



**Towards operational European monitoring and forecasting  
of atmospheric composition**

## **GEMS Final Assembly**

**Research Centre Jülich, Germany**

**31st March (1400h) - 3rd April, 2009 (1300h)**

### **PROGRAMME**

**Tuesday, March 31<sup>st</sup>, 2009**

**1200-1400 Arrival, Registration**

**1400-1700 Opening session**

1400-1430	Welcome, Opening remarks (M. Schultz, A. Wahner, H. Bolt, A. Simmons)
1430-1500	Scientific challenges related to monitoring, understanding and forecasting the chemical composition of the atmosphere (G. Brasseur, NCAR)
1500-1530	Needs for information from a broad international perspective (L. Barrie, WMO)
<i>1530-1600</i>	<i>Coffee Break</i>
1600-1630	Needs for information to support the making and implementation of European policy (A. Kobe, EU)
1630-1700	GEMS contributions to information needs, progression and main achievements of the project (A. Simmons, ECMWF)

**1730-2000 Poster session and reception**



FINAL ASSEMBLY – AGENDA

**Wednesday, April 1st, 2009**

**0900-1230 Regional Air Quality**

0900-0920	Overview about GEMS-RAQ strategy and achievements (V.-H. Peuch, Météo-France)
0920-0940	The GEMS-RAQ emissions and observation databases (L. Tarrason, met.no)
0940-1010	Assimilation and Regional Air Quality Forecasting (H. Elbern, Univ. Köln)
1010-1030	Evaluation of summer 2008 forecasts (M. Beekmann, CNRS)
<i>1030-1100</i>	<i>Coffee Break</i>
1100-1120	Impact of chemical Boundaries and of meteorology on RAQ hindcasts and forecast (M. Sofiev, FMI)
1120-1140	2003 hindcasts in links and policy-related outlook (L. Rouil, INERIS)
1140-1200	AQ and Health: from understanding to forecasting (J. Gulliver, Univ. West Scotland)
1200-1230	An outside view on Regional Air Quality Forecasting (G. Carmichael, Univ. Iowa)

**1400-1710 Aerosols**

1400-1420	Overview about GEMS AER (O. Boucher, UK Met Office)
1420-1440	Aerosol modelling in GEMS (J.-J. Morcrette/A. Benedetti ECMWF)
1440-1500	Stratospheric aerosols (S. Bekki, SA)
1500-1520	Emissions from wildfires, incl. Greek fires (J. Kaiser, ECMWF)
<i>1520-1550</i>	<i>Coffee break</i>
1550-1610	Validation of the GEMS aerosol products (N. Huneus, LSCE)
1610-1630	Aerosol case studies in GEMS (A. Mangold, IRM)
1630-1700	An outside view on aerosol monitoring and forecasting (D. Westphal, NRLM, Monterey)
1700-1715	Summary and Perspective (O. Boucher, UK Met Office)

**1715-1815 Poster viewing**

**1900-2200 Conference Dinner – Burg Obbendorf**



FINAL ASSEMBLY – AGENDA

Thursday, April 2<sup>nd</sup>, 2009

### 0900-1220 Global Reactive Gases

0900-0920	Overview about GEMS GRG strategy and achievements (M. Schultz, FZ Jülich)
0920-0940	GRG model system and trace gas assimilation (J. Flemming, ECMWF)
0940-1000	Analysis of large-scale air pollution during summer 2003 heatwave (C. Ordóñez, UK Met. Office, Exeter)
1000-1020	Investigation of stratospheric ozone with the GEMS GRG model system (K. Lefever, BIRA, Brussels)
<i>1020-1050</i>	<i>Coffee Break</i>
1050-1110	POLARCAT forecast experiences (K. Law, UPMC)
1110-1130	GRG validation (E. Katragkou, U. Thessaloniki)
1130-1150	The use of aircraft data for validation of vertical trace gas profiles (N. Elguindi, CNRS, Toulouse)
1150-1220	An outside view on global reactive gases forecasting (S. Lu, NCEP, Camp Springs)

### 1400-1730 Greenhouse gases

1400-1410	Introduction (P. Rayner, LSCE, Gif-sur-Yvette)
1410-1435	Assimilating CH <sub>4</sub> and CO <sub>2</sub> in an integrated forecast system (R. Engelen, ECMWF, Reading)
1435-1455	Retrieving CO <sub>2</sub> and CH <sub>4</sub> from infra-red measurements with a neural network (C. Crevoissier, LMD)
1455-1505	Greenhouse gas fields from SCIAMACHY (M. Buchwitz, Bremen U.)
1505-1525	Inverting CO <sub>2</sub> fields to retrieve surface fluxes (F. Chevallier, LSCE, Gif-sur-Yvette)
<i>1525-1555</i>	<i>Coffee Break</i>
1555-1615	Inverting CH <sub>4</sub> fields to retrieve surface fluxes (P. Bergamaschi, JRC, Ispra)
1615-1635	Validating the GHG production chain at multiple levels (J. Marshall, MPI-BGC, Jena)
1635-1650	Interpreting CO <sub>2</sub> fluxes with biogeochemical models (D. Pearson, UK Met Office)
1650-1720	An external perspective (S. Denning, Colorado State U.)
1720-1730	Summary and Perspectives (P. Rayner, LSCE, Gif-sur-Yvette)



FINAL ASSEMBLY – AGENDA

Friday, April 3<sup>rd</sup>, 2009

**0900-1115 Cross Cutting Validation**

0900-0915	Overview of the VAL subprojects aims and achievements (H. Eskes, KNMI)
0915-0930	Near realtime validation experiences (H. Flentje, DWD)
0930-0945	AER validation approaches (S. Kinne, MPI Meteorology, Hamburg)
0945-1000	RAQ model intercomparison and validation (M. Razinger, ECMWF)
1000-1015	Comparison of RAQ models with OMI NO <sub>2</sub> (V. Huijnen, KNMI)
<i>1015-1045</i>	<i>Coffee Break</i>
1045-1100	PRO validation approaches (L. Jones, ECMWF)
1100-1115	Harmonisation of validation for the GAS (J.-C. Lambert, BIRA, Brussels)

**1115-1300 Closing Session**

1115-1130	A look beyond GEMS (A. Simmons, ECMWF)
1130-1200	Towards operational monitoring in the GMES Atmosphere Service (P. Waldteufel, GMES-IG)
1200-1245	Panel discussion: GEMS achievements and challenges for the future
1245-1300	Closing remarks (A. Simmons, ECMWF)

**1315 Bus shuttle departure to Düren train station**