

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

COST Action TD1105

5th MC Meeting at *EMRS Spring Meeting 2014*

European Materials Research Society

Lille Congress Center (Grand Palais), Lille (France), 30 May 2014

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

Year 2: 1 July 2013 - 30 June 2014 (*Ongoing Action*)

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EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY



Michele PENZA

Function in the Action: Chair

ENEA / Italy



1. Welcome to Participants

- **Action Parties: 28**
- MCM Participants: 40+ (TBC)

5th MANAGEMENT COMMITTEE MEETING
Invited Talks and Management Committee
Lille, France, 30 May 2014

European Materials Research Society (EMRS)

EMRS Spring Meeting 2014, Lille, France, 26 - 30 May 2014

Symposium B: Advanced Functional Materials for Environmental Monitoring and Applications

EMRS Symposium B - Room Van Gogh 1.2 (Level 8)

**Lille Congress Center (Grand Palais), 1 Boulevard des Cités-Unies,
F-59777 Euralille, Lille, France**

MEETING AGENDA

| MEETING AGENDA | |
|--------------------|--|
| 30 May 2014 | |
| 9:00 - 13:00 | REGISTRATION |
| 9:20 - 09:30 | WELCOME ADDRESS |
| | Michele Penza, Action Chair, ENEA, Brindisi, Italy |
| 09:30 - 10:30 | INVITED TALKS |
| 09:30 - 10:00 | Invited Talk 1: Policy of the Materials in Europe: Which Opportunities for Research and Innovation Thomas K. Lippert, President of EMRS, Paul Scherrer Institut, Villigen, Switzerland |
| 10:00 - 10:30 | Invited Talk 2: Advanced Functional Materials for Gas Sensing Applications: Trends and Challenges Giorgio Sberveglieri, MC Member, University of Brescia, Brescia, Italy |
| 10:30 - 11:00 | <i>Coffee-Break</i> |
| 11:00 - 13:00 | 5th MANAGEMENT COMMITTEE MEETING |
| 13:00 - 13:30 | <i>Light Lunch</i> |
| 13:30 | Meeting Closing |

EMRS delegate

2. Adoption of Agenda

European Materials Research Society (EMRS)

EMRS Spring Meeting 2014, Lille, France, 26 - 30 May 2014

Symposium B: Advanced Functional Materials for Environmental Monitoring and Applications

EMRS Symposium B - Room Van Gogh 1.2 (Level 8)

Lille Congress Center (Grand Palais), 1 Boulevard des Cités-Unies, F-59777 Euralille, Lille, France

30 May 2014, 9:00 - 13:30 (local time)

To be completed by the meeting secretary and circulated to the MC, the DC Rapporteur(s) and the COST Office (Science and Administrative Officer)

Any new Topics to be introduced in Agenda ?

Planned Single Session

1. Welcome to participants
2. Adoption of agenda
3. Approval of minutes and matters arising of last meeting
4. Update from the Action Chair
 - a. Status of Action, including participating countries
 - b. Action budget status
 - c. STSM status and new applications
5. Promotion of gender balance and of Early Stage Researchers (ESR)
6. Update from the Grant Holder
7. Update from the COST Office
8. Update from the DC Rapporteur
9. Annual Progress Conference (preparation and/or feedback from DC)
10. Follow-up of MoU objectives
 - a. Progress report of working groups
11. Scientific planning
 - a. Scientific strategy
 - b. Action Budget Planning
 - c. Long-term planning (including anticipated locations and dates of future activities)
 - d. Dissemination planning (Publications and outreach activities)
12. Requests for new members
13. Non-COST applications to the Actions
14. AOB
15. Location and date of next meeting
16. Summary of MC decisions
17. Closing

3. Approval of minutes and matters arising of last meeting

DOODLE Survey to

- **Minutes of 4th MC Meeting (Cambridge, 20 Dec. 2013)**
SOON to be approved together to 5th MCM Lille Minutes (30 May 2014). Hardpaper file to be circulated in the MC on July 2014.

MC needs to approve:

- **4° MCM Minutes (Cambridge, 20 Dec. 2013)**
- **5° MCM Minutes (Lille, 30 May 2014)**
- **Work & Budget Plan Year 2 - Final Budget (187 k€)**
Top-Up (~ 25 k€) from COST Office in Second Installment, 3 April 2014. Details by Grant Holder later

3. Approval of minutes and matters arising of last meeting

- **Annamaria Demarinis, as Action Scientific Secretary, is eligible to be reimbursed for MC Meetings, if MC approves.**
- **COST Office is agrees, if MC approves.**

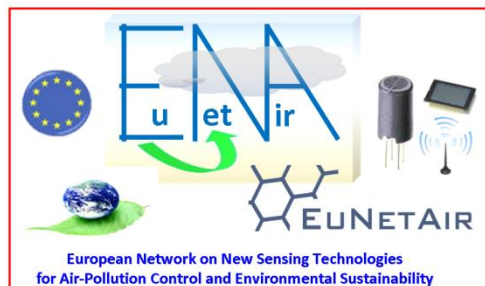
MC approved in Cambridge Meeting.

to be included in the 4° MCM Minutes (Cambridge)

4. Update from the Action Chair

a. Status of Action, including participating Countries

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- **CSO Approval:** 01 Dec. 2011
- **Kick-off Meeting:** 16 May 2012
- **Start of Grant:** 01 July 2012
- **End of Grant:** 30 June 2016

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MC Chair:

Dr. Michele Penza, ENEA, IT
michele.penza@enea.it

MC Vice Chair:

Prof. Anita Lloyd Spetz
Linköping University, SE
spetz@ifm.liu.se

Grant Holder:

Dr. Corinna Hahn
Eurice GmbH, DE
c.hahn@eurice.eu

Scientific Secretary:

Dr. Annamaria Demarinis Loiotile
annamaria.demarinis@uniba.it

Science Officer:

Dr. Deniz Karaca
deniz.karaca@cost.eu

Administrative Officer:

Dr. Andrea Tortajada
andrea.tortajada@cost.eu

Rapporteur ESSEM:

Prof. Kostantinos Kourtidis (GR)
kourtidi@env.duth.gr

Rapporteur MPNS:

Prof. Joaquim Manuel Vieira (PT)
jvieira@cv.ua.pt

Rapporteur CMST:

Prof. Antonio Lagana (IT)
lagana05@gmail.com

4. Update from the Action Chair

a. **Status** of Action, including participating Countries



PARTIES

Already accepted MoU: 28 Countries

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

Non-COST Countries

Australia, Canada, China, Morocco, Russia, Ukraine, USA

**MC is informed on the 2 new Non-COST Parties: UA and MA
New procedure e-COST proposed by COST Office (Vademecum)**

Country

MC Members (52): Male (73%) - Female (27%)

| | |
|----------------|--|
| Austria | Dr. Anton KOCK |
| Belgium | Dr Jan THEUNIS; Dr Anne-Claude ROMAIN |
| Bulgaria | Dr Dimiter SYRAKOV; Dr Ivan NEDKOV |
| Czech Republic | Dr. Vera KURKOVA; Dr. Zdenek ZELINGER |
| Denmark | Prof. Ole HERTEL |
| Finland | Prof. Kaarle HAMERI; Prof. Jyrki LAPPALAINEN |
| France | Prof. Marcel BOUVET; Prof. Jerome BRUNET |
| Germany | Prof. Andreas SCHUETZE; Dr Corinna HAHN |
| Greece | Prof. George PAPADOPOULOS; Prof. Kostas KARATZAS |
| Hungary | Ms Krisztina LABANCZ; Dr Zita FERENCZI |
| Iceland | Dr Arngrimir THORLACIUS |
| Ireland | Dr. Francesco PILLA; Prof. John WENGER |
| Israel | Dr. Liad ORTAR; Prof. Hossam HAICK |
| Italy | Dr Michele PENZA; Prof. G. SBERVEGLIERI; Dr. G. DE GENNARO |
| Latvia | Dr Iveta STEINBERGA |
| Macedonia Rep. | Dr. Igor ATASANOV; Dr. Ljupcho GROZDANOVSKI |
| Netherlands | Dr Sywert BRONGERSMA; Dr. Ernie WEIJERS |
| Norway | Dr Nuria CASTELL BALAGUER; Dr. Philipp SCHENEIDER |
| Poland | Dr Monika KWOKA; Prof. Janislaw GAWRONSKI |
| Portugal | Prof. Bernadete RIBEIRO; Prof. Carlos BORREGO |
| Romania | Dr Marcel IONICA; Dr Roxana Mioara PITICESCU |
| Serbia | Dr. Anka CVETKOVIC |
| Slovenia | Dr Grisa MOCNIK; Dr Rahela ZABKAR |
| Spain | Prof. Juan Ramon MORANTE; Prof. Eduard LLOBET VALERO |
| Sweden | Prof. Anita LLOYD SPETZ; Prof. Ingrid BRYNTSE |
| Switzerland | Dr Danick BRIAND; Dr. Nicolas MOSER |
| United Kingdom | Dr John SAFFELL; Prof. Roderic JONES |
| Turkey | Prof. Zafer ZIYA OZTURK; Prof. Mehmet Fatih DANISMAN |

MC Chair: Michele Penza, ENEA, IT

MC Vice Chair: Anita Lloyd Spetz, Linkoping University, SE

Grant Holder: Eurice GmbH, Saarbrucken, DE

Country

MC Substitutes (29)

| | |
|----------------|---|
| Austria | Dr Stefan DEFREGGER |
| Belgium | Dr Julien DELVA |
| Czech Republic | Dr. Roman NERUDA |
| Denmark | Dr. Lise Lotte SORENSEN |
| Finland | Prof. Jorma KESKINEN |
| France | Dr Jean SUISSE Prof. Alain PAULY |
| Germany | Dr. Daniela SCHONAUER-KAMIN Dr. Thomas KUHMBUSCH Dr. Juliane ROSSBACH |
| Greece | Prof. George KIRIKIADIS Dr. Christos KOULAMAS |
| Italy | Dr. Roberto SIMMARANO Dr. Marco ALVISI Dr. Saverio DE VITO |
| Netherlands | Dr. Rene OTJES |
| Poland | Prof. Jacek SZUBER |
| Portugal | Dr. Joao Paulo TEIXEIRA |
| Romania | Dr. Cristina RUSTI Dr. Marcel Adrian IONICA |
| Slovenia | Prof. Andrej DOBNIKAR |
| Spain | Prof. Albert ROMANO-RODRIGUEZ Dr. Jordi LLOSA |
| Sweden | Dr Ulf THOLE Dr. Marina VOINOVA |
| Switzerland | Dr Christoph HUEGLIN |
| UK | Prof. Julian GARDNER Dr Robin NORTH Prof. Florin UDREA |

MANAGEMENT COMMITTEE

Kick-off Meeting at Brussels on 16 May 2012

COST Action TD1105 EuNetAir: WORKING GROUPS

| | |
|--|---|
| WG1: Sensor materials and nanotechnology | Sub-WG1.1: Metal oxides nanostructures for AQC fas sensors |
| | Sub-WG1.2: Carbon nanomaterials for AQC gas sensors |
| | Sub-WG1.3: Emerging sensor materials (organic/inorganic, hybrid, nanocomposites, polymers, functional) |
| WG2: Sensors, devices and systems for AQC | Sub-WG2.1: Gas nanosensors and new transducers |
| | Sub-WG2.2: Portable gas sensor-systems |
| | Sub-WG2.3: Wireless technology and AQC sensors network |
| | Sub-WG2.4: Intelligence algorithms and distributed computing for networked AQC gas sensors |
| WG3: Environmental measurements and air-pollution modelling | Sub-WG3.1: Environmental measurements at laboratory and in field air-quality stations |
| | Sub-WG3.2: Air-quality modeling and chemical weather forecasting |
| | Sub-WG3.3: Harmonisation of environmental measurements |
| WG4: Protocols and standardisation methods | Sub-WG4.1: Protocols, standards and methods for AQC by analyzers/instruments (no-sensors) technologies |
| | Sub-WG4.2: Protocols, standards and methods for AQC by sensors (no-analyzers) technologies |
| | Sub-WG4.3: Benchmarking of new products and market of commercial AQC sensors |

4. Update from the Action Chair - a. **Status** of Action

- **SIG 1**: *Network of Spin-offs*
- **SIG 2**: *Smart Sensors for Urban Air Monitoring in Cities*
- **SIG 3**: *Guidelines for Best Coupling Air Pollutant-Transducer*
- **SIG 4**: *Expert comments for the Revision of the Air Quality EU Directive*



Special Interest Groups

Ad-Hoc Groups



MANAGEMENT COMMITTEE:

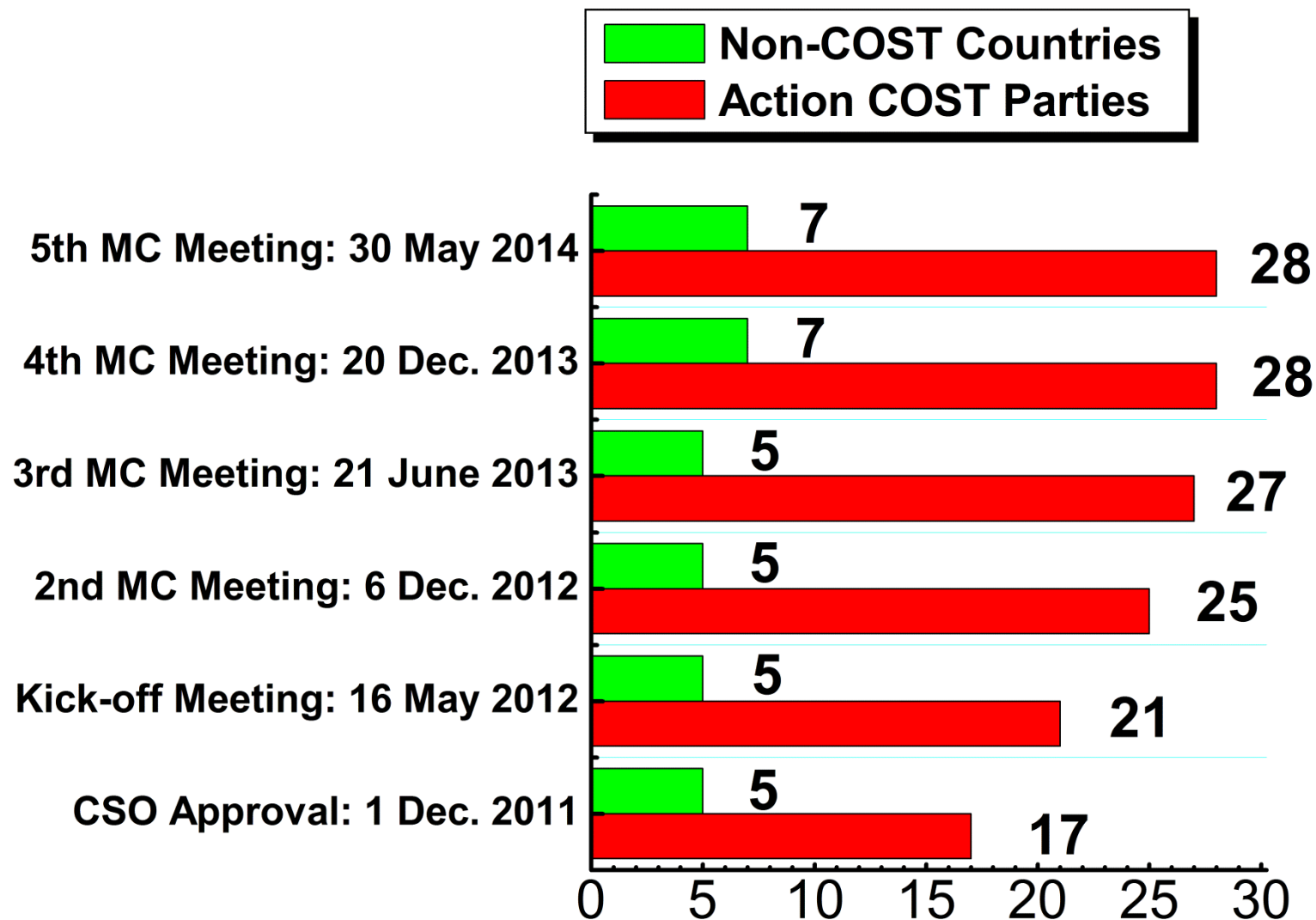
CORE-GROUP & STEERING COMMITTEE

- *Editorial Board*
- *Dissemination Committee*
- *Training Schools Committee*
- *Gender Balance Committee*
- *Short-Term Scientific Mission (STSM) - Early Stage Researchers (ESR) Committee*
 - *Intellectual Property Rights (IPR)*
 - *Local Organizing Committee (LOC)*
 - *International Stakeholders*

4. Update from the Action Chair

a. **Status** of Action, including participating Countries

COST Action TD1105 EuNetAir is growing up



4. Update from the Action Chair

b. Action Budget Status

Work & Budget Plan Year 2:

1 July 2013 - 30 June 2014

Approved by COST Office

Top-Up: 25 k€ for EuNetAir !

April 2014:

**New Template COST
for W&B Plan Year 3.**

Definitions of MoU targets !

COST Grant budget plan

Action no. and title: TD1105 - European Network on New Sensing Technologies for Air-Pollution Control and Environmental Sustainability - *EuNetAir*

Grant period: 1 July 2013 - 30 June 2014

Allocated budget: € 187.200 distributed as € 165.200 scientific activities plus € 22.000 secretariat support (13.3%)

A. SUMMARY BUDGET

| | |
|---|-----------|
| (1) MEETINGS | € 105.500 |
| (2) SHORT-TERM SCIENTIFIC MISSIONS | € 30.700 |
| (3) TRAINING SCHOOLS | € 24.000 |
| (4) PUBLICATIONS, DISSEMINATION, OUTREACH | € 4.000 |
| (5) OTHERS | € 1.000 |

B. TOTAL SCIENCE EXPENDITURE (sum of (1) to (5)) € 165.200

C. Financial & Scientific Administration and Coordination (max. of 15% of B.) € 22.000

D. TOTAL EXPENDITURE (B+C) € 187.200

4. Update from the Action Chair

c. **STSM status** and new applications

CALL for Short Exchange Visits (STSM - Short Term Scientific Mission)

- **2° Call launched September 2013 (YEAR 2)**
- Second Period: **1 July 2013 - 30 June 2014**

New Sensing Technologies for Air-Pollution Control and Environmental Sustainability

- functional nanomaterials, advanced gas sensors, sensor-systems, artificial intelligence for gas sensing, air-quality modeling, environmental measurements, chemical weather forecasting, standards, methods and protocols for air quality control
- **Who ?**
 - 1. **Early Stage Researchers (High Priority)**
 - 2. Experienced scientists
 - assure gender balance, promote “women in science and technology”

4. Update from the Action Chair

c. **STSM status** and new applications

CALL for Short Exchange Visits (STSM - Short Term Scientific Mission)

- **Where ?**
 - a) *To an Institution in another COST participating Country or formally approved host institution in a Non-COST Country*
 - b) *From a formally approved Home Institution in a Near Neighbour Country (NNC) to another COST participating Country.*

Examples STSM

**Additional resources from Action Budget
to fund more STSMs (> 14).**

- Travelling costs and subsistence:
- Travel: 300 EUR recommended not obligatory
- Subsistence: 60 to 90 EUR / day
- max. 2500 EUR (max 3500 EUR for ESR)
- Paid after approval scientific report

1 month visits

| | |
|---------------------|---------|
| 30 days at 60 €/day | 2.100 € |
| travel | 300 € |
| total | 2.400 € |

2 visits

4.800 €

1 week (5 days) visits

| | |
|--------------------|-------|
| 5 days at 90 €/day | 450 € |
| travel | 300 € |
| total | 750 € |

4 visits

3.000 €

total

7.800 €

Total budget

8.000 €

4. Update from the Action Chair

c. **STSM status** and new applications

CALL for Short Exchange Visits (STSM - Short Term Scientific Mission)

- **When ?**
 - Open call
 - Periodic decision every 2 - 3 months
 - 01/01/2014
 - 01/04/2014
 - 30/04/2014 (*depending on available budget*)
 - At least 3-4 weeks before the mission starts
- **How ?**
 - E-mail to COST Action TD1105 Chair – verification of eligibility
 - On-line Registration of applicant (<https://e-services.cost.eu/stsm>)
 - Send Application
 - Assessment and selection
 - More Info on Call for STSM on the Action website (www.cost.eunetair.it)

4. Update from the Action Chair

Dr. Jan Theunis
STSM Coordinator EuNetAir

c. **STSM status** and new applications

Total budget Year 2: 25.800 EUR (1st Instalment) to 30.700 EUR (2nd Instalment)

Granted up to Now: 26.000 EUR

→ 15 STSMs budgeted in the W&B Plan Year 2

→ 13 STSMs have been granted and carried out

- Improvement of atmospheric microsensor prototypes and software development for managing their operation
- Cambridge Air Pollution Sensor Network
- Test of LTCC based devices for detection of content of particles
- Sensing and filtering properties of nanocarbonaceous materials for the development of relevant sensor-systems dedicated to environmental air monitoring
- Functionalized nanocarbonaceous materials for sensing and filtering properties towards VOCs
- p-Type sensing metal oxides
- Environmental measurements and air-pollution modeling. PART II
- Single Nanowire contacted by Electron Beam Lithography
- Evaluation of micro-sensors against standard methods for air quality control during field campaigns
- Implementation of nanostructured MOX gas sensors on plastic foil substrate and its integration
- My Air Tool training
- Impedance measurement on conductometric sensors based on new organic heterojunctions (MSDIs)
- Functionalization of ZnO Nanorods with metals and Metal Oxides for gas sensing applications

→ 1 STSM have been granted and planned in June 2014

- Joint-research on MSDI-based gas sensors for reliable ammonia sensing in moist environment

→ 1-2 STSMs could be granted depending on budget: by 30/06/2014

http://www.eunetair.it/cost/documenti/COST_TD1105_Call-STSM_Year2_FINAL_V2.pdf

4. Update from the Action Chair c. STSM status and new applications

14 STSMs approved and ongoing in the Action TD1105 (Year 2) (1/2)

| Nr | ESR Applicant | Topic of STSM | Tutor of Home Institution | Tutor of Host Institution | Period of STSM Duration of STSM | Grant requested | NOTE |
|----|--|---|--|---|---|-----------------|-------------------------------------|
| 1 | Siamak Aram PhD Student Siamak.aram@polito.it | Improvement of atmospheric microsensor prototypes and software development for managing their operation | Eros Pasero Politecnico di Torino Turin (IT) | Kostas Karatzas, Aristotle University of Thessaloniki, Thessaloniki (EL), kkara@eng.auth.gr | 26 Aug - 26 Sept 2013 1 Month | 1400 € | Approved by STSM Committee 20/08/13 |
| 2 | Michael Mueller Postdoc EMPA michael.mueller@empa.ch | Cambridge Air Pollution Sensor Network | Christoph Hueglin, EMPA (CH) | Roderic Jones, Department of Chemistry, University of Cambridge, Cambridge (UK), rj1001@cam.ac.uk | 1 - 21 Sept 2013 3 Weeks | 2500 € | Approved by STSM Committee 20/08/13 |
| 3 | Christian Bur joint PhD student at Saarland University, Germany and Linköping University, Sweden c.bur@lmt.uni-saarland.de | Test of LTCC based devices for detection of content of particles | Andreas Schütze, Lab. for Measurement Technology, Saarland University, Campus A5 1, D-66123 Saarbrücken (DE) | Jari Juntti, Microelectronics and Material Physics Laboratories, Oulu University, Oulu (FI), jajuu@ee.oulu.fi | 6 - 18 Oct 2013 2 weeks | 1900 € | Approved by STSM Committee 20/08/13 |
| 4 | Amadou Ndiaye Postdoctoral researcher amalat2005@yahoo.fr | Sensing and filtering properties of nanocarbonaceous materials for the development of relevant sensor-systems dedicated to environmental air monitoring | Institut Pascale, Université Blaise Pascal, Clermont-Ferrand (FR) | Marco Alvisi, ENEA, Brindisi, (IT), marco.alvisi@enea.it | 22th to 27th September 2013 1 week | 1000 € | Approved by STSM Committee 09/09/13 |
| 5 | Jérôme Brunet Associate Professor brunet@univ-bpclermont.fr | Sensing and filtering properties of nanocarbonaceous materials for the development of relevant sensor-systems dedicated to environmental air monitoring | Institut Pascale, Université Blaise Pascal, Clermont-Ferrand (FR) | Michele Penza, ENEA, Brindisi, (IT), michele.penza@enea.it | 22th to 27th September 2013 1 week | 1000 € | Approved by STSM Committee 29/08/13 |
| 6 | Vassilis Binas Post-doctoral research associate binasbill@iesl.forth.gr | p-type sensing metal oxides | George Kiriakidis Foundation for Research and Technology - FORTH / Institute of Electronic Structure and Laser, Heraklion, Crete (EL) | Barbara Malic, Jozef Stefan Institute, Electronic Ceramics Department, Ljubljana (SI), Barbara.malic@ijs.si | 8 - 30 Sept 2013 3 weeks | 2500 € | Approved by STSM Committee 29/08/13 |
| 7 | Ana Sofia Godinho da Fonseca PhD-student ana.godinho@idaea.csic.es | Environmental measurements and air-pollution modeling. PART II | Dr. Mar Viana Institute of Environmental Assessment and Water Research, CSIC Barcelona, Spain | Prof. Kaarle Hämeri, University of Helsinki Division of Atmospheric Sciences Helsinki, Finland | 31 July - 30 Aug. 2013 1 Month | 1500 € | Approved by STSM Committee 09/09/13 |

4. Update from the Action Chair c. STSM status and new applications

14 STSMs approved and ongoing in the Action TD1105 (Year 2) (2/2)

| | | | | | | | |
|---------------------------------|--|---|---|---|---|---------------|--|
| 8 | Jordi Sama PhD-student jsama@el.ub.edu | Single Nanowire contacted by Electron Beam Lithography | Prof. Albert Romano-Rodriguez, University of Barcelona, Department of Electronica Barcelona, Spain | Prof. Andreas Waag Technische Universit Braunschweig, Braunschweig Germany | 10 February 2014 - 7 March 2014 1 Month | 2200€ | Approved by STSM Committee 14/11/13 |
| 9 | Jose Luis Ramirez Professor of Electronics jose.luis.ramirez@urv.cat | Implementation of nanostructured MOX gas sensors on plastic foil substrate and its integration in a system with wireless communication capabilities | Prof. Eduard Llobet Universitat Rovira i Virgili, Department of Electronic Engineering, Tarragona, Spain | Prof. Danick Briand EPFL, IMT-SAMLAB Neuchatel, Switzerland | 1 - 31 March 2014 1 Month | 2500€ | Approved by STSM Committee 28/01/14 |
| 10 | João Ginja Early Technical Engineer joao.ginja@ua.pt | Evaluation of micro-sensors against standard methods for air quality control during field campaigns | Prof. Carlos Borrego IDAD - Institute of Environment and Development, Campus Universitário, Aveiro, Portugal | Dr. Nicolas Moser SGX-Sensortech Corcelles, Switzerland | 3 - 7 February 2014 5 Days | 1170€ | Approved by STSM Committee 28/01/14 |
| 11 | Jean-Moïse Suisse Assistant Professor Jean.Suisse@u-bourgogne.fr | Joint Research on MSDI-based Gas Sensors for Reliable Ammonia Sensing in Moist Environment | Prof. Marcel Bouvet - Institut de Chimie Moléculaire de l'Université de Bourgogne (ICMUB), Dijon, France | Prof. Krishna Persaud University of Manchester, UK | 14 - 28 June 2014 2 Weeks | 1580€ | Approved by STSM Committee 28/01/14 |
| 12 | Igljka Etropolska PhD student igljka.etropolska@meteo.bg | MyAir tool training | Dr. Dimiter Syrakov, NIMH-BAS Sofia, Bulgaria | Dr. David Carruthers, Cambridge Environmental Research Consultants (CERC) Ltd, Cambridge, UK david.carruthers@cerc.co.uk | 24 - 28 March 2014 5 Days | 750€ | Approved by STSM Committee 28/01/14 |
| 13 | Pierre Gaudillat PhD student p.gaudillat@gmail.com | Impedance measurement on conductometric sensors based on new organic heterojunctions (MSDIs) | Prof. Marcel Bouvet, Institut de Chimie Moléculaire de l'Université de Bourgogne (ICMUB), Dijon, France | Andreas Schütze, Lab. for Measurement Technology, Saarland University, Saarbrücken (DE) | 3 - 9 April 2014 1 Week | 790€ | Approved by STSM Committee 28/01/14 |
| 14 | Sadullah Ozturk PhD student sadullah1984@gmail.com sadullahozturk@gyte.edu.tr | Functionalization of ZnO Nanorods With Metals and Metal Oxides For Gas Sensing Applications | Prof. Zafer Ziya Ozturk, GEBZE Institute of Technology Kocaeli, Turkey | Dr. Michele Penza ENEA, Brindisi, Italy | 2 - 30 March 2014 1 Month | 2450€ | Approved by STSM Committee 28/01/14 |
| TOTAL (€) STSMs approved | | | | | | 23.240 | 25.800 |
| 28 January 2014 | | | | | | | |

4. Update from the Action Chair

Dr. Jan Theunis
STSM Coordinator EuNetAir

c. **STSM status** and new applications

Call for Year 3: 1 July 2014 - 30 June 2015 - Tentative budget STSM: 26 k€ (tbc)

- **When ?**
 - Open Call: Periodic **submission/decision** every 2 - 3 months
 - **01/07/2014 - 01/08/2014**
 - **01/09/2014 - 01/10/2014**
 - **01/12/2014 - 01/01/2015**
 - **01/03/2015 - 30/04/2015** (*depending on available budget*)
 - At least 3-4 weeks before the mission starts
- **How ?**
 - E-mail to COST Action TD1105 Chair – verification of eligibility
 - On-line Registration of applicant (<https://e-services.cost.eu/stsm>)
 - Send Application
 - Assessment and selection
 - More Info on Call for STSM on the Action website (www.cost.eunetair.it)

5a. Promotion of Gender Balance

Prof. Iveta Steinberga

Chair of Gender Balance

Inputs from Action GB Committee

In the action (TD1105) **about 25% of the participants are female**, which is in line with the fact that technological and scientific sector of this action is male-dominated. In order to approach a 50% gender balance, for example the Management Committee Vice-Chair, Prof. Anita Lloyd Spetz, is female.

To achieve better gender balance in Working Groups women researchers are encouraged to participate in Short Term Scientific Missions, Training Schools and the overall COST actions.

During **Rome meeting** (Dec. 2012) only 20% of speakers were females. Also, the Rome SIG4 session were composed by 60% female speakers. Finally, significant progress in gender balance at Duisburg meeting (March 2013) was achieved with 45% of female speakers.

In last meeting **at EEA in Copenhagen** (October, 3-4, 2013), a substantial number of female speakers participated. Sessions were chaired to almost 45% by females, and 34% of session presenters were female speakers. The highest numbers of female speakers were in sessions concerning **Environmental Measurements and Modelling** (Session 7) and **Standardization of Methods for Air-Pollution Commercial Sensors** (Session 9).

Inputs from Action GB Committee

During **Cambridge meeting** (18 - 20 Dec. 2013) only 31% of speakers were females (17). Also, the Cambridge SIG4 session were composed by 50% female speakers.

During **Brindisi meeting** (25 - 26 March 2014) only 28% of speakers were females (11). Also, an Interview at Dr. Thu-Hoa TRAN-THI, CEA-CNRS, on Indoor Sensors Applications was performed. Video coming soon on EuNetAir webpages (*VIDEO section*). Moreover, a 35% of participants were Early Stage Researchers (14). Most of them (40%) were females.

5b. Promotion of Early Stage Researchers (ESRs)

Social Scientific ESRs Network (SSEN) by LinkedIn

- Open Group on [LinkedIn "EuNetAir"](#), launched in October 2012.
- Aim: to promote connections between EuNetAir COST Action's ESRs, to create a community connecting ESRs for current and future Science and Technology activities on AQC Technologies, **not only from inside Action but also outside Action community.**
- Invitations sent out to Action participants and members.
- **> 60 Participants** to date.

The screenshot shows the LinkedIn interface for the 'EuNetAir' group. At the top, the LinkedIn logo and navigation menu are visible. The group name 'EuNetAir' is prominently displayed. Below the group name, there are tabs for 'Discussions', 'Members', 'Promotions', 'Jobs', 'Search', 'Manage', and 'More...'. The 'Members' tab is selected, showing a list of 9 members. The members listed are: Maria del Mar Viana (YOU), Michele Penza (1st), Nuria Castell-Balaguer (1st), Annamaria Demarinis (2nd), Thomas Kuhbusch (2nd), Gallium L., and Marco A. Each member profile includes a small profile picture, name, and a brief description of their research or location. On the left side of the group page, there is a search bar for members and a 'Group Statistics' section showing 759 members. A banner at the bottom of the group page reads 'CHECK OUT INSIGHTFUL STATISTICS ON THIS GROUP'.

MORE ESRs TO BE LINKED !

Mar Viana and Mariacruz Minguillon
Early Stage Researcher Evaluation Committee
Social Scientific ESRs Network Moderator

6. Updating from the Grant Holder

Timing of Passing from Old GH to New GH

Old GH UNIBA will complete ALL EXPENDITURES related to Year 1 (1 July 2012 - 30 June 2013).

New GH Eurice assumed the role by starting from Year 2 (1 July 2013 - 30 June 2016) by the signature of the Grant Agreement between COST Office and Eurice Legal Representative, after MC election and registration in the Minutes of the 3° MC meeting in IREC at Barcelona (21 June 2013).



6. Update from the Grant Holder

Action budget status (I)

Corinna Hahn
Representative GH
Eurice GmbH, Germany

Status of the Second Year (1 July 2013 - 30 June 2014)

- **First instalment from COST Office to GH:**
105,300.00 EUR
65% of initially approved Action Budget of **162,000.00 EUR** for Second Year: 1 July 2013 - 30 June 2014
- **Budget Increase from COST Office for EuNetAir:**
187,200.00 EUR
- **Second instalment from COST Office to GH:**
81,900.00 EUR
 - 35% of initially approved Action Budget of **162,000.00 EUR** for Second Year: 1 July 2013 - 30 June 2014
 - Plus a top-up of **25,000.00 EUR** as per budget increase

5. Update from the Grant Holder

Corinna Hahn
Representative GH
Eurice GmbH, Germany

Action budget status (II)

| Second Year 1 July 2013 - 30 June 2014 | BUDGET | Payment | Planned Payment | TOTAL (Deviation) |
|--|-------------------|-------------------|--------------------|--|
| Meetings | 105,500.00 | 89,103.39 | ~ 22,051.00 | 111,154.39 (-5,654.39) |
| Training Schools | 24,000.00 | 17,874.42 | ~ 2,120.00 | 19,994.42 (4,005.58) |
| Short Term Scientific Missions | 30,700.00 | 18,370.00 | ~ 7,630.00 | 26,000.00 (4,700.00) |
| Dissemination | 4,000.00 | 3,110.54 | ~ 1,125.00 | 4,235.54 (-235.54) |
| Other Expenses Related To Scientific Activities | 1,000.00 | 421.47 | ~ 250.00 | 671.47 (328.53) |
| TOTAL SCIENCE EXPENDITURE | 165,200.00 | 128,879.82 | ~ 33,176.00 | 162,055.82 (3,144.18) |

**Budget used:
77,95%**

5. Update from the Grant Holder

Status of Payments – Meetings

Corinna Hahn
Representative GH
Eurice GmbH, Germany

Meetings

[Action] TD1105 – European Network On New Sensing Technologies For Air-Pollution Control And Environmental Sustainability – EuNetAir

| Start | End | City | Type | Title | Participants* | | | | Status | L.O.S.** | Options |
|------------|------------|-------------|------------------------------|---|---------------|------------|-----------|-----------|----------------|----------|---------|
| | | | | | Forecast | Estimation | Claims | Payments | | | |
| 2013-08-28 | 2013-08-28 | Saarbrucken | Core Group Meeting | Core-Group Meeting for New GH Eurice | [3 / 8] | [3/2] | [3 / 3] | [3 / 3] | Paid | No ✂ | |
| 2013-10-03 | 2013-10-04 | Copenhagen | Working Group Meeting | New Sensing Technologies and Methods for Air-Pollution Monitoring | [20 / 50] | [41/40] | [41 / 41] | [41 / 41] | Paid | Yes ✂ | |
| 2013-12-18 | 2013-12-20 | Cambridge | Management Committee... | Second Scientific Meeting, Working Groups and Management Committee | [40 / 50] | [47/47] | [47 / 47] | [47 / 47] | Paid | Yes ✂ | |
| 2014-03-25 | 2014-03-26 | Brindisi | Workshops/Conferences | 2nd International Workshop on New Sensing Technologies for Indoor and Outdoor Air Quality Control | [20 / 36] | [19/19] | [18 / 19] | [18 / 18] | Partially paid | Yes ✂ | |
| 2014-05-30 | 2014-05-30 | Lille | Management Committee Meeting | 5th MC Meeting | [24 / 45] | [18/18] | [1 / 18] | [0 / 0] | Planned | No ✂ | |

* LOS-Claim pending, ** TRR-Claims pending



EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

5. Update from the Grant Holder

Status of Payments – Training Schools

Corinna Hahn
Representative GH
Eurice GmbH, Germany

Training Schools

[Action] TD1105 – European Network On New Sensing Technologies For Air-Pollution Control And Environmental Sustainability – EuNetAir

| Start | End | City | Title | Trainers/Trainees | Claims | Payments | Status | L.O.S.** | Options |
|------------|------------|--------------|--------------------------------|-------------------|-----------|-----------|-----------------|----------|---------|
| 2014-02-09 | 2014-02-14 | Les Houches | ISOCS Short Course Winter 2014 | [1 / 5] | [5 / 5] | [5 / 5] | Paid | No | |
| 2014-03-31 | 2014-04-02 | Saarbruecken | 2nd Training School | [6 / 24] | [24 / 25] | [24 / 24] | *Partially paid | Yes | |

* LOS-Claim pending

5. Update from the Grant Holder

Status of Payments – STSMs (I)

Corinna Hahn
Representative GH
Eurice GmbH, Germany

| STSM Name | STSM Status | STSM Amount | STSM Payment Status |
|--------------------------------|-------------|-------------|---------------------|
| First Batch STSMs (7x) | | | |
| Siamak Aram | Approved | 1,400.00 | Paid |
| Michael Müller | Approved | 2,500.00 | Paid |
| Christian Bur | Approved | 1,900.00 | Paid |
| Amadou Ndiaye | Approved | 1,000.00 | Paid |
| Jerome Brunet | Approved | 1,000.00 | Paid |
| Ana Sofia Godinho de Fonseca | Approved | 1,500.00 | Paid |
| Vassilios Binas | Approved | 2,500.00 | Paid |
| Second Batch STSMs (1x) | | | |
| Jordi Sama | Approved | 2,200.00 | Paid |

5. Update from the Grant Holder

Status of Payments – STSMs (II)

Corinna Hahn
Representative GH
Eurice GmbH, Germany

| STSM Name | STSM Status | STSM Amount | STSM Payment Status |
|-------------------------------|-------------------------|------------------|------------------------------|
| Third Batch STSMs (6x) | | | |
| João Ginja | Approved | 1,170.00 | Paid |
| Iglika Etropolska | Approved | 750.00 | Paid |
| Sadullah Ozturk | Approved | 2,450.00 | Paid |
| Jose Luis Ramirez | Report approval pending | 2,500.00 | Awaiting approval |
| Pierre Gaudillat | Report approval pending | 790.00 | Awaiting approval |
| Jean-Moïse Suisse | STSM pending | 1,580.00 | Awaiting report and approval |
| 2 more STSMs planned | | 2,760.00 | |
| TOTAL STSMs | | 26,000.00 | |

5. Update from the Grant Holder

Strong Authentication feature in e-COST (I)

Corinna Hahn
Representative GH
Eurice GmbH, Germany

- Submission of Online Travel Reimbursement Request (OTRR) forms and supporting documents **completely online**

- **Strong Authentication**
 - Identification of Action participants as unique individuals in e-COST in a fully secure way
 - **Release of 'One Time Passwords'** similar to those used by some ebanking systems

- Submission of OTRR only after the meeting took place
 - Encoding of all relevant expenses and upload of all
 - Authentication of participant by providing the InWebo password
 - Submission of claim

5. Update from the Grant Holder

Strong Authentication feature in e-COST (II)

Corinna Hahn
Representative GH
Eurice GmbH, Germany

➤ Official Invitation sent by GH as before

OFFICIAL INVITATION

Dear Dr John Smith,

You are invited to attend the following COST Meeting as a Meeting Participant:

COST Action: BM1207

Meeting Title: Release of the OTRR-Strong Authentication Feature

Location: Cost, Brussels, Belgium

Meeting Type: Working Group Meeting

Meeting Dates: from 15-12-2013 to 15-12-2013

If you wish to attend, you will need to register for this event. If you already have an e-COST user profile, you will only need to login and accept this invitation by following the link below:

<http://qa-ecost-dev.bruxelles.esf.org/invitation/1bbefdf1f72ef79617f1ab4a243cc460/>

If you are new to e-COST, you can register a new e-COST profile on the following link:

<https://e-services.cost.eu>

The following link provides instructions on how to fill in the Travel Reimbursement Request:

<http://www.cost.eu/download/Travel-Reimbursement-Instructions.pdf>

5. Update from the Grant Holder

Strong Authentication feature in e-COST (III)

Corinna Hahn
Representative GH
Eurice GmbH, Germany

- Log-in for invitation in eCOST as before

Invitation to COST Office Event

If you are the intended invitee to the following [COST](#) event and you wish to participate, please log in below to proceed.

Meeting Details

| | |
|------------|---|
| Meeting ID | ECOST-MEETING-BMI 207-151213-038157 |
| Title | Release of the OTRR-Strong Authentication feature |
| Start Date | 2013/12/15 |
| End Date | 2013/12/15 |
| Location | COST, Brussels, Belgium |

Your Details

| | |
|--------------|--|
| Name | John Smith |
| Email | j.s.@cost.eu |
| Organisation | University *** |

Username: Password:

5. Update from the Grant Holder

Strong Authentication feature in e-COST (IV)

Corinna Hahn
Representative GH
Eurice GmbH, Germany

- Five steps to follow
 - Step 1/5 – Invitation
 - **Step 2/5 – Reimbursement**
 - Step 3/5 – Travel Information and Expenses
 - Step 4/5 – Bank Account
 - **Step 5/5 – Submission**

5. Update from the Grant Holder

Strong Authentication feature in e-COST (V)

Corinna Hahn
Representative GH
Eurice GmbH, Germany

➤ Step 2/5 – Reimbursement

Invitation to COST Office Event

Dear Dr John Smith

You are invited to the following [COST](#) event. Please indicate below if you wish to participate.

Meeting Details

| | |
|------------|---|
| Meeting ID | ECCOST-MEETING-BM1207-151213-038157 |
| Title | Release of the OTRR-Strong Authentication feature |
| Start Date | 2013/12/15 |
| End Date | 2013/12/15 |
| Location | COST, Brussels, Belgium |

Step 1/5 Invitation : Accepted

Step 2/5 Reimbursement

You are eligible to claim reimbursement of your expenses related to this event. Do you wish to submit a claim?

5. Update from the Grant Holder

Strong Authentication feature in e-COST (VI)

Corinna Hahn
Representative GH
Eurice GmbH, Germany

- Step 2/5 – Reimbursement
 - Creation of Strong Authentication profile

Step 2/5 Reimbursement : Yes

If you decided to NOT submit a claim, please click the 'No' button above.

You are required to create a Strong Authentication profile in order to submit your claim online. You will be prompted to enter a profile name, a password and antiphishing sentence. The profile will be associated with this browser. If later on you use a different browser, you will be prompted to create a new browser profile for your Strong Authentication account.

This is a one time process and we advise you to keep track of your Strong Authentication browser profile, password and antiphishing sentence.

- Elements of Strong Authentication profile
 - Name of browser
 - Profile username
 - PIN Code
 - Antiphishing sentence

5. Update from the Grant Holder

Strong Authentication feature in e-COST (VII)

Corinna Hahn
Representative GH
Eurice GmbH, Germany

- Step 2/5 – Reimbursement
 - Elements of Strong Authentication profile

Activate COST Strong Authentication service

Site: qa-dev Browser: Firefox on Windows

This site is protected by InWebo.
Please activate it in this browser.

User profile and browser

User profile *:

 E.g.: your e-COST username

Your user profile associated to this browser:

Your user profile is automatically inserted

Authentication data

PIN code *:

 7 to 16 characters, with at least one digit and one letter

Confirm PIN code *:

 7 to 16 characters, with at least one digit and one letter

Antiphishing sentence * (e.g.: I love reading)

This secret sentence that you choose yourself will be displayed each time you will have to strongly authenticate yourself, assuring you are on the correct website.

Activate COST Strong Authentication

Helium by inWebo © 2013

Activate COST Strong Authentication service

✔ Activation of COST Strong Authentication service successful

COST Strong Authentication authentication service has been successfully activated for qa-dev. An authentication device, InWebo Helium, is configured in this browser.

OK

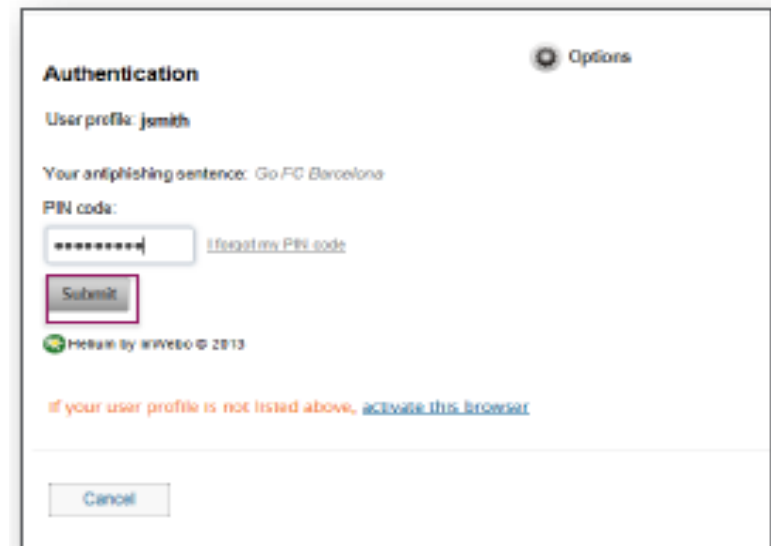
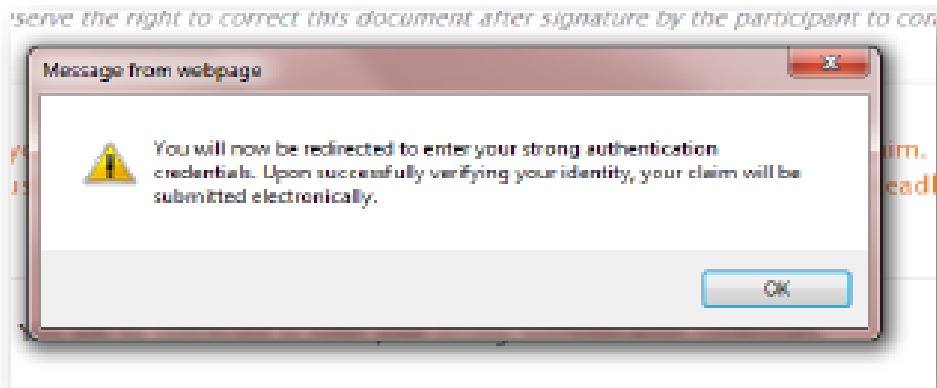
Helium by inWebo © 2013

5. Update from the Grant Holder

Strong Authentication feature in e-COST (VIII)

Corinna Hahn
Representative GH
Eurice GmbH, Germany

➤ Step 5/5 – Submission



7. Update from the COST Office

Science Officer: Deniz Karaka, ESSEM

New Administrative Officer (AdO): Andrea Tortajada, ESSEM

- **Deniz Karaca**

Science Officer of Action TD1105 cannot attend

COST Office is represented by TD1105 AdO

Inputs from AdO

8. Update from the DC Rapporteur(s)

ESSEM Rapporteur: Kostantinos Kourtidis, EL - Demokritos University of Thrace

MPNS Rapporteur: Joaquim Manuel Vieira, PT - University of Aveiro

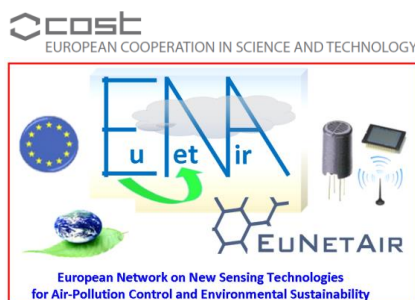
CMST Rapporteur: Antonio Laganà, IT - Università di Perugia

ESSEM Rapporteur: Not attending

MPNS Rapporteur: Not Attending

CMST Rapporteur: Not Attending

The DC Rapporteurs will cease the Action monitoring starting from 30 September 2014.



www.cost.eunetair.it



| | |
|--------------------------------|---|
| MC Chair: | Dr. Michele Penza, ENEA, IT michele.penza@enea.it |
| MC Vice Chair: | Prof. Anita Lloyd Spetz Linkoping University, SE spetz@ifm.liu.se |
| Grant Holder: | Dr. Corinna Hahn, Eurice GmbH, DE c.hahn@eurice.eu |
| Science Officer: | Dr. Deniz Karaca deniz.karaca@cost.eu |
| Administrative Officer: | Dr. Andrea Tortajada andrea.tortajada@cost.eu |
| Rapporteur ESSEM: | Prof. Kostantinos Kourtidis (GR) kourtidi@env.duth.gr |
| Rapporteur MPNS: | Prof. Joaquim Manuel Vieira (PT) jvieira@cv.ua.pt |
| Rapporteur CMST: | Prof. Antonio Lagana (IT) lagana05@gmail.com |

9. Annual Progress Conference - Preparation and/or feedback from DC

11:30 – 12:00 11:40 – 12:10 TD1105 | European Network on New Sensing Technologies for Air-

Pollution Control and Environmental Sustainability - EuNetAir | Michele Penza (Chair)

Konstantinos Kourtidis (Rapporteur)

12:00 – 12:30 ES 1006 | Evaluation, improvement and guidance for the use of local-scale emergenc prediction and response tools for airborne hazards in built environments | Bernd Leiti (Chair) | Vidmantas Ulevicius (Rapporteur)

12:30-13:30 Lunch

Moderator: Dick Blaauboer

13:30 – 14:00 ES1207 | A European BREWer NETwork – EUBREWNET | John Rimmer (Chair) | Niels Larsen (Rapporteur)

13:50 – 14:10 ES1305 | European Network for the Radar surveillance of Animal Movement (ENRAM) | Jason Chapman | Teresa Abrantes (Rapporteur)

14:10 – 14:40 ES1206 | Advanced Global Navigation Satellite Systems tropospheric products for monitoring severe weather events and climate (GNSS4SWEC) | Jonathan Jones (Chair) | Anders Lindroth (Rapporteur)

14:40 – 15:00 ES1303 | Towards operational ground based profiling with ceilometers, doppler lidars and microwave radiometers for improving weather forecasts (TOPROF) | Anthony Illingworth (Chair) | Hugo De Backer (Rapporteur)

15:00 - 15:20 Coffee break (including poster review)

Moderator: Ipek Erzi

15:20 – 15:40 ES1304 | European network on invasive parakeets: Understanding invasion dynamics and risks to agriculture and society (ParrotNet) | Jim Groombridge (Chair) | Zorica Svircev (Rapporteur)

15:40 – 16:10 ES1005 | Towards a more complete assessment of the impact of solar variability on the Earth's climate | Thierry Dudok De Wit (Vice-Chair) | Hugo De Backer (Rapporteur)

16:10 – 16:40 ES1002 | Weather Intelligence for Renewable Energies | Anna Maria Semprevia (Vice-Chair) | Zoltan Dunkel (Rapporteur)

16:40 – 16:50 Closing remarks – Ipek Erzi

Earth System Science and Environmental Management

Annual Progress Conference 2014

Hotel Valamar Lacroma Dubrovnik

34 Iva Dulčića - 20000 Dubrovnik, Croatia

12th and 13th May 2014

**Monitoring Progress Report
submitted to COST Office
by 1 April 2014 (Year 2)**

**TD1105 APC 2014:
Dubrovnik, Croatia
12-13 May 2014**

9. Annual Progress Conference - Preparation and/or feedback from DC

Earth System Science and Environmental Management

Annual Progress Conference 2014

Hotel Valamar Lacroma Dubrovnik

34 Iva Dulčića - 20000 Dubrovnik, Croatia

12th and 13th May 2014

[TD1105 APC 2014:](#)
Dubrovnik, Croatia
12-13 May 2014

**Monitoring Progress Report
submitted to COST Office
by 1 April 2014 (Year 2)**



2. Results versus objectives

The main objective of the trans-domain Action TD1105 *EuNetAir* is the development of new sensitive nanostructured materials, low-cost gas sensors, low-powered sensor-systems, wireless sensor network, air-quality modelling, environmental measurements, methods, protocols and standards for air quality monitoring in lab-tests and real-world practice. The results achieved and S&T joint activities from the Action are referenced in the list of the published/submitted papers (**>17 records**), conference/workshop communications (**>19 records**) and ongoing research collaborations between *EuNetAir* partners (**> 28 records**).

They all reflect the objectives set by the Action.

6. Coordination and management

The Cambridge meeting was successful and the work in the WGs is moving forward with the definition of scientific updating of the future research agenda. The management structures are well-established, including the procedures for assigning STSMs, meetings support, organization of Training Schools. Overall, the coordination and management work very effectively.

7. Strengths and weaknesses

A critical administrative issue has been the mismatch between national fiscal/administrative rules and EC rules/procedures applied to manage the Action grant. These are generating delays in the reimbursements and payments, despite the efforts of the Grant Holder. At the 3rd MCM in Barcelona (21 June 2013), the MC decided to elect Eurice GmbH (Saarbrücken, Germany), a qualified company in project management, as new GH because the German fiscal rules fit better the EU fiscal rules, as requested by COST Office.

At the current stage, no significant problems have been encountered in the Action and the project is progressing according to the approved plan without noteworthy deviations.

10. Follow-up of MoU Objectives - List of Meetings

COST ACTION TD1105 MEETINGS 2012-13 (Year 1)

COST ACTION TD1105 *EuNetAir*

Kick-off Meeting of Action Management Committee

COST Office, 16 May 2012, Brussels (BE)



COST ACTION TD1105 *EuNetAir*

First Meeting and 2nd Management Committee and Working Groups

ENEA Headquarters, 4-6 December 2012, Rome (IT)



COST ACTION TD1105 *EuNetAir*

WG3-WG4 Meeting joined to AirMonTech project

Fraunhofer Inhaus Zentrum, 4-6 March 2013, Duisburg (DE)



COST ACTION TD1105 *EuNetAir*

3rd Management Committee Meeting (21 June 2013)

Training School (13-15 June 2013)

Open Satellite Workshop (20 June 13)

inside *Transducers-2013*, 16-20 June 2013, Barcelona (ES)



9. Follow-up of MoU Objectives – Dissemination Events

COST ACTION TD1105 DISSEMINATION EVENTS



IMCS 2012
The 14th International Meeting on Chemical Sensors
May 20 - 23, 2012, Nürnberg/Nuremberg



Special Session: Chemical Sensors and New Technologies for Air-Pollution Control

COST Action TD1105 EuNetAir

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

IMCS 2012 - The 14th International Meeting on Chemical Sensors, May 20-23, 2012 - Nuremberg, Germany



SGS 2012

VIII International Workshop on
Semiconductor Gas Sensors
September 11 - 15, 2012, Cracow, Poland



3th Intelligent Systems for Quality of Life information
Services Workshop (ISQL 2012)
8th AIAI Conference, September 27- 30, 2012,
Halkidiki, Greece



TCM 2012
The 4th International Symposium on Transparent
Conductive Materials
October 21- 26, 2012, Hersonissos, Crete, Greece



IN SCIE



10. Follow-up of MoU Objectives - Year 2 (1/2)

- **WGs MEETING**: *New Sensing Technologies and Methods for Air Pollution Control*

European Environment Agency, Copenhagen, DK, 3-4 Oct. 2014

OUTCOME: *New Networking and **Special Issue Urban Climate** (Elsevier)*

- **SECOND SCIENTIFIC MEETING**: WGs and MC

University of Cambridge, Queens' College, UK, 18 - 20 Dec. 2013

OUTCOME: *Updating of the **Action Research & Innovation Needs***

- **SECOND INTERNATIONAL WORKSHOP**: *New Sensing Technologies for Indoor and Outdoor Air Quality Control*

ENEA, at Municipality of City Brindisi, Italy, 25 - 26 March 2014

OUTCOME: *S&T Cooperation in **Clean Air for Smart Cities***

10. Follow-up of MoU Objectives - Year 2 (2/2)

- **SECOND TRAINING SCHOOL:** *Optimized Operation of Solid State Gas Sensors for Environmental Technologies and Air Quality Monitoring*

Saarland University, Saarbrücken, Germany, 31 March - 2 April 2014

OUTCOME: *24 Trainees and 5 Trainers involved*

- **ISOCS Short Course Winter 2014:** *Reactivity of Solids, Kinetics, Catalysis, Definitions and Applications of Chemical Sensors*

Ecole de Physique, Université Joseph Fourier (Grenoble), Les Houches, France, 9 - 14 Feb. 2014

OUTCOME: *EuNetAir supports 5 Trainees from 5 COST Countries*

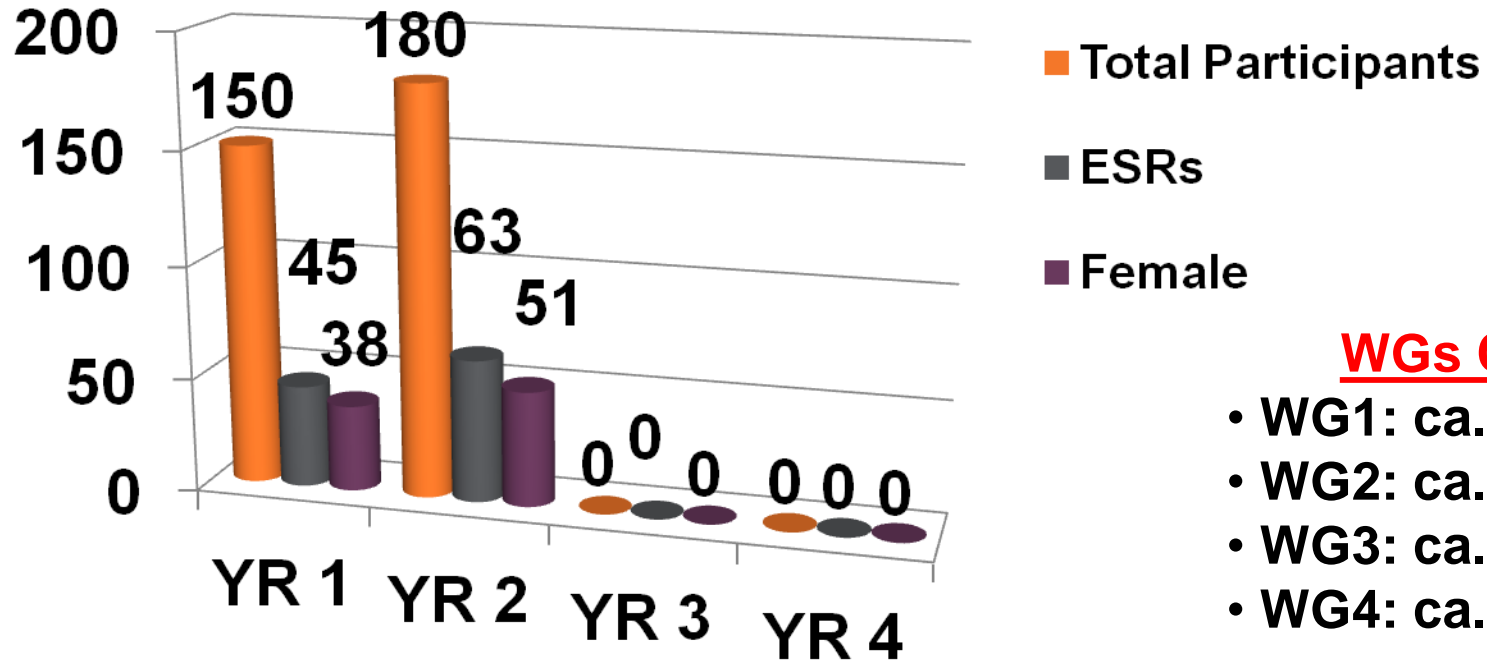
- **MCM (30 May 2014) joined to EMRS-2014 SYMPOSIUM B:** *Advanced Functional Materials for Environmental Monitoring and Applications*

European Materials Research Society, Lille, France, 26-30 May 2014

OUTCOME: *202 Abstracts and more than 200 Participants at Symposium B*

10. Follow-up of MoU Objectives

a1. Progress report of working groups



WGs Composition:

- WG1: ca. 30 participants
- WG2: ca. 45 participants
- WG3: ca. 40 participants
- WG4: ca. 25 participants

Summary YEAR 2: 1 July 2013 - 30 June 2014

- Total Number of Participants: 180 (80% active)
- Early Stage Researchers (ESRs): 63 (35%)
- Females: 51 (28%)
- MC Members: 52 - Male: 38 (73%); Female: 14 (27%)
- MC Substitutes: 29 - Male: 24 (83%); Female: 5 (17%)₄₈

10. Follow-up of MoU Objectives:

INTERNATIONAL WG1-WG4 MEETING on

New Sensing Technologies and Methods for Air-Pollution Monitoring

European Environment Agency - EEA

Copenhagen, Denmark, 3 - 4 October 2013



European Environment Agency



**Meeting Proceedings
at Action webpages:**

www.cost.eunetair.it

*50+ Speakers involved
from 21 COST Countries*

**Letter of Support
from COST Office Director
Dr. Monica Dietl**

10. Follow-up of MoU Objectives: **WGs Meeting at EEA**

New Sensing Technologies for Air-Pollution Control and Environmental Sustainability

- **Special Issue Urban Climate (Elsevier)**

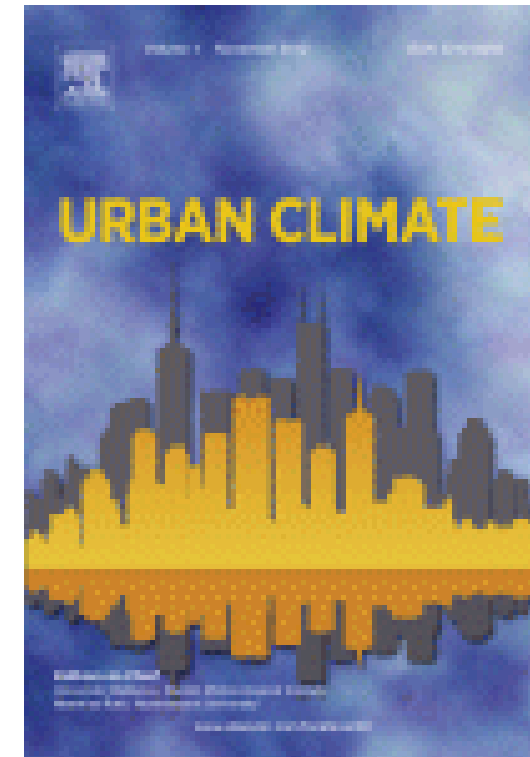
New Sensing Technologies and Methods for Air-Pollution Monitoring

Proceedings of the Action EEA Meeting open to external contributors.

Peer-review process (<http://ees.elsevier.com/uclim/>)

- **Guest Editors:**

- ✓ Michele Penza, ENEA, Italy
- ✓ Anita Lloyd Spetz, Linkoping University, Sweden
- ✓ Ole Hertel, Aarhus University, Denmark
- ✓ Ulrich Quass, IUTA eV, Germany
- Deadline for submission: 28 February 2014 (**Close**)
- Number of Submissions: **21 Manuscripts**
- Expected Publication: *Fall 2014 (Nov-Dec 2014)*



9. Follow-up of MoU Objectives – a8. International Workshop

COST Action TD1105 at FP7 Project MACPoll WORKSHOP:

Metrology of Sensors for Air-Quality Monitoring

JRC-Ispra, Italy, 19 November 2013

09:00 Welcome & Introduction: The MACPoll project –A. Borowiak/M. Gerboles/J. Walden

Micro-Sensors & Air Pollution – (WP 4 of MACPoll)

Chair: Michele Penza. Rapporteur: Jan Theunis

09:15 *EuNetAir* – Michele Penza, ENEA, IT

09:35 *Sensor principles and sensor system performance* – Andreas Schuetze, Saarland University, DE

10:05 *On the use of Sensors* – Jan Theunis (VITO)

10:35 COFFEE BREAK

11:00 *The graphene sensor* – Serguei Novikov, University of Aalto, FI

11:30 *Calibration of Small Resistive Commercial Sensors to measure O₃*, Manuel Aleixandre, CSIC, ES

11:45 *O₃ and NO₂ sensor validation* – Laurent Spinelle, JRC, EC

12:15 *Summary and discussion* – Michele Penza, Jan Theunis, Michel Gerboles

12:45 LUNCH BREAK

10. Follow-up of MoU Objectives: **SECOND SCIENTIFIC MEETING**

University of Cambridge, Queens' College, Cambridge, 18-20 Dec. 2013

Letter of Commitment

to host 4th MC Meeting
and *WG1-WG4 Meeting*
from Prof. Rod Jones, Cambridge
Action SIG2 Leader and UK MC Member

18 - 20 Dec. 2013, Cambridge, UK

*60+ Speakers involved
from 22 COST Countries and 1 IPC
Invited Speaker from US EPA*

**Research & Innovation Needs
discussed and defined
by Action TD1105**

Location and date:

4rd MC Meeting, 20 December 2013, and
WG1-WG4 Meeting, 18-19 December 2013
Queens' College, Cambridge, UK



10. Follow-up of MoU Objectives

a2. Progress report of working groups

Rome Workshop addressing this issue:

Updating of Scientific Programme with Action Priorities were cited in the Rome Meeting Minutes and uploaded in the Action webpages.

Cambridge Meeting addressing to Research & Innovation Needs in connection to Rome Meeting

- from WG1 Leader: Definitions of objectives discussed in WG meeting
- from WG2 Leader: Definitions of objectives discussed in WG meeting
- from WG3 Leader: Definitions of objectives discussed in WG meeting
- from WG4 Leader: Definitions of objectives discussed in WG meeting
- from SIG1-4 Leader: Definitions of objectives discussed in each SIG meeting

SCIENTIFIC WORKPLAN of COST Action TD1105 updated at Rome/Cambridge Meetings:

WG1: the overall objectives of the WG1 are to develop new **sensor materials** and nanotechnologies such as metal oxides nanostructures, carbon nanomaterials and emerging materials (organic/inorganic, hybrid, nanocomposites, polymers, functional, etc.) for air-quality monitoring.

WG2: the overall objectives of the WG2 are to develop **new gas sensors**, new transducers, portable gas sensor-systems, wireless technology and AQC sensors network, intelligent algorithms and distributed computing for networked sensors applied to air-quality monitoring.

WG3: the overall objectives of the WG3 are to perform **environmental measurements at laboratory and in field air-quality stations**, air-quality modelling and chemical weather forecasting, harmonisation of environmental measurements.

WG4: the overall objectives of the WG4 are to perform **protocols, standards and methods for AQC** including conventional analyzers/monitors and sensor technologies. Benchmarking of new products and market of commercial AQC sensors.

SIG1: the overall objectives of the SIG1 are to develop a **network of spin-offs** at European level starting from existing national activities on environmental technologies/modelling inside Action partnership for new business.

SIG2: the overall objectives of the SIG2 are to develop **smart sensors and wireless networks for urban air monitoring in cities** including academia and SMEs from Action partnership.

SIG3: the overall objectives of the SIG3 are to develop **guidelines for best coupling air-pollutant and transducer** to be applied for environmental monitoring.

SIG4: the overall objectives of the SIG4 are to perform **expert comments for the Revision of the Air Quality Directive 2008/50/EC.**

10. Follow-up of MoU Objectives:

**2ND INTERNATIONAL WORKSHOP *EuNetAir* on
New Sensing Technologies for Indoor and Outdoor Air Quality Control
organized by ENEA, Brindisi Research Center
Palazzo Granafei-Nervegna - Headquarters of Municipality of City Brindisi
Brindisi, Italy, 25 - 26 March 2014**



**Workshop Booklet
at Action webpages:**

www.cost.eunetair.it

*30+ Speakers involved
from 14 COST Countries*

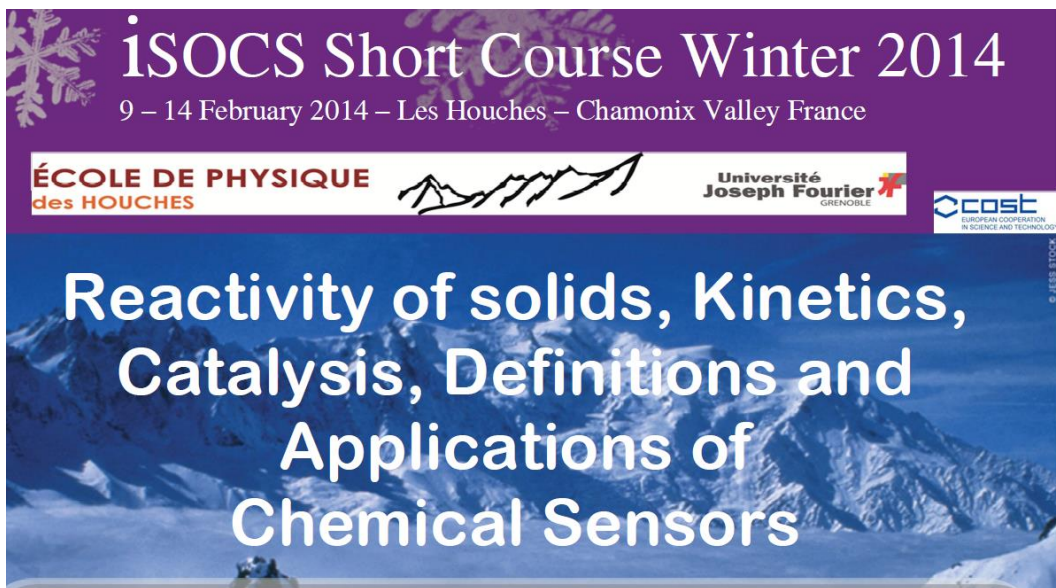
**Focus on
Clean Air for Smart Cities
*Local Municipality interested***

COST Action TD1105 EuNetAir at ISOCS 2014 in Les Houches

Les Houches (France), 9 - 14 February 2014

Call for Participation of the Trainees:

5 Grants for Trainees assigned to 5 ESRs from 5 COST Countries



ISOCS Short Course Winter 2014
9 – 14 February 2014 – Les Houches – Chamonix Valley France

ÉCOLE DE PHYSIQUE
des HOUCHES

Université Joseph Fourier
GRENOBLE

COST
EUROPEAN COOPERATION
IN SCIENCE AND TECHNOLOGY

**Reactivity of solids, Kinetics,
Catalysis, Definitions and
Applications of
Chemical Sensors**

© JESS ETOKO



10. Follow-up of MoU Objectives:

(2/4)

ISOCS Short Course Winter 2014, 9 - 14 February 2014, Les Houches-Chamonix Valley, France

ISOCS Short Course Winter 2014

9 – 14 February 2014 – Les Houches – Chamonix Valley France

ÉCOLE DE PHYSIQUE
des HOUCHES



Université
Joseph Fourier
GRENOBLE

cost
EUROPEAN COOPERATION
IN SCIENCE AND TECHNOLOGY

Reactivity of solids, Kinetics,
Catalysis, Definitions and
Applications of
Chemical Sensors

(3/4)

Develop your knowledge on chemical sensors systems and applications at the ISOCS Short Course in Les Houches (Chamonix Valley), France

This Short Course will cover topics including:

- Adsorption and kinetics of transformation in solids
- Catalysis for gas-solid interactions
- Point defects in solids
- Biosensors
- Electronic Noses and their application
- Definition of sensors
- Nano-sensor preparation
- Automotive gas sensors
- Food application of Electronic Nose
- Practical demonstrations
- Presentation COST Action EuNetAir

Speakers

- Prof. Michèle Pijolat, EMSE St-Etienne
- Dr. Philippe Vernoux, Institute of Catalysis Lyon
- Dr. Jean-Paul Viricelle, EMSE St-Etienne
- Prof. Krishna Persaud SCEAS University of Manchester
- Prof. Julian Gardner, University of Warwick
- Prof. Corrado Di Natale, University Tor Vergata, Roma
- Prof. Elisabetta Comini, University of Brescia
- Prof. Christophe Pijolat, EMSE St-Etienne
- Dr. Veronica Sberveglieri, University Modena e Reggio Emilia
- Dr. Jan Mitrovics, JLM Innovation, Tübingen, Germany
- Dr. Michele Penza, ENEA, Brindisi, Italy

Who should attend?

The Short Course is ideal for anyone with an interest in chemical sensors and olfaction, and is new to the field; for example, PhD students, researchers, technologists and industrialists.

Short Courses organized by ISOCS are a unique combination of fundamental theory lectures and practical application exercises. They provide an introduction into selected topics of current research and new developments in the area of chemical sensing and olfaction. Most lecturers will be present throughout the duration of the course. Ample opportunity is given for discussion and networking.



Register now! Limited places available only!

For more information please visit www.olfactionsociety.org/wintercourse2014

10. Follow-up of MoU Objectives:

(4/4)

ISOCS Short Course Winter 2014, 9 - 14 February 2014, Les Houches-Chamonix Valley, France

ISOCS
International Society for
Olfaction and Chemical Sensing



CMC2

Club Micro Capteurs Chimiques

COST Action TD1105 is asked to funded:

- **5 Grants for Trainees**
- The price (**795 €**) includes ACCOMODATION (single room) and MEALS.
- Travelling costs (about **205 €**) should be added to the individual Grant.
- *EuNetAir* could support 5 Grants (5 Trainees) with a **TOTAL BUDGET as 5000 €** (5 Grants x 1000 €).
- A Call for Trainees was launched in Action partnership, after MC approval.

10. Follow-up of MoU Objectives:

(1/4)

2nd Training School at Saarland University, Saarbrücken, Germany, 31 March - 2 April 2014

Open Call for Participation of the Trainees

Deadline for Application of Grants: 14 February 2014

More info at Action webpages - Section *Training Schools*



*24 Trainees and 5 Trainers (1 from USA)
involved from 15 COST Countries*



**Director of Training School:
Prof. Andreas Schuetze**

10. Follow-up of MoU objectives

Training School, **31 March - 2 April 2014 (TBC)**, Saarbrücken, Germany

(2/4)



2nd EuNetAir training school



Focus topic:

**Optimized operation of solid state gas sensors,
especially for low concentrations**

- 2nd **TRAINING SCHOOL** COST Action TD1105, Saarbrücken, March-April 2014, and hosted by **Prof. Andreas Schuetze**, Saarland University, Germany.

- 2nd **TRAINING SCHOOL COST**
Action TD1105, Saarbrücken,
March-April 2014, and hosted by
Prof. Andreas Schuetze, Saarland
University, Germany.

(3/4)

Day 1: Monday, 31 March 2014: Sensor fundamentals and state of the art

Session 1: Welcome and Introduction to the Lab for Measurement Technology

| | |
|---------------|---|
| 9:30 – 10:00 | Welcome, introduction to LMT and to the training school program Andreas Schütze, USAAR-LMT |
| 10:00 – 10:45 | Novel gas mixing system and its validation for low VOC concentrations Martin Leidinger, USAAR-LMT |
| 10:45 – 11:15 | <i>Coffee Break</i> |

Session 2: Introduction of the Participants

| | |
|---------------|--|
| 11:15 – 12:15 | Introduction of training school participants: <i>Each person should briefly introduce with 2 slides in 2 minutes</i> |
| 12:15 – 14:00 | <i>Lunch Break combined with Poster session</i> additionally: lab visit (group 1) |

Session 3: Sensor fundamentals

| | |
|---------------|--|
| 14:00 – 15:00 | Microstructured metal oxide gas sensors NN, SGX Sensortech S.A. (<i>tbc</i>) |
| 15:00 – 16:00 | Gas-sensitive field effect devices Mike Andersson, U Linköping, Applied Sensor Science Group |
| 16:00 – 16:30 | <i>Coffee Break</i> |

Session 4: State-of-the-art

| | |
|---------------|---|
| 16.30 – 18:00 | JRC Ispra gas mixing system and sensor validation tests Michel Gerboles, JRC Ispra, Italy (<i>tbc</i>) |
| 18.00 – 18:45 | Performance examples of dynamically operated gas sensors: Adicos: Industrial Early Fire Detection Technology Selective VOC detection at ppb levels against background Tilman Sauerwald, USAAR-LMT |

(4/4)

- 2nd **TRAINING SCHOOL COST** Action TD1105, Saarbrücken, March-April 2014, and hosted by **Prof. Andreas Schuetze**, Saarland University, Germany.

Day 2: Tuesday, 1 April 2014: Dynamic sensor operation

Session 5: Dynamic operation of MOS sensors

| | |
|---------------|---|
| 9:00 – 10:30 | Temperature cycled operation and systematic optimization Steve Semancik, NIST, USA (<i>tbc</i>) |
| 10:30 – 11:00 | <i>Coffee Break</i> |
| 11:00 – 12:30 | Electrical Impedance Spectroscopy for MOS sensors Marco Schüler, USAAR-LMT |
| 12:30 – 14:00 | <i>Lunch Break combined with Poster session</i> additionally: lab visit (group 2) |

Session 6: Novel sensor operating approaches

| | |
|---------------|---|
| 14:00 – 15:30 | Ionization based gas sensing Andreas Helwig, EADS, Germany (<i>tbc</i>) |
| 15:30 – 16:00 | <i>Coffee Break</i> |
| 16:00 – 17:30 | Optical excitation of gas sensors Thorsten Wagner, University of Paderborn, Germany |
| 17:30 – 18:15 | Gate Bias Cycling for gas-sensitive field effect transistors Christian Bur, USAAR-LMT and U Linköping, Applied Sensor Science Group |
| 18:15 | <i>End of day 2</i> |
| 19:30 | <i>Social dinner</i> |

Day 3: Wednesday, 2 Apr 2014: Data processing and practical demonstrations

Session 7: Data acquisition and signal processing, part 1

| | |
|---------------|---|
| 9:00 – 10:30 | Fundamentals of signal processing Andreas Schütze, USAAR-LMT |
| 10:30 – 11:00 | <i>Coffee Break</i> |
| 11:00 – 13:00 | Demonstration of gas sensors and operating platforms 3S – Sensors, Signal Processing, Systems: OdorChecker, SniffChecker SGX Sensortech (<i>tbc</i>) SenSIC (<i>tbc</i>) Micronas: integrated GasFET and test kits NIST (<i>tbc</i>) Odometrix USAAR-LMT: Combined EIS/TCO and GBCO/TCO platforms |
| 13:00 – 14:30 | <i>Lunch Break combined with Poster session</i> |

Session 8: Data acquisition and signal processing, part 2

| | |
|---------------|--|
| 14:30 – 16:30 | Practical examples for signal processing using the LMT toolbox: effects of normalization and feature extraction on PCA/LDA performance Christian Bur, Thomas Fricke, USAAR-LMT |
| 16:30 – 17:00 | <i>Coffee Break</i> |
| 17:00 – 17:45 | Outlook: advanced gas sensor systems Michele Penza, Chair COST network EuNetAir, ENEA, Italy (<i>tbc</i>) |
| 17:45 | <i>End of the training school</i> |

Symposium B:

Advanced functional materials for environmental monitoring and applications

About three quarters of the European population
Environmental sustainability of the urban society
based on functional materials have been develop
up the possibility to develop a new generation of a
personal level and system levels.

Hot topics to be covered by the symposium:

The specific technological areas are:

- Advanced gas sensing semiconducting materials
- Hybrid materials and nanocomposites for gas sensing
- Catalytic sensing materials
- Device fabrication, packaging, testing and aging
- New (nano)sensors for monitoring gaseous and liquid pollutants
- Ab initio modeling of gas/surface interaction
- Surface-sensitive spectroscopies for studying sensor/gas interaction
- Modeling of materials, devices and sensor systems
- Functional applications

Symposium organizers:

Michele Penza
ENEA Italian National Agency for New Sensing
Technologies
Energy and Sustainable Economic Development
PO BOX 51 Br-4
I-72100 Brindisi
Italy
Phone: +39 0831 201422
michele.penza@enea.it

Anita Lloyd Spetz
Linköping University/Oulu University
Dept. Physics, Chemistry and Biology
Linköping University
SE-581 83 Linköping
Sweden
Phone: +46 13 281710
spetz@ifm.liu.se

Albert Romano-Rodriguez
University of Barcelona
Departament d'Electrònica
Martí i Franquès 1
08028 Barcelona
Spain
Phone: +34 93 4039156
aromano@el.ub.es

Yongxiang Li
Shanghai Institute of Ceramics
Chinese Academy of Sciences
No.1295 Dingxi Road
Shanghai
China
Phone: +86 21 52411066
yxli@mail.sic.ac.cn

Meyya Meyyappan
NASA
Ames Research Center
MS 229-3
Moffett Field, CA 94035
USA
Phone: +1 650 604 2616
m.meyyappan@nasa.gov

E-MRS SPRING
MEETING 2014

May 26th-30th - Lille Congress Center, France

CALL FOR PAPERS

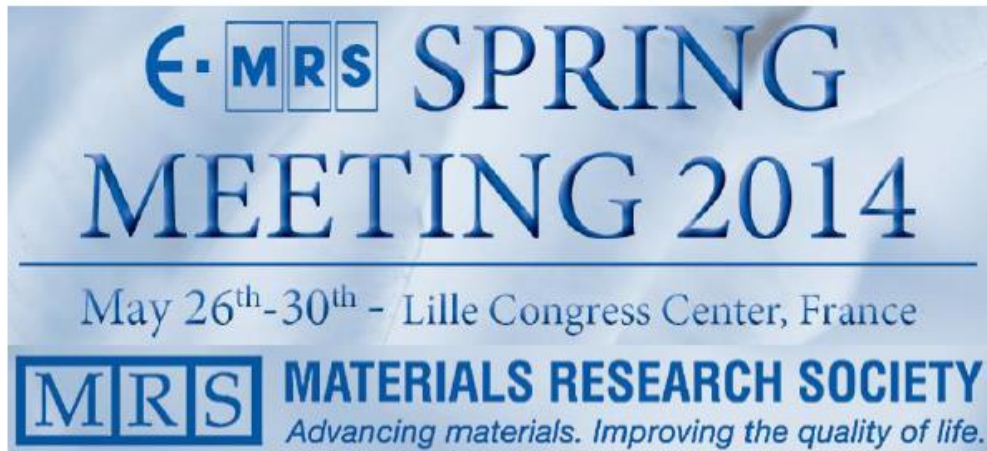
Deadline for abstract submission: January 16th, 2014



Including Bilateral Energy Conference

E-MRS **MRS** MATERIALS RESEARCH SOCIETY
Advancing materials. Improving the quality of life.

cost
EUROPEAN COOPERATION I



E-MRS SPRING MEETING 2014
 May 26th-30th - Lille Congress Center, France
MRS MATERIALS RESEARCH SOCIETY
Advancing materials. Improving the quality of life.



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



Call for Abstracts and Papers

Symposium B: Advanced Functional Materials for Environmental Monitoring and Applications

E-MRS - Spring Meeting 2014, May 26 - 30, Lille Congress Center, France

Symposium Organizers and Guest Editors

Michele Penza
 Technologies for Materials
 ENEA
 I-72100, Brindisi, Italy
michele.penza@enea.it

Anita Lloyd Spetz
 Dept. of Physics, Chemistry & Biology
 Linköping / Oulu University
 SE-581 83 Linköping, Sweden
spetz@ifm.liu.se

Albert Romano-Rodriguez
 Department of Electronics
 University of Barcelona
 08028 Barcelona, Spain
aromano@el.ub.es

Yongxiang Li
 Shanghai Institute of Ceramics
 Chinese Academy of Sciences
 1295 Shanghai, China
yxli@mail.sic.ac.cn

Meyya Meyyappan
 Ames Research Center
 NASA
 94035 Moffett Field, CA, USA
m.meyyappan@nasa.gov

**EMRS-2014 Symposium B Proceedings
 In Special Issue JSSS
 Journal of Sensors and Sensor Systems**

Number of EMRS Submissions:

202 Abstracts



The poster features a green background with a stylized DNA helix and a grid of numbers from 0.2 to 0.9. At the top left, it reads 'SPRING MEETING 2014' in large white letters, with 'Lille Congress Center France' and 'May 26th-30th' below it. The central text says 'CALL FOR PAPERS'. On the right, there is a list of conference chairs and a list of scientific topics. At the bottom, it states 'Deadline for abstract submission: 16 Jan 2014'.

www.european-mrs.com
€·MRS

Conference chairs:
Ian BOYD, Univ. of Brunel, U.K.
Gilles DENNLER, IMRA Europe, France
Roberto FARIA, Univ. of São Paulo, Brazil
Roberto FORNARI, IKZ-Berlin, Germany
Elvira FORTUNATO, FCT-UNL, Portugal

Bilateral Energy conference €·MRS
Hans RICHTER, GFWM, Germany
William TUMAS, NREL, USA

SCIENTIFIC PROGRAMME

MATERIALS FOR ENERGY AND ENVIRONMENT

A. Thin film chalcogenide photovoltaic materials
B. Advanced functional materials for environmental monitoring and applications
C. Solid state ionic: thin films for energy and information applications
D. Phonons and fluctuations in low dimensional structures

NANOMATERIALS

E. Defect-induced effects in nanomaterials
F. Established and emerging nanocolloids: from synthesis & characterization to applications
G. Carbon- or nitrogen-containing nanostructured thin films
H. ALTECH 2014 - Analytical techniques for precise characterization of nano-materials
I. Solution processing and properties of functional oxide thin films and nanostructures

MATERIALS AND LIGHT

J. Laser interaction with advanced materials: fundamentals and applications
K. Challenges for group III nitride semiconductors for solid state lighting and beyond
L. Chromogenic materials and devices

HYBRID, ORGANIC AND BIO-MATERIALS

M. Molecular materials - Towards quantum properties
N. Converging technology for nanobiotechnology
O. Computational modelling of organic semiconductors: from the quantum world to actual devices
P. Carbon materials: surface chemistry and biomedical applications
Q. Hybrid materials engineering in biology, chemistry and physics
R. Towards lightweight and flexible electrochemical devices
S. Memristor materials, mechanisms and devices for unconventional computing

CRYSTAL GROWTH IN MATERIALS SCIENCE

T. Non-classical nucleation and crystallization*
U. Crystal growth related twins and point defects in semiconductors and dielectrics*
V. Effect of natural and forced convection in materials crystallization*

BILATERAL ENERGY CONFERENCE

W. Materials research for group IV semiconductors: growth, characterization and technological developments
X. Advanced materials and characterization techniques for solar cells II
Y. Crystals for energy conversion and storage*
Z. Materials and complex interface architectures for solar thermal and solar fuel devices
AA. Organic photovoltaics / polymer solar cells

*For only organic and inorganic, respectively for Energy Conversion

WORKSHOP: grand challenges in materials

Deadline for abstract submission: 16 Jan 2014



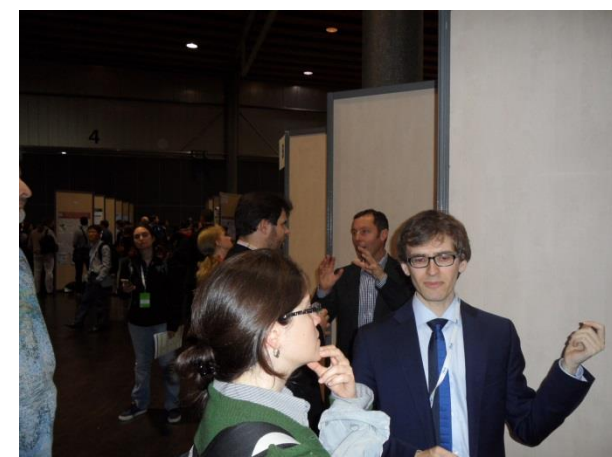
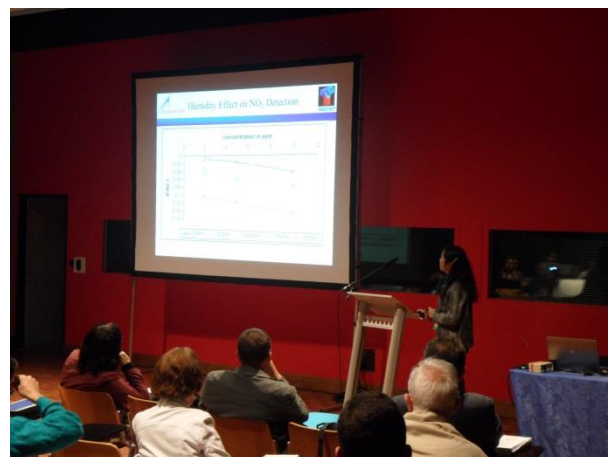
SPRING MEETING
May 26-30, 2014
Lille

Deadline for
abstract submission:

January 16, 2014

- Special Issue in *Journal of Sensors and Sensor Systems (JSSS)*
- Deadline for Submission of Extended Manuscripts: **30 June 2014**
- URL: (http://www.journal-of-sensors-and-sensor-systems.net/submission/manuscript_submission.html)

EMRS-2014 Symposium B - Lille, 26 - 30 May 2014



11. Scientific planning - a. Scientific strategy

Main Activities planned in the Year 3 (1 July 2014 -30 June 2015):

- **15 STSMs:** 9 STSMs of 5 days and 6 STSMs of 1 month (30 days), **or equivalently.**
- **EuNetAir Core-Group Meeting at EUROSENSORS 2014**, Special Session COST Action TD1105, Brescia, Italy, 7 - 10 September 2014 (half-day Special Session).
- **WG1-WG4 Meeting**, IDAD and University of Aveiro, Aveiro, Portugal, 13 - 15 October 2013.
- **WG1-WG4 Meeting**, Istanbul, 3 - 4 Dec. 2014 (joined to 6th MC Meeting)
- **3rd Action Workshop** on *New Trends and Challenges on Air Quality Control*, 26 - 27 March 2015, Riga, Latvia
- **3rd Training School of Action**, 2 - 8 May 2015 (tbc), Hyytiala (Helsinki), Finland
- **WG1-WG4 Meeting**, Linkoping, 3 - 4 June 2015 (joined to 7th MC Meeting)
- **NEWSLETTER: Issue 5** (Nov-Dec. 2014); **Issue 6** (May-June 2015)
- **LEAFLET/BROCHURE:** UPDATED Issues
- **6th MC Meeting:** 5 Dec. 2014, Istanbul, Turkey, organized by GEBZE at University
- **7th MC Meeting:** 5 June 2015, Linkoping, Sweden, organized by Linkoping University
- **DISSEMINATION & OUTREACH ACTIVITIES**

11. Scientific planning - a. Scientific strategy (1/2)

Meetings/Workshops/Training Schools planned for upcoming year
([Year 3: 1 July 2014 - 30 June 2015](#)):

- **WG1-WG4 Meeting** on *New Sensing Technologies for Air-Pollution Monitoring and Start of the Air Quality Joint-Exercise Intercomparison* at IDAD - University of Aveiro, Aveiro (**Portugal**), 13 - 15 Oct. 2014.
- The **3rd International Workshop of the COST Action TD1105** on *New Trends and Challenges on Air Quality Control* at University of Latvia, Riga (**Latvia**), 26 - 27 March 2015.
- The **Action 3rd International Training School** on *Atmospheric Aerosol Physics, Measurements and Sampling* at Hyytiala Station of the University of Helsinki, Helsinki (**Finland**), 2 - 8 May 2015.

11. Scientific planning - a. Scientific strategy (2/2)

MC/WG Meetings planned for the upcoming year

(Year 3: 1 July 2014 - 30 June 2015):

- **3rd SCIENTIFIC MEETING: WGs Meeting and 6th MC Meeting** at GEBZE Institute of Technology, Istanbul (**Turkey**), 3 - 5 Dec. 2014.
- **4th SCIENTIFIC MEETING: WGs Meeting and 7th MC Meeting** at Linkoping University, Linkoping (**Sweden**), 3 - 5 June 2015.
- **Special Session EuNetAir / Core-Group Meeting** to **EUROSENSORS 2014**, Brescia (Italy), 7-10 September 2014.

11. Scientific planning - b. Action Budget Planning for Year 3

| DESCRIPTION OF ACTIVITIES | BUDGET (€) |
|---|----------------|
| 15 STSMs: 9 STSMs (5 days) and 6 STSMs (30 days), <i>or equivalently</i> | 25.800 |
| EuNetAir Core-Group Meeting at EUROSENSORS 2014 , Special Session COST Action TD1105, Brescia, Italy, 7 - 10 September 2014 (half-day Special Session) | 2.000 |
| WG1-WG4 Meeting , IDAD and University of Aveiro, Aveiro, Portugal, 13 - 15 Oct. 2013 | 20.000 |
| WG1-WG4 Meeting , Istanbul, 3 - 4 Dec. 2014 (joined to 6 th MC Meeting) | 13.000 |
| 3rd Action Workshop on <i>New Trends and Challenges on Air Quality Control</i> , 26 - 27 March 2015, Riga, Latvia | 20.000 |
| 3rd Training School of Action , 2 - 8 May 2015 (tbc), Hyytiala (Helsinki), Finland | 19.000 |
| WG1-WG4 Meeting , Linkoping, 3 - 4 June 2015 (joined to 7 th MC Meeting) | 13.000 |
| NEWSLETTER: Issue 5 (Nov-Dec. 2014); Issue 6 (May-June 2015) | 2.000 |
| LEAFLET/BROCHURE: UPDATED Issues | |
| 6th MC Meeting: 5 Dec. 2014, Istanbul, Turkey, organized by GEBZE at University | 20.000 |
| 7th MC Meeting: 5 June 2015, Linkoping, Sweden, organized by Linkoping University | 20.000 |
| DISSEMINATION & OUTREACH ACTIVITIES | 2.000 |
| OTHER | 1.000 |
| TOTAL SCIENCE EXPENDITURE | 157.800 |
| Financial & Scientific Administration and Coordination (max 15%) | 21.000 |
| TOTAL EXPENDITURE | 178.800 |

11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c1: WG1-WG4 Meeting at IDAD, University of Aveiro, Aveiro (Portugal), 13 October (Starting Joint-Exercise), 14-15 October 2014 (WG1-WG4 Meeting), (1/2)

Prof. Carlos Borrego
IDAD, University of Aveiro
Aveiro (Portugal)
as Host-Supervisor

11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c1: **Aveiro Joint-Exercise Intercomparison**, 13 October 2014 (Starting Joint-Exercise), 14-15 October 2014 (WG1-WG4 Meeting) . (1/3)

Joint-Exercise IDAD with SGX Sensortech

Evaluation of micro-sensors against standard methods for air quality control during field campaigns



- The application of new sensors side by side with standardised equipment in field studies will allow assessing the reliability and uncertainty of these low-cost sensors, especially regarding an accurate detection of pollutant concentration peaks.
- The measurement campaigns of O₃, NO₂, CO/VOC are being conducted in two major Portuguese airports, Lisbon and Oporto, in 6 monitoring sites, from October 2013 to February 2014.

11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c1: **Aveiro Joint-Exercise Intercomparison**, 13 October 2014 (Starting Joint-Exercise), 14-15 October 2014 (WG1-WG4 Meeting) . (2/3)

EuNetAir Air Quality Joint-Exercise Intercomparison 2014

Air quality campaign at Aveiro city centre 2014



**Continuous measurements CO, benzene, NO_x, SO₂, PM₁₀, VOC
Temperature, humidity, wind velocity, wind direction, solar radiation, precipitation**

**All COST partners are invited to install their micro-sensors
side by side with our air quality standardised equipment.**

11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c1: **Aveiro Joint-Exercise Intercomparison**, 13-15 October 2014. (3/3)

WG1-WG4 Meeting at Aveiro: 14-15 October 2014

Location: Aveiro city (Portugal).

Tentative starting AQ campaign: 13 October 2014 (tbc).

Duration of AQ campaign: 2 weeks (tbc).

Local Organization: IDAD - Carlos Borrego, Ana Margarida Costa

Invited people: Sensor producers, research teams,

Practitioners from EuNetAir partnership

Including External contributions.

Output: Joint Publications; Meeting on Results, other.

Support from Action: STSM, Travelling, Accommodation, Meals.

11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c2: **THIRD SCIENTIFIC MEETING**: WG & 6th MC Meeting

hosted by GEBZE, **Istanbul** (Turkey), 3 - 5 December 2014, **(1/3)**

Local Organizer:

**Prof. Zafer Ziya Ozturk,
GEBZE, Istanbul (Turkey)**



**T.C.
GEBZE YÜKSEK TEKNOLOJİ
ENSTİTÜSÜ REKTÖRLÜĞÜ**



11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c2: **THIRD SCIENTIFIC MEETING**: WG & 6th MC Meeting

hosted by GEBZE, **Istanbul** (Turkey), 3 - 5 December 2014, **(2/3)**

Venue:

**Bahçeşehir University
Beşiktaş Campus
very closed to Beşiktaş,
Taksim and Ortaköy,
where you can find
hotels from 2 stars to 5 stars.
Istanbul (Turkey)**

Local Organizer:

**Prof. Zafer Ziya Ozturk,
GEBZE, Istanbul (Turkey)**



11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c2: **THIRD SCIENTIFIC MEETING**: WG & 6th MC Meeting

hosted by GEBZE, **Istanbul** (Turkey), 3 - 5 December 2014, **(3/3)**

Local Organizer:

**Prof. Zafer Ziya Ozturk,
GEBZE, Istanbul (Turkey)**



**T.C.
GEBZE YÜKSEK TEKNOLOJİ
ENSTİTÜSÜ REKTÖRLÜĞÜ**

Letter of invitation to host a COST Action TD 1105 meeting
at Istanbul, Turkey, on 3-5 December 2014

Dear Dr Penza

I am delighted to be able to offer Location(*), Istanbul (TURKEY) as the venue for a COST Action TD1105 meeting to be held in Istanbul on 3-5, December 2014.

The intention is that this meeting will be formally hosted by me, but local arrangements will be made through the Travel Agency (*), with whom maybe you have had preliminary contacts.

This invitation is based on the assumption that the main costs will be covered by the COST Action TD1105, with administrative management as ruled by COST Vademecum by activation of the Local Organizing Support (LOS) tool, if needed.

I look forward to a very successful meeting in highly conducive surroundings, perhaps even matching those of Action *EuNetAir* last years !

Best wishes

Prof. Dr. Zafer Ziya ÖZTÜRK
Department of Physics

11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c3: **3rd International WORKSHOP EuNetAir:**

New Trends and Challenges for Air Quality Control

hosted by University of Latvia, **Riga** (Latvia), 26 - 27 March 2015,

(1/2)

Local Organizer:

Prof. Iveta Steinberga,
University of Latvia,
Riga (Latvia)



11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c3: **3rd International WORKSHOP EuNetAir:**

New Trends and Challenges for Air Quality Control

hosted by University of Latvia, **Riga** (Latvia), 26 - 27 March 2015, **(2/2)**

Letter of invitation to host a COST Action TD1105 meeting at
Riga, Latvia, on 26-27 March, 2013

Local Organizer:

**Prof. Iveta Steinberga,
University of Latvia,
Riga (Latvia)**



Dear Michele,

I am delighted to be able to offer Faculty of Geography and Earth Sciences (University of Latvia), Riga (Latvia) as the venue for a COST Action TD1105 3rd workshop to be held in Riga on 26-27, March 2015.

The intention is that this meeting will be formally hosted by me, but local arrangements will be made through the University of Latvia.

This invitation is based on the assumption that the main costs will be covered by the COST Action TD1105, with administrative management as ruled by COST Vademecum by activation of the Local Organizing Support (LOS) tool, if needed.

I look forward to a very successful meeting in highly conducive surroundings, perhaps even matching those of Action EuNetAir last years!

Best wishes

11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c4: **3rd TRAINING SCHOOL *EuNetAir*** at Hyytiala Forestry Field Station
Atmospheric Aerosol Physics, Measurements and Sampling

hosted by University of Helsinki, **Hyytiala** (Helsinki), 2 - 8 May 2015, (1/2)

Local Organizer:

Prof. Kaarle Hameri,
University of Helsinki,
Helsinki (Finland)



11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c4: **3rd TRAINING SCHOOL *EuNetAir*** at Hyytiälä Forestry Field Station
Atmospheric Aerosol Physics, Measurements and Sampling

hosted by University of Helsinki, **Hyytiälä** (Helsinki), 2 - 8 May 2015, (2/2)

Letter of invitation to host a COST Action TD1105 meeting at
Hyytiälä, Finland, on 2-8 May 2015

Local Organizer:

**Prof. Kaarle Hämeri,
University of Helsinki,
Helsinki (Finland)**



Dear Michele,

I am delighted to be able to offer Hyytiälä research station of the University of Helsinki, Finland as the venue for a COST Action TD1105 meeting to be held in Hyytiälä on 2-8 May 2015.

The intention is that this meeting will be formally hosted by me, but local arrangements will be made through the University of Helsinki, with whom maybe you have had preliminary contacts.

This invitation is based on the assumption that the main costs will be covered by the COST Action TD1105, with administrative management as ruled by COST Vademecum by activation of the Local Organizing Support (LOS) tool, if needed.

I look forward to a very successful meeting in highly conducive surroundings, perhaps even matching those of Action *EuNetAir* last years !

Best wishes

Professor Kaarle Hämeri

Finland MC Member
Local Organizing Committee Chair

11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c5: **FOURTH SCIENTIFIC MEETING**: WG & 7th MC Meeting

hosted by Linköping University, **Linköping** (Sweden), 3 - 5 June 2015, (1/2)

Local Organizer:

Prof. Anita Lloyd Spetz,
Linköping University,
Linköping (Sweden)



11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c5: **FOURTH SCIENTIFIC MEETING**: WG & 7th MC Meeting

hosted by Linköping University, **Linköping** (Sweden), 3 - 5 June 2015, (2/2)

Local Organizer:

**Prof. Anita Lloyd Spetz,
Linköping University,
Linköping (Sweden)**

**Letter of commitment to host a COST Action TD1105 meeting at
Linköping, Sweden, 3-5:th of June 2013**

Dear Michele,

It is my pleasure to offer Linköping University, Linköping Sweden, as the venue for a Working Group meeting and the Management Committee meeting the 3-5:th of June 2015. I will be the local organizer together with Therese Dannetun, administrative coordinator. We will come back with details regarding meeting room, food and accommodation.

Best regards



Anita Lloyd Spetz, Professor



11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c6: **EUROSENSORS 2014**: Special Session EuNetAir & Core- Group hosted by University of Brescia, **Brescia** (Italy), 7 - 10 September 2014

Local Organizer: Prof. Giorgio Sberveglieri, University of Brescia, Brescia (Italy)



*The 28th European Conference
on Solid-State Transducers*

**Brescia, Italy
September 7-10, 2014**

11. Scientific planning

c. Long-term Planning including anticipated locations and dates of future activities.

c6: **EUROSENSORS 2014**: Special Session EuNetAir & Core- Group
hosted by University of Brescia, **Brescia** (Italy), 7 - 10 September 2014

Parallel Session *EuNetAir* at EUROSENSORS 2014

[Procedia Engineering: abstracts already submitted by deadline \(14 April 2014\)](#)

- | | |
|---------------|---|
| 14:00 - 16:00 | Special Session: New Sensing Technologies for Air-Quality Monitoring <i>Chairperson: Michele Penza, ENEA, Brindisi, Italy</i> |
| 14:00 - 14:30 | <u>COST Action TD1105: European Network on New Sensing Technologies for Air-Pollution Control and Environmental Sustainability. Overview of Sensor-Systems for Air Quality Monitoring</u> <i>Michele Penza, Action Chair, ENEA, Brindisi, Italy</i> |
| 14:30 - 14:50 | Gas and Particle Sensors for Air Quality Monitoring <i>Anita Lloyd Spetz, Action Vice-Chair, Linkoping University, Linkoping, Sweden</i> |
| 14:50 - 15:10 | Nanostructured Metal Oxides Low-Cost Gas Sensors: Trends and Challenges <i>Juan Ramon Morante, Action WG1 Leader, IREC, Barcelona, Spain</i> |
| 15:10 - 15:30 | Selective VOCs Detection for Indoor Applications <i>Andreas Schuetze, Action WG2 Leader, Saarland University, Saarbrucken, Germany</i> |
| 15:30 - 15:50 | Smart Sensors and Sensor-Systems for Environmental Monitoring Applications <i>Julian W. Gardner, Action MC Substitute, University of Warwick, Coventry, UK</i> |
| 15:50 - 16:10 | Performance Analysis of Low-Cost Gas Sensors for Air Quality Control <i>Michel Gerboles, JRC, EC DG ENV, Institute for Environment and Sustainability, Ispra, Italy</i> |

11. Scientific planning

d. Dissemination Planning (Publications and outreach activities).

d1: Action website: www.cost.eunetair.it



Action website:

www.cost.eunetair.it

hosted by ENEA

Dr. Marco Alvisi, Webmaster Coordinator

Sebastiano Dipinto, Valerio Pfister, Gianfranco Zingarelli, Webmaster Team

OUTREACH ACTIVITIES from Action TD1105

COST Action TD1105 - EuNetAir

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

Action website:

www.cost.eunetair.it

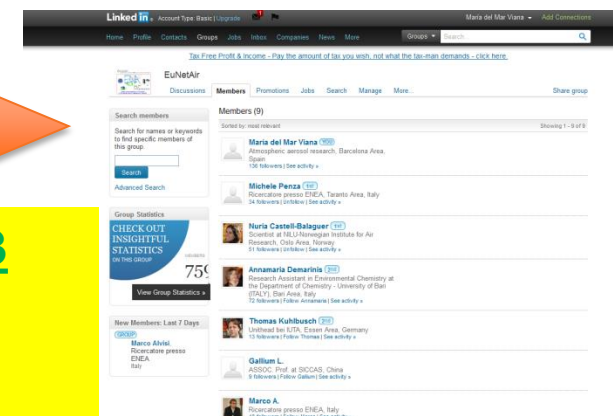
hosted by ENEA

Dr. Marco Alvisi, *Webmaster Coordinator*

Sebastiano Dipinto, Valerio Pfister, Gianfranco Zingarelli, *Webmaster Team*

Social Scientific ESRs Network (SSEN) by LinkedIn

Moderator(s): Mar Viana, Mariacruz Minguillon



2° CALL for Short Exchange Visits launched on Sept. 2013
(STSM - Short Term Scientific Mission)

Dr. Jan Theunis, STSM Coordinator EuNetAir

Issue 1: published on Dec. 2012 ✓

Issue 2: published on June 2013 ✓

Issue 3: published on December 2013 ✓

Issue 4: planned on May-June 2014 ✎



EUROPEAN COOPERATION
IN SCIENCE AND TECHNOLOGY



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

 EuNetAir Newsletter

COST Action TD1105 Iss. 1/Dec 2012

Opening Editorial

Prof. Ralf Moos, *Editor-in-Chief*

Dr. Daniela Schonauer-Kamin, *Editorial Board Manager*

11. Scientific planning

d. Dissemination Planning (Publications and outreach activities).

d2: NEWSLETTER, LEAFLET, BROCHURE (1/2)



Issue 1: published on Dec. 2012 ✓

Issue 2: published on June 2013 ✓

Issue 3: planned on Dec. 2013 ✓

Issue 4: planned on May 2014 ✓



Brochure

Leaflet

Release 1:
published on January 2013

OUTREACH ACTIVITIES from Action TD1105



EuNetAir Newsletter

COST Action TD1105 Iss. 3/Dec. 2013

Editorial

M. Penza

This 3rd issue of Newsletter covers the Action grant period June-December 2013 to disseminate the networking activities and current research results in environmental science and technology from COST Action TD1105 (www.cost.eu/netair) European Network on New Sensing Technologies for Air-Pollution Control and Environmental Sustainability - EuNetAir, edited half-yearly in the next four years (2012-2016) by an Editorial Board, chaired by Prof. Ralf Moos (University of Bayreuth, DE) with Editorial Board Manager Daniela Schönauer-Kamin (University of Bayreuth, DE).

The excellent teams of over 170 involved international experts such as scientists, researchers, technologists, modellers, SMEs managers from 28 COST Countries, 4 International Partner Countries (IPCs) and 3 Near Neighbour Countries (NNC) are working hard to contribute to the objectives and work plan of COST Action TD1105 in the air quality monitoring including environmental technologies, nanomaterials, gas sensors, smart systems, air-pollution modelling, measurements, methods, standards and protocols. The concerted COST Action TD1105 is very pleased to present the networking/dissemination results of the national/international research from Action partnership to various international conferences/workshops such as 1st International Workshop on New Sensing Technologies and Transducers for Air Quality Monitoring (June 20, 2013, Barcelona, Spain) as open satellite workshop to Transducers 2013 - Eurosensors



XXVII and WG1-WG4 Meeting on New Sensing Technologies and Methods for Air-Pollution Monitoring (European Environment Agency, October 3-4, 2013, Copenhagen, Denmark). In these two meetings, over 80 Participants from at least 25 COST Countries were involved with a large participation and target audience. In this Newsletter we will give an update on the outcome of these workshops.

Special acknowledgements to the COST Office Director (Dr. Monica Dietl) for her Letter of Support

received and read to the EEA meeting in Copenhagen. Many thanks for sharing the prestigious inputs on networking and "common brains" community to generate new knowledge for science, technology and innovation. The COST Action TD1105 will hold the 2nd Scientific Meeting including Working Groups Meeting and 4th Management Committee Meeting at Queens' College, University of Cambridge, Cambridge (UK), December 18-20, 2013. The 3rd Management Committee Meeting of EuNetAir was held at IREC in Barcelona (Spain), June 21, 2013. The 3rd MCM decided to elect a new Grant Holder (GH) as Eurice GmbH, Saarbrücken (Germany). Special thanks to the old GH as University of Bari, Bari (Italy).



The First Training School of EuNetAir on Environmental Technologies and Air-Quality Monitoring was held at University of Barcelona, Electronics Department, Barcelona (Spain), June 13-15, 2013, with 39 trainees and 9 trainers from at least 20 COST Countries. This event was labelled as Green Week 2013 Satellite, by DG ENV.



EuNetAir supported 11 Short Term Scientific Missions (STSMs) in the Year 1 (July 1, 2012 - June 30, 2013) for visit and exchange of motivated Early Stage Researchers and experienced scientists from a laboratory to another one in order to start and consolidate new international research collaborations in the whole area of EuNetAir topics. Finally, EuNetAir, represented by Action Chair, participated to the COST Annual Progress Meeting in Hannover (Germany), June 12-13, 2013, to report on progress of the Action TD1105 activities to the ESSEM Committee related to the first grant period (July 1, 2012 - June 30, 2013). The feedback from other Action Chairs and DC Rapporteur was highly positive and encouraging. On behalf of Action Management Committee, I would like to thank ALL Action participants for their valuable scientific work, kind availability and great enthusiasm that will make our Action very successful as an excellent S&T platform to address the upcoming Horizon 2020!

Prof. Ralf Moos, *Editor-in-Chief*

Dr. Daniela Schönauer-Kamin, *Editorial Board Manager*

University of Bayreuth, Germany

NEWSLETTER

Issue 3: published on Dec. 2013 ✓

INTERVIEW on Air Quality Report 2012-2013 in Europe has been recorded (www.cost.eunetair.it)

INTERVIEW by Action Chair (Dr. Michele Penza, ENEA, Italy) with Dr. Cristina Guerreiro, Leader Report 2003 on Air Quality Status in Europe, NILU, Norway. Copenhagen, 3 - 4 October 2013 at EEA Meeting

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Evaluation of micro-sensors for AQ

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Science & Tech Talk

CIT-SENSE
STSM-Reports
CO₂ sensors

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1st training school
1st Action workshop
WG1-WG4 Meeting

Announcements upcoming events

Publication list

Monitoring Progress Report

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



EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY



OUTREACH ACTIVITIES from Action TD1105

#1: INTERVIEW on FP7 Graphene Flagship has been recorded and to be uploaded (www.cost.eunetair.it)

**INTERVIEW by Action Chair (Dr. Michele Penza, ENEA, Italy) with Prof. Andrea C. Ferrari, Chairman of Executive Board of FP7 Flagship Graphene, University of Cambridge, UK.
Cambridge, 18 - 20 December 2013 at Queens' College**

#2: INTERVIEW on US EPA Roadmap for Next Generation Air Monitoring has been recorded and to be uploaded (www.cost.eunetair.it)

**INTERVIEW by Action Chair (Dr. Michele Penza, ENEA, Italy) with Dr. Tim Watkins, Deputy Director for US EPA' Air, Climate and Energy Program, US Environmental Protection Agency, USA.
Cambridge, 18 - 20 December 2013 at Queens' College**

Video/Interview at Action Webpages:

www.cost.eunetair.it - **Section VIDEO**

- **Thu-Hoa Tran-Thi**

Research Director on Indoor Sensors Applications, CEA-CNRS, France

- **Tim Watkins**

Deputy Director US EPA Air, Climate and Energy Programme, USA

- **Andrea C. Ferrari**

Chairman of Executive Board of Graphene Flagship, UK

- **Cristina Guerreiro**

Coordinator of EEA AQ Report 2012 and 2013, Norway

- **Meyya Meyyappan**

Chief Scientist at NASA Ames Nano Research Center, USA

- **Michele Penza**

Action Chair at RAI3 Italian TV Show *GeO&GeO*, Italy



10. Scientific planning

d4: DISSEMINATION PLAN

COMING in NEWSLETTER EuNetAir Issue 4

Dr. Fabio Galatioto

Chair of Dissemination Committee

COST Action TD1105: Related Upcoming EVENTS

New Sensing Technologies for Air-Pollution Control and Environmental Sustainability

- **COST Domain-Specific CMST Strategic Event**

COST Actions: A Great Opportunity as Incubators for Molecular Science and Technology

Brussels (Belgium), 27-28 March 2014

Action TD1105 represented as **Invited Speaker** by Dr. Marco Alvisi, MC Substitute and SIG1 (*Network of Spin-offs*) Leader, ENEA, Brindisi, Italy.

- **COST Domain ESSEM, ISCH, ICT Strategic Event**

Cities of Tomorrow

Turin (Italy), 24-27 September 2014 (tbc !)

Action TD1105 represented as **Invited Speaker** by Prof. Anita Lloyd-Spetz, Action Vice-Chair, Linköping University (Sweden) and Oulu University (Finland).

COST Action TD1105: Related Upcoming EVENTS

New Sensing Technologies for Air-Pollution Control and Environmental Sustainability

- **Air Sensors 2014: A New Frontier**

Workshop Series US EPA: Workshop in the Next Generation Air Monitoring (NGAM)

EPA Campus in Research Triangle Park, North Carolina (USA), 9-10 June 2014

Action TD1105 represented as **Invited Speaker** by Dr. Michele Penza, Action Chair, ENEA, Brindisi, Italy.

- **NATO Advanced Research Workshop**

NATO ARW on Nanotechnology to Aid Chemical and Biological Defense

organized by Prof. Terri A. Camesano, Chemical Engineering, Worcester Polytechnic Institute, USA

Antalya (Turkey), 22-26 September 2014

Action TD1105 represented as **Invited Speaker** by Dr. Michele Penza, Action Chair, ENEA, Brindisi, Italy.

Prof. G. Sberveglieri, University of Brescia, Invited Speaker.

COST Action TD1105: Related Upcoming EVENTS

New Sensing Technologies for Air-Pollution Control and Environmental Sustainability

- **Eurosenors 2014**

XXVIII Edition of Conference Series: *European Forum to cover the entire field of Sensors, Actuators, Microsystems and Nanosystems*

Brescia, (Italy), 7-10 September 2014

General Conference Chair: Prof. G. Sberveglieri

Action TD1105 represented as **Technical Program Committee (TPC)**

Member by Dr. Michele Penza, Action Chair, ENEA, Brindisi, Italy

- **IEEE SENSORS 2014**

2014 Edition of Conference Series: *Worldwide Forum*

Valencia (Spain), 2-5 November 2014

Technical Program Chair: Prof. Ignacio R. Matias

Action TD1105 represented as **Track Co-Chair for Europe/Africa (Track 9: Materials, Processes, Circuits, Signals & Interfaces)** by Dr. Michele Penza, Action Chair, ENEA, Brindisi, Italy.

Track 4 Chemical Sensors Co-Chair: Prof. Eduard Llobet, MC Member.

COST Action TD1105: Related Upcoming EVENTS

New Sensing Technologies for Air-Pollution Control and Environmental Sustainability

- **ECTP 2014 - Brussels, 17-19 June 2014**

COST Action TD1105 **EuNetAir** and FP7 project **SensIndoor** represented Prof. Anita Lloyd-Spetz, Action Vice-Chair, Linköping University (Sweden) and Oulu University (Finland), and Partner of SensIndoor project.

Thursday 19th June 2014, 09:00 to 10:30

PARALLEL SESSIONS: How the Built Environment will meet Europe Needs and its Societal Challenges - Foreseen Innovation & Future Horizons

09:00 to 10:30 INDOOR ENVIRONMENT QUALITY (Parallel Session)

Chairs: Jürgen Frick (MPA University of Stuttgart), Monique Levy - Maria Yeroyanni - Ugo Guarnacci (EC DG Research and Innovation)

ECTP Construction and Built Environment: Future Horizons
17-19 June 2014, Brussels

Organized by: **ECTP** **encord** **ENBRI** Supported by: **ECCREDI** Co-located with: **BUILDING TEST EXPO**

<http://www.ectp.org/Conference2014.asp>

After Paris, Versailles, Amsterdam, Brussels and Warsaw, the European Construction Technology Platform is organizing its 6th Conference at SQUARE BRUSSELS Meeting Centre in central Brussels, jointly with ENCORN (European Network of Construction Companies for Research and Development) and ENBRI (European Network of Building Research Institutes), and with the support of ECCREDI (European Council for Construction Research, Development and Innovation).

This event co-locates with Building Test Expo 2014. ECTP Conference delegates and Expo Exhibitors will thus benefit from exclusive networking opportunities.

12. Requests for new members - List of New WGs Members (1/3)

COST ACTION TD1105 – 5th MCM in Lille, 30 May 2014

8 NEW AFFILIATIONS from 5 Countries

New Affiliations: 8

| Nr | NAME | ORGANIZATION | COUNTRY | EXPERTISE / KEYWORDS | WG INTERESTED | E-MAIL |
|-----------|--------------------------|---|----------------|--|-----------------------|---------------------------------|
| 1 | Stefan REIS | NERC Centre for Ecology & Hydrology (CEH), Midlothian | UK | Assessing personal exposure to air pollution, environmental measurements, air-quality modelling, citizen science. | WG3-WG4 SIG2-SIG4 | srei@ceh.ac.uk |
| 2 | Alfonso RAMALLO-GONZALES | University of Bath | UK | Installation of the sensors in 180 dwellings in Exeter, as well as we would like to share the findings and learnings from the data. To create the artificial intelligence able to recognise the thermodynamic properties of the building with minimal sensing. | WG1, WG2 WG4, SIG2 | a.p.ramallo-gonzalez@bath.ac.uk |
| 3 | Daniel CALABRESE | LNI Schmidlin SA | CH | Manufacturer of Gas Calibration System and Gas Generators. Customers are mainly companies that manufacture gas analysers and gas sensors or final customers that uses gas analysers and gas sensors. Products use different technologies as sonic Nozzles, Thermal mass flow controllers and permeation tubes. | WG3, WG4 SIG1, | d.calabrese@lni-schmidlin.com |
| 4 | Beti ANGELEVSKA | University of St. Clement Ohridski | MK | Assessment of Transport impacts on Environment. | WG3, WG4 | beti.angelevska@tfb.ukdo.edu.mk |
| 5 | Davide CAPELLO | NOVASIS srl | IT | SMEs involved in gas sensors and optoelectronic and electronic systems innovation | WG2, SIG2 | davide.capello@novasis.it |
| 6 | Wolfhard REIMRINGER | 3S GmbH | DE | Indoor air quality sensors | WG2, SIG2 | reinringer@3s-ing.de |

12. Requests for new members - List of New WGs Members (2/3)

New Affiliations: 8

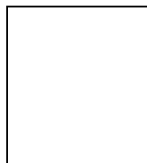
| | | | | | | |
|---|------------------------|----------|----|--|-----------------------|---------------------------|
| 7 | Rosa CAGGIANO | CNR-IMAA | IT | Methodologies for Environmental Analysis. Physical, chemical and optical characterization of atmospheric aerosol properties through the complementary use of data coming from in-situ, satellite and remote sensing observations. | WG3 | rosa.caggiano@imaa.cnr.it |
| 8 | Antonella MACAGNANO | CNR-IIA | IT | Designing and developing low-cost technologies to grow nanostructured thin films for gas sensing. Sensor devices for monitoring the air quality. Headspace sampling for definite applications (bio-medical, environmental, foodstuff, space). Provide facilities and expertise for standardisation methods (IIA-CNR). | WG1, WG2, WG3, WG4 | a.macagnano@tia.cnr.it |

12. Requests for new members - List of New WGs Members (3/3)



COST Action TD1105 Affiliation/Information Form

Photo is optional.



COST Action TD1105 Information Form for New Action Participants and New Working Group Members

| Personal Details | |
|---|--------------------------|
| 1. Surname | |
| 2. First name(s) | |
| 3. Email | |
| 4. Institute/company | |
| 5. Address | |
| 6. Postal address | |
| 7. Telephone | |
| 8. Fax | |
| 9. Mobile | |
| | |
| Background related to the COST Action (research activities, institute/company background in relation to COST Action, etc) | |
| (Max 10 lines) | |
| | |
| Personal Activities related to the COST Action | |
| (Max 10 lines) | |
| | |
| Planned contribution to the COST Action | |
| (Max 10 lines) | |
| | |
| Involved member of: | |
| MC | <input type="checkbox"/> |
| CG | <input type="checkbox"/> |
| SC | <input type="checkbox"/> |
| WG 1 | <input type="checkbox"/> |
| WG 2 | <input type="checkbox"/> |
| WG 3 | <input type="checkbox"/> |
| WG 4 | <input type="checkbox"/> |
| SIG 1 | <input type="checkbox"/> |
| SIG 2 | <input type="checkbox"/> |
| SIG 3 | <input type="checkbox"/> |
| SIG 4 | <input type="checkbox"/> |
| OTHER | <input type="checkbox"/> |
| Remarks | |
| (Max 10 lines) | |

**Application Form
filled by New Members
asked by email and replied filled.**

Please, New WG Member and/or Action Participant should provide own CV (max 1 page)

13. Non-COST applications to the Action

(1/2)

List of Non-COST Members: New NNC and IPC

EuNetAir: List of Experts from NNC and IPC



170 EXPERTS from **28** COST Countries and **7** Non-COST Countries



AU - Australia

Dr. Phil MARTIN



CA - Canada

Prof. John YEOW



CN - China

Dr. Yongxiang LI

Dr. Zhifu LIU



RU - Russian Federation

Dr. Alexey VASILIEV



US - United States

Prof. Andrei KOLMAKOV

Dr. Meyya MEYYAPPAN



MA - Morocco

Dr. Radouane LEGHRIB

Dr. Houda LAHLOU



UA - Ukraine

Dr. Olena TUROS

Dr. Arina PETROSIAN

Dr. Oksana ANANYEVA

Dr. Liudmyla MYKHINA

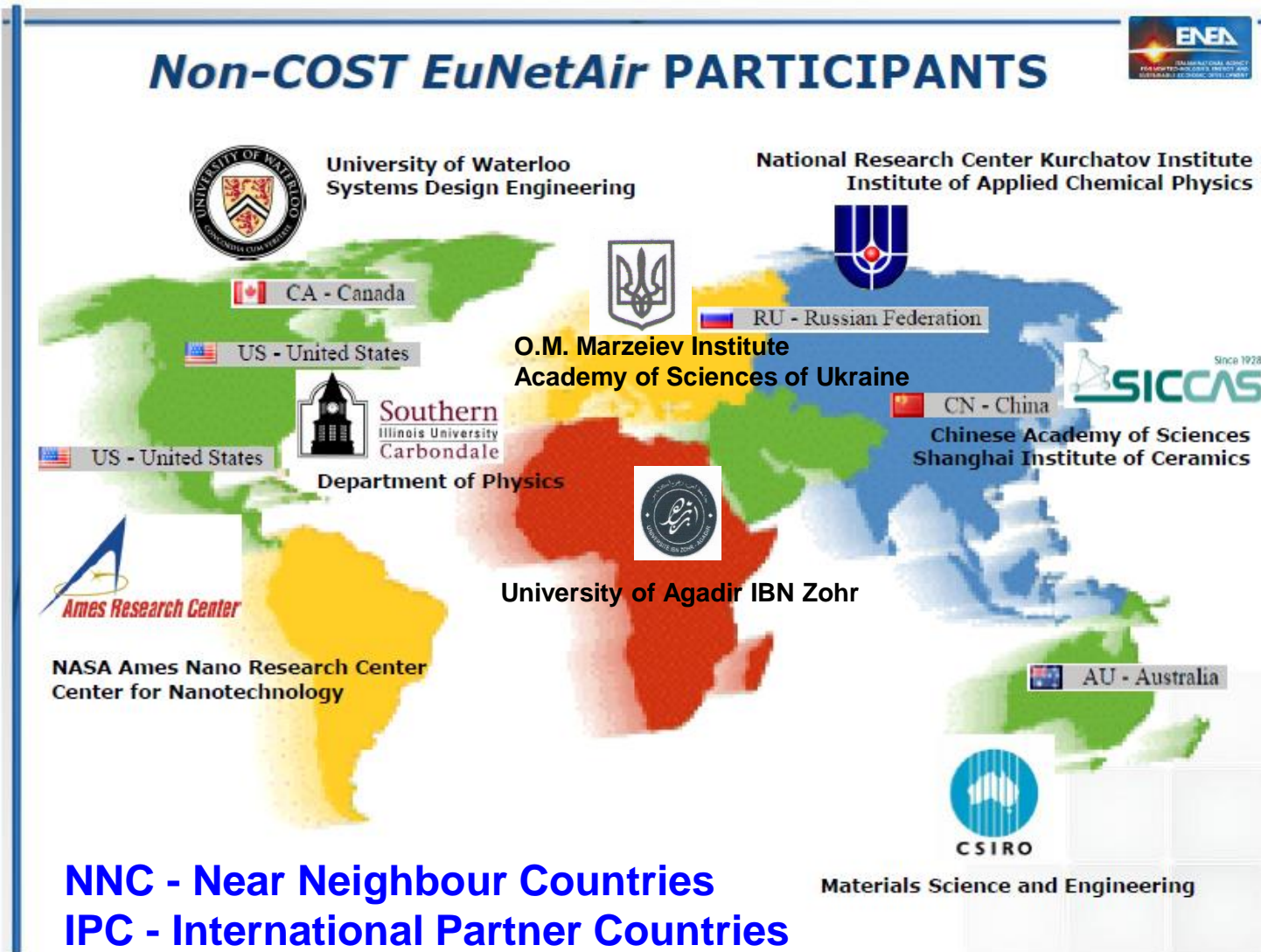
Dr. Liliia PETRUK

Dr. Tetiana MAREMUKHA

7 Non-COST Countries and 8 Non-COST Institutions

Non-COST Countries:
Australia, Canada, China,
Morocco, Russia, **Ukraine**,
USA

Non-COST Institutions:
CSIRO (**Australia**);
University of Waterloo
(**Canada**); Chinese Academy
of Sciences, Shanghai
Institute of Ceramics
(**China**); University of Agadir
IBN Zohr (**Morocco**);
National Research Center
Kurchatov Institute (**Russia**);
O.M. Marzeiev Institute for
Hygiene and Medical
Ecology of Academy of
Science of Ukraine
(**Ukraine**); Southern Illinois
University Carbondale,
NASA Ames Research
Center (**USA**).



NNC - Near Neighbour Countries
IPC - International Partner Countries

14. AOB of the Action - List of AOB

- **Spin-offs activities** from *Action TD1105*: at least 4 FP7 NMP research proposals have been submitted for funding on October 2013 at the first-stage level. Results of these Applications were released on December 2012 !
- It is a pleasure to announce that **SensIndoor** has been granted and started on **January 2014**.
- GERMANY (Andreas Schuetze, Saarland University, Coordinator): **SensIndoor**, FP7-NMP-2013.SMALL-7, “*Nanotechnology-based intelligent multi-SENsor System with selective pre-concentration for Indoor air quality control*”. Project Partners: USAAR-LMT (Germany), NanoSense (France), Fraunhofer Institute for Chemical Technology (Germany), UO-FETF (Finland), Linkoping University (Sweden), SenSiC (Sweden), SGX (Switzerland), 3S (Germany), Picodeon (Finland), Eurice (Germany), under negotiation. **6 Partners of winner project are from Action TD1105**.

14. AOB of the Action - List of AOB

- **Joint-Publications** should be encouraged more.
 - PAPERS
 - A **List of Joint-Publications** (Year 2: 2013-14) from Action is downloadable at Action webpages (www.cost.eunetair.it) in the Section **LIBRARY - Publications**
 - **Other JOINT-PUBLICATIONS are HIGHLY welcomed !**

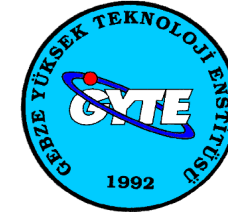
Publications of EuNetAir participants

List of publications related to EuNetAir

- [1] A. Vásquez Quintero, B. van Remoortere, E. C. P. Smits, J. van den Brand, D. Briand, H. F. M. Schoo, N. F. de Rooij, *Microelectronic Engineering* **2013**, 110, 52–58.
- [2] T. H. Nguyen, E. Chevallier, J. Garcia, T. D. Nguyen, A. M. Laurent, C. Beaubestre, P. Karpe, T. H. Tran-Thi, *Sensors and Actuators B: Chemical* **2013**, 187, 622–629.
- [3] J. Rossignol, G. Barochi, B. De Fonseca, J. Brunet, M. Bouvet, A. Pauly, L. Markey, *Sensors and Actuators B: Chemical* **2013**, 189, 213–216.
- [4] A. Lloyd Spetz, J. Huotari, C. Bur, R. Bjorklund, J. Lappalainen, H. Jantunen, A. Schütze, M. Andersson, *Sensors and Actuators B: Chemical* **2013**, 187, 184–190.
- [5] J. Huotari, J. Lappalainen, J. Puustinen, A. Lloyd Spetz, *Sensors and Actuators B: Chemical* **2013**, 187, 386–394.
- [6] M. Bouvet, J. M. Suisse, T. Sizun, A. Kumar, G. Barochi, B. De Fonseca, J. Rossignol, *Sensors and Actuators B: Chemical* **2013**, 187, 204–208.
- [7] M. I. Mead, O. A. M. Popoola, G. B. Stewart, P. Landshoff, M. Calleja, M. Hayes, J. J. Baldovi, M. W. McLeod, T. F. Hodgson, J. Dicks, et al., *Atmospheric Environment* **2013**, 70, 186–203.
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15. Location and date of next MC Meeting

3 - 5 Dec., 2014, Istanbul, Turkey



6th MC Meeting, 5 December 2014

Istanbul, Turkey

connected to

**THIRD SCIENTIFIC MEETING:
WGs & MC**

Istanbul, 3 - 5 December 2014

Letter of Commitment

to host 6th MC Meeting

GEBZE

Prof. Zafer Ziya Ozturk

Local Organizer

MC TK Member

Letter of invitation to host a COST Action TD 1105 meeting
at Istanbul, Turkey, on 3-5 December 2014

Dear Dr Penza

I am delighted to be able to offer Location(*), Istanbul (TURKEY) as the venue for a COST Action TD1105 meeting to be held in Istanbul on 3-5, December 2014.

The intention is that this meeting will be formally hosted by me, but local arrangements will be made through the Travel Agency (*), with whom maybe you have had preliminary contacts.

This invitation is based on the assumption that the main costs will be covered by the COST Action TD1105, with administrative management as ruled by COST Vademecum by activation of the Local Organizing Support (LOS) tool, if needed.

I look forward to a very successful meeting in highly conducive surroundings, perhaps even matching those of Action *EuNetAir* last years !

Best wishes

Prof. Dr. Zafer Ziya ÖZTÜRK
Department of Physics

16. Summary of MC decisions 5th MC Meeting, 30 May 2014, Lille, France

| DESCRIPTION OF DECISIONS DISCUSSED BY ACTION TD1105 MC | APPROVED |
|---|----------|
| MC5D01. 15 STSMs: 9 STSMs (5 days) and 6 STSMs (30 days), <i>or equivalently</i> | YES/NO |
| MC5D02. EuNetAir Core-Group Meeting at EUROSENSORS 2014 , Special Session COST Action TD1105, Brescia, Italy, 7 - 10 September 2014 (half-day Special Session) | YES/NO |
| MC5D03. WG1-WG4 Meeting , IDAD and University of Aveiro, Aveiro, Portugal, 13 - 15 Oct. 2013 | YES/NO |
| MC5D04. WG1-WG4 Meeting , Istanbul, 3 - 4 Dec. 2014 (joined to 6 th MC Meeting) | YES/NO |
| MC5D05. 3rd Action Workshop on <i>New Trends and Challenges on Air Quality Control</i> , 26 - 27 March 2015, Riga, Latvia | YES/NO |
| MC5D06. 3rd Training School of Action , 2 - 8 May 2015 (tbc), Hyytiala (Helsinki), Finland | YES/NO |
| MC5D07. WG1-WG4 Meeting , Linköping, 3 - 4 June 2015 (joined to 7 th MC Meeting) | YES/NO |
| MC5D08. NEWSLETTER: Issue 5 (Nov-Dec. 2014); Issue 6 (May-June 2015) LEAFLET/BROCHURE: UPDATED Issues | YES/NO |
| MC5D09. 6th MC Meeting: 5 Dec. 2014, Istanbul, Turkey, organized by GEBZE at University | YES/NO |
| MC5D10. 7th MC Meeting: 5 June 2015, Linköping, Sweden, organized by Linköping University | YES/NO |
| MC5D011. DISSEMINATION & OUTREACH ACTIVITIES: | YES/NO |

17. Closing

5th MC Meeting, 30 May 2014, Lille, France, hosted by EMRS Spring Meeting 2014

WELCOME from Chair addressing the 5th MC Meeting, Lille

SEE YOU in **INSTANBUL**, 3 - 5 Dec. 2014



COST Action TD1105 EuNetAir at EMRS Spring Meeting 2014

Lille, France, 30 May 2014



THANK YOU VERY MUCH FOR YOUR KIND ATTENTION !

**EMRS SPRING
MEETING 2014**

May 26th-30th - Lille Congress Center, France

