



Improving our knowledge on transport pollution and health

TRANSPHORM NEWSLETTER

Number 1, May 2011

Welcome to the first TRANSPHORM newsletter. The first phase of the project was marked with excitement at the prospect of making a real difference but also by the realisation of the challenges that lie ahead. Full credit goes to the excellent team of scientists and users who have all worked together to launch the project successfully on 1 January 2010 followed with a flurry of activities to organise air pollution and exposure measurement campaigns, implement model improvements for predicting airborne particulate matter related metrics and develop the first prototype of the Integrated Assessment Tool. The purpose of the newsletters, of which this is the first, will be to update the stakeholder communities on the progress and developments arising from TRANSPHORM. In fact we encourage you to join the stakeholder forum via the website www.transphorm.eu and become part of the wider project network. If you wish to join us at our future meetings do contact us via the website

Prof. R.S. Sokhi (project coordinator)

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Dates for the diary

12th -16th September 2011

European conference on applications of meteorology and the EMS annual meeting
www.meetings.copernicus.org/ems2011

2nd – 6th October 2011

14th international conference on harmonisation within atmospheric dispersion modelling for regulatory purposes
www.harmo.org/harmo14

19th – 23rd March 2012

8th international conference on:
 Air quality - science and application
www.airqualityconference.org

Report on emissions from shipping

The transport sector is a significant source of anthropogenic particulate and gaseous emissions which are demonstrably harmful to human health. One of the main goals of the TRANSPHORM project is to improve our understanding of transport related emissions. Particular attention is being given to how particle speciation and size relates to human health effects. One of the first tasks within TRANSPHORM has been to deliver a report on shipping emission factors, this information will then be used to improve their representation in atmospheric pollution models later in the project.

Jana Moldanová from the Swedish Environmental Research Institute has led

this research, her report highlights the key factors in quantifying emissions from ships. For example the type of fuel, engine, age of the engine and the duty cycle are important factors that influence the emissions profile of ships.

The report includes the latest shipping emissions factors for SO₂, CO₂, NO_x, VOCs, CO, PAHs, particulate number and particulate mass. The current emissions standards are discussed, including the national and international regulations currently in place. Abatement techniques are also summarised; such measures are designed to capture the emissions, for example catalytic techniques which are generally required by law for road vehicles.

Upcoming events in TRANSPHORM

Project meeting – Rotterdam – June 6th - 8th 2011

A project meeting will be hosted by TNO at the DCMR Environmental Protection Agency in Rotterdam. For details please consult the preliminary agenda which has been circulated by email and www.transphorm.eu for practical details.

Annual Meeting – Thessaloniki – December 5th - 6th 2011

The Aristotle University of Thessaloniki will host the 2nd Annual TRANSPHORM meeting. More details are available at www.transphorm.eu.

Young researcher knowledge exchange

Training young researchers is an integral part of the TRANSPHORM project and is being facilitated through targeted training schemes within partner institutions and knowledge exchange activities. We are also keen to involve young researchers (students and post docs) from outside the project with an interest in air pollution and health. Researchers interested in sharing their experience and knowledge from any related field are invited to contact Heather Price at the University of Hertfordshire, UK (h.price2@herts.ac.uk) who will be coordinating the initial information exchange and related activities, to register their interest.



TRANSPHORM members at the kickoff meeting hosted by the University of Hertfordshire

Pollution sources in Rotterdam – a pilot study

Assessing the contribution of specific anthropogenic activities to atmospheric pollution provides important information which can be used to inform measures to improve air quality. The Rotterdam pilot study in summer 2010 was designed to assess the emission and transport of pollutants from air, sea and road traffic in the region. By simultaneously monitoring the concentration of pollutants up and downwind of Rotterdam harbour, Schiphol Airport and a major motorway their contribution to the overall pollution level could be assessed. Adverse health effects are strongly linked to

high levels of particulates (PM) in the air. Thus at each of the sites PM was sampled onto quartz and PTFE filters for laboratory analysis of its chemical composition. The PM filters were specially configured so that they were only sampling when the wind direction and speed meant air was coming from the site of interest.

Results from this pilot study will be discussed at the upcoming project meeting in June. The meeting will be hosted by TNO who have been leading the research in these field studies.

The Wiki and Chat Forum

The project wiki and “Chat Forum” are now active and can be accessed by TRANSPHORM project members through the project website (www.transphorm.eu). Anyone involved in the project can contribute and are invited to do so.

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