

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

**1st EuNetAir Air Quality Joint-Exercise Intercomparison
*Sensors versus Analyzers for Air-Pollution Monitoring in Aveiro City***

**Institute for Environment and Development - IDAD
Aveiro, Portugal, 13 - 27 October 2014**

Action Start date: 01/07/2012 - Action End date: 30/06/2016 - Year 3: 2014-15 (*Ongoing Action*)

AIRBOX with ECN sensors



Rene Otjes

WG Member

Netherlands

Scientific context and objectives

- **Background / Problem statement:**
- Urban Air Quality is an actual concern in EU
- Local Authorities and Citizen initiatives express need for high resolution networks for PM and NO_x
- Low cost quality networks are not yet available.

DESCRIPTION

AirBox modular sensor set up

Wireless communication

Battery powered

To measure NO₂ and PM₁, PM_{2.5}
and PM₁₀ in Aveiro

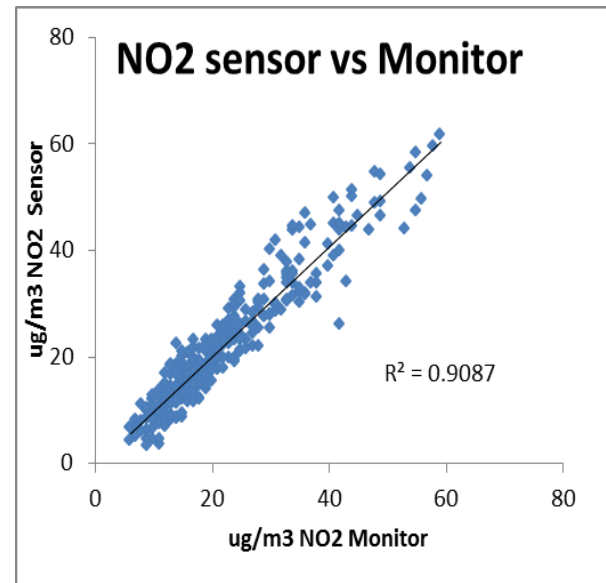


DESCRIPTION

PM with modified optical sensor (Shinyei)
PPD42: single partical 450nm – 10um

NO₂ with modified electrochemical sensor (Citytech)
3E50: rH independend operation, no base line drift

Against chemoluminescence
monitor



CONCLUSIONS

- We like to gain confirmation of achieved characteristics (PM & NO₂)
- Learn about application in other EU regions
- Get in contact with EU sensor community
- Gain knowledge for further sensor development (O₃, NO, CO, UFP)