

Noise in Europe

2017 overview of policy-related data



Denmark 

April 2017

Photo: © Matthias Hintzsche



The Environmental Noise Directive (END) requires EU member states to assess exposure to noise from key transport and industrial sources with two initial reporting phases: 2007 and 2012. Where the recommended thresholds for day and night indicators are exceeded, action plans are to be implemented. This country fiche presents data related to END assessments as reported to EEA by 15th April 2016 for the two key END indicators: L_{den} (day evening and night exposure) and L_{night} (night time exposure). 2012 strategic noise maps reported are presented, as well as HIA calculations for annoyance and sleep disturbance, hospital admissions and mortality. Trends are presented as the change in exposure from 2007 to 2012, for comparable sources only.

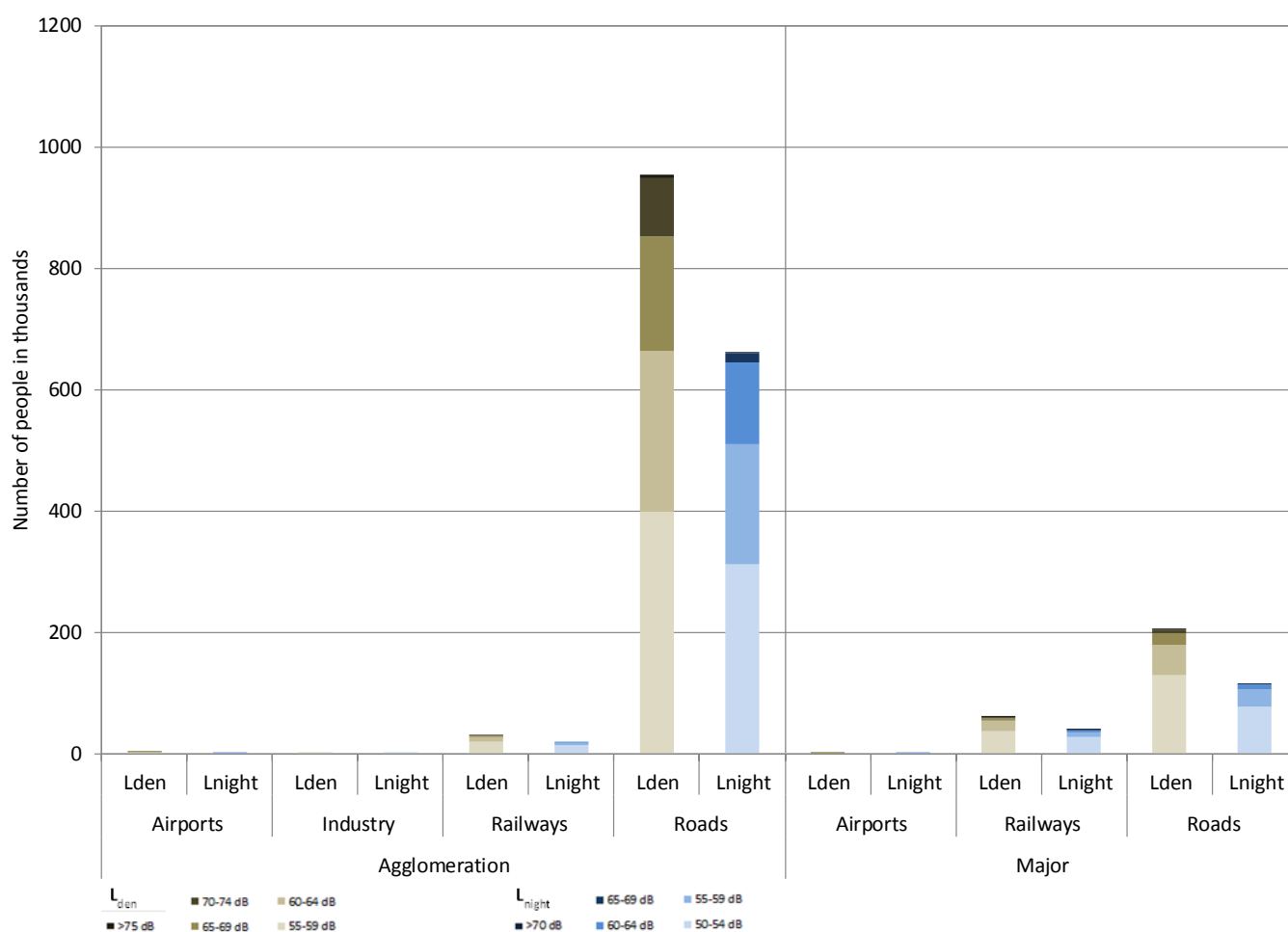


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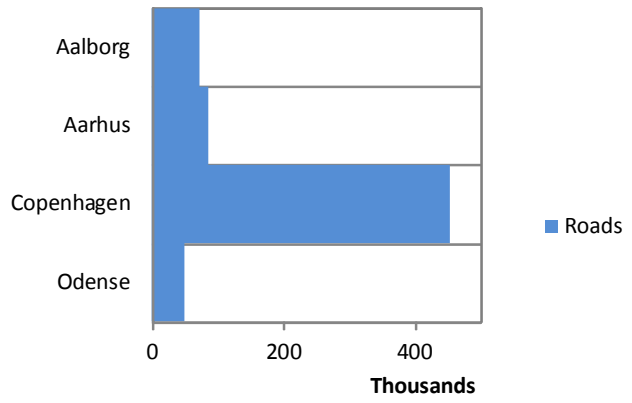
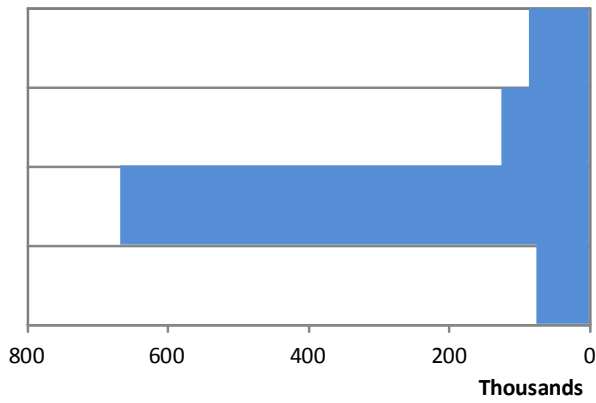
Noise sources covered by this assessment

Agglomerations > 100.000 inhabitants	Aalborg, Aarhus, Copenhagen, Odense 4 agglomerations in total, covering 1.684.000 inhabitants
Major airports > 50.000 movements per year	Billund Airport, Copenhagen Airport, Roskilde Airport 3 major airports in total
Major roads > 3 million vehicles per year	1043 km in total (length includes only major roads > 6 million vehicles/year)
Major railways > 30.000 train passages per year	894 km in total

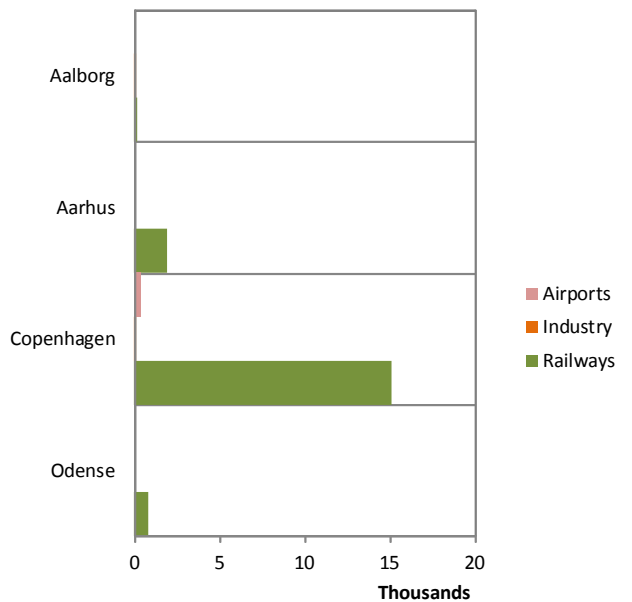
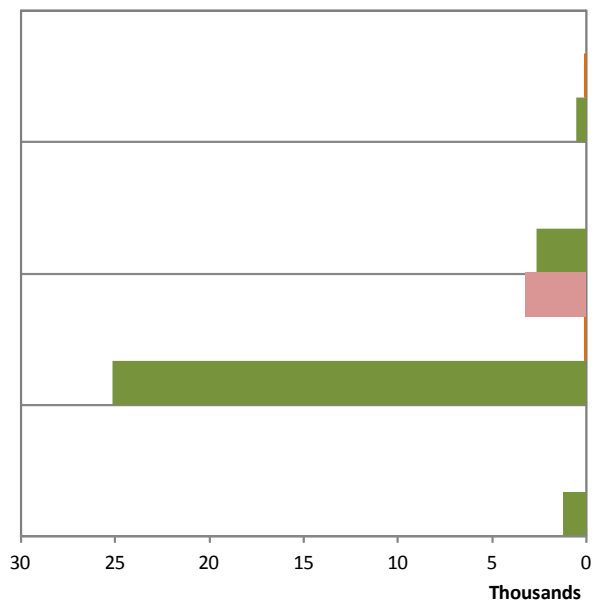
Number of people exposed to different noise bands per L_{den} and L_{night} (2012)



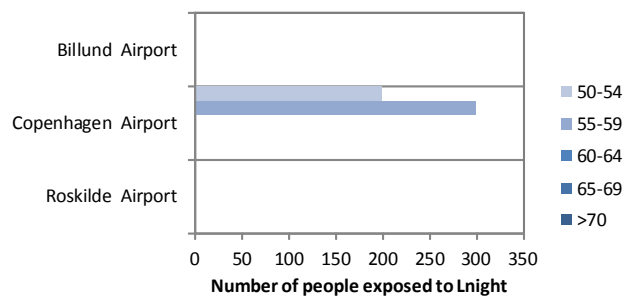
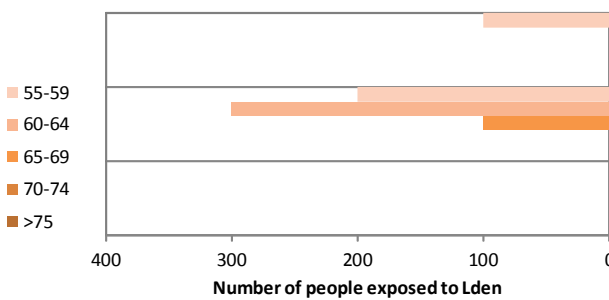
Total number of people exposed to road noise inside agglomerations (2012)



Total number of people exposed to railway, aircraft and industrial noise inside agglomerations (2012)



Total number of people exposed to Major Airports outside agglomerations (2012)



Noise contour maps (2012)

Major roads

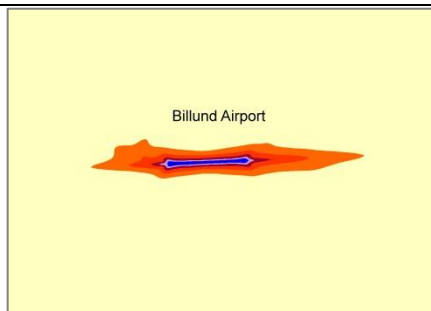


Major railways



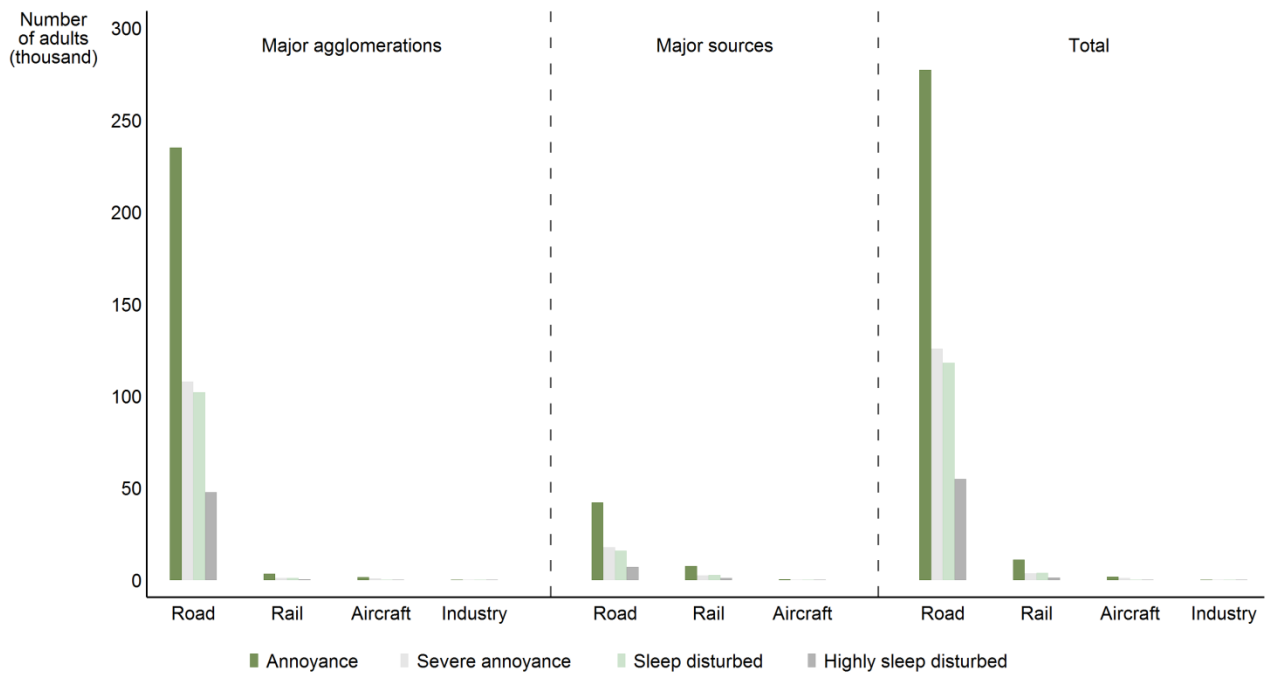
Major airports

Airport	ICAO	Annual traffic
Billund Airport	EKBI	57225
Copenhagen Airport	EKCH	258356
Roskilde Airport	EKRK	68217



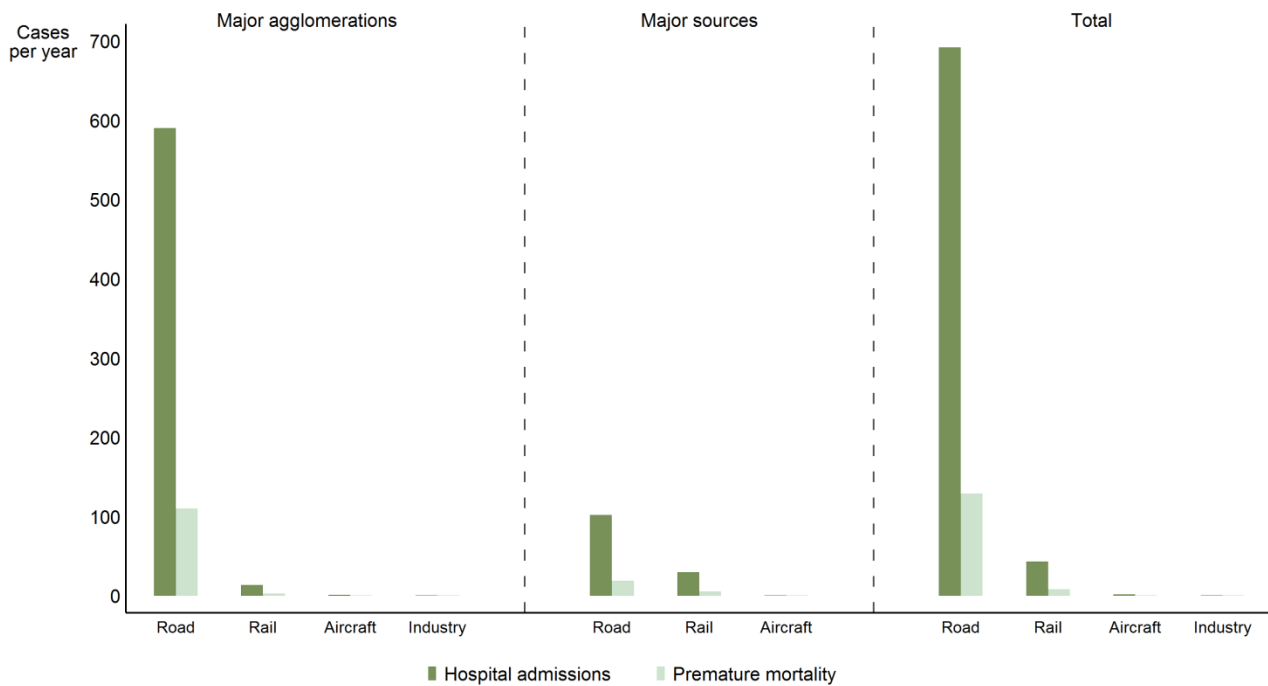
Health impact assessment

Annoyance and sleep disturbance



DK-02102016

Hospital admissions and mortality



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Trends on noise exposure 2007 - 2012

Trends on noise exposure are shown only in those cases where data is available for both implementation rounds:

- For major airports: total number of people exposed to more than 55 dB Lden and to more than 50 dB Lnight outside agglomerations.
- For agglomerations: percentage of population exposed to more than 55 dB Lden and to more than 50 dB Lnight due to different noise sources.


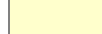

Major airports:

	L _{den}		L _{night}	
	First Round	Second Round	First Round	Second Round
Billund Airport	100	100	0	0
Roskilde Airport	100	0	0	0
Copenhagen Airport	600	600	500	500

Agglomerations:

Air (values in %)	L _{den}		L _{night}	
	First Round	Second Round	First Round	Second Round
Copenhagen	0	0	0	0

Industry (values in %)	L _{den}		L _{night}	
	First Round	Second Round	First Round	Second Round
Copenhagen	0	0	0	0

	Decrease in population exposed
	No change
	Increase in population exposed

Railway (values in %)	L _{den}		L _{night}	
	First Round	Second Round	First Round	Second Round
Copenhagen	2.8	2.2	1.8	1.3

Road (values in %)	L _{den}		L _{night}	
	First Round	Second Round	First Round	Second Round
Copenhagen	59	57	46	39

For further information about environmental noise in Europe please consult <http://www.eea.europa.eu/themes/human/noise> or visit the Noise Observation & Information Service for Europe at <http://noise.eionet.europa.eu/> and EEA Data Service <http://www.eea.europa.eu/data-and-maps/data/data-on-noise-exposure-2>.