

Report

EuroSDR Workshop “Scaling up the Sentinels in Europe”

October 2020, 26-27

By Martijn Rijdsdijk

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4TH WORKSHOP, SCALING UP THE SENTINELS IN EUROPE

October 26th - 27th 2020 – Tonsberg, Norway

EuroSDR Workshop Report

“Scaling up the Sentinels in Europe”

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1 Introduction

1.1 Abstract

This report includes the proceedings of the third EuroSDR workshop Sentinels in Europe and contains the abstracts of related presentations given during this event. Around 90 professionals and researchers from National Mapping and Cadastral Agencies and universities inside (and outside Europe) participated the online workshop.

1.2 Background and context

Objective of this webinar “Scaling up Sentinels in Europe” was to give a most actual and wide update about developments in relation to Sentinel satellites from Copernicus and ESA. Additionally, knowledge and experience from different national Collaborative Ground Segments (CGS) were presented by many presenters from many countries in Europe. Presentations of active projects and innovations gave awareness of possibilities and motivate ideas to make use of earth observation data. The intention was to show the scaling up phase in the programme is already started. The programme provided a mix of invited speakers and call for presentations, where users, operators and specialists in this domain could discuss their experiences.

This interesting webinar was the latest in a series of four and is co-organized by representatives of EuroSDR, Norwegian Space Agency, KU Leuven, the Norwegian Mapping Authority and the Norwegian Water Resources and Energy Directorate. Originally, this workshop was meant to be a physical workshop, but because of the COVID-19 restrictions the original format was transferred to a webinar. The webinar was held from October 26th – 27th, 2020 (noon to noon) free of charge and visited by almost hundred people.

2 Programme and Presenters

Title	Scaling up the Sentinels in Europe
Objective	This webinar will provide the most current information about the Copernicus program, with updates both from ESA and the European Commission. Several use cases from European countries will be presented, on land, lake and coastal applications. We will also get an update from various national Collaborative Ground Segments, in addition to a presentation of the different DIASes.
Venue	Webinar
Dates	October 26 th and 27 th 2020
Day 1 (Monday 26th)	
11.55 – 12.00	Connecting to the webinar
12.00 – 12.15	Welcome address, practical information, objectives and an introduction to EuroSDR <i>Martijn Rijdsdijk EuroSDR (NL) and Joep Crompvoets EuroSDR (BE)</i>
Session 1 Status from EC/ESA on the Copernicus and Sentinels <i>Moderator: Joep Crompvoets, EuroSDR</i>	
12.15 – 12.45	Copernicus today and tomorrow. <i>Andras Roboz, Earth observation Unit EC</i>
12.45 – 13.05	Mission status Sentinel 1 <i>Pierre Potin, Mission manager S1 ESA</i>
13.05 – 13.25	Mission status Sentinel 2 <i>Ferran Gascon, Mission manager S2 ESA</i>
13.25 – 13.45	Mission status Sentinel 3 <i>Anja Strømme, Mission manager S3 ESA</i>
13.45 – 14.00	Break
Session 2 Data Information and Access Service (DIAS) <i>Moderator: Maria Berdahl (NOSA)</i>	
14.00 – 14.15	Creodias <i>Stanisław Krzyżanowski</i>
14.15 – 14.30	ONDA <i>NN</i>
14.30 – 14.45	MUNDI <i>Vincent Saleh</i>
14.45 – 15.00	WekEO <i>Alain Arnaud</i>
15.00 – 15.15	SOBLOO <i>Ludovic Augé</i>
15.15 – 15.25	Break
Session 3 Preservation and distribution of Copernicus data <i>Moderator: Maria Berdahl (NOSA)</i>	
15.25 – 15.40	Swedish space data lab and open data cube <i>Tobias Edman, Swedish National Space Agency</i>
15.40 – 15.55	Sentinel Collaborative Ground Station and Copernicus activities in FMI Arctic Space Centre <i>Jyri Heilimo, Finnish Meteorological Institute</i>
15.55 – 16.10	Satellittdata.no: Copernicus Sentinel data in an open data space <i>Øystein Godøy, Norwegian Meteorological Institute</i>
16.10 – 16.25	Estonian Land Board <i>Martin Menert, Estonian Land Board (TBC)</i>

16.25 – 16.30	Wrap up and closure of meeting day 1
Day 2 (Tuesday 27th)	
09.00 – 09.05	Introduction day 2
Session 4 User cases from around Europe: Land applications <i>Moderator: Joep Crompvoets, EuroSDR</i>	
09.05 – 09.25	How Sentinel-2 revolutionizes nature mapping in Norway <i>Floris Groesz, Blom Norway</i>
09:25 – 09.45	Terrascope and its use (VITO and Informatie Vlaanderen) <i>Jo Van Valckenborgh, Informatie Vlaanderen Belgium</i>
09.45 – 10.05	Super-resolution applied to automatic extraction of different elements in the territory <i>Maria Cabello, Tracasa Spain</i>
10.05 – 10.25	Mapping and monitoring unstable rock slopes in the InSAR Norway project <i>Lene Kristensen, The Norwegian Water Resources and Energy Directorate and John Dehls, The Geological Survey of Norway</i>
10.25 – 10.45	Break
Session 5 User cases from around Europe: Lake and coastal water applications <i>Moderator: Joep Crompvoets, EuroSDR</i>	
10.45 – 11.05	Analysis Ready Data, data cubes and user tools for water colour products <i>Carsten Brockmann, Brockmann Consult</i>
11.05 – 11.25	Water quality monitoring service in Belgian Coastal Zone using data cubes and Sentinel products <i>Dimitrij Van der Zande, Royal Belgian Institute of Natural Sciences</i>
11.25 – 11.45	Developments of coastal and lake water quality applications and services in Norway <i>Therese Harvey, NIVA Denmark</i>
11.45 – 12.05	Sentinels for water quality monitoring and status assessment in Finland <i>Jenni Attila and Sampsa Kopononen, Finnish Environment Institute</i>
Session 6 Closing session <i>Moderator: Joep Crompvoets, EuroSDR</i>	
12.05 – 12.20	Wrap up and recommendations for further work – What’s next - Closure of meeting
12.20	End of webinar

3 Programme Committee

The members of the Workshop/webinar Programme Committee:

- Martijn Rijdsdijk (Kadaster/EuroSDR),
- Joep Crompvoets (KU Leuven/EuroSDR),
- Maria Høegh Berdahl (Norwegian Space Agency/NSA),
- Solveig Havstad Winsvold (The Norwegian Water Resources and Energy Directorate/NVE),
- Torgeir Ferdinand Klingenberg (Norwegian Mapping Authority/NMA),
- Jon Arne Trollvik (Norwegian Mapping Authority/NMA).

4 Presentations/Abstracts

4.1 Session 1, Status from EC/ESA on the Copernicus and Sentinels

Copernicus today and tomorrow | Andras Roboz, Earth observation Unit EC ([pdf](#))

Mission status Sentinel 1 | Pierre Potin, Mission manager S1 ESA ([pdf](#))

Mission status Sentinel 2 | Ferran Gascon, Mission manager S2 ESA ([pdf](#))

Mission status Sentinel 3 | Anja Strømme, Mission manager S3 ESA ([pdf](#))

4.2 Session 2, Data Information and Access Service (DIAS)

Creodias | Stanisław Krzyżanowski ([pdf](#))

MUNDI | Vincent Saleh ([pdf](#))

WekEO | Alain Arnaud ([pdf](#))

SOBLOO | Lison Leonetti ([pdf](#))

4.3 Session 3, Preservation and distribution of Copernicus Data

Swedish space data lab and open data cube | Tobias Edman, Swedish National Space Agency ([pdf](#))

Sentinel Collaborative Ground Station and Copernicus activities in FMI Arctic Space Centre | Jyri Heilimo, Finnish Meteorological Institute ([pdf](#))

Satellittdata.no: Copernicus Sentinel data in an open data space | Øystein Godøy, Norwegian Meteorological Institute ([pdf](#))

4.4 Session 4, User Cases from around Europe: Land Applications

How Sentinel-2 revolutionizes nature mapping in Norway | Floris Groesz, Blom Norway ([pdf](#))

Terrascope and its use (VITO and Informatie Vlaanderen) | Jurgen Everaerts, Informatie Vlaanderen Belgium ([pdf](#))

Super-resolution applied to automatic extraction of different elements in the territory | Maria Cabello, Tracasa Spain

Mapping and monitoring unstable rock slopes in the InSAR Norway project | Lene Kristensen, The Norwegian Water Resources and Energy Directorate and John Dehls, The Geological Survey of Norway ([pdf](#))

4.5 Session 5, User Cases from around Europe: Lake and Coastal water applications

Analysis Ready Data, data cubes and user tools for water colour products | Carsten Brockmann, Brockmann Consult ([pdf](#))

Water quality monitoring service in Belgian Coastal Zone using data cubes and Sentinel products | Dimitry Van der Zande, Royal Belgian Institute of Natural Sciences ([pdf](#))

Developments of coastal and lake water quality applications and services in Norway | Therese Harvey, NIVA Denmark ([pdf](#))

Sentinels for water quality monitoring and status assessment in Finland | Jenni Attila and Sampsa Koponen, Finnish Environment Institute ([pdf](#))

4.6 Session 6, Clothing Session

Wrap up and recommendations for further work – What's next - Closure of meeting | Martijn Rijdsdijk, Kadaster/EuroSDR ([pdf](#))

5 Wrap Up; Conclusions and recommendations

The Workshop “Sentinels In Europe, the Scaling up” did show us all there is much achieved in this spectrum. There are a lot of innovations going on, using the data in a wide spectrum of applications in Europe. Also, there are a lot of new service components existed as well. Several use cases did show this and the refinement of using the sentinels, the applications and its data will continue in the next years. There are many more applications which are using the sentinels and the knowledge of using and experimenting will be more wide spread.

What we also noticed is the huge impact the Sentinel programme has on society. Different themes are monitored and managed using the sentinel data. Together with this last conclusion, it is clear that EuroSDR should have interest in this topic in the next years. Recommendation is to monitor the next developments about sentinels and its application. From this perspective, an important recommendation is that EuroSDR should, at the beginning of 2021, consider the option to organise a follow-up workshop.

Martijn Rijdsdijk, EuroSDR, The Netherlands