



## eLTER tools workshop

7-9 February 2023

INRAE, Lyon, France

### Tuesday 7 February

#### 9-9:30 Opening

#### 9:30-13 DataLabs (Will Bolton, UK CEH)

- DataLabs project space
  - Using and administering your project space
  - Creating project storage (NFS and object store), uploading files
- Creating a Jupyter lab (the interface, terminal interface, kernels) and working collaboratively with it
- Creating new Conda environments and managing packages within Conda
  - Example analysis
- Create Rstudio project
  - installing packages
  - example analysis
  - manages packages within R (Packrat)
- DASK
  - Creating DASK cluster
  - Start DASK cluster, access the DASK dashboard, Perform DASK calculation, Delete DASK cluster
- SPARK
  - Creating a SPARK cluster
  - Start SPARK session, perform SPARK calculation
  - Delete SPARK Cluster
- Using object storage in DataLabs
  - python
  - terminal
- Jupyter Dashboards, using Panel and Voila (Creating and using Panel and Voila sites)
- Using RShiny (Setting up Rshiny sites)
- Using the DataLabs catalogue
- User administration tools

#### 13-14 Lunch

## 14-17 DEIMS (Christoph Wohner, EAA)

- General overview (scope, usage, quality assurance, basic search functionality)
- GeoData Services (GIS knowledge recommended)
- REST-API (basic web programming knowledge recommended)
- deimsPy (basic Python knowledge is recommended)
  - Showing examples using datalabs
- Exercise: Working with deims data (probably 2-3 different options depending on skills and interests)
  - Desktop GIS exercise (e.g. making maps of sites and networks using deims data) OR
  - Query deims using either
    - deimsPy OR
    - REST-API

## Wednesday 8 February

### 9-13 Cookie cutting (Will Bolton, UK CEH)

- Existing data overview
- Compatible data types
- Processing data

### 13-14 lunch

### 14-17 Site visit, Yzeron catchment ([in DEIMS](#) and [here](#))

## Thursday 9 February

### 9-13 ReLTER (Micha Silver, BGU; Alessandro Oggioni, CNR; Paolo Tagliolato, CNR)

- Description about the package's approach
- Examples of different functions, including a description of the outputs of the functions
- Advanced functions: interaction with remote sensing products, biodiversity repositories, data shared with DEIMS-SDR, Zenodo upload and download dataset, interaction with SOS service for download data
- A mentimeter session will be proposed to collect suggestions for new functions or improvements to the package.

### 13-14 Lunch

### 14-16:30 Pheno-App (Diego Garcia, CSIC)

- Access to GeeLTERMap (through either Datalab or Google colab)
- demonstration of the different available products (MODIS, S2 Phenopy NDVI, Copernicus VPP PPI)
- Available metrics (SOS, EOS, LOS)
- Data download for specific eLTER site
- In situ data upload for eLTER sites with available historical datasets

### 16:30-17 Closing up