EUROPEAN SCIENCE FOUNDATION - COST ACTION 633

Particulate Matter:
Properties Related to Health Effects

Working Group 1: Air Quality and Instrumentation

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Objectives:

Within the overall objectives of COST 633, the specific objectives of WG 1 are:

1) To provide overview of information available in Europe on data and measurement techniques of particulate matter (PM)
2) To give input to WG2 and WG3 on measurement aspects

Tasks:

1) collecting the existing data in different countries to highlight regional differences in aerosol over Europe with special emphasis on the organic fraction.
2) assessing the available analytical techniques with respect to the needs of the health-related aerosol research, including:
    - sampling techniques (filter artifacts, impactor efficiences, validity, etc…)
    - analytical methods (although we might not be able to go beyond organics).

Expected impacts of the work of WG 1:

It is expected that the results of COST633 WG1 will:

- complement the existing data sets containing just PM (AIRNET) or inorganic aerosol components (EMEP)
- provide thus a basis for linking regional differences in PM effects on health to regional differences in PM composition and size distribution
- suggest cost-effective abatement strategies for mass, surface and number aerosol concentrations on a regional basis
- contribute in defining normalized methods for future aerosol legal indicators

The research gaps highlighted by COST633 WG1 may also:

- motivate sound aerosol measurement programs at Member States level
- trigger the preparation of future EU projects or so for issues that cannot be tackled at national levels.