Abstract citation ID: ckac131.156
Introduction to the AQ-WATCH Project and the AQ-WATCH Toolkit to fight air pollution

Bastien Caillard

C Li[1], G Brasseur[1,2], C Granier[3,4], M Sofiev[5], R Timmermans[6], S Basart[7], G Pfister[2], R Kumar[2], B Caillard[8], Y Boose[9]
[1]Environmental Modeling, Max Planck Institute for Meteorology, Hamburg, Germany
[2]Atmospheric Chemistry Observations and Modeling, National Center for Atmospheric Research, Boulder, USA
[3]Laboratoire d'Aérologie, CNRS-Université de Toulouse, Toulouse, France
[4]NOAA Chemical Sciences Laboratory, CIRES, University of Colorado, Boulder, USA
[5]Atmospheric Composition Modelling Group, Finnish Meteorological Institute, Helsinki, Finland
[6]Climate, Air and Sustainability Department, The Netherlands Organisation for Applied Scientific Research, Utrecht, Netherlands
[7]EaAtmospheric Composition Group, Barcelona Supercomputing Centre, Barcelona, Spain
[8]INERIS DEVELOPPEMENT SAS, Verneuil-en-Halatte, France
[9]BreezoMeter Ltd, Haifa, Israel
Contact: bastien.caillard@ineris-developpement.com

Background:
WHO states that 9 out of 10 persons in the world do not breath clean air and 8 million people die prematurely from air pollution each year. The problem is well understood, but actions to mitigate it are lacking. The purpose of the EU-funded AQ-WATCH Project is precisely to develop effective tools based on the most advanced science technologies to help decision-makers in government and the private sector to address air pollution issues in regions of the world where they operate.

Objectives:
AQ-WATCH aims to develops a supply chain to generate innovative downstream products for improving air quality forecasts and attribution based on existing space/in-situ observations to improve public health and to optimize renewable energy in regions of the world. The project consortium includes research and business-oriented partners, who brings together the required expertise to define the optimal functionalities of these products to bring them to the market.

Results:
The AQ-WATCH products are organized into 5 modules: (1) Air quality atlas, (2) Air quality attribution & mitigation, (3) Dust and fire forecast, (4) Fracking analysis, and (5) Air quality forecast. They are developed for 3 target regions (Beijing, Colorado and Santiago de Chile) and are integrated into a unified user-interface, the AQ-WATCH Toolkit. Product developers and prime users in the target regions are constantly

interacting, and the user feedback is collected, analyzed and included during the product development.

Conclusions:

Collaborative work done in AQ-WATCH shows strategic interaction between our research and business-oriented partners. Contributions from local parties are proven to be valuable for regional adaption of the products. A throughout dissemination including regional workshops is essential to ensure proper knowledge uptake by the target audience. Constant exchange with the private sector is required for a smooth transfer from scientific results to commercialized marketable products.

Key messages:

- The AQ-WATCH Project follows EU's initiative to utilize its space observations with added values to develop easily-accessible tools to fight air pollution applicable to regions of the world.
- The AQ-WATCH Toolkit is developed with iterative feedback exchanges between product developers and local users to address air pollution issues, and will be eventually exploited to the market.