



National Institute for Public Health
and the Environment (RIVM)
Ministry of Health, Welfare and Sport
The Netherlands

EPCAC –

Expert Panel on Clean Air
in Cities

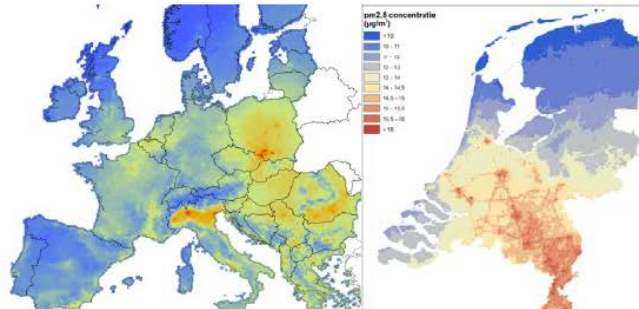
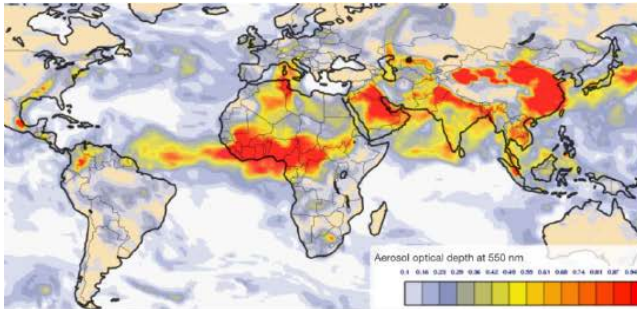
Co-chairs:

Guus Velders, Netherlands

Roald Wolters, Netherlands

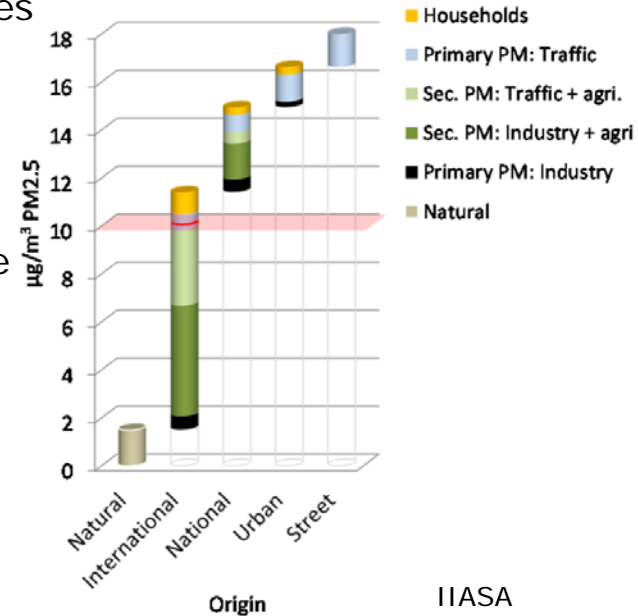
Expert Panel on Clean Air in Cities

- Adopted by the Executive Body of the UNECE Air Convention, Dec 14, 2018
- Under TFIAM
- Revised TFIAM mandate:
“Multi-scale multi-objective assessment modelling aimed at cost-effective policy strategies that combine international, national and local actions as well as the links between air quality policy and other policy processes (e.g. on SDGs, climate, biodiversity).”



Rationale

1. Most people exposed to air pollution live in cities
2. Air quality in cities influenced by transboundary sources
3. Activities/emissions/measures in one city affect other cities
4. Co-operative **actions at all government levels** will benefit cities (improve air quality at lower costs)
5. **Synergies with other policy objectives** would increase effectiveness
6. Expertise on **multi-scale multi-objective** assessment modelling and governance should be strengthened



IIASA

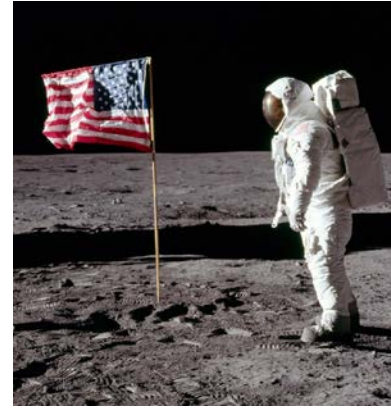
Key questions

- **Which actions** at **which government level** are most effective to reduce health effects?
- Can we say more about the **cost-effectiveness** on measures at different government levels?
- What **knowledge** should be improved for robust policy advice?
(e.g. on emissions, dispersion, health impacts, efficient measures, multi-scale multi objective policy design, ...)



Mission and Task

- EPCAC will **provide a science-policy arena** for analysis of cost-effective multi-scale air quality strategies
- EPCAC will **highlight the interactions between geographical scales**, acknowledging that air quality on a local scale is affected by international policies whilst the impact of local policies is propagated to other cities, regions and countries



➔ **Involvement of cities is important**

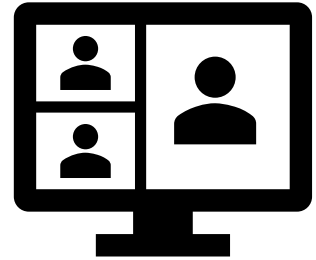
Highlights fourth EPCAC meeting

Online meeting in November 2022

- 100 participants: national governments, cities, scientific community, NGO's, industry, EC

18 presentations:

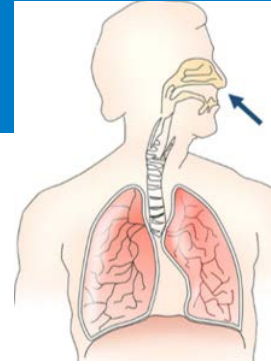
1. Assessment of health impacts of emission reductions
2. Local air quality modelling progress
3. Experiences and plans of actions at city level
4. International cooperation to improve air quality in EECCA, non-EU countries



Presentations available:

<https://iiasa.ac.at/web/home/research/researchPrograms/air/policy/TFIAM.html>

1. Assessment of health impacts

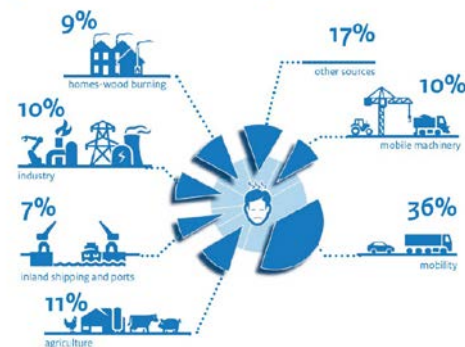


- Link between air pollution and health reinforced by several (review) studies
- Different PM fractions have a different toxicity
- Total PM_{2.5} remains most used metric for air pollution related health effects
- Proposed new EU limit values reduce premature deaths >75% by 2030
(50% reduction would be reached without new regulation)

2. Local air quality modelling progress

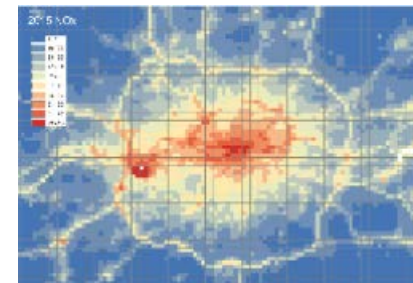
- New NO₂ limit value is a challenge for EU
- Likely require additional local measures next to (inter)national measures
- Expected that most countries will be able to achieve it everywhere in 2050 (with EU-emission limit values and net-zero carbon policies)
- To meet PM_{2.5} limit value in 2030 is a large challenge
- Possible for 2050, when ammonia emissions are further reduced with lower livestock numbers

negative health effects of NO₂/PM pro sector



3. Experiences and plans of actions at city level

- Multilevel governance necessary for achieving the health objectives
- Integrating policies is important:
 - Nitrogen and climate policies are important for air quality objectives
 - Air quality objectives also relevant for climate policies
- Positive actions to improve air quality serve as examples for other cities/regions
- Important: Attention for communication and raising awareness
- Citizen science: powerful for research and policy-making:
 - providing data, awareness, actions
 - Important to integrate citizen science in research and governance to achieve the zero pollution goals.



4. Air quality in EECCA and non-EU countries

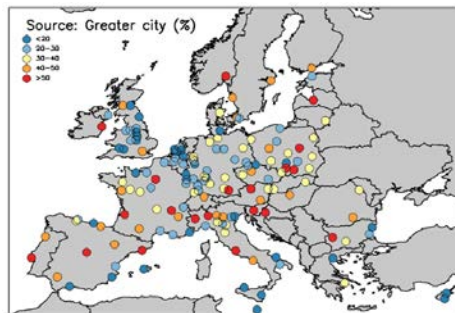
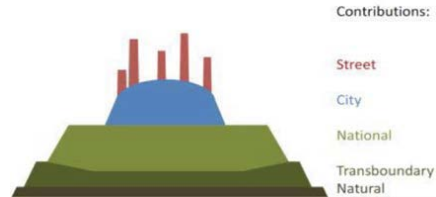
- Range of sectors contribute to air pollution: traffic, industry, residential heating, and agriculture
- Different contributions in different cities in EU, West Balkans, EECCA
- Local urban sources from traffic, residential heating → NO₂ pollution in large cities
- Industry and agriculture from outside cities → PM₁₀ and PM_{2.5}
- Models provide the necessary information for local and national authorities for decisions related to air quality in combination with other policies, such as spatial planning, energy, and climate policies



Next steps

- Prepare a position paper: raise awareness of the multi-scale interactions
 - Input from Task forces and stakeholders needed
 - Actively disseminate knowledge to relevant parties: countries, cities, etc.
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- Meeting in fall 2023
 - Involve more cities

Position paper



City contribution to $PM_{2.5}$ (JRC)

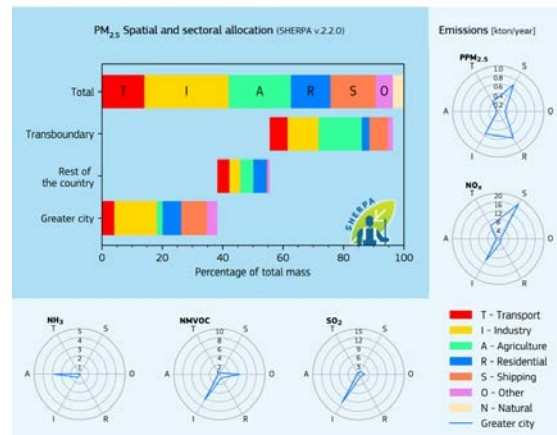
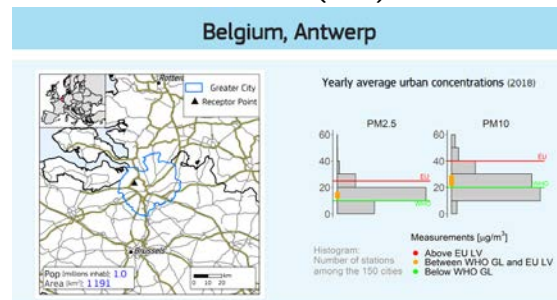
Source contributions

Measures: effectiveness and costs

Positive/negative effects on

- Climate change
- Acidification
- Eutrophication

Details for cities (JRC)



Suggestions for a position paper

- Input from Task forces and stakeholders needed
- Do you have suggestions?

Questions?

Dank u wel



Gracias



Danke

Merci

Diolch yn fawr

Спасибо

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谢谢

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