

END and Clean Air Directives Are Synergies Possible?



European Academy
of the urban Environment

Environmental Noise Directive (END)

Clean Air Framework Directives

- Directive 96/62/EC
- Daughter Directives

Some **other Directives** linked to noise (and clean air)

Examples and conclusions:

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.

END and Clean Air Directives Are Synergies Possible?



European Academy
of the urban Environment

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

END and Clean Air Directives Are Synergies Possible?



European Academy
of the urban Environment

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

END and Clean Air Directives Are Synergies Possible?



European Academy
of the urban Environment

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

END and Clean Air Directives Are Synergies Possible?



European Academy
of the urban Environment

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

END and Clean Air Directives Are Synergies Possible?



European Academy
of the urban Environment

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 (~40 % and more)

END and Clean Air Directives Are Synergies Possible?



European Academy
of the urban Environment

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)

END and Clean Air Directives Are Synergies Possible?



European Academy
of the urban Environment

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)

END and Clean Air Directives Are Synergies Possible?



European Academy
of the urban Environment

Other directives linked to cities / noise / clean air

Monitoring greenhouse gas emissions

Decision 280/2004/EC is on monitoring and relates to the Clean Air Framework Directive and has similar requirements.

(Spatial) Planning

Strategic Environmental Assessment Directive (SEA)
2001/42/EC (July 2004)

END and Clean Air Directives Are Synergies Possible?



European Academy
of the urban Environment

Strategic Environmental Assessment Directive - aims:

- provide for a high level of protection of the environment
- contribute to the integration of environmental considerations into the preparation and adoption of certain plans and programmes
- not the size of area covered is important, but whether the plan or programme would be likely to have significant environmental effects
- environmental effects linked to other directives (e.g. clean air, noise etc)

Requirements include:

- preparation of an environmental report
- consultation with the public
- taking into account for decision making the results of the environmental report, and consultation, information of the public on the decision made

END and Clean Air Directives Are Synergies Possible?



European Academy
of the urban Environment

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) – policy integration
- 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

END and Clean Air Directives Are Synergies Possible?



European Academy
of the urban Environment

Thank you