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

3rd International Workshop *EuNetAir* on *New Trends and Challenges for Air Quality Control* University of Latvia - Faculty of Geography and Earth Sciences Riga, Latvia, 26 - 27 March 2015

CONCLUSIONS

Action Start date: 01/07/2012 - Action End date: 30/06/2016 Year 3: 1 July 2014 - 30 June 2015



Michele Penza

Function in the Action: Action Chair ENEA - Brindisi, Italy





THIRD ACTION WORKSHOP: RIGA, Latvia

hosted at Faculty of Geography and Earth Sciences - University of Latvia supported by Riga Technical University

> 26 March 2015 - Thursday 09:00 - 18:00





	09:30 - 10:00	Welcome Address
	10:00 - 11:00	Session 1: Plenary Session
	11:00 - 11:30	Coffee Break
	11:30 - 13:00	Session 2: Oral Presentations
	13:00 - 14:30	Lunch
	14:30 - 16:00	Session 3: Oral Presentations
	16:00 - 16:30	Coffee Break
	16:30 - 18:30	Session 4: Oral Presentations
to the second	20:00 - 23:00	Social Dinner
	27 March 2015 - Friday	
	09:00 - 16:00	REGISTRATION
Dynamic .	09:30 - 11:00	Session 5: Oral Presentations
	11:00 - 11:30	Coffee Break
	11:30 - 13:00	Session 6: Oral Presentations
	13:00 - 14:30	Lunch
_	14:30 - 16:00	Session 7: Poster Presentations
35E	16:00 - 16:30	Discussion and Coffee Farewell
PEAN COOPERATION IN S	16:30	Closure of Meeting

AGENDA

REGISTRATION



THIRD ACTION WORKSHOP

New Trends and Challenges for Air Quality Control

- Welcome Address from COST Action TD1105 EuNetAir
- Dr. Michele Penza, Action Chair

ENEA, Technical Unit for Materials Technologies, Brindisi (Italy)







AIM of the EuNetAir THIRD ACTION WORKSHOP

New Trends and Challenges for Air Quality Control

- Provide from Action TD1105 EuNetAir an Overview of the Best Available Sensing Technologies, Modelling, Methods and Best Practices on Air Pollution Monitoring to International Organizations (IOs), Policy Makers and Public Institutions, Local Managers.
- Discuss on new Trends and Challenges for AQ and on starting European SENSOR SYSTEM CLUSTER (ESSC) related to COST Action TD1105

Expertise/Consultancy



Keynote Speakers

Oral/Poster Speakers

(Universities, Research Centers, Environmental Agencies, SMEs)

Lecturers/Inputs



DG R&I. JRC

UNECE, EMEP WHO Europe EEA, US EPA

COST Action TD1105 EuNetAir: THIRD ACTION WORKSHOP New Trends and Challenges for Air Quality Control

Statistics of Action Workshop at Riga:	
e-COST Registered Participants / Total Participants:	49 / 55
Sessions including Plenary, Oral & Poster:	7
Keynote/Invited Speakers:	6
Oral Speakers (Contributed Talks):	18
Poster Presenters:	13
Round-Table Speakers:	2
Reimbursed Participants:	23
COST Countries involved in WGs/MC Meeting: Belgium, Bulgaria, Croatia, Czech Republic, Estonia, France, Germany, Greece, Hungary, Italy, Latvia, FYR Macedonia, Norway, Poland, Portugal, Serbia, Spain, UK	18
Live Video Chat with Brussels: Hans Hartmann Pedersen, DG R&I Officer	1
Gender Balance in Workshop:	18 F (37%) 31 M (63%)
Early Stage Researchers (ESRs):	18 (37%)

Topics of Workshop

- Functional Materials for AQ Sensors
- Gas Sensors and Sensor-Systems
- Air Pollution Modelling
- Methods, Standards, Protocols, Guidelines
- Environmental Measurements and Data Fusion
- Health Effects of Air Pollution
- Environmental Sustainability Applications
- ESSC European Sensor Systems Cluster





Year 3: Scientific Planning of *EuNetAir* (1/3)

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), 1 8 May 2015.

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 on Indoor Air Quality Monitoring at Bahcesehir University and GEBZE Institute of Technology, Istanbul (Turkey), 3 5 Dec. 2014.
- 4th SCIENTIFIC MEETING: WGs Meeting and 7th MC Meeting on Outdoor Air Quality Monitoring at Linkoping University, Linkoping (Sweden), 3 5 June 2015.
- Special Session EuNetAir / Core-Group Meeting to EUROSENSORS 2014, Brescia (Italy), 7 - 10 September 2014.
- Special Session EuNetAir / Smart Cities Sensors to IEEE SENSORS 2014, Valencia (Spain), 2 - 5 November 2014.



Year 3: Scientific Planning of *EuNetAir*

(3/3)

MC/WG Meetings planned for the upcoming year

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

- EuNetAir FOCUS GROUP: Data Analysis of Aveiro Air Quality
 Sensors Intercomparison hosted at WHO Collaborating Centre for Air
 Quality Management and Air Pollution Control Federal Environment
 Agency, Berlin (Germany), 17 April 2015. Expected Persons: 10.
- *EuNetAir* FOCUS GROUP: Innovation on Environmental Sensor Technologies hosted at <u>Siemens AG</u>, Munich (Germany), 29 April 2015. Expected Persons: 10.
- *EuNetAir* FOCUS GROUP: ISOEN 2015 International Symposium on Olfaction and Electronic Noses, Dijon (France), 28 June 1 July 2015. Expected Persons: 5 (3 Speakers + 2 Flash Presenters).



Action Recommendations: Roadmap 2015-2020

- Micro-Sensors should not substitute but supplement routine environmental monitoring equipments/devices
- Future Routine Environmental Networks may look very different from today and include low-cost and accurate Sensors?
- <u>Green Routes</u> through the city or access to information about air-pollution load at specific local address might be future goals
- Pervasive low-cost Micro-Sensors for Indoor Energy Efficiency should be a must for future *Green-Buildings*
- What do we want to provide (e.g. AQI) on the long-term in relation to Routine Monitoring and Public Information to enhance Environmental Awareness?



EU Sensor Systems Cluster: Future Research & Innovation

- Advanced Functional Materials for Sensor Technologies
- Wearable Sensors to Monitor Air-Pollution Personal Exposure
- Mobile Sensing (Smartphones, Tablets, Watches)
- Fixed Sensor Nodes in Urban Wireless Networks
- Mobile Sensor Nodes on Public Transports (Buses, Trams, etc.)
- Sensing City (bikes, city guardians, citizens, etc.)
- Indoor Energy Efficiency Sensors (VOCs, Formaldehyde, etc)
- Sensors for Greenhouse Gases Monitoring (CO₂, CH₄, N₂O, etc.)
- Sensors for Odour Monitoring
- Sensors for PM Detection at Low-Cost



OUTREACH ACTIVITIES from Action TD1105



Action website:

www.cost.eunetair.it

hosted by ENEA

Dr. Marco Alvisi, Webmaster Coordinator

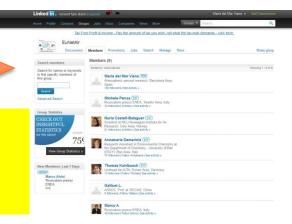
Sebastiano Dipinto, Valerio Pfister, Gianfranco Zingarelli, Webmaster Team

Social Scientific ESRs Network (SSEN) by LinkedIn

Moderator(s): Mar Viana, Mariacruz Minguillon

3° CALL for Short Exchange Visits <u>launched on June 2014</u> (STSM - Short Term Scientific Mission - <u>by 30 June 2015</u>)

Dr. Jan Theunis, STSM Coordinator EuNetAir





- Issue 1: published on Dec. 2012 ✓
- Issue 2: published on June 2013 ✓
- Issue 3: published on Dec. 2013 ✓
- Issue 4: published on June 2014 ✓
- Issue 5: published on Dec. 2014 ✓

Prof. Ralf Moos, Editor-in-Chief

Dr. Daniela Schonauer-Kamin, Editorial Board Manager

Contact Details



CSO Approval: 01 Dec. 2011

Kick-off Meeting: 16 May 2012

Start of Grant: 01 July 2012

End of Grant: 30 June 2016

www.cost.eunetair.it

Dr. Michele Penza, ENEA, IT MC Chair: michele.penza@enea.it **Prof. Anita Lloyd Spetz Linkoping University, SE** MC Vice Chair: spetz@ifm.liu.se Dr. Corinna Hahn, Dr. Juliane Rossbach **Grant Holder: Eurice GmbH, DE** c.hahn@eurice.eu; j.rossbach@eurice.eu Dr. Annamaria Demarinis Loiotile **Scientific Secretary:** annamaria.demarinis@uniba.it Dr. Deniz Karaca Science Officer: deniz.karaca@cost.eu Dr. Andrea Tortajada **Administrative Officer:** andrea.tortajada@cost.eu Prof. Kostantinos Kourtidis (GR) **Rapporteur ESSEM:** kourtidi@env.dvtt. Prof parlim Manuel Vieira (PT) Rapporteur MPNS: CEASED vieira@cv.ua.pt **Prof. Antonio Lagana (IT)** Rapporteur CMST: lagana05@gmail.com

http://www.cost.eu/domains_actions/essem/Actions/TD1105

EuroNanoForum 2015 Riga, 10 - 12 June 2015



10-12 June 2015, Riga, Latvia www.euronanoforum2015.eu

under Latvian Presidency of the EU Council hosted and organized by University of Latvia supported by EC DG R&I



ACKNOWLEDGEMENTS

Riga, Latvia, 26 - 27 March 2015







THANK YOU VERY MUCH FOR YOUR POSITION C







SEE YOU SOON at

4th SCIENTIFIC MEETING EuNetAir

Linkoping, Sweden, 3 - 5 June 2015



