

END and Clean Air Directives Are Synergies Possible?



Environmental Noise Directive (END)
2002/49/EC adopted in June 2002

Clean Air Framework Directives

- Directive 96/62/EC
- Daughter Directives

Main source for air pollutants and noise in cities is traffic.
Synergies are possible in fulfilling requirements of directives on noise and clean air and for mitigation measures.


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Clean Air Framework Directives - Aims

- define and establish objectives for ambient air quality
- assess ambient air quality on the basis of common methods and criteria
- obtain information about air quality and make it available to the public
- maintain and where necessary improve air quality

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Clean Air Framework Directives - Cities

Most relevant pollutants:


- sulphur dioxide
- nitrogen dioxide
- lead
- carbon monoxide
- benzene
- ozone
- particulate matter (PM10)

Dates for meeting requirements: 2005 onward:

- alert thresholds
- monitoring/ other assessment requirements
- public information requirements

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3

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Data required for noise mapping and air analysis (Berlin)

(Source: Lehming, SenStadt-Berlin)	Noise	Air
geographic position data (coordinates) and elevation of streets	X	X
geographic position data (coordinates) and height of buildings	X	(X)
geographic position data (coordinates) and height of noise barriers, walls and other barriers.	X	
data on landscape profiles etc	X	
geographic position data of traffic lights	X	
coordinates of noise most exposed facades	X	
Data on noise barriers (composition, level of absorption etc.)	X	
nos. of persons affected	X	X
traffic volumes (type of vehicle, time of day)	X	X

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4

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Data required for noise mapping and air analysis (Berlin)

max. speed allowed / permissible	X	X
percentage of traffic jams / congestion		X
type of road (main road, side road etc.)		X
type of road (commercial road, residential street etc.)		X
sections of route / road with multiple noise reflection	X	
number and width of lanes	X	X
width of roads (and of central reservation)	X	X
type and condition of road surface	X	X
ratio of non-built up road length comp. with total road length (data available from noise calculation)	(X)	X
average heights of buildings	X	X
average width of street canon(s)	X	X

EA.UE 5

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Conclusions

- geographical data, data on traffic and on affected inhabitants can be collected and used in parallel
- separate assessments of traffic flows (costly) are not necessary (in some cases legal standards should be harmonised, types of vehicles for instance, 2,8 t / 3.5 t in the German case)
- considerable cost reduction is possible

EA.UE 6

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However

- schedules for reporting back to the European Commission have to be harmonised (Air: 2007 onward – every 3 years; END - 2007/8 onward - every 5 years)
- air pollution in cities is caused to a major extent by sources from outside while noise exposure results from local sources (efficiency of mitigation measures are different)

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7

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Joint action is possible and necessary – an example from the HEAVEN project

	LKW Verbot	Seed limits (30 km per h)
carbon-particulate matter	- 7 % (+/- 3)	- 3 % (+/- 3)
PM10	- 7 % (+/- 5)	- 2 % (+/- 3)
nitrogen oxide	- 20 % (+/- 10)	- 3 % (+/-2)
noise - day	- 1.3 dB(A)	-2.0 dB(A)
noise - night	-1.0 dB(A)	-1.2 dB (A)

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8

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Overall Conclusions

- local sources for air pollution and noise are identical to a large extent (traffic) and can be mitigated in parallel
- noise and clean air policies have to be integrated (also with other planning and action fields, spatial planning for instance)
- joint "lobbying" is possible and more effective (image of a city, health effects etc. and - thus - "societal" cost reduction)
- joint public participation and information campaigns have to be considered, tested and implemented