Wallonie service public SPW



From policy to practice

Technical, practical and socio-economic challenges regarding the implementation of EU policy on old-growth forests

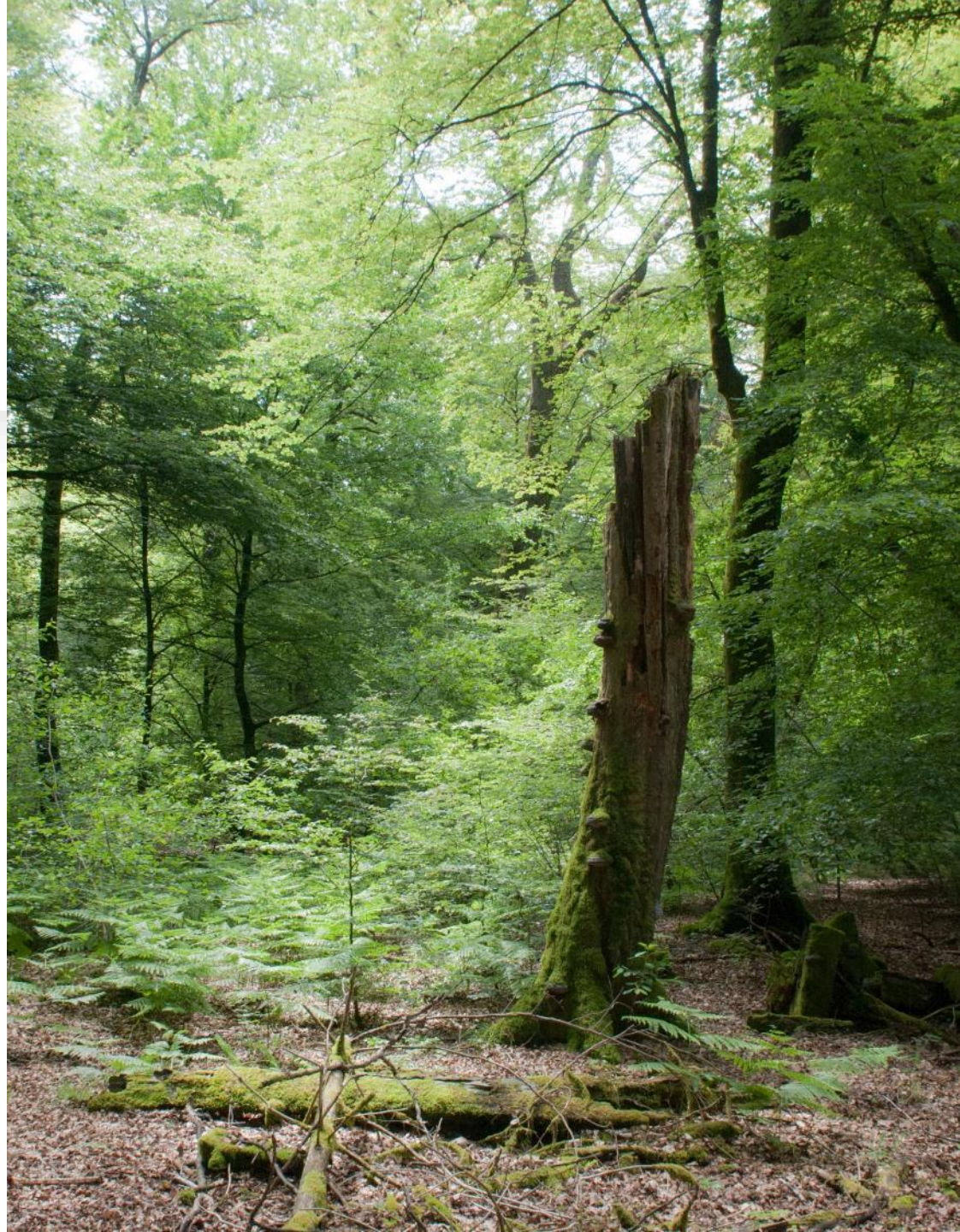
The case of the Walloon Region (Southern Belgium)

Life Prognoses Final Conference, Bruges, 2 October 2024

Lionel Wibail

Old-Growth Forest Definition (EU guidelines)

‘A forest **stand or area** consisting of **native tree** species that have developed, predominantly through natural processes, **structures and dynamics normally associated with late-seral developmental phases in primary or undisturbed forests of the same type**. Signs of former human activities may be visible, but they are gradually disappearing or too limited to significantly disturb natural processes’



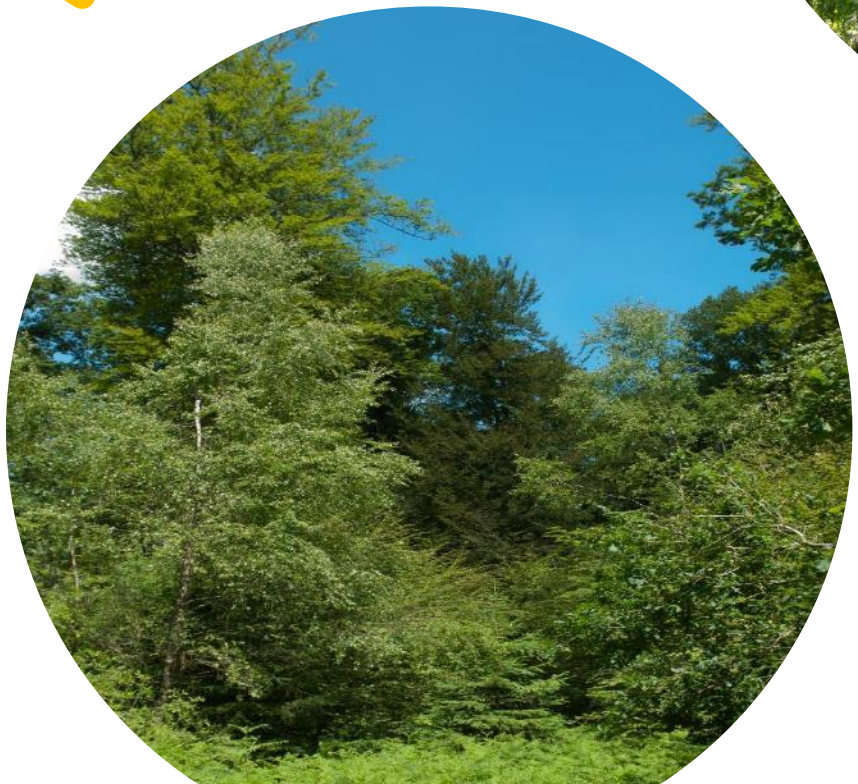
Old-Growth Forest Indicators (EU guidelines)

- **Mandatory**
  - Native species
  - Deadwood
  - Old or large trees

- **Complementary (min. 2)**
  - Stand origin
  - Structural complexity
  - Habitat trees
  - Indicator species









Old-Growth Forest Indicators (EU guidelines)

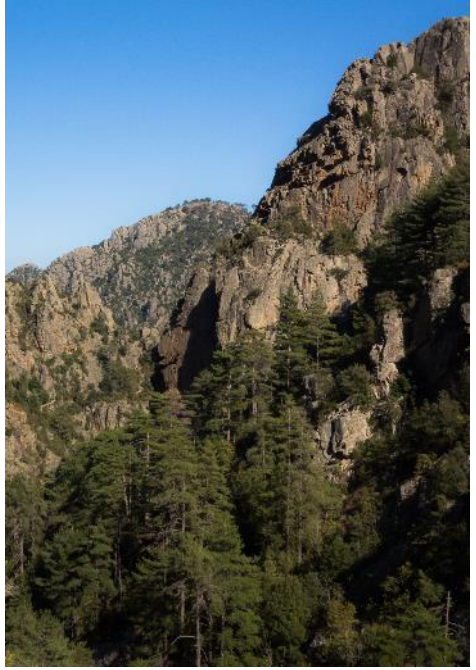
Much European variability for each indicator due to:

- diversity of forest habitat types (soil, climate, natural processes…)
- diversity of naturalness levels in EU

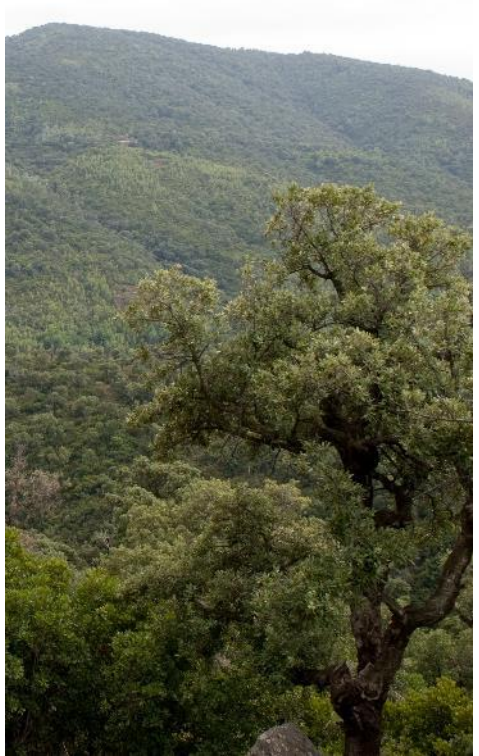
→ **Flexibility let to Member States for**:

- **defining the parameters** linked to indicators
- **establishing thresholds**

Ex. large trees and dead wood : which dimension? How to count: volume, number of stems, absolute or relative value?









Belgium / Wallonia

In Belgium, nature conservation and management
= regional competence

3 administrative regions: Brussels, Flanders and Wallonia

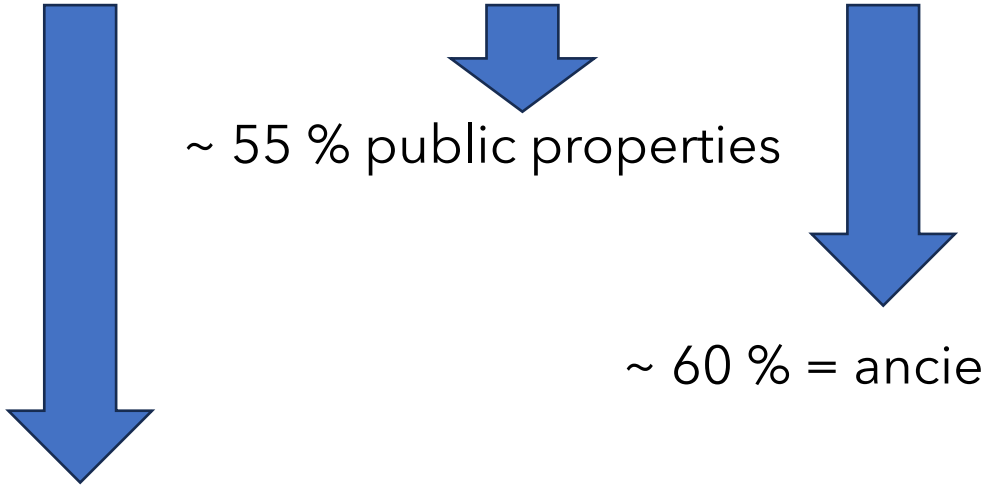
Wallonia:

- Southern administrative region of Belgium
- Covers Atlantic and Continental biogeographical regions
- > 200 inhabitants/km²



Forests in Wallonia

- Surface ~ 480 000 ha (28 % of territory);
- ~ 56 % broadleaved (mainly indigenous) vs 44 % coniferous (exotic)



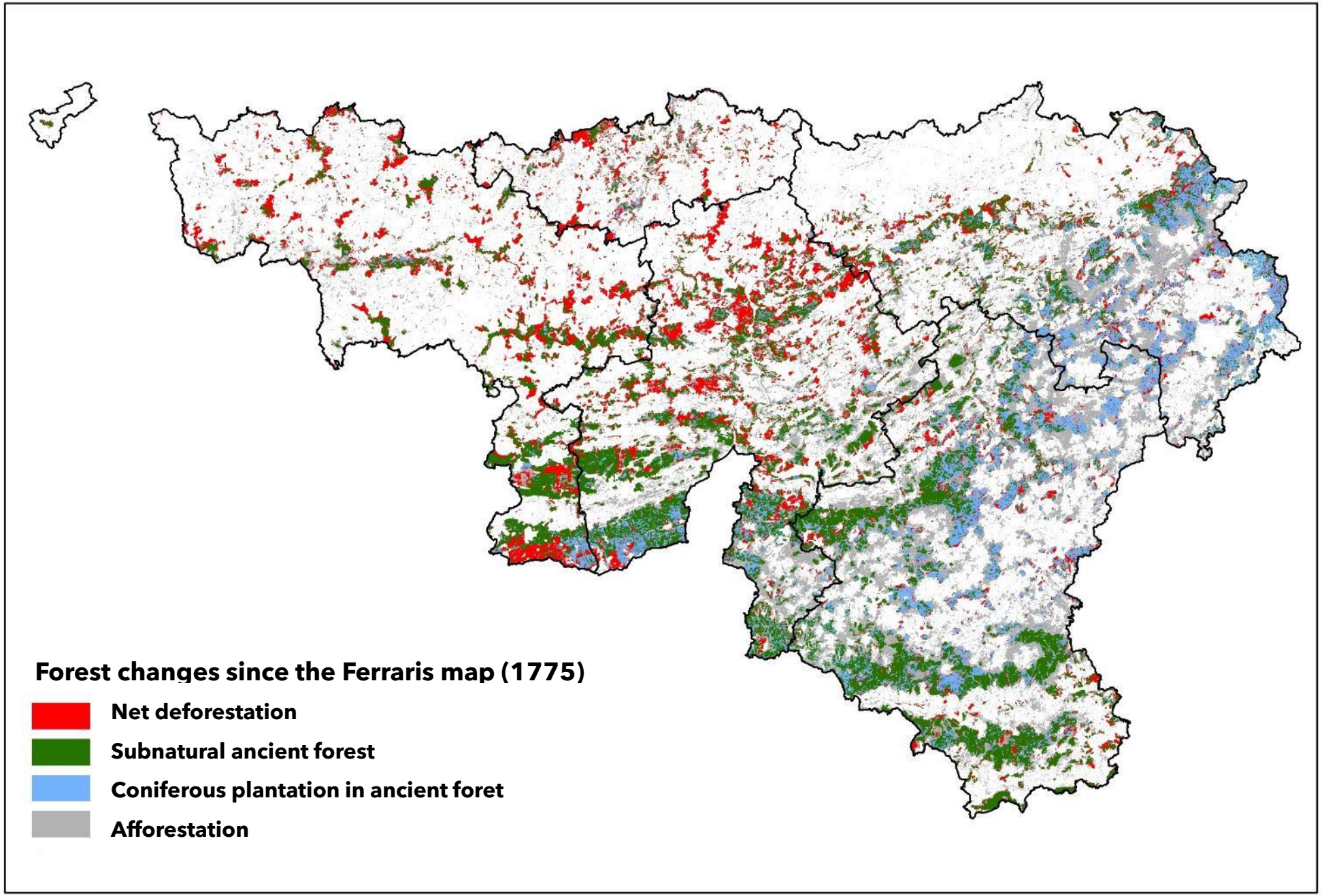
~ 55 % public properties

~ 60 % = ancient forests (historical continuity)

~ 40 % in Natura 2000 sites

~ 5 % with strong protection status (natural reserves, wilderness areas…)


FORET DE CH
CHINY
Marlin
Taillis des Prussie
Fange Marly
Roide
Pre de Pleurville
Nebelbaeu
CHINY
CHINY
Le Hallivet
Le Hallivet


Forest changes since the Ferraris map (1775)
Net deforestation
Subnatural ancient forest
Coniferous plantation in ancient foret
Afforestation

Challenges for defining OGF in Wallonia

1. Reference forest stands

- **No primary** forest in Wallonia
- Logging in the majority of forest stands

BUT

Some stands under **strict protection** for several years/few decades

+ "**abandoned**" areas without status (accessibility, low fertility, military camps)

Comparison between "abandoned", "protected" and "productive" forest stand → test and set thresholds







Challenges for defining OGF in Wallonia

2. Selection of parameters linked to indicators

When possible, parameters should be approximated or estimated through :

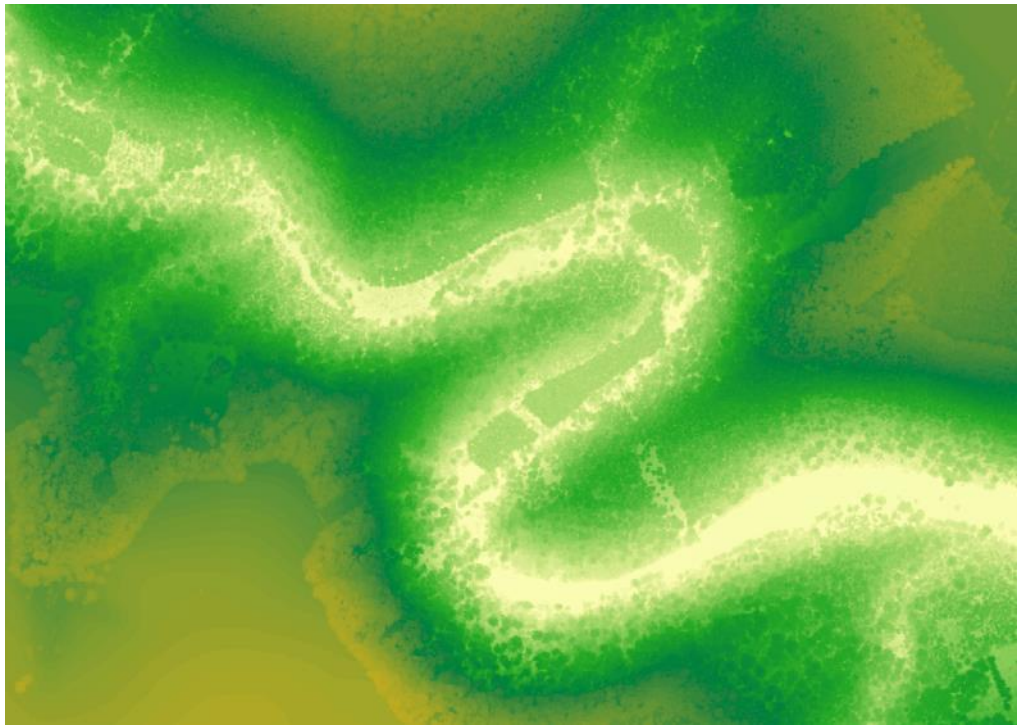
- information already available in existing databases (management plans, habitats mapping)

- remote sensing

Ex. tree composition, structure, stand harvesting history

→ Preselection of areas for field work





Challenges for defining OGF in Wallonia

2. Selection of parameters linked to indicators

Parameters to be measured on field should:

- be easy and quick to measure

Ex. amount of very large dead trees vs total volume of dead wood

- not depend too much on season

Ex. presence of insects imago





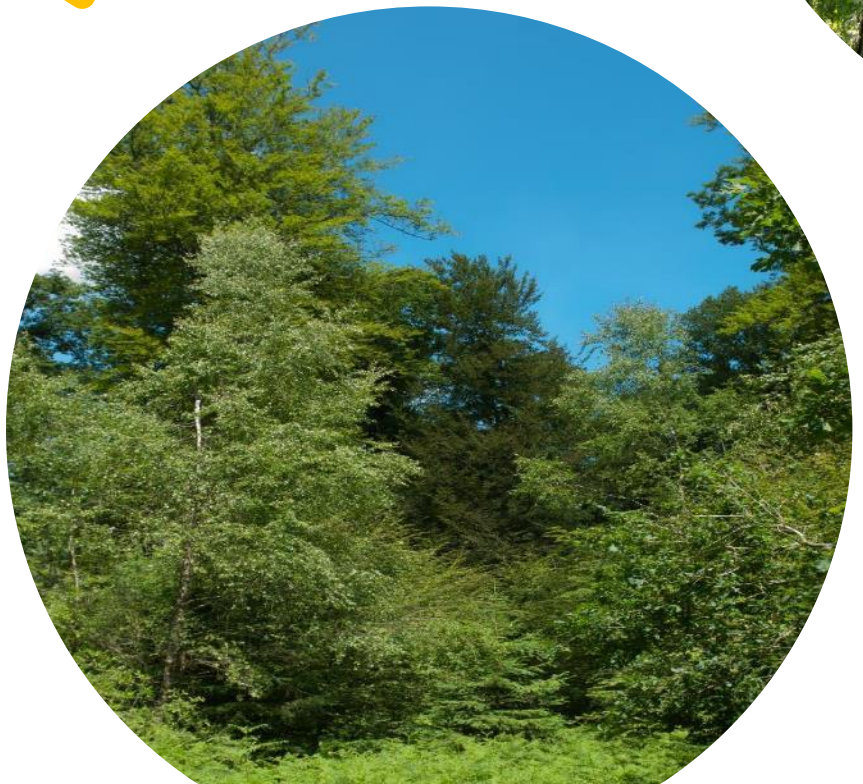
Old-Growth Forest Indicators (EU guidelines)

- **Mandatory**
  - Native species (remote sensing, databases, habitats mapping)
  - Deadwood (→ field)
  - Old or large trees (→ remote sensing + field)

- **Complementary (min. 2)**
  - Stand origin (relevance?, historic continuity?)
  - Structural complexity (→ remote sensing, field)
  - Habitat trees (substantial field work!)
  - Indicator species (substantial field work for most animal species)









Challenges for defining OGF in Wallonia

3. Variety of habitats types

High geological and topographical diversity

→ Variety of forest types with different stand composition, fertility

Identical parameters, but thresholds must be adapted, even on a small territory

For some rare habitat types, probably no or only a few 'known' reference stands (→ no OGF for these habitats, and no threshold can be set?)







Challenges for mapping OGF in Wallonia

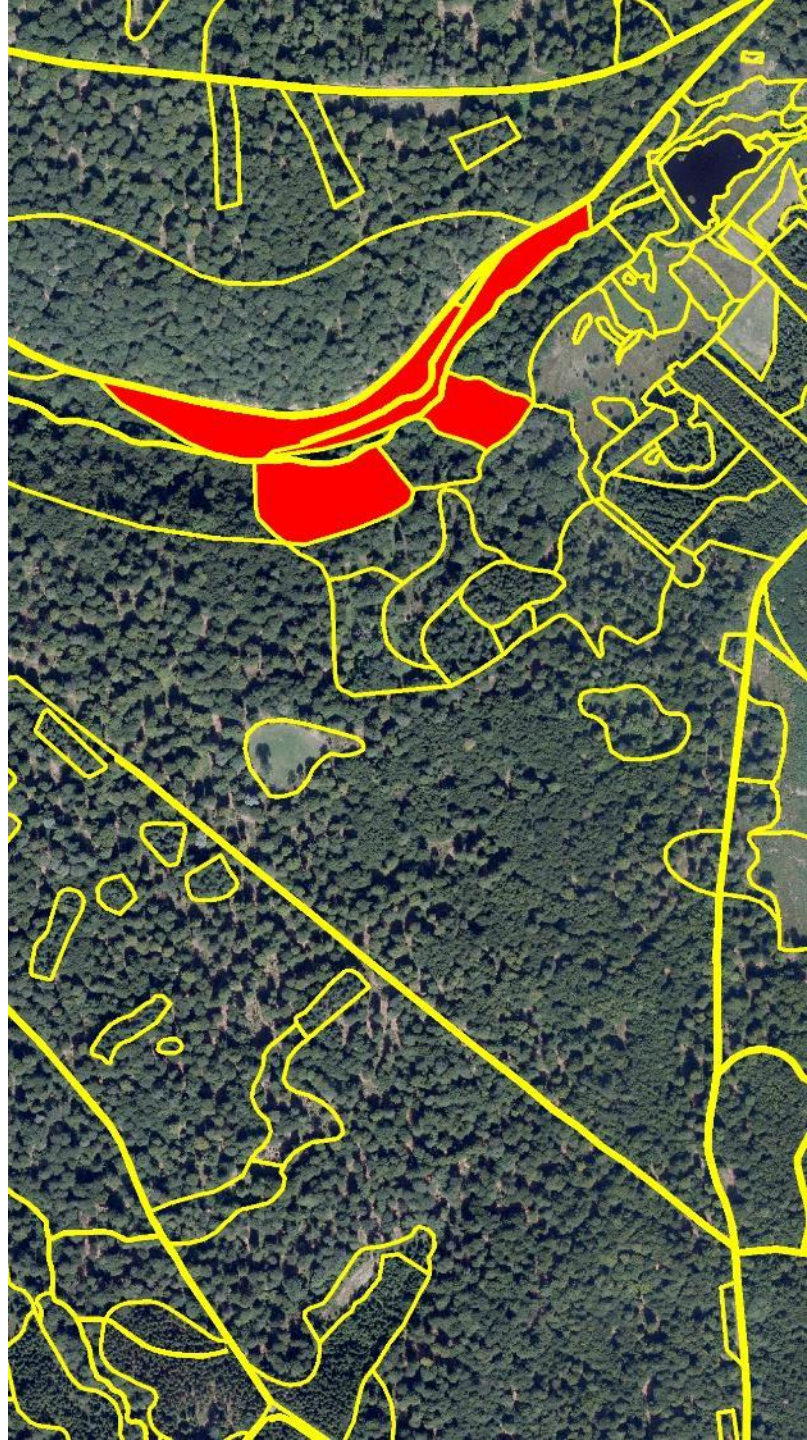
Remote-sensing → pre-select areas to explore

In public properties: databases, map of legally protected areas, knowledge of local forest officers BUT important field work for several indicators

In private properties: no public database, private data, access to private property, 'strict protection' of OGF → reluctance?

! Regional forest inventory cannot be used (one plot of 0,1 ha every 50 ha)!

→ Huge amount of field work, consequent communication/stakeholders involvement actions !



Challenges for monitoring of OGF

What should be monitored?

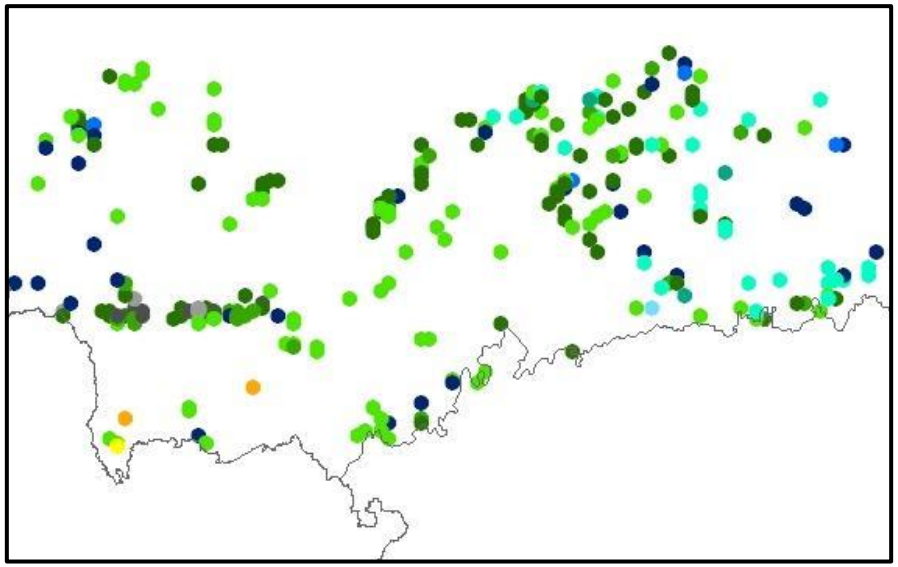
- **Sampling effort**: stand or territory level?

- **Which parameters** :
  - (all?) parameters defining OGF?
  - other structural or specific composition parameters?

- Monitoring **frequency?**

- Regional forest inventory/remote sensing insufficient to ensure monitoring of OGF (not enough plots, not all indicators)

→ May be very demanding











Challenges for strict protection of OGF

All OGF should be strictly protected

Not only:
- **legal acts** (or voluntary measures?)
- **compensatory measures**

But also:
- **awareness-rising** on the importance of OGF
- **notification** of landowners/managers
- **control** of implementation
- define size of **buffer areas** (+ measures)

Conclusions



Importance of :

- strictly protecting a certain proportion of forest areas
- choosing the 'best' stands based on a combination of scientific criteria

Challenges linked to the EU strategy/guidelines for Wallonia:

- OGF = Implicit objective of forest strict protection, but not a well-defined existing concept in Wallonia
- Find **reference stands** (different habitat types)
- **Define parameters**: remote-sensing, pre-existing data, field work
- **Map** all OGF: substantial work, public vs private properties
- **Monitor** OGF: stand or territory level?
- **Communicate, awareness-rising, compensatory measures** → especially (but not only) for private landowners

Financial means and human resources needed, in the long term

Can exhaustive mapping of 'OGF stands' (defined with a strict combination of indicators/thresholds) be achieved quickly?

Huge amount of work for a very low proportion of OGF

Legal protection already exists for stands in public and NGO forest properties

→ are or will become OGF with the time

→ preferential areas for detection of existing OGF

+ field work in other well-known or predictible 'abandonned' areas

+ communication, awareness-rising, ?voluntary approach? in other public and private forest surfaces - to identifiy and create new OGF in stands that already meet some criteria?