

**Event name: Final conference “Challenges in the inland water remote sensing- future sensors, improved processing methods” Wednesday 2 April, 2014 Tõravere, Tartu Observatory, Estonia**

**Event No 14:** (WP6, M4.3, M5.2, M7.1 and D6.3)

**Due Date according to Annex 1:** M46 (March 2014)

**Actual Delivery Date:** 2-6.05.2014 (M47)

**Responsible partner and person:** TO (Anu Reinart), SYKE (Timo Pyhalhti), BC (Carsten Brockmann)

**Event description**

a) Research programme contribution (WP6,7)

The conference was linked to the ongoing research project FP7 GLaSS, that was also one of the outcomes of the WaterS consortium joint applications. The scientific part of the conference 2-3 April were followed with practical project meetings on 4 April and joint field trip 5-6 April to the Estonia nlarge lakes Peipsi and Võrtsjärv. Summarising most important results and actions over the entire project.

There were all together 30 participants, including 11 from the end-users institutions.

**List of participants:**

First name	Last name	Oragnization
Peter	Gege	DLR
Claudia	Giardino	CNR-IREA
Mariano	Bresciani	CNR-IREA
Petra	Philipsson	Brockmann Geomatics
Karin	Schenk	EOMAP
Ana	Ruescas	Brockmann Consult
Kari	Kallio	SYKE
Steef	Peters	Water Insght
Annelies	Hommersom	Water Insght
Susanne	Kratzer	Stockholm University
Daniel	Oddermatt	Brockmann Consult
Carsten	Brockmann	Brockmann Consult
Philipp	Grötsch	Water Insght
Evangelos	Spyrakos	Stirling University

Tiina	Nõges	Estonian Univesity of Life Sciences
Peeter	Nõges	Estonian Univesity of Life Sciences
Steven	Greb	GLaSS Advisory Board
Olaf	Krüger	Tartu Observatory
Martin	Ligi	Tartu Observatory
Evelin	Kangro	Tartu Observatory
Kersti	Kangro	Tartu Observatory
Kristi	Uudeberg	Tartu Observatory
Anu	Reinart	Tartu Observatory
Krista	Alikas	Tartu Observatory
Elar	Asuküll	Tartu Observatory
Stefan	Simis	SYKE
Marike	Evald	Amsterdam University
Rene	Freiberg	Estonian Univesity of Life Sciences
Sampsa	Koponen	SYKE
Tuuli	Kauer	Tartu University
Birgot	Paavel	Tartu University

## Programme:

### Tuesday, 1 April 2014 ,

*Arrival:* to Tartu by plane (from Helsinki) or from Tallinn by bus

### Wednesday, 2 April 2014 (9:00-17:00),

Scientific meeting dedicated for the further inland water remote sensing challenges

9:00-9:15 Opening and practical questions (Anu Reinart)

9:15-9:45 Lakes in Europe - Global Climate Change and monitoring issues: Peeter Nõges (University of Life Sciences, Estonia, Võrtsjärve Limnological station)

9:45-10:15 Latest achievements and new problems in atmospheric correction over optically complex waters lakes: Olaf Krüger (Tartu Observatory)

10:15-10:45 Monitoring of Swedish lakes by remote sensing: Petra Philippson, (Brockmann Geomatics, Sweden)

10:45-11:00 break

11:00-11:30 National experience in monitoring of lakes by remote sensing: Claudia Giardino, (CNR, Italy)

11:30-12:00 Resent developments at DLR,s calibration Home Base, Peter Gege (DLR, Germany)

12:00-12:30 Introduction about experiments in Secchi 3000/ iQwtr : Annelies Hommersom (Water Insight, Netherlands)

12:30-14:00 Lunch break

14:00 -14:30 Inland Water algorithm recent developments and intercomparison (results from Waters, SIOCS, and DIVERSITY projects): Carsten Brockmann , (Brockmann Consult, Germany)

14:30-15:00 Ideas about proposal for pan-European inland water quality service: Karin Schenk (EOMAP, Germany)

15:00-15:30 Project Waters benefits to Finnish Environmental institute goals:Stefan Simis (Finnish Environmental institute, Finland)

15:30 -16:00 break

16:00-16:30 Information about Sentinel 3 and S3VT: Anu Reinart-

16:30-17:30 Discussions for the further joint programs and ongoing latest joint events, discussions continues 3 April

*16:30-18:30 in parallel Waters partner management board meeting*

Preparation for final report- Siim Läänelaid

*1. Financial planning until end of the project (based on the data that partners have sent to coordinator up to now)*

*2. Secondment/recruitment reports (please check if these are uploaded to the dropbox, note - this report is also one document to prove, that the secondmet took place)*

*3. Status of Deliverables (verify availability in dropbox)*

*4. Guidelines for final and WP progress reports (deadline June 30)*

17:30-20:30, Introduction of space technology and Earth Observation activities in Estonia and Tartu Observatory (A.Reinart)

**Thursday, 3 April (9:00-17:00),**

09.00-12.30: Discussions on most important -scientific issues

- 9:00-9:45 atmospheric correction methods (leader of the discussion EOMAP)
- 9:45-10:30 optical pre-classification (leader of the discussion VU)
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- 10:30-11:00 coffee
- 11:00-11:45 round robin of water quality parameter retrieval algorithms (leader of the discussion TO )
- 11:45-12:30 How to respond to delays of Sentinel (leader of the discussion WI )
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12.30-13.30 lunch

13.30-14.30 Discussion on harmonization of in situ measurement protocols (leader of the discussion TO )

14.30-15.30 Talk by Advisory Board member Steven Greb on related work + 30 min discussion/questions afterwards, discussion of the further joint activities

15.30-16.30 coffee/tea, posters, in small groups demonstration of calibration of radiometers in TO new lab

16.30-17.00 Talk by Ass. Prof Susanne Kratzer on her career to emphasize the possibilities of woman in science,

17:00-18:00 Discussion on gender issues in science and what GLaSS can contribute here

19:00-In the evening Joint dinner in Tartu hotel London restaurant POLPO

**Friday 4 April, 2014 Thursday, 3 April (9:00-14:00),**

GLaSS and lessons learned from Waters

09.00-09.30: WP5 (CNR)

9.30-10.00 fieldwork planning (WP4, TO)

10.00-10.30: WP3 (EOMAP)  
10.30-11.00: coffee  
11.00-11.30: WP4 (TO)  
11.30-12.00: WP2 (BC)  
12:00-12:30 WP1 and WP7(WI)  
12:30-13:00 WP6 (WI)  
13:00 lunch

Travel to lake Võrtsjärv 14:00  
Introduction of Limnological Station (L. Tuvikene)

**Saturday 5 April** Travel to lake Peipsi (A. Reinart)

**Sunday 6 April** Departure from Tartu

b) Knowledge transfer programme contribution (WP6, T6.1)

The project has been run so, that each partner and workpackages have special dissemination plan. Therefore the final meetings has been dedicated to learn from all these lessons but most importantly to look to the future and gather our knowledge for the new challenges. It was also very important to engage other participants outside from consortium.

General conclusions and topics to be addressed as it was summarised during discussion:

The linked communities are

1. Sentine I2 validation team working under ESA,
2. We continue to work as members of ESA MERIS validation team to finalise remaining issues to validate reprocessed MERIS data and calibrate methods.
3. Copernicus user Forum (via national contact points and Estonian national representative- A. Reinart).
4. Keeping links with Inland waters community (limnology, water managers, S2,S3 lakes products, inland water core service).

Key problems:

1. Inland waters are not processed at all during marine/land separation in Sentinel 3 datasets.
2. There is need for operational (inland) water quality service (Atlas)
3. For the optically complex waters we need detailed building blocs:  
Very precisely defined, calibrated, measured, characterized complex system  
User-oriented it means basic, general, simplified
4. Question is how simple we can go?  
- it depends fro mthe user communities in policy- national, EU, world level
5. need to compare algorithms- best, suitable..., parameterizations (SIOP, IOP, WQ..., regional)
6. Still the observations are lacking, need to increase , harmonize with models,