



14. SE POSITIONNER AU NIVEAU BELGE ET INTERNATIONAL

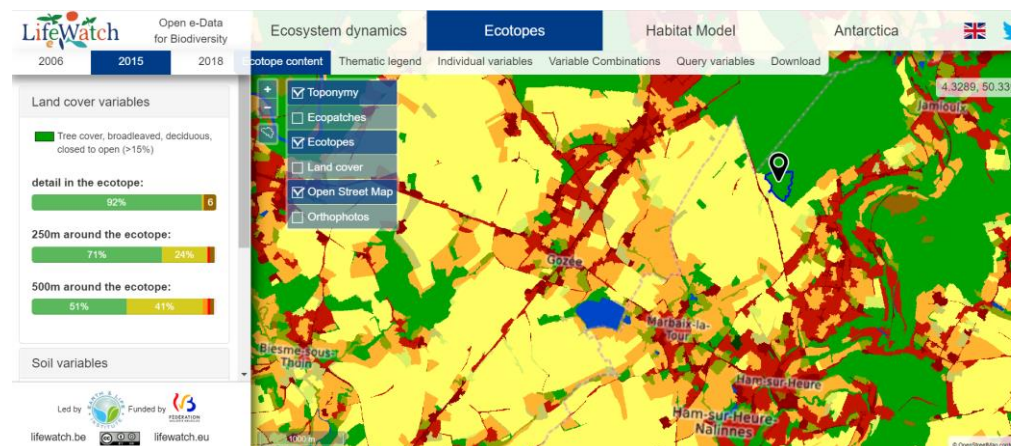
WALOUS – an innovative land use land cover for Wallonia at 1 m resolution



Data Descriptor

First 1-M Resolution Land Cover Map Labeling the Overlap in the 3rd Dimension: The 2018 Map for Wallonia

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Interactive visualisation tools: uclouvain.be/lifewatch



Open e-Data
for Biodiversity

2006

2015

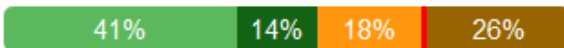
Land cover variables

Tree cover, broadleaved, deciduous, closed to open (>15%)

detail in the ecotope:



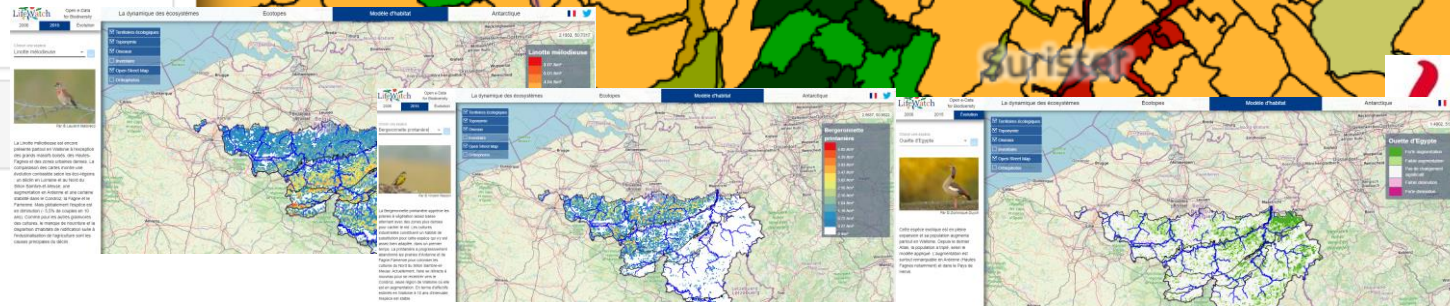
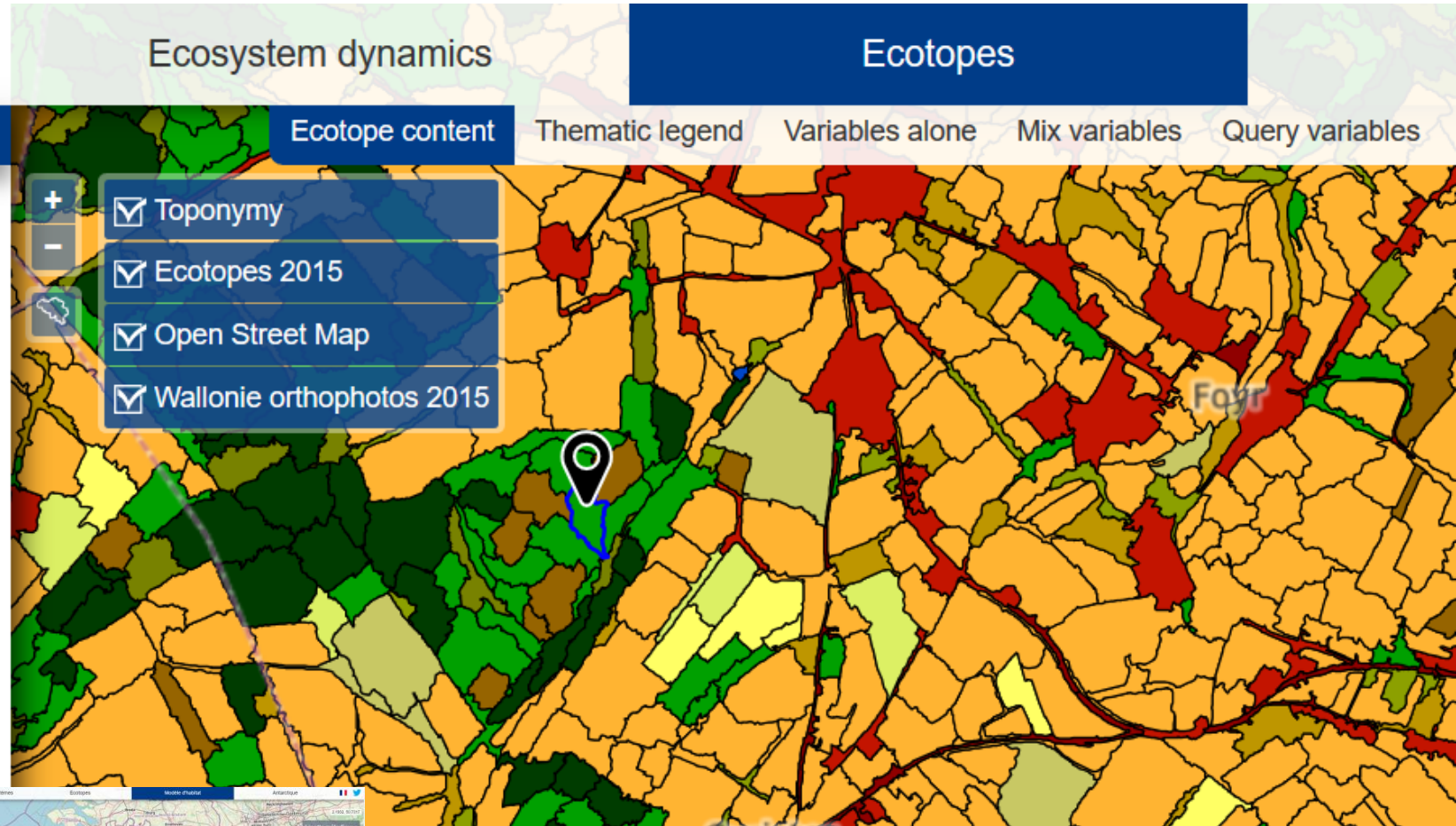
250m around the ecotope:

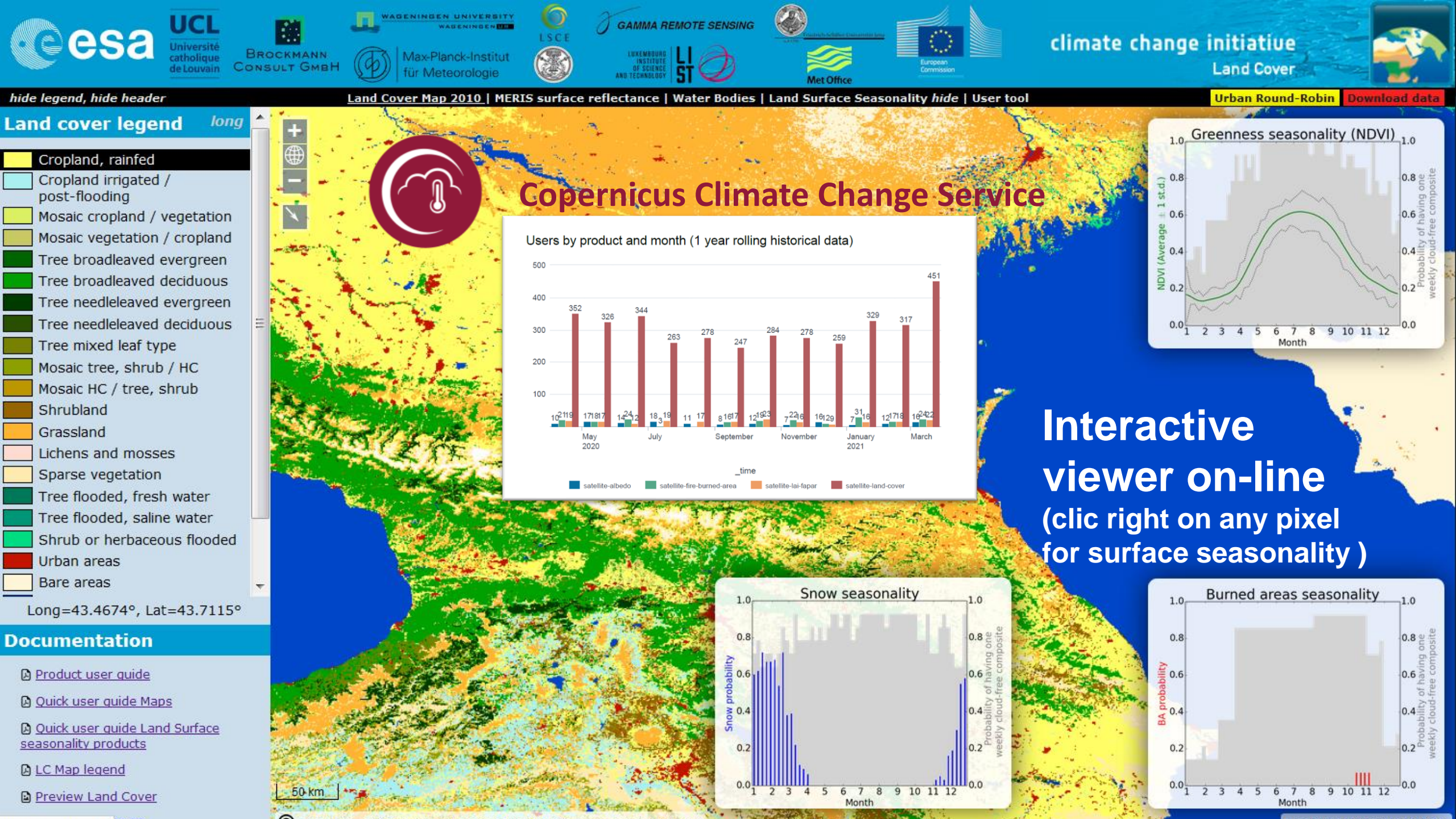


500m around the ecotope:

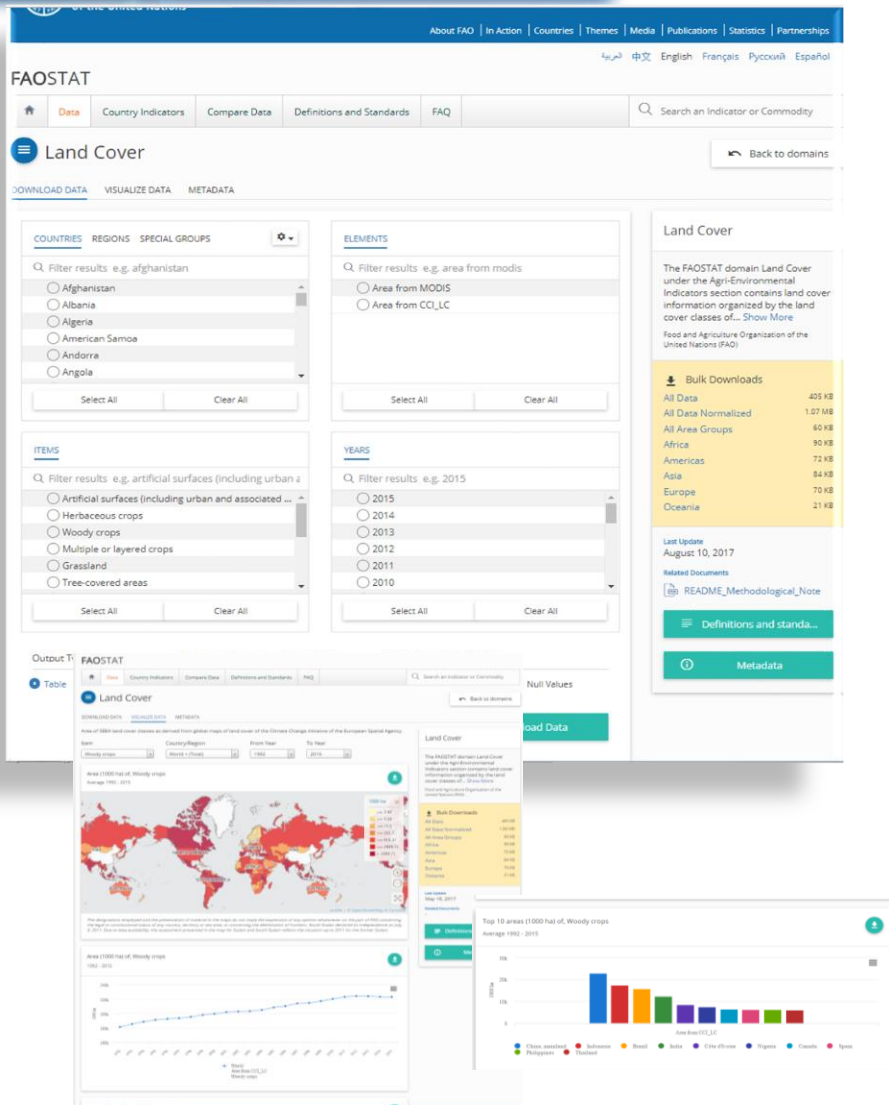


Soil variables





FAO-Stat uptake for Environ. Accounting



OECD USES ESA DATA TO MEASURE GREEN GROWTH

An OECD Green Growth headline indicator

Changes in the biophysical characteristics of natural habitats are the best proxy available to monitor pressures on ecosystems and biodiversity.

The OECD headline indicator seeks to measure changes from more natural to more anthropogenic land cover types. This is because at the global scale, natural vegetated areas are critical for the conservation of biodiversity and the provision of ecosystem services.

The headline indicator measures changes in natural and semi-natural vegetated land which is used to identify the less anthropogenic and less intensively used vegetated

land. This broad definition has the advantage of being flexible enough to apply usefully across the Earth's biomes in all their extraordinary diversity.

In its current edition, the headline indicator distinguishes nine broad land cover classes: tree cover, grassland, wetland, shrubland, sparse vegetation – classified as (semi-) natural land – as well as cropland, bare land, inland water and artificial surfaces.

Monitoring progress towards Green Growth

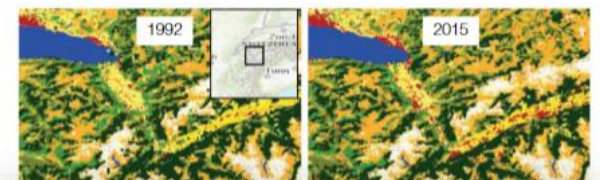
Our ability to sustain economic and social progress in the long run will depend on our capacity to reduce dependence on natural capital as a source of growth, abate pollution, enhance the quality of physical and human capital and reinforce our institutions. An indicator on changes in land use and land cover has been included in the set of Green Growth headline indicators. They are to be used in the country reports published out by the OECD, in policy analyses at national and sub-national level, and in communication by the OECD.

report and browse data on <http://oe.cd/ggi>.

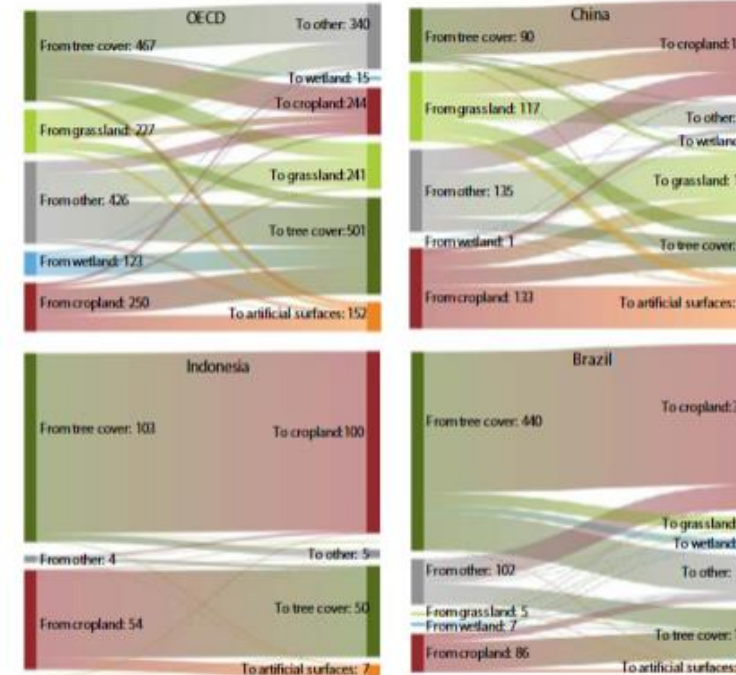


Urbanisation in the Alpine valleys

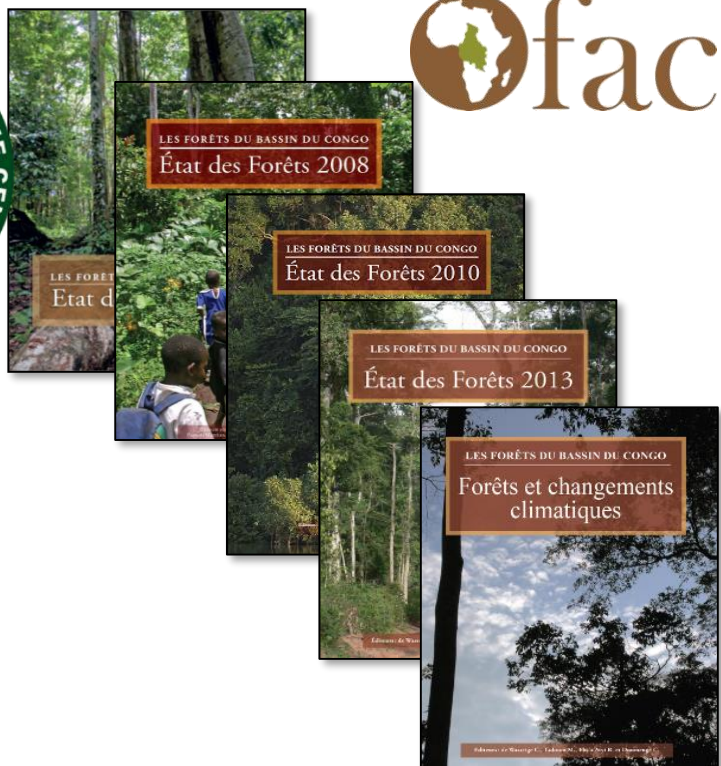
Land cover change in Haute-Savoie (left), Lake Geneva and Valais (upper left, centre and right) and Aosta (lower-right) regions of France, Switzerland and Italy. Urbanisation (red) of cropland and grassland (yellow and orange) is widespread.



Patterns of land cover change 1992-2015, thousand km²

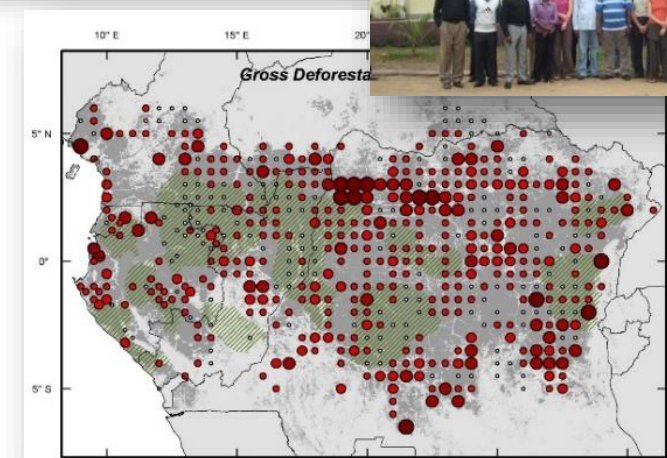


<http://www.oecd.org/env/indicators-modelling-outlooks/monitoring-land-cover-change.htm>



Central Africa Forest Observatory (OFAC) is technical and scientific body of COMIFAC (COMmission des Forêts d'Afrique Centrale) – 10 countries

Ensure the **permanent** availability of **information** on the **forests** in the region



Sen2-Agri : from an ESA project to an open source system for large scale Sentinel-2 NRT processing for agriculture



Algorithm
Development
2014

Prototypes of EO
products
2015

Demonstration
& Validation
2016-2017

Uptake &
Operations
2019...

Users Products spec.
Benchmarked Methods

System Development
Products prototype SPOT5-T5

National use cases
Local use cases

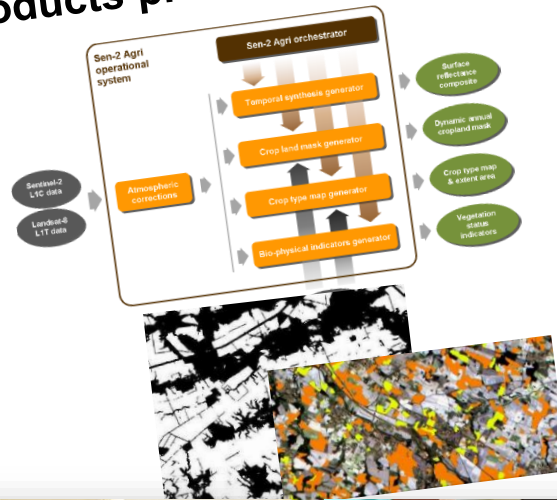
800+ downloads

20+ large scale
Implementation

System support

Bi-monthly
webinars

Capacity



Capacity building
Training activities

Fitness-to-use
assessment



Kiev – October 2016



Bamako – March 2017



Pretoria – May 2017

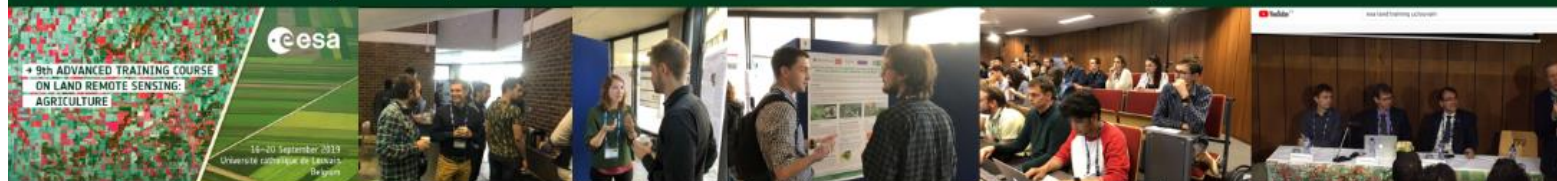


9th ESA Advanced Training Course on Land Remote Sensing (focus Agriculture)

UCLouvain - 16 - 20 September 2019



92 participants – 32 nationalities – 20+ Sen2Agri users



Access

PLAY VIDEO

Description

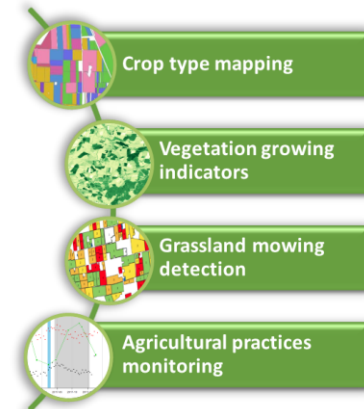
Educational materials from the [9th ESA Advanced Training Course on Land Remote Sensing 2019 \(focus on Agriculture\)](#) held in Louvain-la-Neuve, Belgium, on 16-20 September 2019.

Access specific videos (click on) – presentation slides (click on) – and exercise data (click on) from the lessons here below or access the full video playlist from the window left side link.

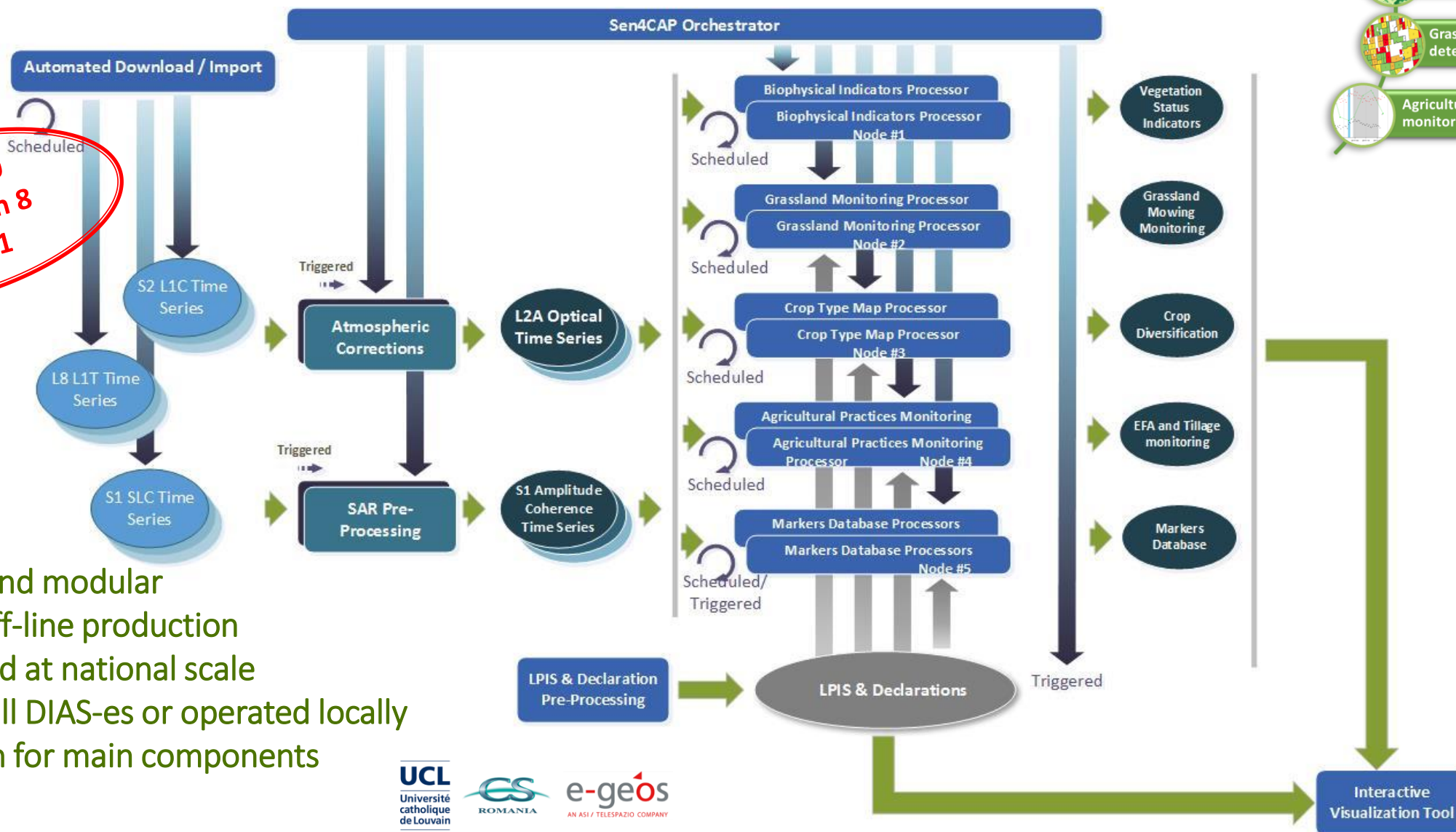


sentinel-2

→ AGRICULTURE



Version 2.0
delivered on 8
Feb. 2021



- ❖ Automated and modular
- ❖ For NRT or off-line production
- ❖ Demonstrated at national scale
- ❖ Portable on all DIAS-es or operated locally
- ❖ Dockerization for main components

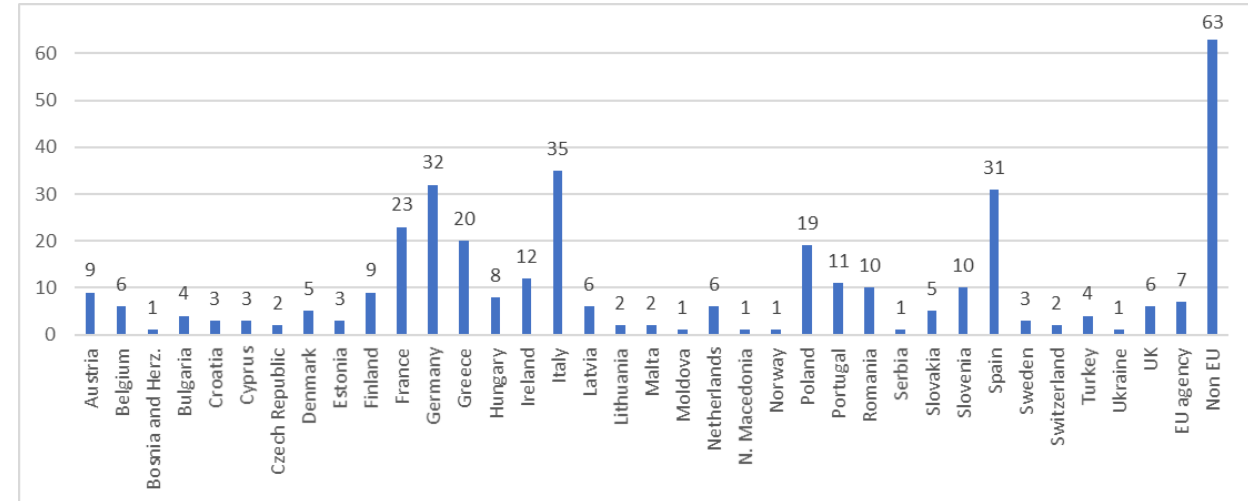
Capacity building & User support

Physical & online hands-on training



- Belgium (Jan. 2020): 44 participants from 20 different countries
- Online training in Apr. 2020, 100 + participants

370+ downloads of the Sen4CAP system since Nov. 2019



Sen4CAP as a service on DIAS

Regular webinars and Q&A sessions

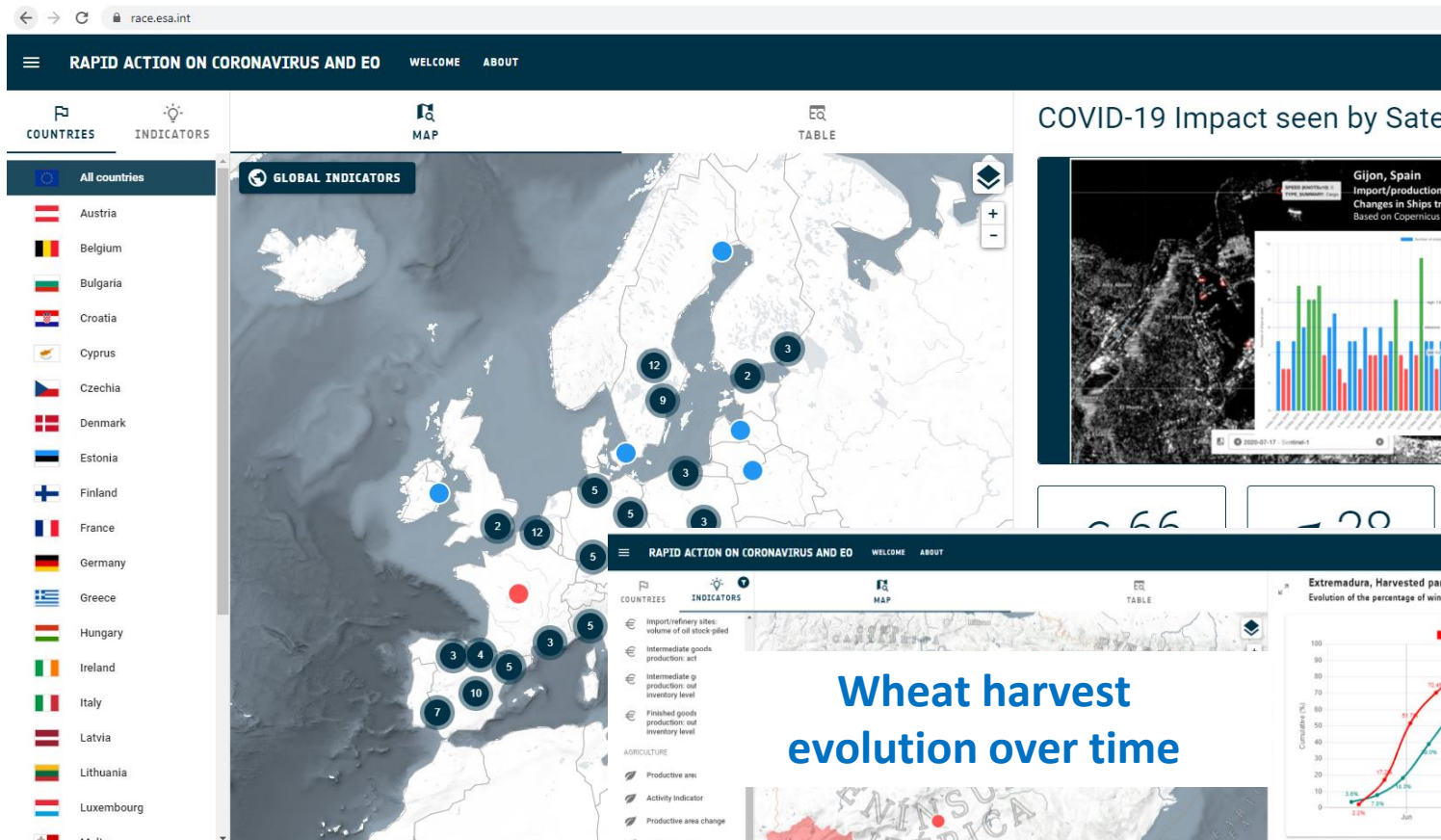
- 60 to 150 participants each time

All resources available online

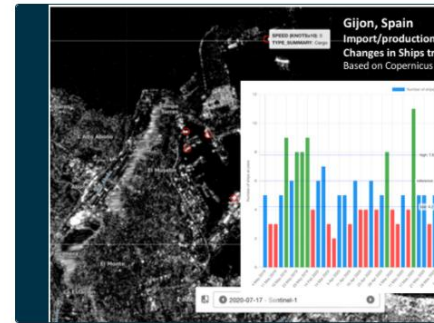
<http://esa-sen4cap.org/content/resources>

Rapid Action Coronavirus Earth observation dashboard (EC-ESA & NASA)

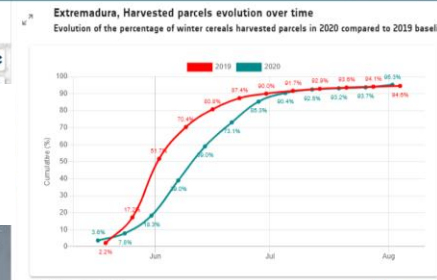
- EO data to measure the impact of the lockdown on crop and fruits production



COVID-19 Impact seen by Satel



Wheat harvest evolution over time



Impact of COVID19 on winter cereals growth and harvest – Spain

It is now recognized that the lockdown due to COVID19 outbreak has led to severe restrictions in seasonal workers movements and to a sharp decline in demand on perishable produce such as fresh vegetables (e.g. asparagus) and fruits (e.g. red berries). It is also important to know if the pandemic could impact the growth or harvest of main staple crops as well and thus have a direct incidence on national food security. Even if staple crops are a priori less sensitive to a lack of foreign workers and a drop of demand, production could still be affected by shortages of inputs such as fertilizers and veterinary medicines or lack of labor and spare parts in case of farm equipment problems [1]. Such potential limitations create uncertainty in the food commodity markets which satellite Earth Observation (EO) can help reduce with timely and transparent information – a goal the GEOGLAM initiative is addressing [2].

In Spain, winter cereals are cultivated over around 5,562,000 hectares (five-year average), corresponding to a production of 16,294,000 tons [3]. They are mainly found in the autonomous

Cumulated wheat harvested area

