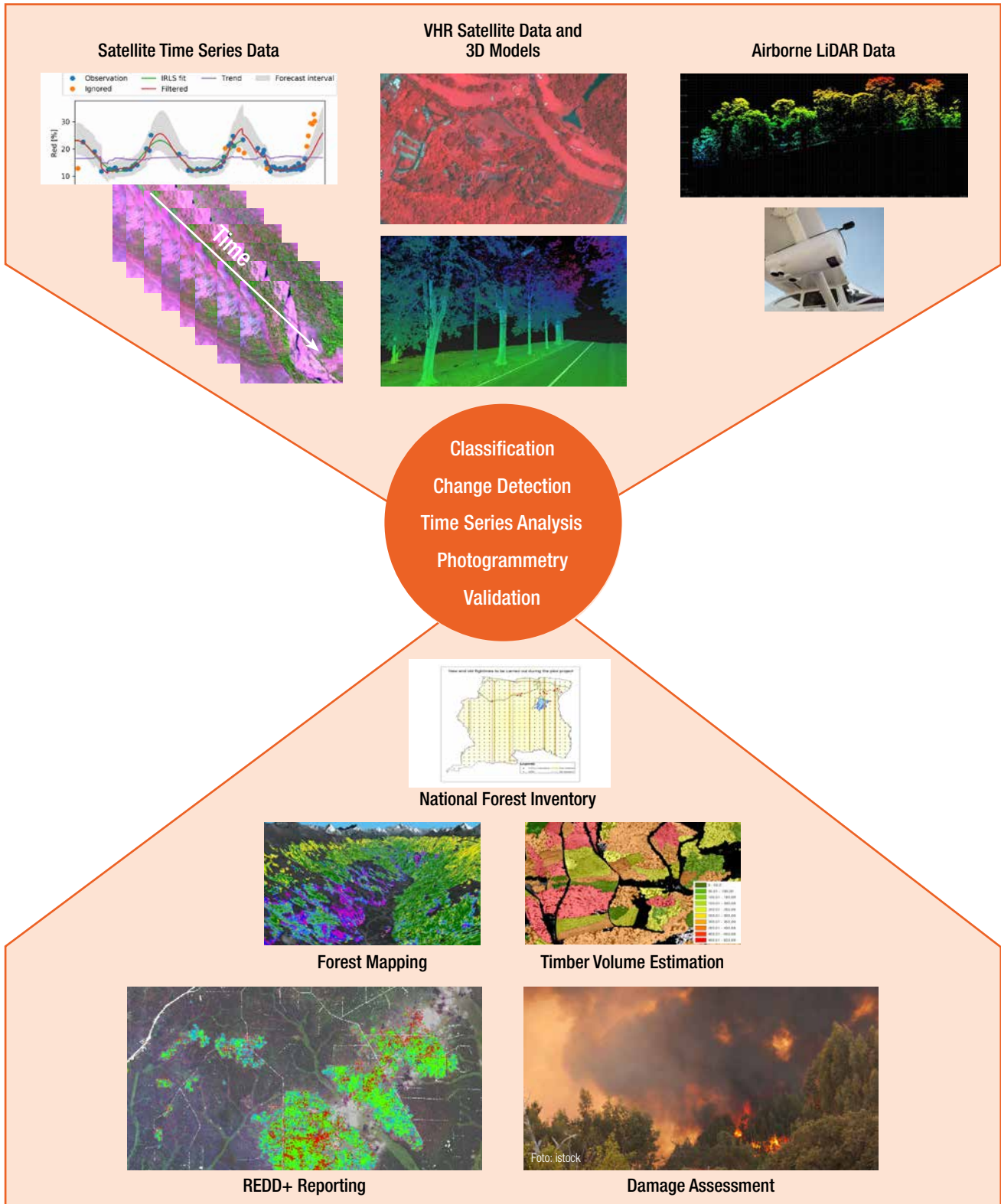# *Smart Forest Monitoring*

We combine the latest Earth Observation data from a wide range of sensors, platforms and sources with ground-based information to better map and monitor our Worlds' forests. We develop cutting-edge techniques in image processing, data analytics and statistical analysis and transform remote sensing data into the reliable and evidence-based information that is needed for forest-related decision making. We offer custom-tailored solutions for forest applications ranging from sustainable forest management support for local forest industry to country-wide forest monitoring and inventory anywhere on the globe.

What we offer:

From various remote sensing data sets …

Satellite Time Series Data

VHR Satellite Data and 3D Models

Airborne LiDAR Data

Classification

Change Detection

Time Series Analysis

Photogrammetry

Validation

National Forest Inventory

Forest Mapping

Timber Volume Estimation

REDD+ Reporting

Damage Assessment

… we generate high quality products for a wide range of applications
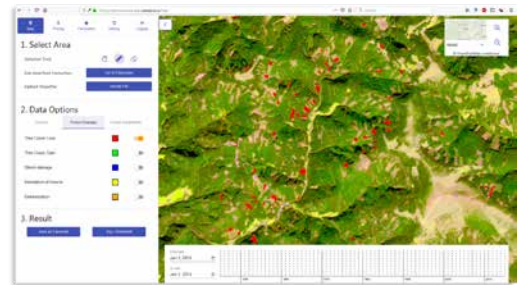
Reference Projects:

AlpMon

*Forest Damage Assessment
from Satellite Earth Observation*

AlpMon exploits latest Earth Observation data and technologies for near real-time forest damage mapping to empower forest owners and forest administration to better manage and protect our Alpine forests.
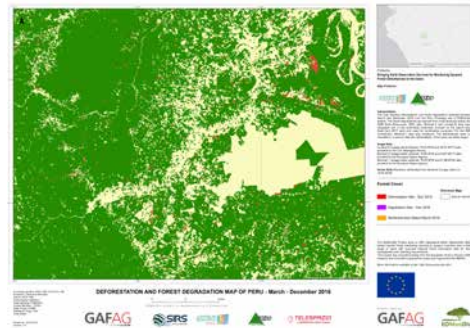

Storm damage detections in the Alps

EOMonDis

Earth Observation Services for REDD+ monitoring

EOMonDis offers operational Earth Observation (EO) based tropical forest monitoring services to support accurate and relevant countries and a wide range of users with accurate relevant forest information for their management and reporting requirements including REDD+.
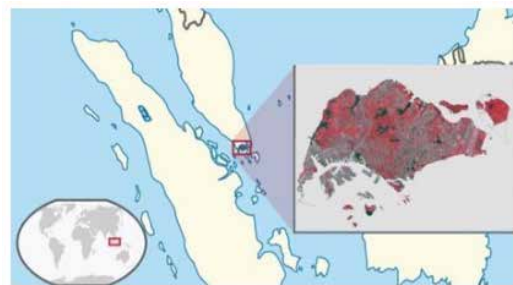

Forest and forest change map for REDD application in Peru

SINCA

*Carbon Accounting for Vegetation
and Land Use.in Singapore*

SINCA provides large scale LULC maps for carbon reporting of Singapore by means of remote sensing, image analysis and geo-informatics for the National Parks Board (NParks).
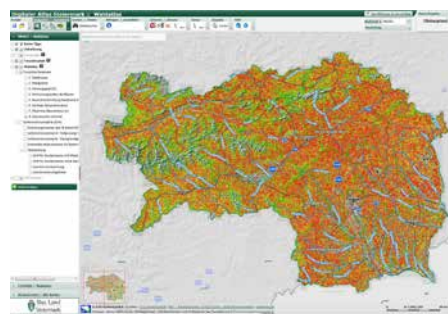

Singapore mapped by Stereo-Pléades data

Forest Atlas Styria

*Wall-to-wall mapping of forest parameters
from airborne LiDAR and satellite data*

The Forest Atlas Styria provides an extensive set of forest attributes for 7 Mio forest polygons covering a total of 1 Mio hectares of forest. The dataset is available online in the official GIS of Styria.

Forest attributes in online GIS: visit https://bit.ly/2kKxlhh

JOANNEUM
RESEARCH
DIGITAL

DIGITAL
Institute for Information and
Communication Technologies
is your trustworthy partner
for applied high-tech solutions.

Prof. Dr Mathias Schardt

Steyrergasse 17
8010 Graz

forest@joanneum.at

www.joanneum.at/digital
www.remotesensing.at

JOANNEUM RESEARCH is a professional innovation
and technology provider with a long track record in
cutting-edge research at an international level. The
innovation company focuses on application oriented
research and development projects to promote
technology transfer to the economy.