Urban air quality modelling
Planning smart cities, optimizing transport and improving human health are key aspects of a sustainable urban development. In this sense, having air quality information is a core aspect for optimal decision making and planning.

Summary

Air quality is an issue of major concern, especially in urban areas, where the impacts on health caused by exposure to airborne contaminants are critical. The integration of technology and innovation, with real-world applications that improve the quality of life of citizens, is essential.

Air quality impact assessments provide a detailed diagnosis of areas with pollution problems and are useful to identify actions that can be taken to mitigate the effects. This includes considerations on conurbations, the use of alternative fuels or new technology vehicles or the change in the speed circulation patterns.

CALIOPE-Urban, a system coupling CALIOPE - an operational mesoscale air quality forecast system based on HERMES and CRUNCH - and CRUNCHfix, is a tool that can be used to model air pollution and for those groups vulnerable to air pollution, enabling them to take action in the event of increased air pollution.

Objectives

The strategic services for urban development are:

1. Air quality forecast systems
2. Air quality impact assessments
3. Environmental impact assessment

Barcelona Supercomputing Center - Centro Nacional de Supercomputación

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