

## NextGEOSS Biodiversity Pilot:

# Remote Sensing-enabled Essential Biodiversity Variables Data-hub for European Habitat Mapping

**A Creating the NextGEOSS European RS-enabled EBVs Data-hub**  
The NextGEOSS European RS-enabled EBVs data-hub was created.

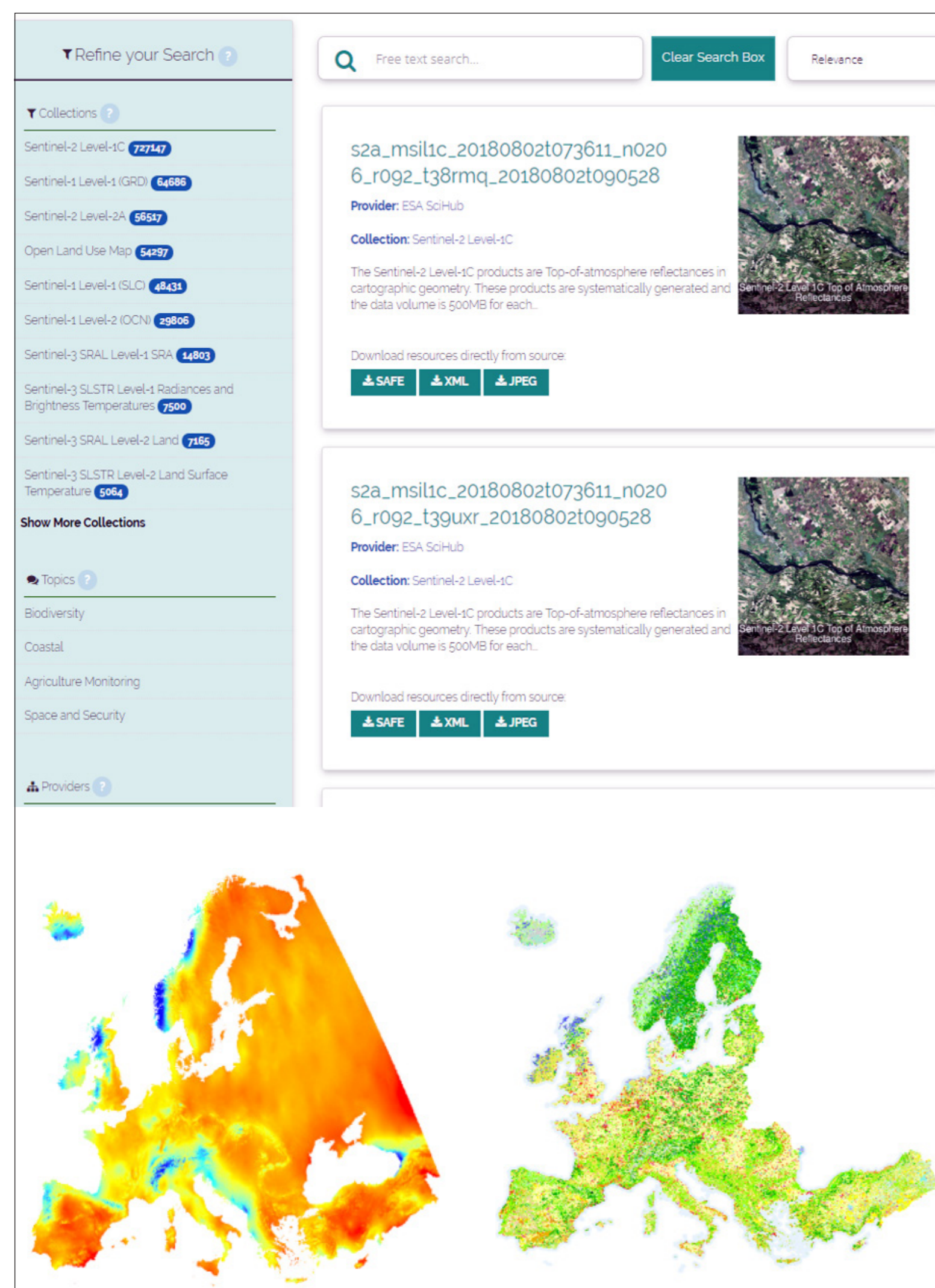


Fig. 1. NextGEOSS data-hub

**B Generating RS-enabled EBVs**  
From the RS-enabled EBVs, which were initially proposed to be derived from high-resolution satellite data (Sentinel-2), leaf area index (LAI) was selected.

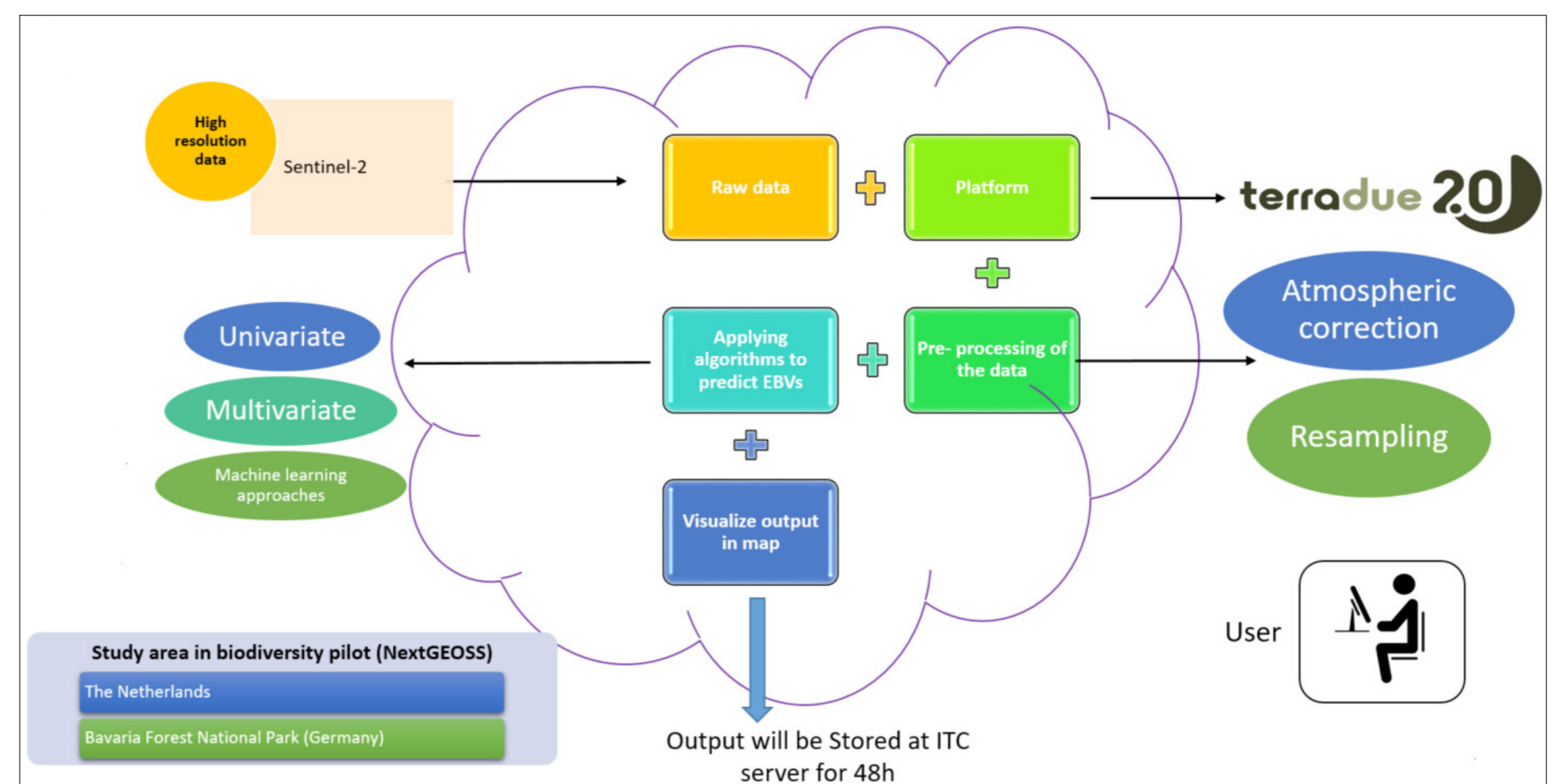


Fig. 2. The integration process for data processing for the prediction of the RS-enabled EBVs (e.g., LAI) over the Netherlands on Terradue cloud platform

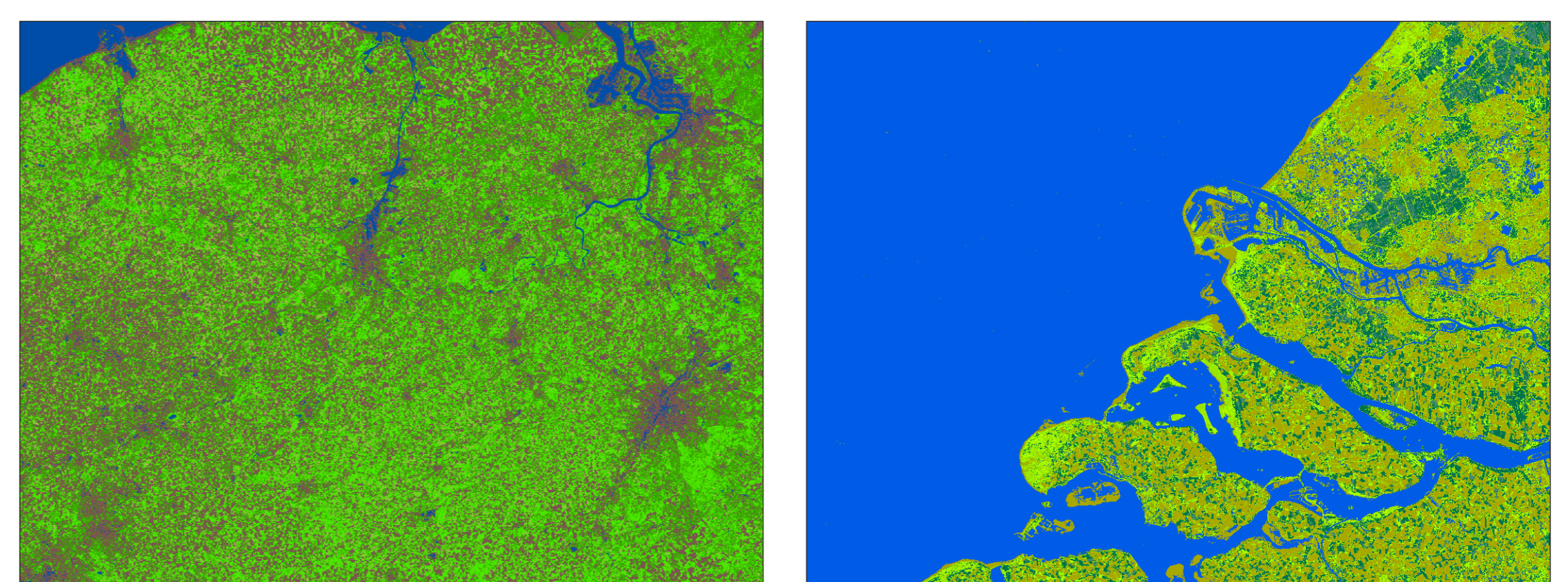


Fig. 3. Leaf area index predicted over the Netherlands using Sentinel-2 data, on 6 May 2018 in NextGEOSS biodiversity pilot.

## C Remote Sensing-enabled EBV's for European Habitat Mapping

- Using 1,5 M vegetation plot records as input (Derived from the European Vegetation Archive) covering ~200 EUNIS habitats for modelling.
- Selection of a maximum of 30 predictors (Comprising 7 climate parameters, 10 soil and terrain parameters, and 13 RS-EBVs).
- Using open source software Maxent, version 3.4.1 for the habitat modelling, by applying a machine-learning technique called maximum entropy modelling.
- Running the modelling process in the cloud which is controlled by a WPS client.

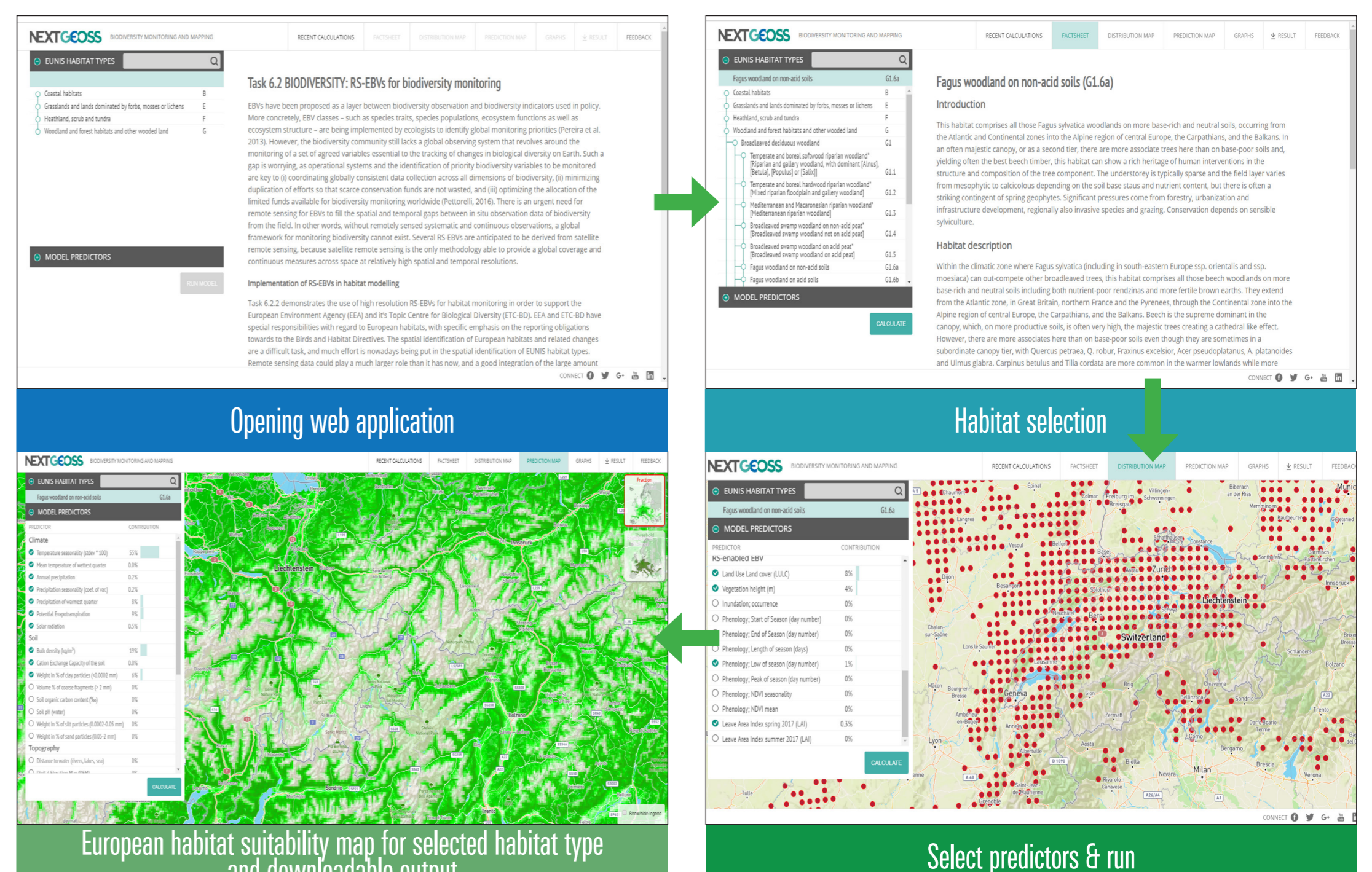


Fig. 4. The procedure followed to modelling the spatial distribution of European habitats using in situ data, environmental layers as RS-EBVs products.