

REGIONAL INFORMATIVE SYSTEM FOR THE INTEGRATED AIR QUALITY ASSESSMENT (SIRVIA) AS A DECISION SUPPORT SYSTEM FOR THE SICILIAN REGION AUTHORITY

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“SIRVIA”, the regional informative system for the integrated air quality assessment in Sicily, is a project financed by of the measure 1.01 of the Regional Operative Program of Sicily in the ambit of the European Structural Funds 2000-2006, in order to manage and assess the air quality on the regional territory. Through a series of integrated processors, computational codes and systems of visualization, treating different aspects (the characteristics of the site, the meteorology, the issues, the dispersion and the chemical transformations in atmosphere, the depositions to the ground), SIRVIA supports:

- the integrated air quality assessment on the regional territory (also on limited areas), georeferencing the pollutants in respect of the Italian law limits (DM 60/02);
- the simulation of critical episodes of atmospheric pollution, accompanied by the analysis of the influence of the meteorological factors and the different groups of emissions sources on the air quality;
- the information coming from the regional air quality monitoring networks, with a critical analysis of the positions of the different stations;
- the effects of different emission scenarios.

Air quality models (RAMS, CALMET, SPRAY, CALGRID, ADMS-Urban, INPUFF-U) constitute a part of the informative system; these models are integrated with facilities in order to treat the territorial, meteorological and air emission data, allowing to assess the impact on the air quality of inactive and reactive pollutants released by all the types of polluting sources (point, line and area), referring to the complex characteristics of the analysed territory. This modelling chain will be successively integrated with Italian MINNI model. It is directly linked to the available regional DBs (cartography, air emission inventory, meteorology, etc.) and, through the Regional Focal Point, to the national environmental informative system (SINAnet in the EIONet system).

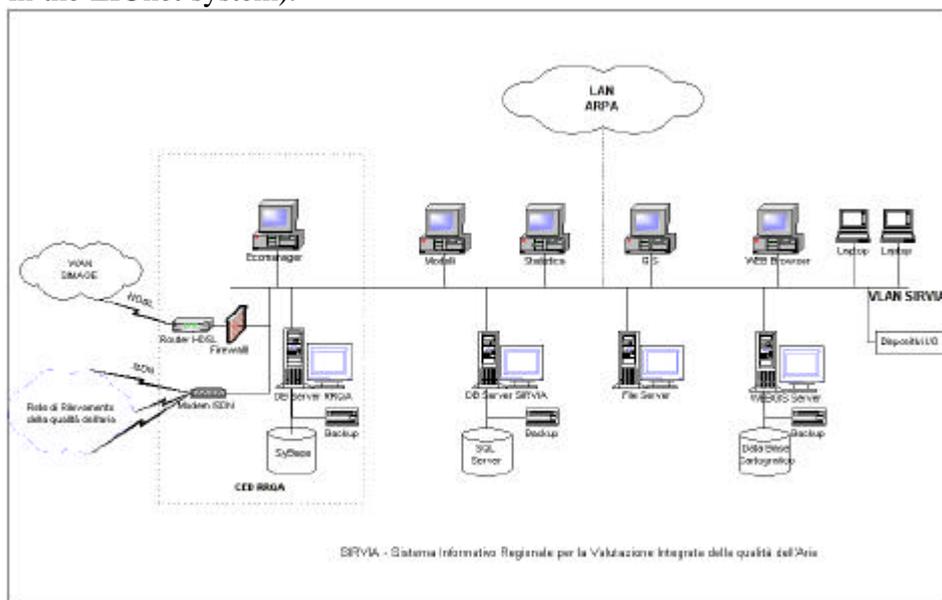


Fig. 1; SIRVIA operative scheme

The SIRVIA project has been planned and implemented by the Department Atmosphere of the General Directorate of the Regional Environment Protection Agency of Sicily (ARPA Sicilia) in Palermo. Figure 1 presents an operative scheme of SIRVIA.

EXTENDED ABSTRACT NOT SUPPLIED