

Scientific Report

1st ICOS International Conference on Greenhouse Gases and Biogeochemical Cycles in Brussels, Belgium

23-26 September 2014.

Short Visit Grant # 6817

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The purpose of the visit was to participate to the 1st ICOS International Conference on Greenhouse gases and biogeochemical Cycles, organized by ICOS RI, University of Helsinki, University of Antwerp, Belgian Science Policy Office and EWI Flemish Department for Economy, Science and Innovation. The conference was held in Brussels, Belgium, 23-25 September 2014.

The conference aim was to present the overall status of scientific research on global carbon cycle, greenhouse gases (GHG) emissions and climate change.

The main topics were:

- Better assessment of greenhouse gases surface fluxes in Europe using atmospheric measurements and transport models.
- Observation of subtle changes in the net greenhouse gases flux from land surface at ecosystem level.
- The role of oceans in the general global carbon cycle and CO₂-fluxes, an update and future perspectives.
- Modeling and regional integrations.
- Understanding the role of freshwaters and urban environments in landscape-scale carbon cycling.

This meeting brought together more than 200 scientists interested in research on greenhouse gases from all over the world, and allowed them to show their works by oral presentation and two poster sessions.

From the given speeches it become clear the importance of GHG monitoring over the long-term and the need to integrate observation at different scales to better understand the effect of climate change on the carbon cycle. The many sessions about studies carried out in different environments (land surfaces, freshwater, oceans and urban environments) produced a clear and complete view of the state of knowledge about GHG surface fluxes.

Discussion on the key conference topics continued until night in occasion of the two dinners arranged by the conference organizers.

The conference was also an opportunity for young scientists to present their work, meet experts and create network between researches working on similar topics. An early career scientists seminar was also organized: an interesting lecture for young scientists was given and a vivid discussion raised about how to find job opportunities and research fundings.