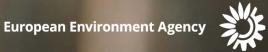
EEA preliminary ideas for the future revision of the IPR

Alberto González Ortiz/ FAIRMODE Technical meeting/ Athens, 6 October 2023



Context: on-going revision of the Ambient Air quality Directives

European Commission	English	Search
Energy, Climate change, Environment		
Environment		

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Revision of the Ambient Air Quality Directives

Improving the EU's air quality standards for zero pollution by 2050.

On 26 October 2022, as part of the European Green Deal, the Commission has proposed to revise the Ambient Air Quality Directives. The revision aligns the <u>air quality standards</u> more closely with the recommendations of the World Health Organization (see the latest WHO Air Quality Guidelines [2], published on 22 September 2021). For example, the annual limit value for fine particulate matter (PM2.5) will be reduced by more than half.

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Revision of the Directives

Stakeholder consultation

'Fitness check' of the Directives

Revision of the Directives

The proposal is available here and

- puts the EU on track to achieve zero pollution for air by 2050
- · foresees a regular review of the air quality standards, in line with latest scientific evidence
- further improves the legal framework, providing more clarity on access to justice, damage redress, effective penalties, and better public information on air quality

ETC HE Report 2022/7

Recommendations for an update of the **Implementing Provisions for Reporting (IPR)** in connection with the revision of the Ambient Air Quality Directives



Authors: Leonor Tarrasón and Cristina Guerreiro (NILU)

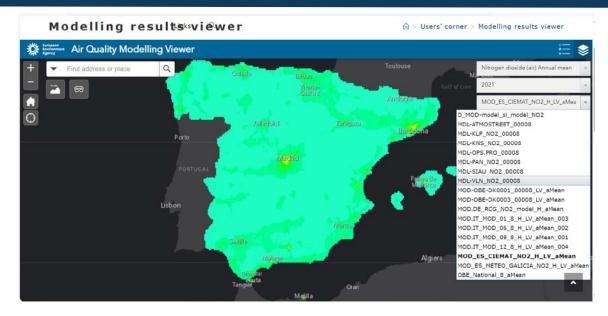


Outline

- Current reporting of modelling
- Basic principles for IPR
- Modelled data for assessment/attainment including
 - Model quality objectives
 Spatial representativeness and exceedance indicators
 Modelled data in the context of plans including
 Source-apportionment
 WG2
 WG3
 WG4
- New elements in the AAQD proposed by the Commission



Modelled data for assessment/attainment: current reporting situation



Modelling results viewer

		g Viewer	- S
 Find add 	dress or place	Q	Nitrogen dioxide (air) Annual mean
2 😡			2021
			MOD_ES_CIEMAT_NO2_H_LV_aMea
		Colmania	Default color ramp
	Villaba	Yisjo	Model layer visible
	de El Escorul	Nitrogen dioxide (air) / Annual mean / 1 calendar ye	eðr
		Country Code: ES Year: 2021 Pollutant: Nitrogen dioxide (air)	
		MacIncl Aggregation: Annual mean / 1 calendar year Value: 74.50	
		Meta-data: model meta-data	
		CDR envelope: <u>source data</u>	
		CDR envelope: <u>source data</u>	
		Meta-data: model meta-data	

Models and objective estimation table

ir Quality Models and bjective Estimations (data ows D1b/E1b) is viewer shows information on Air Quality odels and Objective Estimations reported thin AO e-Reporting									Filters Clean Country [all]	
	B-G Namespace		AQ Model Id	Model Process Id	Model Area Id	Assessment Type		Air Pollutant Description	Year [all] AQ Model Id	
Austria	AT.0008.20.AQ	2018	OBE.1.801	OBE.MOP.1.2018.801.96	ZON- AT_05	Objective estimation	SO2	Sulphur dioxide (air)	Assessment Type Modelling (1378) Objective estimation (2157) Air Pollutant Description	
Austria	AT.0008.20.AQ	2018	OBE.1.802	OBE.MOP.1.2018.802.82	ZON- AT_05	Objective estimation	SO2	Sulphur dioxide (air)	[all] Data Aggregation Process [all]	
Austria	AT.0008.20.AQ	2018	OBE.1.803	OBE.MOP.1.2018.803.121	ZON- AT_07	Objective estimation	SO2	Sulphur dioxide (air)	Result Encoding external (1133) inline (2402) Result Format ascii-grid (355) esri-shp (583) geotiff (195) swe-array (2402)	
Austria	AT.0008.20.AQ	2018	OBE.1.804	OBE.MOP.1.2018.804.110	ZON- AT_07	Objective estimation	SO2	Sulphur dioxide (air)		

AQ e-Reporting recommends FAIRMODE's MQO to report on modelling quality

European Environment Agency



Basic principles of any future update of the IPR

Data (including metadata), information and parameters required under e-reporting need to:

- 1. Be transparent
- 2. Be **comparable** for different periods and from one place to another
- 3. Be provided in such a form that it is **easy to be assessed** in terms of **completeness**
- 4. Be quantifiable
- 5. (metadata) Be reported, preferably following a checklist approach
- 6. (additional info) Be provided in established common repositories
- 7. Be **usable** and **useful** to trace progress in the implementation of the Air Quality directives
- 8. Have a **clear status**, either mandatory, conditional, or voluntary, avoiding statements such as "when available" that give rise to confusion and misunderstandings





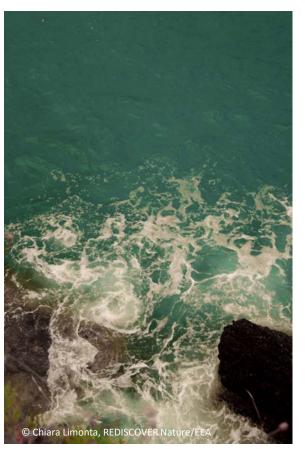
Modelled data for assessment and attainment

FAIRMODE recommendations:

- to make modelling mandatory for air quality planning, exposure calculations and short-term forecast.
- modelling should be strongly encouraged for monitoring network design, exceedance indicator estimates and near-real-time mapping, source-apportionment and estimates of long-range transport and to define zones and agglomerations.
- the use of FAIRMODE's Model Quality Objective (MQO).
- Update the current definitions of MQO to allow for percentiles and other statistics in addition to annual averages and align them with the FAIRMODE's MQI/MPI definitions
- **Define better** the **information** to be reported in the future under current dataflows D1b (metadata on models and objective estimation) and E1b (modelled data)
- Include information, as metadata, on the emissions used in the models (to understand both exceedances and reductions in plans)
 European Environment Agence



Spatial representativeness and exceedances indicators



SPATIAL REPRESENTATIVENESS

- Make it a **mandatory** reporting element
- Report the methodology applied, following the tiered approach by FAIRMODE, with preference to the **use of models**
- Avoid reporting spatial representativeness by means of polygons which will imply a heavy processing burden
- Reporting using a standardized way, for instance a common European grid, probably provided by EEA (that could be used also for zones and, for sure, for exceedance indicators)

It could also be implicitly calculated every year from the reported modelled data

• Adopt a **common reference year** to define the spatial representativeness?

EXCEEDANCE INDICATORS

- Use the results provided by **models**
- Keep an eye on **FAIRMODE** ongoing **guidance**
- It could be reported either **under G or**, if not available, when drafting a **plan**





Reporting of plans (including source apportionment) 1

Some current shortcomings in the structure/reporting of plans

- No clear relationship among the four different dataflows.
- Dataflow I is at the center of reporting, while it should be the plan itself.
- The references to source apportionment focuses on the increment approach
- Lack of completeness in most of the reported plans: lack of resources, competence...
- Lack of reporting of effectiveness of measures
- **Simplify** the information to be reported to avoid current shortcomings in terms of non-used information and structure (links among different dataflows)
- Make **model** as **mandatory** basis of drafting and reporting of plans
- Merge the reporting in **one single dataflow**, following the logics of a plan drafting



Reporting of plans (including source apportionment) 2

- H: plan information, model information, baseline scenario, definition of receptor area
- I: SOURCE APPORTIONMENT
 - Not recommend the incremental method but follow FAIRMODE recommendations on different methods. The method should be specified
 - Link it to the required **receptor area**/AQ zone, addressing the relevant **source areas**
 - Use a **common** existing **regional** source apportionment;
- J: information on the **projection** year for attainment
- K: measures linked to the sources identified in I
 - Assess the program as a whole, instead of individual measures
- Consider also the possibility of reporting **plans not linked to** specific **exceedances**



New elements of e-reporting (proposed revision of the AAQD)

- Obligation of using modelling applications in case of exceedances of LV or O₃ TV (art. 8 of the Commission proposal):
 - This will make unnecessary the spatial representativeness for exceedance indicators
- New requirement of reporting UTD modelling results, where those are available (Annex IX.1.(a) of the Commission proposal)
- Annex IV.D.5 in the Commission proposal asks to use gridded data **from NEC** and **emission information** from **IED Directives**:
 - We think, in connection with the use of emissions for modelling AQ, it would make more sense to ask for other bottom-up inventories



European Environment Age



Thank you for your attention and your feedback!

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