

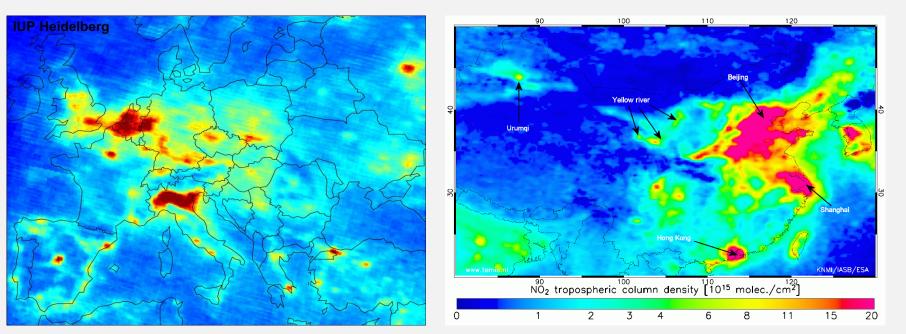
## Air quality standards

#### Air pollutants

- NOx
- SOx
- Ammonia
- H<sub>2</sub>S
- Particulate matter (PM 2.5, 10)



#### NO<sub>2</sub> levels - Sciamachy envisat images



**Tropospheric Emission Monitoring Internet Service** 

# Zero-Emission Vehicle (ZEV)

#### Air quality standards

- California was first to install Zero-Emission Vehicle regulation in 1990
- By 2050, 87% of cars to be ZEVs
- California state is co-funding :
  - Rebates on ZEVs
  - Roll-out of hydrogen infrastructure
  - Charging infrastructure for battery electric vehicles





#### Smart mobility strategies

- Mass rapid transit systems: train, metro, light-rail and bus rapid transit systems
- Zero emission public transport fleets
- More public space to walk and bike
- Environmental zones where the most polluting cars are forbidden





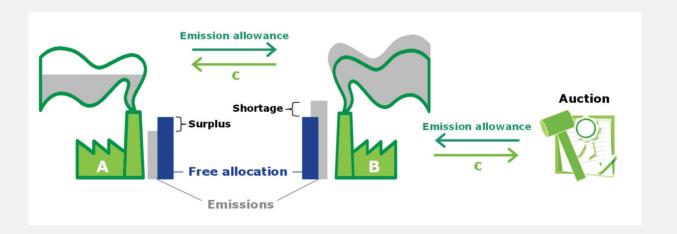
#### Smart mobility strategies

- Subsidies
- Exclusive parking areas
- Free parking permits
- Deploying EV charging stations
- Government ZEV fleet



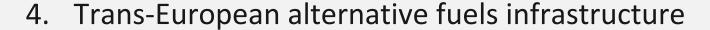
#### **European Emission Trading System**

- Operates in 31 countries
- Limits emissions from >11,000 heavy energy-using installations
- Covers ~45% of the EU's greenhouse gas emissions.



#### Clean Mobility Package

- 1. New CO<sub>2</sub> standards
- 2. Clean Vehicles Directive
- 3. Battery initiative



- 5. Revision of the Combined Transport Directive
- 6. Directive on Passenger Coach Services



### Thank you for your attention!