



Recommendations on planning

Summary of the received feedback

- 31 comments received
- Comments from 9 entities (NCP acted as collectors of feedbacks)
- In the next slides we go through the key parts in planning, with:
 - **In red:** changes on the original text
 - In yellow: More simple comments
And reply (in italic)
 - In orange: More to be discussed
And reply (in italic)

Planning mentions in the document

- **Executive summary**
- Section 5: recommendations regarding planning
- Impact on legislation
 - On the AQD
 - On the IPR

Executive summary generic part (1/2)

The main recommendation from FAIRMODE is to secure and enable an extended use of modelling for air quality management purposes:

- Assessment ...
- Forecasting ...
- Source apportionment ...
- **Planning purposes**: Development and assessment of plans and measures to improve and ensure good air quality & to meet air quality standards.

Executive summary: recommendations (2/2)

Air quality plans:

Use of models: models are the recommended tool for designing air quality plans and assessing ex-post their effectiveness.

Harmonization: to facilitate exchange of best practices, it is necessary to harmonize the way in which plans are reported.

Guidance: **more guidance and recommendations are needed, to help design effective air quality plans.** 26 - Which guidance? *Here we state we need more guidance for methodologies for plans and programmes*

Benchmarking: models should be benchmarked using FAIRMODE **methodologies** or equivalent, especially before being used for air quality planning.

27 - People may like to program it themselves.

Here we propose methodologies, not programs.

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5.1 Background (1/2)

Air quality planning is therefore required when the air quality in a given zone exceeds the limits set in legislation, ~~but also when future emission projections are not sufficient to reach the suggested limit values~~

95 - This is not so much a requirement for doing a AQ plan, but a requirement on the AQ plan itself. That is, the AQ plan has to show that it will succeed.
Text has been removed.

96 - I'm not sure if this is relevant here. You need to produce an action plan when a LV is exceeded. It does not matter if future emission projections show that the LV will be met in time.
Text has been removed.

5.1 Background (2/2)

In any case, designing air quality plans is a complex task, involving, among others, the following sub-tasks:

- identify and quantify the sources that contribute to air pollution (both for long-term and short-term **standards** Air Quality indicators);
- identify possible mitigation measures to be applied to each of these sources and;
- evaluate the effectiveness of mitigation measures **and strategies**.

97 - What are long-term and short-term standards?, or should this be "periods" ?
Text has been changed.

98 - "Strategies" definition within the text
Text has been removed.

5.2 Challenges (1/3)

Challenges are:

- plans are not always designed using air quality models, Yet, the appropriate type of models should be used, depending on the needs and the context;
- The availability and completeness of data needed to design air quality plans (on emission inventories, air quality models, data on costs and **removal efficiency** of measures, etc

101 - This could be an entirely separate point in this list of challenges

104 - What does this mean? Efficiency in decreasing concentration levels? In this point you write about lack of data for designing AQ plans...it seems the problem is actually how to evaluate if the AQ plan has been effective. We are talking about upstream challenges, right? *Here the focus is on data, availability and completeness...*

5.2 Challenges (2/3)

105 - This is downstream. There are challenges in terms of designing (upstream) and challenges in terms of evaluating their effectiveness (downstream) ...for clarity they should be separated.

Should we reorder these items? See next slide

- The difficulty to prioritize measures in terms of cost-effectiveness;
- **The lack of harmonization in reporting, that prevents an efficient exchange of best practices;**
- Ensuring a proper validation of modelling applications to be used to design these plans;
- **The uncertainty associated to the model responses to emission reductions. The variability of model inputs such as emissions, meteorology ...is a source of model response variability.**

106 - I agree that there uncertainties with the model **responses**, but aren't the uncertainties in the **emission** reductions more relevant? *Both are relevant*

- Ensuring coherence between the National air pollution control programmes (NAPCP) in the frame of the NEC directive and air quality plans.

5.2 Challenges (reordered) (3/3)

1. Ensuring a proper validation of modelling applications to be used to design these plans;
2. Plans are not always designed using air quality models, Yet, the appropriate type of models should be used, depending on the needs and the context;
3. The availability and completeness of data needed to design air quality plans (on emission inventories, data on costs and **efficiency** of measures acting on activities or emissions, etc...)
4. The difficulty to prioritize measures in terms of cost-effectiveness;
5. The **uncertainty associated** to the model responses to emission reductions. The variability of model inputs such as emissions, meteorology and diversity of model setups is a source of model response variability.
6. The need to ensure coherence between the National air pollution control programmes (NAPCP) in the frame of the NEC directive and air quality plans.
7. The **lack of harmonization** in reporting that prevents an efficient exchange of best practices;

5.3 Recommendations (1/3)

1. **Use air quality models when designing and assessing air quality plans. In some cases, plans are still designed based only on emission inventories or concentration data from the routine monitoring networks**, which is neither sufficient to capture the processes of dispersion of pollutants nor the processes involving secondary pollutants and other complex processes occurring in the atmosphere.
2. Modelling application **must** be ~~Use air quality models that have been~~ tested/validated through the recommended FAIRMODE benchmarking procedures **(MQO, QA/QC for the modelling application, ...)**.

109 - I thought we all agreed that it is not useful to validate a model. It is about the data, the model, the modeller, etc.. It is not easy to put it here correctly. I understand what you are aiming at with this item, but I do not want to have “approved models” to be introduced through the backdoor here

See proposed text in red

5.3 Recommendations (2/3)

3. Foster the exchange of information among Member States by harmonizing practices (**methodologies to develop plans, ...**)(~~in terms of approaches...~~), so that they can be replicated in different contexts.

111 - I do not agree. We want to harmonize the information and ITS FORMAT that is exchanged in order to make it comparable. We do not want to harmonize practices, because approaches and measures may need to be different in different contexts. We want for MS/cities/regions to find the best measures for their context, but then we want to have information that can be compared between AQ plans. We also want to be able to assess effectiveness and spread this information, but with adequate information that they can evaluate that a measure that was successful in one MS/city/region will possibly be also successful for their context.

I think this point has been misunderstood: for me the harmonisation of practices refers to modelling & development of AQ plans, not harmonisation of plans and measures.

5.3 Recommendations (3/3)

4. Develop guidance for air quality plans preparation. As in the case of the NAPCP in the frame of the NEC directive, a more structured approach for the design of air quality plans is needed and coordinated with other policies (on emissions, air quality, climate, energy...).

~~5. Links with WHO: we recommend the new Air Quality Directive to be aligned with the recent WHO suggested best practices (REF) (i.e. on BC/EC, ultrafine particles, sand and dust storms, etc) when the corresponding emissions are well documented.~~

200 – check deletion
This will be deleted

5.4 Implications (1/2)

- With respect to air quality plans, MS should apply air quality models to, first, assess the spatial extent of an exceedance and the main sources that should be mitigated (source apportionment), and, secondly, to evaluate the efficiency of the mitigation measures proposed/designed.
- Member States should assess the quality of their **modelling applications in the context of air quality plans**. They should be benchmarked with recommended FAIRMODE approaches (e.g. MQO, QA/QC indicators) and **possibly inter-comparison exercises** performed in the scope of FAIRMODE) to ensure the confidence and suitability of the model results.

113 - Do you really want to require that models participate in intercomparison exercises (on top of being used at all and benchmarked with e. g. the Delta-Tool)

Yes, from our experience participating to regular intercomparison exercises allow to spot bugs and show what are the most sensitive parameters, suitable models to be used...

5.4 Implications (2/2)

- Member States should follow **guidances** to prepare an air quality plan; **these guidances should be based on a** structured and integrated approach...).

115 - when? where?

114 - which one

Here we state we need guidance for air quality plans. Still to be developed.

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7.2.4 Planning

SE - This is a very good idea!

We suggest setting up a **group of experts** with the aim of revising the **provisions and information reported** on air quality plans under the IPR (known as data flows H, I, J, K). We think there is scope to streamline these requests, making the data flow **easier** for reporting entities, and at the same time more useful for other actors willing to design air quality plans.

217 - SE - Should we not also look at provisions on AQ plans in the Directives, i.e. Annex XV?
Clearer requirements for source apportionment, (modelled) map of exceedance area(s), etc.
To be discussed...

Thank you



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