Day 2 – Agenda

From Coastal to Inland Waters
October 5th, 2022

Morning Coffee	08:45 – 09:15 CEST

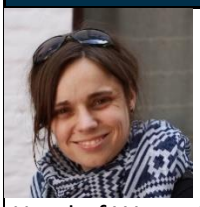
Part 1: Shoreline and Water Quality Applications

Intro by Knut Hartmann

Dr. Marcus Apel	9:15 – 9:40 CEST
 Director Strategic Accounts - Planet Labs Germany	**Best practice with Doves and Super Doves – Planet's satellites for water quality monitoring**
Constantin Sandu, PhD	9:40 – 10:05 CEST
 Senior EO data analyst - EOMAP	**Coastal and terrestrial Elevation Models – Active and Passive Sensor capabilities**
Dr. Christoph Deller	10:05 – 10:30 CEST
 Head of Water Analytics Section at the Environmental state office of Rhineland Palatine	**Utilization of routine satellite-based monitoring of Cyanobacteria blooms using Sentinel-2 for the environmental state office of Rhineland Palatine**
Coffee Break	**10:30 – 10:50 CEST**

Part 2: Water Quality Applications

Eckhard Kohlhas	10:50 – 11:15 CEST
 Head of division "Hydrology, lakes and climate" at the Environmental Ministry of Mecklenburg Vorpommern	**Water quality alert system based on daily high-res Planet satellites for Mecklenburg Vorpommern.**
Dr. Christian Schmidt	11:15 – 11:40 CEST
 Senior Scientist at the Helmholtz-Centre for Environmental Research – UFZ	**Integrated river water quality assessments: Role of space-based data at the example of the Oder environmental disaster 2022 and river Elbe oxygen and algae issues**
Declan Kelleher	11:40 – 12:05 CEST
 Head of Innovation & Technology Hydropower Gruner-Stucky	**Assimilation of satellite-based data for Hydropower Management**
Lunch Break	**12:05 – 13:30 CEST**

Dr. Nicole Pinnel	13:30 – 13:55 CEST
 Ground Segment Water Senior Scientist, DLR German Aerospace Center	**New insights into aquatic systems with hyperspectral data: The ENMAP satellite and it's water-related ground-segment processors.**
Karin Schenk	13:55 – 14:20 CEST
 Head of Water Quality Section, EOMAP	**New integrated digital solutions, connecting ecological and hydrological data for better water management**
Panel Discussion	14:20 – 14:40 CEST
Deck Kelleher, Marcus Apel, Christoph Deller, Christian Schmidt, Eckhard Kohlhas Moderation: Thomas Heege	**Online platforms: Overkill or better integration of new and more measurements?**
Coffee Break	**14:40 – 15:00 CEST**

Part 3: Workshop

Integrated data solutions (HYPOS, eoApp)	15:00 – 16:00 CEST
Moderation: Karin Schenk	**Discussion on upcoming demands for better management: Access to data on demand, integration and management tools, simplicity for users.**

Excursion / Hike to Andechs Holy Mountain and Monastery	**16:30 CEST**
Dinner in Andechs – sponsored by EOMAP	**18:00 CEST**

About the speakers:

Dr. Marcus Apel

Having worked in the Earth Observation Industry for over 15 years, Marcus is responsible for Sales and Business Development of RapidEye and PlanetScope as well as SkySat Satellite Imagery and corresponding services all over the world. He holds a diploma in Geology and a PhD in Paleontology/Biology.

Constantin Sandu, PhD

Consta has seven years' experience in the remote sensing and GIS sector. During his career and Ph.D. studies he actively worked for the Copernicus Rapid Mapping service where through the used active and passive sensors to extract information about natural (floods, hurricanes, earthquakes, etc.) and man-made disasters. After the experience with ITHACA, moved by curiosity he decides to enrich his skills working in the humanitarian sector for REACH an NGO that provides analysis on contexts of crisis in order to inform humanitarian actors. At EOMAP he generates terrain models for customers worldwide and constantly improves the terrain modelling workflows with particular attention to coastal zone areas.

Dr. Christoph Deller

After studies of Chemistry at the Universities of Mainz, Amherst, Massachusetts and at the Max-Planck-Insitute for Polymere Research in Mainz, he accomplished his PhD in 2006. He held various R&D positions in the chemical industry, since 2014 as head of ecotoxicological studies he entered the field of aquatic ecosystems. By 2016, he became in charge of environmental analytics of ground water, waste water, rivers and lakes including bathing waters in Rhineland-Palatinate. As such he has been implementing satellite observation data in surveillance of bathing waters since 2020.

Eckhard Kohlhas

After his studies of Geography, Eckhard entered the field of IT and environmental protection while working for the City of Wuppertal for 20 years. By 1990, he started focusing on water management and applied remote sensing for various targets (heavy rainfalls, sealed surfaces). (…) In 2010, he changed to the environmental Agency of Mecklenburg-Vorpommern. As head of the department of Hydrology, Lakes and Climate he stays at the forefront of monitoring lakes for ensuring climate change adaptation and mitigation in the water industry.

Dr. Christian Schmidt

Since 2019, he has been involved in the Worldwater Quality Alliance, working on the integration of in situ data, earth observation, and models to improve water quality information. As a Senior Scientist at the Helmholtz Centre for Environmental Research, he is responsible for projects on solute and particle transport in ground and surface waters, focusing on the effects of water and pollutant exchange between rivers and groundwater. He is a specialist in plastics in rivers. He received his PhD

in Hydrogeology from the University of Neuchatel.

Declan Kelleher

An Irish civil engineer with a specialisation in renewable energy and energy management. Declan has worked in diverse sectors all through his career to date; he has participated in green financing projects and ISO 50001 energy audits, demolition & asbestos removal projects, regulation of radioactive waste transport as well as flood protection design, geothermal and hydropower projects. He has also managed projects where the subject has been of an innovative nature such as in-pipe turbine technology. At Gruner, he is head of Innovation & Technology for the Hydropower and Dams business unit where he investigates new technologies and if applicable pilots the implementation of the technology and ensures its integration into the workflow.

Dr. Nicole Pinnel

Nicole has a background in physical geography and remote sensing with more than 15 years of experience in the field of imaging spectroscopy. During her PhD at the Technical University in Munich her focus was on mapping shallow water macrophytes in lakes using hyperspectral remote sensing. Her major interests are water related remote sensing applications in shallow inland and coastal environments, species classification and biodiversity monitoring using high-resolution data. Nicole spent several years in Australia working at scientific institutions at CSIRO Land and Water and at Murdoch University as well as in industry at Woodside Energy Ltd, where she was involved in large scale environmental projects using hyperspectral airborne and multispectral satellite data for mapping shallow marine benthic habitat and coral reef ecosystems. She has expertise in field data acquisition, bio-optical modelling and the analysis of spectral libraries of benthic substrates. Since 2009, she has been working at the German Remote Sensing Data Center (DFD) of DLR. There, she is Application Support Manager within the Ground Segment of the new hyperspectral EnMAP mission.

Karin Schenk

With over 10 years of experience in the fields of earth observation services and applied solutions, she has developed commercial water monitoring services for various environmental agencies and industry clients. Karin has managed several EU funded projects to innovate satellite-based services. Prior to joining EOMAP in 2011, she worked in the geo-information and remote sensing section of GAF AG and conducted statistical data analysis for BMW Germany.