



CT5: summary of the existing knowledge

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Outline

- Method of work
 - 79 persons on the C5 mailing list
 - We drafted a document, discussed in a VC, got feedback, circulated a second version
- Now:
 - Presenting the current version of 'section 2' (existing knowledge)
 - Agree on how to finalize this part

FAIRMODE previous documents

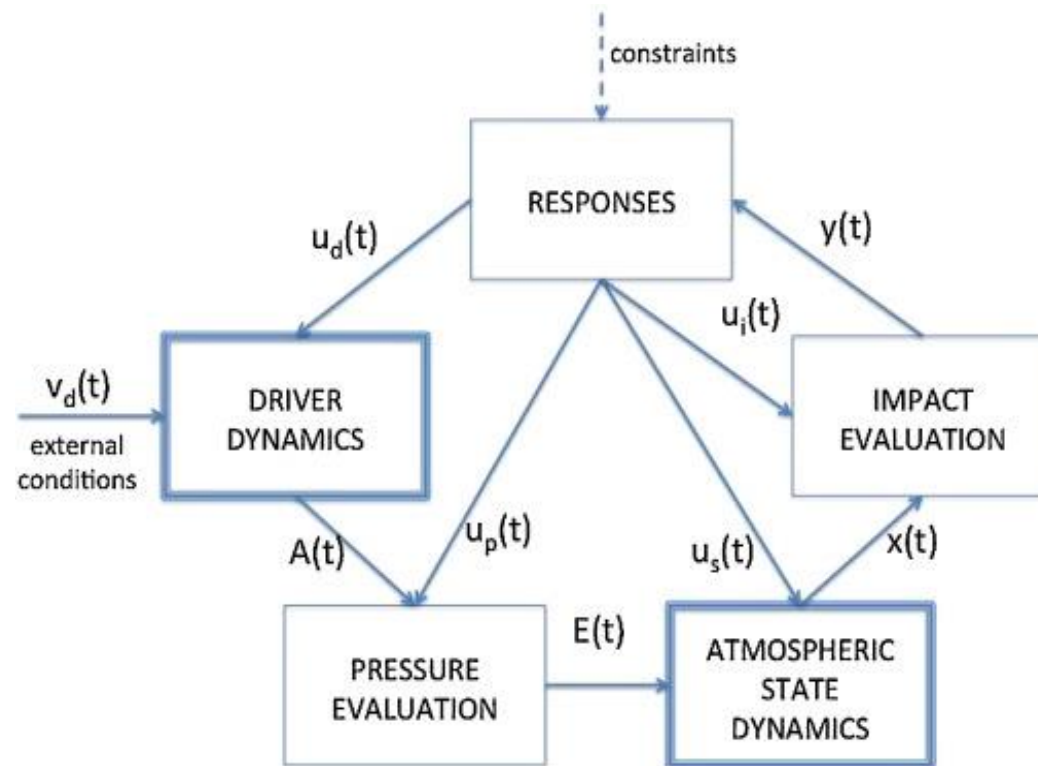
- In FAIRMODE's first guide on the use of models in the context of the Air Quality Directives (EEA, 2011), a chapter was devoted to the "Application of models for air quality planning:
- The document recognises modelling as an integral part of planning:
 - Screening and identification of sources of poor air quality;
 - Identification of possible measures to reduce emissions;
 - Simulation of the impact of emission reduction scenarios;
 - Iteration of the process to determine optimal reduction scenarios.

FAIRMODE previous documents

- In another follow up guide on ‘NO₂ modelling for air quality assessment and planning’ (ETC/ACM, 2011) a section is devoted to air quality plans.
- ‘Main advantage of air quality modelling is its usefulness as a planning tool. However, one aspect that is often not discussed or presented when simulating emission reduction scenarios is the uncertainty and variability in the calculations’. Some suggestions:
 - Multiple runs reflecting the emission and model uncertainties may be made;
 - Scenario calculations should be carried out for a range of meteorological years, rather than just one single year (**consider also Climate Change impact**). This will also provide information on the meteorological variability.

APPRAISAL FP7 project results

- Adapting the EEA DPSIR scheme to IAM:



APPRAISAL FP7 project results

Classification of RESPONSES:

- **Efficiency measures** (often called “non-technical measures”) that change activity (DRIVERS) levels, (e.g. acting on people's behaviour, impose changes of buildings to improve efficiency, *etc...*).
- **End-of-pipe measures**, applied to reduce emissions at the “pipe” of an emitting activity, i.e. modifying the PRESSURES values without changing activity.
- **Direct pollution reduction measures.** These act directly on STATE to reduce the pollution already in the environment. Planting some species of PM absorbing trees in urban environments belong to these types of measures.
- **Mitigation and compensation measures**, aimed at reducing the IMPACTS (e.g. air pollution warning systems) without changing the pollution concentration.

The 'Partnership on Air Quality code of good practices'.

- The 'Partnership on Air Quality' is part of the 'Urban Agenda for the EU'. It represents a new multi-level working method promoting cooperation between Member States, cities, the European Commission and other stakeholders.
- Among the different documents produced by the Partnership, a 'code of good practices for air quality plans' was published (2019):
 - Part I: Why to develop a City Air Quality Plan
 - Part II: How to Draft and Implement a City Air Quality Plan
 - Part III: Methodologies and Tools for Assessment
 - Part IV: Inspiring Examples

The 'Partnership on Air Quality code of good practices'.

- Key differences of initiative, in contrast to the partnership document:
 - **focus of the work:** while the partnership 'code' covers a lot of different aspects, the CT5 work is more focused on the path from 'abatement measures to emissions, concentrations and impacts'; CT5 can provide more details on the modelling chain to be applied, to properly select and evaluate abatement measures and policies;
 - **frame of the work:** being the Air Quality Directive the 'polar star' for the FAIRMODE work, CT5 should be able to really focus on the approaches useful to address the air quality management in the frame of the Air Quality Directive.
 - **community involved:** while the partnership had a very specific structure and participants (multi-level), in the case of FAIRMODE, CT5 has a quite large community, that would allow CT5 in principle for a broader coverage of the available techniques, and a stronger focus on harmonization of approaches.

Air implementation Pilot from EEA

- The Air Implementation Pilot (EEA, 2018) was an activity jointly run by 12 EU cities, the European Commission, and the EEA.
- Aim: better understand the challenges cities face in implementing air quality policy; and sharing experiences.
- The Pilot focused on five 'streams': one was 'Management practices'; Some common features did emerge among cities:
 - In most of the cities, more than 50% of the implemented measures are traffic related. Other focused on the domestic, commercial and industrial sectors.
 - Another common feature: difficulties in understanding how to define and assess the effects of measures, and to assess costs benefits of measures to abate pollution.

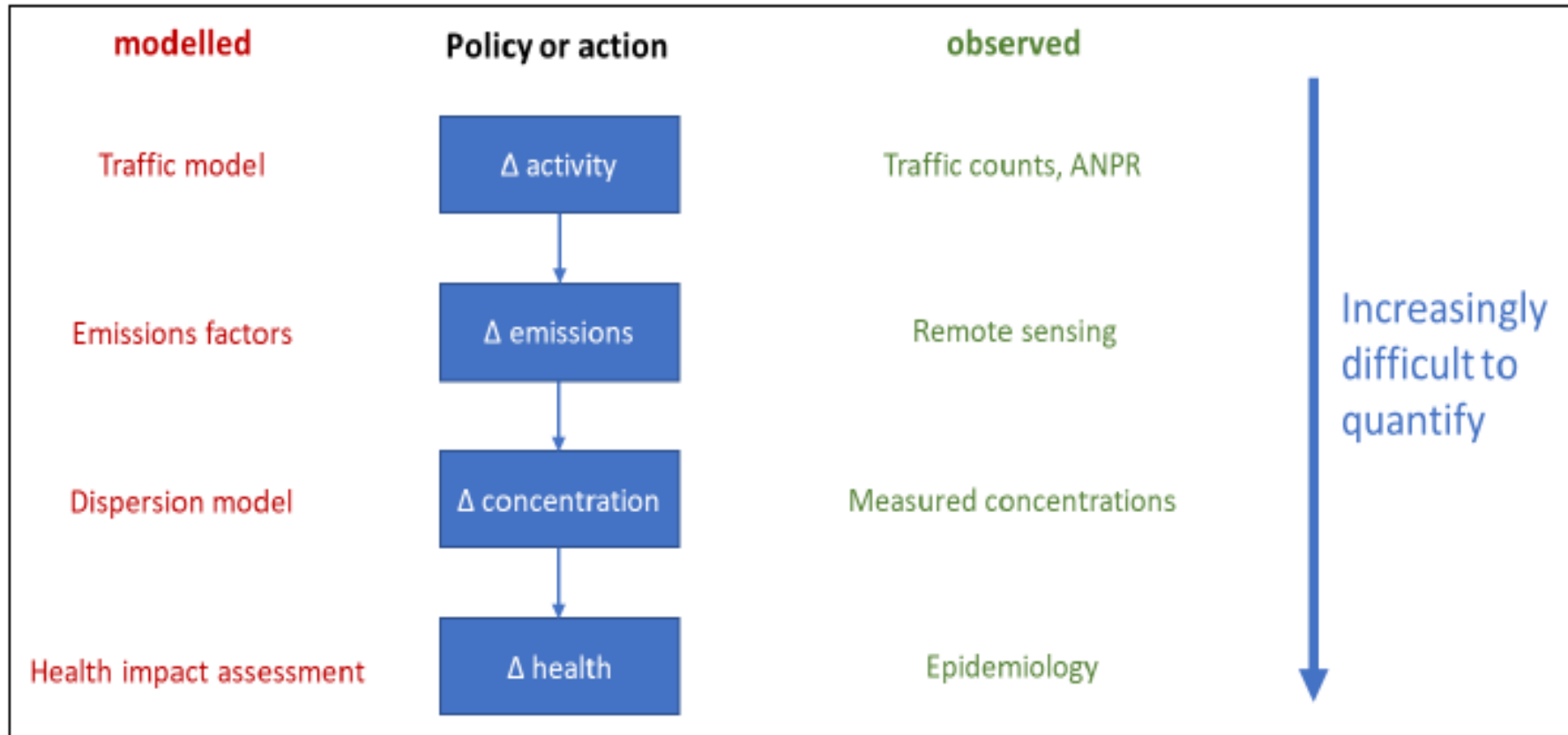
The 'Catalogue of measures'

- The 'catalogue of measures' provides a selected number of successful (best practice) and unsuccessful Air Quality measures.
- The selection of measures is intended to be representative for different circumstances in the EU. It was mainly based on a workshop held by EEA within the Air Implementation Pilot project in February 2013.
- Measures are regarded as being successful when goals (emission reduction, air quality improvements, changes in further indicators) were achieved.
- Even if the 'catalogue' can be a useful source of information and examples, it often lacks quantitative information, and is a bit outdated.

UK guidance

- The UK ‘Joint Air Quality Group’ has developed a guidance on how to manage NO₂ exceedances.
- In particular, detailing some methodological steps to be followed when preparing a plan.
- Their suggestion is to start developing a long list of options available to reduce NO₂ exceedances; and then to come up, with a shorted list, on which to perform “Cost-benefit analysis” and “Distributional and equalities analysis”.

UK guidance



UK guidance



Colour code: Green: prior to intervention Purple: during intervention Red: After intervention

Conclusions

- We presented the ‘Section 2’ of the document (‘existing knowledge’)
- Do you have comments? Suggestions ?

- Next phase will be on Section 3 (‘key challenges’)
 - More discussion on this topic in the next presentation

Thank you