

# Harmonizing national statistics for integration with EO biomass maps

Valerio Avitabile

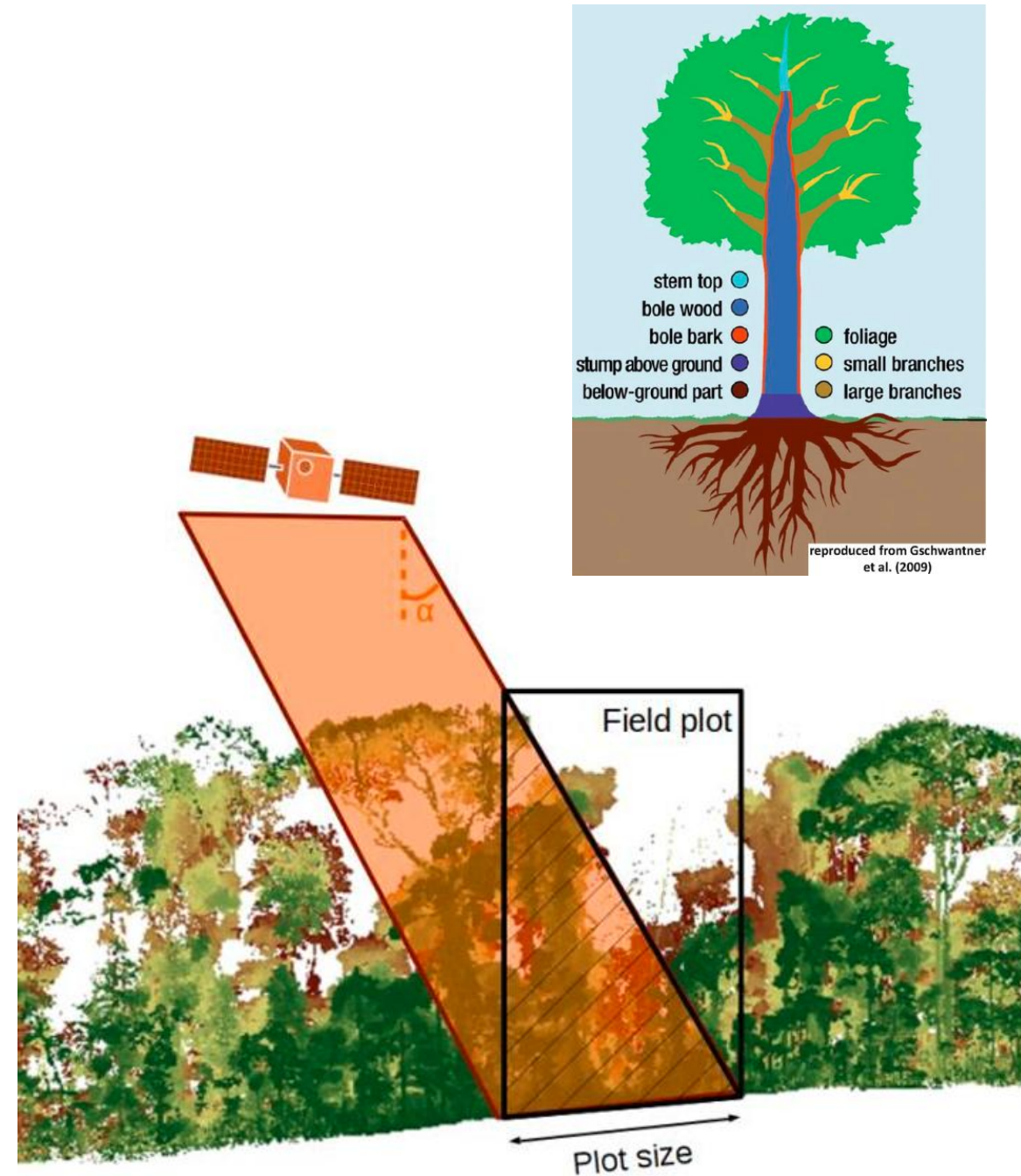
Consultant of Engineering SpA

for the Joint Research Centre (JRC) - EC



# Harmonization overview

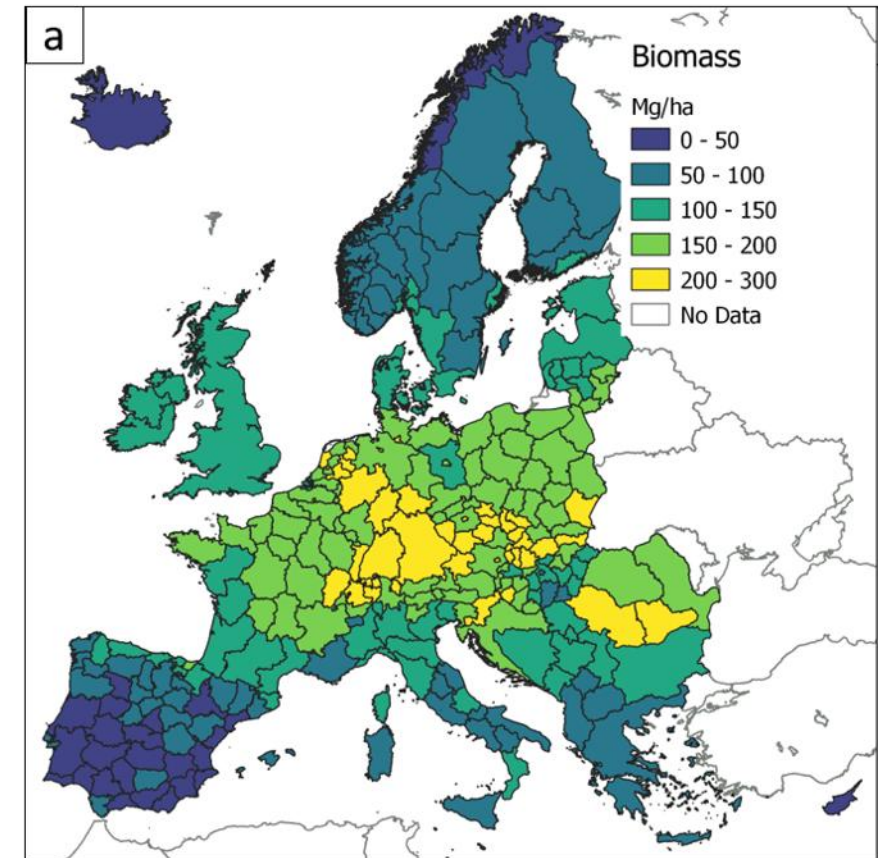
- NFIs across countries
- NFI – EO
- Definition
- Spatial
- Temporal
- Design / Aim



# Harmonized biomass dataset for Europe

Aim: harmonized biomass sub-national statistics & maps

- NFI Statistics:
  - Common estimator
  - Harmonized definition
  - Temporal harmonization
- EO maps:
  - Bias-adjustment of CCI map



# Estimating Biomass Increment

- NFI PLOTS
  - ✓ 11 countries
  - ✓ 78,000 plots
- MAPS
  - ✓ 73 predictors

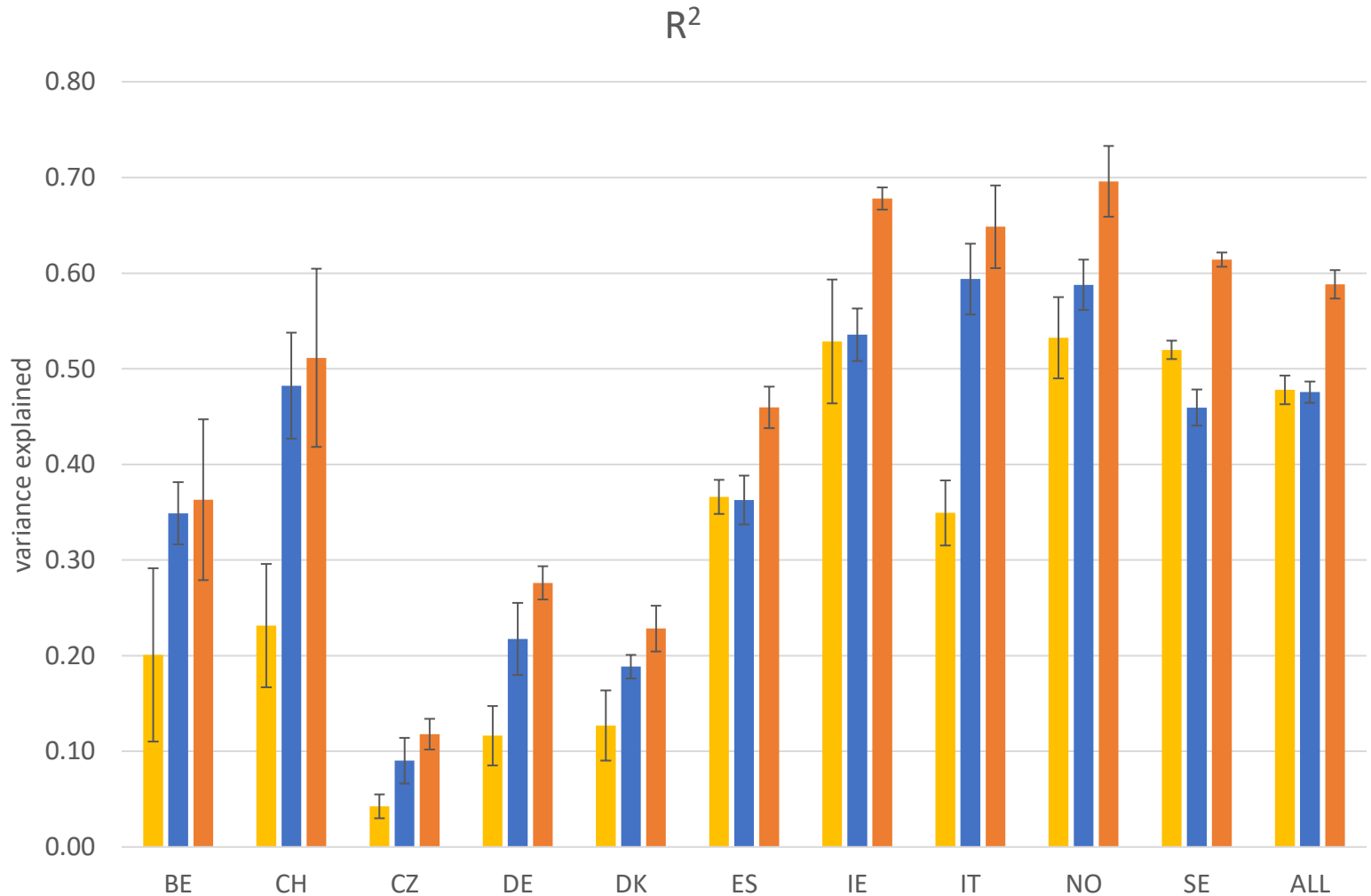


MAPS (plot-level)
Sentinel-2 (7 variables)
Tree Cover
Forest Type
Forest Loss
MAPS (1 km)
Forest structure (4 variables)
Species (3 variables)
Stand properties (3 variables)
DEM (2 variables)
Disturbances (7 variables)
Climate (29 variables)
Soil (11 variables)

# Estimating Biomass Increment

## MODELLING:

- PLOTS
- MAPS
- PLOTS + MAPS



Avitabile et al., in prep.

MAPS PLOTS PLOTS + MAPS

A close-up photograph of a squirrel perched on a tree branch covered in vibrant green moss. The squirrel is holding a small piece of moss in its mouth. The background is a soft-focus forest scene with green foliage and tree trunks.

# Thank you

[vavi.work@gmail.com](mailto:vavi.work@gmail.com)