

## 1. Measurement

All spectra from the sampled soil in the study area, recorded using standardized procedures and guidelines

## 2. Modelling

Check for spectral outliers

E.g. Kennard-Stone

Training set

Organic C analysis of soil in training set

Training spectra

Spectral pre-processing, pre-treatments

Outlier analysis

Spectroscopic modelling

Optimize & assess the model

Model diagnosis

**Optimized model**

Estimate validation set

Assess accuracy

E.g. random sampling

Validation set

Validation spectra

Spectral pre-processing, pre-treatments

Organic C analysis of soil in validation set

## 3. Prediction

Prediction set  
[Field spectra – (training + validation sets)]

Spectral pre-processing, pre-treatments

Estimation of organic C and uncertainty on the prediction set