

Strategic Noise Mapping (04/2025 May Draft)

Part 4: Publication and Reporting

For the

European Communities (Environmental Noise) Regulations 2018 (amended)



Overview

- Introduction
- Publication
- Reporting Noise Maps Under END
- EEA Reportnet 3 Overview
- EEA Reportnet 3 DF1_5 Extents
- EEA Reportnet 3 DF4_8 Noise Maps
- EEA Reportnet 3 Supporting information
- Reporting DF1_5 Extents to EPA
- Reporting DF4_8 Noise Maps to EPA
- Reporting Harmful Effects





- The objective of this guidance note is to provide practical information, advice and guidance to designated Noise Mapping Bodies on the publication and reporting of strategic noise maps developed under the Environmental Noise Regulations.
- Guidance is issued as applicable only to the publication and reporting of strategic noise maps developed under the Regulations. The guidance updates, revises and replaces the previous Version 3 guidance of January 2025, and the revised Section 10 guidance of October 2017.
- This fourth part of the guidance note provides an overview of the requirements set out within the Regulations, roles and responsibilities of the noise mapping bodies, and sequence of activities to be undertaken during implementation of the Regulations. It provides guidance on the publication and reporting to the EPA of the results of the strategic noise maps, as required under the Regulations.



This fourth part of the guidance is to be read alongside the other parts:

- Part 1: Requirements
- Part 2: Calculation Methodology & Noise Modelling
- Part 3: Assessment of Noise Exposure & Harmful Effects

This document should also be read in conjunction with the following:

- European Communities (Environmental Noise) Regulations 2018, S.I. No. 549 of 2018; and
- European Communities (Environmental Noise) (Amendment) Regulations 2021,
 S.I. No. 663 of 2021.



- This Guidance Note should not be considered as a legal document, nor does it purport to provide comprehensive legal advice or guidance on all acoustical matters.
- If, in any circumstance, the recommendations contained in this guidance seem to be at variance with the Directive, or Regulations, then the text of the Directive must be applied in the first instance, or the Regulations in the second. In many situations it may be necessary to seek expert advice and assistance.
- Although every effort has been made to ensure the accuracy of the material contained in this publication, complete accuracy cannot be guaranteed. Neither the Environmental Protection Agency nor the author accepts any responsibility whatsoever for loss or damage occasioned, or claimed to have been occasioned, in part or in full, as a consequence of any person acting, or refraining from acting, as a result of a matter contained in this publication.
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- Publication and Reporting
 - Within one month of completing the strategic noise maps, there is a statutory requirement to:
 - Publish the maps and exposure results, and
 - Report them to the Agency
- This part of the Guidance will provide information to support NMBs in their statutory roles when publishing and reporting strategic noise mapping results.





- Following the completion of the strategic noise mapping, the results datasets will include the following:
 - Calculated noise levels at receptors on a regular grid across the area mapped;
 - Calculated noise levels at receptors on the exposed facades of residential buildings;
 - Strategic noise maps showing areas exposed within defined noise bands;
 - Exposure statistics including:
 - No. of dwellings exposed within defined noise bands;
 - No. of people in dwellings exposed within defined noise bands;
 - No. of people in dwellings with special noise insulation exposed within defined noise bands (where known);
 - No. of people in dwellings with a quiet façade exposed within defined noise bands (where known);
 - No. of school and hospital buildings exposed within defined noise bands;
 - Total area exposed within noise bands;
 - No. of people suffering harmful effects due to environmental noise.



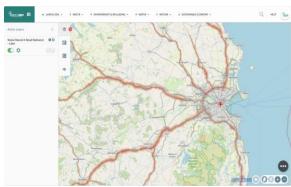
- NMBs must make the results of the strategic noise mapping available to the public, meeting the requirements of the Regulations:
 - Information for the public on strategic noise maps, should be clear and comprehensible, and include a summary setting out the most important points;
 - Dissemination to the public should be via any appropriate means, including through the use of available information technologies;
 - Should be in accordance with relevant Union legislative acts, in particular, Directives on public access to environmental information (Directive 2003/4/EC) and INSPIRE (Directive 2007/2/EC), and in conformity with the Third and Fourth Schedule to the END (Directive 2002/49/EC).



- Guidance on publication of strategic noise maps:
 - Ideally, mapping results are available via an interactive mapping website, such as:
 - EPA: https://gis.epa.ie/EPAMaps/
 - TII: https://www.tii.ie/technical-services/environment/noise-maps/
 - FCC: https://www.fingal.ie/news/2022-aircraft-noise-exposure-contour-maps-now-available
 - Or alternatively as a series of PDF maps.









• EPA recommended colour bands for presentation of noise contour results set out in Section 13 of *Guidance Note for Strategic Noise Mapping Part 2:*Calculation Methodology & Noise Modelling

Band	Color	R	G	В	С	M	Υ	K	Hex
>30-35	dark blue-green	130	166	173	53	23	28	4	#82A6AD
>35-40	Blue-green	160	186	191	42	18	21	2	#A0BABF
>40-45	light blue-green	184	214	209	33	6	19	0	#B8D6D1
>45-50	light green	206	228	204	24	1	25	0	#CEE4CC
>50-55	yellowish green	226	242	191	16	0	33	0	#E2F2BF
>55-60	light orange	243	198	131	5	26	54	0	#F3C683
>60-65	orange	232	126	77	3	61	71	0	#E87E4D
>65-70	dark orange	205	70	62	15	84	74	3	#CD463E
>70-75	magenta	161	26	77	32	98	47	14	#A11A4D
>75-80	purple	117	8	92	58	100	26	17	#75085C
>80	dark purple	67	10	74	79	100	37	39	#430A4A

From	To	Colour & style
0	40	
40	45	
45	50	
50	55	
55	60	
60	65	
65	70	
70	75	
75	99	



- The noise maps should be accompanied by additional information:
 - Summary of exposure and harmful effects statistics
 - Suitable supporting information and explanation relating to:
 - Why the maps were produced
 - How the maps were developed
 - The effects of long term exposure to environmental noise
 - How the noise maps will inform the noise action plan



Reporting Noise Maps Under END

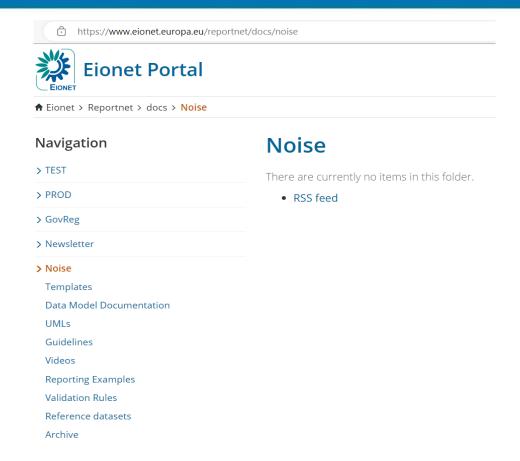


Reporting Noise Maps Under END

- Directive 2002/49/EC (END)
 - Annex VI: Data to be sent to the Commission
 - Sets out mandatory legal requirements
 - Used as the basis for reporting datasets to EEA for R1 to R3
- Regulation (EU) 2019/1010
 - The Commission, assisted by EEA, shall develop a mandatory digital information exchange mechanism to share strategic noise maps and action plans under Article 10(2) (of the END)
- Commission Implementing Decision (EU) 2021/1967
 - Mandatory requirement to use EEA Reportnet as the mandatory data repository for submission of data referred to in the END
- European Communities (Environmental Noise) Regulations 2018 (as amended 2021)
 - EPA is to submit to the Commission the information required under Article 10(2) of the END







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



- Reporting to EEA is undertaking using a series of interconnected reports covering different topic areas relevant to the END, called dataflows
- Dataflow packages are as follows:
 - Noise Sources (DF1_5):
 - Extents and location of major roads, major railways, major airports and agglomerations
 - Competent Authority (DF2):
 - Competent authorities and bodies responsible for implementing the END including noise maps, action plans and quiet areas
 - Limit Values (DF3):
 - Provision of any national or local noise limit values in place



- Dataflow packages (continued):
 - Strategic Noise Maps (DF4_8):
 - Exposure data: estimated number of people living in areas exceeding the END noise reporting thresholds
 - Noise contours: noise contour maps present spatial extent of noise levels for different noise indicators
 - Noise Control Programmes (DF6_9):
 - Noise-control programmes that have been carried out in the past and noise-measures in place
 - Noise Action Plans and Quiet Areas (DF7_10):
 - Action plans designed to reduce and manage noise problems and its effects;
 - Protection and preservation of quiet areas in agglomerations or in open country.



- R4 Strategic Noise Mapping requirements:
 - DF1_5: Extents and location of major roads, major railways, major airports and agglomerations included within R4 noise mapping
 - DF4_8 Results of R4 Strategic Noise Maps:
 - Exposure data: estimated number of people living in areas exceeding the END noise reporting thresholds
 - Noise contours: noise contour maps present spatial extent of noise levels for different noise indicators
- Deadline for R4 DF4_8 is 31st December 2022



- Reportnet 3 is an electronic reporting mechanism
- It combines the requirements of the END and INSPIRE
- Fundamentally it is a data model documentation of a series of related datasets
 - Data Model Documentation
 - 221 pages covering fundamental and all dataflows

> Noise

Templates

Data Model Documentation

UMLs

Guidelines

Videos

Reporting Examples

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Reference datasets





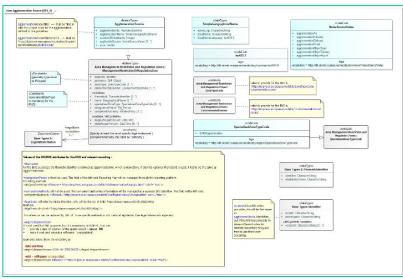
EEA Reportnet 3 – DF1_5 Extents



EEA Reportnet 3 - DF1_5 - UMLs

- UML (Unified Modelling Language) diagrams describe the data model visually
 - DF1_5 reports available for agglomerations, major roads, major railways, major airports

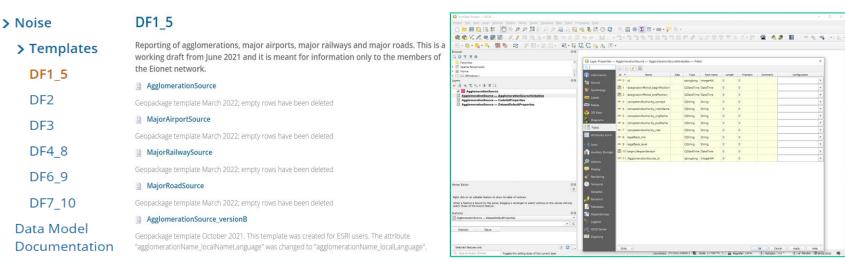






EEA Reportnet 3 - DF1_5 - Templates

- Template GeoPackages have been prepared for reporting of each dataflow
 - DF1_5 GeoPackage templates for agglomerations, major roads, major railways and major airports
 - CRS for templates is EPSG:3035 (ETRS89 geographical coordinates)
 - Templates align with documentation, guidelines and validation rules
 - Highly recommended to use EEA templates for reporting





EEA Reportnet 3 - DF1_5 - Guidelines

- Several guidance documents have been produced on specific aspects:
 - Reporting guidelines Noise Sources (DF1_5)
 - Creating unique thematic identifiers for the END data model
 - GeoPackage Encoding Rule for Environmental Noise Directive Reporting Data
 - Creating INSPIRE external unique object identifiers in the scope of the END reporting data

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This page provides relevant guidance documents for the reporting of Noise dataflows to be submitted under the Environmental Noise Directive (END).

- Creating INSPIRE external unique object identifiers in the scope of the END reporting data
- Creating unique thematic identifiers for the END data model
- GeoPackage Encoding Rule for Environmental Noise Directive Reporting Data
- Reporting guidelines Noise Sources (DF1_5)

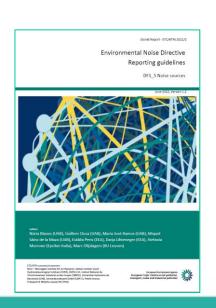
Version 1.2 June 2022

Reporting guidelines Strategic Noise Maps (DF4_8)

Updated guidelines version1.2 October 2022.

Schema information for noise action plans (DF7_10)

Excel file with information about fields and tables within the noise action plan templates (June 2022)

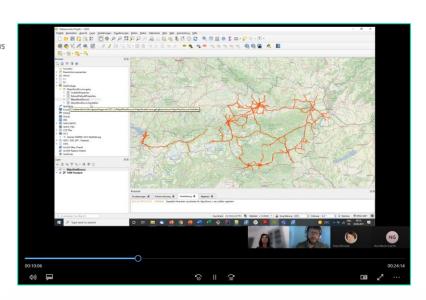




EEA Reportnet 3 - DF1_5 - Videos

- The EEA have prepared video presentations stepping through data transformation and reporting:
 - Five guidance videos have been prepared for DF1_5
 - Transformation examples help migrate SHP to GeoPackage using Hale Studio

Videos Noise This page comprises several videos aimed at supporting the reporting of dataflows **Templates** under the Environmental Noise Directive (END) @ Reporting DF1_5 in Reportnet 3 Data Model @ Data Transformation Example for Major Roads (DF1_5) Documentation @ Data Transformation Example for Major Railways (DF1_5) **UMLs** @ Data Transformation Example for Major Airports (DF1_5) @ Data Transformation Example for Agglomerations (DF1_5) Guidelines Data Transformation Example for Major Roads (DF4_8) Videos Data Transformation Example for Major Railways (DF4 8) Data Transformation Example for Major Airports (DF4 8) **Reporting Examples** @ Data Transformation Example for Agglomerations (DF4_8) Validation Rules @ Reporting DF4_8 in Reportnet 3 Data Transformation Example for Quiet Areas (DF7_10) Reference datasets @ Data Transformation Example for Coverage Area (DF7_10)





EEA Reportnet 3 - DF1_5; Reporting Examples

- DF1_5 noise sources example reporting dataset
- Contains four GeoPackages
 - WARNING: Examples may pre-date the latest data model documentation

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> Reporting Examples

Noise Sources (DF1_5)

Validation Rules

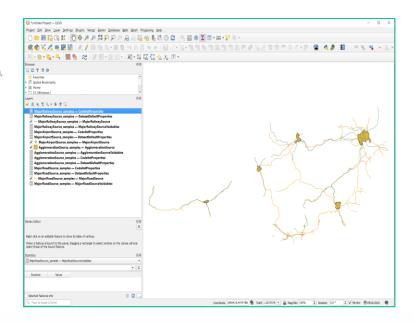
Reference datasets

Reporting Examples

This folder contains sample data aiming at exemplifying how the Geopackages files should be built up to report noise data under the Environmental Noise Directive (END). The sample data used is fictitious and has been created specifically for the purpose of showing data reporting best practices.

There are currently no items in this folder.

RSS feed





EEA Reportnet 3 - DF1_5 - Validation Rules

- EEA Reportnet portal runs a series of data validation checks on data when it is uploaded
- The rules for DF1_5 are available within a spreadsheet

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Validation Rules

This file contains the complete list of validations applied in all the data schemas of each dataflow.

Validation Rules for DF4_8

This file contains the complete list of validations applied in all the data schemas of the dataflow strategic noise maps (DF4_8). Update July 2022.

Validation Rules for DF1_5

This file contains the complete list of validations applied in all the data schemas of the dataflow Noise Sources (DF1_5). Version 1.2 June 2022

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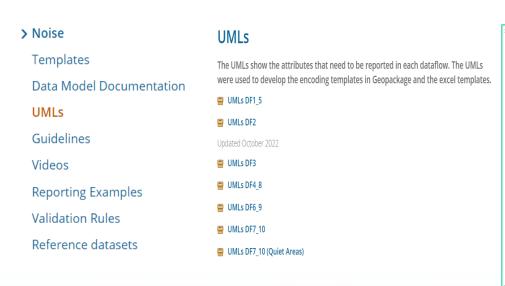


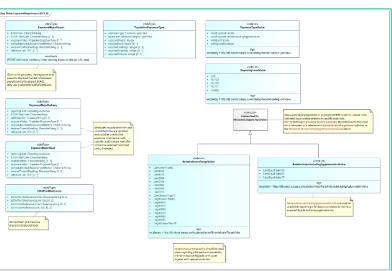
EEA Reportnet 3 – DF4_8 Noise Maps



EEA Reportnet 3 - DF4_8 - UMLs

- UML (Unified Modelling Language) diagrams describe the data model visually
 - DF4_8 UML diagrams available for:
 - Noise Contours,
 - Noise Exposure Agglomerations, and
 - Noise Exposure Major Sources



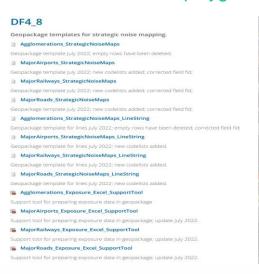


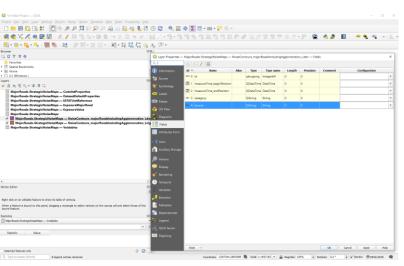


EEA Reportnet 3 - DF4_8 - Templates

- Template GeoPackages have been prepared for reporting of each dataflow
 - DF4_8 GeoPackage templates for agglomerations, major roads, major railways and major airports are available in polygon and polyline format
 - DF4_8 spreadsheet templates are available for reporting exposure statistics
 - CRS for templates is EPSG:3035 (ETRS89 geographical coordinates)
 - Templates align with documentation, guidelines and validation rules
 - Highly recommended to use EEA polygon templates for reporting









EEA Reportnet 3 - DF4_8 - Guidelines

- Several guidance documents have been produced on specific aspects:
 - Reporting guidelines Strategic Noise Maps (DF4_8)
 - Creating unique thematic identifiers for the END data model
 - GeoPackage Encoding Rule for Environmental Noise Directive Reporting Data
 - Creating INSPIRE external unique object identifiers in the scope of the END reporting data

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Guidelines

This page provides relevant guidance documents for the reporting of Noise dataflows to be submitted under the Environmental Noise Directive (END).

- Creating INSPIRE external unique object identifiers in the scope of the END reporting data
- Creating unique thematic identifiers for the END data model
- GeoPackage Encoding Rule for Environmental Noise Directive Reporting Data
- Reporting guidelines Noise Sources (DF1_5)

Version 1.2 June 2022

Reporting guidelines Strategic Noise Maps (DF4_8)

Updated guidelines version1.2 October 2022.

Schema information for noise action plans (DF7_10)

Excel file with information about fields and tables within the noise action plan templates (June 2022)

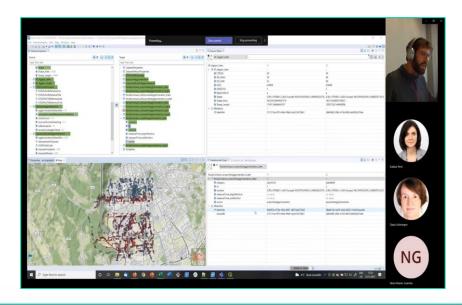




EEA Reportnet 3 - DF4_8 - Videos

- The EEA have prepared video presentations stepping through data transformation and reporting:
 - Five guidance videos have been prepared for DF4_8
 - Transformation examples help migrate SHP to GeoPackage using Hale Studio

> Noise	Videos				
Templates	This page comprises several videos aimed at supporting the reporting of dataflows under the Environmental Noise Directive (END)				
Data Model	@ Reporting DF1_5 in Reportnet 3				
Documentation	Data Transformation Example for Major Roads (DF1_5)				
Documentation	Data Transformation Example for Major Railways (DF1_5)				
UMLs	Data Transformation Example for Major Airports (DF1_5)				
Guidelines	Data Transformation Example for Agglomerations (DF1_5)				
Guidelines	Data Transformation Example for Major Roads (DF4_8)				
Videos	Data Transformation Example for Major Railways (DF4_8)				
Deporting Everenles	Data Transformation Example for Major Airports (DF4_8)				
Reporting Examples	Data Transformation Example for Agglomerations (DF4_8)				
Validation Rules	Reporting DF4_8 in Reportnet 3				
D.C.	Data Transformation Example for Quiet Areas (DF7_10)				
Reference datasets	Data Transformation Example for Coverage Area (DF7_10)				

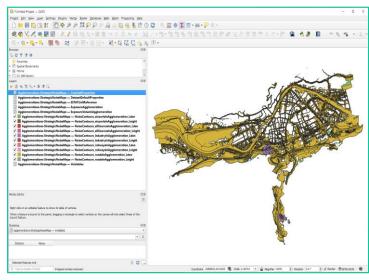




EEA Reportnet 3 - DF4_8; Reporting Examples

- DF4_8 strategic noise maps example reporting dataset
- Contains four GeoPackages
 - WARNING: Examples may pre-date the latest data model documentation







EEA Reportnet 3 - DF4_8 - Validation Rules

- EEA Reportnet portal runs a series of data validation checks on data when it is uploaded
- The rules for DF4_8 are available within a spreadsheet

Validation Rules Templates Data Model Documentation This file contains the complete list of validations applied in all the data schemas of each dataflow. Walidation Rules for DF4_8 UMLs This file contains the complete list of validations applied in all the data schemas of each dataflow etrategic pairs maps.

This file contains the complete list of validations applied in all the data schemas of the dataflow strategic noise maps (DF4_8). Update July 2022.

Validation Rules for DF1_5

Reporting Examples

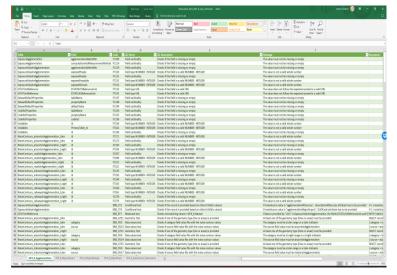
This file contains the complete list of validations applied in all the data schemas of the dataflow Noise Sources (DF1_5). Version 1.2 June 2022

Validation Rules

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EEA Reportnet 3 – Supporting information



EEA Reportnet 3 – Reference datasets

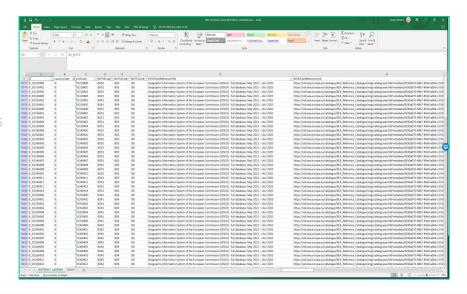
- Reference code list of NUTS (Nomenclature of Units for Territorial Statistics) and LAU (Local Administrative Units) regions from Eurostat
- NUTS and LAU equivalence in Ireland

	NUTS 1	#	NUTS 2	#	NUTS 3	#	LAU	#
IE	-	1	Regions	3	Regional Authority Regions	8	Local Electoral Areas	166

Reference datasets Templates Reference data used for specific dataflow validations. Data Model Documentation UMLs GISCO database, NUTS 2021 and LAU 2020 (scale 1: 100 000), and the Correspondence table LAU - NUTS 2021, provided by Eurostat. Version July 2022. Guidelines Videos Reporting Examples Reference dataset of LAU and NUTS codes is composed from the European Commission geospatial GISCO database, NUTS 2021 and LAU 2020 (scale 1: 100 000), and the Correspondence table LAU - NUTS 2021, provided by Eurostat. Version July 2022.

Validation Rules

Reference datasets

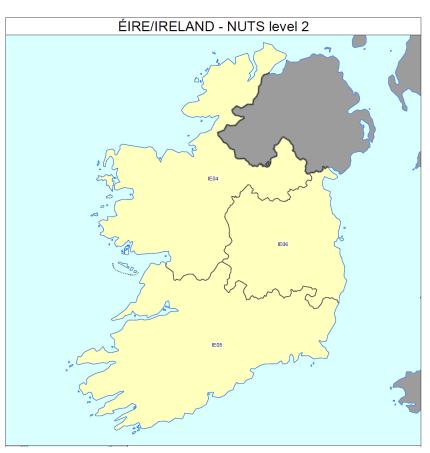




- Irish NUTS Regions defined by CSO:
 - https://www.cso.ie/en/methods/revnuts23/

NUTS2 Code	NUTS 2 Name	NUTS3 Code	NUTS 3 Name	County
				Donegal
		IE041		Sligo
			Border	Leitrim
1504	Northern & Western			Cavan
IE04				Monaghan
		IE042	West	Galway
				Mayo
				Roscommon
		IE051	Mid-west	Clare
	Southern			Tipperary
				Limerick
		IE052	South East	Waterford
IE05				Kilkenny
				Carlow
				Wexford
		IE053	South-West	Cork
			South-West	Kerry
		IE061	Dublin	Dublin
	Eastern & Midland	IE062		Wicklow
			Mid-East	Kildare
				Meath
IE06				Louth
		IE063		Longford
			Midlands	Westmeath
			iviidiarids	Offaly
				Laois









- Administrative Areas ungeneralised available from OSi Open Data portal:
 - https://dataosi.opendata.arcgis.com/datasets/d81188d16e804bde81548e982e80c53e_0/explore
 - It is proposed to report major roads and major railways at Administrative Areas level
 (31) each contain several LEA (Eurostat LAU)





Hale Studio

- https://wetransform.to/halestudio/
- open source, developed for INSPIRE implementation
- Windows, Linux, Mac OS
- May be used to translate SHP files into GeoPackage templates
- Examples of use shown in EEA videos
- GitHub geopackage-end repository of GeoPackage templates
 - https://github.com/wetransform-os/geopackage-end

QGIS

- https://www.qgis.org/en/site/
- open source
- Windows, Linux, Mac OS
- May be used for preparing GIS data in SHP or GeoPackage

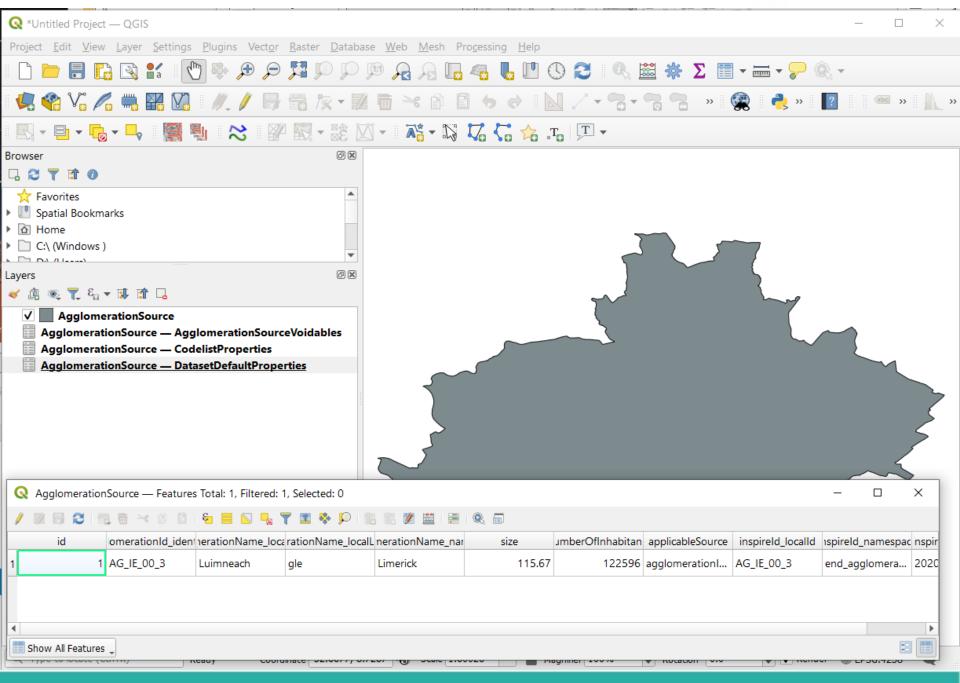


Reporting DF1_5 Extents to EPA



Agglomerations

- Report per agglomeration (3)
 - LAs will also need a report per LA for action planning (10)
- Boundary from EPA previously supplied
- numberOfInhabitants: Population within each agglomeration boundary
 - from Census 2022 uplifted SAPS data previously supplied by EPA
- agglomerationId_identifier
 - Dublin: AG_IE_00_1
 - Cork: AG IE 00 2
 - Limerick: AG_IE_00_3
- inspireId_namespace: end_agglomeration_IE
- inspireId_VersionId: 2020
 - Year of last mandatory reporting of DF1_5



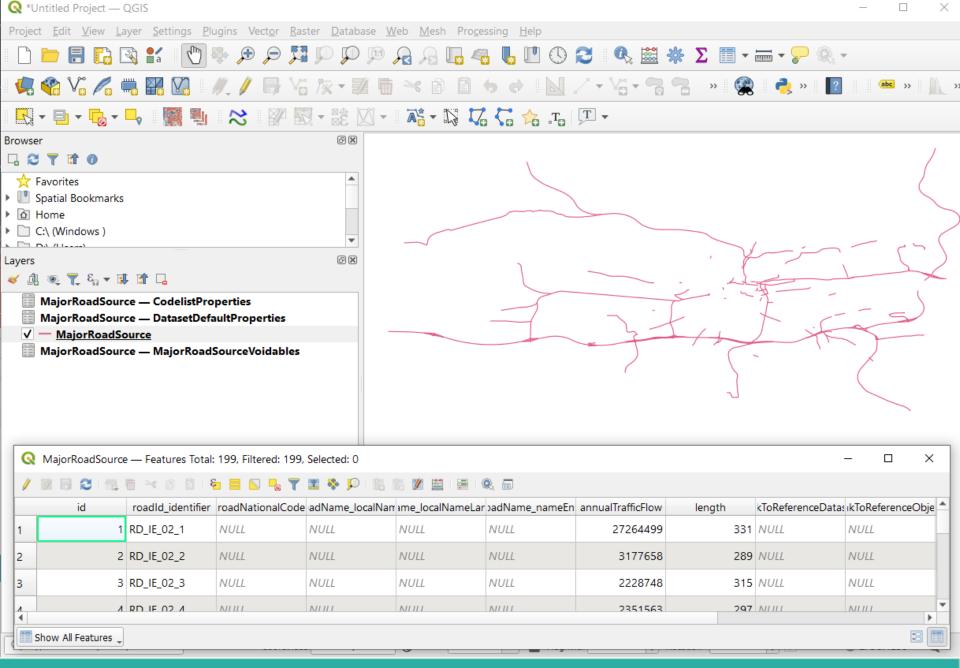


Major Roads

- Report per Administrative Area (31)
 - Each contain several LEA (Eurostat LAU)
 - https://data-osi.opendata.arcgis.com/datasets/osi::administrative-areas-osi-national-statutory-boundaries-2019/explore?location=53.156316%2C-6.997098%2C7.91
- roadId_identifier
 - RD_IE_[Region code]_integer
 - Region code = OBJECTID in Administrative areas boundary dataset, two characters
 - Integer = numerical increment from 1
 - E.g: RD_IE_01_125 (road link #125 in Dublin City), RD_IE_12_56 (road link #56 in Clare County)



- Major Roads (continued)
 - Geometry
 - MUST be one link per road, not carriageway
 - Report using OSi PRIME2 WAY_GDF2
 - Caution: WAY_GDF1 to WAY_GDF2 link will require manual checks around slip roads joining main carriageways
 - annualTrafficFlow: total annual vehicle flow of all carriageways per section
 - inspireId_namespace: end_majorroad_IE
 - inspireId_VersionId: 2020
 - Year of last mandatory reporting of DF1_5



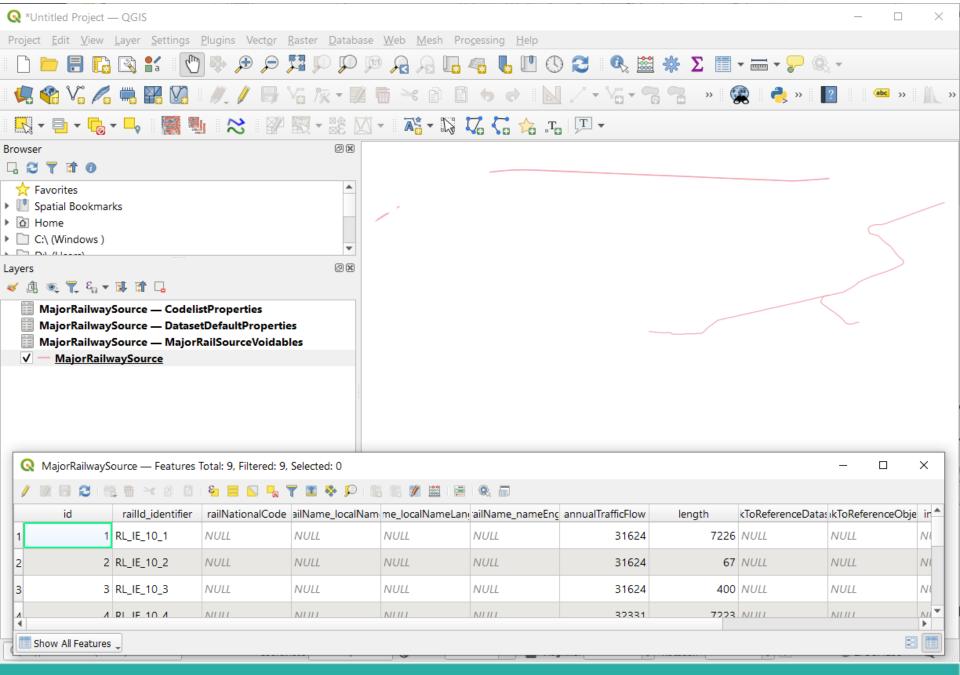


Major Railways

- Report per Administrative Area (31)
 - Each contain several LEA (Eurostat LAU)
 - https://data-osi.opendata.arcgis.com/datasets/osi::administrative-areas-osi-national-statutory-boundaries-2019/explore?location=53.156316%2C-6.997098%2C7.91
- railId_identifier
 - RL_IE_[Region code]_integer
 - Region code = OBJECTID in Administrative areas boundary dataset, two characters
 - Integer = numerical increment from 1
 - E.g: RL_IE_18_27 (rail link #27 in Kildare), RL_IE_11_05 (rail link 5 in Fingal County)

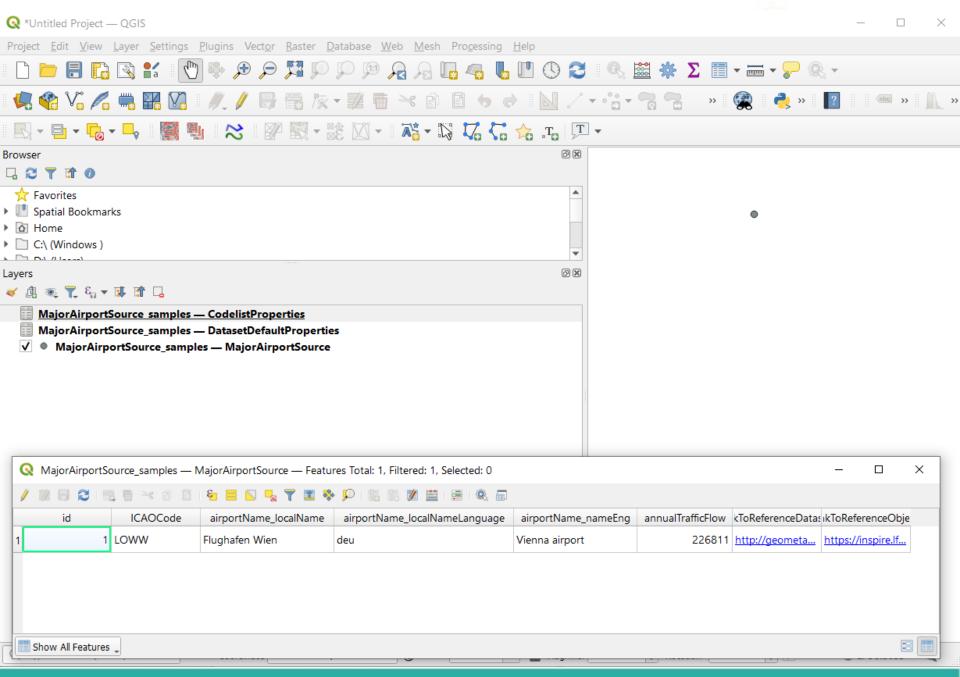


- Major Railways (continued)
 - Geometry
 - MUST be one link per rail corridor, not per line
 - Report using OSi PRIME2 Rail Network Segment Line GDF_2
 - annualTrafficFlow: total annual train flow of all lines in the corridor, per section
 - inspireId_namespace: end_majorrailway_IE
 - inspireId_VersionId: 2020
 - Year of last mandatory reporting of DF1_5





- Major Airport
 - Report per Major Airport (1)
 - id: 1
 - ICAOCode: EIDW
 - annualTrafficFlow: total number of movements during 2021





DF1_5 Reporting to EPA

- NMBs to report DF1_5 Extents to EPA
 - Agglomerations
 - Report per agglomeration (3)
 - LAs will also need a report per LA for action planning (10)
 - Major roads & railways
 - Report per Administrative Area (31)
 - Each contain several LEA (Eurostat LAU)
 - Major Airports
 - Report per airport (1)
- Report using EEA DF1_5 templates
- Report two versions of each GeoPackage
 - IRENET95 / Irish Transverse Mercator, and
 - EPSG:4258 (ETRS89 geographical coordinates)



Round 4 DF4_8 Noise Maps Reporting to EPA



- Agglomerations
 - Report per agglomeration (3)
 - ESTATUnitReference
 - ESTATLAUReferenceTitle
 - relevant LAU reference IDs which relate to the agglomeration area reported
 - ESTATLAUReferenceLink
 - https://www.eionet.europa.eu/reportnet/docs/noise/reference-datasets



Agglomerations

- ExposureAgglomeration
 - agglomerationId_identifier

Dublin: AG_IE_00_1

Cork: AG_IE_00_2

Limerick: AG_IE_00_3

noiseSource

- agglomerationRoad, agglomerationMajorRoad, agglomerationRailway, agglomerationMajorRailway, agglomerationAir, agglomerationMajorAirport, agglomerationIndustry, agglomerationAllSources (optional)
- computationAndMeasurementMethod
 - Commission Directive (EU) 2015/996 of 19/05/2015 as amended by Delegated Directive (EU) 2021/1226 of 21/12/2020



Agglomerations

- ExposureAgglomeration (cont)
 - sourceCoverageCriteria
 - All roads inside the agglomeration
 - All railways inside the agglomeration
 - All airports inside the agglomeration
 - All industry inside the agglomeration licensed under IED

receiverPointsInDwelling

• (I) Determination of the dwellings and people living in dwellings exposed to noise (Case 1A); (II) Assigning noise assessment points to dwellings and people living in dwellings: (Case 2A procedure); (III) Assigning dwellings and people living in dwellings to receiver points: no information on the location of dwellings within building footprints as explained above is available (Case b).



Agglomerations

- ExposureValueInAgglomeration
 - agglomerationId_identifier

Dublin: AG_IE_00_1

Cork: AG_IE_00_2

Limerick: AG_IE_00_3

noiseSource

 agglomerationRoad, agglomerationMajorRoad, agglomerationRailway, agglomerationMajorRailway, agglomerationAirport, agglomerationMajorAirport, agglomerationIndustry, agglomerationAllSources (optional)

exposureType

- mostExposedFacade
- withQuietFacade (optional)
- withSpecialInsulation (optional)



Agglomerations

- ExposureValueInAgglomeration (cont)
 - noiseLevel (5 dB bands)
 - Lden5559 to LdenGreaterThan75
 - Lnight4549 to LnightGreaterThan70
 - exposedPeople: # of people in each 5 dB band
 - exposedHospitals: # of hospital buildings in each 5 dB band
 - exposedSchools: # of school buildings in each 5 dB band
 - Note: #s should be exact, not rounded to nearest 100
 - ESTATUnitCode:
 - relevant LAU reference IDs which relate to the agglomeration area reported
 - ICAOCode: EIDW
 - descriptionAllSource (optional)
 - E.g: agglomerationRoad + agglomerationRail + agglomerationAir

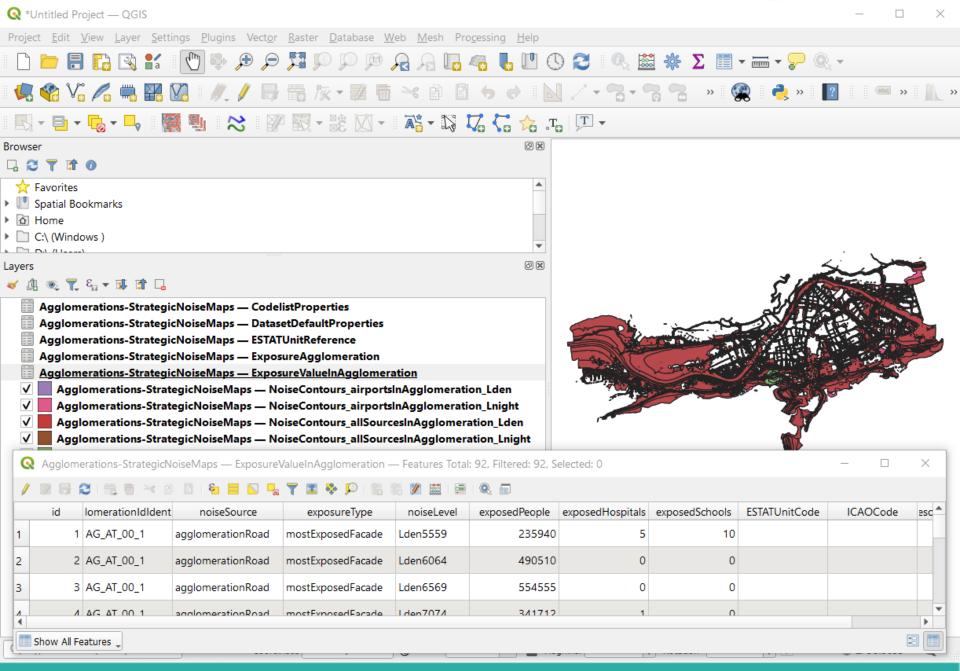


Agglomerations

- NoiseContours_airportsInAgglomeration_Lden
- NoiseContours_airportsInAgglomeration_Lnight
- NoiseContours_allSourceInAgglomeration_Lden (optional)
- NoiseContours_allSourcesInAgglomeration_Lnight (optional)
- NoiseContours_industryInAgglomeration_Lden
- NoiseContours_industryInAgglomeration_Lnight
- NoiseContours_railwaysInAgglomeration_Lden
- NoiseContours_railwaysInAgglomeration_Lnight
- NoiseContours_roadsInAgglomeration_Lden
- NoiseContours_roadsInAgglomeration_Lnight
- Note:
 - Polygon contours recommended in all cases



- Agglomerations
 - - category
 - Lden5559 to LdenGreaterThan75
 - Lnight4549 to LnightGreaterThan70
 - source
 - roadsInAgglomeration
 - railwaysInAgglomeration
 - airportsInAgglomeration
 - industryInAgglomeration
 - allSourcesInAgglomeration





Major Road

- Report per Administrative Area (31)
 - Each contain several LEA (Eurostat LAU)
 - https://data-osi.opendata.arcgis.com/datasets/osi::administrative-areasosi-national-statutory-boundaries-2019/explore?location=53.156316%2C-6.997098%2C7.91

ESTATUnitReference

- ESTATLAUReferenceTitle
 - relevant LAU reference ID which relate to the Administrative Area reported
- ESTATLAUReferenceLink
 - https://www.eionet.europa.eu/reportnet/docs/noise/reference-datasets



Major Road

- ExposureMajorRoad
 - reportingLevel: LAU
 - ESTATUnitCode:
 - relevant LAU reference IDs which relate to Administrative Area reported
 - computationAndMeasurementMethod
 - Commission Directive (EU) 2015/996 of 19/05/2015 as amended by Delegated Directive (EU) 2021/1226 of 21/12/2020
 - receiverPointsInDwelling
 - (I) Determination of the dwellings and people living in dwellings exposed to noise (Case 1A); (II) Assigning noise assessment points to dwellings and people living in dwellings: (Case 2A procedure); (III) Assigning dwellings and people living in dwellings to receiver points: no information on the location of dwellings within building footprints as explained above is available (Case b).



- Major Road
 - ExposureValue
 - ESTATUnitCode:
 - relevant LAU reference IDs which relate to the Administrative Area reported
 - exposureType
 - mostExposedFacade
 - mostExposedFacadeIncludingAgglomeration
 - withQuietFacade (optional)
 - withSpecialInsulation (optional)
 - noiseLevel (5 dB bands)
 - Lden5559 to LdenGreaterThan75
 - Lnight4549 to LnightGreaterThan70



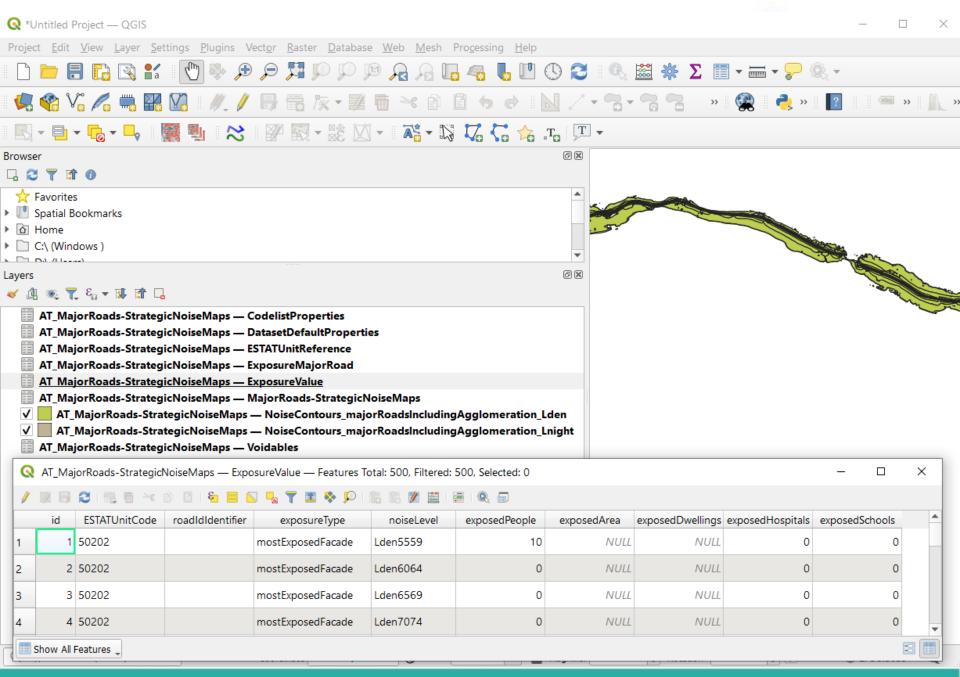
Major Road

- ExposureValue (cont)
 - exposedPeople: # of people in each 5 dB band
 - exposedArea: area in km2 in each 5 dB band
 - exposedDwellings: # of dwellings in each 5 dB band
 - exposedHospitals: # of hospital buildings in each 5 dB band
 - exposedSchools: # of school buildings in each 5 dB band
 - Note: #s should be exact, not rounded to nearest 100



Major Road

- NoiseContours_majorRoadsIncludingAgglomeration_Lden
- NoiseContours_majorRoadsIncludingAgglomeration_Lnight
- Note:
 - Polygon contours recommended in all cases
- - category
 - Lden5559 to LdenGreaterThan75
 - Lnight4549 to LnightGreaterThan70
 - source
 - majorRoadsIncludingAgglomeration





- Major Railway
 - Report per Administrative Area (31)
 - Each contain several LEA (Eurostat LAU)
 - https://data-osi.opendata.arcgis.com/datasets/osi::administrative-areas-osi-national-statutory-boundaries-2019/explore?location=53.156316%2C-6.997098%2C7.91
 - ESTATUnitReference
 - ESTATLAUReferenceTitle
 - relevant LAU reference ID which relate to the Administrative Area reported
 - ESTATLAUReferenceLink
 - https://www.eionet.europa.eu/reportnet/docs/noise/reference-datasets



- Major Railway
 - ExposureMajorRailway
 - reportingLevel: LAU
 - ESTATUnitCode:
 - relevant LAU reference IDs which relate to the Administrative Area reported
 - computationAndMeasurementMethod
 - Commission Directive (EU) 2015/996 of 19/05/2015 as amended by Delegated Directive (EU) 2021/1226 of 21/12/2020
 - receiverPointsInDwelling
 - (I) Determination of the dwellings and people living in dwellings exposed to noise (Case 1A); (II) Assigning noise assessment points to dwellings and people living in dwellings: (Case 2A procedure); (III) Assigning dwellings and people living in dwellings to receiver points: no information on the location of dwellings within building footprints as explained above is available (Case b).



- Major Railway
 - ExposureValue
 - ESTATUnitCode:
 - relevant LAU reference IDs which relate to the Administrative Area reported
 - exposureType
 - mostExposedFacade
 - mostExposedFacadeIncludingAgglomeration
 - withQuietFacade (optional)
 - withSpecialInsulation (optional)
 - noiseLevel (5 dB bands)
 - Lden5559 to LdenGreaterThan75
 - Lnight4549 to LnightGreaterThan70



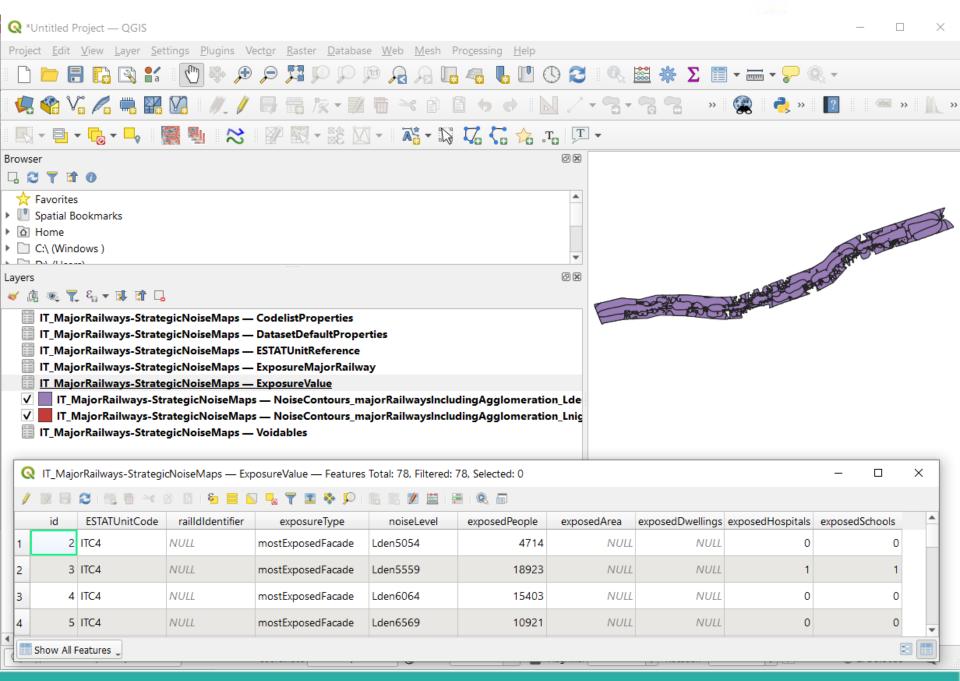
Major Railway

- ExposureValue (cont)
 - exposedPeople: # of people in each 5 dB band
 - exposedArea: area in km2 in each 5 dB band
 - exposedDwellings: # of dwellings in each 5 dB band
 - exposedHospitals: # of hospital buildings in each 5 dB band
 - exposedSchools: # of school buildings in each 5 dB band
 - Note: #s should be exact, not rounded to nearest 100



DF4_8 Reporting - Major Railway

- Major Railway
 - NoiseContours_majorRailwaysIncludingAgglomeration_Lden
 - NoiseContours_majorRailwaysIncludingAgglomeration_Lnight
 - Note:
 - Polygon contours recommended in all cases
 - - category
 - Lden5559 to LdenGreaterThan75
 - Lnight4549 to LnightGreaterThan70
 - source
 - majorRailwaysIncludingAgglomeration





- Major Airport
 - Report per major airport
 - ESTATUnitReference
 - ESTATLAUReferenceTitle
 - relevant LAU reference ID which relates to airport reported
 - ESTATLAUReferenceLink
 - https://www.eionet.europa.eu/reportnet/docs/noise/reference-datasets



- Major Airport
 - ExposureValue
 - ICAOCode: EIDW
 - ESTATUnitCode:
 - relevant LAU reference ID which relates to airport reported
 - exposureType
 - mostExposedFacade
 - mostExposedFacadeIncludingAgglomeration
 - withQuietFacade (optional)
 - withSpecialInsulation (optional)
 - noiseLevel (5 dB bands)
 - Lden5559 to LdenGreaterThan75
 - Lnight4549 to LnightGreaterThan70



Major Airport

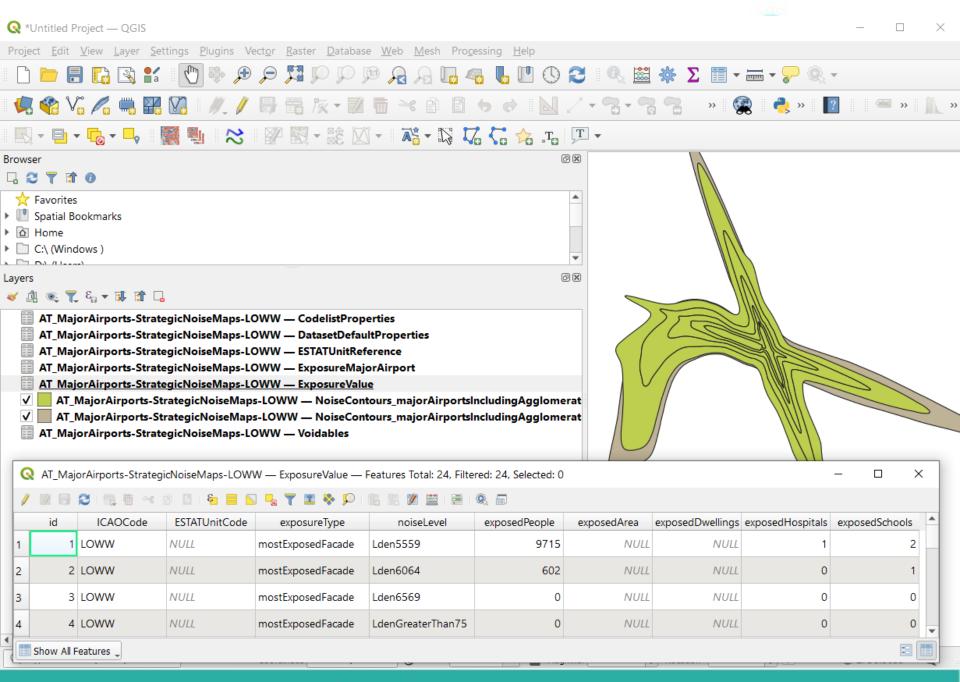
- ExposureValue (cont)
 - exposedPeople: # of people in each 5 dB band
 - exposedArea: area in km² in each 5 dB band
 - exposedDwellings: # of dwellings in each 5 dB band
 - exposedHospitals: # of hospital buildings in each 5 dB band
 - exposedSchools: # of school buildings in each 5 dB band
 - Note: # should be exact, not rounded to nearest 100



- Major Airport
 - ExposureMajorAirport
 - ICAOCode: EIDW
 - ESTATUnitCode:
 - relevant LAU reference ID which relates to airport reported
 - computationAndMeasurementMethod
 - Commission Directive (EU) 2015/996 of 19/05/2015 as amended by Delegated Directive (EU) 2021/1226 of 21/12/2020
 - receiverPointsInDwelling
 - (I) Determination of the dwellings and people living in dwellings exposed to noise (Case 1A); (II) Assigning noise assessment points to dwellings and people living in dwellings: all population of a building is associated to the nearest noise calculation point on the grid.



- Major Airport
 - NoiseContours_majorAirportsIncludingAgglomeration_Lden
 - NoiseContours_majorAirportsIncludingAgglomeration_Lnight
 - Note:
 - Polygon contours recommended in all cases
 - - category
 - Lden5559 to LdenGreaterThan75
 - Lnight4549 to LnightGreaterThan70
 - source
 - majorAirportsIncludingAgglomeration





Reporting DF4_8 to EPA

- NMBs to report DF4_8 Noise Maps to EPA
 - Agglomerations
 - Report per agglomeration (3)
 - Major roads & railways
 - Report per Administrative Area (31)
 - Each contain several LEA (Eurostat LAU)
 - Major Airports
 - Report per major airport (1)
- Report using EEA DF4_8 templates
- Report two versions of each GeoPackage
 - IRENET95 / Irish Transverse Mercator, and
 - EPSG:4258 (ETRS89 geographical coordinates)



Reporting Harmful Effects



Reporting to EPA

- Reporting of Harmful Effects to EPA is a national report under the Regulations, not a report to the EEA using Reportnet.
- NMB report to EPA using a spreadsheet template from EPA.
- Harmful Effects to be reported to EPA during Q2 2023.

5				HA in th	e case of road noise						
6				Formula 4		Formula 12	WHO		>53 dB Lde	en	
7			exposed to	Centre	AR	N	Total Popu	lation, P	93,656.00)	
8			Lden	Value	HA	HA	People HA	, N	10,758.53	3	
9							% of popul		11.49%		
10	40 41 (Lden)	#People	0.00	40.5	0.0882	0.00					
11	41 42 (Lden)	#People	7.48	41.5	0.0851	0.64	0.5				
2	42 43 (Lden)	#People	28.58	42.5	0.0826	2.36					
3	43 44 (Lden)	#People	66.19	43.5	0.0809	5.35	0.4				/
4			211.02	44.5	0.0798	16.84	0.3			$-\!\!/$	
	44 45 (Lden)	#People	437.69	45.5	0.0798	34.76	0.2				
5		#People					0.1				
6		#People	621.04	46.5	0.0797	49.51	0.1				
7		#People	1,263.67	47.5	0.0807	101.99	40	50	60	70	
8	48 49 (Lden)	#People	2,455.26	48.5	0.0824	202.27	40	30	00	70	
9		#People	2,549.12	49.5	0.0847	216.00					
20	50 51 (Lden)	#People	3,210.33	50.5	0.0878	281.79					
21	51 52 (Lden)	#People	4,042.67	51.5	0.0915	369.89					
22	52 53 (Lden)	#People	5,027.35	52.5	0.0959	482.14					
23	53 54 (Lden)	#People	5,177.76	53.5	0.1010	522.91					
24	54 55 (Lden)	#People	5,865.32	54.5	0.1068	626.22					
25		#People	6,367.28	55.5	0.1132	720.93					
6	56 57 (Lden)	#People	6,927.53	56.5	0.1204	833.84					
27	57 58 (Lden)	#People	8,054.62	57.5	0.1282	1,032.54					
28		#People	9,747.27	58.5	0.1367	1,332.48					
9		#People	7,539.88	59.5	0.1459	1,100.04					
0	60 61 (Lden)		5,940.16	60.5	0.1439	925.33					
		#People				744.21					
	61 62 (Lden)	#People	4,474.11	61.5	0.1663						
2	62 63 (Lden)	#People	3,283.66	62.5	0.1776	583.12					
3	63 64 (Lden)	#People	2,511.20	63.5	0.1895	475.90					
34	64 65 (Lden)	#People	1,817.63	64.5	0.2021	367.39					
5	65 66 (Lden)	#People	1,671.91	65.5	0.2154	360.17					
6	66 67 (Lden)	#People	1,095.12	66.5	0.2294	251.23					
7	67 68 (Lden)	#People	962.61	67.5	0.2441	234.95					
8	68 69 (Lden)	#People	861.99	68.5	0.2594	223.62					
9	69 70 (Lden)	#People	591.31	69.5	0.2755	162.88					
0	70 71 (Lden)	#People	308.73	70.5	0.2922	90.20					
1	71 72 (Lden)	#People	199.96	71.5	0.3096	61.90					
2	72 73 (Lden)	#People	145.23	72.5	0.3277	47.59					
3	73 74 (Lden)	#People	77.89	73.5	0.3464	26.98					
4		#People	32.18	74.5	0.3659	11.77					
		#People	29.39	75.5	0.3860	11.35					
16		#People	12.51	76.5	0.4068	5.09					
7	77 78 (Lden)	#People	2.79	77.5	0.4284	1.20					
8		#People	5.24	78.5	0.4505	2.36					
9		#People	2.17	79.5	0.4734	1.03					
0	80 81 (Lden)	#People	2.62	80.5	0.4970	1.30					
1		#People	0.00	81.5	0.5212	0.00					
	82 83 (Lden)	#People	0.00	82.5	0.5461	0.00					
3		#People	0.00	83.5	0.5718	0.00					
4	84 85 (Lden)	#People	0.00	84.5	0.5980	0.00					
5	85 86 (Lden)	#People	0.00	85.5	0.6250	0.00					
6	86 87 (Lden)	#People	0.00	86.5	0.6527	0.00					
7	87 88 (Lden)	#People	0.00	87.5	0.6810	0.00					
8	88 89 (Lden)	#People	0.00	88.5	0.7101	0.00					
9		#People	0.00	89.5	0.7398	0.00					
0	,,										
51		Sum >40	93,628.47			12,522.08					
2	1	Sum >53	73,708.07			10,758.53			-		



Reporting to EPA

- NMB report to EPA using a spreadsheet template from EPA:
 - In 1 dB bands
 - From WHO 2018 recommended levels:
 - Road traffic noise
 - 53 dB L_{den}, 45 dB L_{night}
 - Railway noise
 - 54 dB L_{den}, 45 dB L_{night}
 - Aircraft noise
 - 45 dB L_{den}, 40 dB L_{night}
 - Number of people affected by the harmful effects of noise
 - Ischaemic Heart Disease (IHD)
 - High Annoyance (HA)
 - High Sleep Disturbance (HSD)



Reporting to EPA

- The process should be undertaken for each reporting area, for each noise source:
 - Per agglomeration for agglomeration roads, railways, airports and industry
 - Per County (26) for major roads and major railways
 - Each contain several Local Electoral Areas (LEA) (Eurostat LAU)