

**QUADMAP**  
quiet urban areas



# Closing Conference

# QUADMAP

## Noise in Europe 2014

A new report by the European Environment Agency

Colin Nugent – Project Manager for Noise



European Environment Agency

# EEA mission



“The EEA aims to support sustainable development and to help achieve significant and measurable improvement in Europe’s environment through the provision of timely, targeted, relevant and reliable information to policy makers and the public”



European Environment Agency



# EEA member & co-operating countries



## EEA coverage

Member countries Cooperating countries

\*Kosovo under UNSCR 1244/99

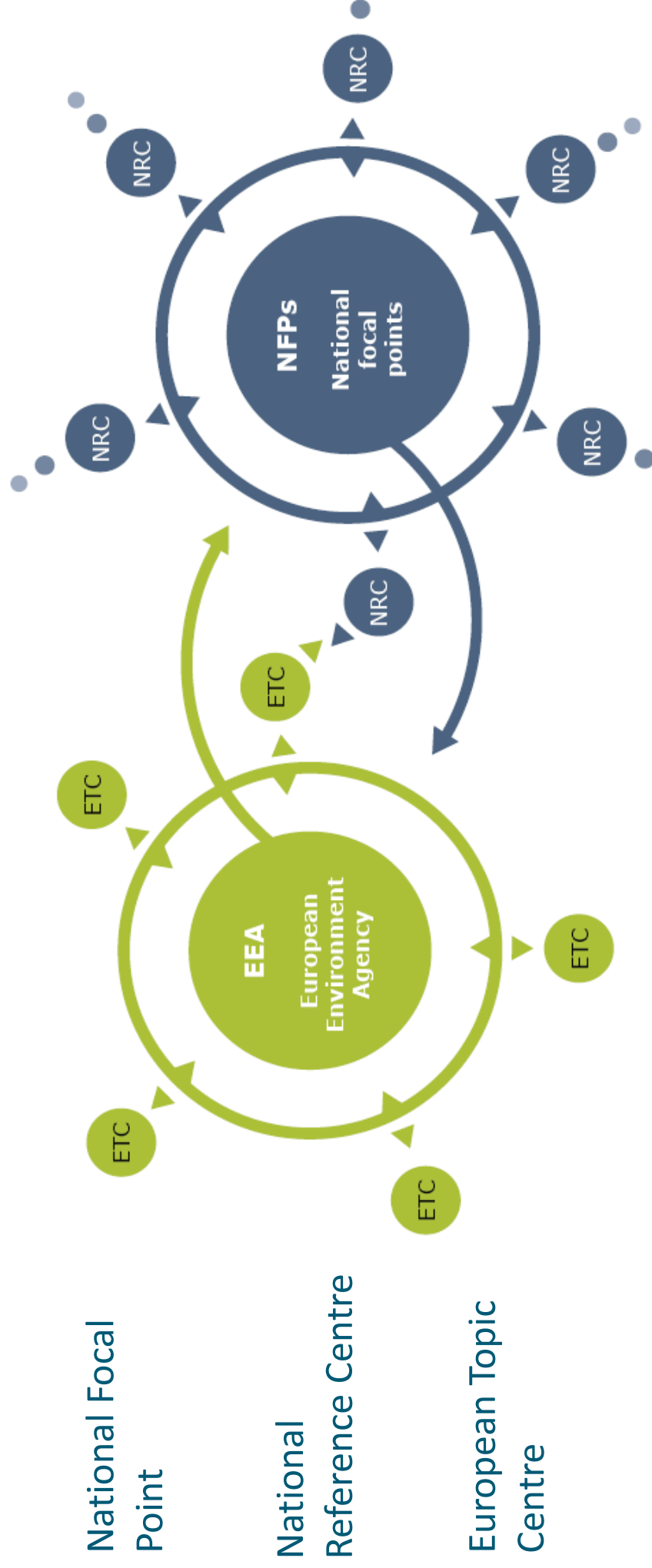
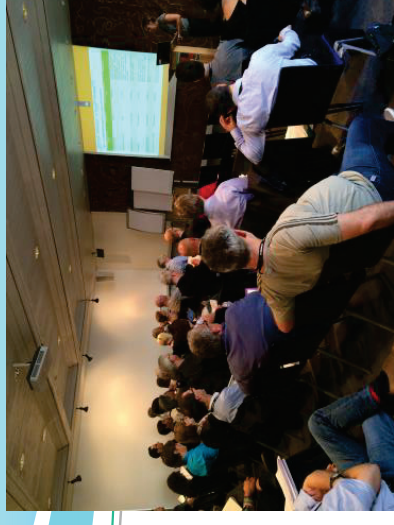


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# European environment information & observation network (Eionet)

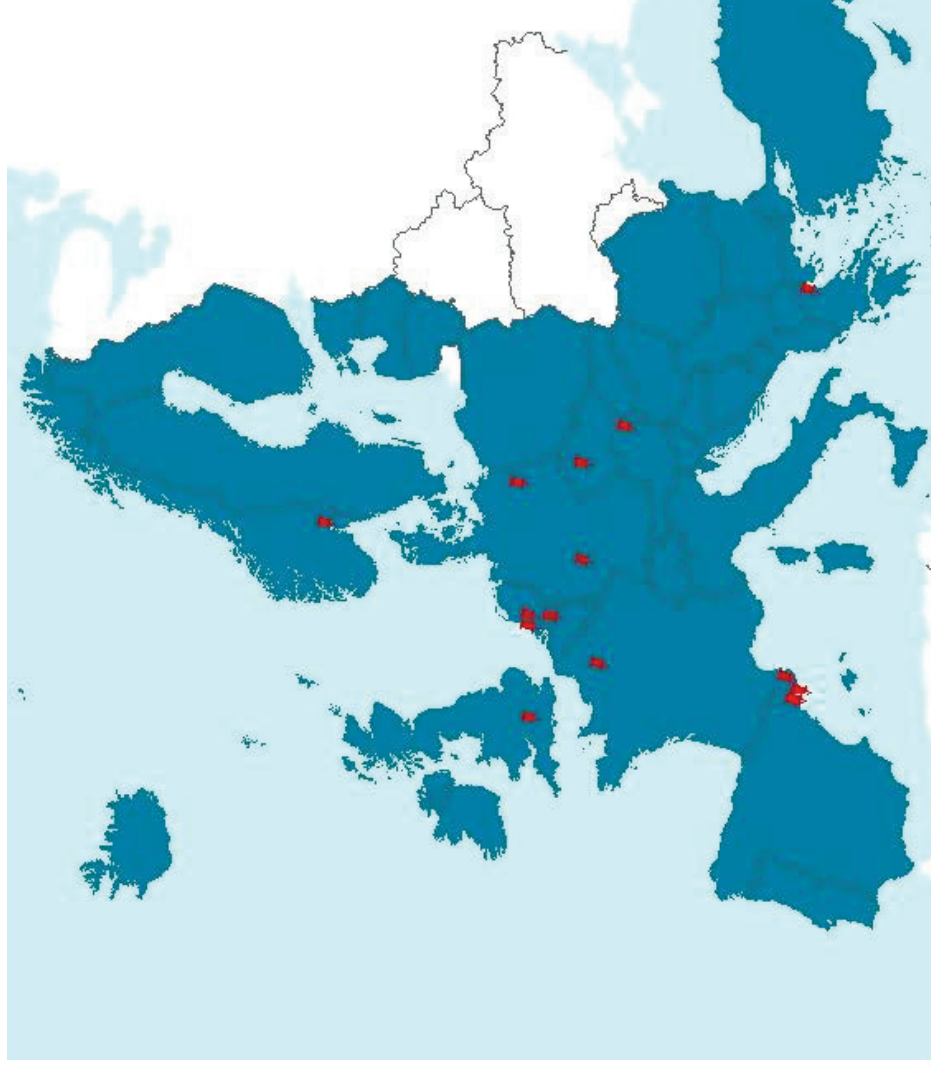




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## European Topic Centre on Air Pollution and Climate Change Mitigation (ETC/ACM)

- Consortium of 14 European organisations
- Led by the Netherlands Institute for Public Health and the Environment (RIVM)



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- Öko-Recherche
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- Institute of Environmental Assessment and Water Research (CSIC/IDAEA)
- 4sfera Innova
- VITO



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# Noise in Europe 2014

EEA Report | No 10/2014

## Noise in Europe 2014

ISSN 1725-9177



European Environment Agency



Published 19 December 2014

At least 317 media articles  
by 22 December

Top story in ENDS

<http://www.endseurope.com/38497/25-of-europeans-exposed-to-harmful-noise-levels>

Data reported up to  
28 August 2013



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# Noise in Europe 2014 - key messages

Noise levels from road traffic that are greater than 55 dB  $L_{den}$  affect an estimated **125 million people** – **one in four Europeans**.



 **> 55dB  $L_{den}$**



## Annoyance



**20 000 000**

Almost 20 million Europeans are annoyed by environmental noise.

## Sleep disturbance



**8 000 000**

At least 8 million Europeans suffer sleep disturbance due to environmental noise.

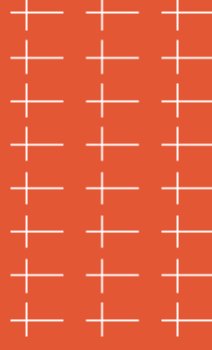
## Health impacts



**43 000**

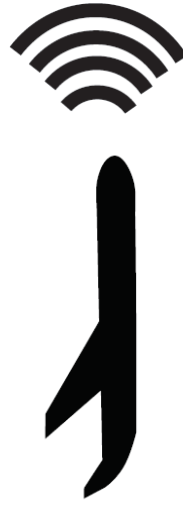
Noise pollution causes 43 000 hospital admissions in Europe per year.

## Premature deaths



**10 000**

Noise pollution causes hypertension and cardiovascular disease, leading to an estimated 10 000 premature deaths annually in Europe.



**8,000** suffer reading impairment (7-17 year olds)



# Noise in Europe 2014: Completeness



**Table 2.2    Noise database: major roads' completeness**

Reporting year	Noise sources <sup>(a)</sup>		Strategic noise maps <sup>(b)</sup>		Completeness (at country level)
	Length of major roads	Number of countries reporting data	Number of countries expected to report data	Number of countries reporting data	
2007	73 038	29	32	29	90 %
2012	180 767 <sup>(c)</sup>	30	33	21	63 %

- Note:**
- <sup>(a)</sup> Refers to agglomerations, major roads, major railways and major airports designated by the END where strategic noise maps and action plans should be developed. This information is made available to the European Commission 2 years before the submission of the strategic noise maps (Article 7).
  - <sup>(b)</sup> Refers to information on noise exposure and on noise contour maps to be submitted to the European Commission in those areas (agglomerations, major roads, major railways and major airports) designated by the END (Article 7, Annex VI).
  - <sup>(c)</sup> Denmark, France, Germany, Greece, Iceland, Italy, Luxembourg, the Netherlands: data on length of major road infrastructure not complete.



# Noise in Europe 2014: Completeness



**Table 2.3 Noise database: major railways' completeness**

Reporting year	Noise sources <sup>(a)</sup>		Strategic noise maps <sup>(b)</sup>		Completeness (at country level)
	Length of major railways	Number of countries reporting data	Number of countries expected to report data	Number of countries reporting data	
2007	11 721	21	24	21	87 %
2012	40 066 <sup>(c)</sup>	26	28	17	60 %

**Note:** <sup>(a)</sup> Refers to agglomerations, major roads, major railways and major airports designated by the END where strategic noise maps and action plans should be developed. This information is made available to the European Commission 2 years before the submission of the strategic noise maps (Art. 7).

<sup>(b)</sup> Refers to information on noise exposure and on noise contour maps to be submitted to the European Commission in those areas (agglomerations, major roads, major railways and major airports) designated by the END (Art. 7, Annex VI).

<sup>(c)</sup> Denmark, France, Germany, Greece, Italy, Luxembourg, the Netherlands: Data on length of major railways infrastructure not complete.



# Noise in Europe 2014: Completeness



**Table 2.4 Noise database: major airports' completeness**

Reporting year	Noise sources (a)	Strategic noise maps (b)		Completeness
	Number of major airports	Number of major airports		
2007	78	74		95 %
2012	91	56		62 %

**Note:** <sup>(a)</sup> Refers to agglomerations, major roads, major railways and major airports designated by the END where strategic noise maps and action plans should be developed. This information is made available to the European Commission 2 years before the submission of the strategic noise maps (Art. 7).

<sup>(b)</sup> Refers to information on noise exposure and on noise contour maps to be submitted to the European Commission in those areas (agglomerations, major roads, major railways and major airports) designated by the END (Art. 7, Annex VI).



### Table 2.5 Noise database: agglomerations' completeness

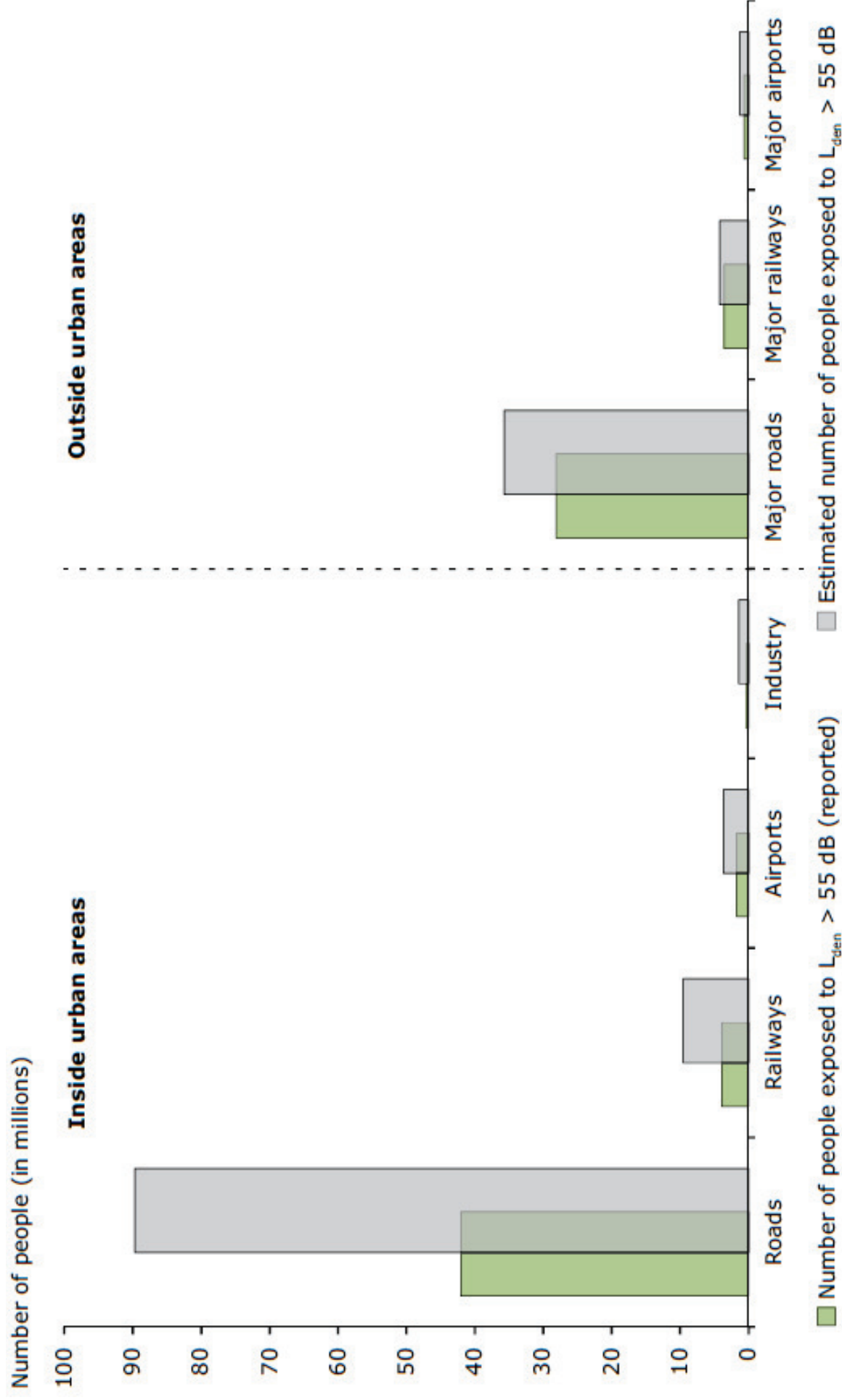
Reporting year	Noise sources <sup>(a)</sup>	Strategic noise maps <sup>(b)</sup>				Completeness
		Number of agglomerations	Source	Number of agglomerations to be reported	Number of agglomerations reported	
2007	164	Road	163 <sup>(c)</sup>	154	9	94 %
		Rail	161	145	16	90 %
		Aircraft	138	121	17	87 %
		Industry	159	137	22	86 %
2012	471	Road	471	294	177	62 %
		Rail	460	270	190	57 %
		Aircraft	381	167	214	44 %
		Industry	463	260	203	56 %

**Note:** <sup>(a)</sup> Refers to agglomerations, major roads, major railways and major airports designated by the END where strategic noise maps and action plans should be developed. This information is made available to the European Commission 2 years before the submission of the strategic noise maps (Art. 7).

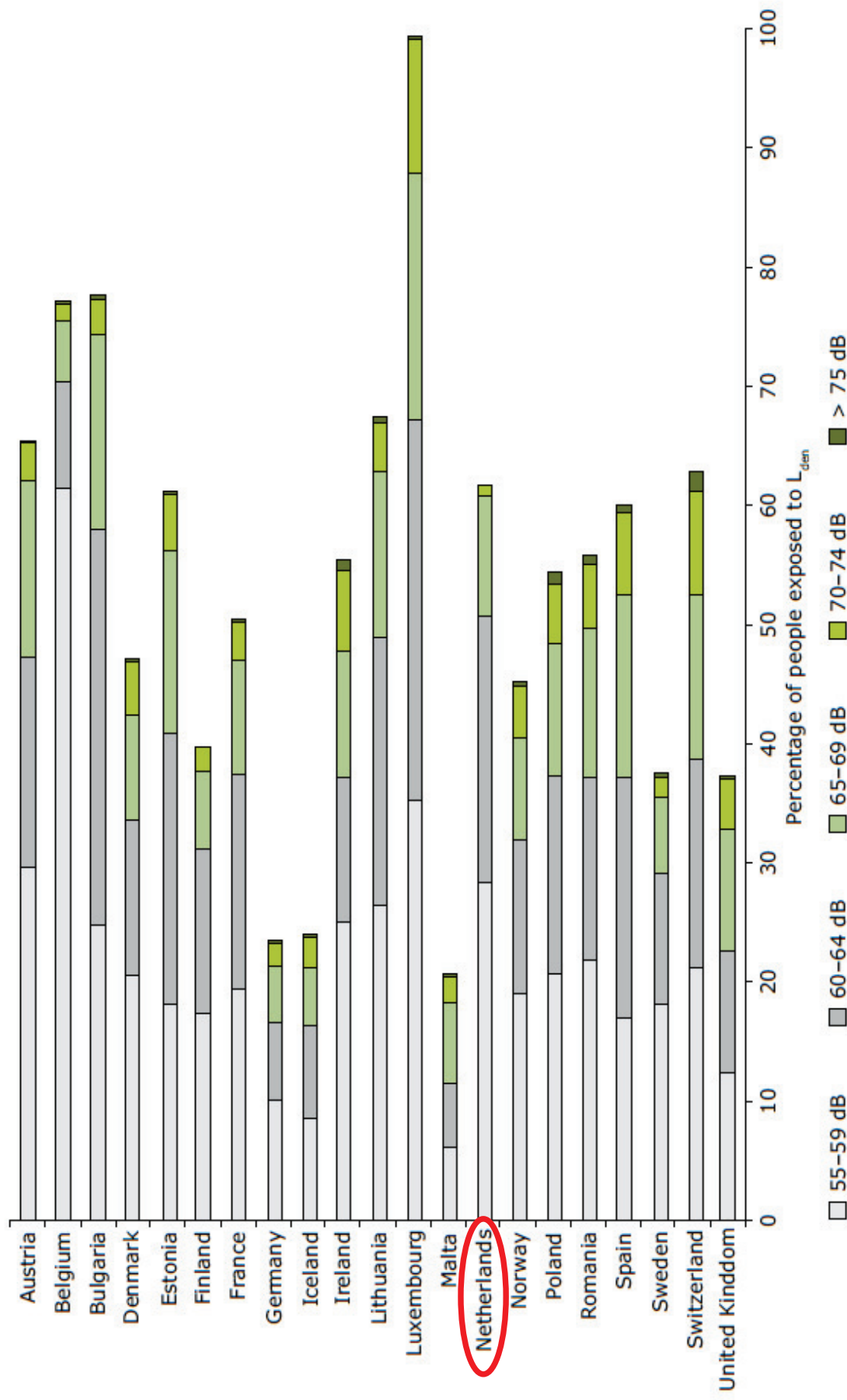
<sup>(b)</sup> Refers to information on noise exposure and on noise contour maps to be submitted to the European Commission in those areas (agglomerations, major roads, major railways and major airports) designated by the END (Art. 7, Annex VI).

(c) One agglomeration that was included in the database according to a Member State's delivery, but declared afterwards as not being anymore an agglomeration for the first reporting period.

# Noise in Europe 2014: Core Set Indicator



**Figure 3.6 Percentage of population exposed to road noise,  $L_{den}$ , in 294 urban areas, EEA member countries (2012)**

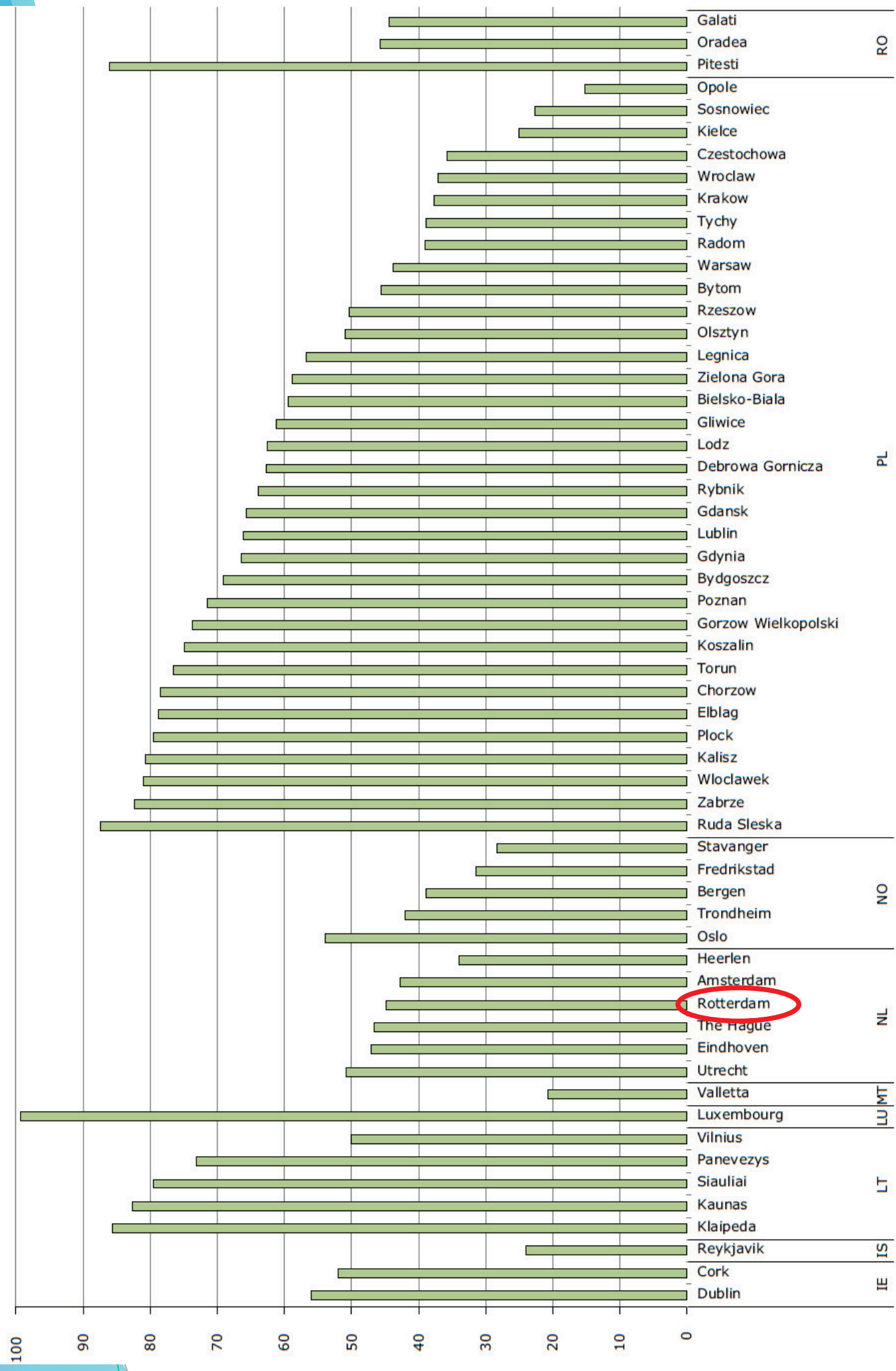


**Note:** France: Only reported agglomerations from 100 000 to 250 000 inhabitants in 2012.

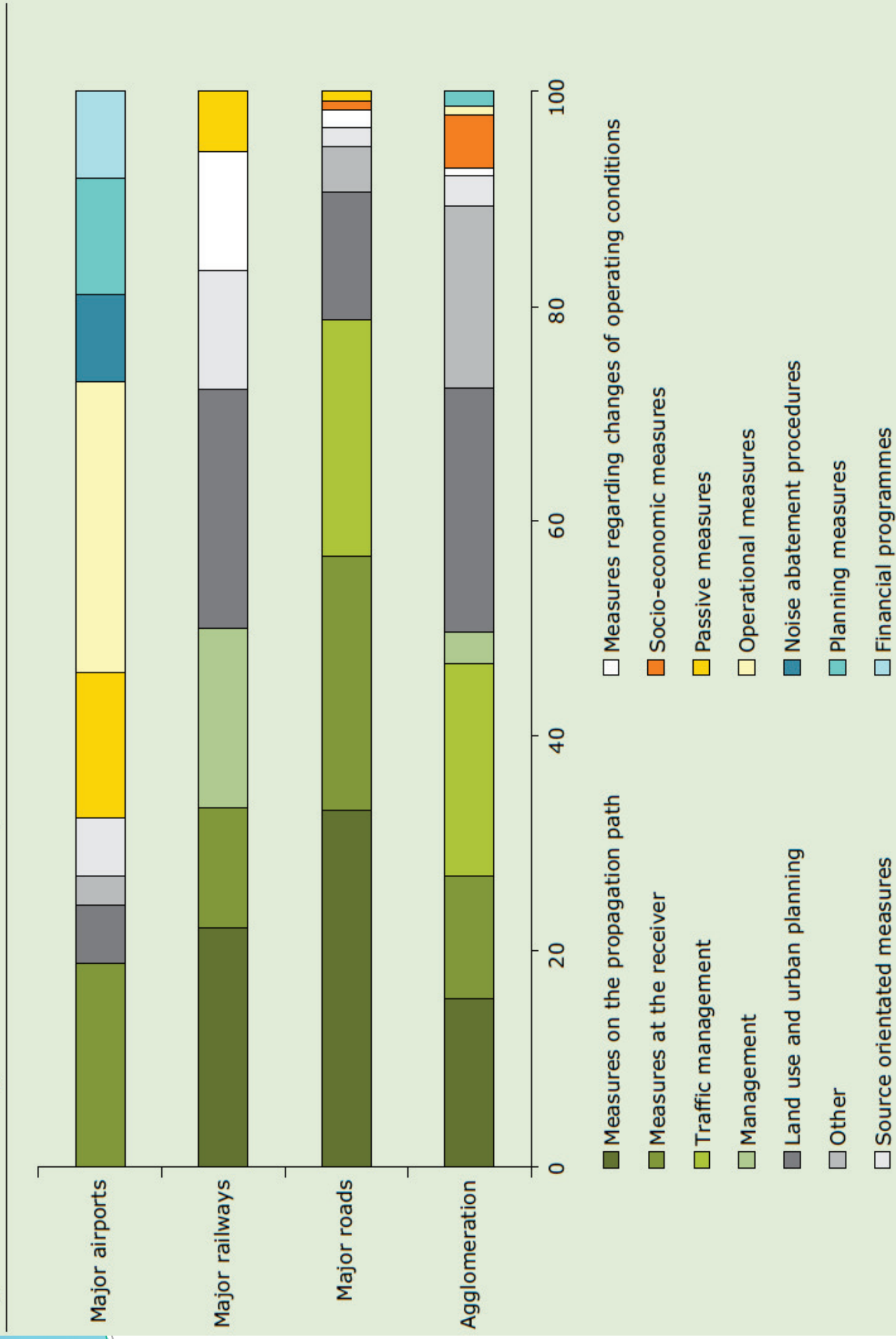
Liechtenstein: Data not applicable (there is no agglomeration above 100 000 inhabitants in the country).

Cyprus, Czech Republic, Greece, Hungary, Italy, Latvia, Portugal, Slovenia, Slovakia: Data not provided.

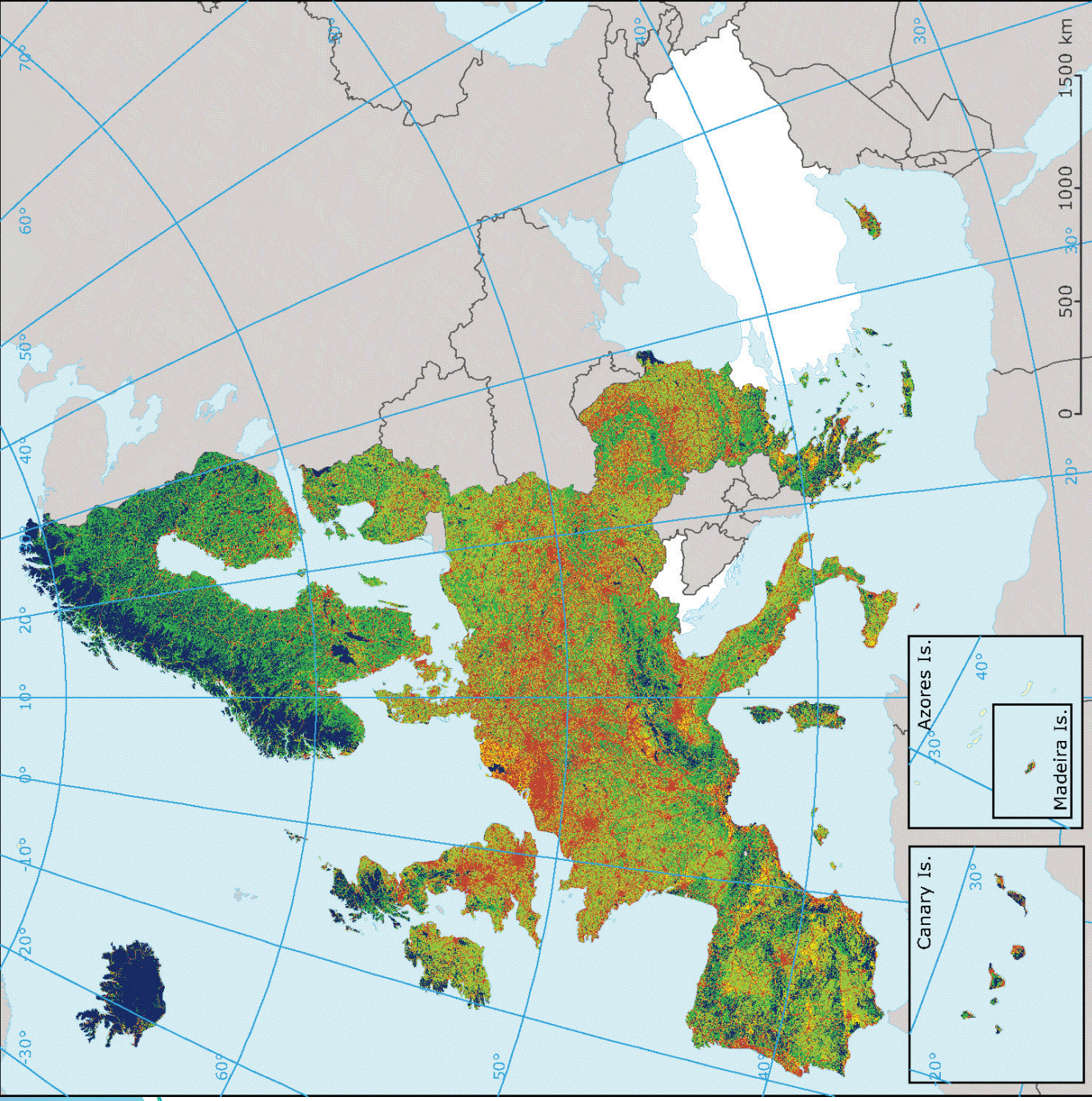




**Figure 5.1 Analysis of END action plan measures**







# Quietness Suitability index (QSI)

Value

High : 1

Low : 0

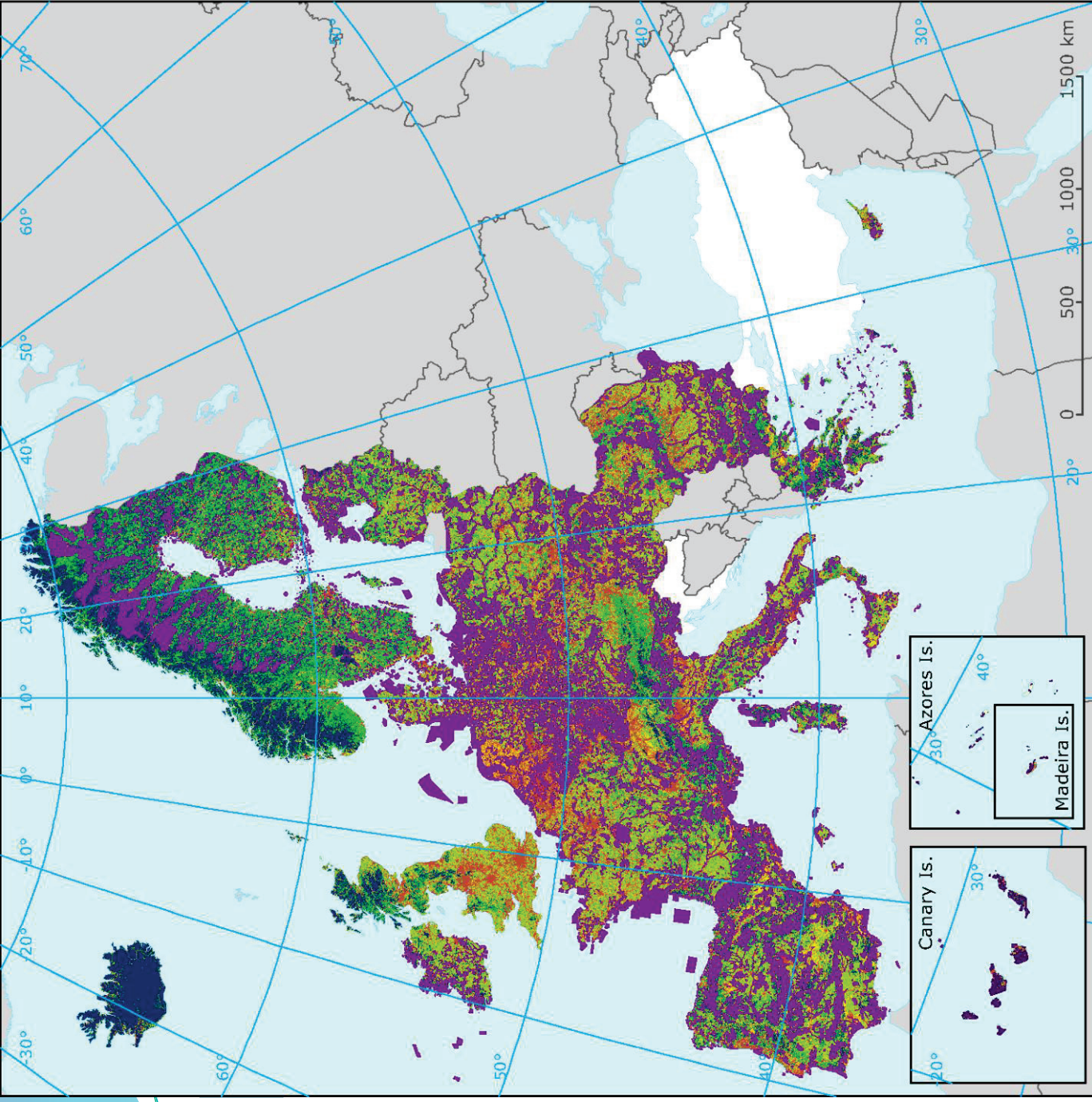
No data

Outside coverage



European Environment Agency





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**Figure 5.4 Total and protected quiet areas (QSI = 1) by country**







Source: Dublin City Council, 2012



European Environment Agency





**Quiet Areas In Dublin City**

Quiet Area

Quiet Area

Quiet Area

Legend:

- dB(A)
  - 90
  - 85
  - 80
  - 75
  - 70
  - 65
  - 60
  - 55
  - 50
- Dublin Lden
  - Lower 60
  - Upper 65

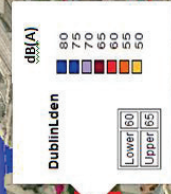
Google Earth

Dublin City

lat: 53.3370819 lon: -6.2234429 elev: 28 m

### Quiet Area

**Quiet Area**



Google earth

lat	53.337081°	lon	-6.273442°	elev	28 m	eye alt	210 m
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Rotterdam 19-20 February 2015

LIFE10ENV/IT/407 With the contribution of the LIFE financial instrument of the European Community

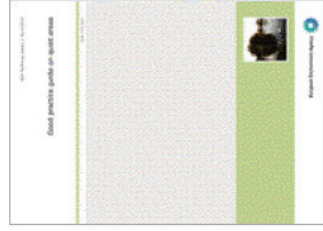


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## Good practice guide on quiet areas

Topics: [Noise](#) [Transport](#) [Industry](#)

### Technical report No 4/2014



Noise pollution is a growing problem for Europe's environment. Transport and industry are the main sources of concern and long term exposure can damage human health and adversely affect ecosystems. European legislation aims to reduce noise pollution and also highlights the need to preserve areas that are currently unaffected. These so called quiet areas may be found, not only in rural areas, but also inside our busiest cities. They are not only where people recreate, but also where they live and work, so how can they be identified and preserved in order to protect environmental health and well-being? This report offers a digest of actions from all across Europe to identify and protect environments with good acoustic quality.

### Published by

- EEA (European Environment Agency)
- Published: 30 Apr 2014

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-  Tech 04 2014 Guide on quiet areas high res.pdf [12.6 MB]

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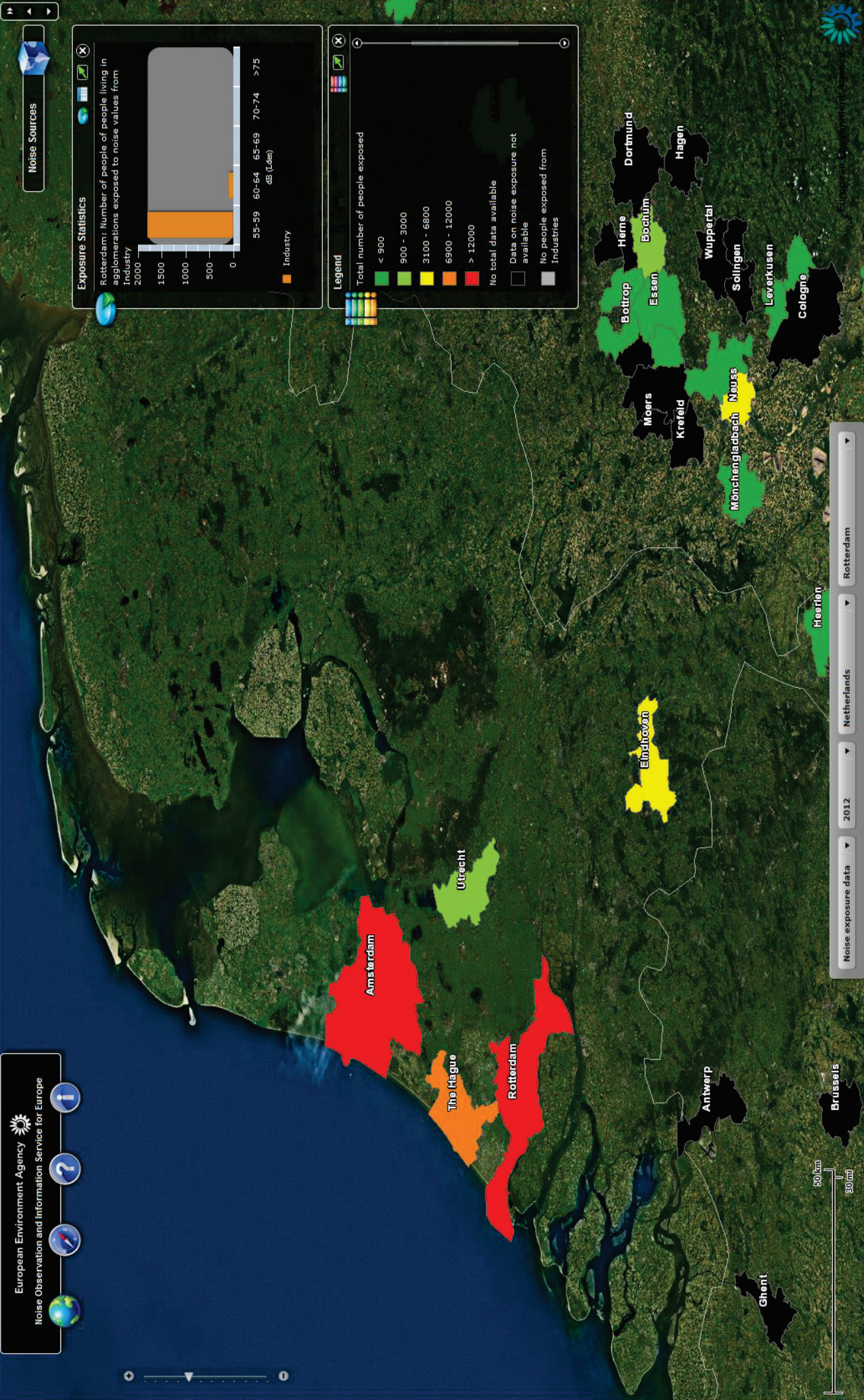
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## Reporting obligations : DG ENV (EC)-European Commission, Directorate General Environment [Noise]

### Show reporting obligations

Country

Issue

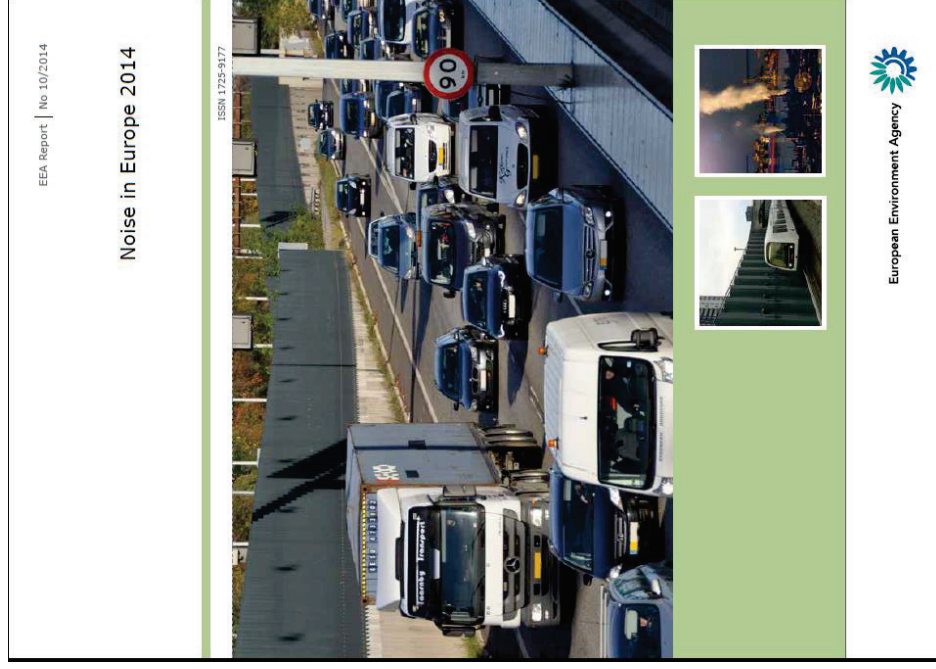
Organisation

☐ Include terminated obligations

8 items found, displaying all items.<sup>1</sup>

Reporting obligation	Legislative instrument	Report to	Deadline
Action plan summaries (DF 7 and DF 10)	Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise	DG ENV (EC)	2019-01-18
Competent bodies (DF 2)	Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise	DG ENV (EC)	2005-07-18
Definition of reporting structure (DF 0)	Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise	DG ENV (EC)	Continuous...
Limit values in force report (DF 3)	Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise	DG ENV (EC)	2005-07-18
MSFD reporting on Initial Assessments (Art. 8). Good Environmental Status (Art.9). Env. targets & associated indicators (Art.10) & related reporting on geographic areas, regional cooperation and metadata.	Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy	DG ENV (EC)	2018-10-15
Noise control programmes (DF 6 and DF 9)	Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise	DG ENV (EC)	2014-01-18
Report on all major roads, railways, airports and agglomerations (DF 1 and DF 5)	Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise	DG ENV (EC)	2015-06-30

# Noise in Europe 2014



# Thank you

<http://www.eea.europa.eu/publications/noise-in-europe-2014>

