



COST

**European Network on New Sensing Technologies for Air Pollution
Control and Environmental Sustainability - *EuNetAir*
COST Action TD1105**

Partner presentation from WP3: IDAEA-CSIC

WGs and MC Meeting at Rome, 4-6 December 2012

idæ^a

CSIC
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

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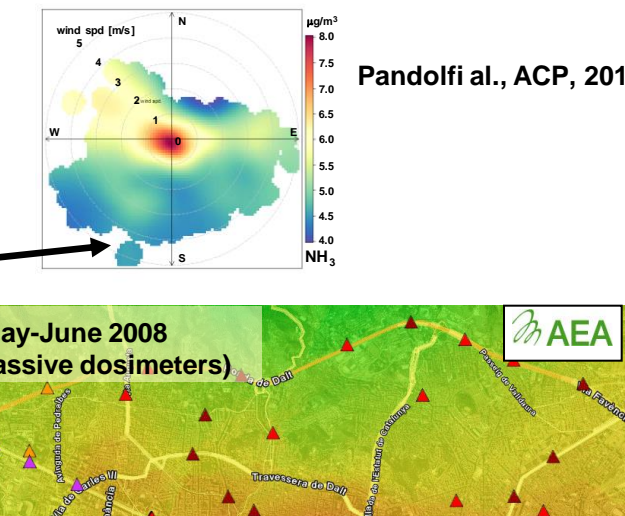
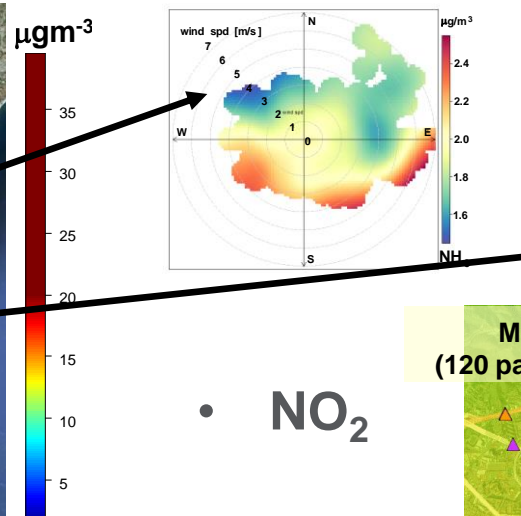
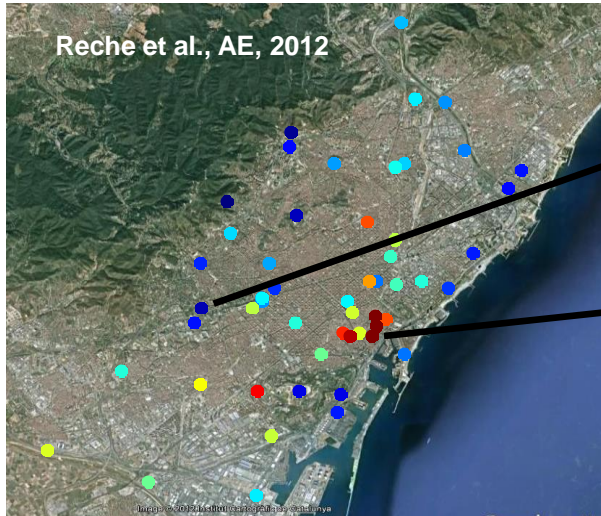


Scientific context and objectives in the Action

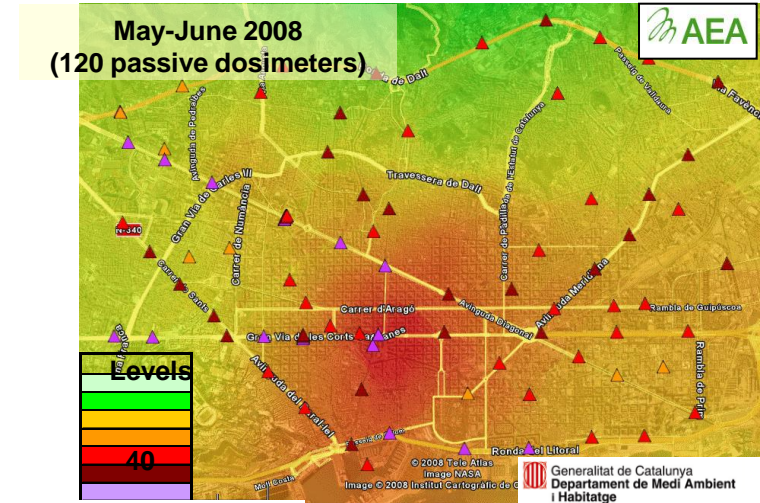
- **Action's objectives (from MoU) matching partner activities:**
 - implement of experimental campaigns for validation in-field at outdoor and indoor level
 - harmonise of environmental measurements
 - train students and early stage researchers
 - contribute to establish suggestions in the guidelines for outdoor/indoor AQC
- **WG and SIG in which we participate:**
 - WG3: Environmental Measurements and Air-Pollution Modelling
 - SIG4: Expert Comments for the Revision of the Air Quality Directive (AQD)

Current research activities of the Partner

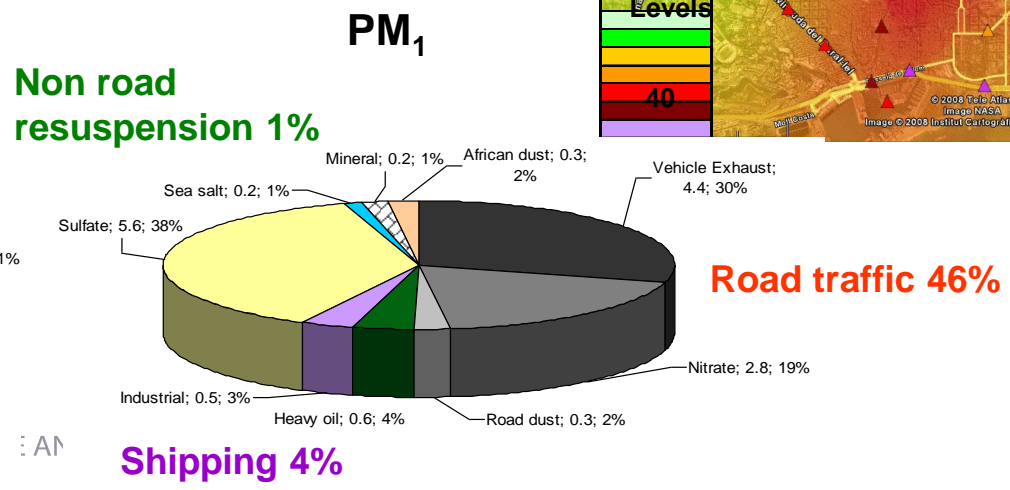
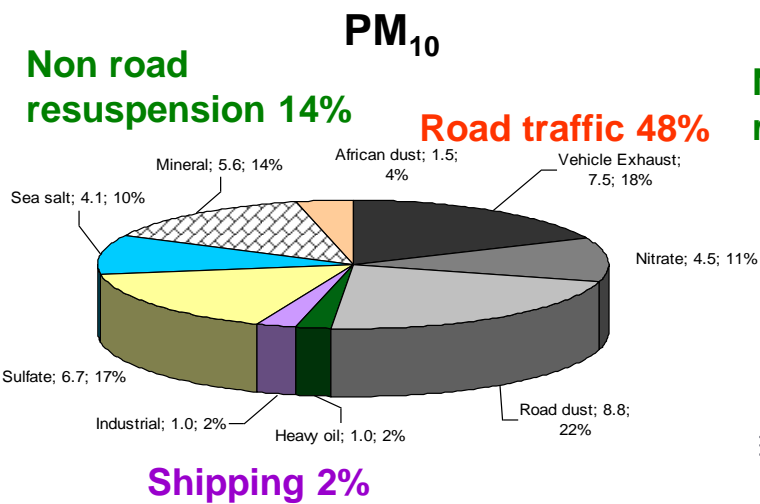
- NH₃



- NO₂



- PM and source apportionment



Research Facilities available for the Partner

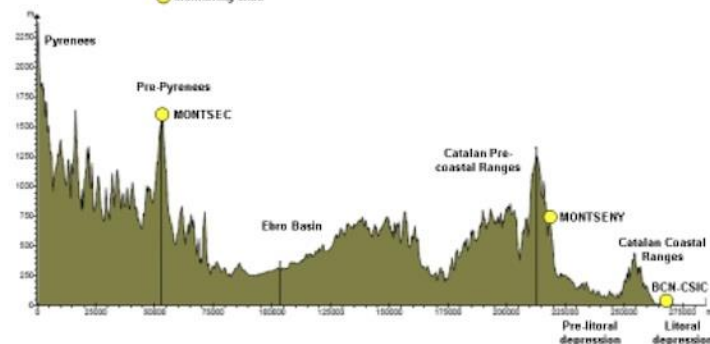
- Air quality monitoring network, 3 sampling sites: urban, regional and continental/remote

- **Instruments:**

- High and low volume samplers for PM₁₀, PM_{2.5} and PM₁
- Optical particle counters
- Absorption photometers, Aethalometers, Nephelometers
- Condensation particle counters (CPC)
- Scanning mobility particle sizers (SMPS)
- Aerosol chemical speciation monitor (ACSM)
- Conventional NO₂, O₃ and CO monitors

- **Laboratories/analysis techniques:**

- ICP-AES and ICP-MS
- Liquid chromatography
- Gravimetric analysis
- OC and EC by thermo-optical method



Airbase sensors



Ozone, NO₂, Total VOC, TSP, noise, RH, T



Suggested **Priorities** for future research

- **Research directions as PRIORITIES:**
- Development of NH_3 sensors. Comparison with existing real time NH_3 measurements and with NH_3 dosimeters.
- Coupling of real time NH_3 provided by sensors with other real time parameters (wind speed and direction and more) to identify sources
- Similar with NO_2