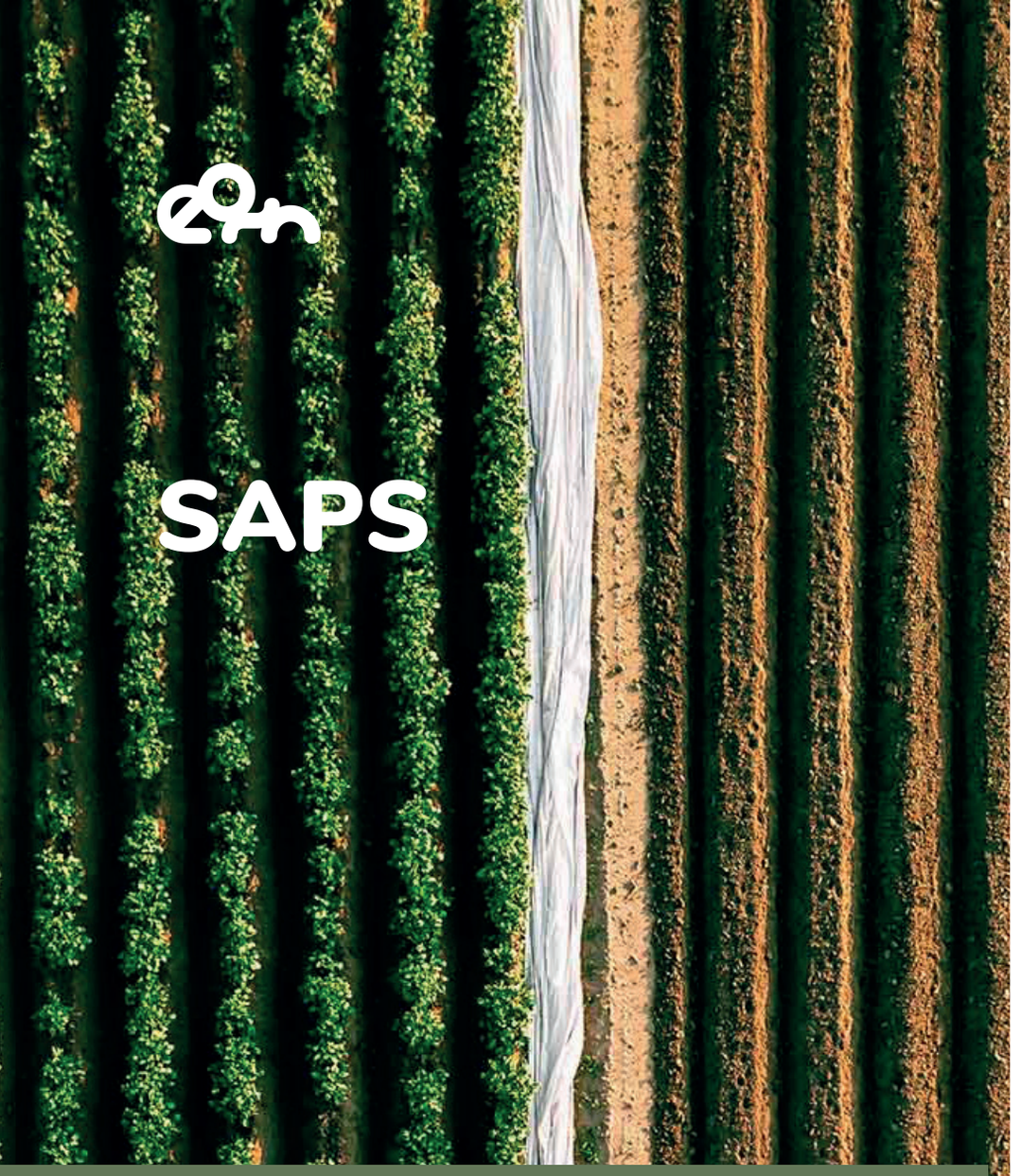

SAPS

SAPS (SEB AUTOMATED PROCESSING SERVICE)

WHAT:

SAPS will help exploit the evapotranspiration estimation services from remote sensing imagery.

FOR WHO:

Researchers.

ACCESS:

https://www.eosc-synergy.eu/results/saps

SAPS

Description

SAPS (SEB Automated Processing Service) integrates Energy Balance algorithms and Simplified Surface Energy Balance (SSEB)) to estimate Evapotranspiration and other environmental data. Such estimations can be applied in various environmental areas, such as water management or the analysis of forest masses and crop evolution. Thanks to the integration with EOSC and the availability of relevant EOSC resources, the service can be deployed on demand.

Target audience/beneficiaries

The target beneficiaries of SAPS are European scientists on Earth Observation, researchers in Agriculture Engineering and Environment, as well as Environmental and Agricultural agencies. SAPS will help European scientists to exploit the evapotranspiration estimation services from remote sensing imagery.

Benefits

The algorithms supported by SAPS have the potential to increase the knowledge about the impact of human and environmental actions on vegetation, as well as to improve forest management and preservation and early detection of risk conditions.

For the end users it is not easy to access a computing infrastructure to apply the algorithms analysing satellite images. SAPS provides a self-managed environment where users can apply well-known algorithms (like SSEB or SEBAL) to satellite data.

Use and Impact after EOSC Synergy

During the EOSC-Synergy project, SAPS has restructured its architecture to adapt it to a more convenient way of distribution: micro-services running on an elastic Kubernetes cluster. This allows the automatic management of the service, and facilitates the access to the computing resources needed, according to the workload.

The key exploitation path consists of the measurement of the evapotranspiration as a key indicator for evaluating soil degradation and the selection of the most adequate species for harvesting and crops. This could lead to increased production and to achieve a more sustainable agriculture. By providing a massive access the accuracy of the studies can be increased.

SAPS will be promoted through collaboration with related research groups, dissemination at conferences & workshops, and training courses. It was demonstrated in November 2020 during the EGI Conference. In October 2021, the service owners applied to the EGI ACE call for use cases, to improve the SAPS service and help on the sustainability of the service after EOSC Synergy.