EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

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COST Action TD1105

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

EuNetAir

2012 | 2016

Objectives

- Establishment of a Pan-European and multidisciplinary research and technological platform including research institutions, universities, agencies, industries, stakeholders and policy-makers
- Achievement of a common understanding and knowledge at the European level of requirements on AQC and global sustainability.
- Definition of protocols and pre-standardized methods for AQC sensors and harmonization of environmental measurements.
- Training and involvement of Early Stage Researchers in the Coordinated Action at multidisciplinary style and international level.
- Creation of long-standing collaborative research teams in the area of NANOMATERIALS, GAS SENSORS, WIRELESS TECHNOLOGY, AIR-QUALITY MODELLING, STANDARDS & PROTOCOLS.
- Rationalization of European research on AQC with emphasis on environmental sustainability and energy efficiency, including top-level worldwide collaborations.

Main Achievements

- Integrated approach on AQC for environmental sustainability by cooperative networking of multidisciplinary research on nano-materials, gas sensing technologies, wireless sensor technologies and networks, environmental measurements, ambient intelligence, air quality modeling, chemical weather forecasting, harmonization of measurements, protocols, methods, standards and procedures for commercialization of low-cost AQC sensors.
- **BENEFIT & IMPACT**: European Leadership on AQC Science & AQC Technologies, Development of Green-Economy, Support to Sustainable Development, Monitoring System for Clean Air for Europe.

Working Group 1: Sensor materials & nanotechnology

- *Sub-Working Group 1.1*: Metal oxide nanostructures for AQC gas sensors.
- *Sub-Working Group 1.2*: Carbon nanomaterials for AQC gas sensors.
- *Sub-Working Group 1.3*: Emerging sensor materials (organic/inorganic, hybrid, nanocomposites, polymers, functional, etc.).

Working Group 2: Sensors, devices & systems for AQC

- *Sub-Working Group 2.1*: Gas sensors and new transducers.
- *Sub-Working Group 2.2*: Portable gas sensor-systems.
- *Sub-Working Group 2.3*: Wireless technology and AQC sensor network.
- *Sub-Working Group 2.4*: Intelligence algorithms and distributed computing for networked AQC sensors.

Working Group 3: Environmental measurements & air-pollution modeling

- *Sub-Working Group 3.1*: Environmental measurements at laboratory and in field air-quality stations.
- *Sub-Working Group 3.2*: Air-quality modeling and chemical weather forecasting.
- *Sub-Working Group 3.3*: Harmonization of environmental measurements.

Working Group 4: Protocols & standardization methods

- *Sub-Working Group 4.1*: Protocols, standard and methods for AQC by analyzers/instruments (no-sensors) technologies.
- *Sub-Working Group 4.2*: Protocols, standards and methods for AQC by sensors (no-analyzers) technologies.
- *Sub-Working Group 4.3*: Benchmarking of new products and market of commercial AQC sensors.

Earth System Science and Environmental Management (ESSEM)

Participating Countries:

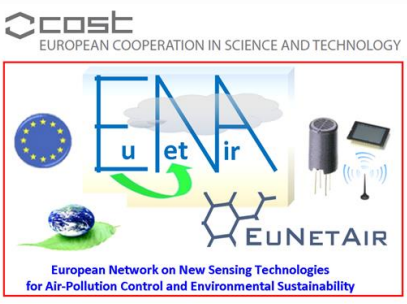
Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Netherlands, The Former Yugoslav Republic of Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom

Contact details

Chair of the Action
Dr. Michele Penza
Senior Researcher
ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development
Brindisi, Italy
michele.penza@enea.it

Dr. Deniz Karaka
Science Officer Earth System Science and Environmental Management
COST Office
Deniz.Karaka@cost.eu

Website
http://www.cost.eunetair.it



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