

Barriers and Bottlenecks to implementing Integration

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EU limit values for PM₁₀ and NO₂

averaging period	limit value	attainment period
24 h	50 µg/m ³ PM ₁₀ 35 exceedances/year	1 Jan. 2005
1 year	40 µg/m ³ PM ₁₀	1 Jan. 2005
24 h	50 µg/m ³ PM ₁₀ 7 exceedances/year	1 Jan. 2010*
1 year	20 µg/m ³ PM ₁₀	1 Jan. 2010*
1 h	200 µg/m ³ NO ₂ 18 exceedances/year	1 Jan. 2010
1 year	40 µg/m ³ NO ₂	1 Jan. 2010

* indicative limit values, to be reviewed by the EU Commission

Avoidance Potential of premature Mortality by Use of Particle Filter:

Total Mortality: (3*0,6%)	1,8% (0,6 to 3,3%)
Cardio pulmonal Mortality (3*0,9%)	2,7% (0,9 to 4,8%)
Lung cancer – Mortality (3*1,4%)	4,2% (1,2 to 6,9%)

Total Mortality (800.000)	14.400	death cases per/a
Cardio pulmonal Mortality (460.000)	12.420	death cases per/a
Lung cancer (40.000)	1.680	death cases per/a

Source: Wichmann, Institute of Epidemiology, GSF

Summary of German studies:

Contribution of different sources to PM10 (including secondary particles) and NO2 emissions at monitoring sites

Source	Total PM10/NO2
Transport	30-50%/
Industry/power plants	15-45%/
Domestic sources	5-10%/
Others	2-5%/

Days of Exceedings of the pm₁₀ 24h limit in German Cities in 2005

Locations	Days of Exceeding pm10
Leipzig-Mitte	107
M/Landshuter Allee	107
Düsseldorf Corneliusstr.	88
Bremen Verkehr 2	82
Leipzig Lützner Str.	82
Dresden-Mitte	78
Dortmund Brackeler Str.	76
Neukölln- Silbersteinstr.	72
B Friedrichshain- Frankfurter Allee	71
Hannover Verkehr	64
Halle/Verkehr	63
Augsburg/Karlstraße	61

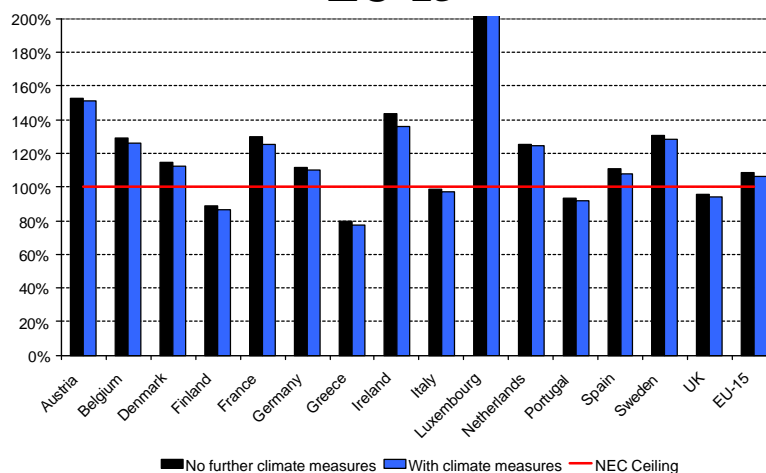
Directive 2001/81/EC on National Emission Ceilings (NEC) for Certain Atmospheric Pollutants

i.a. the national emission ceiling for Germany to be attained by 2010:

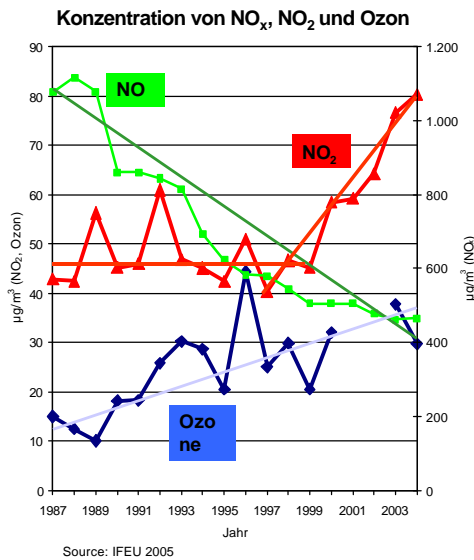
NO_x max. 1.051 kt p.a.

(all sources, mobile sources alone produce 500 kt p.a.)

Projected NO_x emissions in 2010 compared to NEC emission ceilings, EU-15



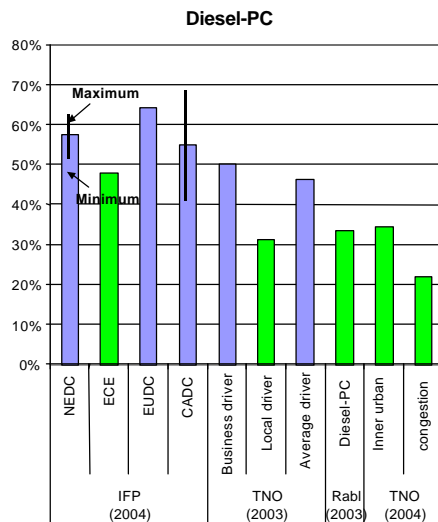
Cause: Higher NO₂ –Shares in Exhaust Gas



Measurements at the Autobahn A 4
measurement values NO- and NO₂-
immissions between the lanes
(yearly average)

- NO- reduction about 60 %
- Ozone : increase by a factor of 2 - 3;
from 1999 increase of about 20 %
- NO₂ no change until 1998
- from 1998 to 2004 twofold increase

NO₂- Share of the Exhaust Emissions of Diesel-PC

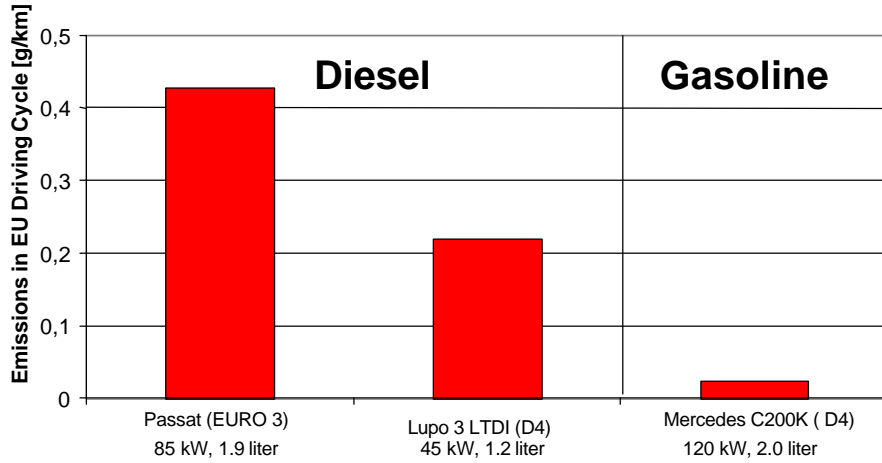


NO₂- share of diesel-PC in different labs

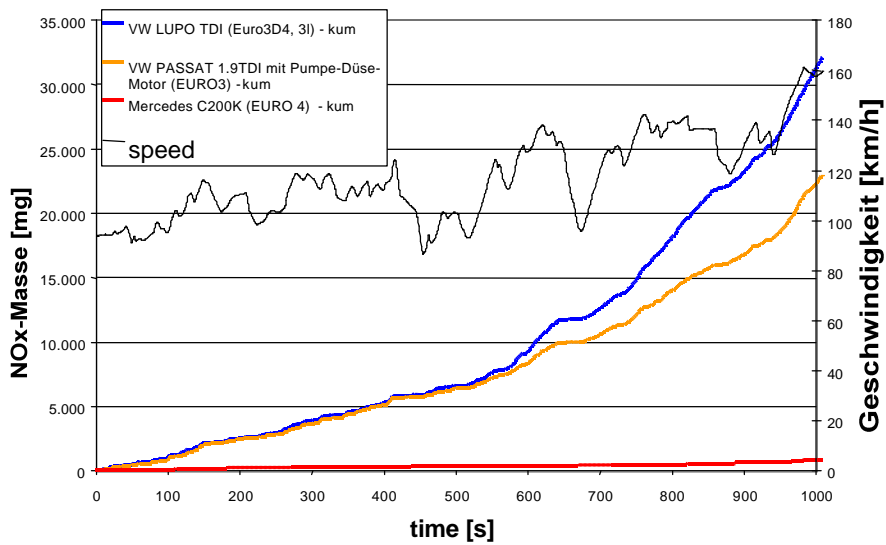
- Die NO₂- shares of Diesel-PC are between **22% – 75%**.
- For inner-city cycles (green bars) the NO₂- shares are lower than for the driving cycles with extra urban driving.

→ The NO₂/NO_x- ratio is for Diesel-PC higher than Otto-PC.

Comparison of NO_x -Emissions of Diesel- and Gasoline-PC

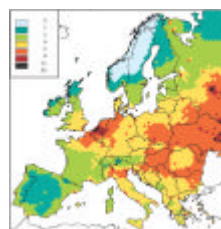


NO_x-Emissions and Speed

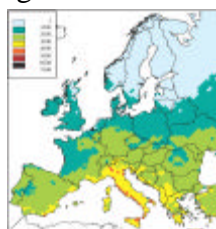


Remaining problem areas in 2020

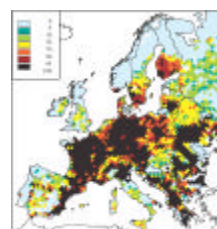
Light blue = no risk



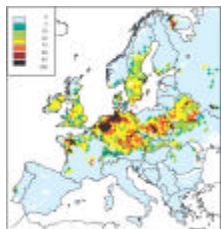
Health - PM



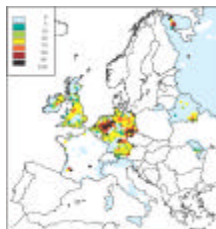
Health+vegetation - ozone



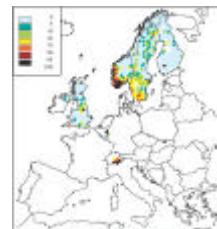
Vegetation - N dep.



Forests - acid dep.



Semi-natural - acid dep.



Freshwater - acid dep.

What happened on the Local Level after the Adoption of the EU- Daughter Directive?

Nearly Nothing

What happened on the EU Level after the Adoption of the EU- Daughter Directive?

Not much until now. We are still waiting for a Commission proposal for HDV. For PC the EU commission proposal submitted last December is by far insufficient.

Why didn't much happened on the local level?

In most cities the transport issue has a higher priority than health and environment.

Only by the help of courts and public opinion changes were possible



Greenpeace Germany Demonstrations



Breathing endanger your health

Why didn't much happened on the EU level?

Only the EU Commission can make proposals for a EU- Directive. Responsible for proposals for emission limits is the enterprise DG. The influence of the car and heavy duty vehicle industry is very high, eg. "The car 21" group.

For air quality and noise the environment DG is responsible

Financial Support insufficiently rebound to environmental targets

Huge amounts of money flows:

EU Funds for Regional Development, EFRE, 1994-1999:

→ 59 bill. € (object 1 regions)

EU Structural Funds 2000-2006:

136 bill. € (total object 1 regions)

→ 27 bill. € for transport infrastructure, of which 50% for roads

5 bill. € for social & health infrastructure

EU Common Agricultural Policy, CAP:

→ 43 bill. € per year = 45% of total EU budge

**Influences on transport demand
have not been assessed !!!**

Insufficient Acknowledgement of Monitoring Results

Infrastructure Building in the old EU member states does not influence economic growth

	EU15		CEEC12	
	Accessibility/Inhabitant	GDP / Inhabitant	Accessibility/Inhabitant	GDP / Inhabitant
All Road and Rail Projects 1991 - 2001	5,32	0,02	6,28	0,55
All Road and Rail Projects 2001 - 2021	12,47	0,00	20,12	1,61

Per cent changes compared to BAU
Source: EU ESPON-Project

Development of Trans- European Transport Network (TEN) (1)

- TEN-Guidelines: regulations for environmental protection have to be considered, health aspects not mentioned
- TEN-development: High level group with only transport and financial experts

Development of Trans-European Transport Network (TEN) (2)

Institutional arrangements for integration of environmental aspects:

• public stakeholder consultations	late integration (when proposals) are already at the table Results are not binding
• EU Joint Expert Group on Transport and Environment of DG TREN and DG ENV	Elaborate recommendations: e.g. SEA for entire TEN (2002) - but never applied Recommendations of the JEG are not binding

Development of Trans-European Transport Network (TEN) (3)

No structures for integration of environment and health aspects from the beginning of TEN-development.

Institutional arrangement not strong enough to really ensure integration (not binding).

TEN- Implementation: Sectoral implementation oppose sustainability goals

EC	White paper: Modal shift to rail
High Level Group TEN	TEN-T-Network with 30 priority projects equal length of roads (75,000 km) and railways (78,000 km) to promote modal shift
EU-member states	Implementation of the single parts by the different member states depending on national priorities, available money, feasibility

Results of missing links in vertical organisation of implementation:

- if current trend proceeds: nearly 100% of the road projects will be finished and 50% of the rail projects until 2010
- Road transport will be further strengthened
- Modal shift goal will be foiled

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EU PARLIAMENT on Thematic Strategy on the Urban Environment

What does the Thematic Strategy aim to achieve?

The measures foreseen under the Strategy aim to contribute to better implementation of EU environment policies and legislation at the local level. This will be done by supporting and encouraging local authorities to adopt a more integrated approach to urban management and by inviting Member States to support this process by exploiting all funding opportunities offered at EU level, including under the Commission's proposals for the Cohesion Policy.

Thematic Strategy on the Urban Environment (2)

Why is the Commission not proposing any new legislation under the strategy?

EU- Commission: During its preparation of the strategy the Commission examined various options, including the possibility of legislating to ensure that integrated environmental management and sustainable urban transport plans are developed by all capital cities and those with more than 100,000 inhabitants. However, given the diversity of urban areas, the existing national, regional and local obligations, and the difficulties involved in establishing common standards for urban environment issues as a whole, it was decided that legislation would not be the best way to achieve the strategy's objectives. Most member states and local authorities supported this approach. The Commission will therefore provide guidance in these areas.

Thematic Strategy on the Urban Environment (3)

European Environment Bureau:

Commission has shied away from more far-reaching plans for EU directives. The Strategy basically leaves it up to the member states and cities themselves to improve their environmental performance. This voluntary approach has not worked in the past. This is why most cities are still facing enormous problems with urban sprawl, congestion, air and noise pollution, derelict land and generation of waste and waste-water.

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