The SIMWOOD project

A demonstration of the potential
to increase wood mobilisation

Policy Brief

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This policy brief presents the SIMWOOD pilot projects and other key outcomes of the project: the SIMWOOD Information System and the Handbook of wood mobilisation. It is aimed at policy- and decision-makers at various levels, including regional forest administrations, forest owner associations, and other stakeholders, such as hunting associations and conservation groups.

Forests, the bioeconomy, wood markets and unused resource potentials

The Bioeconomy Strategy of the European Union was launched in 2012 and addresses the need for development of "a more innovative, resource efficient and competitive society that reconciles food security with the sustainable use of renewable resources for industrial purposes, while ensuring environmental protection" (Innovating for Sustainable Growth: A Bioeconomy for Europe: EU 2012). European forests and the industries that depend on wood as a raw material are a vital part of the bioeconomy strategy and action plan. The Renewable Energy Directive (RED) (2009/28/EC) establishes the overall policy for the production and promotion of energy from renewable sources to decarbonise the economy in the EU. The EU has set itself the legally binding target of 20% of total energy consumption coming from renewable energy sources by 2020. There are high penalties if member states do not meet the targets that have been set. Amongst other aims, the RED calls for greater mobilisation of existing timber reserves and the development of new forestry systems. A revision of the RED (2016) is under discussion which proposes, among other issues, a more stringent definition of sustainable mobilisation of natural resources.

Forests are a major biological resource of Europe and fulfil multiple functions in ecological,

economic and social dimensions. Besides preserving diverse landscapes, ecosystems, natural cycles and the biodiversity, they also represent the backbone for production and employment in forestry and numerous industries that all use wood as a primary raw material. The forest-based sector encompasses many material (or 'solid'), energetic and chemical uses of wood, and is a major pillar of the economy that is comparable in size to other large producing sectors. The sector plays a vital role in ensuring sustainable growth, rural employment and climate change mitigation.

Forecasts for the sector predict a substantial increase in the demand for wood in the coming decades. 'Solid' uses will grow steadily and novel chemical uses of wood are emerging and gaining momentum. The biggest increase in demand, however, will be for wood energy which will play a critical role in Europe's future renewable energy supply and the achievement of climate protection objectives. Other sources of renewable energy are increasing in importance, but wood and other solid biofuels still account for about 45% of the total renewable energy production and will continue to play a major role in energy production. These trends are expected to lead to a relative scarcity of wood, stronger competition and dynamic structural shifts in the forest-based sector, which is bound to a stable and secure supply of the wood.

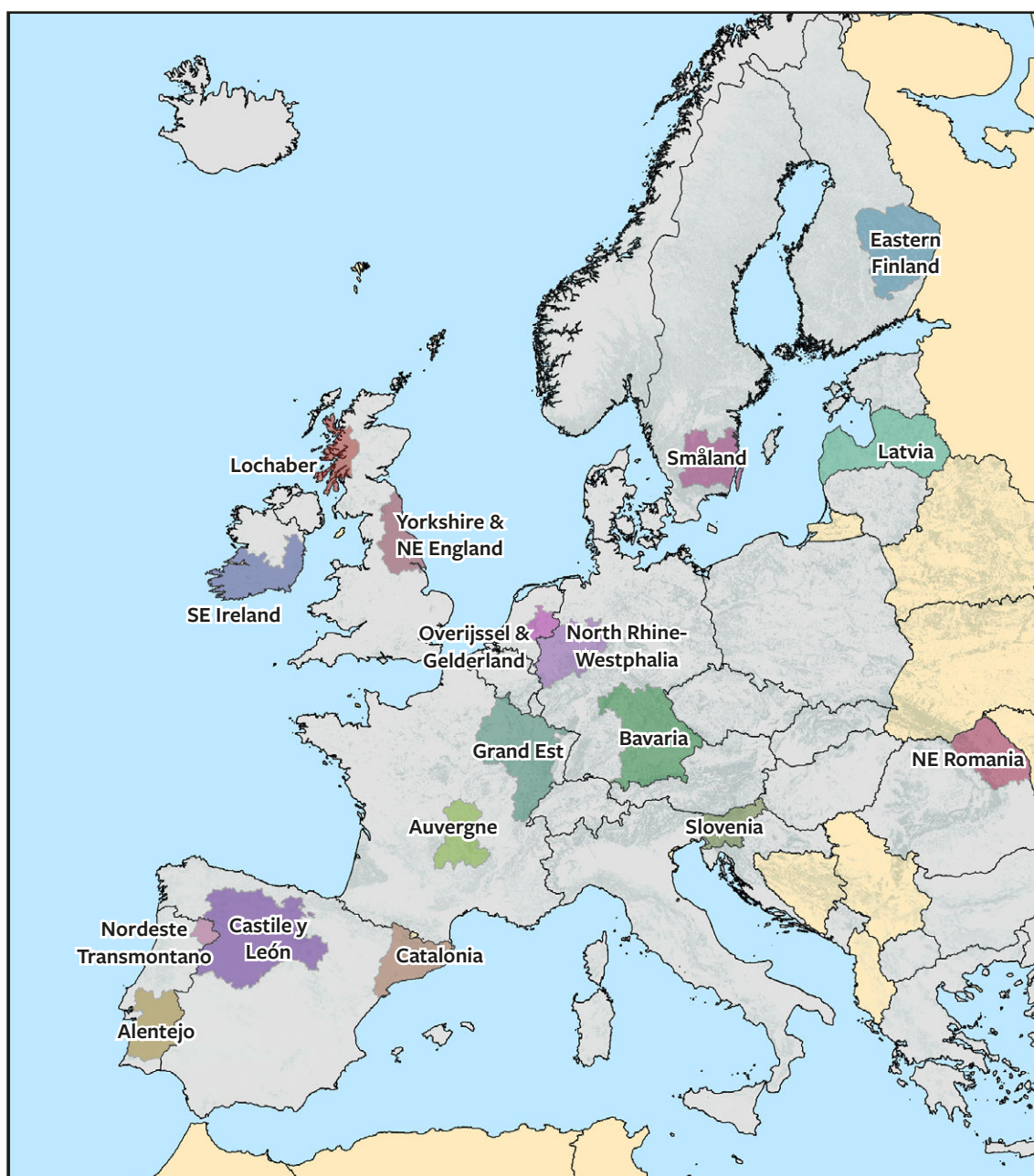Wood mobilisation comprises all kinds of initiatives and measures leading to harvesting and

Figure 1. The 17 SIMWOOD model regions.

extraction of wood and woody biomass from forests. It engages forest owners, forestry professionals and other stakeholders in the forest-based sector. The main purpose is to enhance the supply chain from raw timber and residues in the forest towards the industrial transformation into solid material, energy or biochemical uses of wood. In simple words, it includes all activities required to obtain wood from forests and use it for human activities. Looking at a tree and its parts, the harvesting can include the trunk, the branches, the stump, dead wood, and even bark, for example cork.

SIMWOOD project

The aim of the SIMWOOD project was to demonstrate how the unused potential of European forests can be mobilised in a sustainable way, by
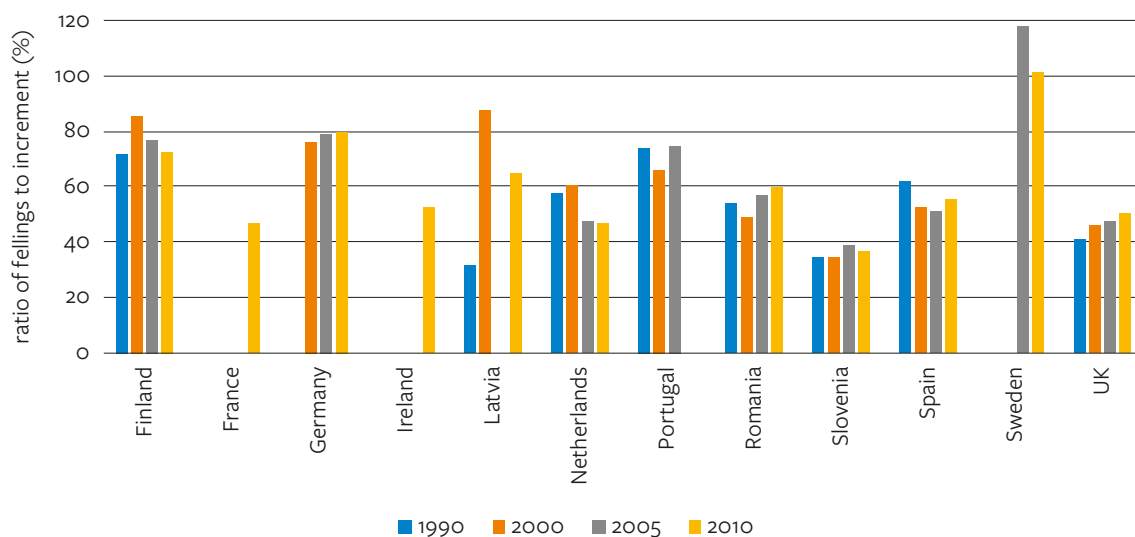
Figure 2. Ratio of fellings to increment in countries represented in the SIMWOOD project (data from: State of Europe's Forests. FOREST EUROPE 2015).

activating forest owners and promoting measures to stimulate collaborative forest management. The project was comprised of 17 model regions in 12 countries (Figure 1). The regions were selected on the basis that there is a potential to increase wood mobilisation and to represent a broad range of European forest types and also a range of experience in forest governance and wood mobilisation.

Wood mobilisation in different countries represented in SIMWOOD

The situation with regard to wood mobilisation varies across the countries represented in the SIMWOOD project. A rough indicator of how much wood is being sustainably mobilised is the ratio of fellings to annual increment. Figure 2 shows this ratio for each of the SIMWOOD countries.

All countries except Sweden had felling/increment ratios of less than 100%, meaning that the annual growth of the forest is greater than the amount of wood harvested. The high ratios reported for Sweden are for years where large storms had occurred and harvesting rates were unusually high. Sweden and Finland are examples

of countries with a large forest resource and well developed forest-based sectors, where the wood mobilisation is already quite high in comparison to other countries. Germany also has quite high rates of utilisation, but the growing stock in German forests is also very high (Figure 3) (as a result of a favourable climate and an accumulation of growing stock over decades and centuries). Slovenia also has a high growing stock that is increasing quickly. Ireland, the Netherlands and the UK are examples of countries that have a relatively small amount of forest, but where the forests are growing fast and where the growing stock is increasing (Figure 3).

Forest owners as key actors in wood mobilisation

The key to unlocking the wood potential is the willingness of a large number of public and private forest owners to engage in or permit an increase in forest harvesting and related uses. The majority of the industrial timber as well as other wood and non-wood products in Europe are sourced from private forest owners, the majority of whom are individuals and families. Because their forests are often under-utilised, they account for a significant and increasing portion
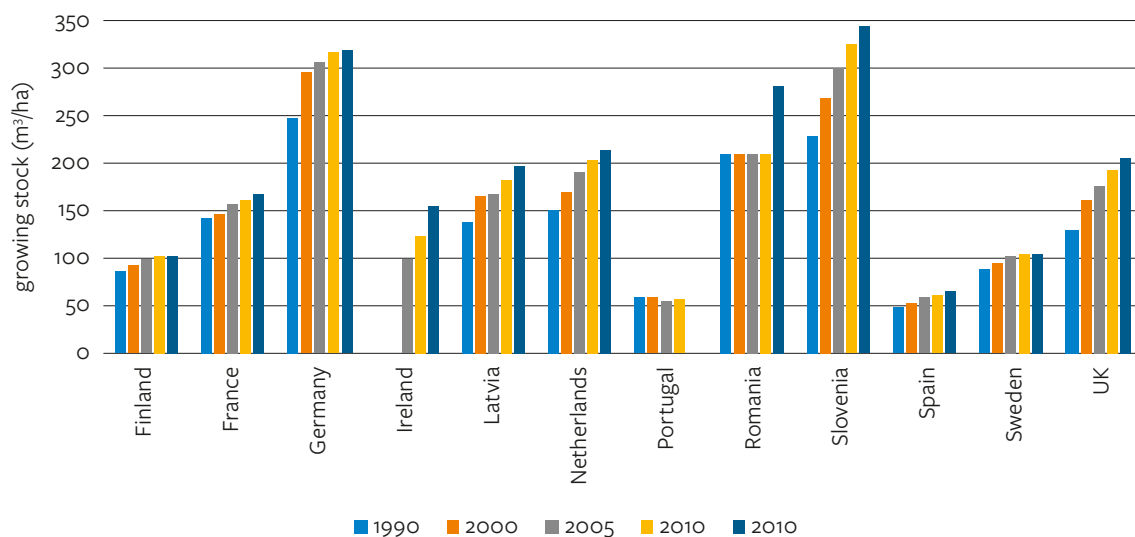
Figure 3. The growing stock in countries represented in SIMWOOD (data from: State of Europe's Forests. FOREST EUROPE 2015).

of the wood potential. Among the private forest owners, there is a a growing diversification. The number of 'traditional' forest owners, who recognise the economic potential of their forest holding and are actively involved in timber harvesting, is declining as a result of structural changes in agriculture and the transfer of ownership from farmers to non-farmers through inheritance. The number of owners living in urban areas often at considerable distance from their property is increasing ('urban' or 'distant' forest owners). The changing ownership pattern is also leading to an increased fragmentation of forest holdings: almost two-thirds of European private forest holdings occupy less than one hectare. Many of these latter groups have little knowledge of the potential for, or interest in, producing timber from their forests and they lack the skills and capacity for sustainable forest management. Mobilising wood resources hence requires first of all a 'mobilisation of forest owners' and achieving this will require a greater understanding of the motivations and objectives of the different types of owners. These owners are less likely to use the forest as a source of income, so they may also have other objectives and motivations – they may be more interested in using their forest for recreation or for nature conservation.

Another issue is to ensure that the wood from these forests reaches the desired market. Therefore, a larger group of regional actors in the wood supply chain has to be involved. Professional foresters, forest entrepreneurs, wood enterprises and members of local authorities and communities all have important roles to play in mobilisation of the wood resources. Their collective expert knowledge of drivers in wood mobilisation and their input into identifying suitable solutions is essential.

Forest governance and the role of regional initiatives

More than ever, management of forests must incorporate ecological and social functions, balance the impacts of forest use, and extend its 'portfolio' with the provision of other goods and services (i.e., multifunctional forestry). In response to this societal demand, forest governance comprises aligned social, economic and official state driven activities to guide and control peoples' interaction with forests and has become the leading approach in international forestry in this context. Following a cycle of policy making and implementation towards 'good' forest governance and sustainable forest use, forest governance initiatives

work towards a balanced compromise between different parties and different forest functions. First attempts to integrate other stakeholders that are not related to forestry (e.g., environment or recreation interest groups) by participatory approaches are increasing in importance. Therefore, beyond the technical improvement of 'classical' forest management, novel wood mobilisation approaches inevitably require a wider inclusion of stakeholders' opinions in forest policy making. Embedding wood mobilisation in wider regional initiatives driven by the local economy beyond the forest sector has so far not been explored on a wider scale.

SIMWOOD provides a framework for global assessment of barriers to wood mobilisation, and solutions to overcome those barriers

The project described the specific context for wood mobilisation in each of the regions and identified knowledge gaps, barriers to wood mobilisation, and potential measures to overcome the barriers.

Barriers are conditions that inhibit the development and uptake of effective solutions for wood mobilisation. The barriers are primarily a

Table 1. Barriers to wood mobilisation.

B1.
Forest resource barriers

B1.1 Steep or difficult terrain
B1.2 Forest resource characteristics not matching market demand
B1.3 Inefficient harvesting techniques and practices
B1.4 Sustainability concerns and climate change impacts

B2.
Regulatory and legal framework

B2.1 Lack of enabling legislation for ownership
B2.2 Restrictions for productive forestry
B2.3 Lack of enabling legislation for cooperation
B2.4 Other regulatory and legal barriers

B3.
Finances and material inputs

B3.1 Access to forests or markets limited by poor infrastructure
B3.2 Unfavourable working conditions and labour market
B3.3 Lack of access to capital and other inputs

B4.
Organisation and cooperation

B4.1 Land ownership barriers
B4.1.1 Small-scale owners and land fragmentation
B4.1.2 Urban, distant or disconnected forest owners

B4.2 Cooperation barriers
B4.2.1 Insufficient cooperation of forest owners
B4.2.2 Insufficient cooperation within supply chain

B4.3 Market barriers
B4.3.1 Weak markets for forest products
B4.3.2 Lack of market recognition for quality products
B4.3.3 Major market fluctuations & disruptions

B5.
Knowledge and attitudes

B5.1 Knowledge and skills barriers
B5.1.1 IInsufficient advisory capacity
B5.1.2 Insufficient forest management skills
B5.1.3 Insufficient forest management and silvicultural knowledge and planning
B5.1.4 Insufficient business, marketing and cooperation knowledge

B5.2 Attitudes and values barriers
B5.2.1 Disinterest or opposition shown by forest owners for non-financial reasons
B5.2.2 Disinterest in forest-related careers for non-financial reasons
B5.2.3 Disinterest among public or stakeholders or politicians

B5.3 Research & Innovation (R&I) barriers
B5.3.1 Lack of accessible evidence or critical information
B5.3.2 Potential technological solutions not yet developed and tested

consequence of specific characteristics of forest resources, markets and governance conditions of a region, and are often related to structural disadvantages or a lack of usable knowledge by the actors. Table 1 provides an overview according to five main groups of barriers.

One of the first initiatives of the SIMWOOD project was a systematic review of existing knowledge of wood mobilisation in the SIMWOOD model regions and countries. From an initial list of more than 300 papers and project reports, a final list of 115 peer-reviewed papers and 12 project evaluation reports were considered in the final review. The main findings of the review were that: (1) many reports and papers focus on identifying the constraints to wood mobilisation rather than on proposing or evaluating solutions; (2) few evaluations are able to report the impact of interventions on the amount of wood harvested in a way that can be attributed unambiguously to the intervention; and (3) successful interventions are often multi-faceted (often combining

incentives and advice, or farming and forestry, or production and markets) and need to be tailored to local social and political conditions.

Pilot Projects

A next phase of the SIMWOOD project involved setting-up, supervising, coordinating and collating feedback from a series of pilot projects undertaken in real conditions. The pilot projects focus on one or more of five domains (i.e., governance, ownership, forest management, forest functions, harvesting) and explore explicit novel solutions, practices or tools, or test improved existing solutions in another regional context under different conditions.

An evaluation framework was developed that can be applied to measures seeking to mobilise more wood. The framework is based on a 'logic model' widely used in programme evaluation, which covers inputs, outputs, outcomes and impacts.

Pilot Projects

PP01-1

(northeast Bavaria, Germany)

Activation of forest owners to establish sustainable forest management and to adapt the forest stands to the future climate

URL: https://simwood.jrc.ec.europa.eu/search4/projects/project/activation-forest-owners-establish-sustainable-for/detail

PP01-2

(southwest Bavaria, Germany)

Activation of forest owners to engage them in sustainable forest management with special emphasis on alpine forest functions

URL: https://simwood.jrc.ec.europa.eu/search4/projects/project/activation-forest-owners-engage-them-sustainable-f/detail
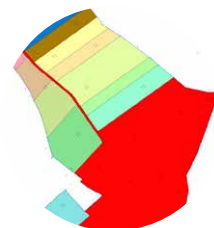

PP02

(North Rhine-Westphalia, Germany)

Forest land consolidation of community forests in North Rhine-Westphalia

URL: https://simwood.jrc.ec.europa.eu/search4/projects/project/forest-land-consolidation-community-forests-north-/detail

PP03 (Auvergne, France)

Consolidated professional know-how in steep terrain conditions as a way to broaden practitioners' wood mobilisation horizons

URL: https://simwood.jrc.ec.europa.eu/search4/projects/project/increase-professional-know-how-steep-terrain-condi/detail

PP04-1 (Grand Est, France)

Improvement of silviculture schemes and wood mobilisation in poor limestone soils contexts

URL: https://simwood.jrc.ec.europa.eu/search4/projects/project/improvement-silviculture-schemes-and-wood-mobiliza/detail

PP04-2 (Grand Est, France)

Increase professional know-how for enhanced environmentally friendly logging operations on sensitive soils

URL: https://simwood.jrc.ec.europa.eu/search4/projects/project/increase-professional-know-how-enhanced-environnem/detail

PP04-3 (Grand Est, France)

Promote forest owners' interest in forest management through contact with professional foresters

URL: https://simwood.jrc.ec.europa.eu/search4/projects/project/promote-forest-owners-interest-forest-management-t/detail

PP05

(Yorkshire and Northeast England)

Bringing unmanaged privately owned woodlands into productive and sustainable management by adopting a marketing brand

URL: https://simwood.jrc.ec.europa.eu/search4/projects/project/bringing-undermanaged-small-farmestate-woodlands-p/detail

PP06 (Lochaber, Scotland)

Living Working Woods: the mobilisation of social, environmental and economic assets of undermanaged/underutilised woodlands

URL: https://simwood.jrc.ec.europa.eu/search4/projects/project/increase-knowledge-and-capacity-management-under-u/detail

PP07-1

(southern and eastern region, Ireland)

Mobilising additional wood fuel from conifer first thinning

URL: https://simwood.jrc. ec.europa.eu/search4/projects/ project/mobilising-additional-wood-fuel-conifer-first-thin/detail

PP07-2

(southern and eastern region, Ireland)

Developing a new collaborative producer group and supply chains for the mobilisation of timber

URL: https://simwood.jrc.ec.europa. eu/search4/projects/project/Developing-a-new-collaborative-producer-group-and/detail

PP08-1

(Castile and León, Spain)

Thinning intensity influence on tree growth and mushroom production in mixed forest in Castile and León

URL: https://simwood.jrc.ec.europa. eu/search4/projects/project/ thinning-intensity-influence-tree-growth-and-mushr/detail
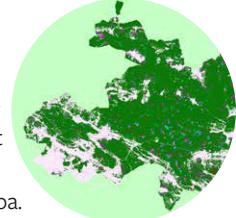
PP08-2

(Castile and León, Spain)

Comparison of different early-thinning practices in naturally regenerated young mixed forest in Urbión Model Forest

URL: https://simwood.jrc.ec.europa. eu/search4/projects/project/contrast-different-early-thinnings-practices-natur/detail

PP09-1 (Catalonia, Spain)

Establishing a protocol for collaborative, mutually agreed management in particularly sensitive forests that reconciles their high natural value with the mobilisation of wood

URL: https://simwood.jrc.ec.europa. eu/search4/projects/project/protocol-collaborative-mutually-agreed-management-/detail

PP09-2 (Catalonia, Spain)

Mobilising the primary forest biomass and promoting the local consumption of woodchip as part of planned forest management to decrease the risk of fire

URL: https://simwood.jrc.ec.europa. eu/search4/projects/project/mobilizing-primary-forest-biomass-and-promoting-lo/detail
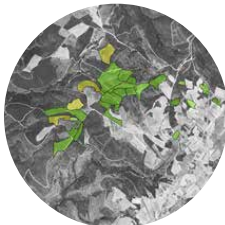
PP10 (Nordeste Transmontano, Portugal)

A multiscale integrative approach for participative sustainable wood mobilisation

URL: https://simwood.jrc. ec.europa.eu/search4/projects/ project/multiscale-integrative-approach-participative-sust/detail

PP11 (Alentejo, Portugal)

Increasing eucalyptus and maritime pine wood availability through management and afforestation in the Alentejo region

URL: https://simwood.jrc.ec.europa. eu/search4/projects/project/increasing-eucalyptus-and-maritime-pine-wood-avail/detail
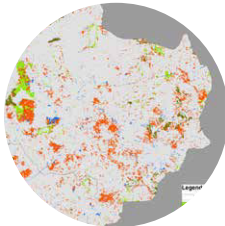
PP12-1 (Overijssel & Gelderland, Netherlands)

Improving wood harvesting logistics by a dedicated GIS-based biomass module

URL: https://simwood.jrc. ec.europa.eu/search4/projects/ project/improving-wood-harvesting-logistics-dedicated-gis-/detail

PP12-2 (Overijssel & Gelderland, Netherlands)

Wood mobilisation in the Food Valley region

URL: https://simwood.jrc. ec.europa.eu/search4/projects/ project/wood-mobilization-food-valley-region/detail

PP13 (Slovenia)

Improvement of the capacity of forest owner associations for mobilisation of wood from private forests

URL: https://simwood.jrc. ec.europa.eu/search4/projects/ project/improvement-forest-owners-associations-capacities-/detail

PP14 (Småland, Sweden)

Development of a more efficient and sustainable system for extraction of logging residuals from clear cutting areas in Småland for fuel purposes

URL: https://simwood.jrc.ec.europa. eu/search4/projects/project/ development-more-efficient-and-sustainable-system-/detail

Short summaries of four of the pilot projects are given in the following pages. The full reports of all the pilot projects, including results from regional evaluations, are available through the SIMWOOD Information System (see box on p. 15).

Forest land consolidation of community forests in North Rhine-Westphalia. Readjustment of property as a solution for land fragmentation and inactive small-scale private forest owners in Germany (PP02)

The SIMWOOD pilot project in North Rhine-Westphalia (NRW) demonstrates how forest land consolidations (FLCs) can enhance the land ownership structure of small-scale private forests and reactivate the forest use. Based on the unique legal framework of the Community Forest Act GWG of NRW, this special consolidation achieves a legal merger of community forests and private owners into a larger forest cooperative society, which goes beyond the readjustment of land parcels for each landowner. The degree of the merger and the benefits for collaborative SFM are thus enhanced compared to conventional land consolidations. Various supporting measures, such as road constructions, silvicultural improvements or landscape interventions are included to generate additional sustainable impacts in the region. Detailed analyses were carried out for six cases of FLCs in NRW and Hesse.
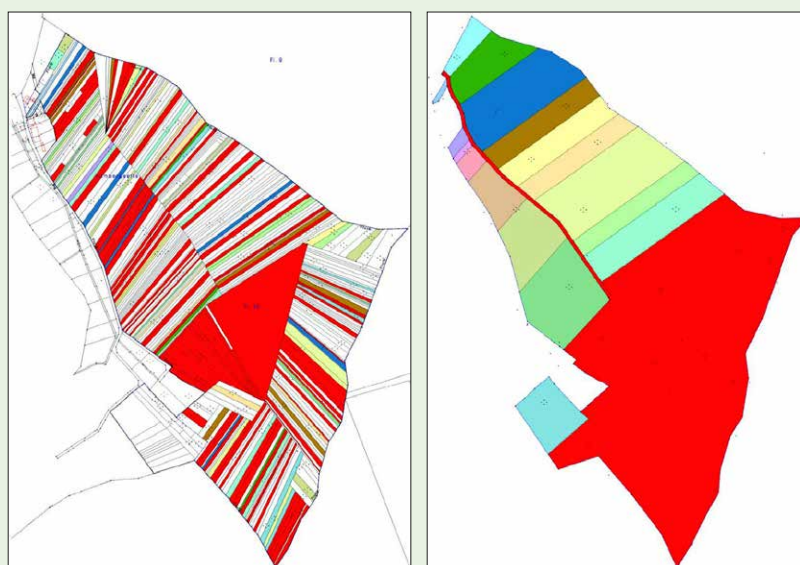

Figure 4. Private forest ownership map before and after a completed land consolidation. Example of an optimal realignment of a highly fragmented forest area during the FLC Biebertal in Hesse, Germany (Kies and Peter, 2017).

Although the FLC process can be complex, expensive and lengthy, the private landowners who have participated in FLC procedures are usually very positive about the results and confirm the usefulness of the outcomes, i.e., valorisation of their property, activation of forest management and increased harvesting of wood.

Kies, U. and Peter, A. 2017. Forest land consolidation of community forests in North Rhine-Westphalia - readjustment of property as a solution for land fragmentation and inactive small-scale private forest owners in Germany. SIMWOOD Pilot Project NRW Final Report. EFI, IIWH, BRA. https://tinyurl.com/yb8pnq73

Consolidated professional know-how in steep terrain conditions as a way to broaden practitioners' wood mobilisation horizons in Auvergne, France (PP03)

In Auvergne SIMWOOD targeted forest companies which could mobilise more wood in steep terrain if they had greater knowledge of the feasibility of logging operations in terms of economy, health&safety, human resource management and environment.

The pilot project aimed to engage: (a) professional practitioners who already mobilised wood in steep terrain; and also (b) forest companies that wished to open new operations in steep terrain. For some stakeholders logging operations were the core activities of interest, while for the others there was interest in a broader services-mix which also includes forest management.

The companies involved in the regional demonstration events are responsible for more than half of the wood mobilisation in the region (all terrain types included). During evaluation, all participants stated they had individually benefited from the project. Participants also confirmed they had shared the knowledge within their company/organisation.

Logging operations on steep terrain are still relatively expensive and dependent on high wood prices to justify the cost. However, the pilot project provided the participating companies with new or consolidated capacities to conduct operations on steep terrain when market demand justifies doing so.

Figure 5. Logging operations on steep terrain in Auvergne.

Establishing a protocol for collaborative, mutually agreed management in particularly sensitive forests that reconciles their high natural value with the mobilisation of wood in Catalonia, Spain (PP09-2)

This pilot project was a reaction to a clash of interests in the region where stakeholders involved with timber production identified nature protection policies (more than 30% of the land area in Catalonia is protected) as one of the main barriers to increased wood mobilisation. The pilot project aimed to establish a protocol for collaborative, mutually-agreed management for high conservation value forests ('Singular Forests'). The protocol reconciles high conservation values with increased wood mobilisation.

Co-production of the common criteria for wood mobilisation in forests specifically recognised for their high nature value was a major achievement. Subscription to the protocol is the clearest sign of a rapprochement between owners and conservationists, and between timber harvesting (launched by active forest owners) and the conservation of the natural assets of the 'Singular Forests'.

Xavier Carbonell, CREAF

Figure 6. Reconciling high conservation values with wood mobilisation in Catalonia.

With the actions implemented, this pilot project contributed to:
- a better understanding between the timber and nature conservation sectors, with an understanding that forest management is often necessary to adapt forests to climate change;
- provide tools and guidelines to the regional administration for establishing specific legislation for management of forests with high conservation values with the aim to establish a network of such forests.

The most significant changes are:
- increased knowledge of forest dynamics among stakeholders;
- potential reorientation towards active and multifunctional forest management based on closer-to-nature practices;
- improvement in the incorporation of conservation criteria linked to productive forest management (timber production).

Bringing unmanaged privately owned woodlands into productive and sustainable management by adopting a marketing brand in Yorkshire and Northeast England (PP05)

Rural Development Initiatives (RDI) identified the option of creating a group scheme in Yorkshire and Northeast England under the Grown in Britain (GiB) licensing standard and developed the processes and procedures for creating and managing the group, the first of its kind in the UK. The GiB brand identifies wood that has been grown in Britain and assured as being from sustainable and legal sources. It provides assurance that the wood is from forests that are managed in accordance with the UK Government's Forestry Standard and public procurement standard – the UK Timber Procurement Policy.

The pilot project ended with a group of 12 members with 569 ha of forests. The group represents different actors within the supply chain in the region from woodfuel producers to sawmills and charcoal makers. Early evaluation of marketing the GiB group scheme shows that participating stakeholders are positive about the reasons for joining, and can see the potential that the scheme has to improve marketability of timber products made from locally grown timber and the potential impact this could have on mobilising more timber production from the region's forests.

Figure 7. Grown in Britain logo.

The following key messages are based on the lessons learned over the course of the SIMWOOD project and, in particular, through the implementation of the pilot projects.

Key messages - general

- Forest management (and neglect of forest management) occurs over generations. Implementing changes to forest management, including sustainably increasing wood mobilisation, requires a stable and cohesive overall policy framework, sustained investment of resources, and time.
- In all cases, over the medium- to long-term, the amount of wood being extracted from forests in the countries represented in SIMWOOD is less than the annual growth in forests. There is, therefore, potential to significantly increase harvesting levels within the scope of a sustainable and climate-smart forest management regime. However, there is large regional variation in forest conditions and current levels of wood mobilisation. The local conditions must be taken into consideration when designing and implementing policies to increase wood mobilisation.

- The main barriers impeding a widespread wood mobilisation in forestry are not only of a technical nature, but also to a large extent of a socio-economic nature, and are dependent on the motivations of a multitude of forest owners and other actors throughout the wood-supply chain. The key actors (such as the local forest administration, forest owner associations, and municipalities) need to be identified, engaged and supported. The key actors should be made part of the process and participate and co-decide on initiatives related to wood mobilisation.
- Broader awareness of the benefits of active and sustainable forest management is needed. The different types and motivations of forest owners need to be recognised, and there needs to be further effort and initiatives to activate and professionalise forest owners.
- Forest owner associations (FOAs) are key actors in the efforts to activate and professionalise forest owners. Wood mobilisation can be promoted by supporting FOAs to: improve their organisational capacities; and improve the capacity of FOA staff to facilitate engagement of members through participatory methods.
- FOAs (and their members) can be encouraged to support wood mobilisation by: raising awareness of the economic benefits of a joint wood production and marketing; rewarding and promoting positive examples of joint production and marketing (e.g., through an annual award for innovative initiatives); and bringing forest owners and local wood processing companies together for joint events (e.g.,. to showcase local needs and the potential for additional, economically feasible wood supply).
- An integrated approach to management of forests is required to ensure that the broad range of forest ecosystem functions and related services continue to be supplied. A sole focus on increasing wood mobilisation can provoke resistance for some groups of forest owners.
- To guarantee the sustainability of forest management for increased wood mobilisation, forest administrations need to monitor the forests and ensure that they continue to supply a multitude of ecosystem functions and related services.
- Markets for wood are often complex and lack transparency. Initiatives to increase wood mobilisation need to engage stakeholders throughout the regional wood supply chains. More transparent information and better understanding of market behaviours are needed to allow forest managers and owners to better anticipate the income from timber sales, and engage in activities to increase sustainable wood mobilisation.
- There is a need for multi-scale actions and coordination at EU, national and regional levels to replicate successful local initiatives, where appropriate.
- Modelling work was carried out within the SIMWOOD project in 11 of the 12 model regions. The modelling showed that the total annual harvest in the modelled area of the 11 regions (7.8 million ha) was 53.6 million m^3, with a theoretical additional potential harvest of 17.2 million m^3. About 4% of this additional wood was classified as easy to mobilise, and about 26% was classified as being available with medium effort.

Key messages from the pilot projects

- Wood mobilisation is more likely to be successful when embedded in collaborative regional initiatives within and beyond the forest-based sector, which aim to have positive impacts on the regional development and economy.
- Some of the pilot projects have already had a modest but positive effect to increase wood moblisation within the boundaries of the project. In some cases, the pilot projects have not had a measurable effect on wood mobilisation that can be attributed unambiguously to the pilot project. However, the pilot projects have increased capacities to act and awareness amongst stakeholders, and they are expected to have a continuing effect on wood mobilisation in the pilot project areas.
- Most of the teams implementing the pilot projects have indicated that they will continue

to implement the project initiatives and that there are plans to roll-out the activities on a wider scale across the regions and countries.

- Mobilising more wood in some regions will only occur over a longer time period as the skills, knowledge, infrastructure and markets need to be built. In regions where the skills, knowledge and markets have declined, a sustained effort is needed to rebuild the local capacities.
- The regional learning labs and demonstration events ensured successful outcomes for the pilot projects. Learning from peers creates long-lasting benefits.
- Small-scale initiatives that take into account local conditions can increase wood mobilisation. In order to increase wood mobilisation on a larger scale, the successful initiatives need to be promoted and rolled-out on a wider scale.

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SIMWOOD INFORMATION SYSTEM
Sustainable Innovative Wood Mobilisation

The SIMWOOD Information System is implemented as a web information service about issues concerning wood mobilisation in Europe. The main sources for the content of the SIMWOOD Information System are the SIMWOOD project and the partners of the SIMWOOD consortium.

The components of the SIMWOOD Information System include:

- a knowledge base of barriers impeding wood mobilisation along with corresponding measures capable of overcoming these barriers – related projects and measures from across Europe;

- maps and graphs showing wood mobilisation initiatives, facts and figures and relevant web-sites on the topic;
- an interactive tool to assess the outputs of modelling exercises related to wood mobilisation scenarios in pilot regions; and
- a newsfeed on the latest happenings in biomass mobilisation across the world.

The content of the SIMWOOD Information System was developed by SIMWOOD partners during the SIMWOOD project. Other interested users are invited to contribute information about other measures to stimulate wood mobilisation.

https://simwood.jrc.ec.europa.eu

The SIMWOOD handbook aims to raise awareness of the challenges of wood mobilisation from managed forests in Europe. Based on a survey of initiatives and pilot projects in several European countries, the main barriers impeding wood mobilisation are presented in line with a set of corresponding measures and interventions that are considered capable of overcoming these barriers. It provides a comprehensive overview of the topic from a European perspective and is aimed at forest owners, practitioners and policy makers in the forest-based sector.

IEFC

SIMWOOD Consortium

The SIMWOOD consortium is a partnership of 28 participating organisations which included two European research organisations, 13 national or regional research organisations, 11 small and medium-sized enterprises (SME) and three public bodies.

Bayerische Landesanstalt fur Wald und Forstwirtschaft des Bayerischen Staatsministerium fur Ernahrung, Landwirtschaft und Forsten (LWF)

Bavarian Research Alliance (BAYFOR)

European Commission Joint Research Centre (JRC), Institute for Environment and Sustainability (IES)

European Forest Institute (EFI)

University College Dublin (UCD)

Forest Research (the research agency of the UK Forestry Commission)

Institut Technologique FCBA

Wageningen Environmental Research, Wageningen University & Research (WUR)

Internationales Institut für Wald und Holz NRW e.V. (IIWH)

Kuratorium fur Waldarbeit und Forsttechnik e.V. (KWF)

Instituto Universitario de Gestion Forestal Sostenible, Universidad de Valladolid (UVA)

Centre de Recerca Ecològica i Aplicacions Forestals (CREAF)

Centro de Investigação de Montanha, Instituto Politécnico de Bragança (IPB)

Instituto Superior de Agronomia (ISA), Universidade Técnica de Lisboa

Linnaeus University (LNU)

Slovenian Forestry Institute (GIS)

Slovenia Forest Service (ZGS)

Biomass Technology Group BV (BTG)

Agresta S. Coop.

ECM Ingeniería Ambiental SL

Forêts & Bois de l'Est (FBE)

Irish Wood Producers (IWP)

Forest Enterprise Ltd (trading as VEON)

ARBOREA - Associação Agro-Florestal e Ambiental da Terra Fria Transmontana

ForestFin - Florestas e Afins, Sociedade Unipessoal, Lda.

Energikontor Sydost AB (ESS)

Small Woods Association (SWA)

Rural Development Initiatives Ltd (RDI)

http://simwood.efi.int/