised in these territorial units are included in the noise action plan
Example	AT112; AT113
Reporting constraints	It is conditional. Only one reporting level per actionPlanIdIdentifier must be provided (railIdIdentifier, allInLAUCode, allInNUTSCode, allInCountry). If NUTS codes are reported, the table ESTATUnitReference needs to be filled in. The submission of DF7_10 will be blocked if the NUTS code is not included in the reference dataset of LAU/NUTS.

6.3.5 Field allInCountry

Requirement	Conditional
Description	Country code.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	It is assumed that all rail segments reported in the country are included in the noise action plan
Example	AT
Reporting constraints	It is conditional. Only one reporting level per actionPlanIdIdentifier must be provided (railIdIdentifier, allInLAUCode, allInNUTSCode, allInCountry). The submission of DF7_10 will be blocked if the country code is not included in the reference dataset of LAU/NUTS.

6.4 Table NAP_MajorRailCompetentAuthority

The table *NAP_MajorRailCompetentAuthority* provides the list of unique identifiers of the competent authority responsible for action plan development, collection or approval.

Table 6.3. NAP_MajorRailCompetentAuthority table overview

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
M	actionPlanId_identifier	Link	
M	competentAuthorityIdIdentifier	Text	

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.

6.4.1 Field actionPlanId_identifier

Requirement	Mandatory
Description	Unique identifier assigned to each noise action plan. This attribute is provided according to the data type ThematicIdentifier.
Reportnet 3 type	Link
Format	Maximum of 10000 characters
Information	It is a foreign key related to the table NoiseActionPlanMajorRail by re-using the unique identifier assigned to each noise action plan. 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	AP_RL_AT_00_1
Reporting constraints	actionPlanId_identifier will be re-used to link the tables in this dataset schema and it is used in the data schema Coverage area.

6.4.2 Field competentAuthorityIdentifier

Requirement	Mandatory
Description	Unique identifier of the competent authority responsible for the action plan development, collection or approval.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	It is expected to be the same as the identifier from the data type CompetentAuthorityDetails (competentAuthorityId.identifier) of DF2 (see more information in section 4.2.3).
Example	CA_AT_00_10
Reporting constraints	Competent authority identifier will be re-used across the complete END data model to uniquely identify objects – entities. Each unique identifier used in this dataflow should be already provided in the Competent Authority (DF2) dataflow. The submission of DF7_10 will be blocked if the competent authority identifier is not included in DF2.

6.5 Table NAP_MajorRailLimitValues

The table *NAP_MajorRailLimitValues* provides the information about the noise limit values applied in the action plan.

Table 6.4. NAP_MajorRailLimitValues table overview

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
M	actionPlanId_identifier	Link	
C	limitValues_noiseLimitReportIdIdentifier	Text	
C	limitValues_otherCriteriaLimitDetail	Text	
C	limitValues_otherCriteriaDescription	Multiline text	

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.

6.5.1 Field actionPlanId_identifier

Requirement	Mandatory
Description	Unique identifier assigned to each noise action plan. This attribute is provided according to the data type ThematicIdentifier.
Reportnet 3 type	Link
Format	Maximum of 10000 characters
Information	It is a foreign key related to the table NoiseActionPlanMajorRail by re-using the unique identifier assigned to each noise action plan. 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	AP_RL_AT_00_1
Reporting constraints	actionPlanId_identifier will be re-used to link the tables in this dataset schema and it is used in the data schema Coverage area.

6.5.2   Field limitValues_noiseLimitReportIdIdentifier

Requirement	Conditional
Description	Unique identifiers of the noise limit values' report applicable to the noise action plan.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	Unique identifiers of the noise limit values' report applicable to the noise action plan. It is expected to be the same as the identifier from the data type SourceReportData (noiseLimitReportId.identifier) of the limit values data model (DF3) (see more information in section 4.2.3).
Example	LR_AT_00_2
Reporting constraints	At least one of the following must be provided: - noiseLimitReportIdIdentifier OR - both attributes together (otherCriteriaLimitDetail and otherCriteriaDescription)

6.5.3   Field limitValues_otherCriteriaLimitDetail

Requirement	Conditional
Description	Indicates any noise limit values in place considered for the evaluation and implementation of noise management and reduction actions: Noise limit value (indicator and dB) used as criteria for the evaluation and implementation of noise management and reduction actions within the area covered by the action plan
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Example	Change in Lden must be less than 3 dB
Reporting constraints	At least one of the following must be provided: - noiseLimitReportIdIdentifier OR - both attributes together (otherCriteriaLimitDetail and otherCriteriaDescription)

6.5.4 *Field limitValues_otherCriteriaDescription*

Requirement	Conditional
Description	Indicates any noise limit values in place considered for the evaluation and implementation of noise management and reduction actions: Description of the other criteria used for the evaluation and implementation of noise management and reduction actions within the area covered by the action plan.
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Example	There are two limits depending on whether the infrastructure is existing or it is new. In an extension of an existing infrastructure, it is also considered that the increase in noise is below 3 dB Lden.
Reporting constraints	At least one of the following must be provided: - noiseLimitReportIdIdentifier OR - both attributes together (otherCriteriaLimitDetail and otherCriteriaDescription)

6.6 Table NAP_RailMappingResultDetail

The table *NAP_RailMappingResultDetail* provides the summary of information from the strategic noise maps within the area covered by the noise action plans, including the estimated number of people exposed to noise and the identification of problems and situations that need to be improved.

Table 6.5. NAP_RailMappingResultDetail table overview

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
M	actionPlanId_identifier	Link	
O	railIdIdentifier	Text	
M	exposedLden55	Number - Integer	
M	exposedLnight50	Number - Integer	
O	exposedToOtherIndicator	Text	
M	situationForImprovementExplanation	Multiline text	
O	situationForImprovementPrioritisation Criteria	Link	https://dd.eionet.europa.eu/vocabulary/noise/PrioritisationCriteriaValue

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.

6.6.1 Field actionPlanId_identifier

Requirement	Mandatory
Description	Unique identifier assigned to each noise action plan. This attribute is provided according to the data type ThematicIdentifier.
Reportnet 3 type	Link
Format	Maximum of 10000 characters
Information	It is a foreign key related to the table NoiseActionPlanMajorRail by re-using the unique identifier assigned to each noise action plan. 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	AP_RL_AT_00_1
Reporting constraints	actionPlanId_identifier will be re-used to link the tables in this dataset schema and it is used in the data schema Coverage area.

6.6.2   Field railIdIdentifier

Requirement	Optional
Description	Unique identifier assigned to each major railway.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	It is expected to be the same as the identifier from the feature type MajorRailwaySource (railId_identifier) from END dataflow DF1_5 for Major Railway (see more information in section 4.2.3).
Example	RL_AT_00_1
Reporting constraints	Rail identifier will be re-used across the complete END data model to uniquely identify spatial objects and all other objects – entities. Each unique identifier used in this dataflow should be already provided in the Noise Sources (DF1_5) dataflow. The submission of DF7_10 will be blocked if the rail identifier is not included in DF1_5 Major Railways. If allInLAUCode, allInNUTSCode or allInCountry has been provided in the table NAP_MajorRail, this field is expected to be empty. - If this field is empty, the information related to the summary of strategic noise maps within the area covered by the noise action plans will refer to the complete action plan. If railIdIdentifier has been provided in the table NAP_MajorRail, this field can be provided per each railIdIdentifier or can be left empty. - If the railIdIdentifier is provided, it is going to be checked if this identifier has been reported in the table NAP_MajorRail. - For a unique actionPlanId_identifier, the information should be provided considering the whole action plan or by individual railIdIdentifier, but the combination of both is not possible. - The provision of the complete list of rail identifiers will be evaluated during the technical acceptance process.

6.6.3   Field exposedLden55

Requirement	Mandatory
Description	Number of people exposed to equal or more than 55 dB Lden in the area covered by the action plan.
Reportnet 3 type	Number - Integer
Format	Maximum of 20 characters
Information	Number of people. The number should indicate the total number of people to avoid any confusion on rounding issues. For example the number 135472 corresponds to one hundred thirty five thousand four hundred seventy two exposed people.
Example	5478

6.6.4 Field exposedLnight50

Requirement	Mandatory
Description	Number of people exposed to equal or more than 50 dB Lnight in the area covered by the action plan.
Reportnet 3 type	Number - Integer
Format	Maximum of 20 characters
Information	Number of people. The number should indicate the total number of people to avoid any confusion on rounding issues. For example the number 135472 corresponds to one hundred thirty five thousand four hundred seventy two exposed people.
Example	5478

6.6.5 Field exposedToOtherIndicator

Requirement	Optional
Description	Number of people exposed to another noise indicator than Lden and Lnight relevant for the noise action plan
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	Number of people. The number should indicate the total number of people to avoid any confusion on rounding issues. For example the number 135472 corresponds to one hundred thirty five thousand four hundred seventy two exposed people.
Example	60000 people exposed to Lday equal or more than 50 dB.

6.6.6 Field situationForImprovementExplanation

Requirement	Mandatory
Description	Description of the problems identified and situations that need to be improved.
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Information	Briefly describe all the problems identified and situations that need to be improved when implementing the action plan.
Example	From the strategic noise maps areas that are above 60 dB Lden were extensive along the major railways. These areas will be addressed in the noise action plans with additional measures.

6.6.7 Field situationForImprovementPrioritisationCriteria

Requirement	Optional
Description	Description of the prioritization criteria used for developing the noise action plan
Reportnet 3 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/PrioritisationCriteriaValue The following code list values apply: - cost-benefits - levelOfNoiseExposure - numberOfExposedPeople
Example	numberOfExposedPeople; cost-benefits

6.7 Table NAP_RailReductionMeasure

The table *NAP_RailReductionMeasure* provides the summary of the management or noise-reduction measures already in force or preparation as well as well as the description of any actions within the area covered by the action plan, which the competent authorities intend to take in the next five years.

This table includes the following types of information: action plan identifier, rail identifier (optional), information about existing measures and information about the planned measures.

At least one value different than "noMeasure" needs to be provided per actionPlanIdIdentifier.

Table 6.6. NAP_RailReductionMeasure table overview

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
M	actionPlanId_identifier	Link	
O	railIdIdentifier	Text	
C	existingMeasure	Link	http://dd.eionet.europa.eu/vocabulary/noise/RailMeasureValue/
C	plannedMeasureDetail_plannedMeasure	Link	http://dd.eionet.europa.eu/vocabulary/noise/RailMeasureValue/
M	plannedMeasureDetail_expectedBenefits	Multiline text	
O	plannedMeasureDetail_cost	Number - Decimal	
C	plannedMeasureDetail_costCurrency	Text	

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
C	plannedMeasureDetail_allMeasuresInCost	Single select	
C	plannedMeasureDetail_measuresInCost	Link	http://dd.eionet.europa.eu/vocabulary/noise/RailMeasureValue/

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.

6.7.1 Field actionPlanId_identifier

Requirement	Mandatory
Description	Unique identifier assigned to each noise action plan. This attribute is provided according to the data type ThematicIdentifier.
Reportnet 3 type	Link
Format	Maximum of 10000 characters
Information	It is a foreign key related to the table NoiseActionPlanMajorRail by re-using the unique identifier assigned to each noise action plan. 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	AP_RL_AT_00_1
Reporting constraints	actionPlanId_identifier will be re-used to link the tables in this dataset schema and it is used in the data schema Coverage area.

6.7.2 Field railIdIdentifier

Requirement	Optional
Description	Unique identifier assigned to each major railway.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	It is expected to be the same as the identifier from the feature type MajorRailwaySource (railId_identifier) from END dataflow DF1_5 for Major Railways (see more information in section 4.2.3).
Example	RL_AT_00_1
Reporting constraints	Rail identifier will be re-used across the complete END data model to uniquely identify spatial objects and all other objects – entities. Each unique identifier used in this dataflow should be already provided in the Noise Sources (DF1_5) dataflow. The submission of DF7_10 will be blocked if the rail identifier is not included in DF1_5 Major Railways. - If this field is empty, the information related to the summary of strategic noise maps within the area covered by the noise action plans will refer to the complete action plan. - If railIdIdentifier is provided, it is going to be checked if this identifier has been reported in the table NAP_MajorRail, and the information related to the summary of noise abatement measures in place or intended to take in the next five years will refer to the major rail segment specified by the unique identifier. - The provision of the complete list of rail identifiers will be evaluated during the technical acceptance process.

6.7.3 Field existingMeasure

Requirement	Mandatory
Description	Noise abatement measures already existing when adopting the noise action plan.
Reportnet 3 type	Link
Format	Multiple values are allowed Value separated list with the separation character ";" (semicolon)
Code list	Code list URL: http://dd.eionet.europa.eu/vocabulary/noise/RailMeasureValue/ Applicable code list values can be found in Annex 1.
Example	quietEngines; speedReduction; windowInsulation

6.7.4 Field plannedMeasureDetail_plannedMeasure

Requirement	Mandatory
Description	Description of the noise abatement measures that will be implemented to reduce noise impacts in the area covered by the action plan: Actions which the competent authorities intend to take in the next five years to reduce noise impacts in the area covered by the action plan.
Reportnet 3 type	Link
Format	Multiple values are allowed Value separated list with the separation character ";" (semicolon)
Code list	Code list URL: http://dd.eionet.europa.eu/vocabulary/noise/RailMeasureValue/ Applicable code list values can be found in Annex 1.
Information	This field is only related to planned measures.
Example	reductionRailTracks; bufferZones; newTunnel; educationAwarenessActivities

6.7.5 Field plannedMeasureDetail_expectedBenefits

Requirement	Mandatory
Description	Description of the noise abatement measures that will be implemented to reduce noise impacts in the area covered by the action plan: Explanation about the expected benefits of implementing the planned measures
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Information	This field is only related to planned measures.
Example	A reduction of 20% in the number of people exposed to levels above 60 dB Lden is expected for the major railway segments included in the action plan with the planned measures.

6.7.6 Field plannedMeasureDetail_cost

Requirement	Optional
Description	Description of the noise abatement measures that will be implemented to reduce noise impacts in the area covered by the action plan: Cost of the measures described
Reportnet 3 type	Number - Decimal
Format	Maximum of 40 characters
Information	This field is only related to planned measures.
Example	700450,50

6.7.7 Field plannedMeasureDetail_costCurrency

Requirement	Conditional
Description	Description of the noise abatement measures that will be implemented to reduce noise impacts in the area covered by the action plan: Currency in which the cost is provided
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Informaiton	This field is only related to planned measures.
Example	Euro
Reporting constraints	This attribute is conditional. If the attribute plannedMeasureDetail_cost is provided, then the attribute plannedMeasureDetail_costCurrency should also be provided.

6.7.8 Field plannedMeasureDetail_allMeasuresInCost

Requirement	Conditional
Description	Description of the noise abatement measures that will be implemented to reduce noise impacts in the area covered by the action plan: Indication of whether all measures are included in the cost calculation
Reportnet 3 type	Single select
Format	Applicable values: - Yes - No
Information	This field is only related to planned measures.
Example	No
Reporting constraints	This attribute is conditional. If the attribute plannedMeasureDetail_cost is provided, then the attribute plannedMeasureDetail_allMeasuresInCost should also be provided.

6.7.9 Field plannedMeasureDetail_measuresInCost

Requirement	Conditional
Description	Description of the noise abatement measures that will be implemented to reduce noise impacts in the area covered by the action plan: Name of the noise abatement measures included in the cost calculation
Reportnet 3 type	Link
Format	Multiple values are allowed Value separated list with the separation character ";" (semicolon)
Code list	Code list URL: http://dd.eionet.europa.eu/vocabulary/noise/RailMeasureValue/ Applicable code list values can be found in Annex 1.
Information	This field is only related to planned measures.
Example	quietEngines; newTunnel; windowInsulation
Reporting constraints	This attribute is conditional. If the field plannedMeasureDetail_allMeauresInCost is "No", then this field must be provided by selecting all applicable measures included in cost.

6.8   Table NAP_RailReductionHealthImpact_1

The information concerning the health impact reduction that will be achieved with the implementation of the noise action plan is divided in the following tables:

- NAP_RailReductionHealthImpact_1: number of people experiencing a noise reduction

- NAP_RailReductionHealthImpact_2: estimates in terms of reduction of people suffering health effects of noise

- NAP_RailReductionHealthImpact_3: estimated cost-benefit of the measures described in the action plan

The table *NAP_RailReductionHealthImpact_1* provides information about the number of people experiencing a reduction in terms noise levels due to the implementation of the noise action plan and the methodology used to estimate the number of people experiencing reduction.

This table is conditional, and if no information is provided in the table NAP_RailReductionHealthImpact_2 in relation to numberHAReduction or numberHSDReduction or numberIHDReduction, then NAP_RailReductionHealthImpact_1 need to be provided.

Table 6.7. NAP_RailReductionHealthImpact_1 table overview

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
M	actionPlanId_identifier	Link	
O	railIdIdentifier	Text	
M	nrOfPeople	Number - Integer	
M	explanationMethod	Multiline text	

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.

6.8.1 Field actionPlanId_identifier

Requirement	Mandatory
Description	Unique identifier assigned to each noise action plan. This attribute is provided according to the data type ThematicIdentifier.
Reportnet 3 type	Link
Format	Maximum of 10000 characters
Information	It is a foreign key related to the table NoiseActionPlanMajorRail by re-using the unique identifier assigned to each noise action plan. 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	AP_RL_AT_00_1
Reporting constraints	actionPlanId_identifier will be re-used to link the tables in this dataset schema and it is used in the data schema Coverage area.

6.8.2 Field railIdIdentifier

Requirement	Optional
Description	Unique identifier assigned to each major railway.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	It is expected to be the same as the identifier from the feature type MajorRailwaySource (railId_identifier) from END dataflow DF1_5 for Major Railway (see more information in section 4.2.3).
Example	RL_AT_00_1
Reporting constraints	Rail identifier will be re-used across the complete END data model to uniquely identify spatial objects and all other objects – entities. Each unique identifier used in this dataflow should be already provided in the Noise Sources (DF1_5) dataflow. The submission of DF7_10 will be blocked if the rail identifier is not included in DF1_5 Major Railways. If allInLAUCode, allInNUTSCode or allInCountry has been provided in the table NAP_MajorRail, this field is expected to be empty. - If this field is empty, the information related to the summary of strategic noise maps within the area covered by the noise action plans will refer to the complete action plan. If railIdIdentifier has been provided in the table NAP_MajorRail, this field can be provided per each railIdIdentifier or can be left empty. - If the railIdIdentifier is provided, it is going to be checked if this identifier has been reported in the table NAP_MajorRail. - For a unique actionPlanId_identifier, the information should be provided considering the whole action plan or by individual railIdIdentifier, but the combination of both is not possible. - The provision of the complete list of rail identifiers will be evaluated during the technical acceptance process.

6.8.3 Field nrOfPeople

Requirement	Mandatory
Description	Estimated number of people experiencing noise reduction in the area covered by the action plan.
Reportnet 3 type	Number - Integer
Format	Maximum of 20 characters
Example	37500
Reporting constraints	This field needs to be provided, if no information is provided in table NAP_RailReductionHealthImpact_2.

6.8.4 Field explanationMethod

Requirement	Mandatory
Description	Textual explanation of the methodology used to estimate the number of people experiencing reduction.
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Example	The reduction has been calculated in the following way: 7500 people from more than 75 dB Lden to the band 60-65 dB Lden 10000 people from the band 60-65 dB Lden to the band 55-60 dB 20000 people from the band 55-60 dB Lden to lower bands
Reporting constraints	This field needs to be provided, if no information is provided in table NAP_RailReductionHealthImpact_2.

6.9 Table NAP_RailReductionHealthImpact_2

The information concerning the health impact reduction that will be achieved with the implementation of the noise action plan is divided in the following tables:

- NAP_RailReductionHealthImpact_1: number of people experiencing a noise reduction

- NAP_RailReductionHealthImpact_2: estimates in terms of reduction of people suffering health effects of noise

- NAP_RailReductionHealthImpact_3: estimated cost-benefit of the measures described in the action plan

The table *NAP_RailReductionHealthImpact_2* provides information about the estimates in terms of reduction of people suffering health effects of noise.

This table is conditional, and if no information is provided in the table NAP_RailReductionHealthImpact_1 in relation to the number of people experiencing reduction, then at least one amongst numberHAReduction, numberHSDReduction or numberIHDReduction, need to be provided in NAP_RailReductionHealthImpact_2.

Table 6.8. NAP_RailReductionHealthImpact_2 table overview

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
M	actionPlanId_identifier	Link	
O	railIdIdentifier	Text	
C	numberHAReduction	Number - Integer	
C	numberHSDReduction	Number - Integer	
C	numberIHDReduction	Number - Integer	
C	otherHealthEffectReduction	Multiline text	
C	numberExperiencingOtherHealthEffectReduction	Number - Integer	

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.

6.9.1 Field actionPlanId_identifier

Requirement	Mandatory
Description	Unique identifier assigned to each noise action plan. This attribute is provided according to the data type ThematicIdentifier.
Reportnet 3 type	Link
Format	Maximum of 10000 characters
Information	It is a foreign key related to the table NoiseActionPlanMajorRail by re-using the unique identifier assigned to each noise action plan. 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	AP_RL_AT_00_1
Reporting constraints	actionPlanId_identifier will be re-used to link the tables in this dataset schema and it is used in the data schema Coverage area.

6.9.2 Field railIdIdentifier

Requirement	Optional
Description	Unique identifier assigned to each major railway.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	It is expected to be the same as the identifier from the feature type MajorRailwaySource (railId_identifier) from END dataflow DF1_5 for Major Railway (see more information in section 4.2.3).
Example	RL_AT_00_1
Reporting constraints	Rail identifier will be re-used across the complete END data model to uniquely identify spatial objects and all other objects – entities. Each unique identifier used in this dataflow should be already provided in the Noise Sources (DF1_5) dataflow. The submission of DF7_10 will be blocked if the rail identifier is not included in DF1_5 Major Railways. If allInLAUCode, allInNUTSCode or allInCountry has been provided in the table NAP_MajorRail, this field is expected to be empty. - If this field is empty, the information related to the summary of strategic noise maps within the area covered by the noise action plans will refer to the complete action plan. If railIdIdentifier has been provided in the table NAP_MajorRail, this field can be provided per each railIdIdentifier or can be left empty. - If the railIdIdentifier is provided, it is going to be checked if this identifier has been reported in the table NAP_MajorRail. - For a unique actionPlanId_identifier, the information should be provided considering the whole action plan or by individual railIdIdentifier, but the combination of both is not possible. - The provision of the complete list of rail identifiers will be evaluated during the technical acceptance process.

6.9.3 Field numberHAReduction

Requirement	Conditional
Description	Estimated number of less people affected by high annoyance in the area covered by the action plan.
Reportnet 3 type	Number - Integer
Format	Maximum of 20 characters
Example	43590
Reporting constraints	At least one amongst numberHAReduction, numberHSDReduction or numberIHDReduction need to be provided, if no information is provided in table NAP_RailReductionHealthImpact_1.

6.9.4 Field numberHSDReduction

Requirement	Conditional
Description	Estimated number of less people affected by high sleep disturbance in the area covered by the action plan.
Reportnet 3 type	Number - Integer
Format	Maximum of 20 characters
Example	6700
Reporting constraints	At least one amongst numberHAReduction, numberHSDReduction or numberIHDReduction need to be provided, if no information is provided in table NAP_RailReductionHealthImpact_1.

6.9.5 Field numberIHDReduction

Requirement	Conditional
Description	For railway noise, estimated number of less people affected by an increased risk of ischaemic heart disease in the area covered by the action plan.
Reportnet 3 type	Number - Integer
Format	Maximum of 20 characters
Example	320
Reporting constraints	At least one amongst numberHAReduction, numberHSDReduction or numberIHDReduction need to be provided, if no information is provided in table NAP_RailReductionHealthImpact_1.

6.9.6 Field otherHealthEffectReduction

Requirement	Conditional
Description	Name of any other relevant health effect of noise that has been estimated in the action plan
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Example	Premature mortality due to ischaemic heart disease
Reporting constraints	If any information is provided in numberHAReduction, numberHSDReduction or numberIHDReduction, then the attributes otherHealthEffectReduction and numberExperiencingOtherHealthEffectReduction need to be provided if no information is provided in table NAP_RailReductionHealthImpact_1.

6.9.7 Field numberExperiencingOtherHealthEffectReduction

Requirement	Conditional
Description	Estimated number of people experiencing a reduction in terms other relevant health effects in the area covered by the action plan
Reportnet 3 type	Number - Integer
Format	Maximum of 20 characters
Example	200
Reporting constraints	If any information is provided in numberHAReduction, numberHSDReduction or numberIHDReduction, then the attributes otherHealthEffectReduction and numberExperiencingOtherHealthEffectReduction need to be provided if no information is provided in table NAP_RailReductionHealthImpact_1.

6.10 Table NAP_RailReductionHealthImpact_3

The information concerning the health impact reduction that will be achieved with the implementation of the noise action plan is divided in the following tables:

- NAP_RailReductionHealthImpact_1: number of people experiencing a noise reduction

- NAP_RailReductionHealthImpact_2: estimates in terms of reduction of people suffering health effects of noise

- NAP_RailReductionHealthImpact_3: estimated cost-benefit of the measures described in the action plan

The table *NAP_RailReductionHealthImpact_3* provides information about the estimated cost-benefit of the measures described in the action plan and additional information on the measures that are included in the calculation of the health impacts or other relevant information about this calculation.

This table is optional.

Table 6.9. NAP_RailReductionHealthImpact_3 table overview

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
M	actionPlanId_identifier	Link	
O	railIdIdentifier	Text	
O	estimatedCostBenefit	Multiline text	
O	explanationHealthImpact	Multiline text	

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.

6.10.1 Field actionPlanId_identifier

Requirement	Mandatory
Description	Unique identifier assigned to each noise action plan. This attribute is provided according to the data type ThematicIdentifier.
Reportnet 3 type	Link
Format	Maximum of 10000 characters
Information	It is a foreign key related to the table NoiseActionPlanMajorRail by re-using the unique identifier assigned to each noise action plan. 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	AP_RL_AT_00_1
Reporting constraints	actionPlanId_identifier will be re-used to link the tables in this dataset schema and it is used in the data schema Coverage area.

6.10.2 Field railIdIdentifier

Requirement	Optional
Description	Unique identifier assigned to each major railway.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	It is expected to be the same as the identifier from the feature type MajorRailwaySource (railId_identifier) from END dataflow DF1_5 for Major Railway (see more information in section 4.2.3).
Example	RL_AT_00_1
Reporting constraints	Rail identifier will be re-used across the complete END data model to uniquely identify spatial objects and all other objects – entities. Each unique identifier used in this dataflow should be already provided in the Noise Sources (DF1_5) dataflow. The submission of DF7_10 will be blocked if the rail identifier is not included in DF1_5 Major Railways. If allInLAUCode, allInNUTSCode or allInCountry has been provided in the table NAP_MajorRail, this field is expected to be empty. - If this field is empty, the information related to the summary of strategic noise maps within the area covered by the noise action plans will refer to the complete action plan. If railIdIdentifier has been provided in the table NAP_MajorRail, this field can be provided per each railIdIdentifier or can be left empty. - If the railIdIdentifier is provided, it is going to be checked if this identifier has been reported in the table NAP_MajorRail. - For a unique actionPlanId_identifier, the information should be provided considering the whole action plan or by individual railIdIdentifier, but the combination of both is not possible. - The provision of the complete list of rail identifiers will be evaluated during the technical acceptance process.

6.10.3 Field estimatedCostBenefit

Requirement	Optional
Description	Estimated cost-benefit of the measures described in the action plan
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Information	It refers to the measures applied to achieve the health reduction benefits.
Example	The benefits of reducing the noise levels for 37500 people are estimated to have an economic net benefit of 20000 Euro. This is calculated using 60,000 Euro per DALY and considering the total cost of the measures applied.

6.10.4 Field explanationHealthImpact

Requirement	Optional
Description	Additional information on the measures that are included in the calculation of the health reduction or other relevant information about the calculation methods for harmful effects.
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Information	It refers to the measures applied to achieve the health reduction estimates described in all three tables corresponding to health impacts.
Example	The health reduction estimations have been calculated applying the measures: noise barriers, window insulation for 800 km of major railways, and the renewal of the fleet with retrofitting wheels.

6.11 Table ESTATUnitReference

The table *ESTATUnitReference* provides reference information concerning NUTS or LAU data if the noise action plan is provided through those EUROSTAT classification of territorial units.

Table 6.10. ESTATUnitReference table overview

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
C	ESTATNUTSReferenceTitle	Text	
C	ESTATNUTSReferenceLink	URL	
C	ESTATLAUReferenceTitle	Text	
C	ESTATLAUReferenceLink	URL	

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.

> **The reference NUTS/LAU datasets used for dataflow validations can be found in the link below:**
> **https://www.eionet.europa.eu/reportnet/docs/noise/reference-datasets**

6.11.1 Field ESTATNUTSReferenceTitle

Requirement	Optional and conditional
Description	Version of the NUTS data used for the noise data reporting.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	Needs to be reported if noise action plan information is specified at NUTS level.
Example	ESTATNUTSReferenceTitle NUTS 2021, Version date: 01/02/2020, Scale: 1:1M, Source: Eurostat

6.11.2 Field ESTATNUTSReferenceLink

Requirement	Optional and conditional
Description	Link to the NUTS data used for the noise data reporting.
Reportnet 3 type	URL
Format	Maximum of 10000 characters
Information	Needs to be reported if noise action plan information is specified at NUTS level.
Example	https://gisco-services.ec.europa.eu/distribution/v2/nuts/download/ref-nuts-2021-01m.shp.zip

6.11.3 Field ESTATLAUReferenceTitle

Requirement	Optional and conditional
Description	Version of the LAU data used for the noise data reporting.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Information	Needs to be reported if noise action plan information is specified at LAU level.
Example	EUROSTAT Local Administrative Units (LAU), 2020

6.11.4 Field ESTATLAUReferenceLink

Requirement	Optional and conditional
Description	Link to the LAU data used for the noise data reporting.
Reportnet 3 type	URL
Format	Maximum of 10000 characters
Information	Needs to be reported if noise action plan information is specified at LAU level.
Example	https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/administrative-units-statistical-units/lau

6.12 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 6.11. DatasetDefaultProperties table overview

Mandatory /optional	Name	Reportnet 3 Type
M	tableName	Text
M	propertyName	Text
O	attribute	Text
M	defaultValue	Text

Table 6.12. Applicable values for the DatasetDefaultProperties

tableName	propertyName	attribute	defaultValue
NoiseActionPlanMajorRail	actionPlanId_identifierScheme	href	http://dd.eionet.europa.eu/vocabulary/inspire/IdentifierScheme/EUENDCode

6.13 Table CodelistProperties

This table includes a list of the code lists that have to be used for reporting data on the DF7_10 noise action plans for 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 6.13. CodelistProperties table overview

Mandatory/optional	Name	Reportnet 3 Type
M	tableName	Text
M	propertyName	Text
M	codelist	Text

Table 6.14. Applicable values for the CodelistProperties

tableName	propertyName	codelist
NoiseActionPlanMajorRail	legalContext_actionPlanDocument_citationLevel	http://inspire.ec.europa.eu/codelist/LegislationLevelValue
NoiseActionPlanMajorRail	legalContext_actionPlanDocument_citationType	https://dd.eionet.europa.eu/vocabulary/inspire/CitationTypeValue
NoiseActionPlanMajorRail	publicConsultation_consultationMeans	https://dd.eionet.europa.eu/vocabulary/noise/ConsultationMeansValue
NoiseActionPlanMajorRail	publicConsultation_stakeholdersType	https://dd.eionet.europa.eu/vocabulary/noise/StakeholdersTypeValue
NoiseActionPlanMajorRail	resultsEvaluationMechanismDescription	https://dd.eionet.europa.eu/vocabulary/noise/EvaluationMechanismValue
NAP_RailMappingResultDetail	situationForImprovementPrioritisationCriteria	https://dd.eionet.europa.eu/vocabulary/noise/PrioritisationCriteriaValue
NAP_RailReductionMeasure	existingMeasure	http://dd.eionet.europa.eu/vocabulary/noise/RailMeasureValue/
NAP_RailReductionMeasure	plannedMeasureDetail_plannedMeasure	http://dd.eionet.europa.eu/vocabulary/noise/RailMeasureValue/
NAP_RailReductionMeasure	plannedMeasureDetail_measuresInCost	http://dd.eionet.europa.eu/vocabulary/noise/RailMeasureValue/

7 Data schema: Submission Declaration

7.1 Description

Information on noise action plans submitted before the deadline or information on the changes from previous submissions and the reasons for submitting updated data after the deadline.

According to Article 10, if the country wishes to modify the submission after the deadline, the country needs to explain the changes from the previous submission and the reasons for the update. The information of this schema is also used to understand completeness of the data provided.

The SubmissionDeclaration dataset schema only includes one table:
- SubmissionDeclaration

7.2 Table SubmissionDeclaration

The table *SubmissionDeclaration* includes a list of fields that describe the submission and resubmission status in relation to the noise action plans for major railways, and changes from previous submissions and the reasons for re-submitting data.

Table 7.1. SubmissionDeclaration table overview

Mandatory /optional/ conditional	Name	Reportnet 3 Type	Code list
M	processStatus	Single select	
C	difference	Text	
C	reason	Text	
O	explanatoryFile	Attachment	
O	dateOfChange	Date	

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 processStatus

Requirement	Mandatory
Description	Type of submission
Reportnet 3 type	Single select
Format	Applicable values: - submissionBeforeDeadline - resubmission
Information	Value "submissionBeforeDeadline" needs to be selected if the reporting is done before the legal deadline of the dataflow. The value "resubmission" needs to be selected in the following cases: - The first submission is done after the deadline of the dataflow. - A resubmission of the data is done after the deadline, replacing the previous submission
Example	submissionBeforeDeadline

7.2.2 Field difference

Requirement	Conditional
Description	Description of the differences from the previous submission.
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Information	Briefly describe all the differences that apply to the resubmission. It is important to indicate the action plan identifier and to describe the changes made. Any first submissions after the legal deadline need to be indicated here. Please include the identifier of the noise action plan that is included or changed in the resubmission.
Example	A new action plan AP_RL_AT_00_142 has been added, covering one missing LAU. Modification in AP_RL_AT_00_67 and AP_RL_AT_00_68 on the number of people that would experience reduction, due to an update of the calculation.
Reporting constraints	It is mandatory when "resubmission" is selected in processStatus.

7.2.3 Field reason

Requirement	Conditional
Description	Description of the reasons for the data update.
Reportnet 3 type	Multiline text
Format	Maximum of 10000 characters
Information	Briefly describe the reasons for the data update.
Example	Action plan with identifier AP_RL_AT_00_142 was not reported in time by the competent authority. Recalculation on the number of people that would experience reduction in AP_RL_AT_00_67 and AP_RL_AT_00_68, which implies an update of the information previously submitted.
Reporting constraints	It is mandatory when "resubmission" is selected in processStatus.

7.2.4 Field explanatoryFile

Requirement	Optional
Description	Placeholder to include an extra explanatory file with details of the submission or resubmission, if applicable.
Reportnet 3 type	Attachment
Format	Any file extension
Information	Recommended .doc, .pdf, .xls
Reporting constraints	Maximum size of the file is 20 MB

7.2.5 Field dateOfChange

Requirement	Optional
Description	Date when the change in the delivery is done
Reportnet 3 type	Date
Format	YYYY-MM-DD
Information	Date of submission or resubmission
Example	2025-10-20

8 Reporting process

8.1 Reporting data in Reportnet 3: overall workflow

Figure 8.1 illustrates the different processes involved in the reporting of Noise action plans (DF7_10): Major railway. The direct link to access to all the available supporting material 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 area covered by the noise action plan but also, predefined templates in MS Excel to provide the information on the noise action plan developed to manage, prevent and reduce environmental noise in major railways, in particular in areas where exposure levels and induce harmful effects on human health.

The dataflow is organised with several data schemas, and a GeoPackage template and an MS Excel template are available per each noise source. Data sets for each data schema will need to be uploaded in the corresponding schema. In addition, to comply with Article 10, if the country wishes to modify a submission after the deadline, an explanation stating the changes from the previous submission and the reasons for the update needs to be provided. This information needs to be provided in "Submission declaration". Once the data files have been uploaded, they can be assessed based on the quality assurance validations that are programmed inside Reportnet 3. The description of these quality checks can be downloaded from: https://www.eionet.europa.eu/reportnet/docs/noise/validation-rules.

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 Reportnet 3 and if there are other errors, you will receive a standard notification that a correction and a resubmission is needed. All the technically accepted submissions will be integrated in the EU noise database.

Figure 8.1. Reporting workflow
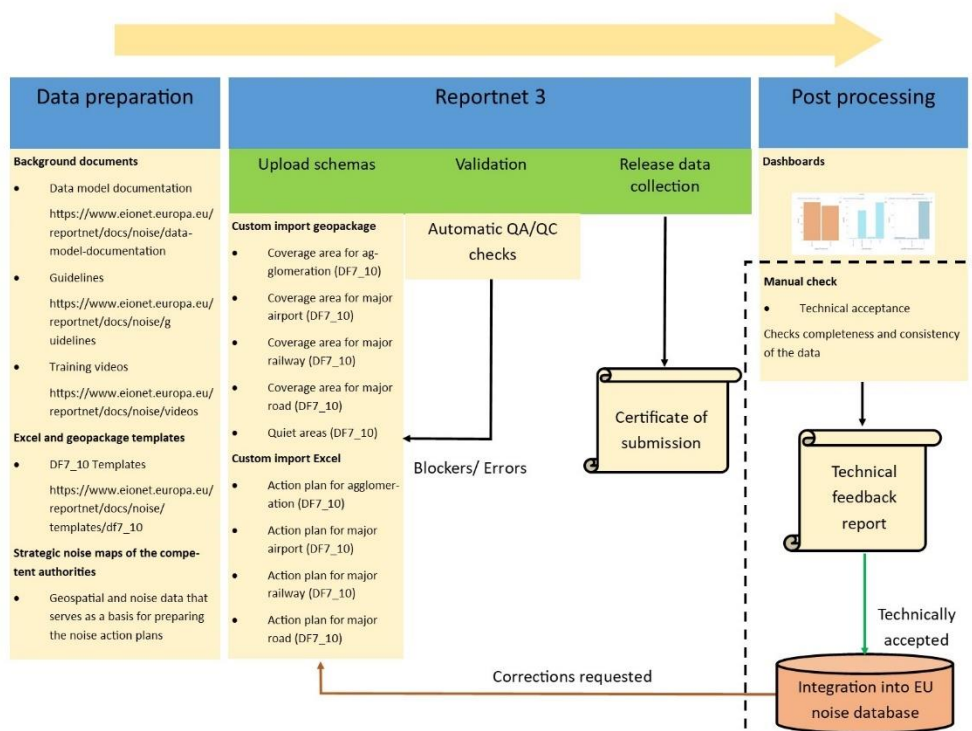
8.2 User accounts and permissions

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 8.2. Log in into Reportnet 3.0 using EU-login
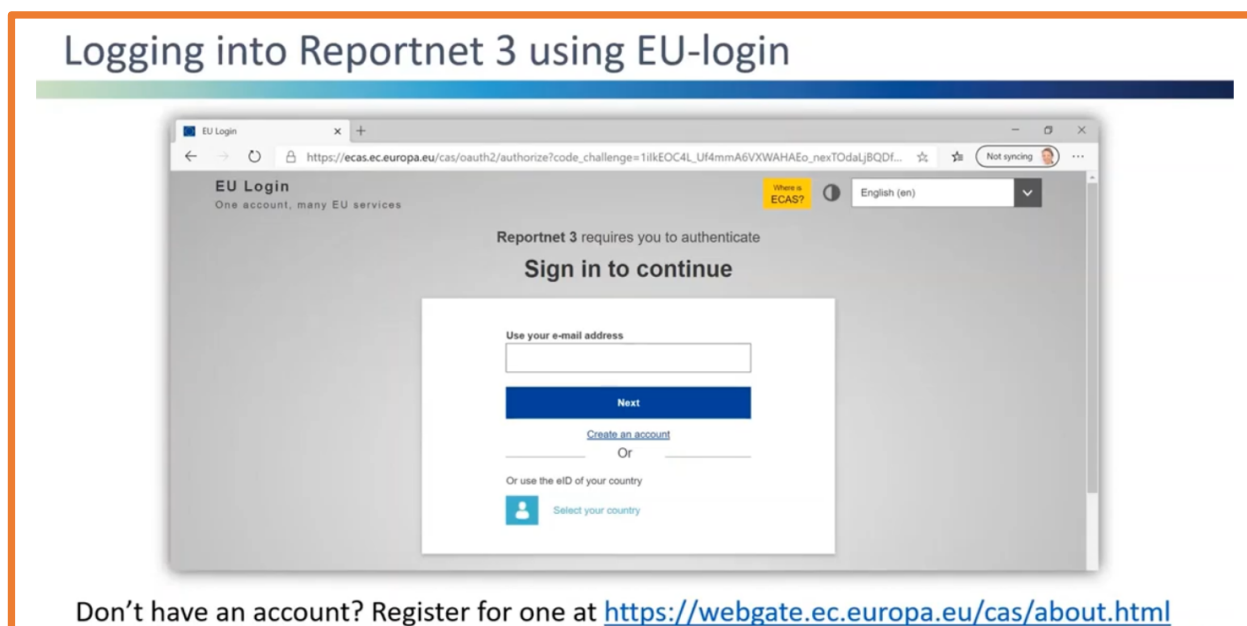
In Reportnet 3 there are two main roles for reporters, one is the lead reporter's role and the other is the supporting reporter's role. Prior, in Reportnet 2, all reporters were registered by the EEA and the lists were maintained by the agency. In the new reporting mechanism, the supporting reporters 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 8.3. Roles in Reportnet 3

8.3 Importing data from a file

To import the GeoPackage file or the MS Excel file, the custom imports (.gpkg, .xlsm, .xlsx) need to be selected as indicated in Figure 8.4 and in Figure 8.5, in the corresponding data schema. 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 8.6). **The option *Replace data* will delete all previously imported data in all tables, which is particularly important if different reporters will import data for the same data schema.**

Figure 8.4. Import dataset data: Geopackage file

Figure 8.5. Import dataset data: MS Excel file

Figure 8.6. Replace data
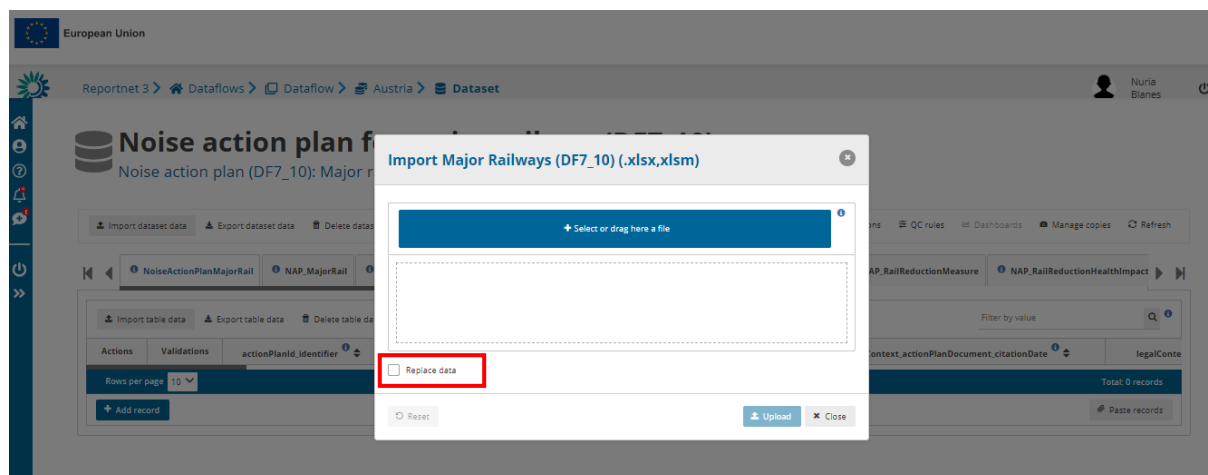
8.4 Importing data from a service

Importing data from a service is currently under development. The following information will be applicable when this functionality will be implemented in Reportnet 3.

This functionality is applicable only in the dataset schema Coverage area for major railway, and provides import from a service for spatial data of coverage areas.

For importing data from a service, the dataset schema in the Reportnet 3 includes two tables: HarvestSource and WorkflowLog which are described in details in Annex 2.

A typical import from a service workflow will look as the following:
1. Manually enter the information about the download services to use in the HarvestSource table.

Figure 8.7. Example of the manual entry of the information in the HarvestSource table

Actions	Validations	serviceType ⓘ ⬍	serviceUrl ⓘ ⬍	operation ⓘ ⬍
✏ 🗑		Direct file	https://projects.sadl.kuleuven.be/downloadfolder/eea_testdata/df1_5-1/Agglomeration_IR3_MT.gpkg	Append to table data
✏ 🗑		Direct file	https://projects.sadl.kuleuven.be/downloadfolder/eea_testdata/df1_5-1/AgglomerationSource_samples.gpkg	Do not import

Another option is to upload a pre-defined file with service information in csv format using function Import table data.

All three fields in the table HarvestSource must be provided as following:

- **serviceType**: can be Direct file only.
- **serviceUrl:** contains the link to the service. If Direct file is selected, serviceUrl must point to a downloadable GeoPackage file (zipped or unzipped). It is not allowed to point to an atom feed containing the information of a downloadable file.
- **operation:** tells Reportnet what to do with this service. The following options need to be selected:
  - **Append to table data**: This will add the downloaded data to the data already in the thematic tables in the noise source dataset schema, as following:
    - In the dataset schema Coverage area for major railway (DF7_10), the tables are: NoiseActionPlanCoverageArea and NoiseActionPlanCoverageAreaVoidables.
  - **Delete all data before import**: This will delete the data in the tables in the schema before starting import. You cannot delete data from one service source only. If "Delete all data before import" is selected for one of the services, ALL data in all thematic tables in the corresponding dataset schema will be deleted before the process starts.
    - For example: in the dataset schema Coverage area for major railway (DF7_10), if "Delete all data before import" is selected for one of the services, ALL data in the tables NoiseActionPlanCoverageArea and NoiseActionPlanCoverageAreaVoidables will be deleted.
  - **Do not import**: This will ignore this record when import is started. For example: if you have three services in the HarvestSource table, and you want to test one of them, you can set operation "Do not import" for the other two services.

Remark: Import from a file can only process one file for each import. Import from a service will import in one step ALL services in HarvestSource table that do not have operation set to "Do not import".

2. If you want to start from empty tables and import all data again, there are several ways to do this. The first option could be to delete data in one table manually by using "Delete table data" (except in HarvestSource table). The second option could be "Delete dataset data" which will delete data from all tables in the dataset schema (except read-only tables). The third option is to 'Delete all data before import' as explained in step 1 from the harvesting operation. Please be aware that if you use option 2 and 3, HarvestSource data will also be deleted and you will need to include service information again.

If you use option 1, you should manually delete data in the following tables:
- In the dataset schema Coverage area for major railway (DF7_10), delete the tables NoiseActionPlanCoverageArea and NoiseActionPlanCoverageAreaVoidables

Be aware that this deletes all data in the table, also those previously imported from a file or from a service. It is not possible to delete records from one import only.

If you don't need the logged feedback from previous service imports, you can also delete table data for WorkflowLog.

3. Click on the **Import dataset data** button on the top left of the menu, choose "Import from a service".

4. **Do not check Replace data**. See step 2 if you want to start from empty tables and import all data again. "Replace data" will delete all data in all non-predefined tables, including the tables HarvestSource and WorkflowLog, therefore information about services will be deleted.

5. If the operation field of one of the services in the HarvestSource table is set to "Delete all data before import", Reportnet 3 will first empty the thematic tables in the dataset schema (e.g. in the dataset schema Coverage area for major railway (DF7_10), the tables NoiseActionPlanCoverageArea and NoiseActionPlanCoverageAreaVoidables). After that it will connect to each service in HarvestSource and download the data provided by the service. Services with operation set to "Do not import" are not processed.

6. During the process, Reportnet 3 will enter feedback on the process in the WorkflowLog table. This can be information (logType=info, e.g. number of records downloaded from a service), warnings (logType=warning, e.g. if HarvestSource doesn't contain any services to harvest) or errors (logType=error, e.g. there is something wrong with a service or with the data provided by a service. The logMessage will contain the error received.

7. Notifications in the top right will inform you the import / load has started and when it has finished. Remember to press the "Refresh" button to properly display the data uploaded.

**Figure 8.8. Refresh button to see the results of data load or validation**
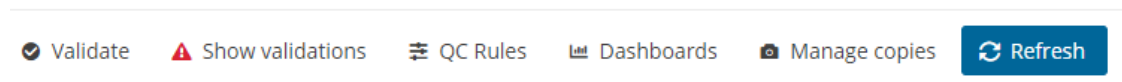
8. After import from a service, the validation must be activated by triggering the Validate button.

9. Once the validation is finished the "Refresh" button will be highlighted and after clicking it you will see the results of the validation. The validation can be run manually many times and it is triggered automatically when data flow is released to data collection.

A reporter can consult the WorkflowLog table for feedback information from processing the services, see step 6 in the workflow above. The WorkflowLog information should help a reporter to adjust service information and parameters.

8.5 Validations

The data to be submitted can be assessed with the validation tools provided in Reportnet 3.0 as shown in Figure 8.9.

Figure 8.9. Show validations
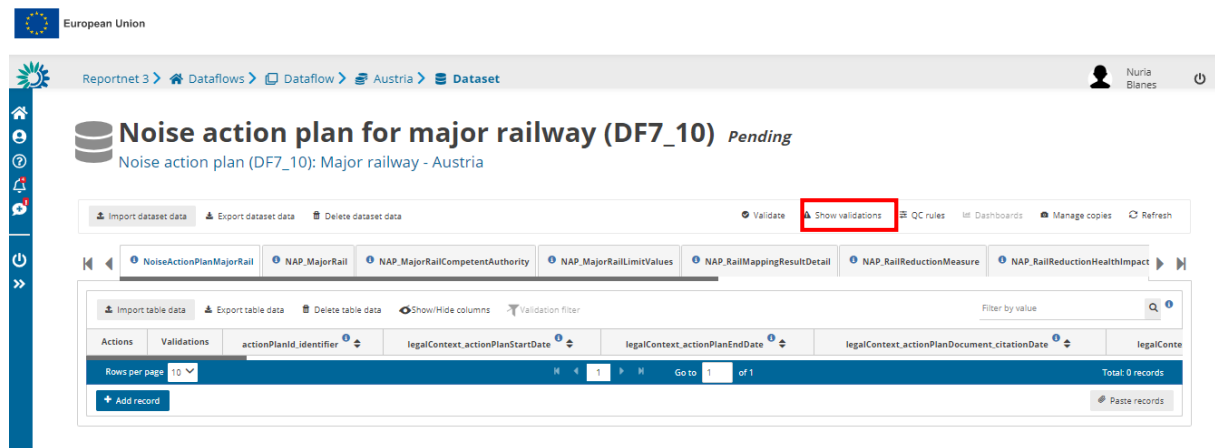
The validations are run automatically when the data is uploaded and the reports can be consulted as shown in Figure 8.10.

Figure 8.10. QC rules applied for validation

If there are no blockers, errors, warnings, or information messages in the data uploaded, the message shown in Figure 8.11 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.

All quality control rules are described in Dataflow Help - Dataset schemas / QC rules (see chapter 3.1).

Figure 8.11. Successful validation message
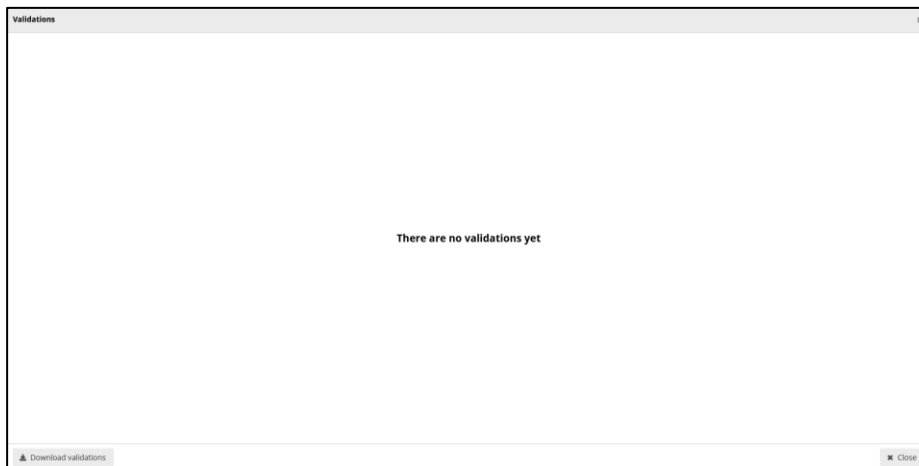
To ensure high quality of the noise data submitted under the END, specific manual quality checks will be performed after the countries submit the data in Reportnet 3. The countries will receive feedback document stating if the delivery is technically accepted or if a correction is requested.

8.6   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 8.12. 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 8.13. 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. After the submission, the reporter will receive a technical feedback report prepared by EEA and ETC/HE as shown in Figure 8.14.

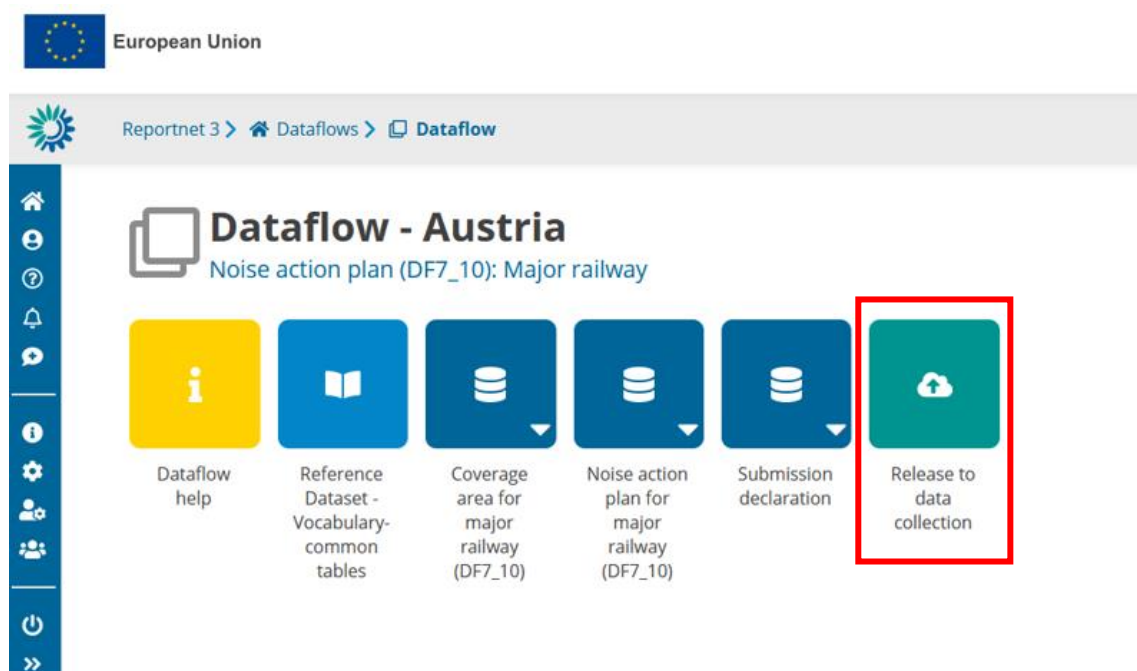**Figure 8.12. Release data collection**

Figure 8.13. Confirmation receipt
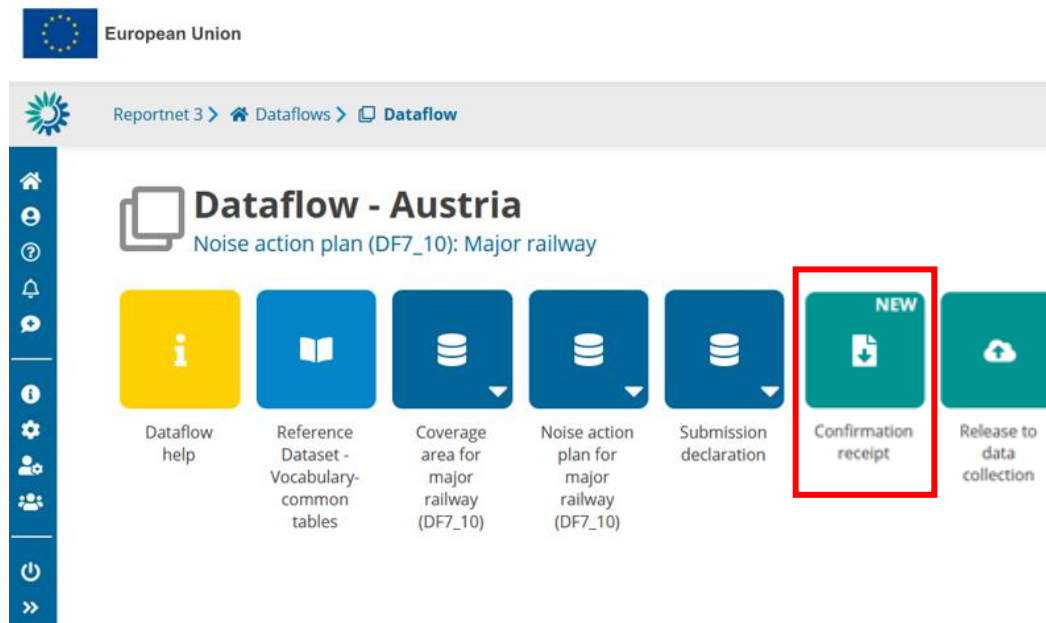
Figure 8.14. Technical acceptance
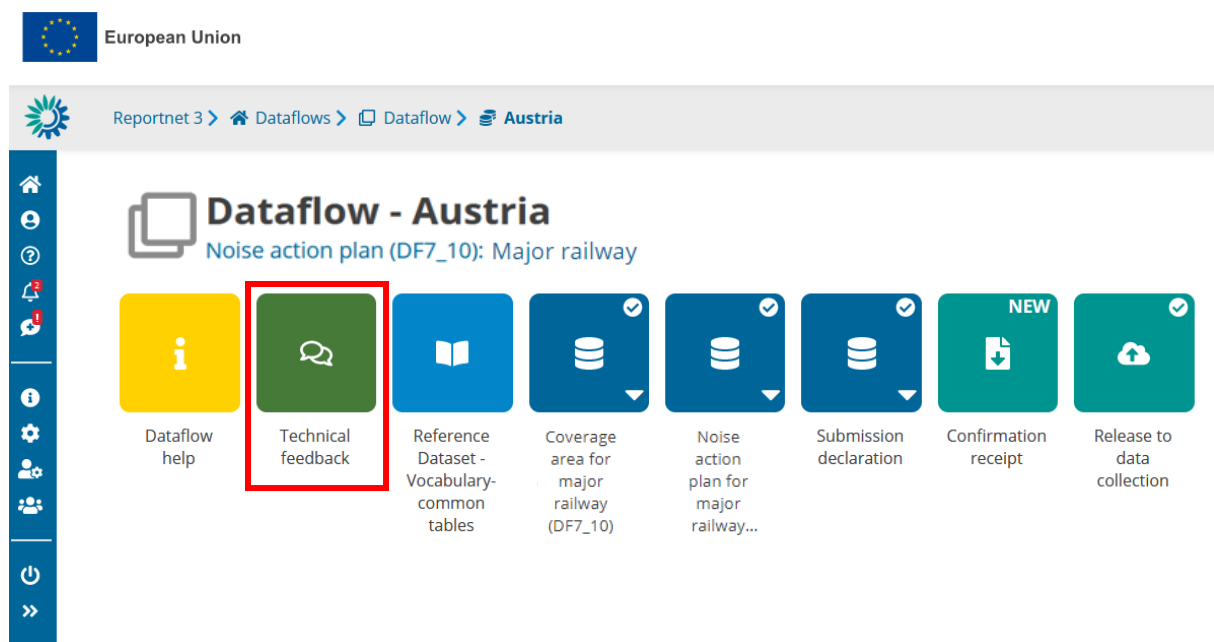
8.7   Resubmission

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**.'

Annex 1. Codelist RailMeasureValue

```
measureAtSource
 changeInEmissionLevels
  railTrack
  retrofittingWheels
  lowNoiseBrakes
  quietEngines
  renewalFleet
 timeRestriction
  timeRestrictionFreight
  timeRestrictionPassenger
 speedReductionMeasure
  speedReduction
  trafficCalmedZones
 otherTrafficManagementMeasure
  reductionRailTracks
  trackAccessCharges
  bansReroutingFreight
  bansReroutingPassengers
measureAtPath
 noiseBarrierMeasure
  noiseBarrier
  greenNoiseBarrier
 buildingInsulationMeasure
  windowInsulation
  otherInsulation
urbanPlanning
 landUsePlanning
  planningAndOrdinance
  sensitiveAreasPlanning
  bufferZones
noiseQualityArea
  quietArea
  greenArea
  soundscape
infrastructureChange
 newInfrastructure
  newRoute
  newBypassViaduct
  newTunnel
 closedInfrastructure
  closureRailwayRoute
  closureStation
communityEngagement
 communication
  informationDissemination
  complaintManagement
 measuresForBehaviouralChange
  educationAwarenessActivities
  promotingOtherModes
noMeasure
```

Annex 2. Tables supporting data harvesting through INSPIRE download services

Geospatial data can be also imported from an existing INSPIRE download service. This alternative method includes a harvesting process that is included in the reporting dataset schemas of noise action plans for agglomerations, major airports, major railways, major roads and quiet areas. The harvesting process is supported by the following two tables:

- HarvestSource: This table contains the URLs from which to harvest the geospatial features needed for the reporting. In the serviceType field, the reporter indicates if the given URL points directly to a file to download, or to a WFS 2.0 INSPIRE service. For direct file download, the URLs point directly to the dataset file to download (e.g. no Atom feed). For WFS, the URL must provide the full WFS GetFeature request. For END reporting, only 'Direct file' in gpkg format is supported.
- WorkflowLog: This table contains log messages from the harvesting process. Messages can contain information about the harvested resources (e.g. number of features) but also information about errors occurred during harvesting.

In the reporting data flow of Noise Action Plans (DF7_10), the supported file format is GeoPackage with the expected table structure defined in the [pre-defined GeoPackage templates](). These thematic GeoPackage files could be provided through a download service (e.g. INSPIRE download service) that could be declared and used for harvesting in the reporting process.

Table HarvestSource

For this purpose, the table HarvestSource must include service(s) information. The table HarvestSouce has the following structure:

HarvestSource table overview

Mandatory/ optional	Name	Reportnet 3 Type	Code list
M	serviceType	Single select	
M	serviceUrl	URL	
M	operation	Single select	

The following tables 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.

Field serviceType

Requirement	Mandatory
Description	The service type indicates whether the given service URL points to a direct file download or to a WFS service providing the INSPIRE features. For END reporting only 'Direct file' is supported.
Reportnet 3 type	Single select
Code list	Applicable code list values: - Direct file
Example	Direct file

Field serviceURL

Requirement	Mandatory
Description	In case of serviceType 'Direct file', serviceURL points directly to the dataset file to download. For END reporting, only GeoPackage (gpkg) is supported. A zip file containing the gpkg file is allowed.
Reportnet 3 type	URL
Code list	Maximum of 10000 characters
Example	https://projects.sadl.kuleuven.be/downloadfolder/eea_testdata/df4_8/MajorAirports-StrategicNoiseMaps-AT-LOWW-SpatialIndex.gpkg

Field operation

Requirement	Mandatory
Description	This field is used to indicate the type of operation – how to use the service: a) service will add data to the table, b) service will replace data in the table or c) service will not import data (Do not import) – service is omitted. Keep in mind that the thematic table(s) will be deleted **in its entirety** if one of the operations assigned to a service is "Delete all table data before import".
Reportnet 3 type	Single select
Code list	Applicable code list values: - Append to table data - Delete all table data before import - Do not import
Example	Append to table data

Table WorkflowLog

The table WorkflowLog has the following information:

WorkflowLog table overview

Mandatory/ optional	Name	Reportnet 3 Type	Code list
O	logTime	DateTime	
O	logType	Text	
O	logMessage	Text	
O	harvestSource	Text	

Field logTime

Requirement	Optional
Description	The date and time the system added the log message to the table during or after processing services. The logTime is given in local time, therefore it can differ from the time used in the harvestSource field.
Reportnet 3 type	DateTime
Format	ISO DateTime format YYYY-MM-DDThh:mm:ss
Example	2022-06-10T15:11:26

Field logType

Requirement	Optional
Description	The type of log message. This gives an indication on the importance of the message. LogType can be Info, Warning and Error
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Example	Info

Field logMessage

Requirement	Optional
Description	The detailed log message. This can contain general information (e.g. number of features) but also details about an error that occurred.
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Example	At the beginning of the process, 2022-06-10T14:12:32Z, there are 4 records inside HarvestSource table

Field harvestSource

Requirement	Optional
Description	The harvest source (web service) where this log message refers to. harvestSource is a composition of the UTC time of the start of the process and the URL of the service. Be aware this is the utc time, which can differ from the local time given in the field logTime
Reportnet 3 type	Text
Format	Maximum of 10000 characters
Example	2022-06-10T14:12:32Z https://projects.sadl.kuleuven.be/downloadfolder/eea_testdata/df4_8/MajorAirports-StrategicNoiseMaps-AT-LOWW-SpatialIndex.gpkg

European Topic Centre on
Human health and the environment
https://www.eionet.europa.eu/etcs/etc-he

The European Topic Centre on Human health and
the environment (ETC-HE) is a consortium of
European institutes under contract of the European
Environment Agency.

European Environment Agency
European Topic Centre
Human health and the environment