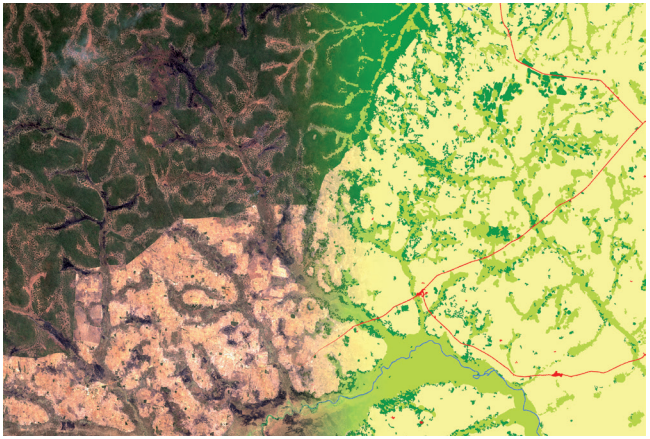
Earth Observation Services
for Monitoring Dynamic Forest Disturbances

Supporting the UNFCCC mechanism for reducing deforestation and forest degradation (REDD+)

A Global Climate Initiative

Reduction of greenhouse gas emissions is central to the United Nations Framework Convention on Climate Change (UNFCCC). Deforestation and forest degradation are estimated to contribute to about 20% of the total Green House Gas (GHG) emissions. The UNFCCC mechanism for reducing deforestation and degradation (REDD+) is firmly embedded in the Paris Agreement such that the requirements for REDD+ are also part of countries Nationally Determined Contributions (NDCs).



Bringing Earth Observation Services for Monitoring Dynamic Forest Disturbances to the Users (EOMonDis)

The EOMonDis Project from 2016-2019, aimed to offer operational Earth Observation (EO) based tropical forest monitoring services to support countries and a wide range of users with accurate relevant forest information data for their REDD+ reporting requirements.

EOMonDis developed innovative methods to overcome existing technical challenges of tropical forest monitoring by integrating dense time-series from optical and radar sensor systems, especially from the suite of the newly launched Sentinels. The methods developed were tested and demonstrated on selected sites in Cameroon, Gabon, Malawi and Peru in order to take account of the phenological variety of tropical biomes. The EOMonDis is ready to provide tailored forest geo-spatial products and services from 2019 onwards.

The EOMonDis Products offered

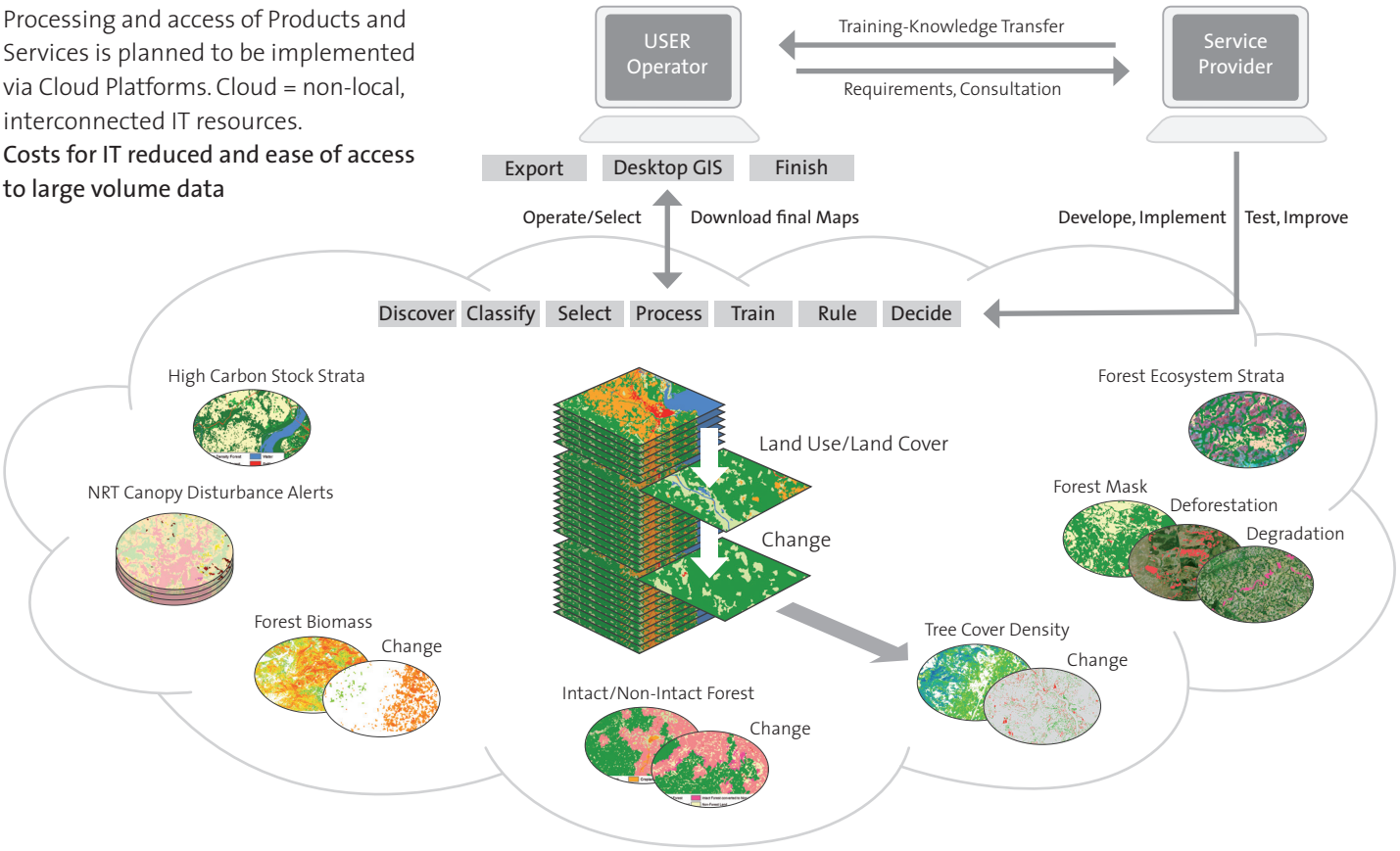
- Forest Status Information Service provides products which represent land cover information for a specific date: Forest Mask, Forest Ecosystems Stratification Forest Degradation Status, Land Use/Land Cover Information, Forest Above-Ground Biomass
- The Change Information Service provides products showing changes occurring between two specific dates: Deforestation, Forest Degradation Changes, Land Use/Land Cover Changes

EOMonDis products are

- **Relevant** – with over 10 specific products which address all the requirements for a Monitoring, Reporting Verification (MRV) system
- **Accurate and timely** – providing an 0.5-hectare minimal mapping unit and updated bi-annually
- **Simple** – to use online interface allows access from any desktop device and operating system independent
- **Cost-effective** – only scalable method for supporting MRV across national scale forests compared to planes, drones or field surveys
- **Flexible** – utilises both freely available and commercial EO data under preferred supplier agreements secured by GAF
- **Proven** – supported by the European Commission and demonstrated in different ecosystems

EOMonDis Service Portfolio

Processing and access of Products and Services is planned to be implemented via Cloud Platforms. Cloud = non-local, interconnected IT resources.
Costs for IT reduced and ease of access to large volume data



Overall Services:

Requirements Assessment
The EOMonDis products are based on the collection of user requirements related to national and international environment and climate policy requirements.

Service Provision
EOMonDis is ready to provide user-tailored forest monitoring products as well as support to countries for biomass inventory design, REDD+ reporting and capacity building.

M. Chirwa (Dept. of Forestry, Malawi):

„The EOMonDis Service portfolio are immensely useful for Malawi and would greatly inform the REDD+ process in Malawi."

GAF AG

is one of the leading geo-spatial companies in Europe. We offer a comprehensive portfolio of proved products, services that cost-effectively meet the diverse requirements of forest and environmental professional, practitioners, policy and decision makes worldwide. GAF AG has successfully managed a variety of international forest and environment projects in the past 30+ years.

Acknowledgements:

GAF AG would like to thank its partners SIRS (France), Joanneum Research (Austria), Telespazio-France (France), and Paul Sabatier University Toulouse (France), for technical support in project implementation.

This project receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 685761.

GAFAG
an e-GEOS (ASI / Telespazio) Company

EOMonDis

Arnulfstrasse 199
80634 Munich, Germany

Phone: +49 (0)89 - 121 528 0
Fax: +49 (0)89 - 121 528 79

Email: forestry@gaf.de
www.gaf.de and **www.redd-services.info**