



# INTEGRATIVE FOREST MANAGEMENT in practice across EUROPE

## What is Integrative Forest Management (IFM)?

Integrative forest management (IFM) aims at integrating biodiversity conservation and global change adaptation into forest management for the sustainable provision of multiple ecosystem services. It is guided by natural and diverse forest structures, compositions, and dynamics to support ecosystem functioning and resilience. Its management practices consistently consider the tree, stand, and landscape scale and employ different silvicultural intensities, including intentionally unmanaged forests. IFM can be applied in any type of forest to achieve integrated environmental, economic, and social outcomes



Created by ahmadwili  
from the Noun Project

## What are the objectives in our workpackage?

1. To assess the **effectiveness of IFM-practices** to achieve ecosystem services provision, forest resilience, adaptive capacity and biodiversity conservation .
2. To create **educational and training material** in line with the latest research and inspired by the best IFM practices in Europe.



Created by Omah Icon  
from Noun Project

## How can you participate? As a forest owner, manager or forestry network...

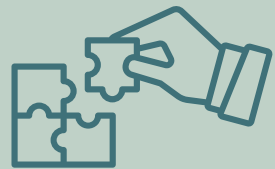
Help us identify **IFM-practicing enterprises** in Europe that distinguish themselves from nearby enterprises under conventional management (see next page what criteria may apply).

### General data requirements:

Basic forest measurements (for example, NFI variables).

From repeated inventories with at least one repetition.

\*if needed, budget funds may be allocated for data collection or compilation.



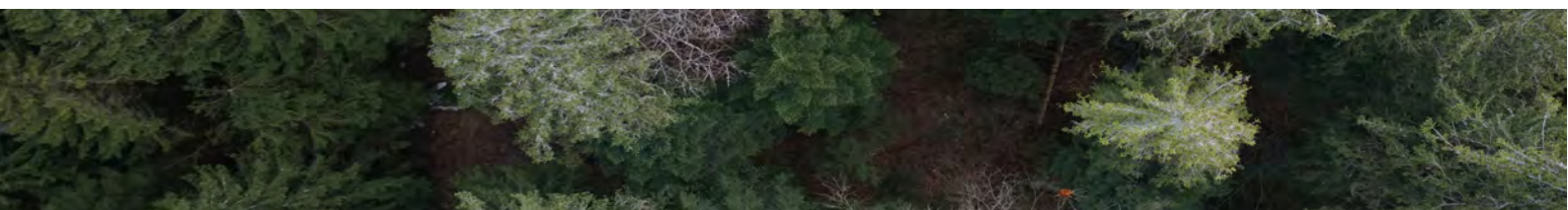
Created by Nur Hasanah  
from Noun Project

## How can you benefit from TRANSFORMIT?

- Data analysis and visualization for your enterprise/area/group;
- Access to an evidence base for the effectiveness of IFM approaches;
- Open-access Silvicultural Information Platform for forestry students and practitioners, summarising best practices of IFM;
- Promotion and advancement of IFM measures practiced in your area;
- Cooperation and engagement with a large consortium of stakeholders: researchers, practitioners, policy makers.



Created by Sugman  
from the Noun Project



# How may an enterprise distinguish itself from “conventional” forest management?

>> The principles are meant as a coarse filter, as our aim is to identify as many potential IFM-practicing enterprises in Europe as possible.  
 >> Not all, but the majority of the principles need to apply;  
 >> Relatively two attributes fulfilled for each principle;

## Principles and examples of attributes that may apply:

>> The principles are not used for any evaluation purposes, but to place enterprises on a gradient of IFM approaches and foci.

Principle	Attributes
<b>1</b> Retention of habitat trees, special habitats, and dead wood <sup>1</sup>	<ul style="list-style-type: none"> <li>• &gt; ⅓ of the area* covered by a retention concept (i.e. a systematic approach in the retention of habitat trees, deadwood, high stumps, vegetation patches etc.);</li> <li>• Deadwood: the enterprise aims at min 10% of the average growing stock across stands;</li> <li>• Valuable habitats are mapped and protected or managed towards conservation goals beyond regulations; Forest reserves are an integral part of the area covered by a management plan.</li> </ul>
<b>2</b> Promoting site-adapted native tree species and non-native species <sup>1</sup>	<ul style="list-style-type: none"> <li>• &gt;⅓ of the forest cover consists of native species;</li> <li>• &lt;⅓ of the forest cover has non-native species. These should be adapted to site conditions and climate change;</li> <li>• &gt;⅓ of species in overstorey is site-adapted;</li> </ul> <p>The enterprise practices active regeneration management and carries out stand tending to promote site-adapted species.</p>
<b>3</b> Promoting natural tree regeneration <sup>1</sup>	<ul style="list-style-type: none"> <li>• &gt;⅓ of the area, where regeneration is currently managed for, is regenerating naturally; exceptions, such as planting, are possible in areas under active conversion (to mixed-species stands or more adapted species)</li> <li>• &gt;⅓ of the area in mature stands carries advanced regeneration;</li> <li>• The enterprise implements active browsing control to promote desired tree species to regenerate (incl. hunting and physical protection via fences);</li> <li>• The enterprise promotes maintenance of pioneer species in the landscape (e.g. pioneer species along roads, etc.).</li> </ul>

4	Partial harvest and promotion of structural heterogeneity <sup>1</sup>	<ul style="list-style-type: none"> <li>• Most/Main planned harvesting is done by selection harvesting (from single tree to group selection, including shelterwood systems), without clear felling (typically not larger than 1 ha).</li> </ul>
5	Promoting tree species variation and genetic diversity <sup>1</sup>	<ul style="list-style-type: none"> <li>• Active regeneration management that promotes establishment of diverse forests with a minimum of three tree species in each stand;</li> <li>• Tending operations aim at keeping or enhancing the diversity of tree species;</li> <li>• Prioritisation of minority native tree species</li> </ul>
6	Avoidance of intensive management operations <sup>1</sup>	<ul style="list-style-type: none"> <li>• No routine application of agrochemicals (some exceptions may be possible, e. g. in form of integrated pest management)</li> <li>• The enterprise has a soil protection plan in place, i.e. machine traffic is constrained to a fixed extraction network</li> <li>• Salvage logging leaves dead wood volumes that are higher than the retention target (see attributes under “Retention of habitat trees, special habitats and dead wood)</li> <li>• No machine traffic through water courses</li> </ul>
7	Supporting landscape heterogeneity and functioning <sup>1</sup>	<ul style="list-style-type: none"> <li>• Landscape level strategy for water retention and protection of water courses in place:</li> <li>• Protection of valuable and rare habitats;</li> <li>• Landscape level strategy to promote connectivity and heterogeneity of habitats between forest stands and non-forested areas in place</li> </ul>
8	Management of factors that hinder ecosystem functioning <sup>2</sup>	<ul style="list-style-type: none"> <li>• Management strategy in place to control invasive species</li> <li>• Management strategy in place for increasing the forest resilience and the regeneration and restoration post-disturbances (e.g. fires, pest outbreaks, storm, game control; fuel management; optimal thinning treatments)</li> <li>• Management strategy in place for global change adaptation (e.g. measures such as tree species choice or mixing)</li> </ul>
9	Other practices that may be regarded by enterprises as IFM	

\*Defined target area = forest enterprise or area of forest covered by one forest management plan.

References: Larsen, J.B., Angelstam, P., Bauhus, J., Carvalho, J.F., Diaci, J., Dobrowolska, D., Gazda, A., Gustafsson, L., Krumm, F., Knoke, T., Konczal, A., Kuuluvainen, T., Mason, B., Motta, R., Pötzelsberger, E., Rigling, A., Schuck, A., 2022. Closer-to-Nature Forest Management. From Science to Policy 12. European Forest Institute. Krumm, F., Schuck, A., & Rigling, A. (2021). How to balance forestry and biodiversity conservation?-A view across Europe. ISBN: 978-3-905621-62-4