

<http://aqmeii.jrc.ec.europa.eu>

# Air Quality Model Evaluation International Initiative (AQMEII)

Martijn Schaap (TNO)

Stephano Galmarini (JRC-IES)

Robert Vautard (LSCE)

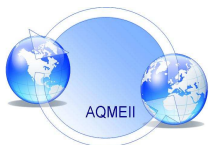


Environment  
Canada

Environnement  
Canada

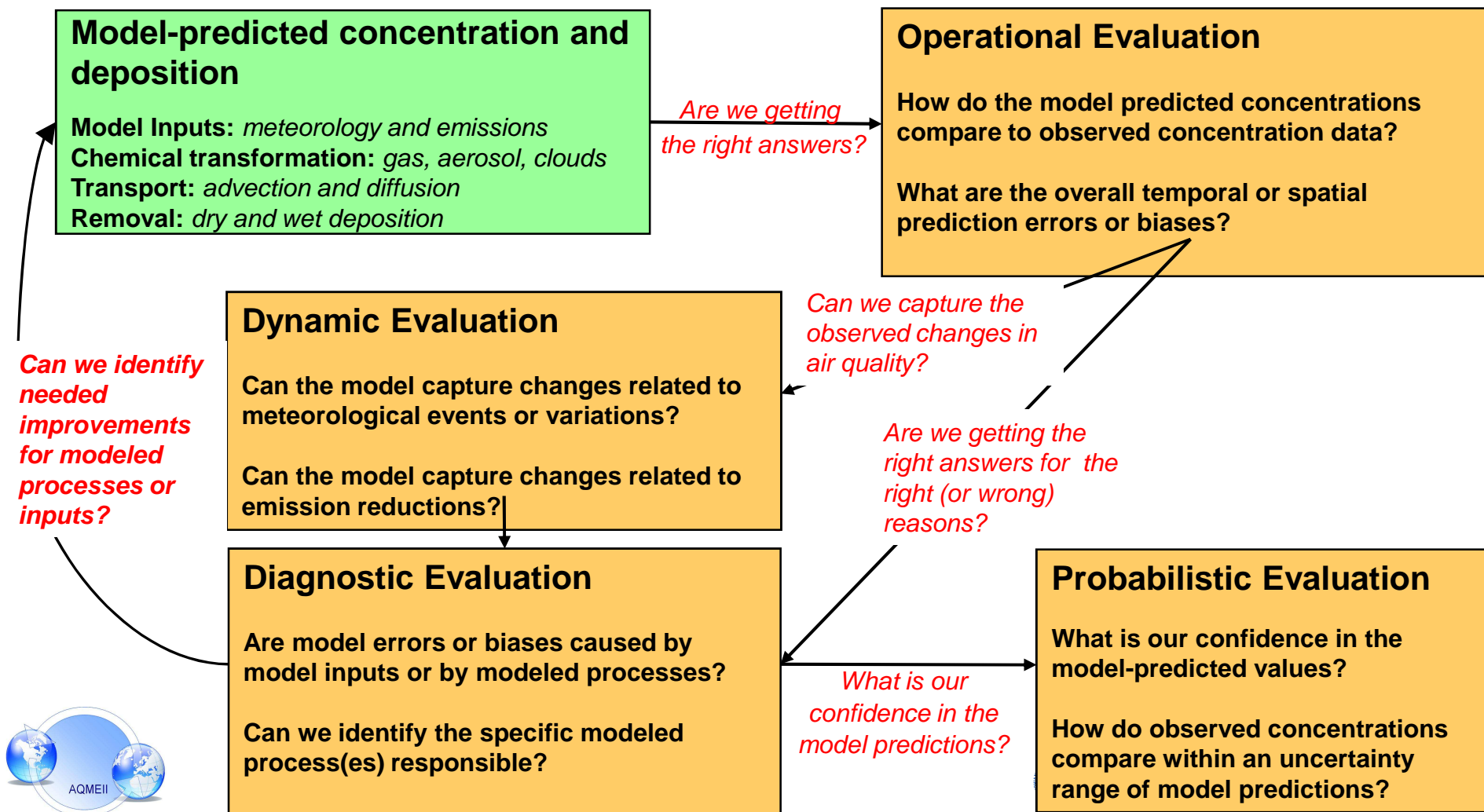
# Background

- Necessity to bridge between North American and European regional scale model evaluation practices
- 2008 first workshop organized at TNO and the constitution of the [Steering Committee](#)
- Activity supported by JRC-IES, US-EPA, Environment Canada, DG-RTD and DG-ENV
- May 2009: Stresa workshop organized by JRC-IES. In depth analysis of the four evaluation streams defined by AQMEII and starting the definition of a first activity involving the two communities



# Stresa workshop

- Definition of the four model evaluation streams
- Research gaps within each team + priorities
- Preliminary definition of the first practical activity



# First AQMEII practical activity

First phase (2010) :

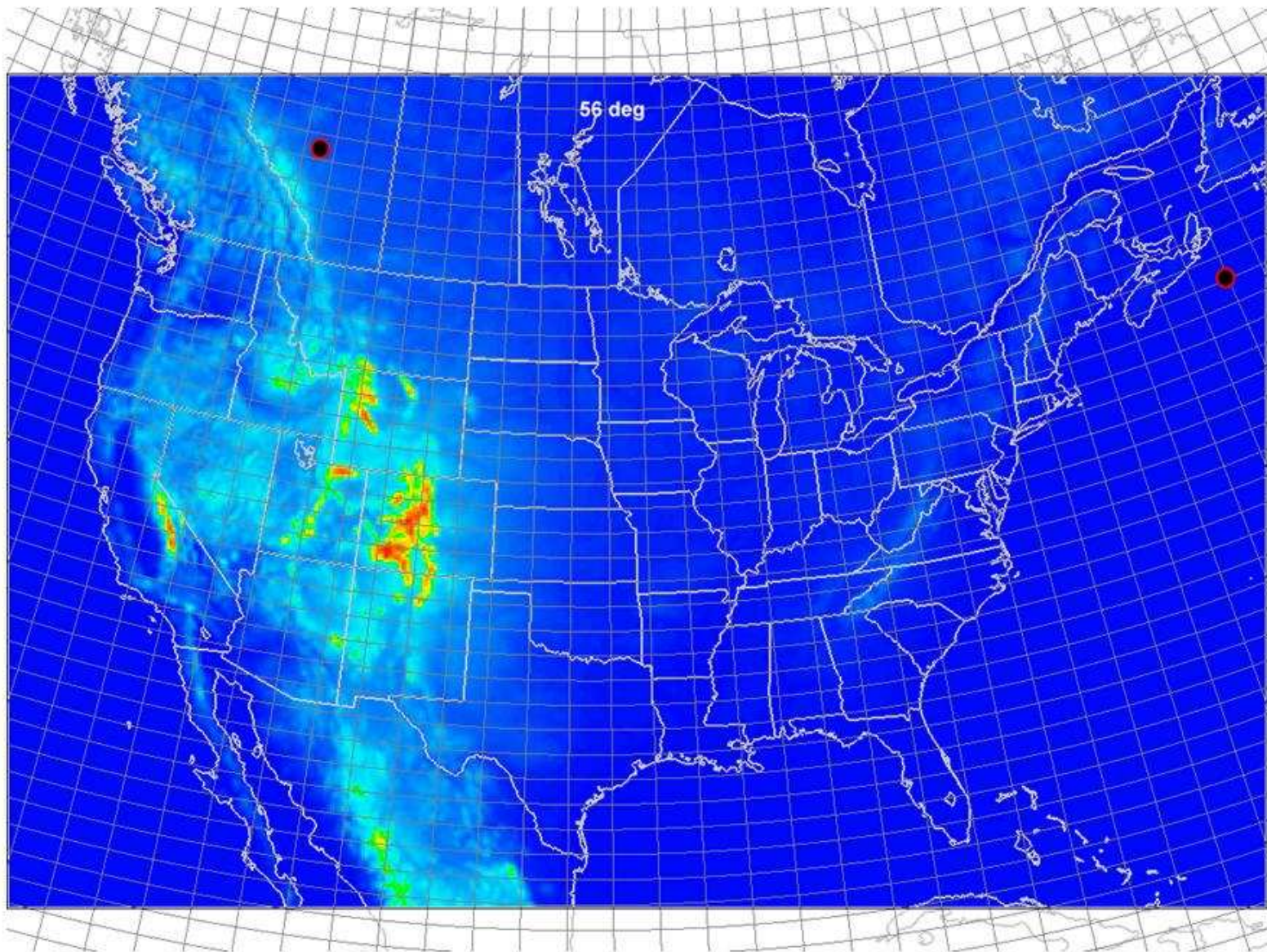
focus **operational**, **diagnostic** and **probabilistic** evaluation

- Collection of model results for EU and North American continent over a period of 1 year (2006)
- Collection of monitoring data for the same cases
- Constitution of a central database of the information with the high level of harmonization of the information
- harmonization on the use of emission inventories produced in NA and EU
- Spatial analysis of model behavior and evaluation at monitoring stations with measurements
- Introduction of the vertical dimension as important element of the evaluation => use of vertical profile and MOZAIC data for the two continents

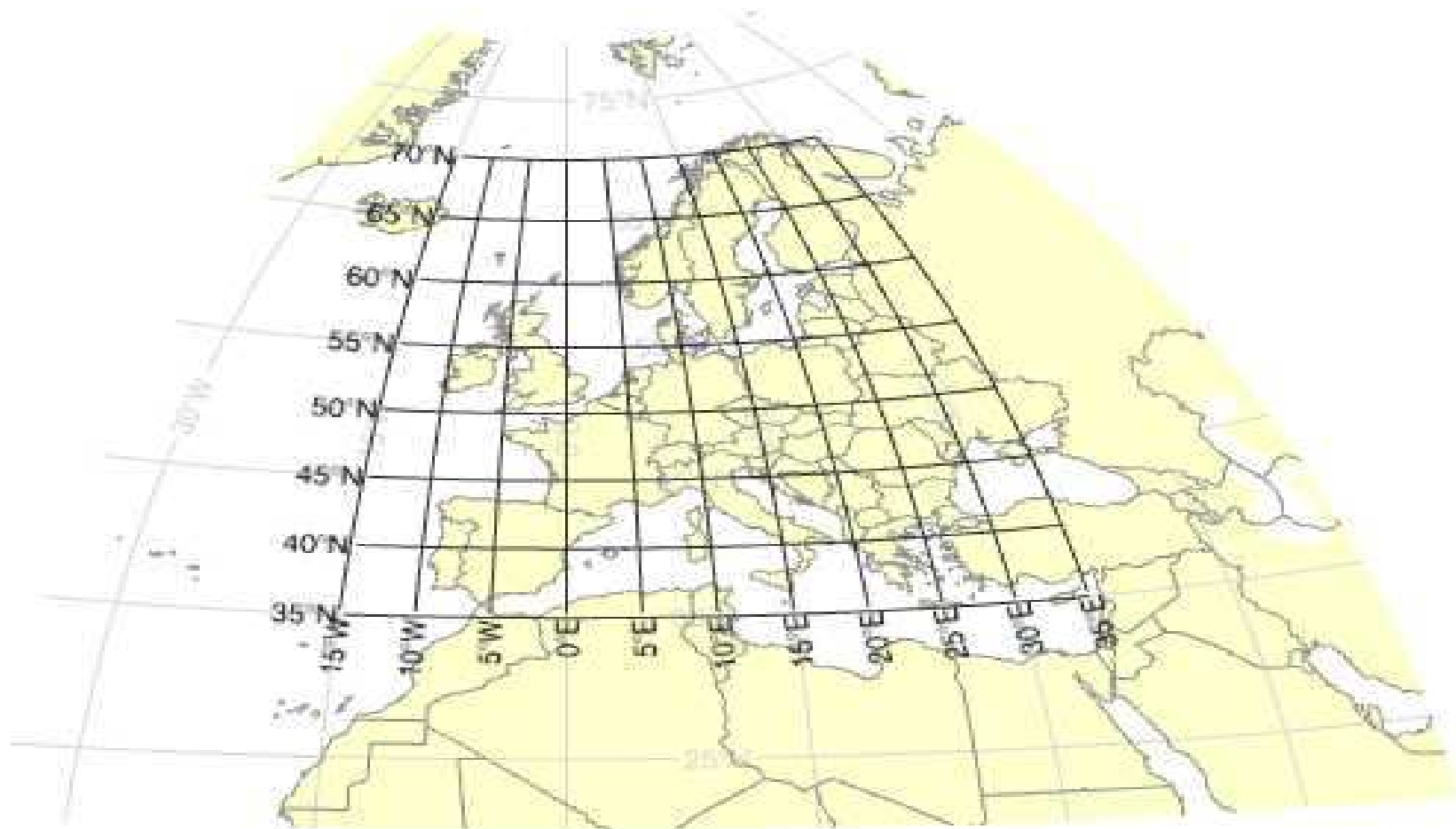


Environment  
Canada

Environnement  
Canada



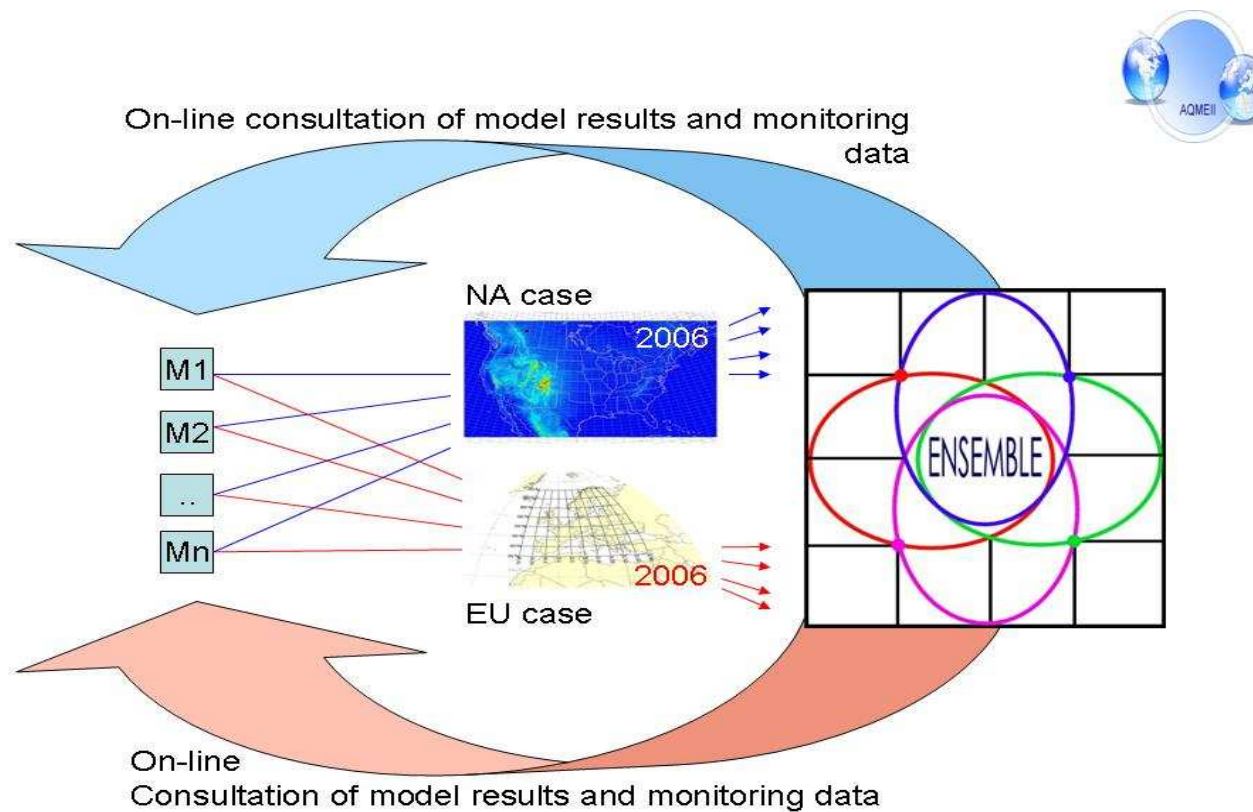
Environment Canada / Environnement Canada



Environment Canada / Environnement Canada

# Prototypical use of the ENSEMBLE system (Galmarini et al. 2004, AE) as:

- collection point of the data
- client based pre-consultation center
- ensemble analysis



Environment  
Canada

Environnement  
Canada

<b>Time Line</b>		
Invitation to participation including overall scope of the activity and preliminary information on time windows in focus and motivation	<b>July 2009</b>	<b>X</b>
Distribution of refined specification and commitment by groups to take part to the activity	<b>November 2009</b>	<b>X</b>
Distribution of the information and specification on output formats (Technical Specification Document (TSD), production details, organization of the information, specifications on the timeline and deadlines for the submission of the model results. Distribution of information on emission inventories. Official start of the exercise	<b>End January , 2010</b>	
Data submission	<b>NA case: End of May EU case: End of June</b>	
Discussion on the first results and future steps at AQMEII workshop within ITM 2010, Turin (still to be confirmed)- definition of next phases	<b>End-September, beginning- October, 2010</b>	

Participation still opened:

**URL:** <http://aqmeii.jrc.ec.europa.eu> Or **mailto:** [aqmeii@jrc.ec.europa.eu](mailto:aqmeii@jrc.ec.europa.eu)



Environment  
Canada

Environnement  
Canada



# International AQ Model Evaluation Steering Committee

<b>John van Aardenne</b>	Joint Research Center
<b>Matthias Beekmann</b>	Laboratoire Inter-Universitaire des Systemes Atmospheriques
<b>Joergen Brandt</b>	National Environmental Research Institute
<b>Bruce Demby</b>	NILU
<b>Gary Foley</b>	U.S. EPA, U.S.
<b>Stefano Galmarini (AQMEII co-chair for Europe)</b>	Joint Research Center
<b>Steven Hanna</b>	Hanna Consultants; U.S.
<b>Christian Hogrefe</b>	NY-Department of Environmental Conservation; U.S.
<b>Ajith Kaduwela</b>	California Air Resources Board, U.S.
<b>George Kallos</b>	University of Athens
<b>Terry Keating</b>	U.S. EPA, U.S.
<b>Michael Moran</b>	Environment Canada/MSC; Canada
<b>S.T. Rao (AQMEII co-chair for North America)</b>	U.S. EPA; U.S.
<b>Martijn Schaap</b>	TNO
<b>Kenneth Schere</b>	U.S. EPA; U.S.
<b>Heinke Schlunzen</b>	University of Hamburg
<b>Michael Schulz</b>	Laboratoire des Sciences du Climat et de l' Environnement
<b>Ranjeet Sokhi</b>	University and Hertfordshire
<b>Douw Steyn</b>	Univ. of British Columbia; Canada
<b>William Stockwell</b>	Howard Univ., U.S.
<b>Robert Vautard</b>	Laboratoire des Sciences du Climat et de l' Environnement



Environment Canada / Environnement Canada