



TRANSPHORM

Transport related Air Pollution and Health impacts – Integrated Methodologies for Assessing Particulate Matter

Collaborative project, Large- scale Integrating project

SEVENTH FRAMEWORK PROGRAMME

ENV.2009.1.2.2.1 Transport related air pollution and health impacts

Deliverable 6.2.6, type R

Training plan for young researchers and exchange visit schedule

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Organisation name of lead contractor for this deliverable: UH

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SP6-D6.2.6-TRAINING PLAN FOR YOUNG RESEARCHERS AND EXCHANGE VISIT SCHEDULE

1. Deliverable Overview

The TRANSPHORM project involves partners from 21 different research institutes and universities across Europe, each with their own expertise in an aspect of the project. By sharing this knowledge between the partners, our overall understanding of transport related air pollution will improve. Therefore, one aim of the project is to train young researchers and provide professional development in wide-ranging aspects of the project using the multitude of experience of the partners. In this context the term ‘young researcher’ is defined as researchers within the first ten years of the start of their full time research career (<http://www.vision-research.eu/index.php?id=177>). TRANSPHORM has developed a training plan for PhD students, postdoctoral researchers and other staff including research managers, industrial executives and any potential users of the knowledge generated from the project.

Communication mechanisms such as the TRANSPHORM project wiki and blog have also been developed to encourage dialogue and knowledge exchange between the young researchers. A facebook page has been created to provide a forum for discussion on the scientific and more practical areas of working in the field of air quality. Newsletters detailing the progress made in the project and spotlighting any interesting findings and items currently of interest have been created and distributed.

2. Young Researcher Training Plan

TRANSPHORM partners were encouraged to provide training to young researchers, which will have long term benefits for the TRANSPHORM research and development activities, as well as improving the researchers for general air quality research beyond the lifetime of the project. There were three main areas which were included for young researcher training which included in-house training, exchange visits, and training during workshops and conferences. A summary of the training which is planned to occur, or has already taken place during the TRANSPHORM project is made below.

2.1 In-house Training

In-house training is likely to occur in every research institution involved in TRANSPHORM, though this may often go unreported as it may be of short duration. Therefore the details given in Table 1 are likely to represent only a fraction of the in-house training activities which have, or are due to, take place in TRANSPHORM. Further updates in due course should provide additional information.

Table 1: Summary of proposed in house training for TRANSPHORM young researchers

| Organisation providing the training | SP | Person(s) receiving the training | Type of training | Role and relevance to TRANSPHORM |
|-------------------------------------|----|----------------------------------|---|---|
| ICL | 3 | Wei Xun | Analytical techniques for linking air pollution measurements with various health outcomes. Specific statistical techniques include linear regression, logistic regression for categorical outcomes and survival analyses using time-to-event data format. ICL also has experience with meta-analytical techniques using traditional as well as novel approaches using Bayesian statistics and EES modelling, which were developed from related fields of genetic and “-omics” epidemiology. | The aim is to facilitate knowledge and skills dissemination in WP3.4, may be particularly relevant for the standardization of local analyses across different partners. |
| IVL | 1 | Sofi Holmin-Fridell | Training as part of Master’s programme (1 year), thesis entitled “‘Particle Emissions from Shipping: a focus on elemental, mass and number emission factors’ | Research contribution to TRANSPHORM |
| THL | 2 | Dr Riikka Sorjamaa | Particle exposure model development and evaluation against experimental data | Researcher in TRANSPHORM, developing the particle size specific (aerosol) infiltration and exposure models in WP2.5 |
| USTUTT | 3 | Konstantin Schenk | Methodology to assess mitigation policies including mitigation potentials, LCA, mitigation cost and cost-benefit analysis | Researcher in TRANSPHORM (SP5) |

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|----|------|------------------|--|---------------------------|
| UH | 2, 6 | Charles Chemel | Training on project management and integration modelling | Researcher in TRANSPHORM |
| UH | 4 | Vikas Singh | Training on Integrated Assessment Tools, circa 2 week training | Researcher in TRANSPHORM |
| UH | 2, 6 | Ravindra Khaiwal | Training on project management and chemical analysis, circe 2 week training | Researcher in TRANSPHORM |
| UH | 2 | Xavier Francis | Training on emission preparation and regional models, circa 1 month training | Researcher in TRANSPHORM |
| UH | 2 | Paul Burns | Training on air quality models e.g. WRF | PhD student in TRANSPHORM |
| UH | 2, 6 | Heather Price | Training on chemical analysis and project management, circa 1 month training | Researcher in TRANSPHORM |
| UH | 2, 6 | Nicholas Good | Training on project management and air quality modelling, e.g. WRF, circa 1 month training | Researcher in TRANSPHORM |

2.2 Exchange visits

Exchange visits take place between different institutions, and these have included both TRANSPHORM partners and non-partners. These visits generally last for a minimum of a few days, and are up to two weeks in duration to ensure enough knowledge transfer is gained from the trip. As the project moves into different phases, it is likely that further opportunities for exchange visits will be created, and these will be updated when they occur.

Table 2: Summary of proposed exchange visits for TRANSPHORM young researchers

| Organisations involved in exchange | | Proposed dates and duration | Name of researcher(s) | Relevance of training to TRANSPHORM (including relevant SP) | Contact person | Additional information |
|------------------------------------|----------|--|---------------------------------|---|--|---|
| Host | Guest | | | | | |
| NILU | CHMI | 2 weeks in July or 1st half of August 2011, or the autumn 2011 (except 3rd – 11th September and 2nd – 6th October) | Ondrej Vlcek, Linton Corbet | The training would focus on gaining experience with AirQuis model. The new expertise would then be used for modelling of air quality under different traffic scenarios in Prague within WP2.3: “Improved air quality modelling of transport related pollution on the urban scale”. (SP 2) | Ondrej Vlcek, Modelling and Expertize Department, vlcek@chmi.cz, +420 - 244 03 2488. | CHMI is a subcontractor in TRANSPHORM rather than a partner |
| USTUTT | TML/ TNO | 2011, est. 2 weeks | Konstantin Schenk (PhD student) | He is a PhD student in the field of transport emissions and mitigation measures, which will benefit TRANSPHORM (SP 5) | Ulrike Kugler [ulrike.kugler@ier.uni-stuttgart.de] | |
| ICL | Open | 2011, est. 2 weeks | Wei Xun | One young researcher who might participate in statistical analyses with Wei Xun (meta-analysis of health data). Specialises in environmental epidemiology (SP 3) | Professor Paolo Vineis, tel 020 75943372 | Young researcher to provide details of desired |

| | | | | | | |
|------|----|-------------------|----------------|--|-----------------------|----------|
| | | | | | | training |
| TNO | UH | July/ August 2011 | Vikas Singh | Training on IAT and application of OSCAR (SP 4) | v.singh3@herts.ac.uk | |
| NCAR | UH | July 2011 | Xavier Francis | Training on WRF-CHEM and WRF data assimilation with NCAR, USA. Visit NCSU, USA and collaborate with Prof. Zhang Yang on Air quality and climate change (SP 2) | x.francis@herts.ac.uk | |
| NCAR | UH | July 2011 | Xin Kong | Training on WRF-CHEM and WRF data assimilation with NCAR, USA. Visit NCSU, USA and collaborate with Prof. Zhang Yang on Air quality and climate change (SP 2) | x.kong@herts.ac.uk | |
| NILU | UH | September 2011 | Heather Price | Receptor modeling training and development of a protocol for dealing with ESCAPE datasets (SP 2) | h.price2@herts.ac.uk | |

2.3 Training during workshops/ conferences

Opportunities for training during workshops and conferences will increase throughout the lifetime of the project, and these will build upon the events identified in Table 3. This section also includes singular departmental presentations and seminars, which will occur at every TRANSPHORM institution, though details of these may have been unreported due to their common nature.

Table 3: Summary training during workshops/ conferences

| Organiser | Summary of proposal | Type of activities | Target groups | Relevance to TRANSPHORM (and relevant SP) |
|-----------|---|--|--|--|
| ICL | 1 day seminar | In-house speakers will be invited to give their expert view of air pollution and health related topics, including mechanisms. This could involve speakers from various levels, from project PIs to PhD students. | Young researchers within the TRANSPHORM network with interest in air pollution and health. | To open dialogue and strengthen communication between TRANSPHORM partners and promote collaboration (All SPs) |
| UH | We propose a special session in Air Quality 2012 for TRANSPHORM | TRANSPHORM partners will be given an opportunity to present their relevant results to the wide range participants. | Scientists, Young Researchers, Policy Makers, NGOs, Media and others | Provide a platform to TRANSPHORM partners to present their results to wider scientific communities and engage them in feedback process (All SPs) |
| AUTH | Special session at the TRA (Transport Research Arena) conference April 2012 | The conference offers special sessions for part of the conference where TRANSPHORM research outcomes may be presented to a wide scientific audience. | Scientists, Young Researchers | Provide a platform to TRANSPHORM partners to present their results to wider scientific communities and engage them in feedback process (All SPs, especially SP 1, 2, and 3) |
| THL | Scientific seminar series on Environmental | Contributions to seminar series from the TRANSPHORM project at various intervals 2011 to 2013 | THL researchers | Increasing interest in the project, training other THL scientists (SP 3) |

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|------|------------------------|---|---|--|
| | Health | | | |
| UH | Seminar series | Various seminars when data and results become available to train others within the research group. | Other UH researchers working on, or interested in, TRANSPHORM. | Ideas development, results discussions (particularly SP 2, 4, 6) |
| AUTH | Annual project meeting | Second annual project meeting: seminars and discussions 5 th and 6 th December 2011 | All TRANSPHORM researchers, selected non-TRANSPHORM researchers/policy makers | Project development (All SPs) |
| NILU | SP 2 meeting | SP 2 project meeting for discussion and ideas generation | All SP 2 researchers | Project development (SP 2) |
| TNO | Project meeting | 6 th to 8 th June project meeting in Rotterdam (6 month) | All TRANSPHORM researchers, selected non-TRANSPHORM researchers/policy makers | Project development (All SPs) |
| TNO | Annual project meeting | First annual project meeting: seminars and discussions 1 st to 3 rd December 2010 | All TRANSPHORM researchers, selected non-TRANSPHORM researchers/policy makers | Project development (All SPs) |
| UH | Kick off meeting | First project meeting January 2010 | All TRANSPHORM partners | Project planning and development (All SPs) |

3. Summary

A number of opportunities for training were identified for Researchers at different stages of their careers. This exercise has facilitated the recognition of not only areas for potential professional and scientific development within the Researcher's own institution, but also the temporary movement of researchers to other working environments, thereby enriching their career development. In addition, benefits for the hosting institution, for example inputs from a Researcher with a different perspective are acknowledged. The creation of workshops and special sessions, for example at the Air Quality 2012 conference (<http://www.airqualityconference.org/>) should bring together a high proportion of the TRANSPHORM young researchers and create a forum for discussion. Furthermore, these 'open' sessions should help to forge relationships between TRANSPHORM young researchers and those outside of the organisation, consequently improving the research experience for those within the early stages of career development and increasing the profile of TRANSPHORM. This training plan offers a snapshot of the currently reported training activities in TRANSPHORM. As the project continues, different training opportunities will be identified, and therefore a call for inputs will be given on a six monthly/ yearly basis, at which point the document will be updated accordingly.