

Observer: First General Assembly of the Copernicus Land Monitoring Service - Six Takeaways Unveiled



The <u>Copernicus Land Monitoring Service</u> (CLMS) had an exciting start to the month, celebrating its first <u>General</u> <u>Assembly</u> from June 3-5 in Antwerp, Belgium. This hybrid event brought together over 300 participants — including scientists, policymakers, and industry professionals — to shape the future of CLMS.

Inaugurated by Salla Saastamoinen, Deputy Director-General at DG Joint Research Centre (JRC), and Leena Ylä-Mononen, Executive Director at the European Environment Agency (EEA) — on behalf of the two entities implementing CLMS — the Assembly delved into key aspects of CLMS, outlined in the <u>agenda</u>. The first General Assembly of the CLMS National Collaboration Programme was also celebrated.

The insights gained were plentiful, and we have picked six standout takeaways that you can discover below. Moreover, you can relive the event through the recording of Day 1 and Day 2.

And if you are a CLMS user, please help improve CLMS by filling out the <u>annual survey</u> — your opinion counts!



The CLMS team at the General Assembly. Credit: François De Ribaucourt

New CLMS products are becoming available

The past year has been a busy one for CLMS, as Tim Lemmens, Policy Officer – Earth Observation Unit, DG for Defence Industry and Space (DG DEFIS), and CLMS Project Leaders Usue Donezar (EEA) and Andreas Brink (DG JRC) highlighted during a <u>dedicated session</u>.

EEA and DG JRC have enriched their product portfolio. The EEA has continued production according to the plan, including the development of an instance of its CLC+ product suite for the Land Use, Land Use Change and Forestry regulation. Meanwhile, DG JRC released the Land Surface Phenology, which offers crucial insights into vegetation seasonality. They also worked on Evapotranspiration — addressing water production and use efficiency — and on Land Cover Forest Monitoring, which provides global-scale land features and basic land categories.

The CLMS National Collaboration Programme has kicked off

However, the past year wasn't just about developing new products. Boosting user uptake was also a top priority. A significant milestone in this effort was the launch of the CLMS National Collaboration Programme (NCP), aligning with other Copernicus services.

The NCP is a voluntary collaboration programme with interested countries. Its goal is to raise

awareness and increase user uptake of CLMS, and to assess the fitness for purpose of the CLMS data portfolio. This will be achieved by fostering a dialogue with existing and potential new users within a country, using their feedback to evolve the service.



Joanna Balasis-Levinsen (Responsible for CLMS user uptake at the EEA) and Karoline Kyhn (Legal and Procurement Advisor at the EEA) presenting at the first NCP General Assembly. Credit: <u>François</u> <u>De Ribaucourt</u>

Twenty countries have expressed interest in participating in the CLMS NCP, and the programme will be implemented in two phases: Phase I (Q4/2024 - Q1/2026) with five countries, and Phase II (Q2/2026 - Q3/2027), including the remaining nations. Each phase will foresee activities such as training sessions and promoting use cases.

To discuss the NCP details for the specific countries, all involved nations were invited to the first NCP General Assembly, celebrated in conjunction with the CLMS event. Nine countries participated, and discussions will continue, leading to the signature of collaboration agreements with the participating nations.



Julián Delgado Hernández, from Instituto Geográfico Nacional (IGN Spain) and NCP Spanish focal point, presenting at the NCP General Assembly. Credit: <u>François De Ribaucourt</u>

New infrastructure will ease CLMS users' life

Together with the NCP set up, another key activity to enhance user uptake was upgrading the CLMS infrastructure for seamless data access and analysis.

The EEA and DG JRC are tackling this challenge head-on, following the vision of Commissioner Thierry Breton that "Copernicus must strive for digital excellence. We want Copernicus data to be easily accessible and usable. At the same time, we need a powerful data analytics environment to attract new users, in particular from non-space sectors." And in a <u>feedback session</u>, CLMS experts from EEA, DG JRC and DG DEFIS highlighted significant progress.

One standout achievement is the CLMS onboarding to the <u>Copernicus Data Space Ecosystem</u>, an open platform offering free access to a vast array of Copernicus data and services. The global component of CLMS will migrate by the end of 2024, and the pan-European component and priority mapping products by mid-2025.

Yet providing the right data format and infrastructure is only part of the solution. Even the best infrastructure becomes futile if users are unaware of the specific CLMS products tailored to their needs. To simplify the user experience, a generative chatbot is being developed to help users find specific data applications and products easily.

Research and Innovation ensure the evolution of CLMS

The evolution of CLMS involves another key element besides providing new data, boosting user engagement and upgrading infrastructure. Research and innovation are equally critical to meet community needs and ensure policy adoption. This was emphasised in one <u>session</u> featuring various Horizon Europe projects on CLMS development, and <u>another session</u> spotlighting Belgian projects — an acknowledgement to the host country and the current Belgian presidency.

Between the sessions, Francesca Somma (DG JRC) <u>presented</u> the newly published <u>Earth</u> <u>Observation Strategic Research and Innovation Agenda (SRIA)</u>. She provided a brief insight into how it will frame the <u>DG JRC portfolio on Earth Observation</u> for the rest of the Multiannual Financial Framework (MFF) and beyond. Somma also gave an update on the roadmap formulated in 2020, adjusted to incorporate evolving user needs, technological advances, and geopolitical changes.

The SRIA highlights the key priorities for the dual Horizon 2025-2027 for Earth Observation (EO) and Copernicus, and paves the way for the next MFF and research agenda. Additionally, it emphasises the critical role of EO in supporting EU policies, particularly the EU Green Deal. The document also considers horizontal aspects, such as artificial intelligence, machine learning, Thematic Hubs, and Digital Twins. Its purpose is to justify and better coordinate future research and innovation investments on EO.

The SRIA stems from collaboration between DG DEFIS, DG JRC, and DG for Research and Innovation (DG RTD). It also relies on a consultation process with other DGs, Agencies, Entrusted Entities, delegates of Copernicus Member States, and the downstream market through EUSPA, all coordinated by the Knowledge Centre on Earth Observation (KCEO).

Read more about the SRIA in this Observer article.

Copernicus is a toolbox for policy making

The crucial role of EO in shaping policies was also discussed in an insightful panel discussion, with focus on land monitoring.



The panel discussion with (from left to right) Robert Konrad, Miguel Rocha De Gouveia, Barron Joseph Orr, and moderator Ivan Kulis, Head of Unit, Nature Conservation and Observation, DG JRC. Credit: <u>François De Ribaucourt</u>

Barren Orr (Chief Scientist, United Nations Convention to Combat Desertification, UNDCCD) highlighted how land monitoring supports the UNCCD's efforts, noting that EO data allow countries to report more effectively on land degradation. He called for a better link between monitoring and decision-making, as degradation is often already ongoing by the time it is monitored.

Robert Konrad (Adviser to the Director, DG Environment) underscored the growing integration of EO in environmental regulations — especially Copernicus, now included in most legislations under the EU Green Deal. He also stressed the importance of developing end-user applications for policymakers as a core part of the Copernicus services.

Miguel Rocha De Gouveia (Policy Coordinator Earth Observation Science, Technology, Innovation and Digitalisation, DG International Partnerships, DG INTPA) highlighted EO's critical role in aiding partner countries' policy development. The reliable information from Copernicus allows DG INTPA to strengthen the dialogue with partner nations and help them leapfrog into the information society.

And compelling examples of the vast benefits of EO for national development were <u>showcased in a</u> <u>user session by Cheikh Mbow</u>, Director General at the Centre de Suivi Écologique in Senegal (CSE). From biomass mapping and urbanisation control to oil spill risk assessment, CSE is leveraging EO data across numerous sectors to enhance people's lives and protect the environment.

A sustainable and green world requires joint efforts

The General Assembly marked a step forward in the ongoing journey of CLMS and Copernicus. A journey crucial for forging a sustainable future, but one that can only be successful with the contribution of everyone. "*The future will be green, or there will be no future,*" said Janez Poto?nik (Co-chair, UNEP – International Resource Panel) in his inspiring keynote speech. "We are indebting future generations, financially and by depleting nature. This is simply wrong. Apparently, we humans are the most intelligent species on this planet. It is high time to prove it."