



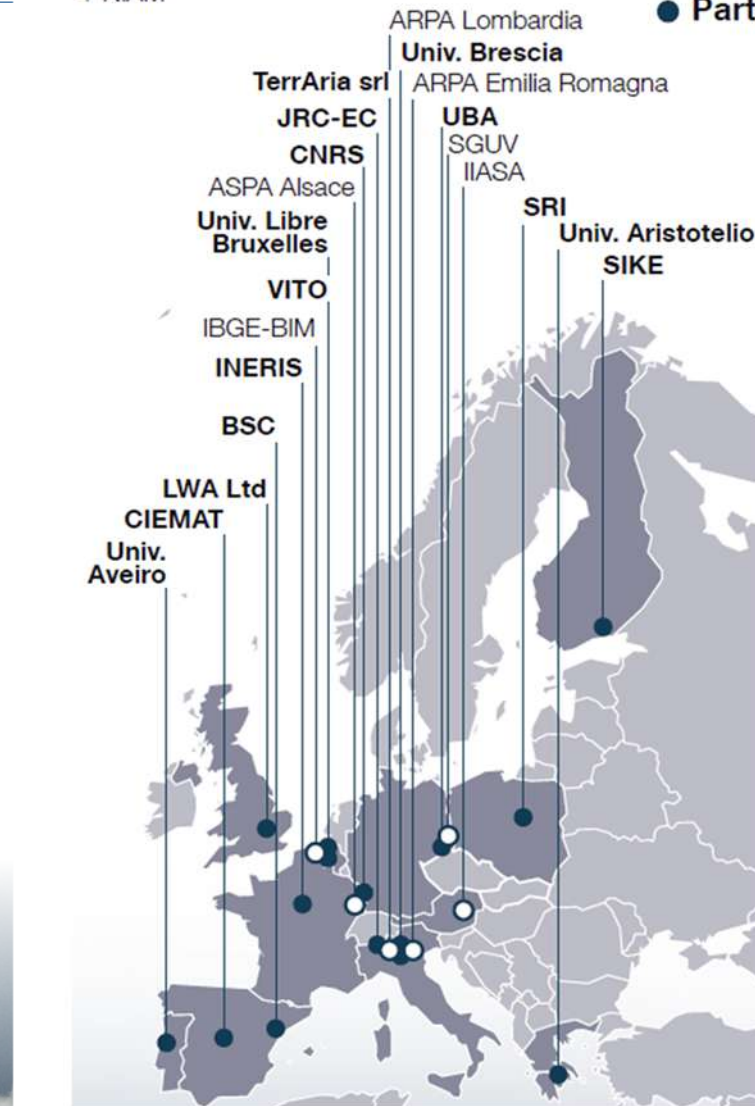
**Appraisal** project

Air Pollution Policies  
for Assessment  
of Integrated Strategies  
At regional and Local scales

**APPRAISAL Project**  
**Integrated assessment for**  
**regional and local air**  
**quality policies**  
**(2012-2015)**

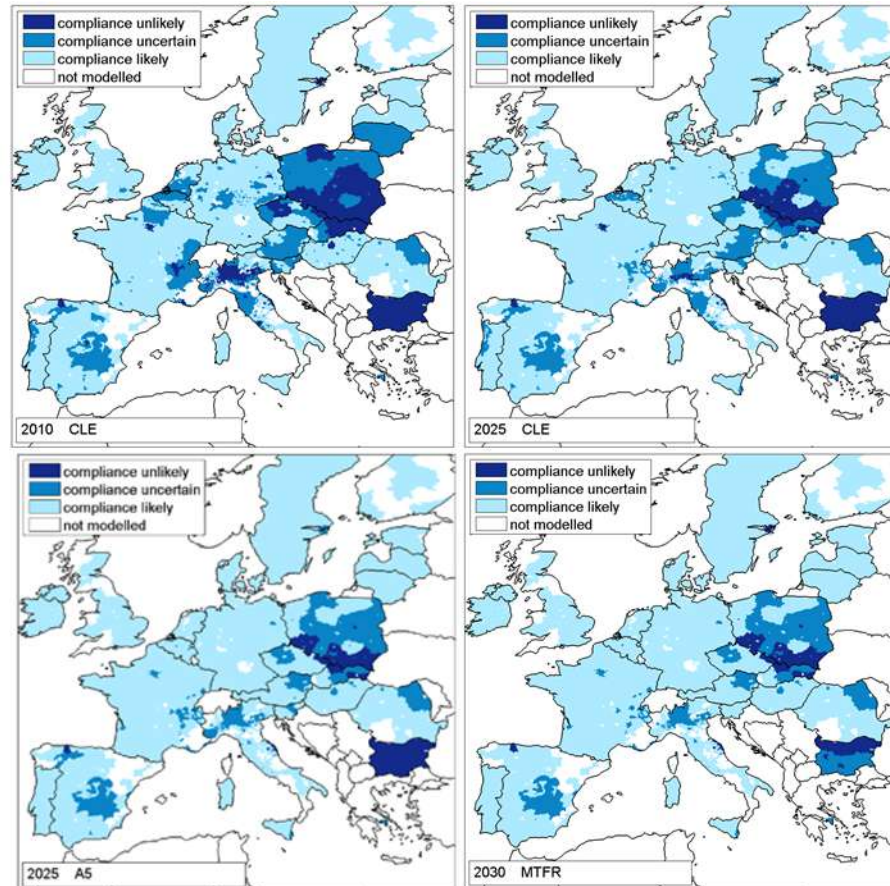
**M. Volta – DIMI University of Brescia (I)**

# Partners & Stakeholders



# Background and motivation

PM10





# THE CONTEXT

which data, models, methodologies, tools to design Air Quality Plans?

## DIRECTIVE 2008/50/EC

### CHAPTER IV - Article 23

Where ... the levels of pollutants in ambient air exceed any limit value or target value ... Member States shall ensure that air quality plans are established ... in order to achieve the related limit values or target values

## INTEGRATED ASSESSMENT MODELLING:

Modeling system that combines scientific knowledge of social and natural sciences to provide information for the management of AQ and its impacts.

COMMISSION IMPLEMENTING DECISION 2011/850/EU  
CHAPTER III - Article 13  
In accordance with the procedure referred to in Article 5 of this Decision, Member States shall make available the information set out in Parts H, I, J and K of Annex II to this Decision on air quality plans as required by Article 23 of Directive 2008/50/EC

# THE IMPACTS

AQ COMPLIANCE  
HEALTH  
ECOSYSTEMS  
CLIMATE CHANGE  
EMISSION REDUCTION COSTS





# APPRAISAL STEPS

- 1. Analysis** What approaches are currently used to design and assess regional/local air quality plans ? What are their strengths and weaknesses?
- 2. Design** Which data, models, methodologies to design Air Quality Plans?  
What are the future research needs to improve these approaches?
- 3. Guidance** How to integrate data, models, methodologies in a tool?  
Two test cases
- 4. Communication to key stakeholders and to policy-makers of the state-of-the-art scientific knowledge on air quality assessment**
- 5. Support the review of the EU Air Policy**

# Expected outcomes

## 1. ANALYSIS

- **Database** of Integrated Assessment and Health Integrated Assessment Systems in the EU
- Identification of **limitations** of current plans / IA systems
- Insight on how to **harmonize top-down and bottom-up** approaches;
- Insight on **AQ and health** assessment methodologies

## 2. DESIGN

- **Designing** a Decision framework
- **Specify indicators and procedures** to assess the sensitivity of effective policies
- Identification of **research gaps**

## 3. GUIDANCE

- **Improve** the use of **scientific knowledge** by policy makers and regulatory bodies
- direct **research** to fill current gaps
- Improve tools to deeply integrate all decision levels.
- Two test cases (**Brussels, Porto region**)



# Impacts

- APPRAISAL identifies key areas for future research
- APPRAISAL contributes to the Air Quality Review



## APPRAISAL identifies key areas for future research

- Inclusion of socio-economic aspects in the analysis
- Including “Efficiency/non-technical measures” in optimized IAMs
- Multi-scale interactions: atmospheric processes and decision making
- Better integrate Air Quality and Climate Change policies in the IAM framework



# APPRAISAL contributes to the Air Quality Review

- Provide multi-scale IAM tools to support air quality authorities in selecting efficient mitigation strategies.
- Further incorporate uncertainty estimation in IAM to assess the robustness of the proposed solutions.
- Improve (long, short term) exposure estimates to better assess the impacts of poor air quality on health.



# APPRAISAL STEPS

- 1. Analysis** What approaches are used to assess regional air quality and weaknesses?  
**Results of the APPRAISAL IAM review**
- 2. Design** Which data, models, methodologies are used to design Air Quality Plans?  
What are the key findings?  
What are the key approaches?  
**The IAM decision framework as a result of the Appraisal project**
- 3. Guidance** How to integrate data, models, methodologies in a tool?  
Two test cases
- 4. Communication to key stakeholders and to policy-makers of the state-of-the-art scientific knowledge on air quality assessment**
- 5. Support the review of the EU Air Policy**



## Contacts & Info

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