

Report on EMEP SB activities – 2023

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43rd session of the Executive Body for CLRTAP

9th joint EMEP/WGE meeting

- 11-15 September 2023 – in person meeting
- Representatives of 25 countries attended the meeting (40 in 2022)
- Two thematic joint sessions focused:
 - Air pollution and biodiversity
 - Methane
 - Heavy metals
- Review of progress of work related to the 2022-2023 work plan and preparation of the 2024-2025 workplan
- Discussion about the options for future location of MSC-East according to the EB decision taken during its 42th session
- **Focus on few items :**
 - Emissions reporting and review
 - Adjustment applications
 - Methane
 - MSC-East



Changes in the EMEP TF leadership

- ▶ **David Montalvo** from EEA replaces **Martin Adams** as co-chair of the TFEIP
- ▶ **Joanna Struzweska** (Poland) replaces **Augustin Colette** (France) as co-chair of the TFMM
- ▶ **Simone Schucht** (France) replaces **Rob Maas** (The Netherlands) as co-chair of the TFIAM

Reporting of emission data

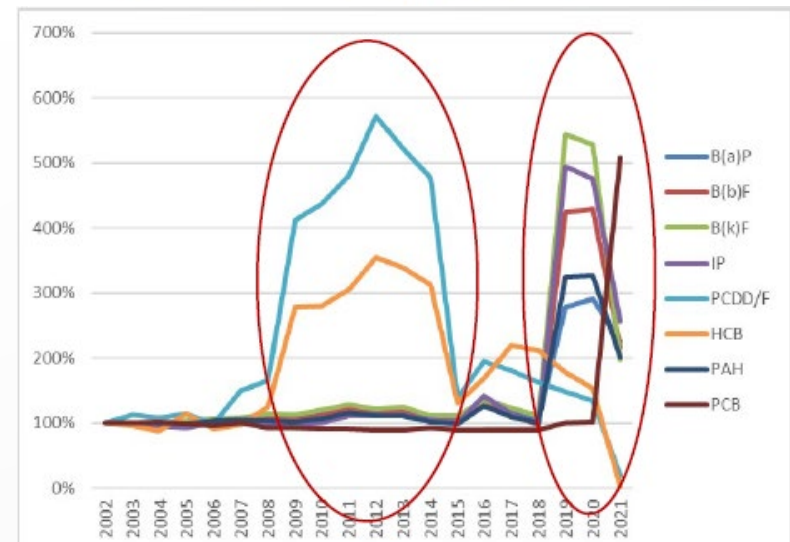
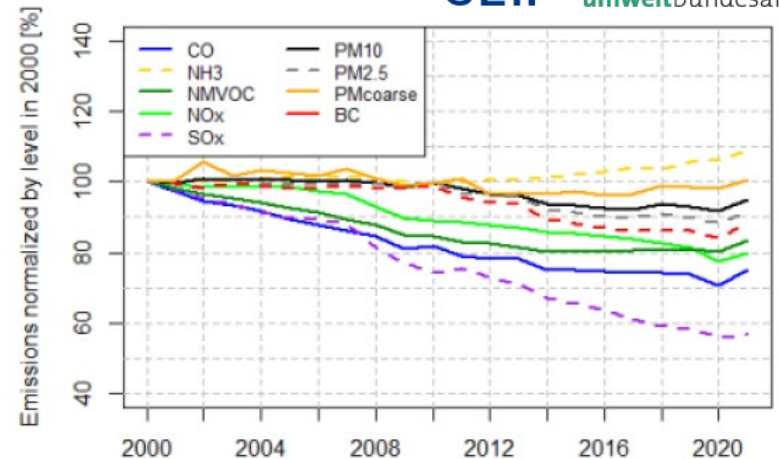
► Emissions reported in 2023:

- **46 Parties** reported data;
- **45 Parties** submitted an IIR.
- 42 Parties submitted full time series 1990/2000-2021
- **22 Parties included quantitative information on uncertainties in main pollutants emissions in their IIR**
- **40 Parties** reported BC emissions

► Projections reported in 2023:

- 33 projection datasets, many of them submitted late
- Several countries did not report projections, most of them located in the EECCA region

CEIP umweltbundesamt[®]



POPs emissions in the EMEP east area



Stage 3 (in depth) review

- ▶ In 2023, focus on agriculture with special emphasis on NH₃, NMVOC and NO_x, and gridded data
- ▶ 41 reports reviewed by 17 reviewers from 15 countries
- ▶ Centralised process implemented by CEIP which aims at improving the quality of reported data and supports capacity building of the experts
- ▶ First time gridded data was reviewed: encouraging results but still lack of transparency in the methods
- ▶ Agreement on the 2024-2026 priorities :
 - 2024 : Industrial processes and product use- solvents with focus on NMVOC and gridded data
 - 2025: projections
 - 2026: sector transport
- ▶ **Question to the EB:** should we set some priorities on countries that would need improvement the most?

Other news

- Update of the EMEP/EEA guidebook on emissions **welcome and endorsed by the EMEP SB** with:
 - Major updates to emissions mapping
 - Substantial improvements in combustion&industry sectors
 - Regular updates to road transport
 - Updates to livestock emissions and waste incineration sources
 - Minor updates to projections and best practises chapters
- **Questionnaire circulated to the emission community** to investigate future priorities :
 - Improving current reporting (gridded data, HM&POPs...)
 - Some pollutants (Methane, ultrafine PM..) may be considered in the future
 - Centralized compilation may be an option for some sources (shipping, fires..)
- **Technical paper proposed by TFEIP** to express the relevance of taking into account the impact of already approved adjustments in projections reporting (on a voluntary basis)
 - Need to update templates and guidances
 - To be further considered in the perspective of the GP review follow-up

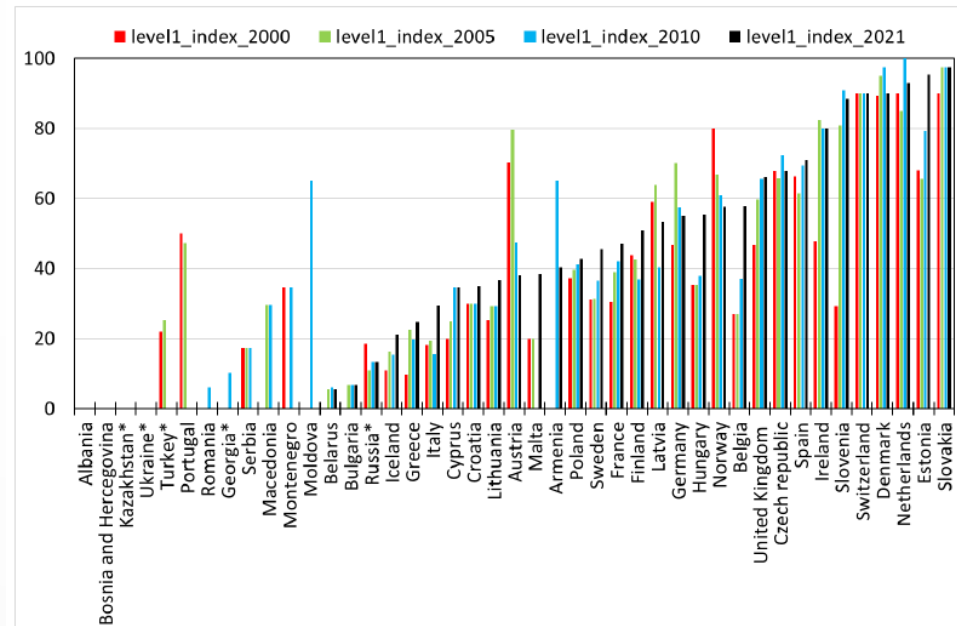
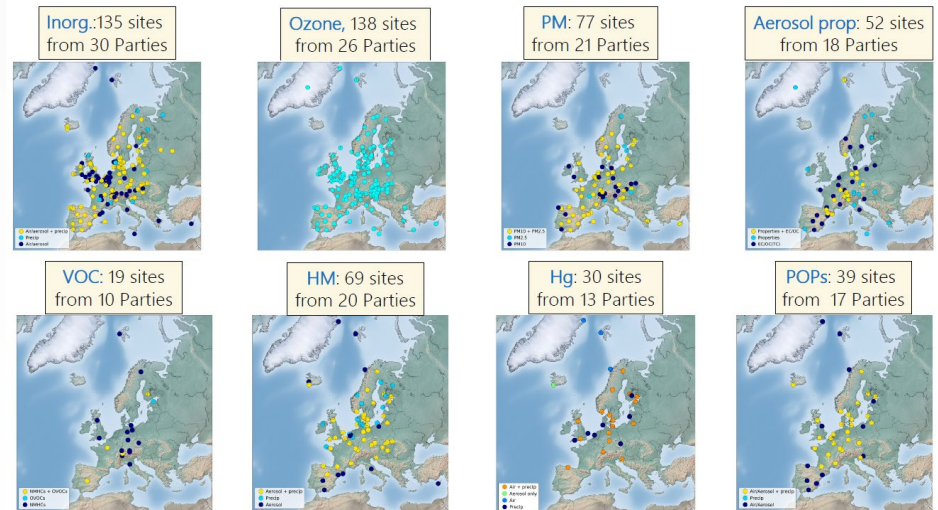
Adjustment applications: outcomes of the 2022 review

- ▶ 2022 was the first year for emission inventory submission under the 2020 emission reduction commitments set by the amended GP protocol
- ▶ A new guidance and a new template have been prepared by TFEIP and CEIP for the Parties
- ▶ Four previously approved applications submitted :
 - **Denmark (agriculture, NMVOC)**
 - **France (agriculture, NMVOC)**
 - **The Netherlands (agriculture, NMVOC)**
 - **The UK (agriculture , NH3)**
- ▶ The expert review team recommended acceptance of these applications, Decision adopted by the EMEP SB

Monitoring and modelling (i)

- Implementation of the monitoring strategy is on track
- July 2022 IOP for ozone and its precursors : reference dataset regarding NMVOCs
- Modeling work carried with a clear focus on ozone
- CCC organised a workshop on chemicals of emerging concern to prepare the future

Measurement sites in 2021



Monitoring and modelling (ii)

- ▶ Development by MSC-West of a new approach (local fraction) for the source-receptor calculations : can cover a larger range of reduction amounts with reduced computation time with results quite similar to those obtained with the previous method (brute force)

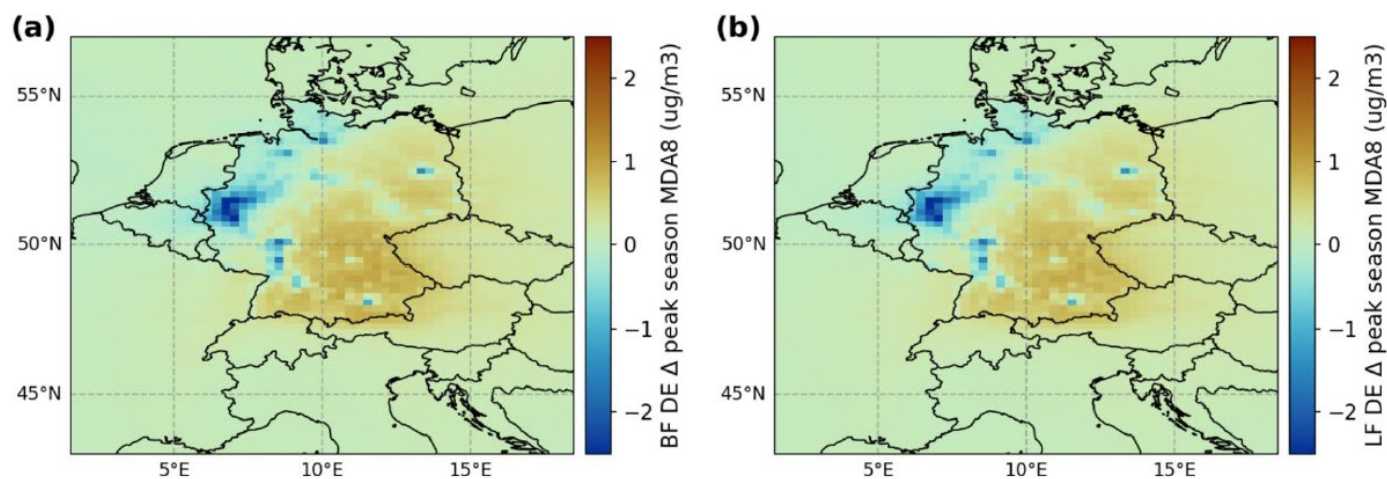


Figure 5.1: Comparison of the impact of a 15% NO_x emission reduction from Germany (DE) on peak season MDA8 calculated using the BF (a) and LF (b) methods.



Methane session

prepared and chaired by Chris Dore (TFEIP), Tim Butler (TFHTAP) and Zig Klimont (TFIAM)

- ▶ Sufficient understanding of the role of methane as ozone precursor and current assessment/modelling tools mature enough to support policy decision
- ▶ Ambitious ozone reduction targets will be more dependent on global cooperation to reduce ozone precursors (including methane)
- ▶ Recommendation to the EB to consider methane in the GP review follow-up and to consider targets consistent with the Global methane Pledge objectives (COP26 initiative)
- ▶ Need to investigate further potential and cost of CH₄ mitigation measures (including non-technical measures)

Future of MSC-East

- The EMEP SB discussed the content of a note synthesizing outcomes related to 6 options for reorganizing and relocating MSC-East activities, according to the 2022 EB decision
- The EMEP SB recommends to the EB to investigate further options 1 to 3
 - Option 1: Relocation of MSC-East in a new host organisation: Jozef Stefan Institute (JSI) located in Ljubljana (Slovenia)
 - Option 2: relocation of MSC-east in a hosting organisation located in the EECCA region (Georgia, Ukraine)
 - Option 3: transfer to JSI in a short-term perspective and implementation in the longer-term of a new center in the EECCA region in charge of capacity building
- Consultations with JSI, Ukraine, Georgia, and MSC-East/Moscow carried out by the EMEP SB chair since then to elaborate a factual analysis of the situation.

Potential use of additional resources by CEIP and CIAM

- ▶ Focused on the needs to support revision of the Gothenburg Protocol
- ▶ **Stronger involvement of Turkey, and countries from the EECCA and Balkans regions :**
 - Support for improvement of emission inventories and projections
 - Compilation of relevant data countries,
 - Stimulating integrated national modelling and exchange of experience in those regions Workshops could be organised
- ▶ **Methane**
 - Global/regional studies
 - Work on emissions (in collaboration with UNFCCC)
- ▶ **Improvements of the GAINS model**
 - To develop and implement approaches based on collective risk-based targets for reducing impacts on health and ecosystems
- ▶ **Improvement of the emissions management framework**
 - Web interface
 - Centralised management for some sources
 - ..