# The EUMETSAT Surface Applications Facility
# on
# Land Surface Analysis

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**LSA SAF**
Land Surface Analysis

The EUMETSAT
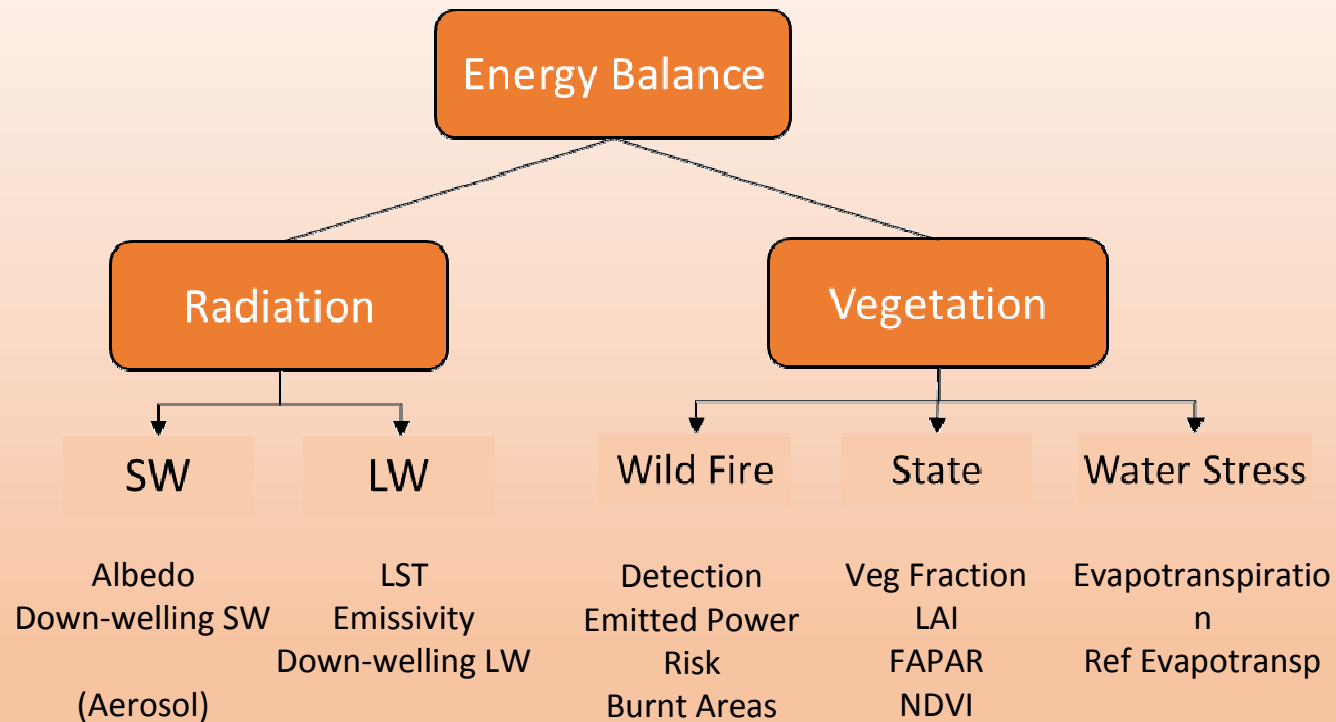Network of
Satellite Application
Facilities

## Objective

To be a leading centre for retrieval of information on land surfaces from remote sensing data, with emphasis on EUMETSAT satellites.

## Purpose

To provide NRT (up to 3 hours after observation) & offline products and user support related with **land surface** variables:

- surface radiation, both long- and short-wave components;
- vegetation, including state, stress and wild fires;
- the energy budget at the surface.

**ipma**
instituto português do mar e da atmosfera

## Registered for regular/offline acquisition of LandSAF Products

- EUMETCast: > 1000 in Jul 2014
- LandSAF website: > 1500
- ftp NRT dissemination 20-30
- UMARF



LSA SAF USERS BY COUNTRY (Website)

Users by country
- < 2
- 2 – 5
- 5 – 25
- 25 – 50
- 50 – 75
- 75 – 100
- > 100

Highcharts Â© Natural Earth

Land-SAF

The EUMETSAT
Network of
Satellite Application
Facilities

**LSA SAF**
Land Surface Analysis

User Community
- Surface modelling / Hydrology
- Forest & Agriculture Applications
- Environmental / Climate monitoring
- NWP / Air quality
- Renewable Energy (solar)

Products Files downloaded from website / month
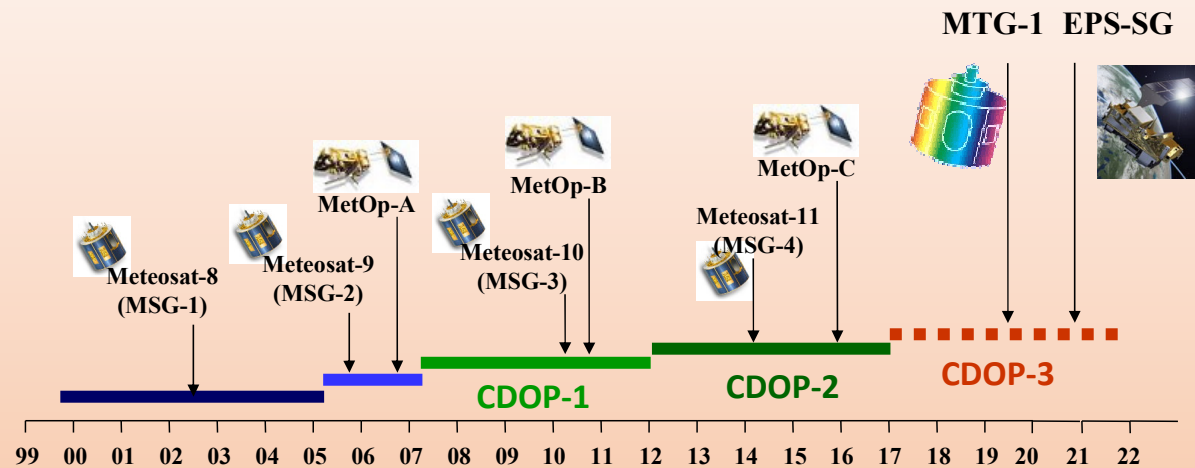Mar 2014 − Apr 2015

**The workshop aims to cover:**

- LSA SAF product characteristics and performances, and expected evolutions;

- Recent advances in remote sensing techniques relevant to terrestrial surfaces, land-atmosphere interactions, and related applications;

- The use of multi-sensor/ multi-platform, multi-temporal approaches to maximize information over heterogeneous or rapidly changing surface types;

- New developments ongoing or envisaged for the exploitation of current and future sensors relevant to the above;

- **Applications of land surface products: examples, opportunities, challenges and statements of needs and user requirements**

**Post your requirements & Suggestions in the "Product Boards"**

LSA SAF 2015 Workshop

✓ Maintain Service Continuity
✓ Prepare for the next generation of EUMETSAT Satellites

### Meteosat Third Generation

**Playload will be distributed by 2 satellites**
MTG-I (launch foreseen for 2019)
  **Flexible Combined Imager (FCI)**
      **16 channels (1km / 2 km; high-resolution 0.5 km)**
      **10 min**
  Lightning Imager (LI)
      Lightning detection (total  - cloud-cloud & cloud-ground)
MTG-S (launch foreseen for 2020 - TBC)
  Infrared Sounder (IRS)
      800 channels LWIR+ 920 channels MWIR − full disk; 4 km
      60 min
  Ultraviolet, Visible and Near-Infrared Sounding (Sentinel-4)
      UV: 305 − 400 nm; VIS: 400 − 500 nm; NIR: 755 − 775 nm
      Europe; 60 min

**Evolution of SEVIRI – based LSA SAF Products**

✓ Prepare for the next generation of EUMETSAT Satellites (...)

**EUMETSAT Polar System − Second Generation**

(launch foreseen for 2020 - TBC)

**Visible Infrared Imager (METimage)**
20 spectral channels, ranging from 0.443 to 13.345 μm with a spatial sampling of 250 to 500 m.
Heritage: AVHRR, MODIS
Baseline performance: 'AVHRR++', 'MODIS-lite

**Multi-viewing, multi-channel, multi-polarisation Imager (3MI)**
Moderate resolution optical imaging in 12 spectral channels from the ultra-violet (0.410 μm) to
the short-wave infrared (2.13 μm), at a spatial resolution of 4 km.
Heritage: POLDER
Baseline performance: as POLDER

**+ 8 other instruments**

http://landsaf.ipma.pt