

Principles and draft of a MoU between GEMS and national AQ agencies

Principles

- Agreement between the GEMS FP6 Integrated Project (R&D activity, finite in time), and (preferably) national/federal authorities across Europe in charge of managing AQ data.
- Acknowledge that this is a « best effort » action (no requirement to have all the data, no requirement to have all GEMS products...)
- Agreement aims at bilateral benefits from the cooperation.
- European level added value to national efforts in modeling and monitoring AQ.

General objectives

- Set-up and improve common practice in RAQ model operations at the European level, building upon the core of teams involved in GEMS.
- Demonstrate the technical feasibility and benefits of NRT RAQ data and forecasts exchanges across Europe.
- Recognise the importance of local and regional in-situ AQ data in the GEO/GMES context.
- Better outreach (public information and awareness) on RAQ questions.

The AQ monitoring data

- « All » AQ hourly or daily data (ozone, NO₂, NO, SO₂, PM_x, CO,...) that is collected operationnaly and the associated metadata. An annex to the MoU describes the list of sites, typology, method of measurements and observational error.
- Acknowledge that the data is unvalidated.
- « NRT » : all data collected between J-1 18UTC and J 18UTC (tbd), concentrated ASAP after and transfered to GEMS central site, reformated and converted to BUFR, available J end of day (tbd). If possible all countries the same timeline. TO BE PRECISED.
- 01/01/2003 – 31/12/2004, hourly data on all sites available at this time, preferably QC/QAed.

The GEMS products

- Deterministic forecasts of RAQ over Europe by a very strong partnership.
- First large-scale attempt at ensemble forecasting of RAQ worldwide.
- Global and Regional Earth Observation based products.
- Technical reports on RAQ.
- Acknowledge the status is pre-operational, many aspects are at the edge of current science and technology.

Benefits for GEMS

- RAQ (GRG,AER?) model verification ; surface analyses and initialization ; statistical adaptation of forecasts (learning period + daily data).
- Store the data at GEMS central site (reprocessing of scores,...). Access is restricted to GEMS partnership, GEMS boards members, other institutes holding a signed MoU with GEMS, and EU services (primarily Halo, Mersea, Geoland, Preview). PRECISE.
- The data can only be used for GEMS activities, partners model evaluation and related scientific publications (co-authorship or acknowledgements of data owners). In particular, no commercial activity (private companies, services,...).
- Commitment not to redistribute or make publicly available in other forms than images or statistical tables.

Benefits for AQ agency

- Access to all GEMS data, forecasts and reports like a project partner. In particular, view to trans-boundary analyses/data.
- Can participate to GEMS assembly or RAQ interim meetings (included in diffusion lists). Forum session?
- Feedback on measurement sites (screening, biases,...).
- Enhanced national level cooperation between monitoring networks, environment agencies, research institutes and met agencies.
- No redistribution of data or commercial use of GEMS products.

Final remarks

- If a GEMS partner fails to comply with the MoU, appropriate action by the GEMS contractors committee.
- If the environment agency fails to comply with the MoU, end of cooperation.
- Start : ASAP in the 2nd semester of 2006 (round-table for the different EU countries).