

Exposure to Road Traffic Noise in Europe

Colin Nugent | CEDR SYMPOSIUM Road Traffic Noise Management and Abatement | Copenhagen | 15 May 2017

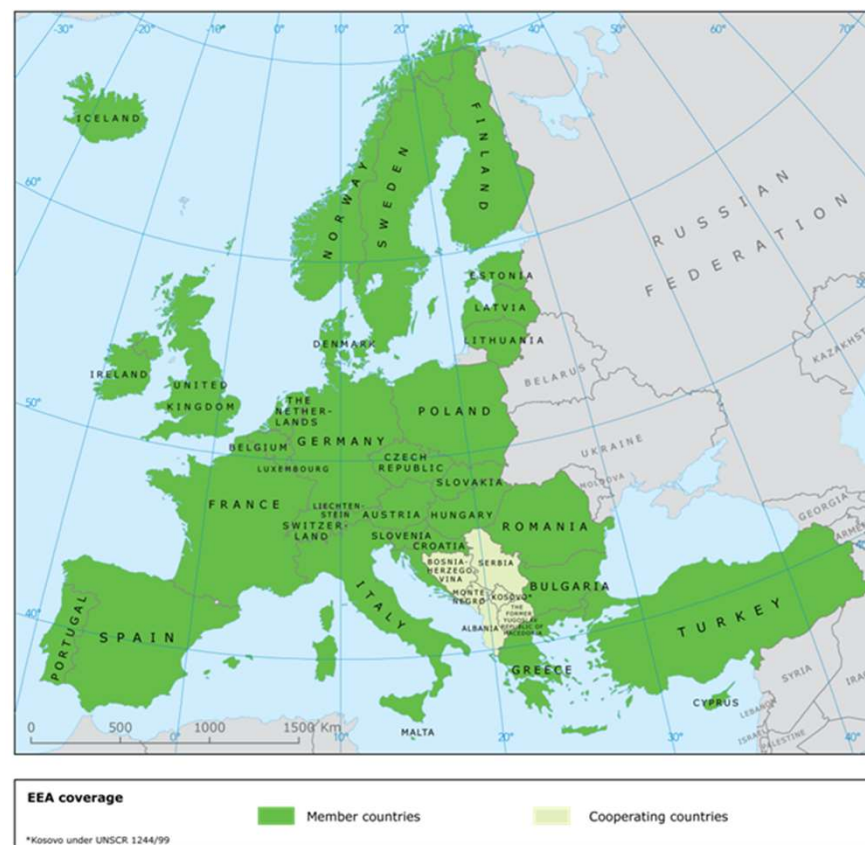


The European Environment Agency

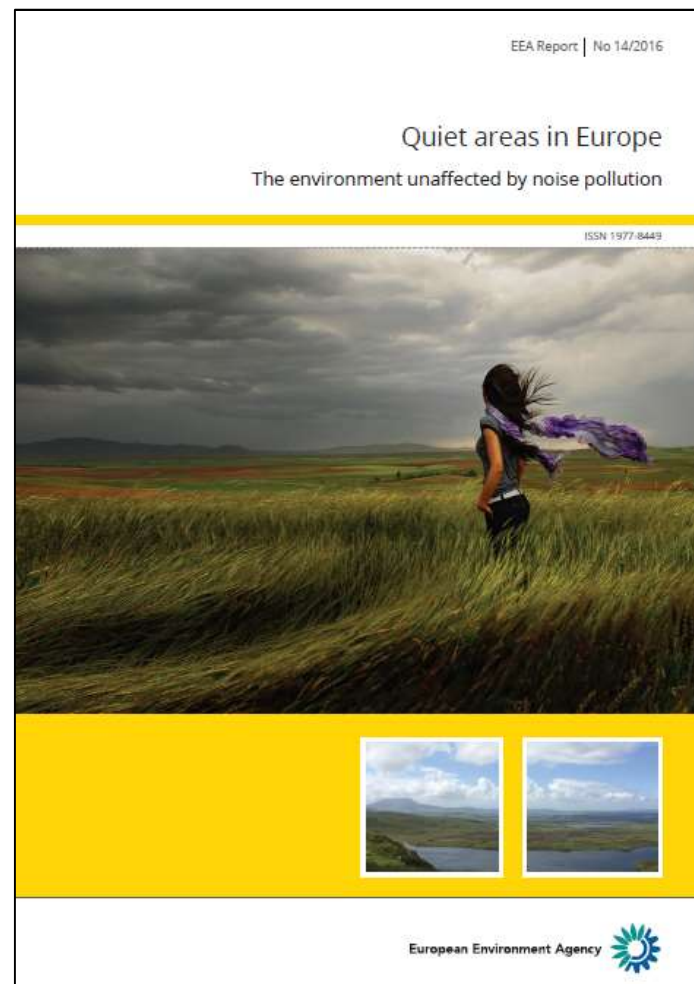
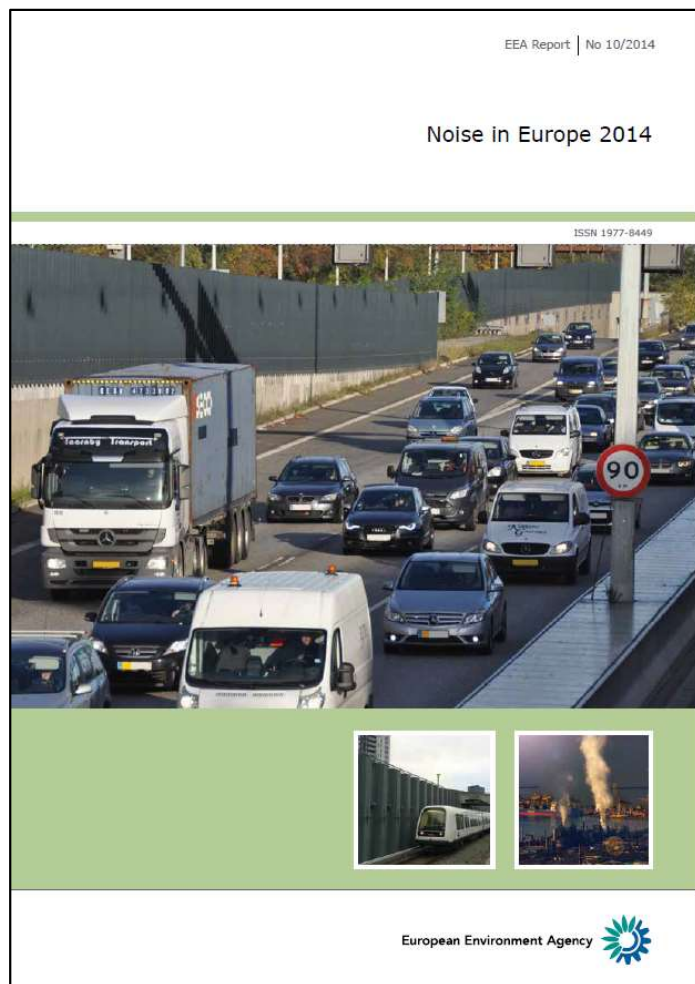
The European Environment Agency is an EU body that operates at the interface of science and policy.

With a network of more than 400 institutions in 39 European countries, the EEA provides timely, reliable and relevant information to support sustainable development.

The EEA's work is targeted at EU institutions, EEA member countries, civil society and the general public.



EEA noise assessments



Updated assessments for 2017

EEA BRIEFING
01/2017

Managing exposure to noise in Europe

Managing exposure to noise in Europe

Noise pollution poses a high risk to human health. This briefing presents updated estimates of the numbers of people exposed to environmental noise pollution in Europe. It also provides a new summary of the measures being used in Member States to manage noise. Road traffic remains by far the most important source of environmental noise: at least 100 million people are exposed to levels of traffic noise that exceed the European Union's (EU) indicator of noise annoyance.

Main messages:

- Noise pollution remains a major environmental health problem in Europe.
- Road traffic is the dominant source of environmental noise, with an estimated 100 million people affected by harmful levels. Railways, airports and industry are also important sources of noise.
- A wide range of measures is included in the noise management action plans established by Member States. Not surprisingly, measures targeting road traffic management are most commonly listed in cities. Such measures include replacing road surfaces, improving traffic flow and introducing lower speed limits.
- The EU's Seventh Environment Action Programme (7th EAP) sets the objective that, by 2020, noise pollution in the EU will have significantly decreased, moving closer to the levels recommended by the World Health Organization (WHO).

In 2014, the European Environment Agency (EEA) published its first pan-European assessment on the state of noise pollution in the environment — the Noise in Europe 2014 report. This assessment was based upon data reported to the EEA by its member countries in accordance with the Environmental Noise Directive (END) (2002/49/EC). Since then, additional data for the year 2012 have been reported to the EEA by a number of countries, which now allows a more informed assessment to be made.




European Environment Agency 


eea.europa.eu/themes/human/noise


Country fact sheet

Noise in Europe

2017 overview of policy-related data



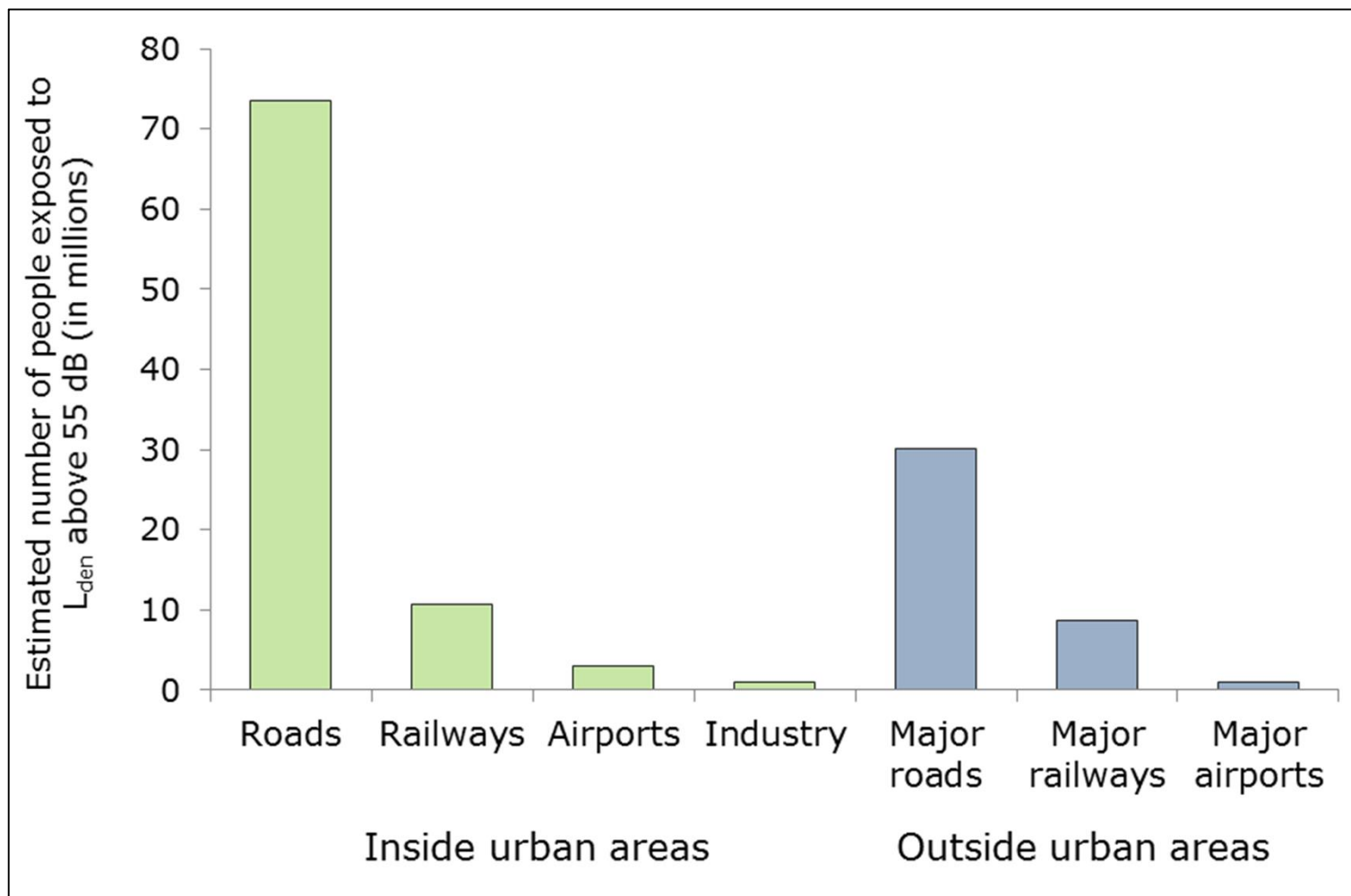
Croatia 
April 2017

European Environment Agency 

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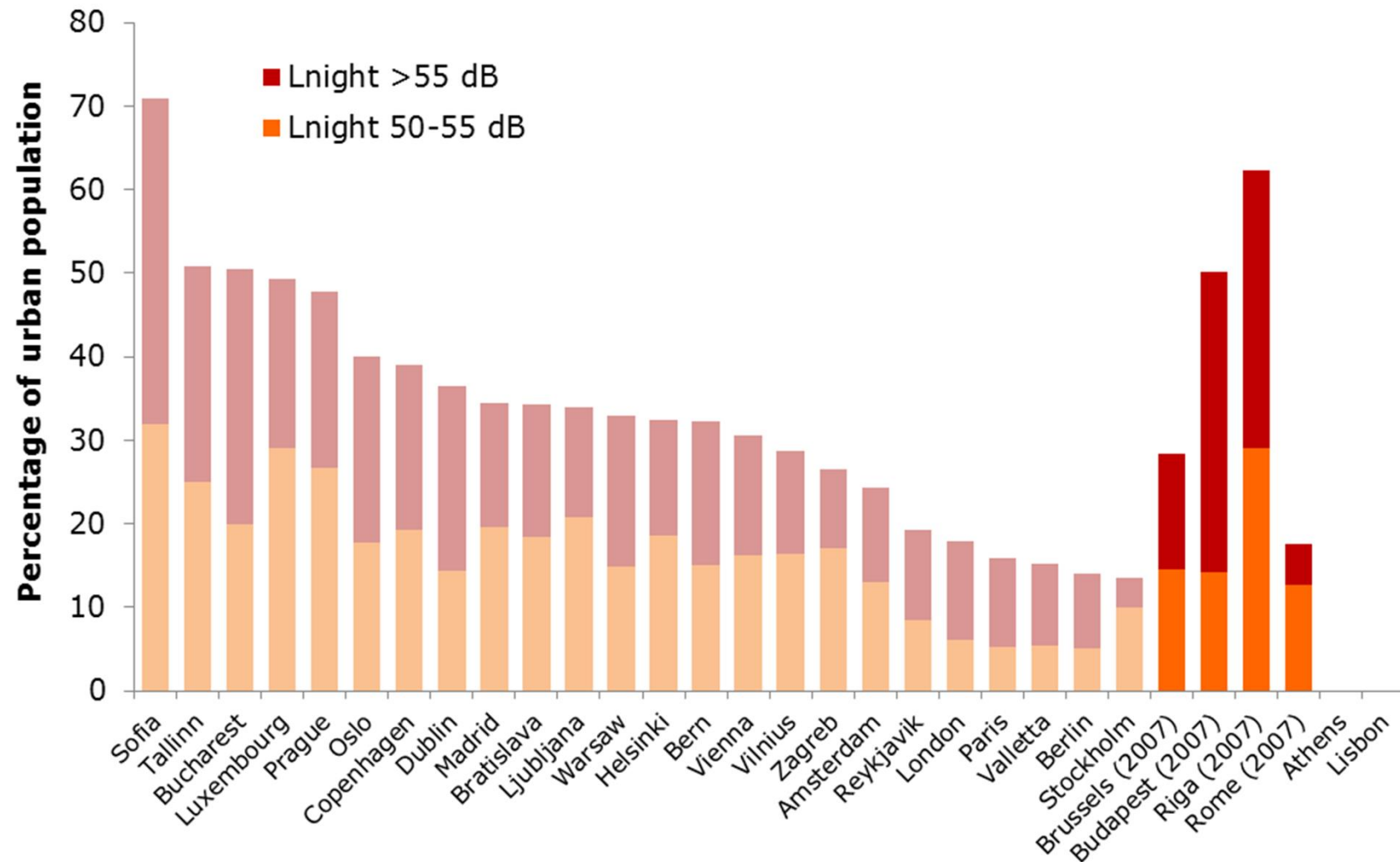


Core Set Indicator: Exposure to noise in Europe



END 2012 data as reported to EEA up to 15 April 2016

Night-time road noise and the WHO Interim Target



Impact of noise in Europe

Noise levels from road traffic that are greater than 55 dB L_{den} affect more than **100 million people** — **one in five Europeans**.



 **> 55 dB L_{den}**



ANNOYANCE



31 700 000

Almost 32 million Europeans are annoyed by environmental noise.

SLEEP DISTURBANCE



13 100 000

More than 13 million Europeans suffer sleep disturbance due to environmental noise.

HEALTH IMPACTS



72 000

Noise pollution causes 72 000 hospital admissions in Europe per year.

PREMATURE DEATHS



16 600

Noise pollution causes hypertension and cardiovascular disease, leading to an estimated 16 600 premature deaths annually in Europe.

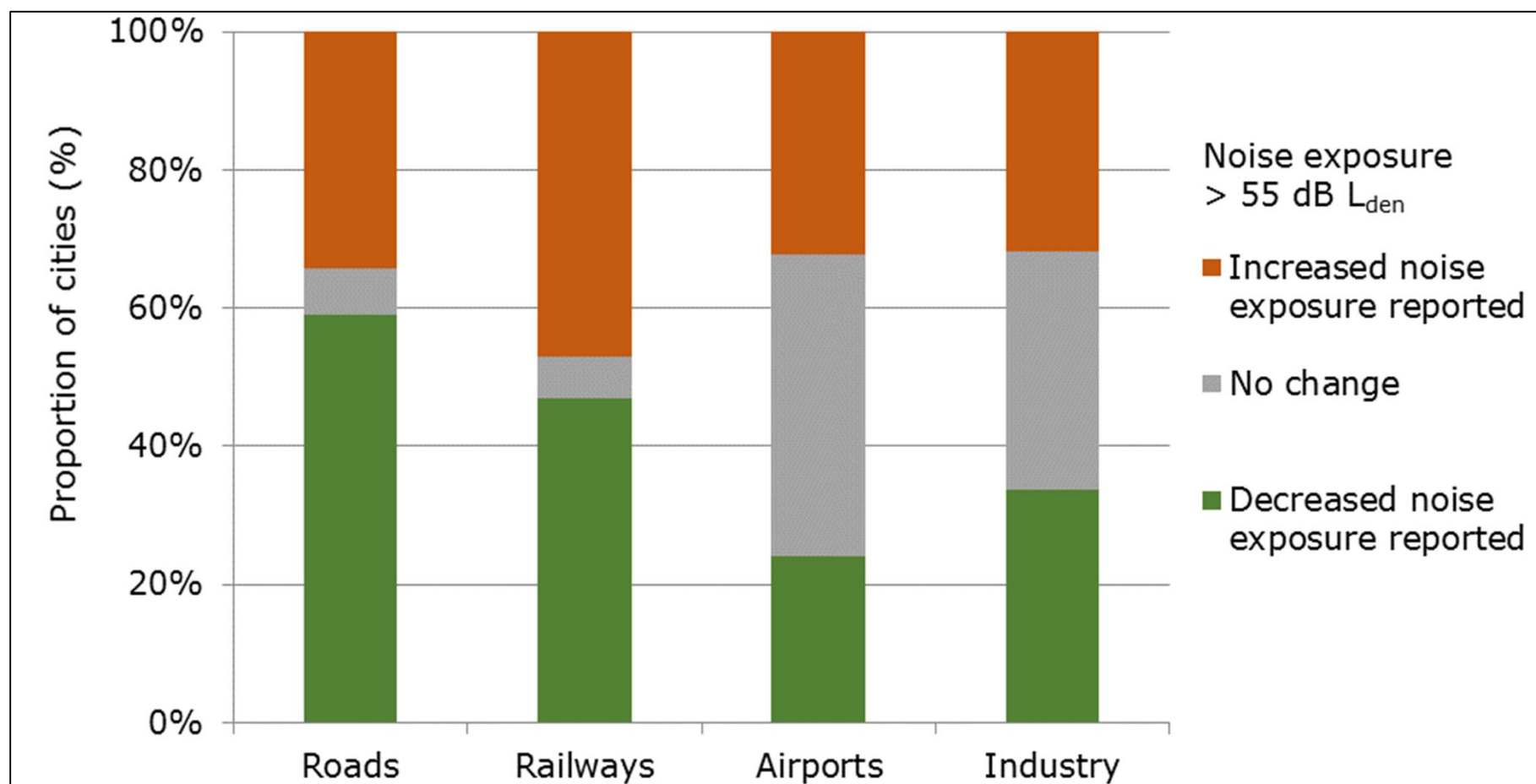
Road traffic account for 80 - 85% of the impact

70% of which occurs in cities

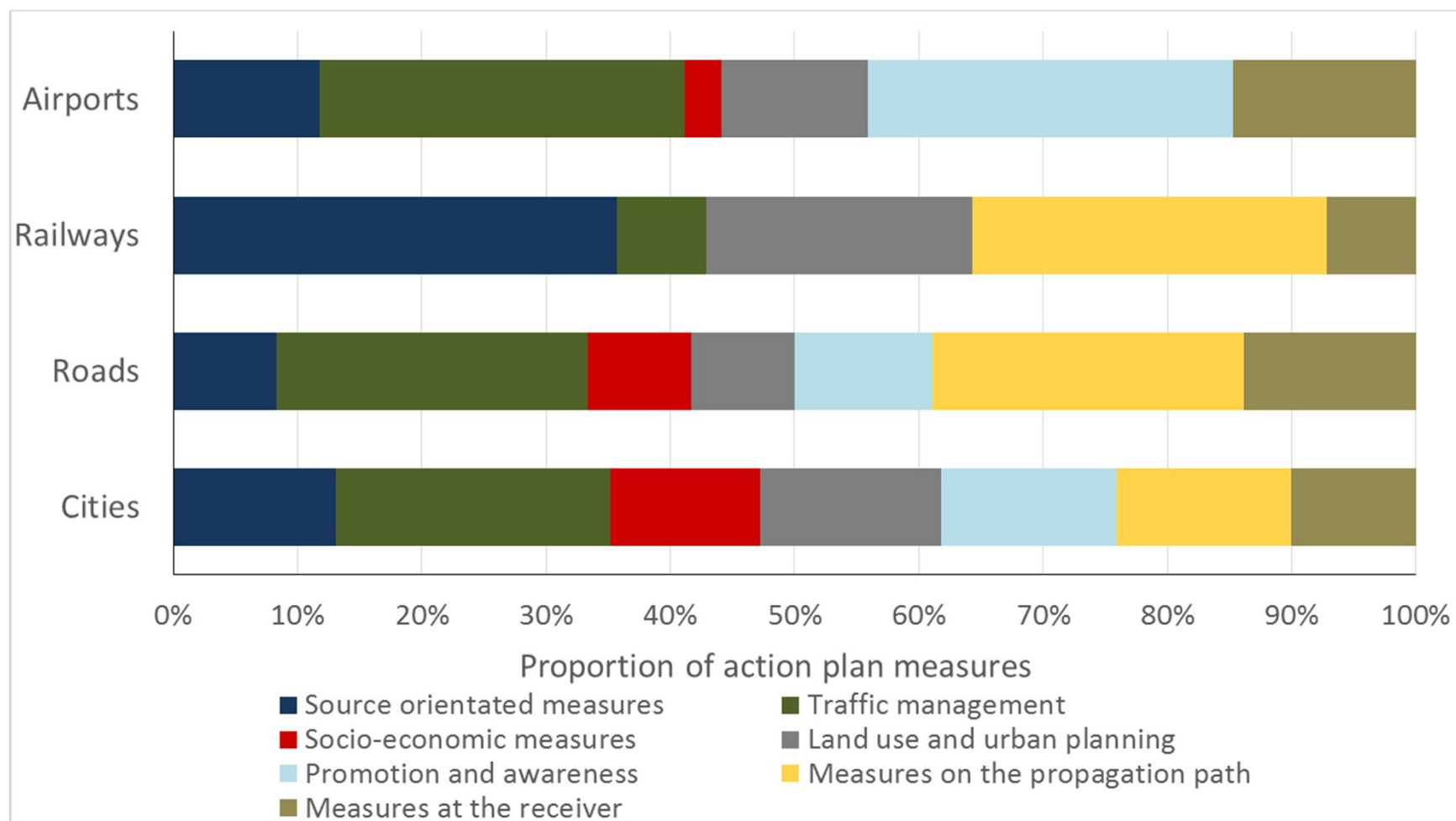
Tracking progress to the EU's 7EAP objectives

Cities have reported both increases and decreases in noise exposure between 2007 and 2012.

Overall a net decrease is reported, but results are distorted.



END action plan analysis



Measures at the receiver include:

- Improving sound insulation in buildings
- Improved building design and room allocations

EU indicators for noise pollution

55dB 50dB

L_{den}: day-evening-
night

L_{night}: night

Established by the EU
Environmental Noise Directive
(END)



Explore further



*The **NOISE** Observation & Information Service for Europe*

NOISE pollution is a major
environmental concern in
Europe.

Explore **NOISE** maps to see
environmental noise levels
from:

- Roads
- Railways
- Airports
- Industry
- And in cities where you
live.



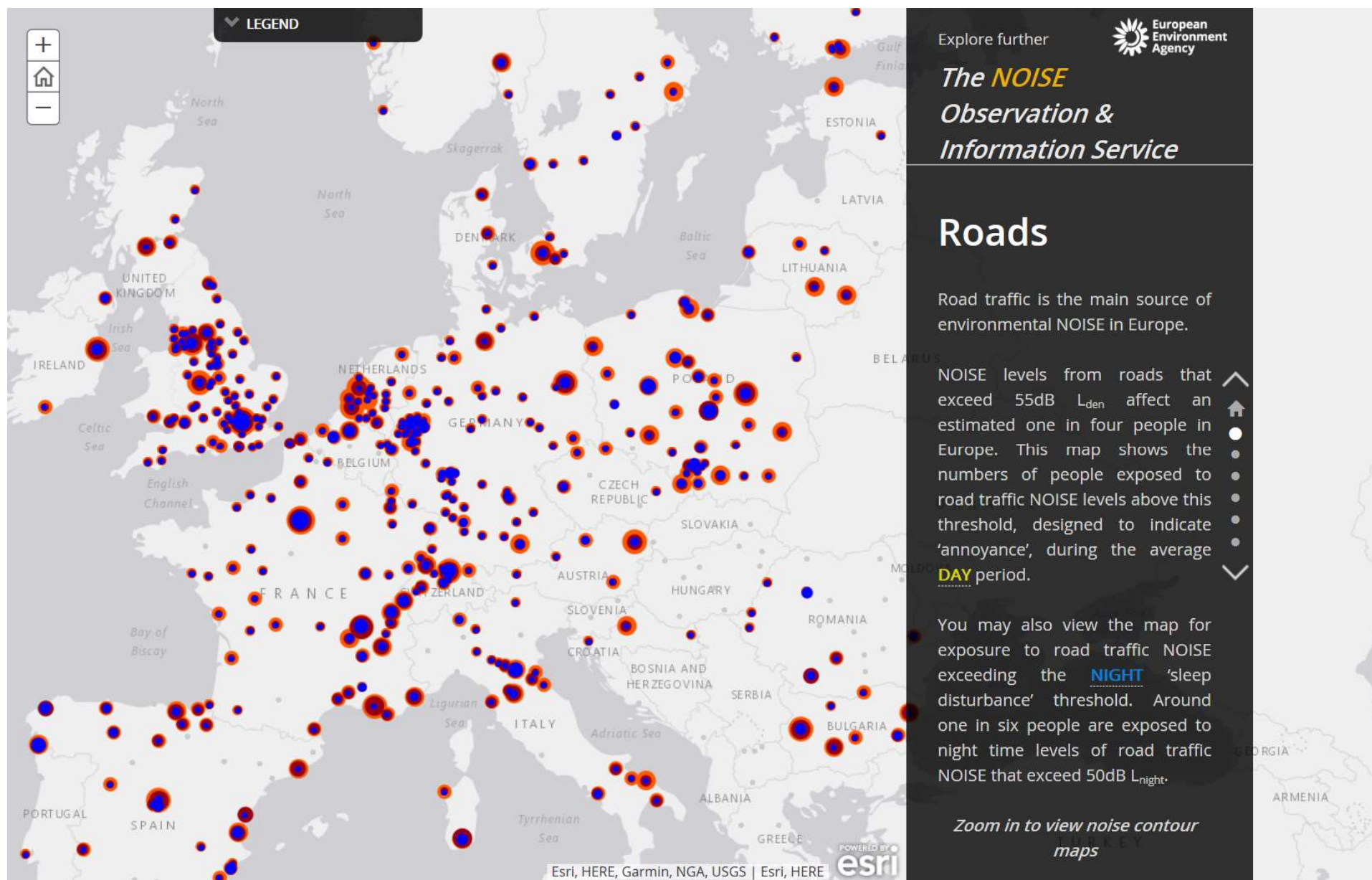
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NOISE

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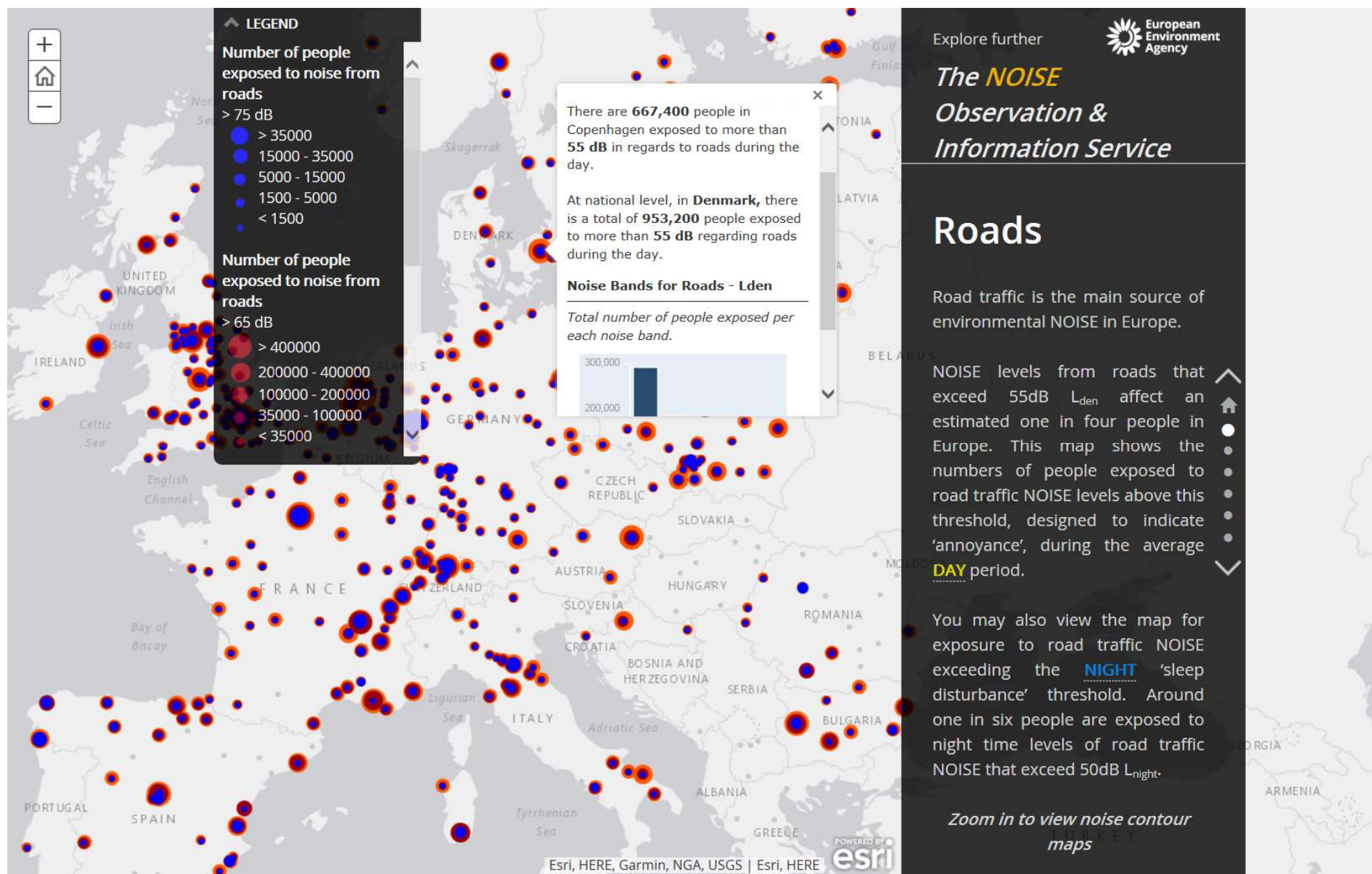
[NOISE.eea.europa.eu](https://noise.eea.europa.eu)

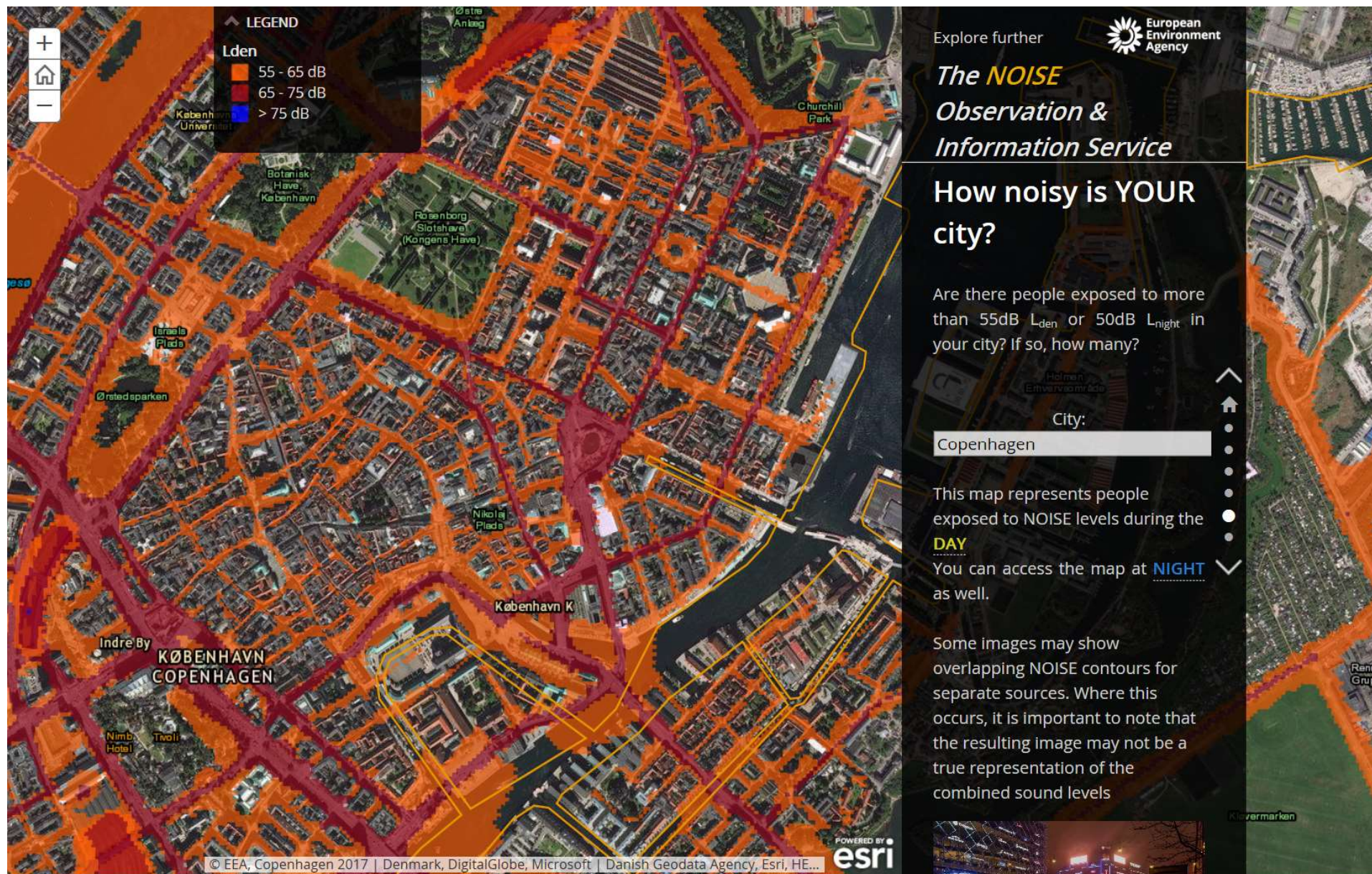
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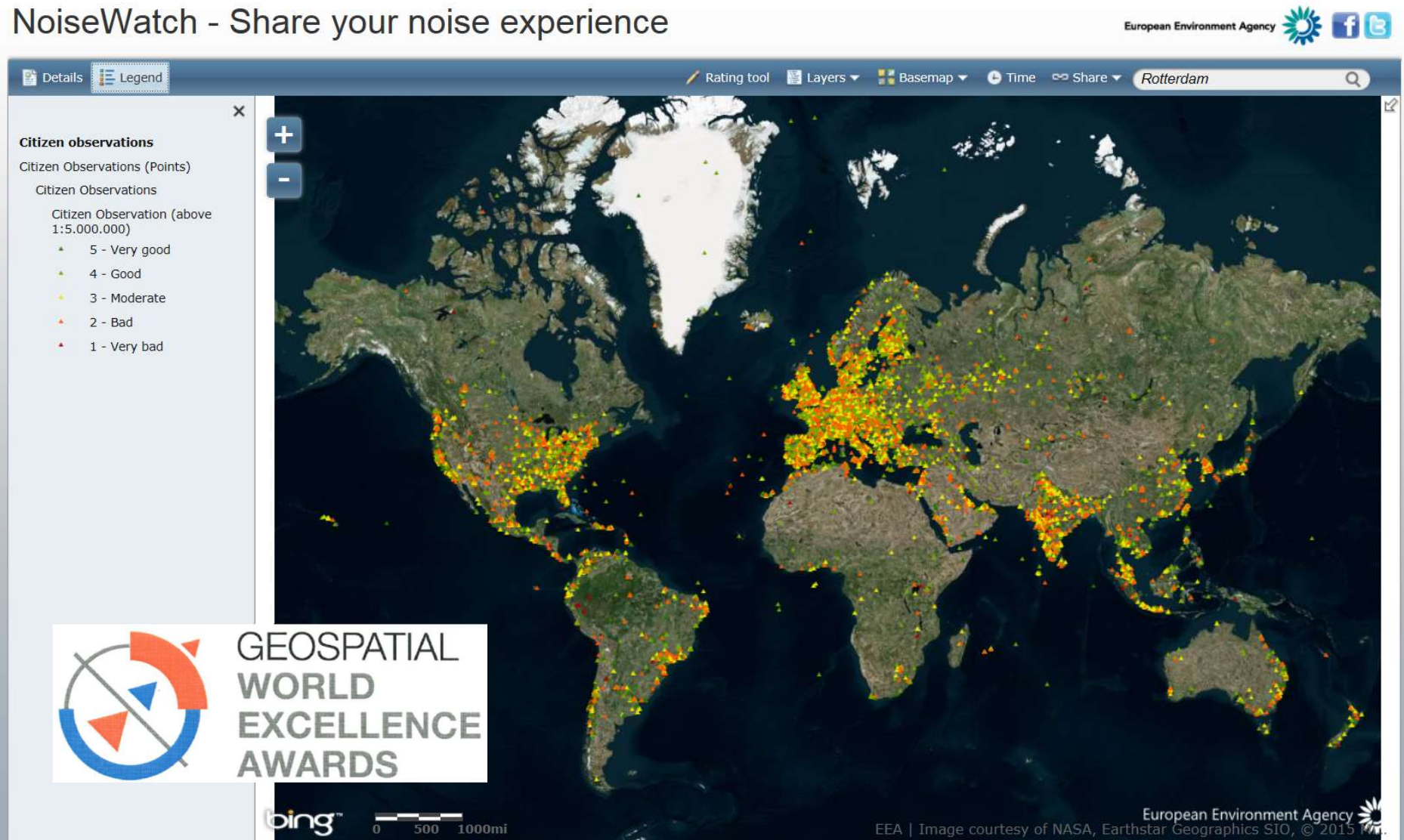




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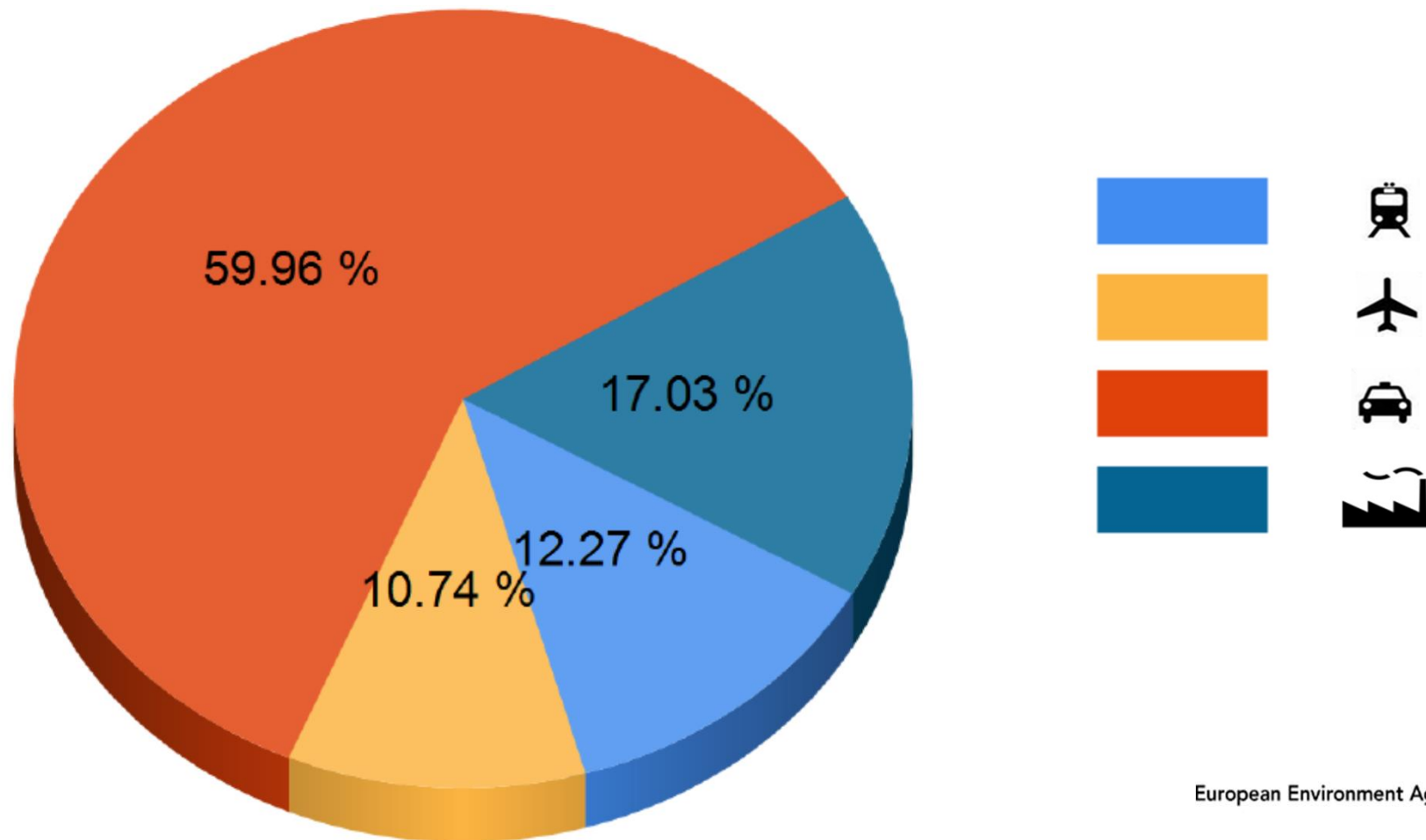
Citizen Science

NoiseWatch - Share your noise experience



NoiseWatch source tags 2012 - 2016

>320,000 ratings



Thank you

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Noise Observation & Information Service for Europe

<http://noise.eea.europa.eu>

EEA Data Service for Noise

<http://www.eea.europa.eu/data-and-maps/data/data-on-noise-exposure-2>

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