

Joint MEGAPOLI + CityZen + MILAGRO meeting

4 May 2010, Tuesday, 10.30-12.00, Room SM1



Brief Summary:

Attended – **43** persons (*MEGAPOLI* – 16; *CityZen* – 16; *MILAGRO* – 7; *other projects* – 4) from **13** countries (*Germany, Italy, Czech Republic, USA, Mexico, Singapore, The Netherlands, France, Russia, UK, China, Norway, and Denmark*) from **27** research organizations/ institutions.
– See mode details from the participants list (linked pdf-file).

Introduction speech:

– by Michael Gauss (10.35-10.39 am)

Joining forces on common studies, avoid overlaps, and complement each other; focuses on different megacities for 3 projects; joint meetings; agenda for today; reporting on 3 projects; and discussions.
– See mode details from the Gauss's introductory presentation (linked pdf-file).

MEGAPOLI

– by Alexander Baklanov (10.39-10.58 am)

Current status and progress on the MEGAPOLI project: partners; main aim; pyramid of the cities in focus; connections between megacities, air quality & climate; WPS structure & integration; Recent MEGAPOLI Research; WP3 Paris campaigns objectives and overview of measurements; Results from WPs 1, 2, 4, 5 and 6 – courtesy of the MEGAPOLI teams; MEGAPOLI DoW, leaflet, newsletters, project reports, public and internal web-sites; summary-conclusions; & questions for the splinter meeting for CityZen: 1) scenarios and importance for global scale runs; 2) studies with satellite data and remote sensing; 3) joint publications and reviews; 4) interest in Paris campaigns data; 5) may be joint ensemble study in WP5.

– See mode details from the Baklanov's MEGAPOLI presentation (linked pdf-file).

MILAGRO

– by Luisa Molina (10.58-11.12 am)

The MILAGRO project - Megacity Initiative: Local and Global Research Observations (see more details on the project web-site); focus on Mexico city; history - started as development of AQ management programme (up-dated every 10 years, next in 2010) with involvement of multidisciplinary scientists; published book and recommendation – became AQ management programme (key recommendation – since there are lot of uncertainties in emission inventories, should be based on best avail. science); field study in 2002-2003 in Mexico, starting from 10 grew to 200 people; became focus of MILAGRO, NASA, NSF, DoD; 1 month campaign in March 2006; key findings from MILAGRO; Publications - over 120 papers published; special issue – 2006 on MILAGRO + 2nd special issue + special issue of 2003, + other journals (look for more details at <http://mce2.org/publications.html>); + overview of MILAGRO in *Atm.Chem.&Phys.Discus.* paper – submitted

– See mode details from the Molina's MILAGRO presentation (linked pdf-file).

CityZen

– by Michael Gauss (11.12-11.24 am)

Current status and progress on the CityZen project: general info; partners; objectives; WPs; progress in the project; observations; emission inventories; modeling; what is next - climate/chemistry interactions and future scenarios and mitigation options; external collaboration and summary on progress and project web-sites.

– *See mode details from the Gauss's CityZen presentation (linked pdf-file).*

DISCUSSIONS – lead by Mark Lawrence and Michael Gauss (11.24-12.00 am)

Q? – Who is interested in Paris data for modeling studies? – from 2 campaigns, Win 2010 + Sum 2009; more info could be obtained from Matthias Beekmann, CNRS-LISA; important note that some data were taken by other collaborators on their own funding. Within COST 0602 some interaction is planned, as both MEGAPOLI and CityZen partners participate.

Q? – Plans for measurement campaign in Cairo? – suppose to provide downtown measurements during the CityZen project; Ashraf Zakey

Q? – Any other observational data exchange?

– emissions from volcanoes; SO₂ source (2 volcanoes in Mexico); info also about volcano measurements in Mexico; needs to correct emissions from airplane traffic due to volcano;

– satellite data – MPIC satellite studies with; CityZen - quick overview of sat. studies done – UV visible infrared sat., limited but long-term dataset of SO₂, NO_x but difficult to see the pollution sources, + CO, CH₄, short term series, + aerosols datasets; Andreas Richter and Thomas Wagner to keep in touch.

Q? – Products and validation

– areas of collaboration – comparison between products (contact with Thomas Wagner, MEGAPOLI MPIC team); if reasonable can contact with MEGAPOLIS Russian partners of MEGAPOLI;

– ground measurement are also important but missing for sat validation;

– most difficult to get over Mexico mountainous terrain, pollution difficult to see, how to proceed with validation;

– correct land use is important for anthropogenic heat flux;

– what about aerosol products; total optical thickness;

– inventories are overestimating? link with mitigation, ask which part of inventory is wrong? comment from TNO; modelling and measurements are different areas working but looking for link;

Q? – Modelling

– study for South America region – regional downscaling + on-line chemistry; suggested to be linked with CityZen (Univ of Oslo); for MEGAPOLI (link with GURME project focused on SA, several groups collaborate with WRF-Chem, Santiago de Chile), downscaling, large scale continental transport;

– CODEX as a link (Jun – Jul 2010 data to be delivered – ready for usage); chem. BCs – not available only meteorology.

Q? – Publications

combining special issue with contributions from 3 projects + other projects presented at the EGU megacities sessions are welcome; IGAC–WMO report as book with several chapters (written by individuals) that all aspects are covered without gaps.

Q? – Meetings

for the EGU-2011 – similar special session on megacities is planned + joint splinter meeting; with possibility to invite also other projects; + may be to organize as round table discussions.