



Environment Center
Charles University
in Prague

Changing Environment in Central Europe in Course of Last Decades

BEDRICH MOLDAN

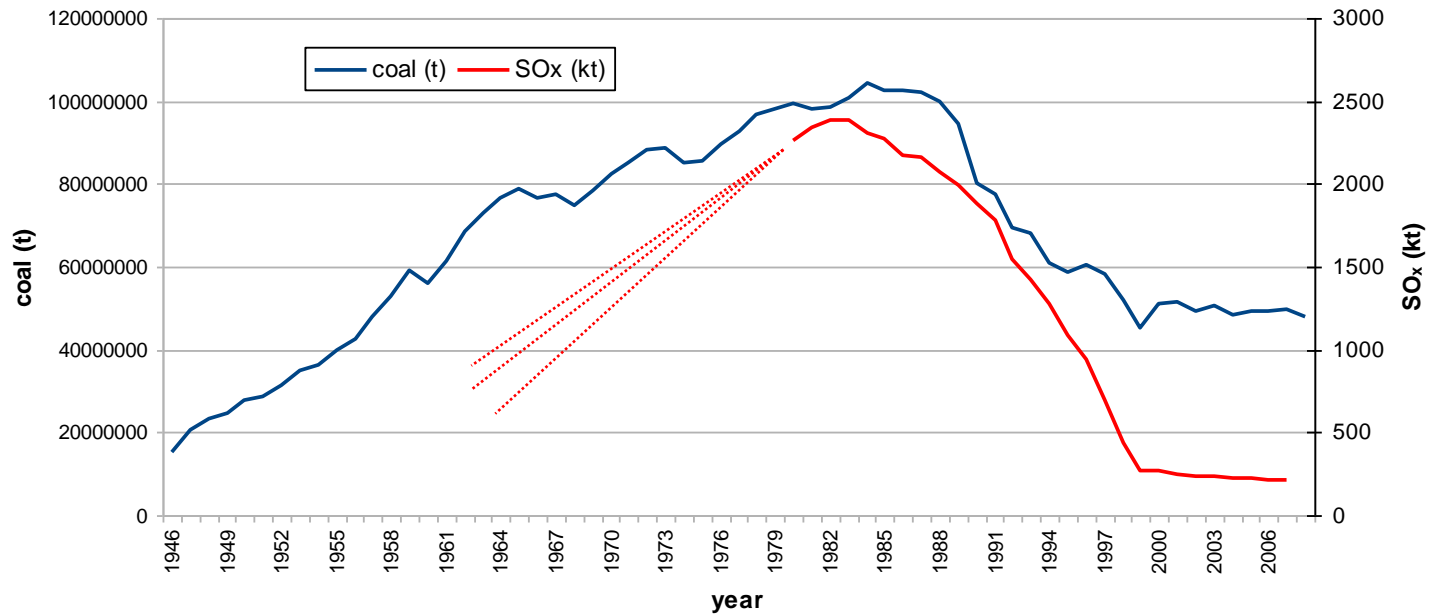
Stockholm, May 7, 2010

Visegrad Countries

Czech Republic	Slovakia	Hungary	Poland
Capital city: Prague	Capital city: Bratislava	Capital city: Budapest	Capital city: Warsaw
Total area: 78 887 km ²	Total area: 48 845 km ²	Total area: 93 000 km ²	Total area: 312 679 km ²
Population: 10.3 million	Population: 5.4 million	Population: 10 million	Population: 38.1 million
GDP: 260 billion USD	GDP: 115,6 billion USD	GDP: 189,6 billion USD	GDP: 656,1 billion USD
GDP per capita: 24 900 USD	GDP per capita: 21 400 USD	GDP per capita: 18 900 USD	GDP per capita: 17 200 USD

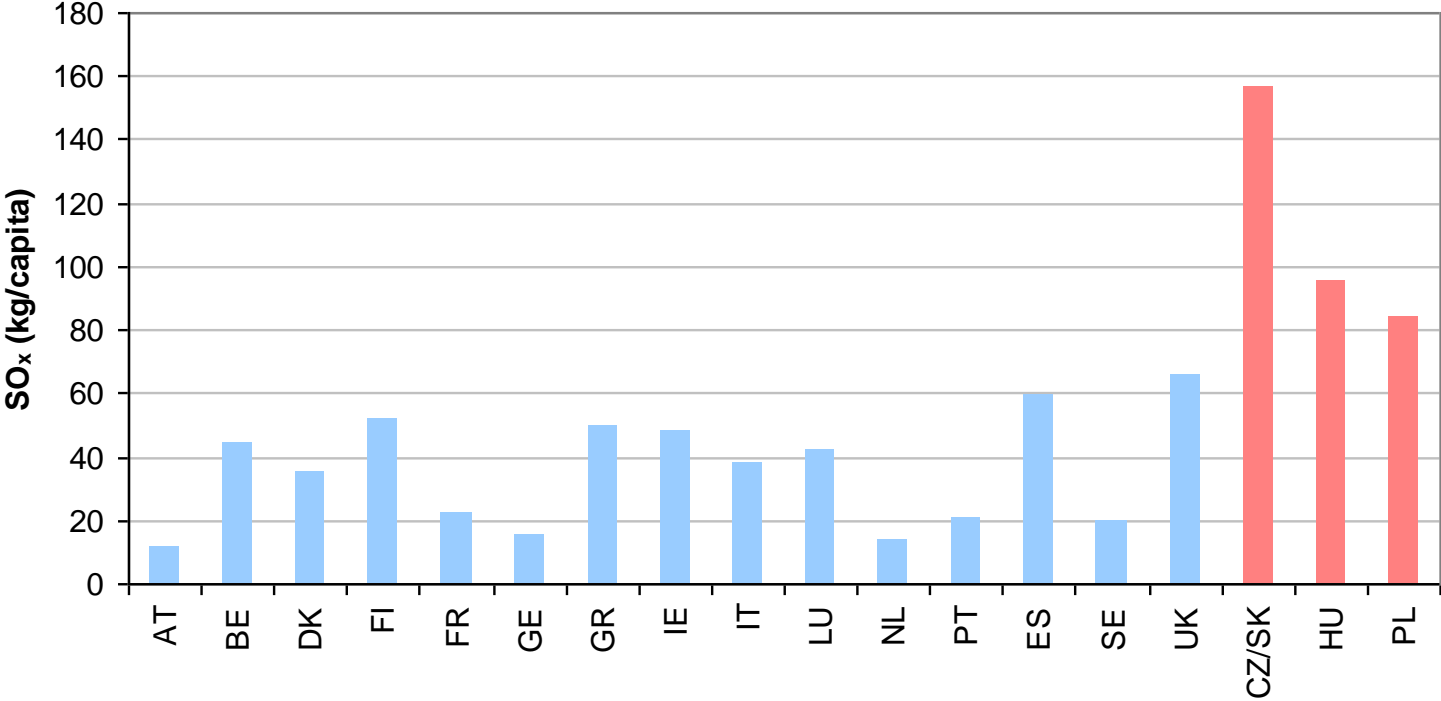
Four time periods

Sulfur dioxide emissions and brown coal mining, 1940s-present, Czech Republic



Catastrophic environmental quality in 1990

Emissions of sulfur dioxide, V4 and EU-15, 1990

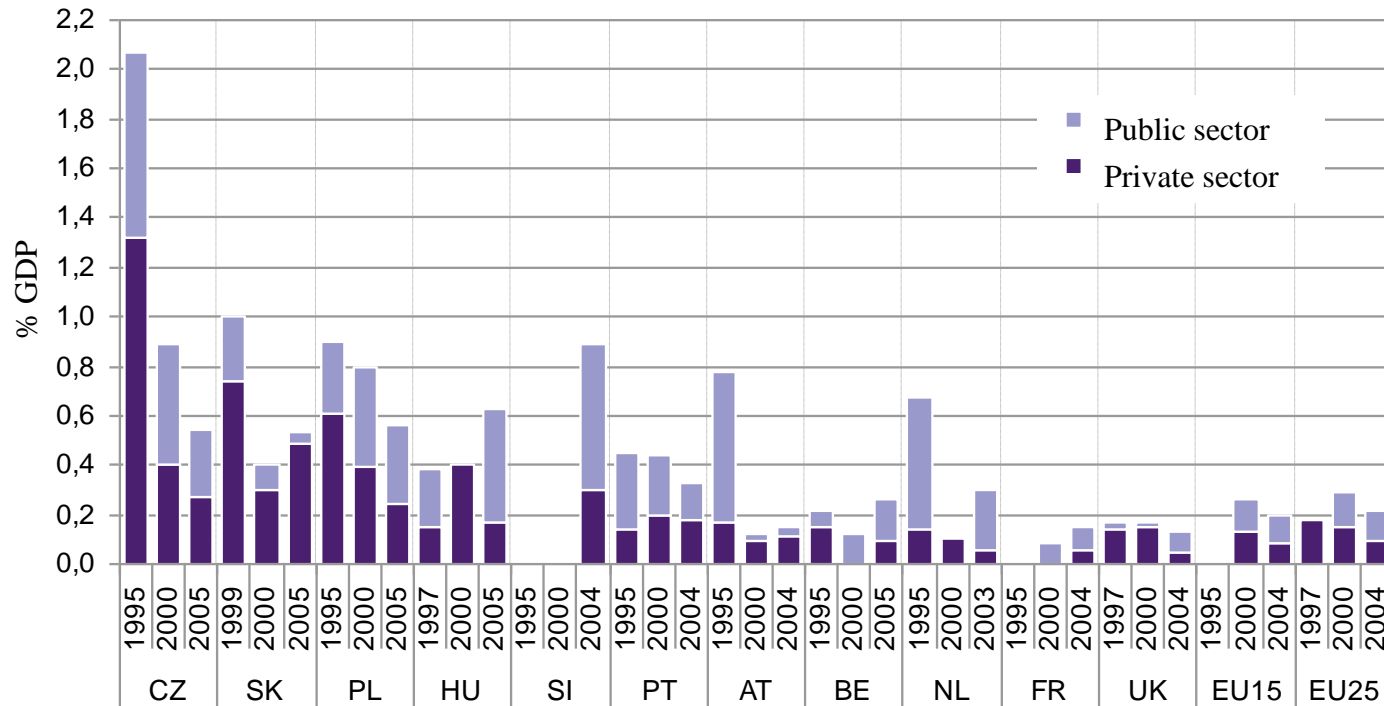


Factors contributing to rapid improvement

- Economic restructuring
- Broad public support
- Information, environmental NGOs
- Legal system and institutions
- EU accession
- Finance

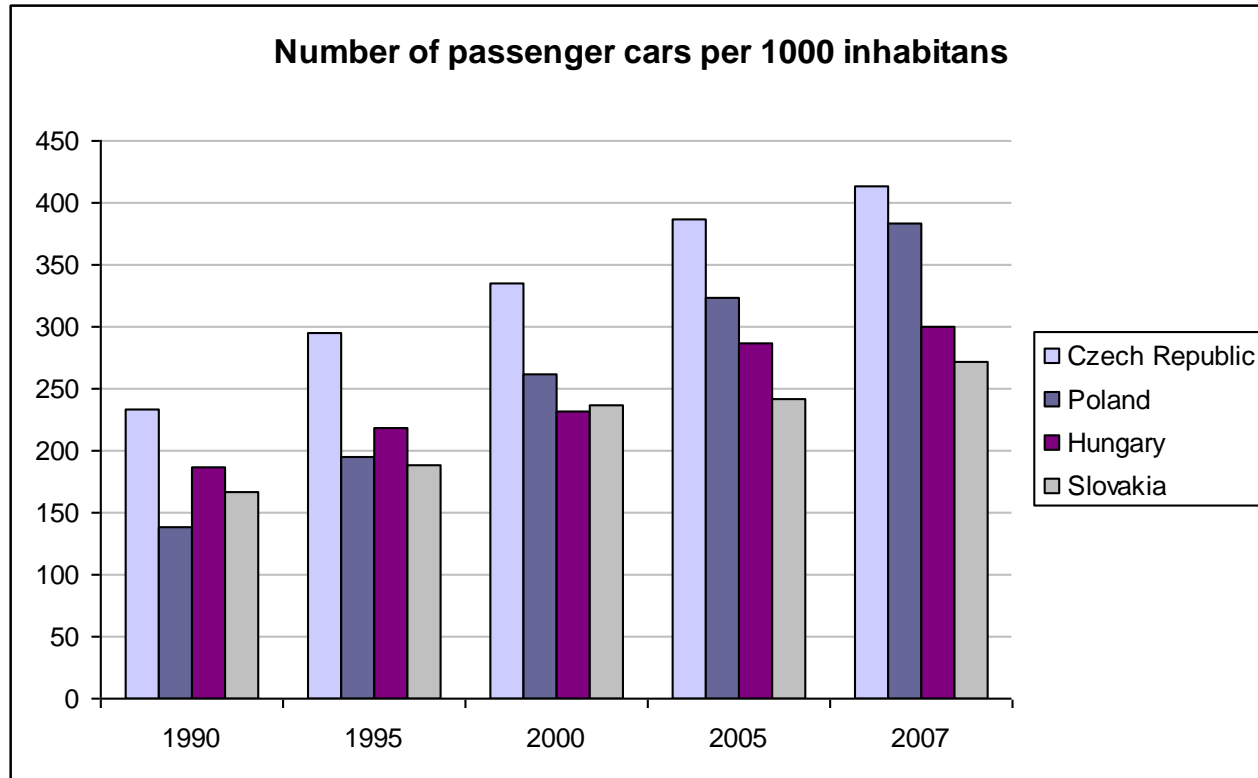
Expenditures for environmental investment

Expenditures for environmental investments (% of GDP), V4 countries, EU-15/25 average, 1995, 2000, 2005



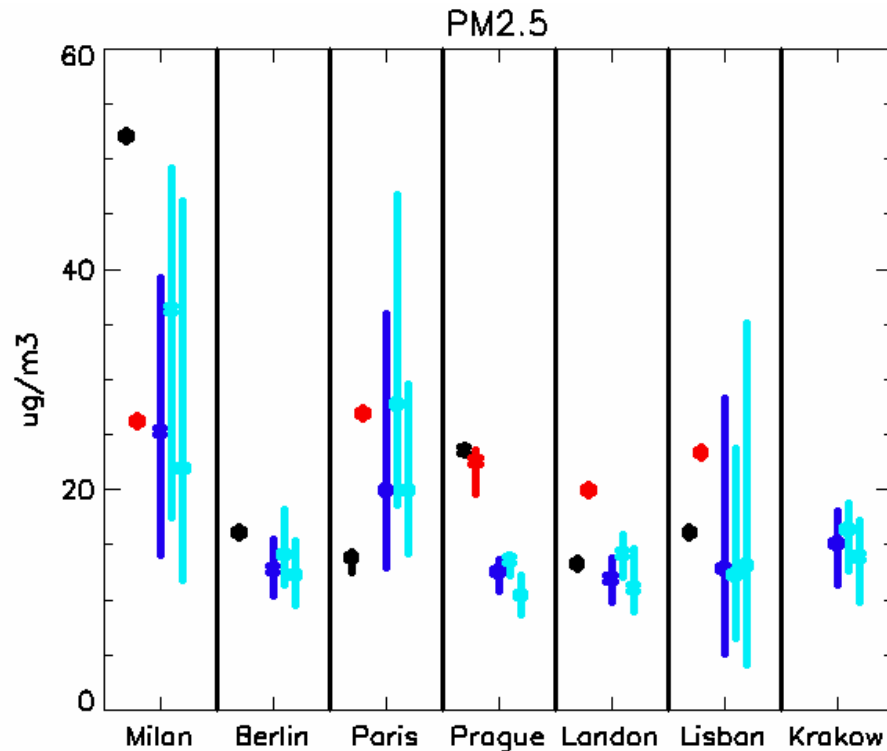
Source: Eurostat

New Challenges



Source: Eurostat

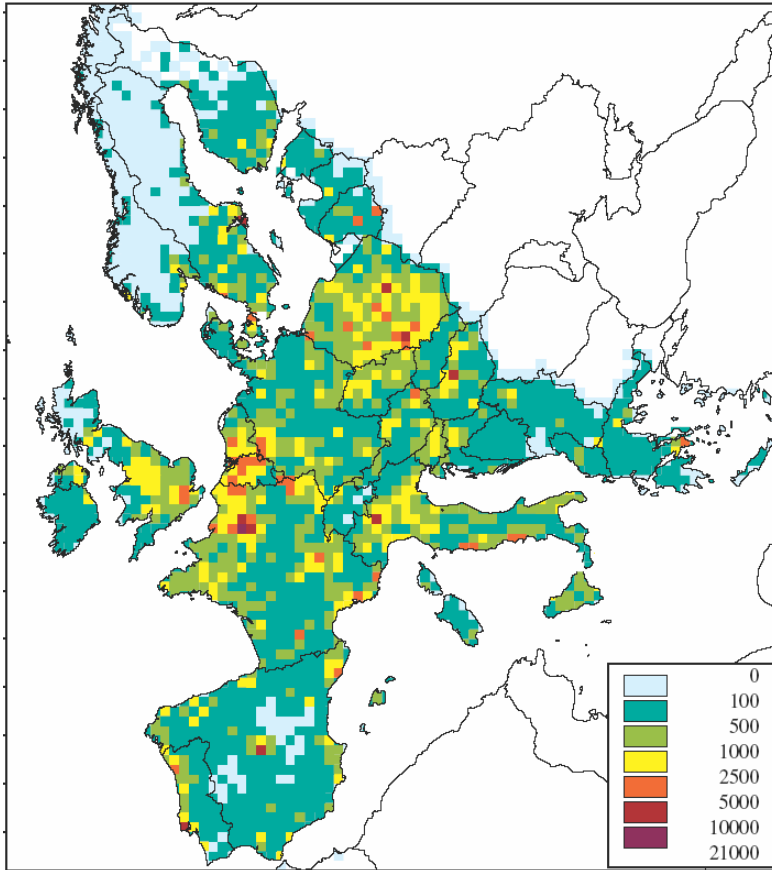
Current state of the environment



Comparison of observed and computed PM2.5 annual mean concentrations in the seven City-delta cities. The red dots indicated measurements at traffic stations; black dots measurements at urban background stations. The blue ranges indicate, for the three models participating in the exercise, the spatial spread of computed PM2.5 concentrations within the 300*300 km model domains.

Source: IIASA Interim Report IR-07-001

Current state of the environment

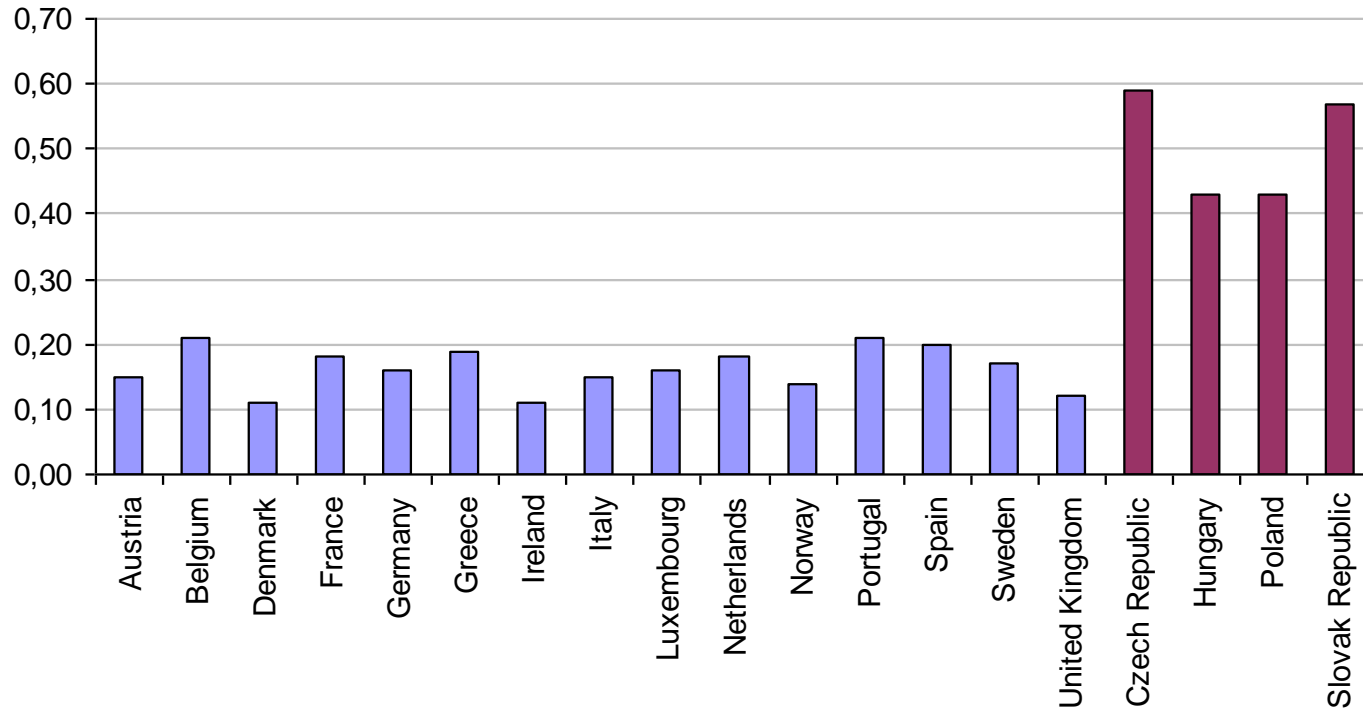


Density of primary PM_{2.5} emissions from low-level sources for the year 2000 (in tons/km²) as used as input to the EMEP model calculations

Source: IIASA Interim Report IR-07-001

Some old legacies persist

Energy intensity*, EU-15 and V4, 2007



*Total primary energy supply divided by GDP (ratio expressed in toe per thousand 2000 USD).

Source: OECD in Figures, Paris 2009



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Thank you for your attention