EO for Africa Symposium 2024

23 - 26 September 2024

ESA | ESRIN, Frascati (IT)

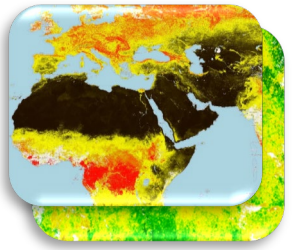
Copernicus Land Monitoring Service

15/07/2024

ESA UNCLASSIFIED - For ESA Official Use Only

Land Monitoring

Vegetation



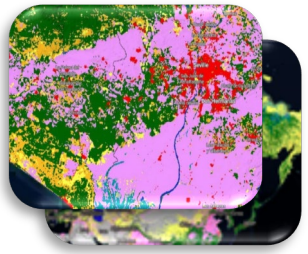
FAPAR 2016 - present
NDVI 2020 - present
LAI 2014 – present
...

Global Image Mosaic

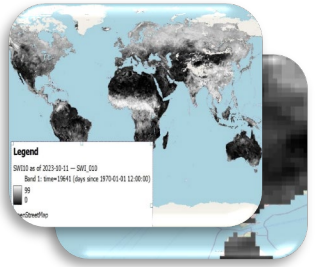
S2GM 2017-present

Global Land Cover

2015-16-17-18-19-24

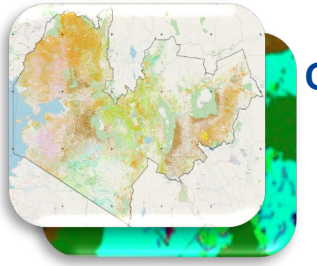


Energy



Soil Water Index 2007 - present
Surface Soil Moisture 2014-present
Land Surface Temperature 2021 - present
...

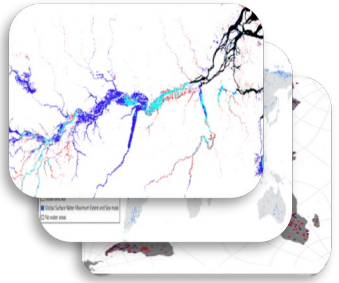
Hot Spot Monitoring



Copernicus4GEOGLAM - agriculture
HSM – biodiversity

Cryosphere

Water

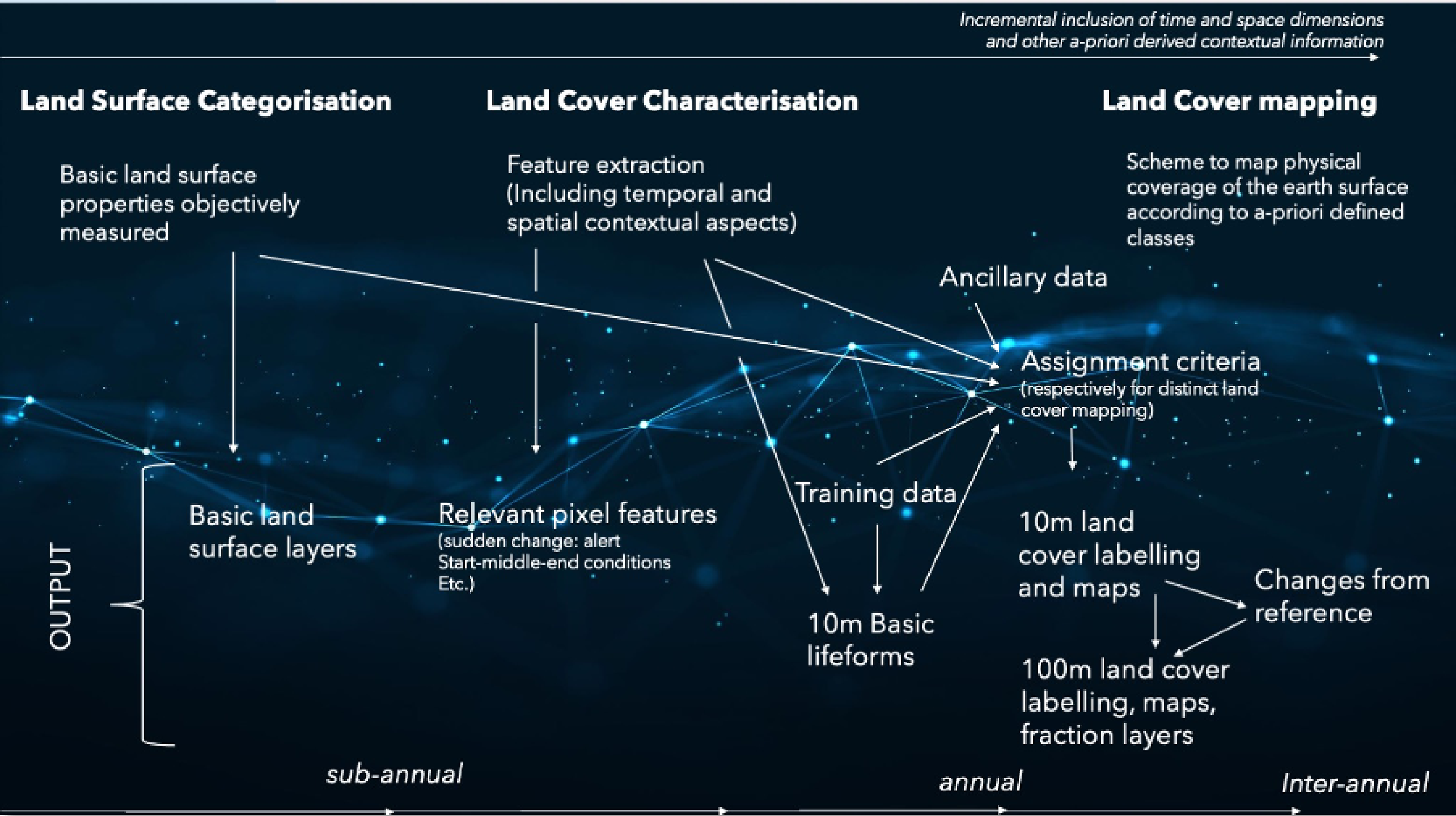


Water Bodies 2020 - present
Lake turbidity 2019 - present
Lake surface water temperature 2016 - present
...

Reference & Validation

GBOV 2013 - present

Snow Cover Extent 2018 - present
Snow Water Equivalent 2008-present


Incremental inclusion of time and space dimensions
and other a-priori derived contextual information
Land Surface Categorisation
Land Cover Characterisation
Land Cover mapping
Basic land surface properties objectively measured
Feature extraction (Including temporal and spatial contextual aspects)
Scheme to map physical coverage of the earth surface according to a-priori defined classes
Ancillary data
Assignment criteria
(respectively for distinct land cover mapping)
Training data
Basic land surface layers
Relevant pixel features
(sudden change: alert
Start-middle-end conditions
Etc.)
10m Basic lifeforms
10m land cover labelling and maps
Changes from reference
100m land cover labelling, maps, fraction layers
OUTPUT
sub-annual
annual
Inter-annual