

# Workshop on data management for air emission inventories

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# Content

- Data quality criteria
- Data needed for calculation and reporting
- Institutional arrangements
- Public Information and Confidentiality
- Use of Air Emission Inventory Data

## Common data quality criteria (1)

Certain criteria must be met for the data needed by the air emission inventory team for calculation and reporting of air emissions.

- Timeliness. Keeping in the agreed deadlines.
- Complete time series from 1990 to actual year -1
- Completeness. If data is not complete on time then 'gap-filling' of missing data (mostly for last year) is needed.
- Agreed standard exchange formats. Must be defined whenever two organisations/divisions periodically exchange data. Very important for efficiency of work too.
- Internal data consistency and consistency with other dependent data. E.g. for energy data clear fuel definitions must be defined.

## Common data quality criteria (2)

- Methodology description of data.
  - Used for Informative Inventory Report (IIR)
  - Used for evaluation of uncertainty.

## Emissions Database - Fixed Data

A database includes also fixed data which mostly consist of lists which define **valid codes and descriptions**, for air emission database this would be e.g.:

- Reporting format (NFR/CRF categories)
- Fuel definitions -> NFR/CRF fuel categories (solid, liquid,..)
  - IPCC 2006 reporting guidelines
- Pollutants
- Units and unit conversion
- Years
- Energy balance structure
  - e.g EUROSTAT database: Products/fuels and Sectors

## Emissions Database - Numeric Data

Numeric data will be on a yearly basis at sector level and at facility level and includes

- Activity rates
  - Energy consumption
  - Production data (e.g. tons of cement)
- Emissions
- Emission factors / implied emission factors

Zero values are in general not allowed to be reported in the NFR/CRF. Thus we need to store also non numeric data (notation keys). This makes data handling and reporting more complex.

## Institutional Arrangements

Institutional arrangements are necessary within a country to obtain data of a certain quality every year.

The arrangements should consider:

- Ensure resources for data preparation
- Deadlines
- Data exchange formats
- Confidentiality issues (the „data owner“ decides)
- Quality checks (Who checks it ?)
- What are the data exactly allowed to be used for (If data are very sensitive)

# Public Information and Confidentiality

- Aarhus Convention
  - UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters.
  - Grants rights to the public regarding access to information.
- DIRECTIVE 2003/4/EC on public access to environmental information
  - Relevant for E-PRTR (European Pollutant Release and Transfer Register)
  - Specifies reasons for confidentiality (e.g. personal information, national defence, strong competitive issues).
- In general air emissions from a facility as well as the owner and location information are not confidential:
  - Large combustion plants directive (LCPD). Energy consumption and capacity is also public.
  - E-PRTR: Production data is voluntary. Personal contact data is strictly confidential.
  - EU Emission trading scheme (ETS). Facility name is public.



## Public Data Access

Public access to emission and facility data is already implemented in online databases/dataviewers or public datasets which can be accessed via webpages:

- EEA
- UNFCCC
- EMEP
- Energy and production data is available at the EUROSTAT homepage.
- Other relevant data may be published in the IIRs.

## Use of Air Emission Inventory Data

Beside reporting under the NEC directive the data may be used for:

- Projections (including activity data)
- Air quality models (EMEP, RAINS)
- Questionnaires (EUROSTAT, OECD)
- UNFCCC (indirect greenhouse gases)
- National scenario data in GAINS model.
- NAMEA Air (EUROSTAT). Link to economy.

## Contact & Information

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