



# Reporting requirements under the UNECE Convention on Long-Range Transboundary Air Pollution and SEIS

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**Twentieth session of the Working Group on Environmental Monitoring and Assessment  
Geneva, 3-4 September 2018**





- **Emission reporting obligations; Guidelines for reporting emission and projections data; key air pollutants**
- **Use of emission data within and outside the Convention**
- **Linkages with UNECE Guidelines for the Application of Environmental Indicators and SEIS**

# Convention on Long-Range Transboundary Air Pollution (CLRTAP)



## ENVIRONMENT

Convention/Protocols	EU	EECCA	EU other	North America	Total
Air Convention (CLRTAP) (1979)	28	9	12	2	51
EMEP Protocol	28	6	11	2	47
Protocol on the Reduction of Sulphur Emissions	16	3	5	1	25
Protocol on the Control of NOx Emissions	24	3	6	2	35
Protocol on the Control of VOC Emissions	18	0	6	0	24
Protocol on further reduction of sulphur	23	0	5	1	29
Protocol on Heavy Metals (Cd, Pb, Hg)	24	1	7	2	34
Protocol on POPs (PAHs, PCDD/F, HCB, PCBs)	24	1	7	1	33
The Gothenburg Protocol (SOx, NOx, VOCs, NH3, PM2.5)	22	0	3	1	26

Status of ratification

# Emission reporting obligations



## ENVIRONMENT

- art. 8 (a) of the Convention
- Decision 2013/4 of the Executive Body on reporting of emissions and projections data under the Convention and its protocols in force
- updated Guidelines for reporting (ECE/EB.AIR/125) – in force as of 1 January 2015; what, when, how often and how to report

# What to report and when?



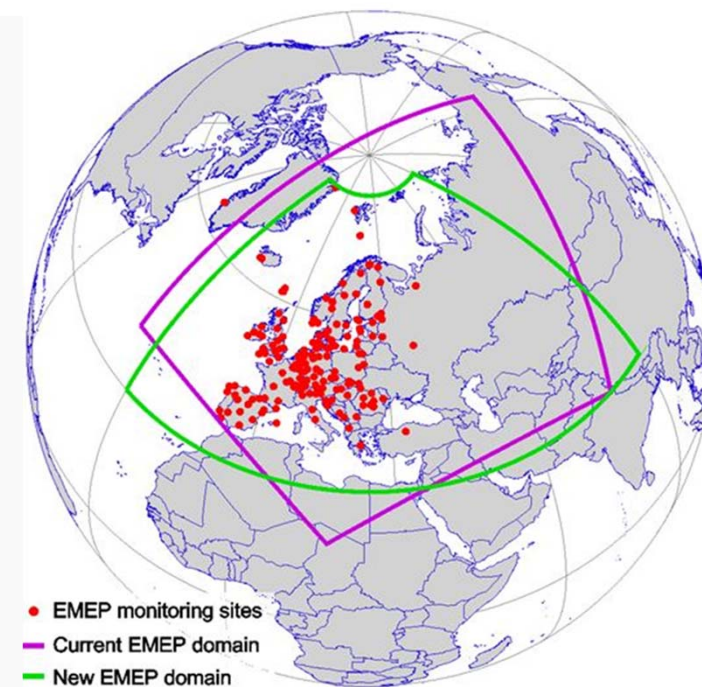
## ENVIRONMENT

Frequency of reporting	Reporting format (Annexes to the Reporting Guidelines)	Pollutants/data	Deadline
Annually	National total emissions (NFR) (Annex I)	<b>Main pollutants</b> (SO <sub>x</sub> , NO <sub>x</sub> , NH <sub>3</sub> , NMVOC, CO), <b>Particulate matter</b> (PM <sub>2.5</sub> , PM <sub>10</sub> , TSP, (BC)), <b>Heavy metals</b> (Pb, Cd, Hg / (As, Cr, Cu, Ni, Se, Zn)) <b>POPs</b> (HCB, PCBs, PCDD/F and PAHs)	15 February
	Informative Inventory Report (IIR) (Annex II)	Documentation of methods, trends, recalculations, activity data and other information relevant for understanding the inventory	15 March
Every four years	Emission Projections (Annex IV)	SO <sub>x</sub> , NO <sub>x</sub> , NH <sub>3</sub> , NMVOC, PM <sub>2.5</sub> and BC where appropriate	15 March
	Gridded emission data (GNFR) (Annex V)	SO <sub>x</sub> , NO <sub>x</sub> , CO, NMVOCs, NH <sub>3</sub> , PM <sub>2.5</sub> , PM <sub>10</sub> , Pb, Cd, Hg, PAHs, PCDD/F, HCB, PCBs	1 May
	Information on Large point sources (LPS) (Annex VI)	SO <sub>2</sub> , NO <sub>x</sub> , CO, NMVOCs, NH <sub>3</sub> , PM <sub>2.5</sub> , PM <sub>10</sub> , Pb, Cd, Hg, PAHs, PCDD/F, HCB, PCBs	

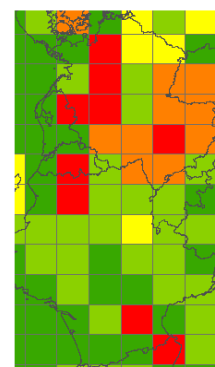
# Reporting of gridded emissions



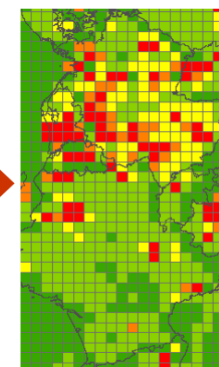
- Gridded national emissions for all pollutants – every 4 years
- New EMEP grid -  $0.1^\circ \times 0.1^\circ$  latitude-longitude (As an alternative, old resolution  $50 \times 50 \text{ km}^2$ )
- By GNFR sector



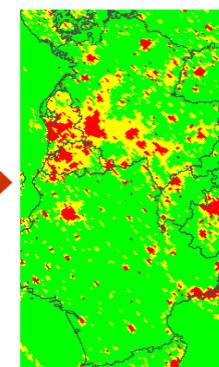
150 x 150 km<sup>2</sup> from 1984 to 1998



50 x 50 km<sup>2</sup> from 1999 until now



0.1° x 0.1° for the new EMEP grid



Reported spatial emission data are input for models used to assess atmospheric concentrations and deposition

# Large Point Sources (LPS)

## ENVIRONMENT



- Dataset of emissions from LPS – every 4 years
- LPS are those emitting above specified thresholds for pollutants: SO<sub>2</sub>, NO<sub>x</sub>, CO, NMVOCs, NH<sub>3</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, Pb, Cd, Hg, PAHs x 4, PCDD/F, HCB, PCBs.
- Includes the coordinates (latitude-longitude)
- Stack height classes to be reported as well (<45m, 45-100m, 100-150m, 150-200m, >200m).



# Methodology for emission estimations – EMEP/EEA air pollutant emission inventory guidebook



## ENVIRONMENT

- Joint work of EMEP/CLRTAP and EEA
- Supports reporting under the CLRTAP and EU NEC Directive
- Web based “living” document available in EN and RU languages  
<http://www.eea.europa.eu//publications/emep-eea-guidebook-2013>
- Regular updates and extensions (approved by the Exec. Body)
- Continuous alignment with IPCC/UNFCCC and EU legislation
- Key role of the Task Force on Emission Inventories and Projections, and the Centre on Emission Inventories and Projections; both supervised by the Steering Body to EMEP



# Data submission and support

## ENVIRONMENT



- Data are submitted to the EMEP Center for Emission Inventories and Projections (CEIP) with notification to the Convention Secretariat or, EIONET [Central data Repository](#) maintained by EEA
- The Center is directly in contact with the focal points in the countries in case of questions
- Detailed instructions on reporting and forms are available on the CEIP Center website ([www.ceip.at](http://www.ceip.at))
- Support to member States through elaboration of relevant guidance materials on emission reporting and capacity building of experts through national, sub-regional and regional workshops and specifically on the reporting processes and requirements

# Use of emission data

## ENVIRONMENT



- Emission trends and changes; sector analysis and policy recommendations; air pollution fate in the atmosphere: concentration and deposition patterns, country to country exchanges
- As input to effects estimates and development of cost-effective emission scenarios
- 2016 Assessment Report under the Convention
- Input to various national, sub-regional, regional and global assessments e.g. Stockholm Convention - POPs, UNEP/Minamata Convention - Hg assessments, etc.

# Linkages and synergies with UNECE Guidelines for the Application of Environmental Indicators and SEIS



## ENVIRONMENT

- **UNECE Guidelines for the Application of Environmental Indicators**

### A-1: Emissions of pollutants into the atmospheric air:

- Mobile sources (can be calculated according to the ECE nomenclature for reporting (NFR) used for reporting under the Air Convention)
- Stationary sources (can be calculated according to the ECE nomenclature for reporting (NFR) used for reporting under the Air Convention)
- National totals (same as in ECE nomenclature for reporting (NFR) used for reporting under the Air Convention)
- **SEIS**
  - 14 datasets that relate to emissions of pollutants into the atmospheric air are also reported under the Air Convention



# Thank you!

<http://www.unece.org/env/lrtap/welcome.html>

