



On the impact of chemical boundary conditions on air quality modelling.

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In an attempt to improve air quality modelling at the regional scale, the sensitivity of the skills of the regional chemistry and transport model CHIMERE to chemical boundary conditions is assessed.

Bridging the scales to reproduce the impact of long range transport on local air quality is an important focus of several ongoing European projects such as MACC (for short term forecasts) or CityZen (for mid-term trends).

Three different global chemistry models can be used to drive the regional model (LMDzINCA, MOZART and CTM2). In this paper, we present an assessment of the performance of the model to all three sources of data using in-situ observations. The impacts of the temporal resolution (hourly, 6-hourly, daily or monthly) for both gaseous and aerosol species and the role of the selected components used as boundary conditions will be discussed.