

Eight keynotes and 100 posters were presented within four sessions, which were organized along the following themes:

- New sensors and emerging opportunities for land use and land cover monitoring,
- Advances in Land-Cover and Land-Use Science using Earth Observations,
- Mining the archives: better use of existing data for long-term LUCC studies,
- Frontiers in Remote Sensing of Land Cover and Land Use.

The workshop was organised back-to-back with the Global Land Project's Open Science Meeting 2014. Several participants visited both events and, this way, continued discussions on the advances in remote sensing for land use and land cover by interdisciplinary exchange with the larger land system science community during the three following days.

The welcome addresses were given by Sebastian van der Linden, Tobias Kuemmerle, Patrick Hostert (all at Humboldt-Universität zu Berlin), Ioannis Manakos (EARSel) and Garik Gutman (NASA LCLUC). Manakos and Gutman provided a short overview of the EARSel and NASA LCLUC programs, their goals, current activities and future plans.

Curtis Woodcock from Boston University and Bianca Hoersch from ESA-ESRIN started off with keynotes in session 1 on the new opportunities offered by available dense time series of Landsat data and on the mission planning for Sentinel-2, respectively. Here, a good collaboration between NASA and ESA was emphasized as an aim to optimize scientific outcomes of the new opportunities, e.g. through common standards in data preprocessing and policies. To achieve this, more exchange during scientific workshops but also between the relevant mission committees is needed.

Chris Justice, University of Maryland, and Ben Somers, KU Leuven, opened the second session with keynotes on the advances in land cover and land use monitoring. While Justice gave an overview on evolution of land products, Somers focused on the opportunities emerging from increased availability of multi-date imaging spectroscopy data. Posters in the session underlined and discussed the need for/role of case studies as a complement to global and regional mapping approaches.



Figure 3. Plenary session with keynote speech on day 1 of the workshop. © HU Berlin.

Day 2 of the workshop began with presentations by David Roy, University of South Dakota, and Thomas Udelhoven, Trier University. They approached the question of how to use the archives of

image data coming from two ends. Roy showed the immense amount of information contained in the Landsat archive and the opportunities offered by, e.g., the WELD product, for a more detailed mapping of land change processes. Udelhoven, on the other hand, illustrated how long lasting archives, e.g. the NOAA-AVHRR MEDOKADS, may be used to identify ongoing processes by means of data mining and this way increase process understanding in general. The poster session showed, how many land use related questions are nowadays addressed by analysis of archival data.

The last session focused on the new frontiers and the future challenges in Earth observations. Volker Radeloff, University of Wisconsin Madison, gave insight in several works addressing natural experiments and their value for understanding the consequences of human activities on land use. Martin Herold from Wageningen University emphasized the high value of remote sensing studies for forest and biomass assessments and identified improved calibration and validation activities, e.g., by means of terrestrial laser scanning, as objectives for the near future.

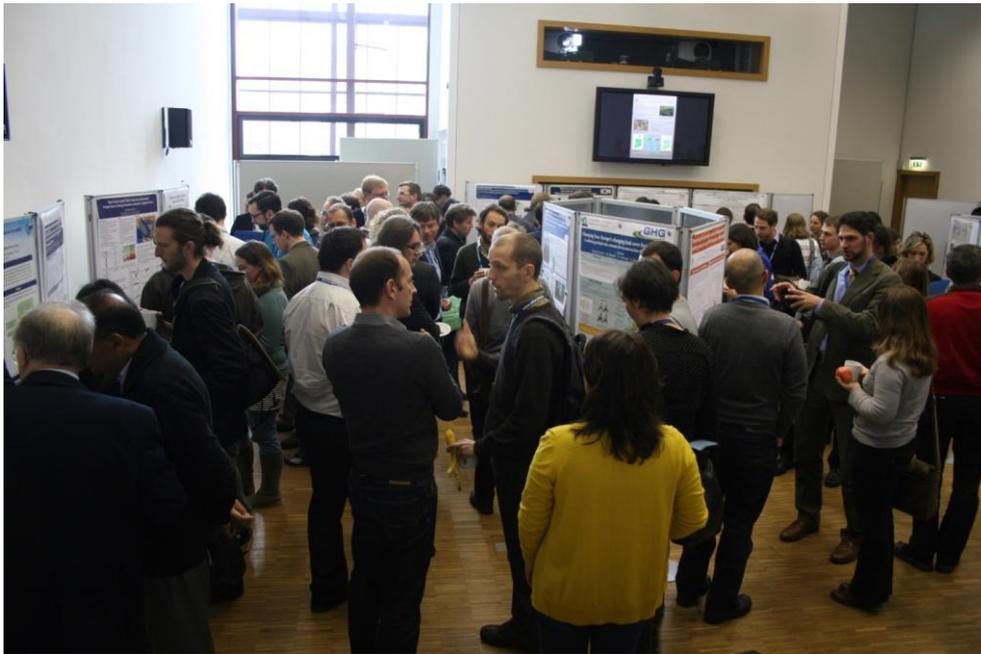


Figure 4. Discussion of posters during one of the four topic oriented sessions of the EARSeL SIG LUCC - NASA LCLUC workshop. © HU Berlin.

The format of keynotes and posters lead to very intense discussions of both individual presentations as well as entire sessions. It was commonly agreed that the moment was just right for this type of event and for a closer collaboration at all levels. Many studies and projects that use the new data are expected in the near future. The success of this workshop brought about an idea that it is desirable to organize a follow-up joint event in about three years.

At the closing, some ideas for a future workshop were suggested, such as a Young Scientist poster competition, etc. The organizers are open for more ideas and suggestions and would be happy to receive them by email.

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