

# ENFIN NETWORK AND ASSOCIATION, 20 YEARS HARMONISING FOREST INFORMATION

Dr. Iciar Alberdi (INIA-CSIC)/ ENFIN

alberdi.iciar@inia.csic.es



http://enfin.info/

#### Content

- 1. ENFIN Network and Association. Context
- 2. National Forest Inventories in the EU
- 3. Harmonisation
- 4. Latest harmonisation efforts (frame of ENFIN)
- 5. Moving forward...



#### 1. ENFIN Network and Association. Context

- Increasing pressures from climate change and biodiversity loss
- Increasing information requests
- Need of comprehensive forest monitoring

**National Forest inventories** have a long tradition (1919) and evolved from focusing primarily on wood resources to <u>multi-source</u> and <u>multi-objective</u> <u>monitoring systems</u> capable of informing a wide range of forest-related policies in Europe (core forest information source)

- The European National Forest Inventory Network (ENFIN) was established in 2003 to improve the harmonisation of forest information (voluntary basis).
- Building on ENFIN, to strengthen the role that ENFIN has played for many years in developing science, technology and governance at European level, a formal ENFIN Association was founded in 2024.





2/3/2025

#### 1. ENFIN Network and Association. Context

#### Expertise

- Network of 34 different institutions from 31 European Countries
- Involves experts with different fields of knowledge

- Participation in several EU and transnational projects aiming to improve forest information
- > 50 Publications

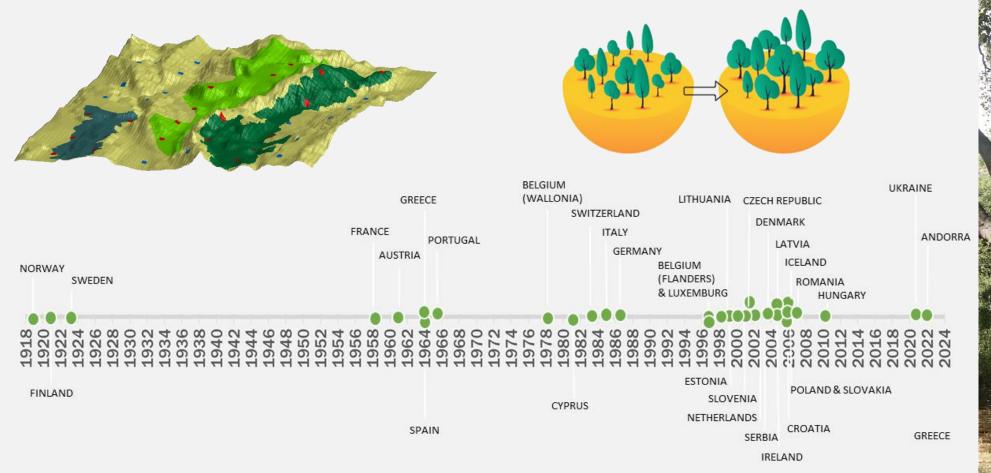








#### 2. National Forest Inventories in EU



<sup>\*</sup> Malta and Bulgaria do not have statistical NFIs based on sample plots

Source: Alberdi et al. 2025 Under review



#### 2. National Forest Inventories in EU

100%



- Plot location
- Accesibility
- Land use
- Forest type (national)
- Stand structure (tree layers)
- Age clases/development stages (national)
- Forest management (national)



- Species
- Diameter/height
- Health status Spatial distribution (diff apr.)
- Social class
- Timber quality (diff apr.)



- Diameter/height-length
- Categories
- Decay class
  - Species/sp group















#### 3. Harmonisation

**Comparability needed for EU estimates:** Information based on NFIs have different spatial and temporal designs, definitions, and reporting systems

#### **Harmonisation vs standardisation:**

Standardisation requires uniform application of definitions and sampling protocols Harmonisation allows for the conversion of local data (existing systems) to a common reference definition (flexibility in data collection)

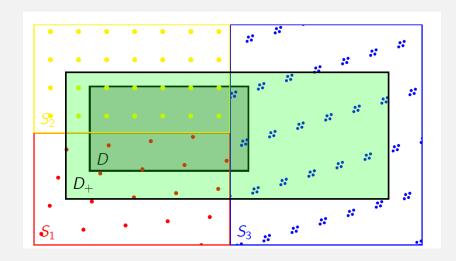


**Harmonisation** of forest information allows for fulfilling national and subnational needs while keeping the original forest definitions and maintaining the time series.

TRANSFORMATION FROM THE NATIONAL TO EUROPEAN SCALE



### 4. Latest harmonisation efforts examples



nFIESTA (new Forest Inventory, Estimation and Analysis framework)

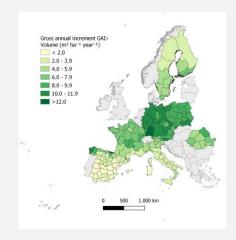


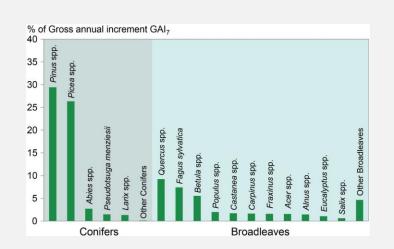
https://gitlab.com/groups/nfiesta/-/wikis/home

## Volume and biomass increment: NAI-GAI



Gschwantner et al., 2024



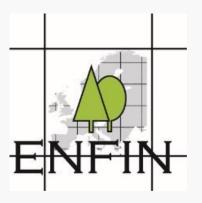




#### 5. Moving forward...

- ✓ Full coverage of EU MS with continuous NFI
- ✓ Continuation of the harmonisation process of all relevant forest information
- ✓ Harmonised NFI & remote sensing based estimates for key forest information
- ✓ Harmonised map products including reliability information
- ✓ Governance





# Thank you!

On behalf of ENFIN

http://enfin.info/