



COST

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

COST Action TD1105

WGs and MC Meeting at Cambridge, 18-20 December 2013

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

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

Research and Innovation Needs of SIG4



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EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY



Challenges in Air Quality Control

Background / Problem statement:

1. Equipment (routine measurements are very expensive, no money for maintenance)
2. Many unknown in PM health effects
3. Indoor environment (no thresholds or even guidelines)
4. PM monitoring strategy (EC/OC, particle number & mass, PAH?)
5. Pollen (automatic monitoring of allergens), biomarkers/lichenoidication
6. Agricultural sources (fungai spore, animal material, ammonia), wood stoves
7. Assessment of odours

Research Goals in Air Quality Control

Background / Problem statement:

1. Long term in relation to routine information and public info
2. Micro-sensors – supplementary
3. Future routine network (sensors)
4. Green-route through the city
5. PM health effects & source-apportionment
6. EC/OC monitoring
7. Dust models
8. Indoor environment

Priority Innovation Requirements in Air Quality Control

Background / Problem statement:

1. Future routine network
2. Health prices (exposure limits?)
3. Many unknown in PM health effects
4. Indoor environment (no thresholds or even guidelines, formaldehyde?)
5. PM monitoring strategy - mass & number limits
6. Limits for another species (e.g. ammonia)

CONCLUSIONS

Suggested **R&I Needs** for future research to Action WGs/SIGs General Assembly

1. Link PM health effects to specific constituents.
2. Investigation of PM morphology (e.g. SEM-EDX) it`s relation to fibrosis.
3. Price of health, improved strategies for economical assessment of air pollution.
4. Establishing EU guidelines for indoor air quality (references values?) - review of existing situation in Europe; establishing indoor (AQ) index.
5. Exposure index, public information.