COST

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

COST Action TD1105

Special Interest Group 1 : *NETWORK OF SPIN-OFFS*

Action Start date: 01/07/2012 - Action End date: 30/06/2016

ENEA
Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile

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Context of the SIG-1

- Special Interest Group 1 – Network of spin-off – involve, at present, 11 spin-off and/or start-up from 8 different COST Countries that develop their economic activities on the four principal areas of the Action (Sensor Material and Nanotechnology, Sensors, devices and systems for AQC, Environmental measurements and air-pollution modelling, protocols and standardisation methods).

- The network **will favour the reciprocal exchanges for knowledge transfer towards industrial and project partnership** and will be useful to **boost the exploitation of the research results** and to promote technology transfer towards new business models based on green economy and environmental sustainability.

Objectives of the SIG-1

Objectives:

- Favour reciprocal knowledge between innovative SME in the field of AQC.

- Contribute to the state-of the art report focusing on actual technology needs, future perspectives, integration possibilities, standards, protocols and guide-lines for future agenda.

- Mapping the similar or complementary industrial organizations (i.e., spin-off, start-up, spin-out etc.) in the EU area involved in the fields covered by the Action.

- Define and propose new cooperative instruments for EU spin-offs and innovative SME.

- Support to define Action position papers in the knowledge transfer in air quality control (AQC) issues for future research and innovation agenda.

Proposed Activities of the SIG-1

Activities:

- Supporting to the writing of the State-of-Art planned in the Action for spin-offs activities related to the Action issues.

- Promotion/Definition of EU proposals for funding of new SMEs in the core-business of Action for research and innovation.

- Map of EU Spin-Off in AQC.

- Inform of EU instruments and opportunities
- Create a virtual linked community.

Deliverables of the SIG-1

Deliverables (MoU):

•Reports on mapping of EU spin-offs.

•Reports on proposed Activities to be approved by Action Management Committee.

Suggested **Priorities** for future research to Action SIG1 General Assembly

- Contribute to the state-of the art report focusing on actual technology needs, future perspectives (new customer market) integration possibilities, standards, protocols and guide-lines for future agenda (Marco Brini)

- Mapping similar or complementary industrial organizations

- Define and propose new cooperative instruments for EU spin-offs and innovative SMEs (screening of available EU instruments and evaluate their effectiveness, etc.)

- Support to define Action position papers in the knowledge transfer in air quality control (AQC) issues for future research and innovation agenda.

Suggested Priorities for future research to Action SIG1 General Assembly

Activities as SIG1 PRIORITIES for Action TD1105:

- Odour measurements is not big market due to absence of regulation so harmonization of odour measurements

- push the adoption of regulations (i.e. methodologies, guidelines)

- low cost devices and easy to use for odour monitoring

- performance that reduce the cost

- communication distances for wireless network of sensors

- new sensors for odour assessment

- air-quality case-studies, stability assessment

- calibration strategies for low cost sensing devices

- work on POP detection

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Suggested **Priorities** for future research to Action SIG1 General Assembly

Research directions as SIG1 PRIORITIES for Action TD1105:

- chemical and radiation environmental monitoring
- Ozone sensors, NOx and CO and CO_2 sensors for automotive application
- improve stability of available sensors, compatibility with CMOS microelectronics, soft CMOS post-processing methods for reproducible high throughput manufacturing
- toxic and explosive (hydrogen) gas leakage
- biosensor based on enzyme for dioxin and POP, work on POP detection
- VOC detection developing sensors modules and sensor systems
- indoor air quality control, leak detection
- odour monitoring system (odour tel)
- enhancement of the sensing properties by introducing functional receptive groups
- coupling different transduction modes in the same device