**High Resolution Vegetation Phenology and Productivity (HR-VPP)**

This dataset is derived from the **Copernicus Sentinel Programme** and is specifically designed for monitoring vegetation dynamics at a high spatial resolution. The data is already harmonised.

#### **Source and Access**

The dataset is available for viewing and download from the **WEkEO Platform**: [www.wekeo.eu](http://www.wekeo.eu). Here however, only individual images can be downloaded.

#### **Available Products**

The HR-VPP dataset provides the following vegetation indices:

1. **Plant Phenology Index (PPI):** Indicator of plant phenological stages.
2. **Normalized Difference Vegetation Index (NDVI):** Proxy for vegetation greenness and density.
3. **Fraction of Absorbed Photosynthetically Active Radiation (FAPAR):** Measures the efficiency of photosynthesis.
4. **Leaf Area Index (LAI):** Represents the leaf area per unit ground surface area.

#### **Quality Layer (QFLAG2)**

A quality assurance layer, **QFLAG2**, is included in the dataset. This layer provides information on the reliability of data points, including **Cloud cover and shadows and other impacting conditions**. The codes in the .tif file represent different disturbances.

**For quality control and filtering advises see** the official Product User Manual [here](https://land.copernicus.eu/en/technical-library/product-user-manual-of-vegetation-indices/@@download/file) (page 24 & 25).

#### **Technical Specifications**

* **Spatial Resolution:** 10 x 10 m
* **Projection:** UTM/WGS84
* **Temporal Coverage:**
  + **Sentinel-2A:** Data available from October 2016 onwards
  + **Sentinel-2B:** Data available from 2017 onwards

### **Downloading and Processing the Data**

To download the HR-VPP dataset, an R scripts is attached for downloading specified products in different time ranges and locations.

For questions regarding product specification, processing steps or quality filtering, consult the provided [user manuals](https://land.copernicus.eu/en/products/vegetation/high-resolution-normalised-difference-vegetation-index).