

ReportNet3 & FAIRMODE

Template for Assessment

2. October 2026

ModelObjectiveEstimation (MOD or OBE)

MOE_08 – MethodApplication (Purpose of the model application. Examples include 😊)

- **assessment**
- adjustment
- scenario
- spatial representativeness

MOE_09 – GenericMQI (Modelling Quality Indicator.)

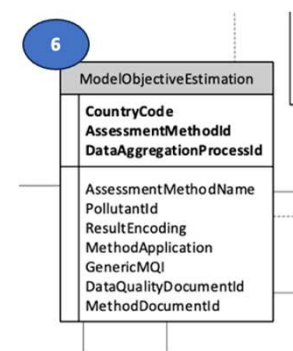
- MQI is reported here because it may originate from model or OBE validation exercises not directly related to the area for which modelling results are submitted within AQ e-Reporting. It is considered general information describing the quality of the modelling application used in the reporting.

MOE_09 – DataQualityDocumentId

- Identifier of the report detailing the quality of the modelled data, given by the data provider.

MOE_10 – MethodDocumentId

- Identifier of the report describing the model, given by the data provider.



Assessment template requirements

➤ Needs to reflect the requirements from AAQD 2024/2881

- **Articles 8 and 23** require Member States to undertake air quality assessments and to report the findings of those assessments to the Commission on an annual basis.
- **Annex V - Data quality objectives**, in particular Point A. Uncertainty of measurements and modelling applications for ambient air quality assessment (MQI and MQO) Point E. Results of air quality assessment; Point G. Promotion of harmonised air quality modelling approaches

➤ Needs to reflect the requirements Implementing Act – Commission Implementing Decision 2026/1208

- Article 2 - Criteria for the use of modelling application
- Article 3 - Quality assurance and validation of modelling applications
- Article 10 - Use of modelling results for air quality assessment
- *(Article 9 - Use of indicative measurements for air quality assessment)*

➤ Needs to be consistent with the ReportNet3 vocabulary

➤ Should contain all necessary information for support the evaluation of the assessment, its reporting and future compliance checking ?

Examples of existing assessment reports

REPORT

High resolution PM₁₀ and PM_{2.5} f

A national study for 2023 bas
street canyon level

Fredrik Windmark, Maria Gru
Arvelius



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ENCOMIENDA DE GESTIÓN
ÁMBITO DE LA APLICACIÓN
EVALUACIÓN DE LA CALIDAD

Aplicación de modelos par

Preevaluación c

EVALUACIÓN D
EN ESPAÑA UTILIZANDO
COMBINACIÓN DE
PREEVALUACIÓN

Mar
Mark Theobald
Victoria G

División de Co

Avda. Complu

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30 Junio 2018

Template for “assessment” document (I)

Summary of assessment results

Short summary of the regulatory air quality assessment and its main outcomes.

Short overview on the assessment methodology

Vital information to include – needs to be consistent with ReportNet3 key parameters and their vocabularies

Provided in table form to allow easier link to ReportNet3 parameters, helping both reporting activities and posterior compliance checking activities

Pollutant(s) assessed	(e.g. NO ₂ , PM ₁₀ , PM _{2.5} , O ₃)
Air quality zones assessed	AQZ/Average exposure territorial unit / City / Region / NUTS region/modelling domain
Base year (s) for the assessment	YYYY
Temporal resolution	IA- CID 2026/1208 Article 2 (a)
Spatial resolution	IA- CID 2026/1208 Article 2 (b)
Responsible / competent authority	Name and email
Responsible modelling team	Name and email
Name of the model(s)	
Type of model(s)	(CTM / AI/ statistical / hybrid)
Data assimilation	(Yes/No) method

Template for “assessment” document (II)

Methodology used for the modelling assessment

- Short introduction to the purpose of the modelling application
- **Modelling chain** - Description of the modelling chain and configuration of the base-case assessment run, including modelling domain, grid projection, spatial resolution and vertical structure, temporal resolution and simulated period
- **Emissions** - Description of emission input data including, horizontal, vertical and temporal disaggregation, chemical speciation, alignment with the modelling requirements and accounting for all relevant sources in the area of interest ([as required in IA- CID 2026/1208 Article 2 \(c\)](#)). Provide in table form information of emission inventory used (source, base year, sector classification GNFR / SNAP, sectors included) and relation with national inventories. Quality assurance of the input emission inventory performed as for instance completeness, consistency, sector coverage, using the FAIRMODE benchmarking tool
- **Meteorological input** – description of the origin of the meteorological data (observations, meteorological model) and its spatial and temporal resolution that needs to be similar to the modelling application ([as required in IA- CID 2026/1208 Article 2 \(d\)](#)) Quality assurance performed on meteorology input data to ensure representativeness (Article 2(d)) including an analysis of representativeness of the validation year(s) and inter-annual meteorological variability, following guidance in the TSD
- **Boundary and initial conditions** – when the modelling application requires the use of background concentrations, show here that those are, to the extent possible, aligned in terms of temporal resolution, spatial resolution, spatial extent, and detail in the chemical speciation with the modelling application requirements over the area of interest ([as required in IA- CID 2026/1208 Article 2 \(e\)](#))
- **Data assimilation/data fusion**- description of the approach to combining modelling with measurements (data fusion / assimilation), if applied
- **Dispersion calculations** – description of chemistry transport configuration to show that the modelling application is, to the extent possible, capable of capturing the following elements specific to the area of interest: (i)site-specific dispersion characteristics; (ii)orographic boundary conditions (iii)meteorological conditions; (iv)adverse climatic conditions;(v)transboundary contributions; ([as required in IA- CID 2026/1208 Article 2 \(a\),\(b\) and \(f\)](#))
- **Exceedance calculations** Method to derive concentrations and exposure metrics at the relevant locations (sampling points, grid, exposure units) to identify potential hotspots in the zone, and, if applicable, to provide information on the area of exceedance calculated by the modelling application ([following IA- CID 2026/1208 Article 10](#)).

Other information that could be included:

- Use of indicative measurements for air quality assessment ([following IA- CID 2026/1208 Article 9](#))
- Sensitivity and uncertainty analysis

Template for “assessment” document (III)

Quality assurance and validation of modelling applications

Following Article 3 of the Implementing Act CID 2026/1208

Vital information to include

- **Data quality objectives** - description of the indicators used for the data quality evaluation (MQI long-term and MQI short-term, other indicators..)
- **Sampling points used for validation** - number, type, spatial coverage and variability of sampling points used for validation (as required in IA CID 2026/1208 Article 3, point 3)
- **Validation results per pollutant** - at different types of sampling points and presenting validation plots for the different indicators (histograms, different MQI plots, annual, daily and hourly values)

Other information that could be included:

- **Data assimilation/data fusion of measured concentrations**- Information of data assimilation to ensure independent validation data has been used. According to IA CID 2026/1208 Article 3, point 5, “when evaluating modelling applications that incorporate the integrated use of models and measurements, only measurement data not used in the modelling application results and complying with the data quality objectives set out in Annex V to Directive (EU) 2024/2881 shall be used for the evaluation of whether the modelling quality objective is fulfilled.”

Template for “assessment” document (IV)

Results

This section is recommended but not vital

- **Concentration assessment** - Maps of concentrations for each of the assessed pollutant(s)
- **Exceedance assessment** - Exceedance / attainment status per zone

Other information that could be included:

- Population exposure and Average Exposure Indicator (AEI)
- Uncertainty ranges around assessed concentrations

Discussion and conclusions

This section is recommended but not vital

- Conclusions on concentration and exposure assessment
- Limitations of the modelling application and potential improvements for the next assessment

Feedback and initial reactions

- How often is this document to be updated? This determines what sections can be optional or not
- The results section should be optional
- How to relate this document with the DataQualityDocumentID? Do we need this section or is it a separate document?
- Recognising that the documentation requirements for each modelling application are different, make sure the structure of the 4 templates for the different modelling applications is aligned to avoid reporting overload