

Template for data collection on *Closer to nature* management practices for SMURF project

This document contains all the information requested for the description of SMURF emblematic forests. It has the form of a questionnaire with requested forest inventory basic data, with the goal of asking to stakeholder forest managers information regarding their forest.

The first part is a general description of the stand and it is followed by the presentation of the management model carried out. After this part, the questionnaire go in deep with dendrometric parameters of the stand, requested to describe the structure of the forest, and a classification of the wood quality of the stems. A fundamental part of the questionnaire regards the information about the harvest, followed by the modelization of the cutting.

If available, also an economic balance of costs and incomes of the CNS management is requested. This kind of data is necessarily connected to specific socio-economic local contexts, and it is not the assumption to compare different socio-economical contexts, even if regarding ecologically similar stands. That said, it has to be considered like a general economic framework of the forest management model.

The final part of the questionnaire regards the description of the biodiversity characterising the stand and supported by the management model carried out. If it will not possible to provide all the information requested, you will fill it with the data you can provide. Thank you!

Forest ownership information

Country:	
Bioregion:	
Type of ownership (private, public, civic usage, private society, etc.):	
Total area of the ownership:	

Stand information

Localization:	
Area of the stand:	
Altitude:	
Species composition (monospecific/ multi-specific. If multi-specific, specify the dominant species and the percentage of species distribution):	
Type of vertical structure:	
Origin of the stand:	
Age of oldest plants:	

Management information

Current management:	
Previous management (the one before the current management):	
Number of interventions since the transformation to uneven-aged:	
Year of latest intervention:	
Transformation criteria to reach close-to-nature structure (starting as even-aged forest):	
Transformation criteria to reach close-to-nature structure (starting as decapitalized forest)	
Other silvicultural interventions (thinnings, prunings, land arrangement after the passage of the forestry machines, sowing, other):	

Dendrometric parameters of the stand

Basal area (m ² /ha)	
Volume (m ³ /ha)	
Dominant height range (m)	
Yearly growth range (annual increment) (m ³ /ha/year)	

Aggregated data into diameter groups

	Trees/ha	BA (m ² /ha)	Vol (m ³ /ha)
Waiting Room (7.5 – 17.5 cm)			
Small Wood (17.5 – 27.5 cm)			
Medium Wood (27.5 – 47.5 cm)			
Large Wood (47.5 – 67.5 cm)			
Very Large Wood (> 67.5 cm)			

Wood quality distribution

Determine the **percentage of distribution** in terms of m²/ha and % of Basal Area in the quality groups:

	V/ha (m ² /ha)	% of Basal Area
A +B		
C +D + Chips/firewood		

Wood quality classification

A	B	C	D	Chips/firewood
<ul style="list-style-type: none"> - Top diameter above 40cm - Log block above 2.5m - No sweep - No knots - No spiral grain - No log defects - No rotting - Slim bark 	<ul style="list-style-type: none"> - Top diameter above 40cm - Log block above 1.5m - No sweep - Just one healed knot per meter (<40mm) or several small ones - Maximum spiral grain of 10cm per meter - No rotting 	<ul style="list-style-type: none"> - Top diameter above 30cm - Log block above 2.5m - Just a small sweep (<3%) - Healthy knots - Maximum spiral grain of 10cm per meter - No rotting 	<ul style="list-style-type: none"> - Top diameter above 25cm - Log block above 2.5m - Sweep - No rotting 	<ul style="list-style-type: none"> - Defects which do not allow industrial use

Harvesting management parameters

Rotation (curation) period (years)	
Optimum cutting diameter (in the classes A, B, C, D)	
Objective volume of the cutting	
Yearly growth range (m ³ /ha/year)	

Cutting modelization summary

Stages	Basal area (m ² /ha)	Volume (m ³ /ha)	Carbon (tC/ha)
Before cutting			
After cutting			
Extracted during cutting			

Economic balance (if available)

Wood prices (€/t)

Class A:	
Class B:	
Class C:	
Class D:	
Chips/firewood:	

Costs

Tree marking	
Small treatments	
Harvest cutting	
Forest assessment	

Optimum forest capital in the stand	
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	Without expenses	With expenses
Capital rotation period (Number of years to make the income from the cuttings equivalent to the forest capital. Inflation not taken into account):		

Deadwood and biodiversity

Deadwood

	17.5 < DBH < Dg	DBH > Dg
Stand deadwood (% of total volume)		
Fallen deadwood (% of total volume)		

Biodiversity:

Emblematic protected flora associated to the stand	
Emblematic protected fauna associated to the stand	

For more information about the project: <https://www.smurfproject.eu/>