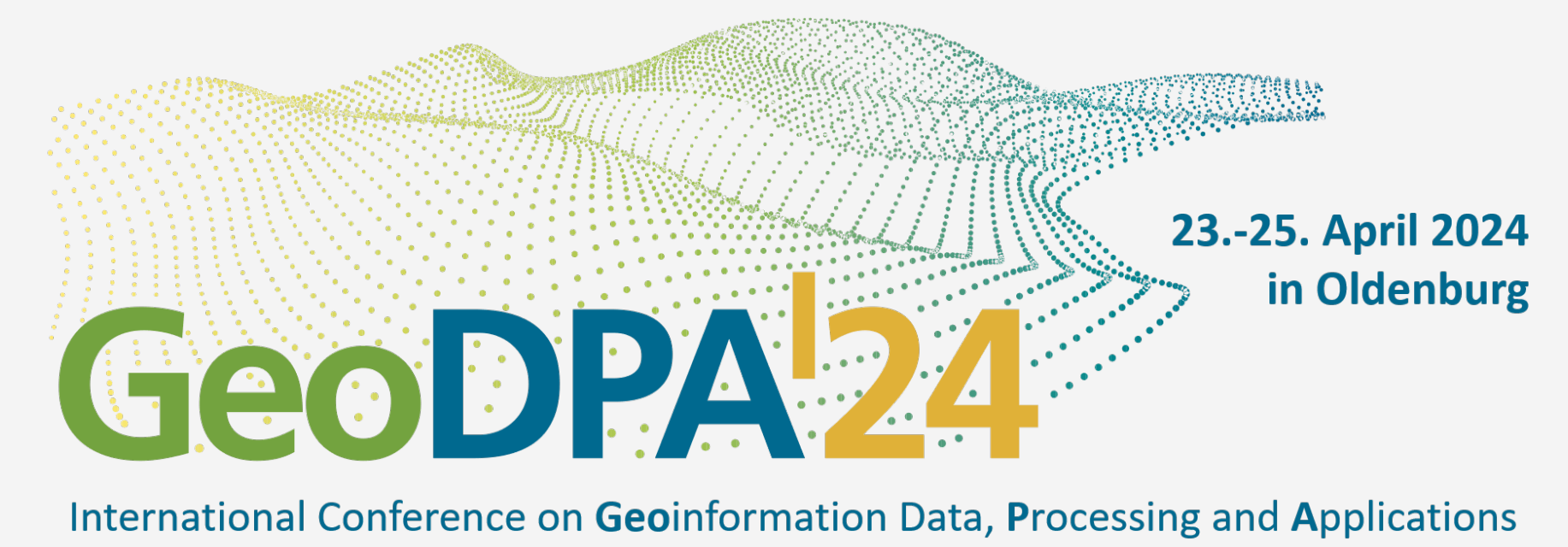# Automated Gross Primary Production Application for Monitoring Ecosystem Health within GEOSS (AGAME)

AGAME

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What are AGAME's Objectives?

- Exploit the added value of **integrating Copernicus Products** (remote and local data) **and other diverse data** sources (local, regional or global) by delivering tailored information and services **co-designed with users.**
- Provide consistent **data products together with detailed metadata.**
- Offer a **service co-designed with users** that provides information of gross primary production that is used to give direct and focused answers to specific questions from the targeted scenarios.
- **Contribute to the development of the GEOSS platform** by delivering information on gross primary production accessible via the GEOSS Platform.
- **Cooperate with local stakeholders**, their knowledge and expertise.

Who are the users and what is their interest?

User 1: GEOSS

- Directly **integrate data flows** from project applications into GEOSS-DAB (pilot link between components of the GEOSS portal and European Research Infrastructures (RI)).
- Facilitate **broader access and utilization across European RIs.**

User 2: eLTER Research Infrastructure

- AGAME GPP product serves as an **additional layer of information within eLTER's Information Cluster.**
- **Enriches eLTER's research capabilities** and aims to **sustain AGAME products** beyond the project's runtime.

User 3: Sites and Platform Coordinators

- Require **spatially explicit time series data** on GPP.
- Time series is needed to **investigate declines in carbon uptake** due to global warming and to predict **future biosphere conditions**

How are users engaged?

Deliver ready-to-use information reached through **two engagement phases (Co-design / Validation)** which gather **user requirements** that will be **translated into a system design and implementation** (technical and non-technical functionality).
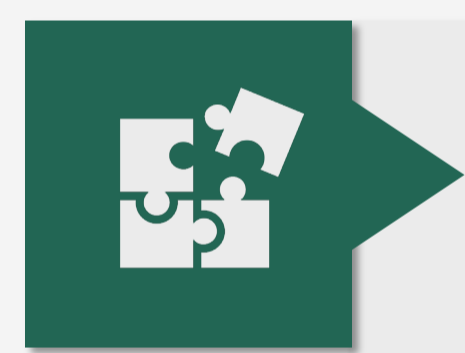
Co-Define/Co-Design Phase (Month 2)
What: Based on **user-stories** we **map user needs** to identify added value products beneficial to the users
How: 1. Dedicated one-to-one meetings with each user group separately.
  2. White Boards are used to **capture both functional and non-functional requirements**
  3. Based on both, define priorities and establish a common roadmap.

User Validation Phase (Months 6 and 10)
What: **feedback loop** with users to validate 1st and 2nd version of the AGAME products and allow for improvement.
How: all user groups will actively participate in **two hands-on workshops** allowing for practical demonstrations and real-time feedback.

What does a user requirement look like?

What are the next steps?

- Translate user requirements into system requirements and prioritise implementation steps for all users.
- Implement the system requirements to produce a 1st version of the AGAME product/service.
- Gather feedback during user validation phase on 1st version.
- Implement feedback for a 2nd version.
- Prepare a communication strategy to promote the product and increase awareness and adoption.