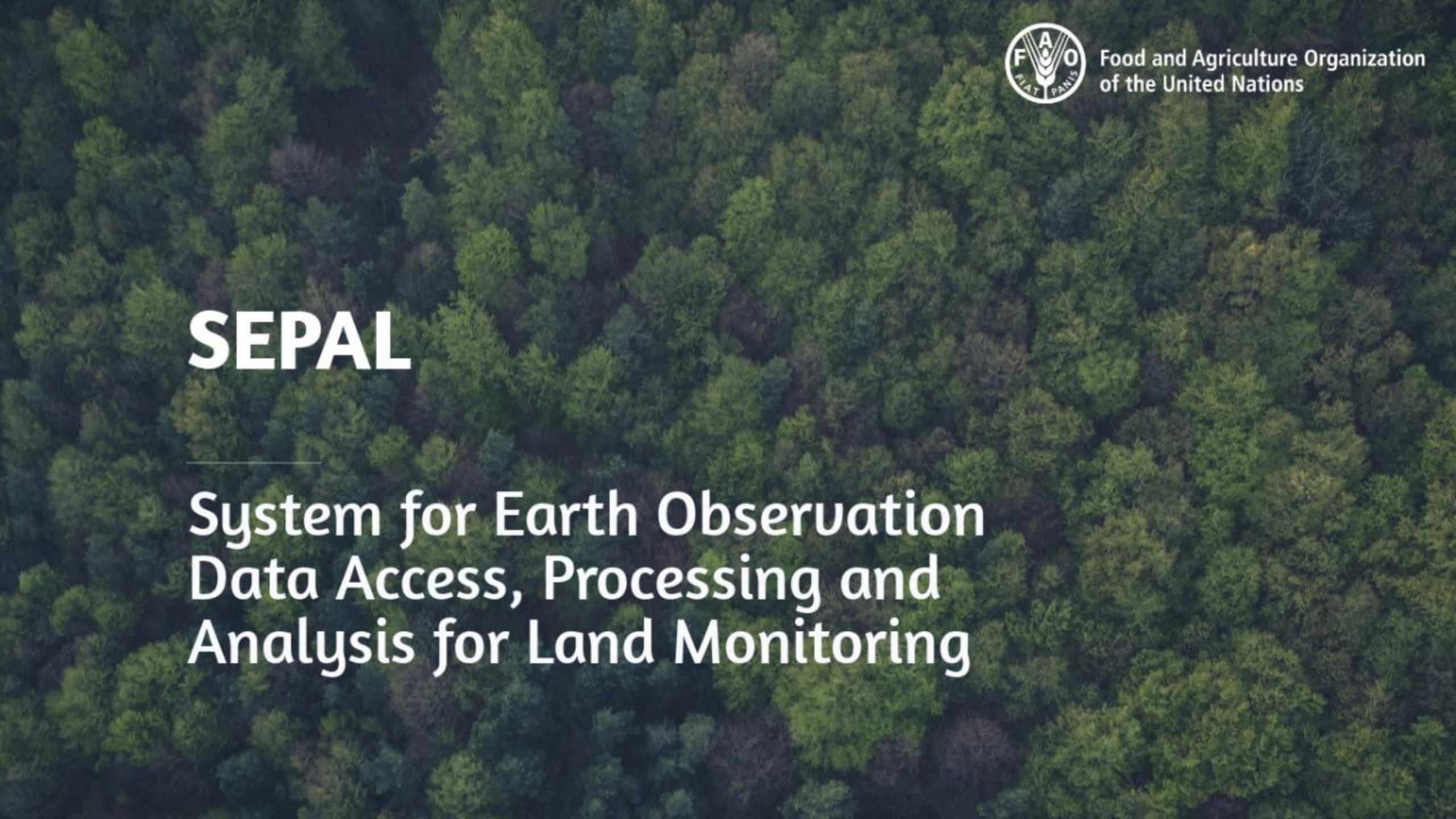


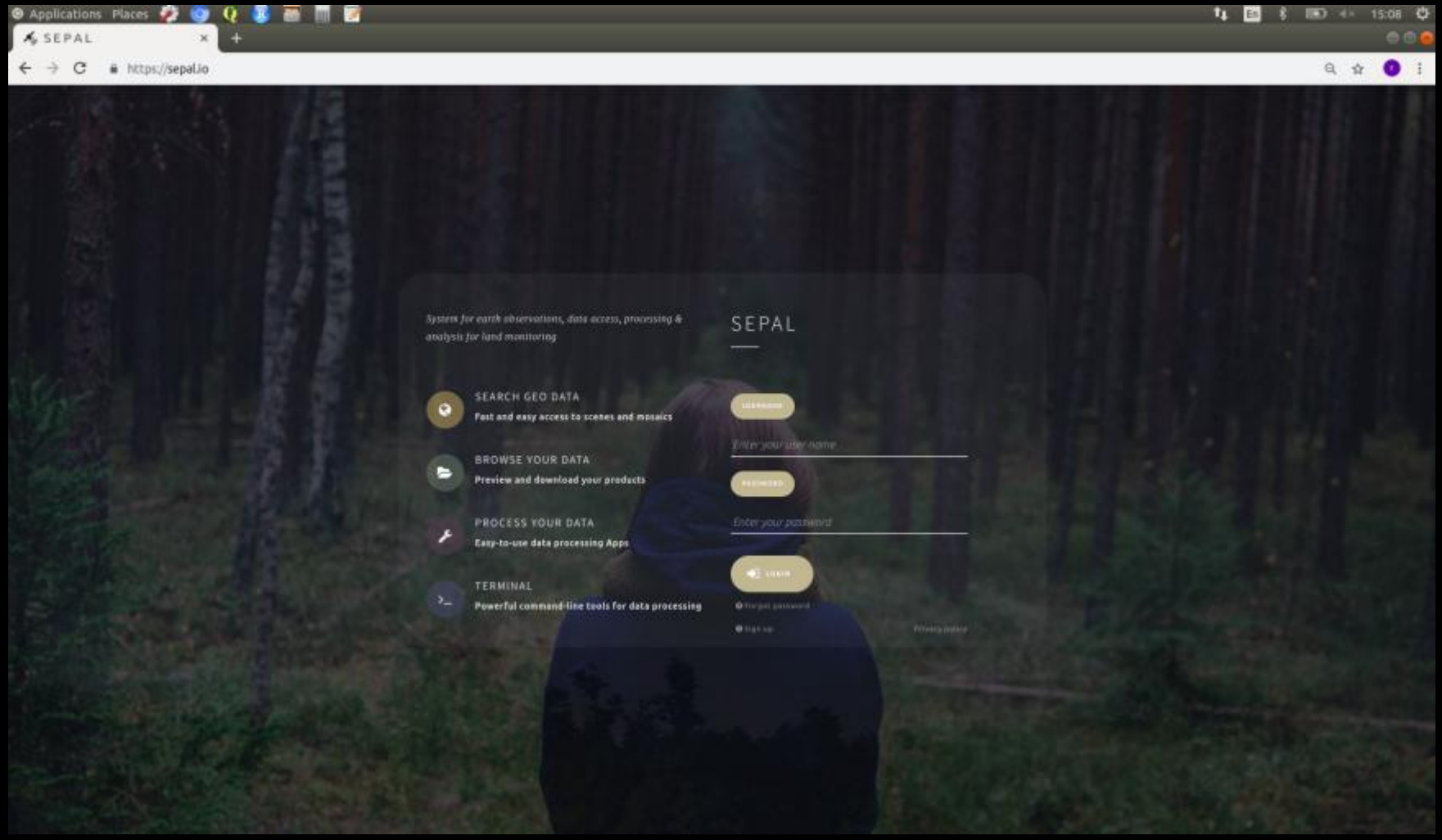
Food and Agriculture Organization of the United Nations

SEPAL

System for Earth Observation Data Access, Processing and Analysis for Land Monitoring

Cloud-based catalyst for autonomous land monitoring

@ sepal.io



Open source

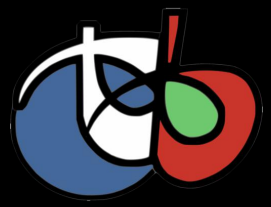
Easy processing of earth observation data

Reduce time from innovation to adoption

Remove fear of making mistakes: fail fast

SEPAL functionnalities

Optical mosaics (Sentinel 2 and Landsat)
Supervised change detection
Thematic classification



Segmentation
Object based analysis

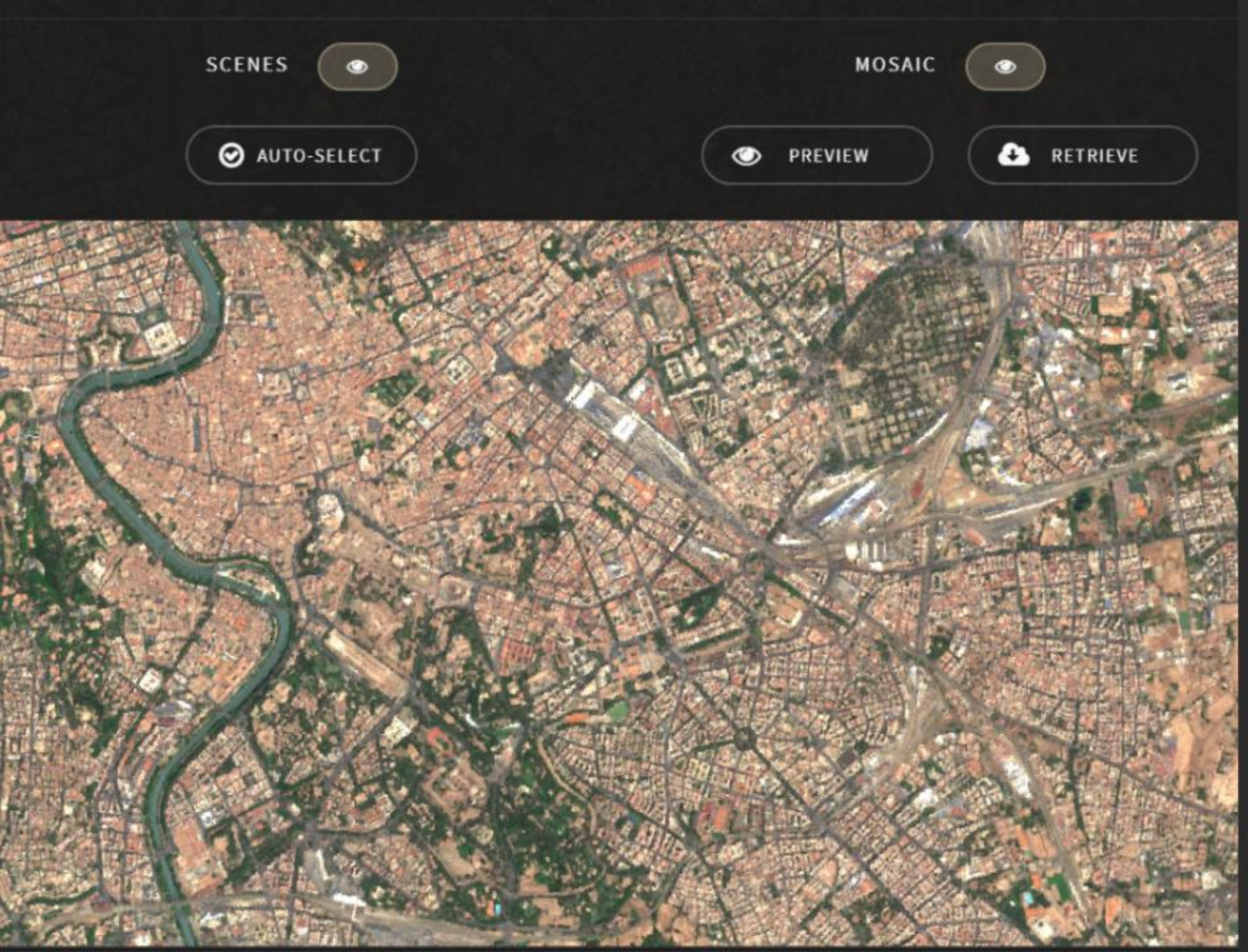
Radar data processing

Sampling based analysis

OPENFORIS

Use you own processing chains on a powerful server

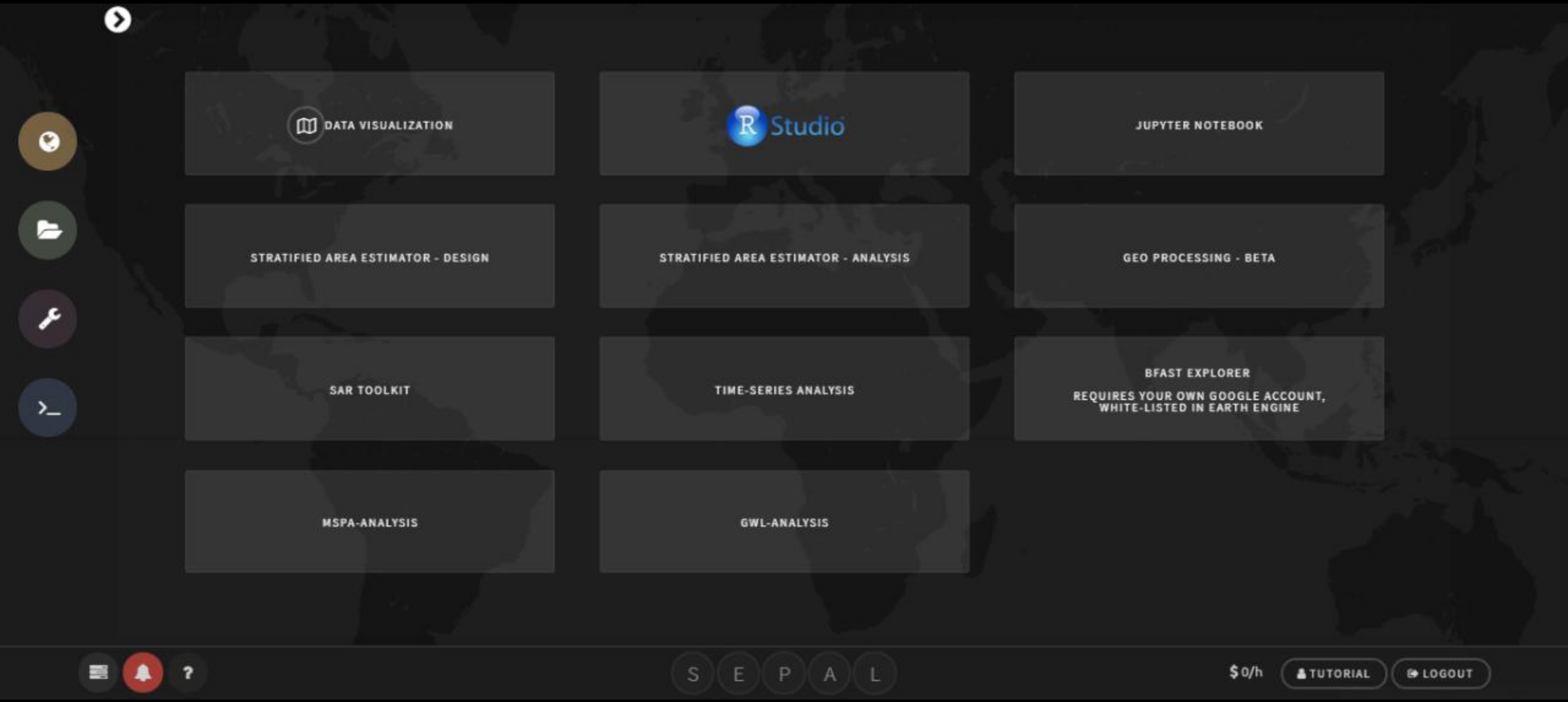
```
1     t2.small, 1 CPU / 2.0 GiB, 0.025 USD/h
2     m3.medium, 1 CPU / 3.75 GiB, 0.073 USD/h
3     m4.large, 2 CPU / 8.0 GiB, 0.119 USD/h
4     m4.xlarge, 4 CPU / 16.0 GiB, 0.238 USD/h
5     m4.2xlarge, 8 CPU / 32.0 GiB, 0.475 USD/h
6     m4.4xlarge, 16 CPU / 64.0 GiB, 0.95 USD/h
7     m4.10xlarge, 40 CPU / 160.0 GiB, 2.377 USD/h
8     m4.16xlarge, 64 CPU / 256.0 GiB, 3.803 USD/h
9     c4.large, 2 CPU / 3.75 GiB, 0.113 USD/h
10    c4.xlarge, 4 CPU / 7.5 GiB, 0.226 USD/h
11    c4.2xlarge, 8 CPU / 15.0 GiB, 0.453 USD/h
12    c4.4xlarge, 16 CPU / 30.0 GiB, 0.905 USD/h
13    c4.8xlarge, 36 CPU / 60.0 GiB, 1.811 USD/h
14    r4.large, 2 CPU / 15.25 GiB, 0.148 USD/h
15    r4.xlarge, 4 CPU / 30.5 GiB, 0.296 USD/h
16    r4.2xlarge, 8 CPU / 61.0 GiB, 0.593 USD/h
17    r4.4xlarge, 16 CPU / 122.0 GiB, 1.186 USD/h
18    r4.8xlarge, 32 CPU / 244.0 GiB, 2.371 USD/h
19    r4.16xlarge, 64 CPU / 488.0 GiB, 4.742 USD/h
20    x1.16xlarge, 64 CPU / 976.0 GiB, 8.003 USD/h
21    x1.32xlarge, 128 CPU / 1920.0 GiB, 16.006 USD/h
```



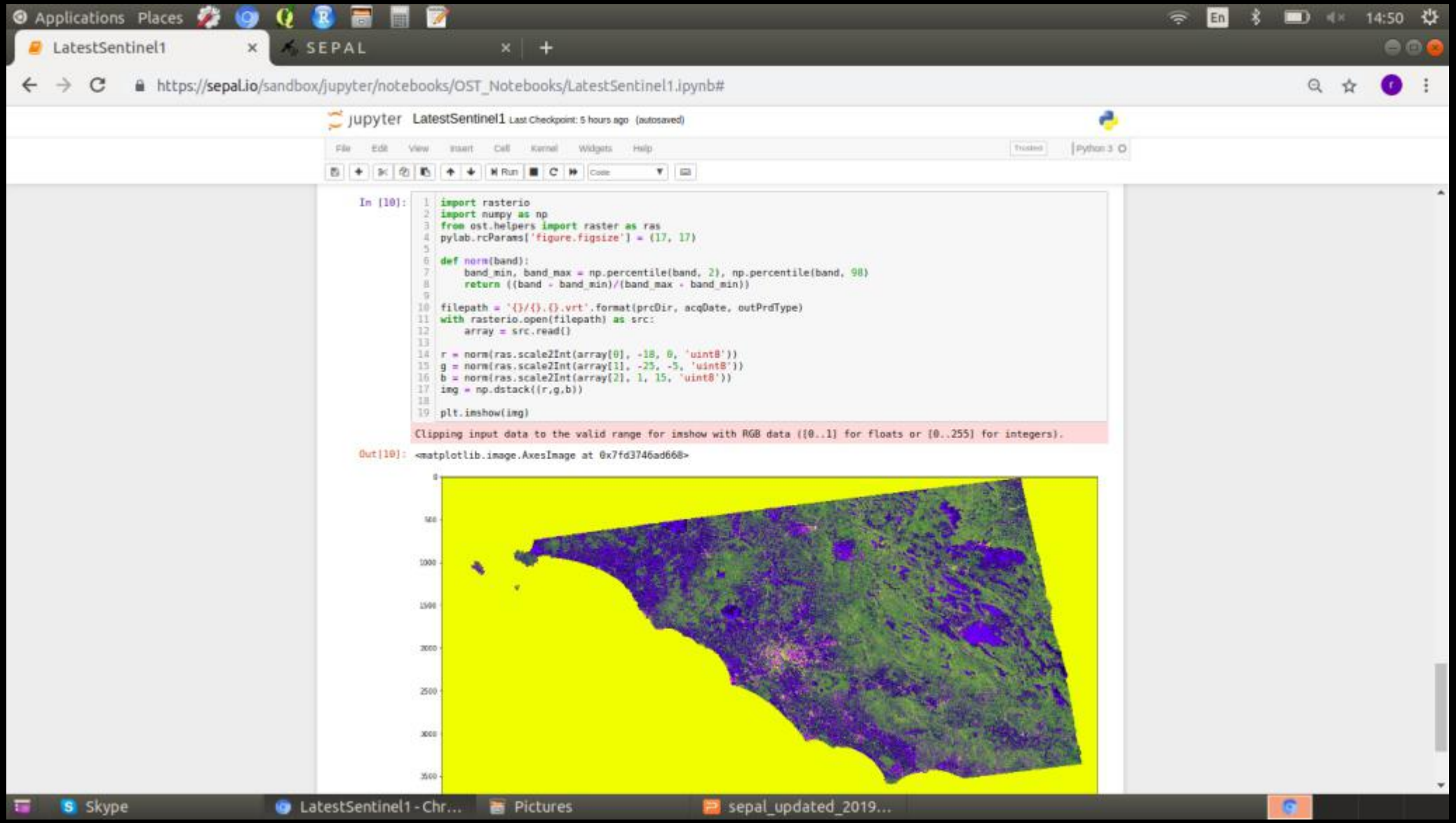
Bring the data to the people

(and algorithms, software and recipes)

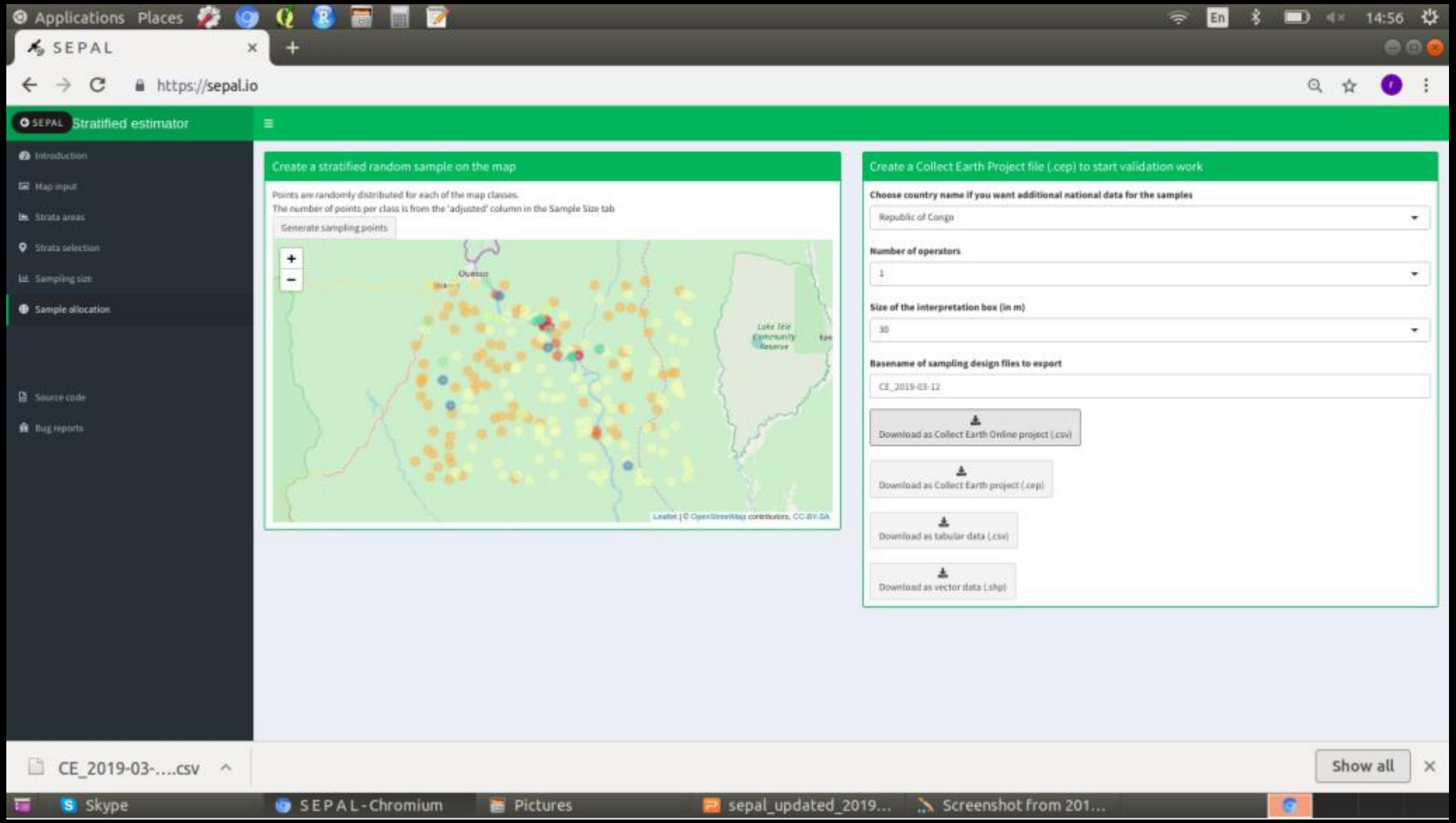
SEPAL Modules for Extended Capacity and Collaboration



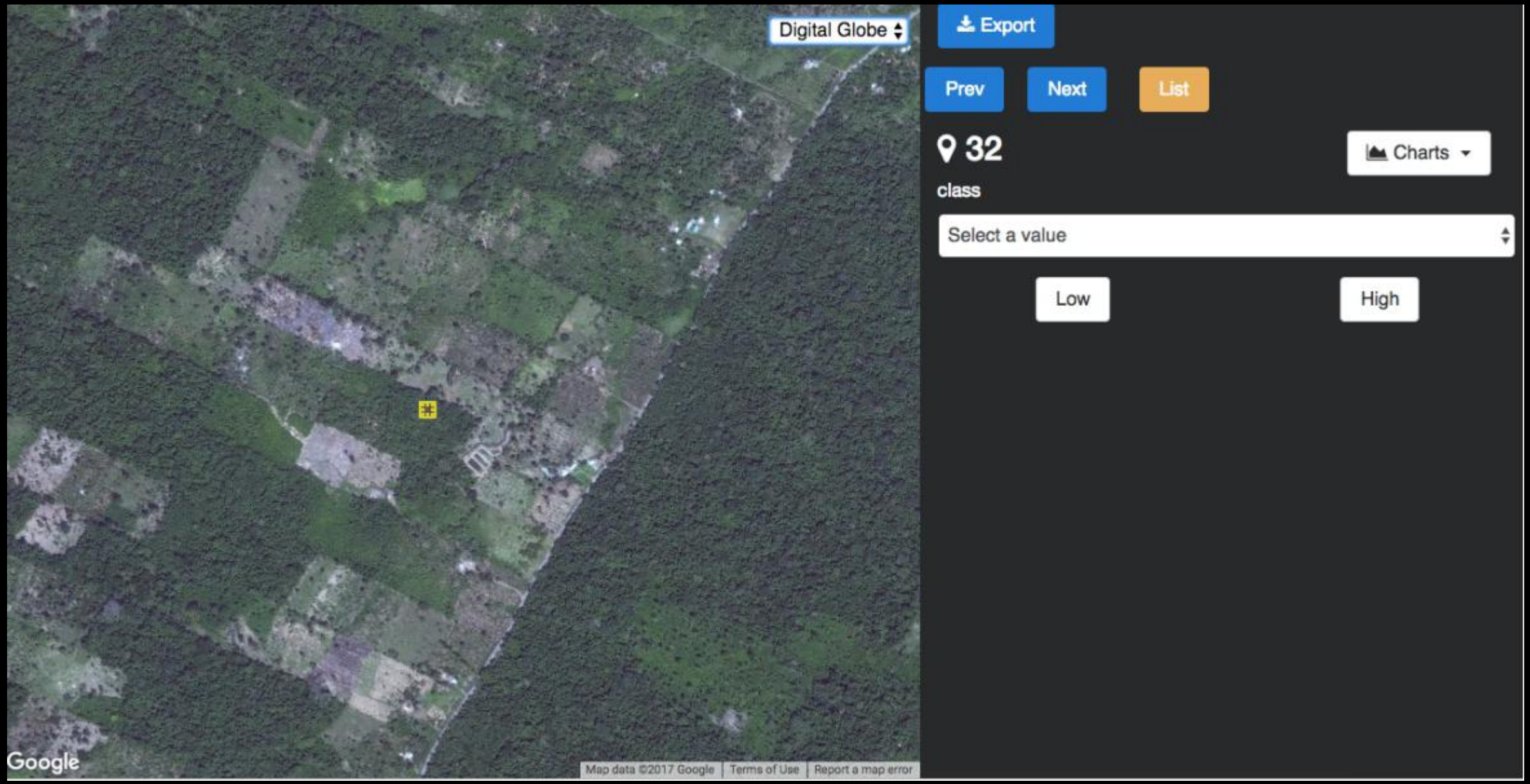
PYTHON NOTEBOOKS: Analysis ready Radar images



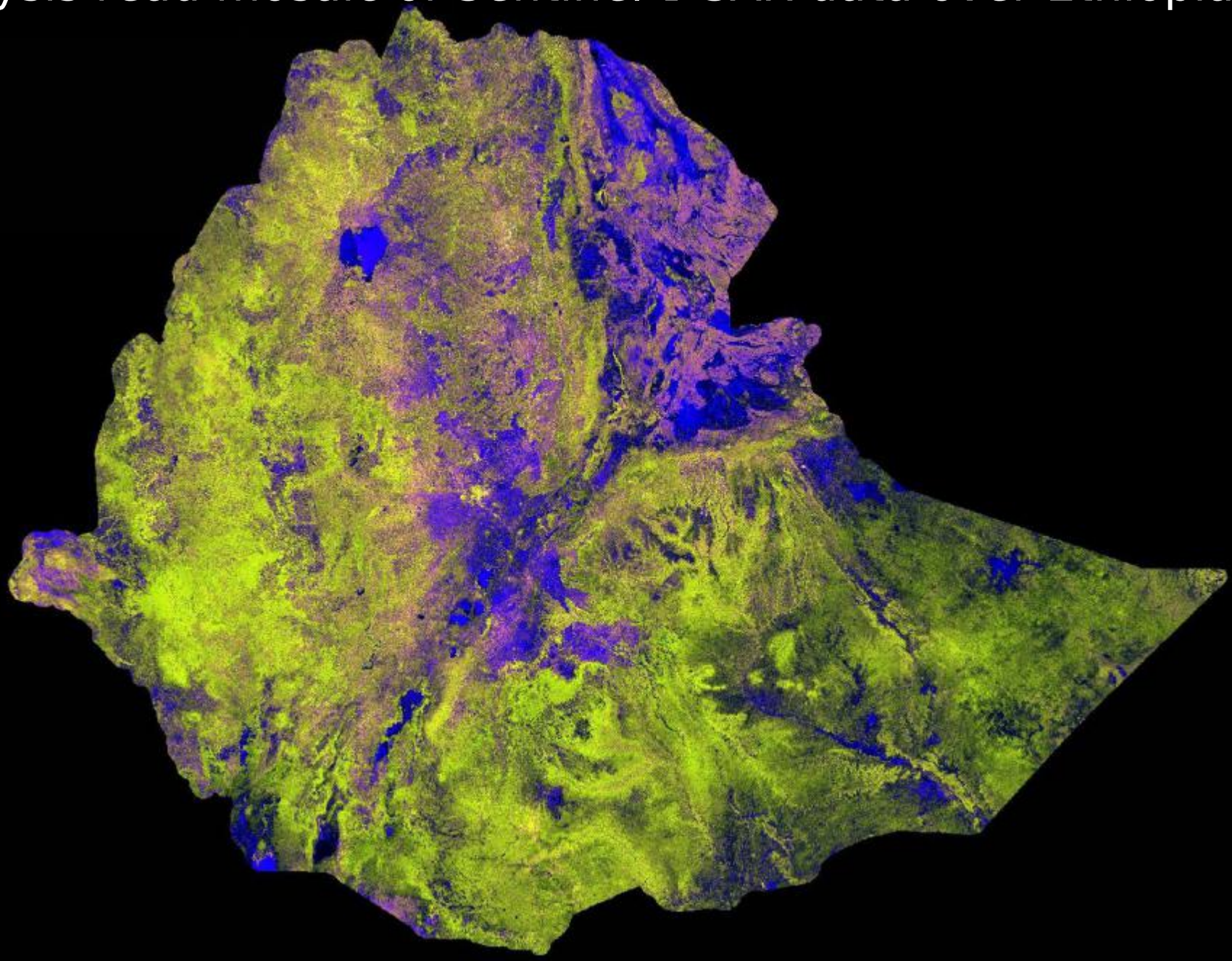
RSTUDIO SHINY: stratified area estimation from design to analysis



Sample-based assessments – Training and Reference Data

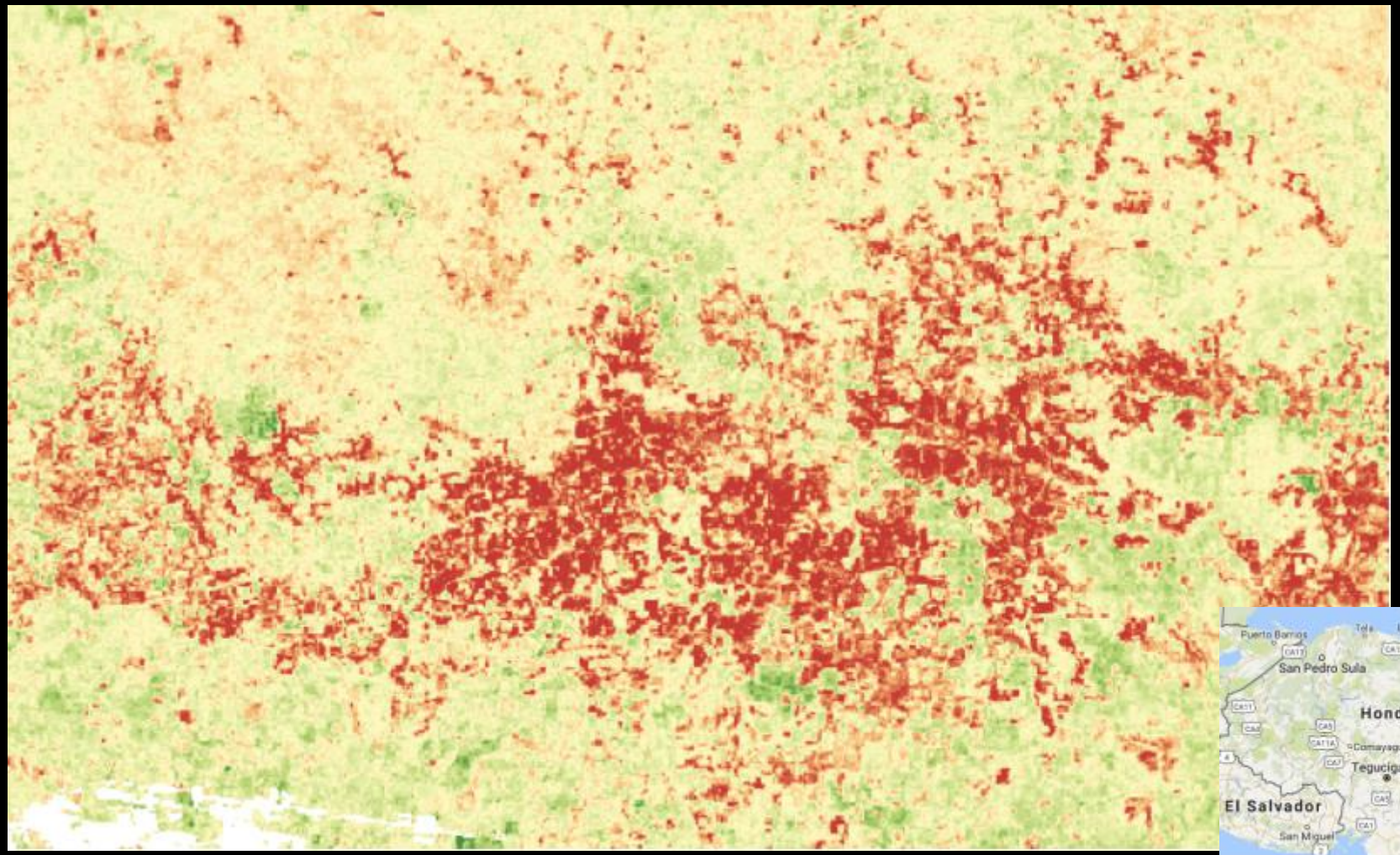


Analysis read mosaic of Sentinel 1 SAR data over Ethiopia

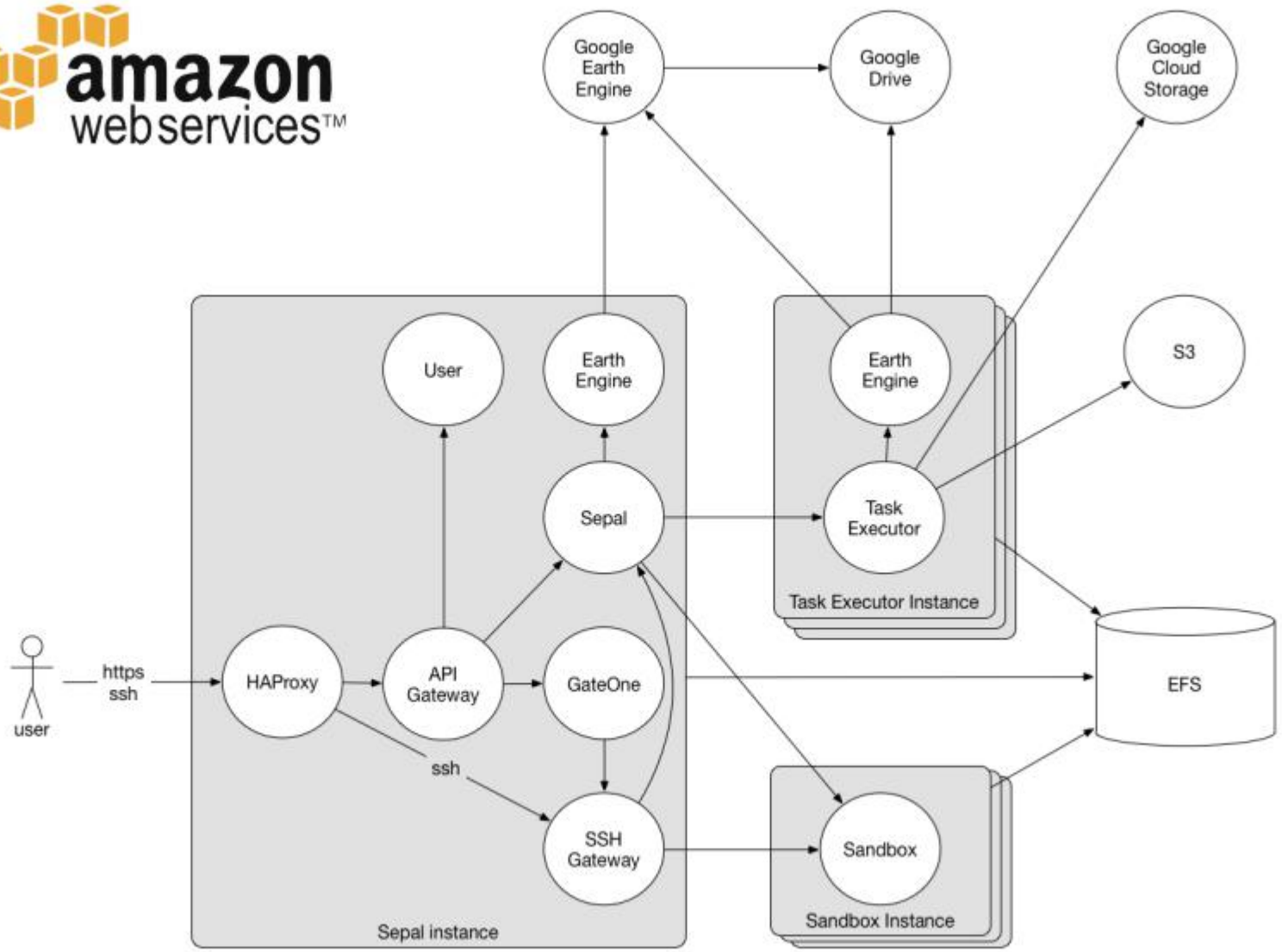


Andreas Vollrath

Landsat Time-series Analysis – Honduras Insect Damage



Every acquisition from 2010 – 2018 processed


amazon
web services™
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Engine
Google
Drive
Google
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Storage
S3
User
Earth
Engine
Earth
Engine
Sepal
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ssh
HAProxy
API
Gateway
GateOne
ssh
SSH
Gateway
Sandbox
Sandbox Instance
Sepal instance

Food and Agriculture Organization of the United Nations

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Many more...