



OBJECTIVE

Provide the recommendations to **support modeling groups** in reducing modelling uncertainties related to **emission processing**

Provide **operational guidelines concerning integration and harmonization of urban/regional emission inventory**



MOTIVATION

Reducing the **uncertainties related to emission estimation** will lead to a better development, implementation and evaluation of model based air quality assessment, air quality plans and source apportionment **in the framework of the Ambient Air Quality Directives**



LOCAL UNCERTAINTIES DETECTION

Discrepancies between **local and larger scale** emission inventories

Influence of air quality model **spatial resolution in urban areas**

Weaknesses and strengths of **multiscale modelling**

Uncertainty of **emission factors** in:

- Road dust resuspension
- Waste combustion
- NMVOC emission
- Domestic heating and wood ovens



RESULTS

Guidelines on emission compilation to reduce modelling uncertainty

An on-line **web-based tool** for emission processing

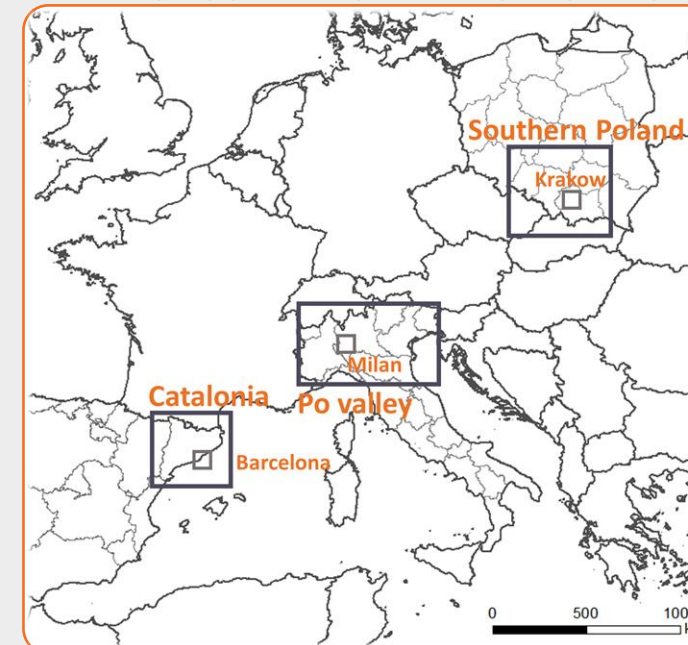
Air quality modelling studies - impact of emission uncertainty

Regional and local scale assessment (including **COVID period**)



STUDY AREA

LIFE-REMY'S REGIONAL AND URBAN EVALUATING AREAS



ITALY

CTM: CAMx (RSE)
 RM: Milan (CSIC)
 UM: UTAQ Milan (TA/AMAT)
 IAM: RIAT+ (TA)

SPAIN

CTM: CAMx (RSE)
 RM: Barcelona (CSIC)
 UM: UTAQ Barcelona (TA)

POLAND

CTM: GEM-AQ (IEP-NRI)
 RM: Krakow (CSIC/IEP-NRI)
 UM: GEM-AQ Krakow (IEP-NRI)

CTM: Chemical Transport Model
 RM: Receptor Model
 UM: Urban Model
 IAM: Integrated Assessment Model

