



# COST

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

**COST Action TD1105**

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

**SIG3: Guidelines for Best Coupling Air Pollutants and Transducer**



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# Outline

- **Definition of the objectives, activities, deliverables and strategies for SIG3 (*for the first year*)**

## **Guidelines for Best Coupling Air Pollutants and Transducer**



# Outline

## Partner activities

- **Materials (metal oxides, molecular organic semiconductors, graphene and CNMATs)**
- **Transducers (rigid/flexible substrates, u-hotplates, FET, contactless) resistive/conductometric, impedimetric, potentiometric, resonant mass-sensitive.**
- **Applications: (indoor/ outdoor, sensors/dosimeters SO<sub>2</sub>, NO<sub>x</sub>, VOCs (BTEX), H<sub>2</sub>S, NH<sub>3</sub>, CO, O<sub>3</sub>)**



# Definition of the objectives, activities, deliverables and strategies for SIG3

## Objectives...

To help the different groups focus on a reduced set of applications

To reach a meaningful comparison of sensor advantages, drawbacks, ...

To promote the use of different, innovative transduction modes



# Definition of the objectives, activities, deliverables and strategies for SIG3

## Activities...

**Suggest common evaluation protocols for sensors (sensor benchmarking)**

**Study the combination of different transduction principles to enhance selectivity**

**Selection of target applications so specifications (sensitivity, selectivity, interference rejection, use of sample pre-treatment, response time) can be set.**



# **Definition of the objectives, activities, deliverables and strategies for SIG3**

## **Deliverables...**

**Report on the physical parameters being affected by gas/material interaction**

**Report on the common evaluation protocols to be used**



# Definition of the objectives, activities, deliverables and strategies for SIG3

## Strategies:....

Identify which are the physical parameters being affected by gas/material interaction (for a rationale design of the transducer)

Continuous vs exposure/recovery measurements