



FAIRMODE CT5, the past: what we achieved up to now

Tue 18th, 16:30-17:00

CT5 – Best practices for AQ management

At first we had the pilot exercise:

- The objective of FAIRMODE's **pilot exercise** was to ensure that the FAIRMODE methodologies and guidance are applied in practice at all levels (national to local).
- Eleven regions/cities/countries participated to the pilot.

Then we worked on the 'Handbook':

- Based on the experience gained through this exercise and further work within FAIRMODE
- Recommendations (handbook) to support local, regional and national authorities in quantifying emission changes from an available set of measures and in quantifying their impacts in terms of concentration.
- Finally we suggested recommendations for AQD revision

What we produced: the handbook

Handbook on the website

CT5 - AQ management practices

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Description

The objective of FAIRMODE's pilot exercise was to ensure that the FAIRMODE methodologies and guidance are applied in practice at all levels, from national to regional and urban level. Eleven regions/cities/countries participated to the pilot exercise. Based on the experience gained through this exercise and further work with the FAIRMODE network, the activities within this crosscutting task focus in particular on elaborating recommendations (handbook) to support local, regional and national authorities in quantifying emission changes from an available set of measures and in quantifying their impacts in terms of concentration; this will be done partly taking advantage of the results already produced by other crosscutting tasks.

Related Publications

[Best practices for local and regional Air Quality management \(2022\)](#)

[Supporting the improvement of air quality management practices: The "FAIRMODE pilot" activity \(2019\)](#)

Citation: Pisoni, E., Guerreiro, C., Namdeo, A., Gonzalez Ortiz, A., Thunis, P., Janssen, S., Ketzel, M., Wackenier, L., Eisold, A., Volta, M., Nagl, C., Monteiro, A., Eneroth, K., Fameli, K.M., Real, E., Assimakopoulos, V., Pommier, M. and Conlan, B., Best practices for local and regional Air Quality management, EUR 31097 EN, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-53177-7, doi:10.2760/993882, JRC129029.

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Lesson learnt: complexity in defining measures

Copenhagen and Antwerp examples

Key messages: There are many parameters influencing the design of a LEZ. The choices for these parameters are crucial for success or non-success (ineffectiveness) of an LEZ introduction:

- Vehicle allowed to enter
- Timing of implementation
- Geographical extent
- Method of enforcement

| | Averaged impact in Copenhagen (2010) | Max impact in Antwerp (2019) |
|-------------------|--------------------------------------|------------------------------|
| PM _{2.5} | 0.2 µg/m ³ à 1 – 1.5% | |
| BC | | 0.15 µg/m ³ à 8% |
| NO ₂ | 2 µg/m ³ à 5% | 1.7 µg/m ³ à 3% |

Lesson learnt: need for integration with plans

Stressing the importance of:

- 'National Air Pollution Control Programmes' – interaction with air quality
- Interaction with Nitrogen budgets (biodiversity strategy, farm-to-fork,...)
- Climate / Energy plans
- ...

Integrated Assessment Modelling can help in this task, to support the design of national and regional plans complying with other sectoral plans (i.e. considering AQ and GHG together)



Recommendations on planning

Recommendations (1/3)

Use air quality models when designing and assessing air quality plans. Some of the required tasks are:

- identify and quantify the sources that contribute to air pollution;
- identify possible mitigation measures to be applied to sources and;
- evaluate the effectiveness of mitigation measures.

Modelling application must be tested/validated through the recommended FAIRMODE benchmarking procedures (MQO, QA/QC for the modelling application, ...).

Recommendations (2/3)

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

Coordinated with other policies (on emissions, air quality, climate, energy...).

Recommendations (3/3)

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, with related metadata).

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.

Challenges

The availability and completeness of data needed to design air quality plans (on emissions, costs and efficiency of measures acting on activities or emissions factors, etc...);

The difficulty to prioritize measures in terms of cost-effectiveness;

The uncertainty associated to the model responses to emission reductions;

The lack of harmonization in reporting that prevents an efficient exchange of best practices.

Final slide: next steps on CT5 work

- Should we update the 'handbook' with further examples/annexes?
- Final aim of this work: to provide useful information for practitioners dealing with air quality ... are we achieving this target or do we need something else?
- In parallel, we have a group willing to work on improving the 'reporting of abatement measures' ... is this complementary / replacing the 'handbook'?

Thank you



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