

Upper Rhine Cluster for Sustainability Research

Researchers Profil

Name, Position & Affiliation

BLOND Nadège

Research scientist

CNRS, Laboratoire Image Ville Environnement



Expertise in relation to the topics of the URCforSR (include max. 3 related and recent publications)

My interest is related to topics 2 (2a) and 3 (a-c). My expertise focuses on atmospheric modelling:

- *Air pollutant emissions modelling*
- *Modelling of urban meteorology and building energy needs*
- *Air pollution modelling (outdoor and indoor)*
- *Integrated assessment*

3 recent publications:

Mendez M., N. Blond, P. Blondeau, C. Schoemaeker, D. Hauglustaine, Assessment of the impact of oxidation processes on indoor air pollution using the new time-resolved INCA-Indoor model, Atmospheric Environment 122, 521-530, 2015.

Carnevale C., G. Finzi, A. Pederzoli, E. Turrini, M. Volta, G. Guariso, R. Gianfreda, G. Maffeis, E. Pisoni, P. Thunis, L. Markl-Hummel, N. Blond, A. Clappier, V. Dujardin, C. Weber, G. Perron, Exploring trade-offs between air pollutants through an Integrated Assessment Model, Science of the Total Environment, Volume 481, pp. 7-16, 2014.

Ho Q.B., A. Clappier, N. Blond, Fast and optimized methodology to generate road traffic emission inventories and their uncertainties, Journal of CLEAN-Air, Water and Soil, doi:10.1002/clean.201300261, 2013.

Special Interests in the topics of the URCforSR

Topic 2a is focusing on efficient energy buildings. These efficient energy buildings need to be designed in order to also reduce indoor air pollution. We are developing an indoor air pollution model. Topic 3 is focusing on transformation processes and technologies. My questions are: Are we able to drastically reduce the air pollution emissions, and adapt our activities to climate change pressure? Which are the most efficient strategies to follow to reduce problems related to air pollution (risk exposure in general)? Which transformations can we expect in a near, mid-term and long-term future? Does modelling can help to assess different possible scenarios taking into account several important human transformations (behavior, changes in activities)? Optimization possible?

What you are searching for regarding the cooperation within the URCforSR

Develop innovative and multidisciplinary research in order to assess the best sustainable strategies to reduce energy consumption, air pollutant emissions, and consecutive local and global air pollution, and population exposure