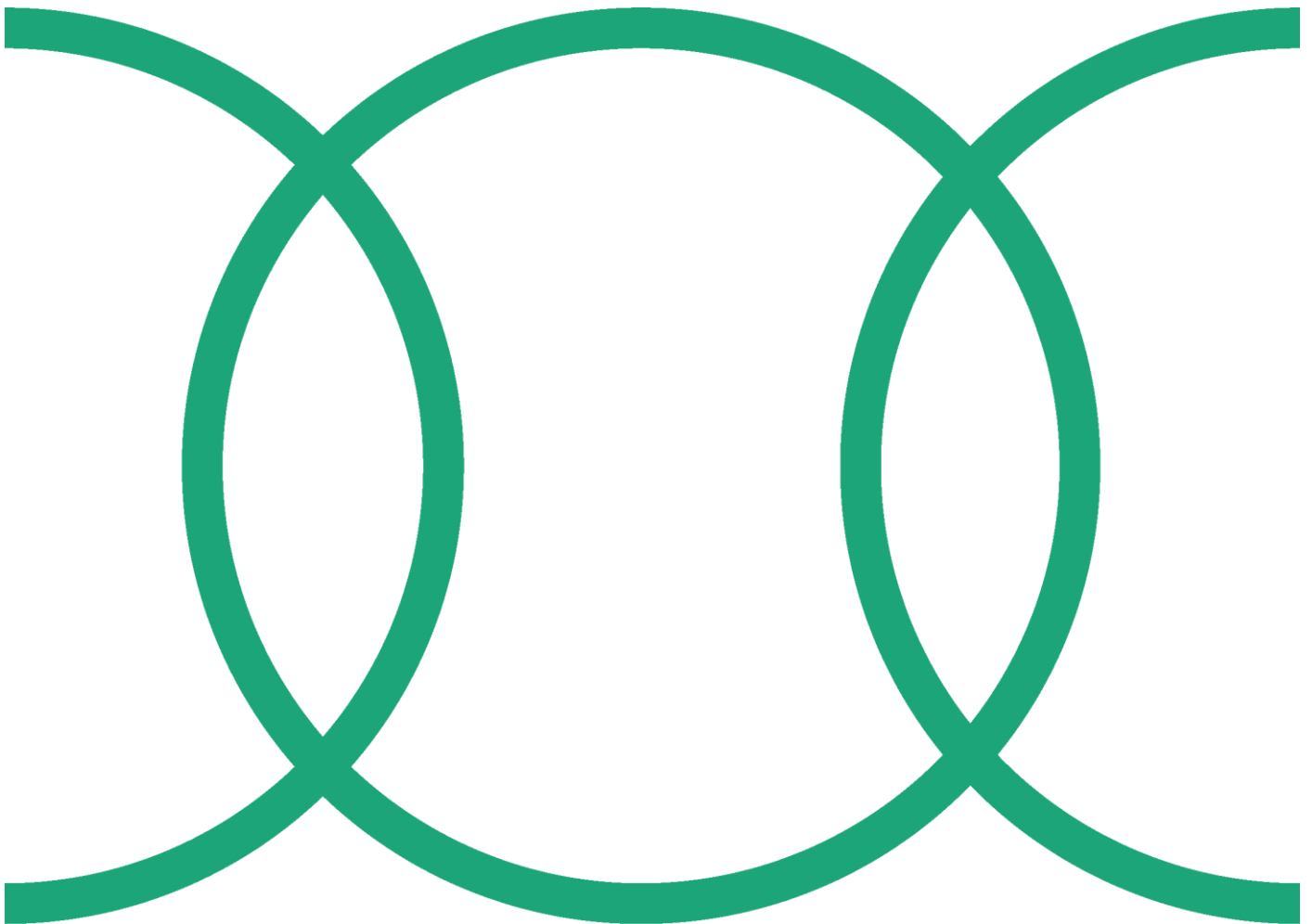


D3.3 Update of drivers in policies and administrations for innovation in forestry and agroforestry



Document control sheet

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Authors	Kathrin Böhling Chapter 6: José Javier Santiago-Freijanes, Ferreiro-Domínguez N, Rodríguez-Rigueiro FJ, Rigueiro-Rodríguez A, Romero-Franco R, González-Hernández MP, Fernández Lorenzo JL, Mosquera-Losada MR
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Executive Summary

The present deliverable D3.3 “Update of drivers in policies and administrations for innovation in forestry and agroforestry” provides a comparative analysis of forest sector innovativeness and drivers for innovation across four macro-regions: Central Europe, South-East Europe, South-West Europe, and Northern Europe. It is based on the evidence of the Innovation survey carried out in the frame of the FOREST4EU project, desk research, and a CAP policy analysis. Moreover, building on the results presented in D3.2, the present report directs attention to the administrative barriers for the implementation of the EIP-Agri Operational Groups (OGs) in the 9 partner countries (Croatia, Finland, France, Germany, Italy, Latvia, Portugal, Slovenia, Spain – plus Sweden). To this end, relevant literature incl. evaluation studies was analysed and experts in ministries and government authorities were consulted. Finally, results from a CAP policy analysis for forestry and agroforestry innovation adoption is presented to improve the understanding of the enabling context in which they are developed. The perspective that the existence of distinct forest management regimes affects the innovation of forestry and agroforestry in Europe frames the analysis. The key insights from each chapter are summarised in the conclusions and discussed in this framing.

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1. Introduction

The general drivers in policies and administration for innovation in forestry and agroforestry have been described in D3.2. The report distinguished between external and behavioral drivers of innovation. External drivers include climate change, loss of biodiversity, and changing expectations in society on forestry. Moreover, the survey evidence supports the EIP-Agri definition of innovation. The majority of respondents support the idea that innovation is about implementing new ideas into practice and that knowledge transfer plays a key role. Governments can support innovation in the forest sector by means of funding schemes, for instance. The EIP-Agri scheme for Operational Groups (OGs) is perceived as a useful measure in this respect by almost two thirds of the participating OGs' members in the survey. These results, however, also indicate that several aspects of the funding scheme should be improved.

The uptake of EIP-Agri OGs and other Rural Development Programmes (RDP) measures differs largely across EU Member States (Santiago-Freijanes et al. 2018). Moreover, there is a great diversity of forest management approaches, tree species and owners across Europe (Schelhaas 2018) that affect how the framework conditions for innovation in forestry and agroforestry play out in practice (chapter 2). The present deliverable D3.3 "Update of drivers in policies and administration for innovation in forestry and agroforestry" (M18) therefore examines the enabling conditions and constraints for innovation in forestry and agroforestry in four different regions: Central Europe, South-East Europe, South-West Europe, and Northern Europe (chapter 3).

The report is structured as follows: It starts by describing the different forest management regimes that characterise these regions. In the next step, selected results from the European-wide survey with representatives from government authorities, interest groups, NGOs, research, and practitioners (n=326) are presented with respect to these macro-regions (chapter 4). Then, greater attention goes to the EIP-Agri measure for OGs in the CAP. The factors that inhibit the implementation of this novel measure are summarised for the partner countries in FOREST4EU and shown by means of a table (chapter 5). In a complementary step, the results from the sub-task 3.1.3 "Identification of barriers for uptake of OG results by end users" are presented in this report (chapter 6). The major insights from these analyses are summarised in the conclusions of the report (chapter 7).

2. Forest management regimes in Europe: Different settings for innovation

Forest ecosystems, ownership structures and management practices differ widely across Europe, thus presenting different settings for innovation in forestry and agroforestry. Winkel et al (2011) distinguish between three regional patterns (paradigms) of sustainable forestry across Europe (see table below): (1) ‘Sustained yield’ – sustainable timber production, (2) ‘Multipurpose forestry’ – multifunctional sustainability, and (3) ‘Ecosystem management’ – ecological sustainability. The table below summarises each paradigms’ goals, premises, relevant countries, forest areas, and importance of forest sector for national economies.

Regional pattern	‘Sustained yield’ – sustainable timber production	‘Multipurpose forestry’ – multifunctional sustainability	‘Ecosystem management’ – ecological sustainability
Goal	Maximum possible periodic timber yields (in terms of quantity and quality)	Maximum periodic yields from sales of 1) timber and 2) other forest services	Improvement and/or maintenance of the ecological state of forest ecosystems
Major premises	Maximum quantity of timber harvest must not exceed periodical prescribed yield	Maximum quantity of timber harvest must not exceed periodical prescribed yield	Maximum of forest ecosystem services aspired; Minimum quantity of timber maintained
Countries	Finland, Sweden, Estonia, Latvia, Lithuania, Austria, Poland	France, Germany, Czech Republic, Slovakia, Slovenia, Bulgaria, Romania, Hungary	Greece, Italy, Portugal, Spain
Forest area	Large in relative terms	Relatively large, partly fragmented forests	Parcelled forests
Importance of forest sector for national economies	Great	Moderate	Little

Table 1: Regional patterns of sustainable forestry across Europe (adapted from Winkel et al. 2011: 366-7)

In practice, maximising yield or improvement of forest ecosystems are not the only factors that determine how forests are managed. Schelhaas et al. (2018: 3) explain that “the more than 16 million private forest owners and thousands of public owners in Europe each have their own management goals while decisions to harvest or not are further influenced by wood prices, state of the forest resource, available subsidies, calamities, accessibility of the site, family circumstances, etc.” They suggest distinguishing forest management patterns between boreal, continental/alpine, atlantic and mediterranean regions, and show that there is a generally intensive forest management in Nordic countries, but conditions for tree growth are more difficult in the most northern parts. Mountain regions in the alps are not always profitable, so often the only reason for forest management is the protection of ecosystem services. In continental regions, there is an average harvesting probability, while in atlantic regions the harvest probability differs depending on general growing and soil conditions. In some countries, there are regulations or subsidy-schemes towards dead wood, whereas in others it seems to be actively removed. Mediterranean regions are dominated by a very low harvesting intensity of timber, management of non-wood forest products, and a focus on securing ecosystem services.

Overall harvest probability varies largely, based on regional differences in occurrence of productive tree species, site accessibility or forestry tradition. Forest management in private forests shows less harvesting for small properties, but also lesser regulations towards nature conservation. Harvesting intensity therefore varies even more. Domestic legislation also has a major impact on harvesting levels by influencing the preferences and decision-making power of owners and managers (Nichiforel et al. 2020). For example, subsidies and incentives can effectively target policy goals to environmental discourse.

Aszalós et al. (2021) assessed European forest management practices in 13 countries (Finland, France, Germany, Austria, Czech Republic, Poland, Hungary, Romania, Latvia, Sweden, Slovenia, and Slovakia) and divided them in a boreal zone (Sweden, Finland and Latvia) and a temperate zone, excluding the mediterranean area. One goal was to identify the silvicultural systems in the different countries. They show a difference between boreal and temperate countries, as clear-cutting systems are far more used in boreal forests. Results also show that coppice and uneven-aged systems are more frequent in France and Italy, while shelterwood systems are more common in Slovakia and Romania. Most of the Slovenian forests are managed by irregular shelterwood systems. In the Czech Republic, Germany, Poland, Austria and Hungary, clear-cutting and/or uniform shelterwood systems are more widely represented.

Not only do the forests and management practices across Europe vary, but ecosystem reactions are also influenced by geographical regions: Biber et al. (2015) examined how silvicultural treatment influences the provision of ecosystem services in European forests and showed that forest management intensity influences ecosystem services differently: In Southern, Eastern and Northern Europe, a more intensive management of forests leads to a decrease in ecosystem services regarding biodiversity. In Central Western and North-Western Europe with the greater shares of plantation-oriented forestry, a less intensive forest management tends to lead to losses in biodiversity. In Southern, Eastern and Northern Europe, the trend is opposite. There. There more intensive management leads to less biodiversity.. Biber et al. (2015) argue that the ecosystem services related to carbon storage and standing volume (also referred to as “forest resources”) should not be approached too standardised, as in some region a less intensive forest management can lead to more “forest resources”, whereas in other regions less intensity achieves nothing.

Moreover, because of increasing climate change impacts, existing management regimes have been challenged over the last decade. Hanewinkel et al (2013), for example, have analysed how climate change lowers economic revenues from forest management. The article presents results from the modelling of forest productivity in different climate change scenarios and reveals a biome shift of major tree species. For example, the tree species group “spruce biome” will be limited to areas in Northern Europe and higher elevations in Central Europe. This biome shift will reduce profits as timber prices for spruce are high, compared to most species. The presented evidence for the “Land Expectation Value” in €/ha of species shows that for most of the species the estimated Land Expectation Value increases from 2010 to 2040 but will then decrease until 2100. From here they conclude that climate change affects economic profit from forestry negatively across Europe.

In a more recent study, Roitsch et al. (2023) analysed how forestry professionals in 9 European countries (Finland, France, Germany, Italy, Norway, Portugal, Spain, Sweden, and the United Kingdom) perceive climate change effects and adaptation strategies. They found two adaptation approaches: close-to-nature forestry and intensive forestry. There is generally broad support for tree species diversification as a key strategy for adapted forests. But the two approaches differ, for example, with respect to the choice of the selected species, the perceived need of governmental regulation and importance of natural dynamics in adaptation. In Northern Europe, perceptions of climate change effects on forestry are generally more positive, in line with modelling projections of a warming climate increasing forest growth, whereas in Central and Southern Europe perceptions are negative. In the South, calls are made to provide rapid adaptation and preparedness mechanisms. In Germany, which is located in Central Europe, funding has been made available for forest restoration and scaling up climate-resilient forestry measures.

3. Data collection for analysis of innovation in different regions of Europe

The FOREST4EU project accounts for the regional differences in forest management regimes by means of three Policy Focus Groups, covering: (1) Central Europe, (2) South-East Europe, and (3) South-West Europe. The three groups link the policy community with research on innovation practice in forestry and agroforestry, and highlight the regional patterns of forest management, including multipurpose forestry and ecosystem management, and the different uptake of CAP funding. Because Finland and Latvia are also represented in the project consortium and therefore also in the Innovation survey, the Nordic countries are added here as the fourth macro region. It also includes responses from Estonia and Sweden as shown in the table below.

Region	Central Europe	South-East Europe	South-West Europe	Northern Europe
Response per region	55	64	157	42
Response per country	Austria: 7 Czech Republic: 1 Germany: 44 Hungary: 1 Romania: 2	Croatia: 36 Greece: 1 Slovenia: 27	France: 18 Italy: 81 Portugal: 31 Spain: 27	Estonia: 3 Finland: 25 Latvia: 10 Sweden: 4
Total	318			

Table 2: Response for Innovation survey per macro-region

Overall, 318 people from the 4 different regions have participated in the survey. The uneven response per country reflects the consortium's partner countries and the salience of national networks for data collection. The overall response to the FOREST4EU Innovation survey is n=326. The 8 survey participants from none of the above-mentioned regions are based in Belgium, Ireland, Poland, and the United Kingdom. Their responses are excluded from the results presented in this deliverable. It covers eight survey questions (see table below). This evidence is complemented with findings about barriers in the implementation of the EIP-Agri measure for OGs from a content analysis of RDP (Rural Development Programmes) evaluation reports in the FOREST4EU partner countries.

	Survey evidence per macro regions	No of questions in survey	Target group
I	The forest sector is innovative if ...	1	All
II	External and behavioral drivers of innovation in forestry and agroforestry	7	All

Table 3: Selected survey evidence for D3.3

Survey participants were asked to complete the sentence "The forest sector is innovative if ...". To analyse the non-

standardised data of the completed sentences, the responses were first translated into English by project partners and then analysed per country by a smaller team of three project partners (StMELF-LWF, UNIFI, USC). The in-depth analysis of the completed sentences delivered a set of categories that helps structure the evidence on perceptions of forest sector innovativeness. Ultimately, 17 categories were defined to structure the analysis of the collected data. They are listed in the table below and grouped according to the identified factors affecting innovation in forestry and agroforestry described in D3.2.

The analysis of the drivers for innovation per macro regions covers the major drivers as identified in D3.2, namely: Climate change, Loss of biodiversity, Bioeconomy, Markets for ecosystem services, Changing demands in society as well as the attitudes towards Implementation of new ideas into practice and Knowledge transfer.

Factors affecting innovation from literature research	Categories for survey results to “The forest sector is innovative if ...”	Description
Knowledge and information	... promotes knowledge transfer	Includes knowledge transfer from science/research to practitioners, from practice to research, between practitioners; peer-to-peer learning between different actors
Technology	... adopts new technology ... creates new products ... develops new services	New technology, app / product / service developed and/or implemented; can also be adopted from abroad
Values and attitudes	<i>not further specified for categorization</i>	
Cooperation	... enhances cooperation	Improving the cooperation and communication between multiple actors incl. inter-sectoral cooperation between forestry and agriculture
Resources	... enhances management practices ... improves forest management ... increases adaptive capacity	Changing / improving management practices to do new activities, do existing tasks in a better way, improve the organisation of work Forest mgmt. refers to any planned human intervention in a forest ecosystem to achieve specific goals and objectives Adaptive capacity refers to ability of systems, institutions, corporate units to adjust to changes in their environment, take advantages of opportunities, or to respond to consequences.
Markets	... responds to sector needs ... connects the value chain ... increases economic benefits	Responding to economic interests and needs of actors in sector, incl. lobbying for/advancing sector interests in policy processes Explicit referencing to cooperation of business partners in value chain / industry / supply chain; value chain relates to the processing of raw materials into products and related services Innovation linked to improving productivity, profitability, higher efficiency, profitability etc.
Society	... responds to society ... is sustainable	Responding to societal changes, meeting needs of society, seeking dialogue with people in society/civil society, developing forest pedagogics

		Refers to integrating economic, social/societal, and environmental/ecological goals and interests
Government and policy	<ul style="list-style-type: none"> ... receives policy support ... contributes to rural development ... adjusts to climate change ... supports ecology 	<ul style="list-style-type: none"> Receiving policy support for innovation incl. funding Benefits for rural development incl. job growth, improved livelihoods in rural areas Refers to adaptation to and mitigation of climate change in forestry and agroforestry Refers to improving biodiversity, nature conservation, forest ecosystems, soil protection

Table 4: Categories for analysis of perceptions for forest sector innovativeness

The cross-regional comparison of the responses to the drivers of innovation was analysed with the software Statistica. The results are presented and discussed in the next chapter. Moreover, they will be discussed as topical inputs for the Policy Focus Group meetings for Central, South-East and South-West Europe and the Knowledge transfer workshops, foreseen for M22-M27. The ongoing analysis and discussion of results informs the preparation of scientific publications in the realm of innovation governance and forest and agroforestry policy.

4. Results from Innovation survey in FOREST4EU

The presentation of the results starts with the evidence on the perceptions of forest sector innovativeness per macro-region and then examines the overlaps and differences in the responses to the identified drivers of innovation per macro-region. Whereas the innovation drivers are largely the same across Europe, the understandings of what characterises a forest sector's innovativeness are not. This finding underscores the project's design to reach out to policymakers and practitioners with tailored offers and approaches that help supporting the innovativeness of the forest sector.

Perceptions of innovation in different regions of Europe

Innovation in rural development policy is defined as “a new idea put into practice with success ... that may be technological, but also non-technological, organisational or social ... based on new but also on traditional practices.” (EC Guidelines EIP Agri, 2014, p. 3). The definition aligns with the conception in forest policy science that innovation refers to “the process of making changes to something established by introducing something new” (Mann et al. 2022: 283; Weiss et al. 2020). Drawing on from here, the Innovation survey in FOREST4EU answers the question what innovation in the forest sector is about, thus specifying the topics of main interest. The results show that the innovativeness of the forest sector means different things at the same time yet varying across Europe. The comparative analysis of this report reveals the topical issues per macro-region.

In **Central Europe**, the forest sector is perceived as innovative if it increases its ability to adapt to changes that affect forestry incl. socio-political developments and to improve management practices. This includes to “adapt to changing conditions at an early stage”, the ability “to break away from its rigid, traditional structures”, and “to constantly evolve”. With respect to forests, improved management can mean to adopt “new methods for continuous adaptation to social and climatic challenges.” Looking at knowledge transfer, respondents underscore that the forest sector can benefit by “adopting input from other countries” (incl. alternative tree species), “quickly implementing scientific findings into practice”, and that “different kinds of stakeholders work together to address an urgent problem by developing an innovative solution.” Please note that the response for Central Europe largely reflects the views of survey participants from Germany.

In **South-East Europe**, the forest sector is perceived as innovative if it improves forest management and adopts new technology. Respondents suggest to “continuously adapt to new technologies and methods and actively seek sustainable solutions for forest resource management” or to “introduce new technologies, methods and approaches to manage forests sustainably, optimise timber production, protect the environment and improve efficiency and safety at work.” Respondents stress also that an innovative forest sector “is aligned with the needs of the entire forest ecosystem” and “to return to nature what we took from it.” Others explain that this should go hand in hand with the sustainable management of forests. For example, by applying “new technological, practical or other solutions with the aim of improving forest management and long-term sustainability, and applies solutions to preserve the environment, nature and minimise negative effects on the climate.”

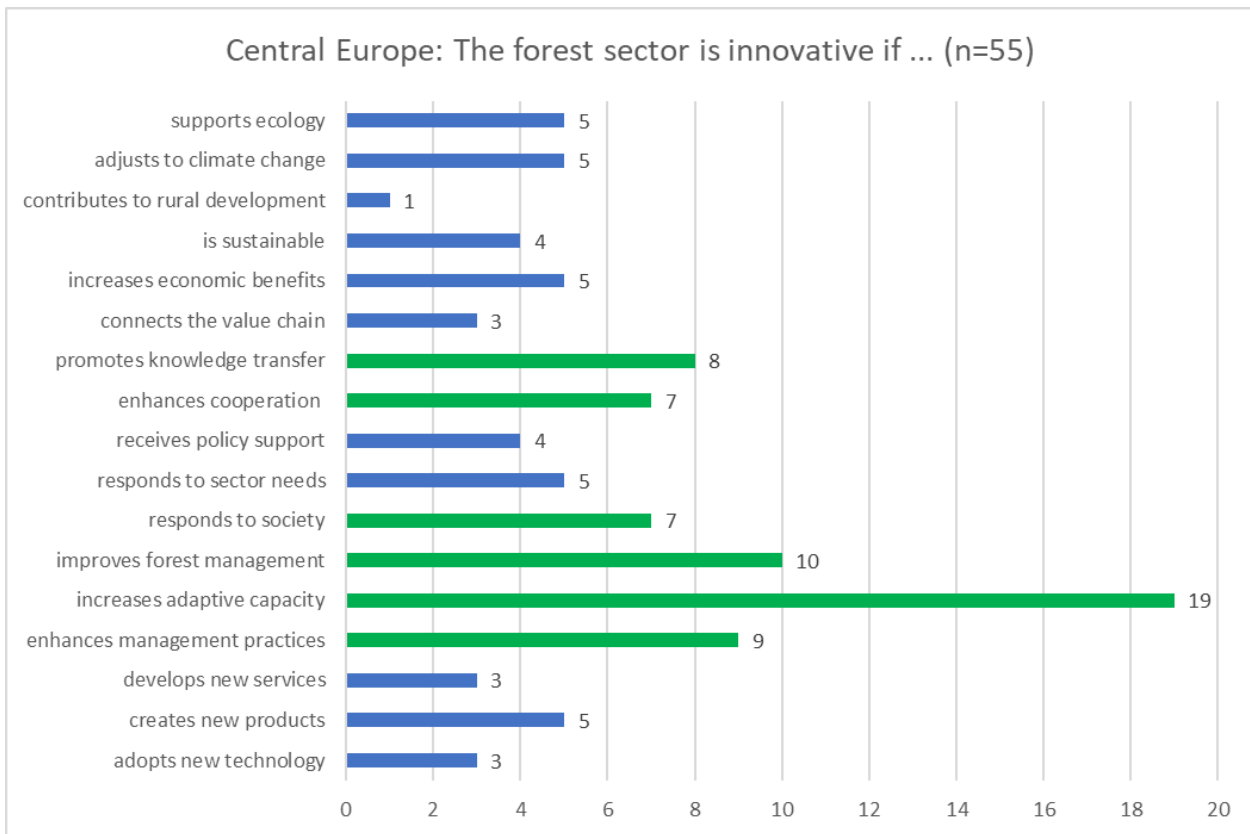


Figure 1: Response to "The forest sector is innovative if..." in Central Europe

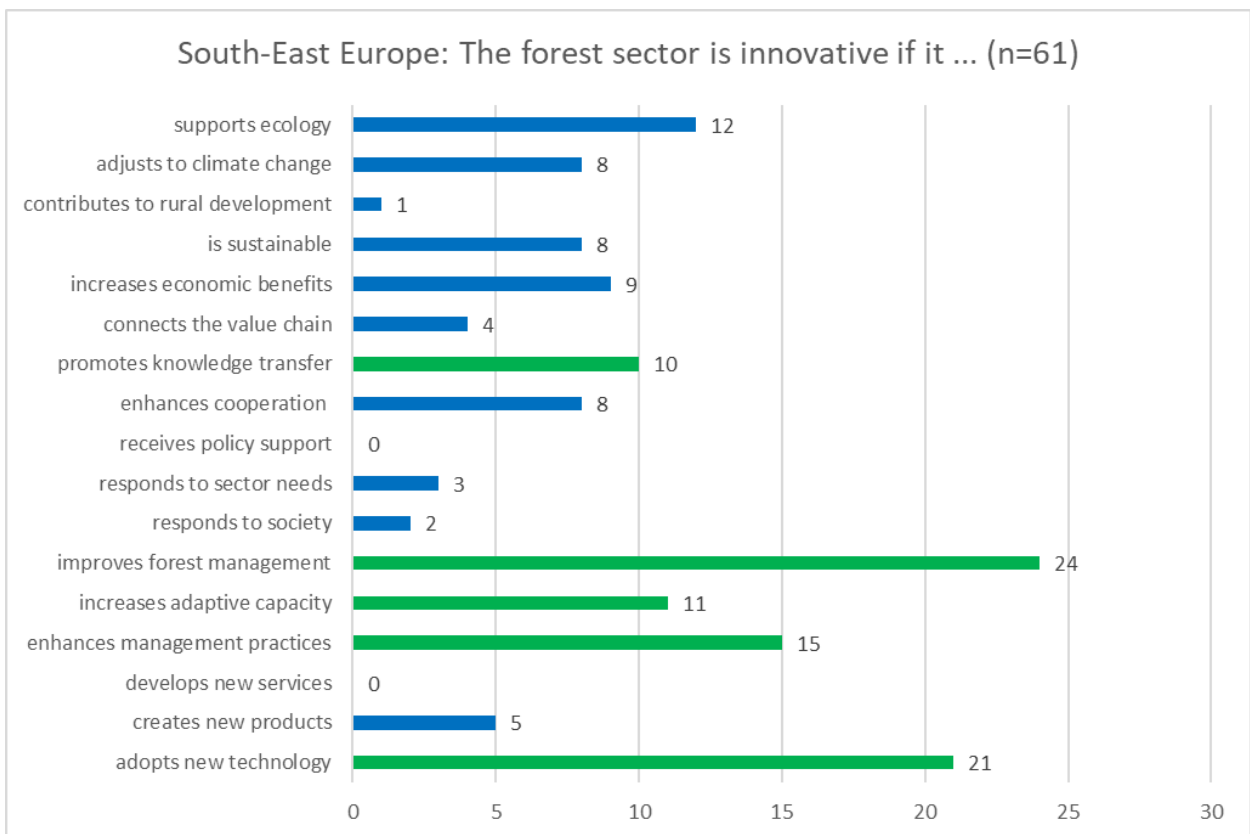


Figure 2: Response to "The forest sector is innovative if..." in South-East Europe

In **South-West Europe**, the innovativeness of the forest sector is often perceived as including both: enhanced management practices and adoption of new technologies. The latter is a means for the former. For example, by embracing “the challenge of translating methodological and technological advancements into operational applications”, changing “current management models by incorporating new technologies”, or applying “new technologies to improve working conditions and accuracy in the field.” Sustainability is often referred to in combination or in balance with the economic use of forest resources to allow “for the sustainable exploitation of forest resources” or “for operations without harming the environment.” Support for ecology tends to be seen as both an outstanding characteristic of innovation and an integral part of management. Accordingly, the forest sector may be innovative if “done in respect of the forest ecosystem” or integrated in forest management – enabling adaptation “to structural trends such as societal demand, [...] integration of biodiversity in management decisions, [...] having capacity to respond rapidly to cyclical events such as forest dieback crises.”

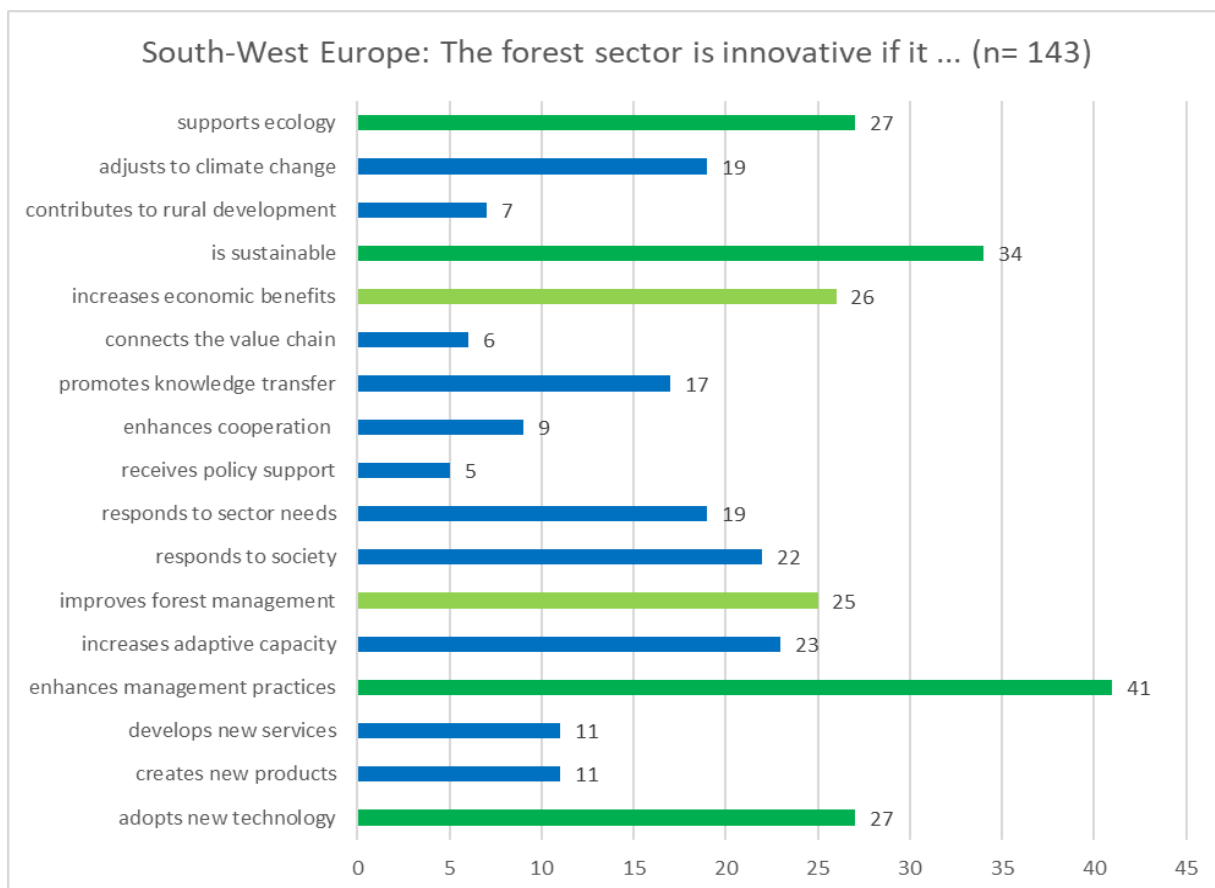


Figure 3: Response to “The forest sector is innovative if ...” in South-West Europe

In **Northern Europe**, the forest sector is perceived as innovative if it creates new products, is sustainable and supports ecology. The perspective emphasises the outputs of innovation rather than potential contributors and inputs; for example, by creating “new high-value-added products for the comprehensive use of forests in a sustainable way” and “within the planetary boundaries.” Improved forest management refers here to “maintain and even increase carbon storage”, “with a positive trend for the future, biodiversity-friendly and the wood products produced have an increasing added value.” It may imply “to move away from old routines and tried methods” and “reform forest sector genuinely without an industry-centric approach.”

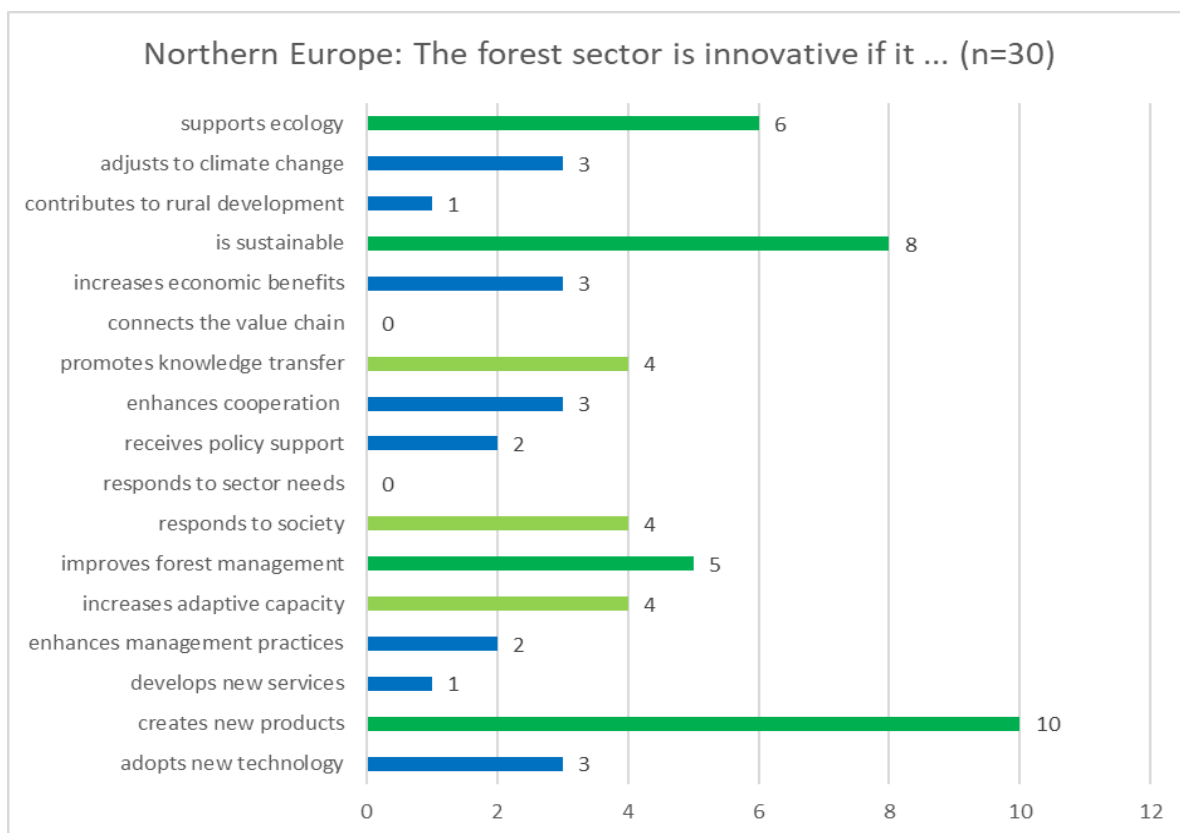


Figure 4: Response to "The forest sector is innovative if..." in Northern Europe

External drivers for innovation in different regions of Europe

The main insights about the external drivers in cross-regional perspective can be summarised as follows:

- **Climate change** is clearly the key driver of innovation, certainly in Central, South-East, and South-West Europe, and a little less strongly in Northern Europe.
- **Loss of biodiversity** is a major driver for innovation in South-East, South-West, and Northern Europe, but less in Central Europe.
- There is general agreement that **bioeconomy** is a driver for innovation in South-West and in Northern Europe, whereas the results for Central and South-East Europe are more mixed.
- **Markets for forest ecosystem services** are perceived as a driver for innovation in all regions but in Central and South-East Europe there is also substantial skepticism.
- **Changing demands in society** represent a major driver for innovation in the four macro-regions. But there are also substantial shares of undecided and/or skeptical perspectives in all parts of Europe.

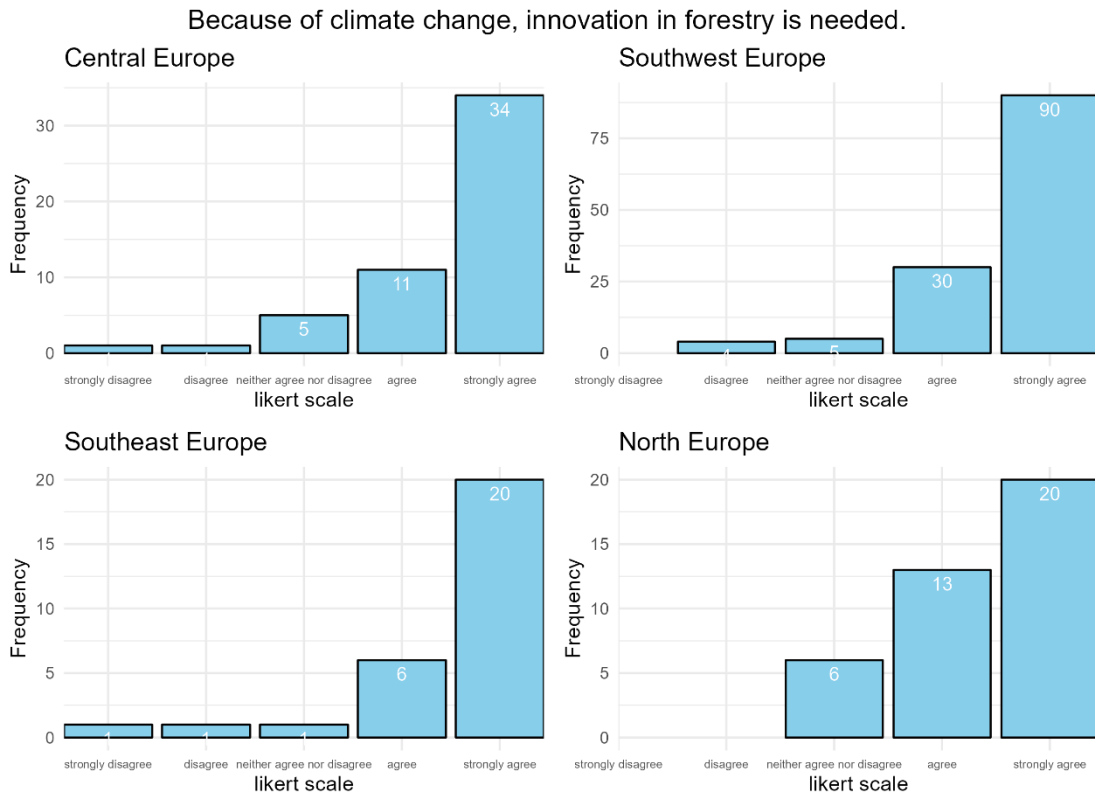


Figure 5: Climate change as a driver for innovation

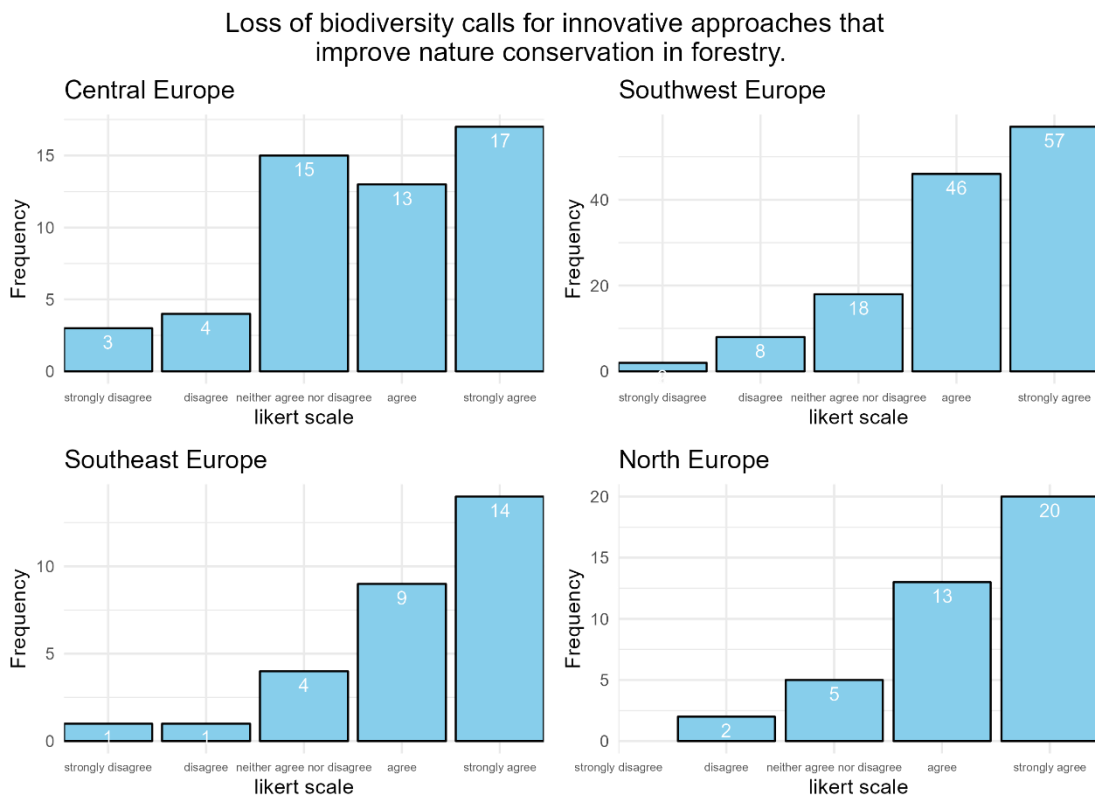


Figure 6: Loss of biodiversity as a driver for innovation

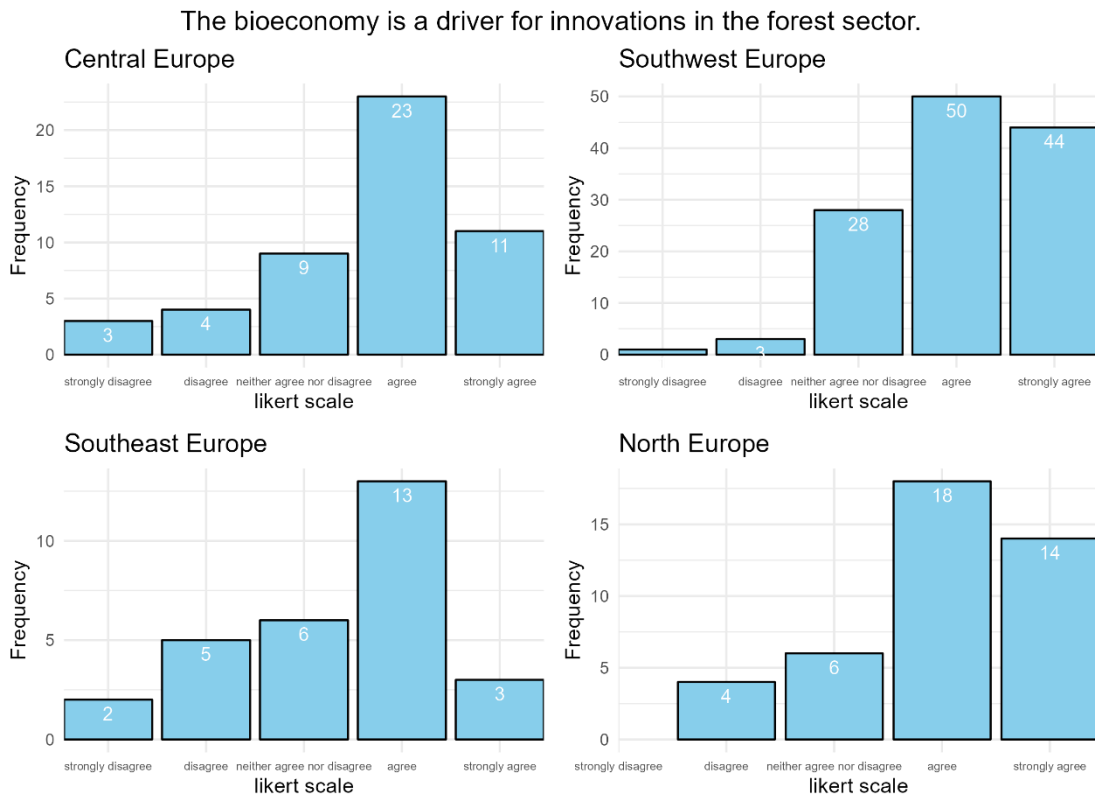


Figure 7: Bioeconomy as a driver for innovation

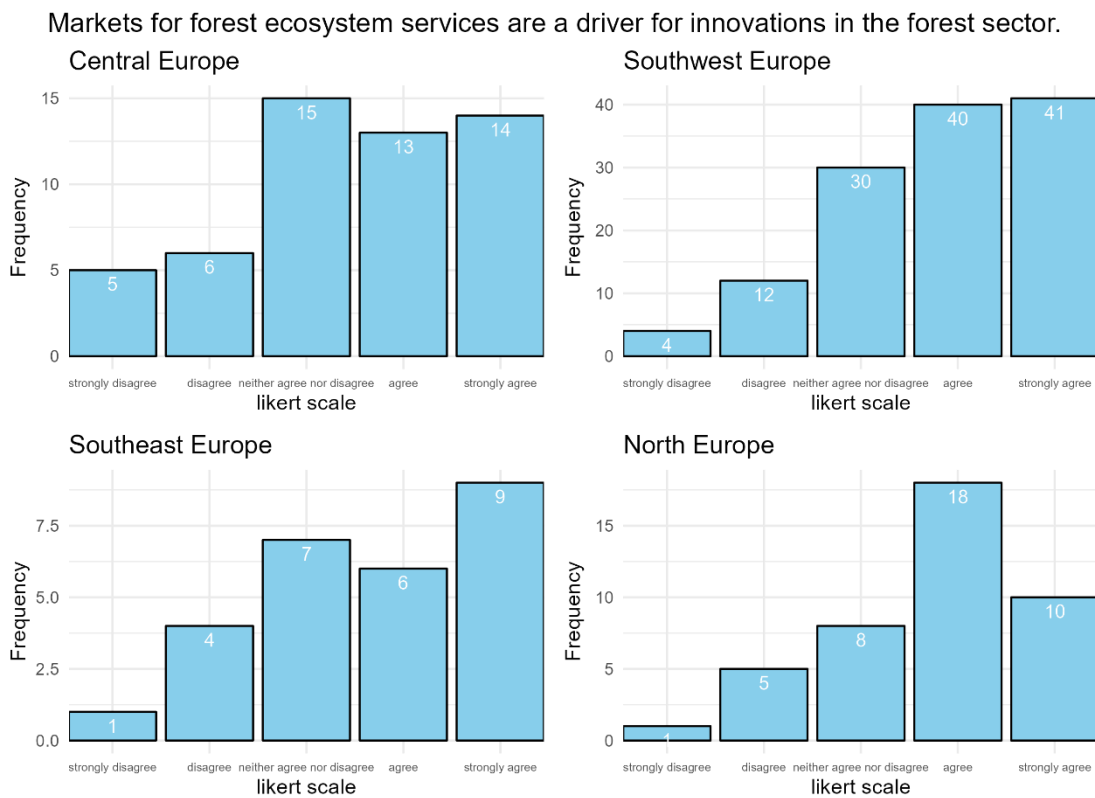


Figure 8: Markets for FES as a driver for innovation

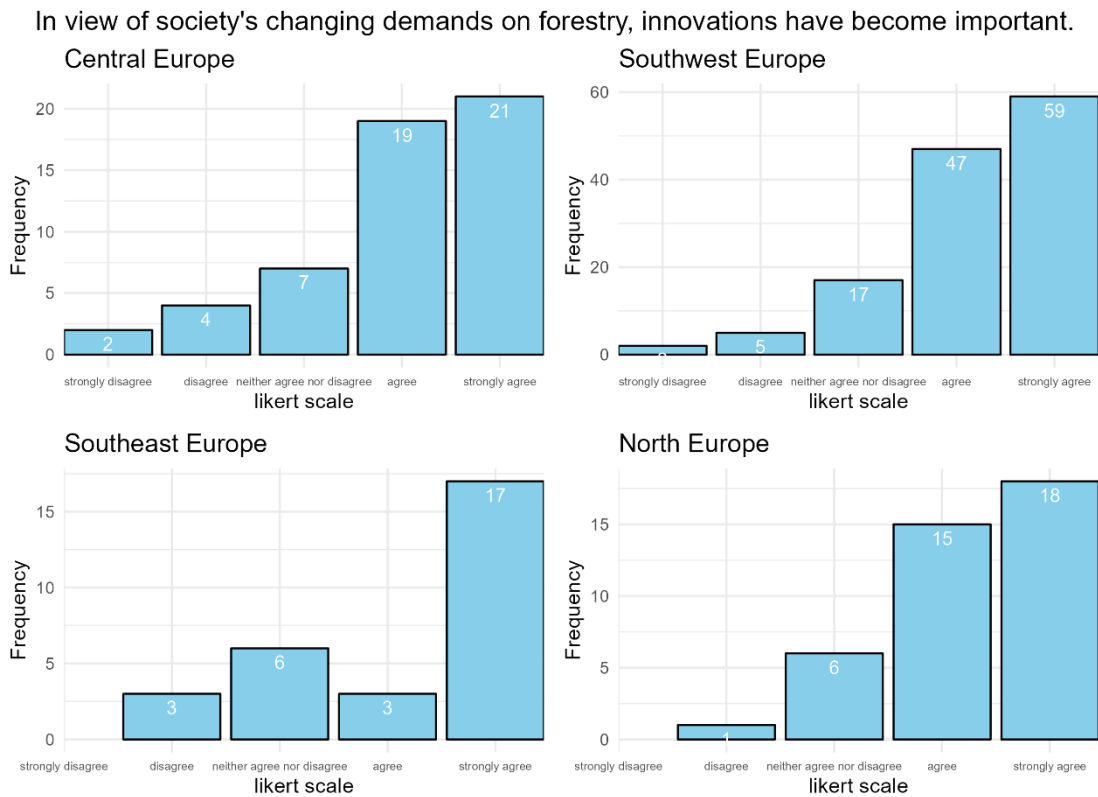


Figure 9: Demands in society as a driver for innovation

The comparative analysis across regions delivers a more nuanced picture than the overall analysis of the external drivers as presented in the D3.2 deliverable. There, climate change, loss of biodiversity and changing demands in society on forests represent the major challenges. Here, loss of biodiversity seems to be less imperative in Central Europe and South-East Europe, whereas the role of changing demands in society for innovation is met with some disagreement and indecisiveness. Moreover, the general analysis revealed that the influence of market drivers appears less compelling, though still strong. Looking at the presented results, this holds in particular for Central and South-East Europe.

Behavioral drivers for innovation in different regions of Europe

The behavioral drivers reflect the attitudes to processes of innovation in forestry and agroforestry. The survey participants from different regions in Europe agree that benefiting forestry and agroforestry practice is pivotal. But there are also some small differences between the regions.

- The idea that innovation is about implementing new ideas into practices is strongly shared in Central, South-West, and Northern Europe. It is confirmed in South-East Europe but met there also with some skepticism.
- The idea that innovation requires knowledge transfer from research into practice is largely confirmed across Europe. Yet among respondents from Central Europe there are relatively many undecided views.

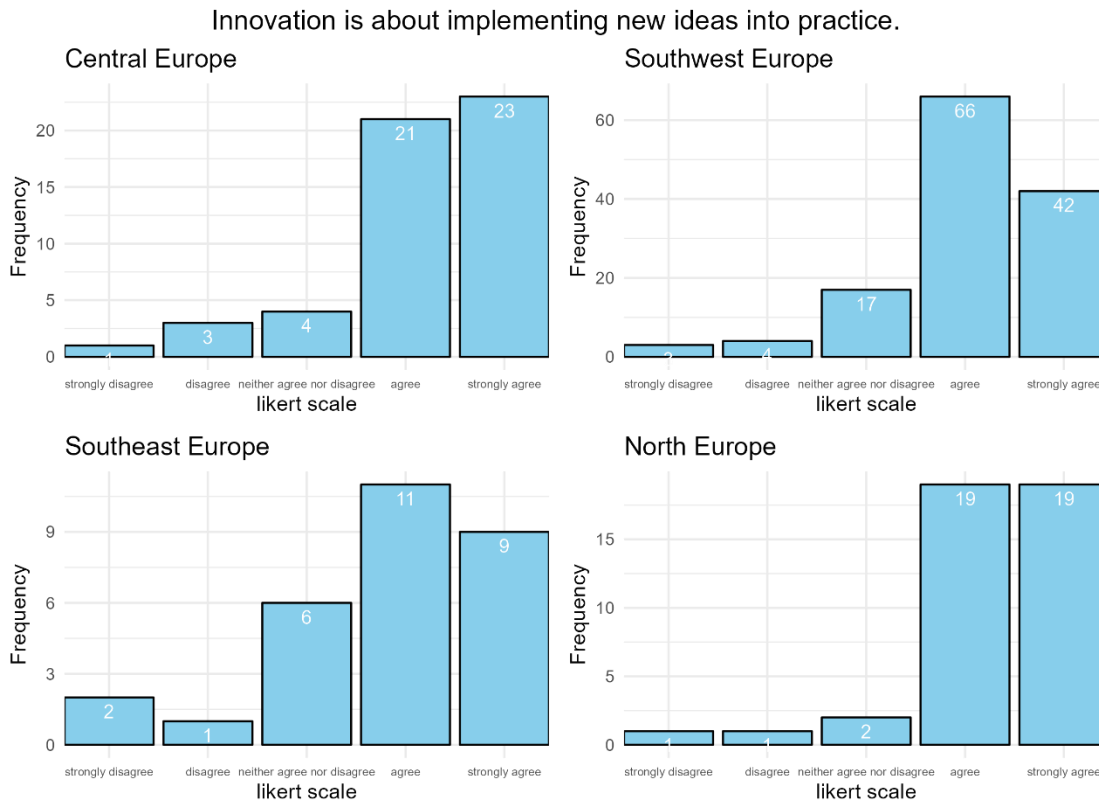


Figure 10: Innovation is about implementing new ideas

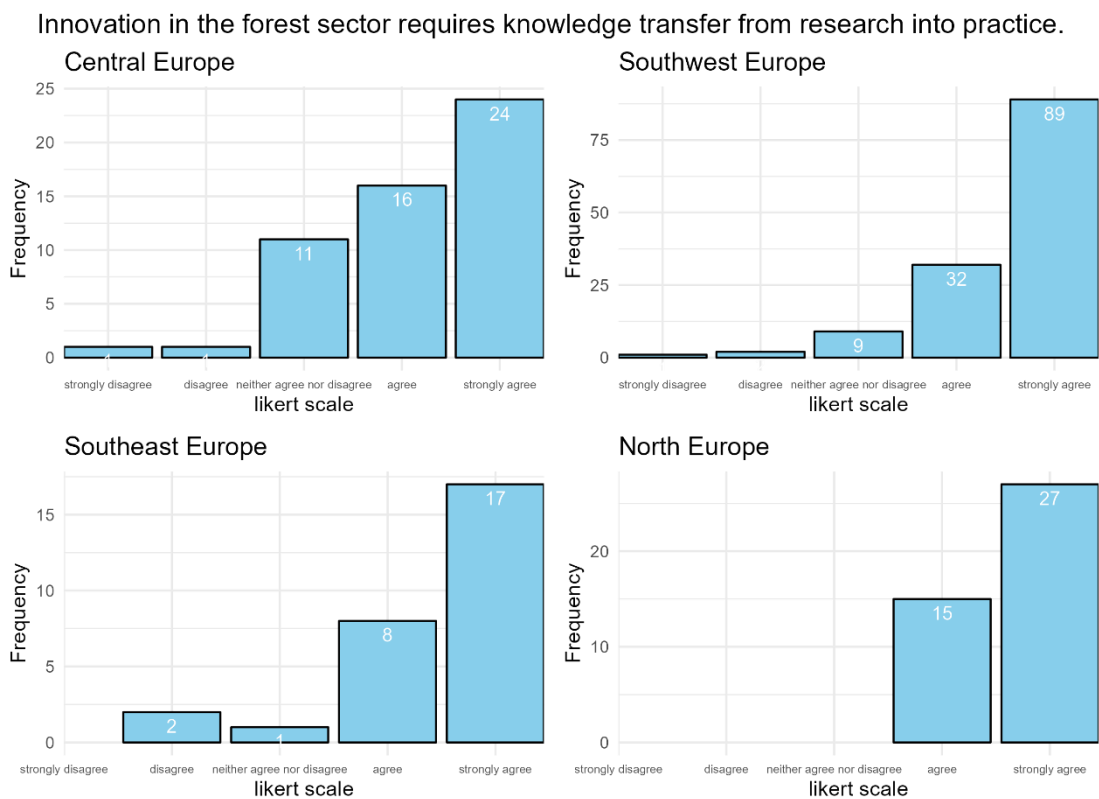


Figure 11: Knowledge transfer in innovation

Practitioners in forestry and agroforestry may be reached by different channels for knowledge transfer. (Applied) research represents one of several sources for new knowledge. Other avenues may be relevant as well. The Innovation survey delivers important insights. The OG members participating in the survey were asked to answer the question, which channels they use to stay up to date on the topic of their OG. The results show that foreign contacts, talking to colleagues, and social media are most important.

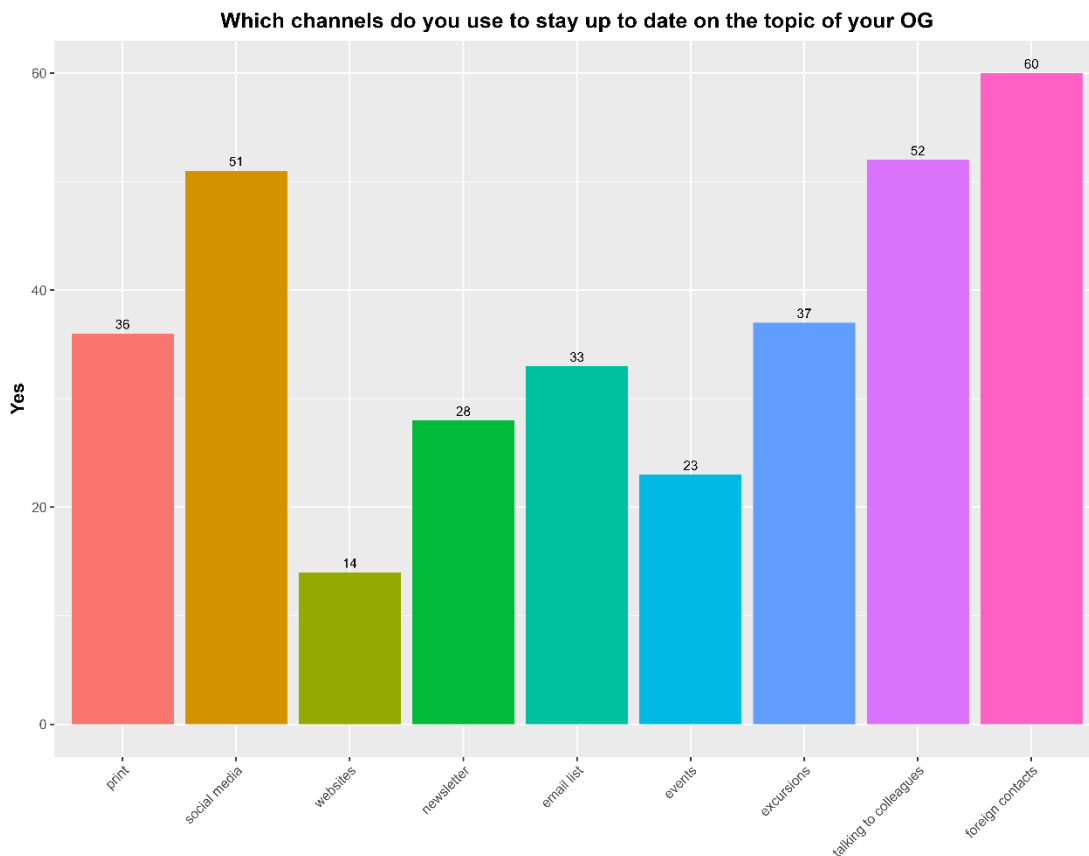


Figure 12: Channels for knowledge transfer to practitioners

5. Barriers for implementation of EIP-Agri Operational Groups in EU Member States

D3.2 revealed mixed results on the performance of EIP-Agri funding for OGs for innovation in forestry and agroforestry. The OG members who participated in the survey perceive the application procedure for the funding of their innovative projects as difficult and many do/did not feel sufficiently supported by administrations. Securing funding and managing with limited resources are major challenges. Despite the experienced difficulties, however, almost two thirds would recommend the funding scheme to support innovation in the forest sector.

EIP-Agri funding is implemented within the CAP Strategic Programmes (formerly: Rural Development Programmes). To address the administrative barriers for implementation and enhance the adoption of EIP Agri OGs in the forest sector, attention therefore goes to a more detailed identification of administrative barriers at the national level. To this end, project partners conducted a collaborative desk research and examined the evaluation reports from the National Networks for Rural Development and/or other entities in their countries. The identified administrative barriers that hamper the implementation of EIP-Agri funding in the partner countries were pulled together and summarized in the table below.

EIP-Agri funding for OGs is a relatively novel measure that is unevenly adopted across EU Member States. Difficulties in implementation are therefore inevitable and can be addressed in the future programming period of the CAP. To put the presented evidence into perspective, this chapter starts by explaining the regulatory basis of EIP-Agri funding and how the adoption of OGs is discussed in relevant literature.

EIP-Agri funding for OGs is based on the Cooperation measure 16.1 in Europe's Rural Development Program, which is the so-called second pillar of the Common Agricultural Policy (CAP). In the previous programming period (2014-2022), there were 20 RDP measures in support of "the vibrancy and economic viability of rural areas". In the current programming period (2023-2027), rural development planning is integrated within the CAP Strategic Plans of EU Member States. The number of rural development measures has been reduced from 20 to 10, including Cooperation. They are now referred to as interventions (see also chapter 6).

The "European Innovation Partnerships for Agricultural Productivity and Sustainability" were introduced in 2013 (Regulation (EU) 1305/2013). Because they represented a new approach for innovation in rural development, the Commission provided a guideline for the programming of innovation in rural development (European Commission 2014). The guideline emphasises that "rural development policy has a long-standing record of stimulating innovation" and that the European Innovation Partnerships are particularly important for knowledge transfer, cooperation, and strengthening the links between agriculture, food production, forestry, research and innovation for improved environmental management and performance.

Within this framework, the EU strengthens cooperation and networking between researchers and practitioners, and to promote innovations among the more than 16 million European landowners who manage around 60% of these systems (European Commission 2021; Slavova et al. 2023). Forestry and farming are included in the "Pact for Skills" initiative, which was initiated in November 2020 to increase the green and digital transition with "upskilling and reskilling". The CAP (2023–2027) confirmed the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-AGRI) as the preferred strategic initiative for accelerating innovation and knowledge sharing towards sustainability (European Commission 2023). Collaboration between different stakeholders, including researchers and practitioners, is promoted to develop innovative solutions for the bioeconomy, climate change adaptation, valorisation of ecosystem services, multifunctionality, and social inclusion by means of various support measures (European Commission 2023; Slavova et al. 2023).

The EIP-AGRI as part of the CAP Network promotes the "interactive innovation model". It is defined as the

collaboration among several actors to co-create knowledge, bridging the gap between science and practice, taking into account different dimensions (including technical, organisational, and social aspects), by applying a “systems approach” (Fieldsend et al. 2021; Guerrero-Ocampo et al. 2022). This means that actors with complementary expertise, such as farmers, foresters, businesses, academics, advisors, small and medium enterprises (SMEs), policy makers and NGOs, focus on actual needs from farmers, foresters or rural communities and develop innovations and opportunities that can be put into practice and disseminated (Arzeni et al. 2023; Guerrero-Ocampo et al. 2024).

The development of the EIP-AGRI OGs across the European Union faces several challenges due to the diversity, among EU Member States, in terms of agricultural practices, policies, and public support for Agricultural Knowledge and Innovation Systems (AKIS) (Fotheringham et al. 2016). There is a discrepancy in the number of funded OGs among regions, with most OGs coming from Germany, France, Italy, Spain, Portugal, Sweden and the Netherlands, and limited uptake in the post-socialist countries in Eastern Europe (Fieldsend et al. 2021; Knotter et al. 2019). Moreover, research on knowledge and innovation systems for land use has mostly focused on the agricultural sector (EURAKNOS 2020). A relatively recent report on the assessment of OGs in Europe showed that most of the OGs developed agricultural topics and only a small percentage was allocated to the forest related sector (Knotter et al. 2019). In May 2024, the EU CAP Network database listed 3525 OGs in total. Of these, 269 covered forestry topics and 55 agroforestry topics, representing 8% and 1,5% respectively (Mosquera Losada 2024).

The table below summarises the administrative barriers that hamper the implementation of EIP-Agri funding that have been identified at national level in the partner countries of FOREST4EU. It reflects the uneven distribution of forest-related OGs and the different learning curves with the EIP-Agri measure across EU Member States.

Country	Croatia	Finland	France	Germany	Italy	Slovenia	Sweden
No of forestry / agroforestry OGs covered in report(s)	0 (of 19)	8 (of N/A)	19 (of 305)	1 (of 124)	N/A (of 679)	4 (of N/A)	N/A
Administrative barriers	Burden with paper administration - Lack of electronic application system	Slow and laborious launch of call for EIP measure	Burden of administrative obligations in application	Limited support of government agencies in application procedure and during implementation	Administrative complexity heavily influences management and successful completion of OGs incl. establishment of partnerships	EIP Agri funding for OGs generally seen as successfully implemented yet low absorption of funds because of complex administrative procedures	Division of labour between the two government authorities involved unclear and not well coordinated
	Insufficient use of simple budgeting options	Significant effort needed to communicate novel measure towards target groups and type of proposals wanted	Late delivery of IT solutions	Complexity of application procedure for practitioners incl. need for detailed explanation of budgetary planning	Selection process of proposals eligible for funding may be slow	Funding measure not well known among potential beneficiaries	Difficulties for establishment of partnership incl. unclear decision criteria, and limited collaboration with research and practice partners for downstream implementation
	Business plans are too comprehensive and complicated	Two-stage application perceived as slow and rigid	Delay in transfer of financing	Requirement of pre-financing	Economic-financial assessment of limited use in practical implementation	Difficulties reported by applicants, justification of costs and prescribed max hourly rates, finance plan requires too many details in terms of planned activities and type of costs, long processing time for applications	Lengthy and complex application procedure



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the European Union

	Time-consuming and complicated administrative evaluation procedure (incl. poor use of available databases for control of applicants' eligibility)	Lack of innovation intermediary to assemble EIP projects at national level	Limited support for partnerships downstream in forest-based value chain	Difficulties for establishing successful partnerships, incl. lack of experienced OG coordinators; inclusion of research partners difficult because only 80% of their costs are eligible	Adjusting planned OG activities to changing circumstances in innovation process is not possible	Common reasons for rejection of applications: unpaid tax obligations, incomplete documentation, parallel commercial activity, partnership structure, inappropriate project content, delay in submission of projects	Limited linkages between EIP-Agri and other national innovation initiatives for development of synergies and market applications
	Insufficient informing of users on conditions for programming period	Innovations are not disseminated from farm to national level		High implementation costs for partnership, incl. requirement to administer timesheets, late transfer of payments, mandatory reporting	Substantial variation of implementation procedures between regions; incl. design and financing arrangements		Current data reporting routines limit the opportunities to evaluate achievement of program goals
				Limited flexibility for use of allocated budget (budget for pre-defined tasks cannot be shifted to other cost categories); Value-added tax is not refundable			

Table 5: Administrative barriers for implementation of EIP-Agri Operational Groups (own elaboration)

The table summarizes the administrative barriers for the partner countries in FOREST4EU for which relevant studies of EIP-Agri implementation are available, plus Sweden (see Appendix). These studies refer to the previous CAP programming period (2014-2022). The number of forestry and agroforestry OGs covered cannot be specified but seems to be low. Interestingly, there are several overlaps in the identified barriers. The administrative burden and complexity in the application process is mentioned in each of the reviewed studies. It seems to represent the major barrier for uptake among practitioners. Moreover, the requirement to include a detailed financing plan according to a rigid structure is also described as a major barrier (Croatia, Germany, Italy, Slovenia), with many issues indicated in the state-based studies from Germany.

The behavior of government authorities is also a barrier. It includes delays in processing of the application (Croatia, Italy), limited support for applicants (Germany), lack of coordination between the involved authorities (Sweden), and delays in transfer of payments (France). Several reports also indicate that government authorities should inform better about the funding requirements and should enhance their communication towards potential beneficiaries (Croatia, Finland, Italy, Slovenia). Lacking or insufficient support for creation of successful partnerships is also described as an administrative barrier (France, Germany, Sweden).

Finally, weak communication about the generated innovations beyond the individual OGs is problematized and lacking integration into country-wide initiatives for innovation scrutinized (Finland, Italy, Sweden).

The identified administrative barriers can also be found in Latvia, Portugal and Spain. Consultation with experts in Latvia revealed that:

- The term OG is not well known in Latvia neither for companies nor for the public sector.
- Research and other theoretical sources about advantages of OG compared to other multi-helix associations (for example, clusters, business accelerators) is not available.
- Finance or other kinds of supporting resources for creating new OGs or for the continuation of the existing OGs is not available.
- OG by its nature (a project with a fixed composition of partners) is an administratively inflexible structure for the admission of new members or the replacement of existing members, for example in case of rapid and unexpected changes in the business environment.

The European-wide evaluation study for EIP-Agri implementation, which was commissioned by the CAP Network and published in September 2024 revealed for Portugal that the administrative burden of project application and implementation hindered the development of the innovative solution. For example, the longtime taken by the managing authority and the paying agency to analyse and pay the requests for payment was an important issue for the beneficiaries. It also showed that the participation of farmers/foresters, followed by advisors, is key and therefore critical for the successful co-creation of innovative solutions.

In general, partnership composition, size, complementarity within the group representing different sectors and topics, balanced governance and adequate leader/ coordinator and their expertise, as well as the topic/sector covered, are the main factors contributing to achievement of outcomes. The EIP-Agri partnerships are particularly successful when the projects are developed jointly between researchers, service providers, advisors, processors and farmers, starting from the farmers' needs. In the absence of genuine innovation support, it helps if there are already good relations between the participants (e.g. partners from a previous project). Conversely, the elements that contribute negatively to co-creation are related to the presence of partners who do not contribute as originally planned and therefore provide very little benefit. This confirms the importance of thorough preparation support for the project at the time



when the partners are chosen. Moreover, on-farm demonstrations and peer-to-peer events (e.g. fairs, discussion groups, farmers' meetings) are the most important factors facilitating the dissemination of successful innovative solutions. The role of advice is also important whereas social media and agricultural journals seem to be the least relevant factors for spreading innovative solutions. These results suggest that the most relevant factors are those that involve interactions (events), rather than one-way channels (social media).

6. CAP policy analysis for forestry and agroforestry innovation adoption

Authors: José Javier Santiago-Freijanes, Ferreiro-Domínguez N, Rodríguez-Rigueiro FJ, Rigueiro-Rodríguez A, Romero-Franco R, González-Hernández MP, Fernández Lorenzo JL, Mosquera-Losada MR

Understanding the adoption of innovations in the different countries should take into account the enabling context where they are developed. An innovation coming from an operational group could be extraordinary, but if it is not placed in an adequate context it is useless. One of the most important drivers of this context for agriculture in the European Union is the CAP policy as it is the most important policy in Europe as it represents the 40% of the budget of the European Union. The EU has enabled mechanisms to foster innovation of Europe linked to their policy instruments deployed and linked to the objective 10 as can be seen in Figure 13.

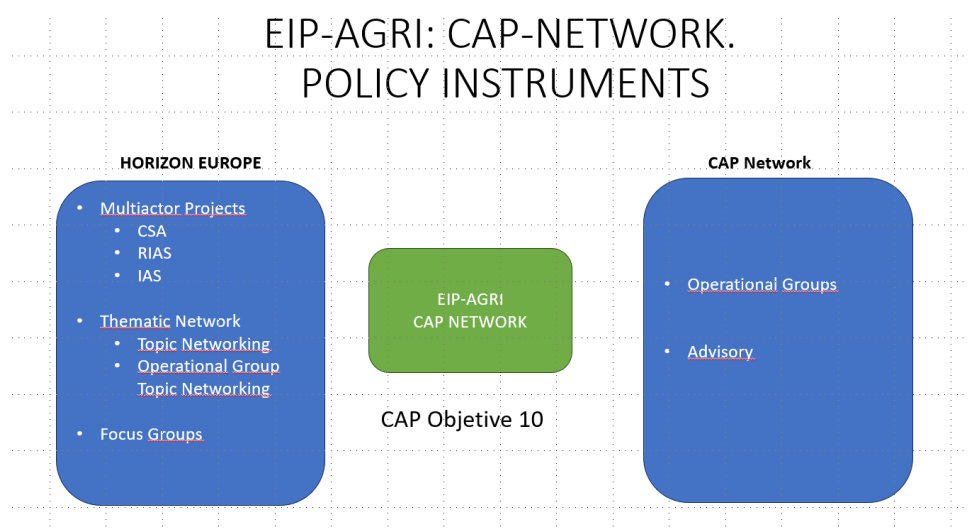


Figure 13: CAP objective 10 deployment linked to the operational groups and Advisory development and connected to the research (Horizon Europe)

It is important to highlight the fact that the EU objectives are embedded into the agroecological principles, where the expansion and good management proposals as ecosystem services providers for the society play a key role (Figure 14).



Figure 14: EU post 2020 (CAP 2023-2027) main goals (black) and connections with the EU strategies (red) and the FAO agroecological elements (yellow)

The main objective of subtask T3.1.3 is to initial analyse the results of the 27 EU Member States and their different interventions as a deployment of the objective 10 of the CAP.

Methodology

The work to be carried out in this section responds to what has been written in the grant agreement:

“ST3.1.3 Identification of barriers for uptake of OG results by end users (M16-M21, Lead USC, other participants: ITHubs managers, and Solutopus) T3.1.1 will provide the geographical distribution of forestry and agroforestry practices in the EU thanks to the use of EU database (LUCAS, EUROSTAT) providing the baseline of the forestry and agroforestry use in the countries that shall modify the policies to be developed to foster OG forestry and agroforestry results. The public analysis will take into account the analysis of the future (post-2020) CAP analysing the 118 RDP as well as the MS strategic plans development and the main EU strategies linked to farm management (EGD) and their respective agri-food system (F2F (Mcc)) and will use the methodology provided by the AGFORWARD and AE4EU projects. ST3.1.3 outcomes will be the basis for the international initiative funding best practices mapping to be included in the marketplace.”

As shown the subtask includes the analysis of the geographical distribution of forest and agroforestry practices in the EU as a first layer context to understand the policies developed in those regions with regard to the CAP objective 10. As second layer context we will focus on the analysis of the CAP post 2020. The CAP has been very late approved for the current period by the Member States and the European Commission which led to a short period from CAP 2021-2027 to CAP 2023-2027. It is implemented at national level as part of the strategic plans that are analysed in this report. No results or outcomes from the current CAP at a EU level are analysed, because not data is available. The results will be supported by and benchmarked with the different results produced in former H2020 and Horizon Europe projects (AGFORWARD, AFINET, AF4EU) but also considering the OGs analysis carried out by EUREKA and EURAKNOS

project papers produced by the USC as part of the analysis.

The analysis takes into account the rural development interventions namely 77 COOP Cooperation and 78 KNOW Knowledge exchange and dissemination of the information as the basis of the OGs as specified in the EU Regulation 2021/2115.

Results

Forest and agroforestry distribution in Europe

Forestry

Figure 15 shows up the forest map of Europe where it can be seen that forestry is mostly concentrated in the north of Europe (Finland, Sweden, Slovenia, Estonia and Latvia) with more than 50% of their lands allocated to forest compared with the rest of Europe more dominated by woodlands mostly in the south of Europe with a reduced amount of forestlands in the different countries or Europe especially in the UK West France, Denmark, The Netherlands, and Belgium. This distribution reflects the initial context for the policy implementation on those countries, fundamentedin the fact if they wish to expand (countries with low forest share) or maintain (countries with high forest share). Besides this, countries from the Boreal area and Austria are usually not interested in applying forest interventions to avoid market intervention in the sectors due to the external fundings of the CAP and because they consider that CAP is an “agricultural” but not a “forest” policy.

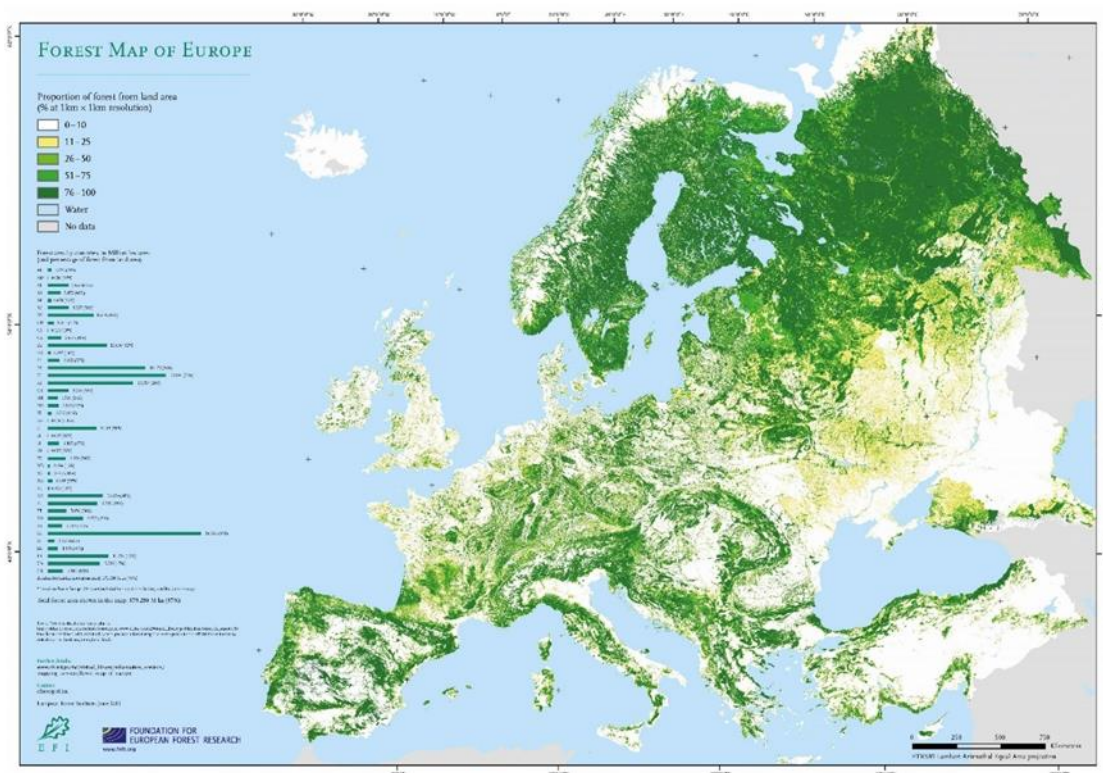


Figure 15: Forest distribution in the EU

On this regard, the 39% of the EU area is allocated to forest (160 million forest) and other wooded lands (20 million other wooded lands). This meant an increase of 8 million of forestlands since 2000 (around 5.3% of increase) and 2.5 million hectares since 2010, meaning a 1.6% of increase.

Figure 16 shows the share of forest land in the 27 EU countries provided by EUROSTAT.

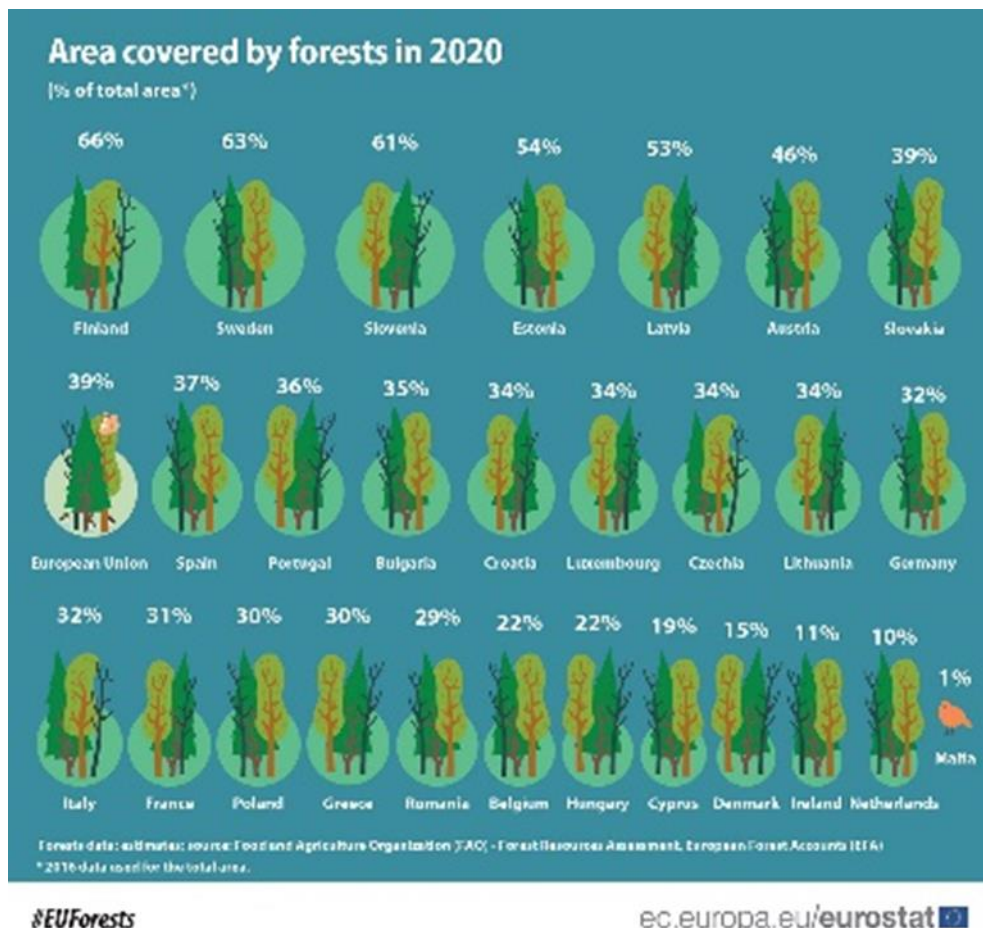


Figure 16: Share of forest land in the 27 EU countries (EUROSTAT 2020)

Agroforestry

The agroforestry practices are more difficult to define, recently the FAO has started an agreement signed with the USC to develop a new methodology for the Forest Resources Assessment (FRA) to be adopted by 186 countries across the globe based on the methodology that USC developed for Europe that has been published in the AGFORWARD project. More information about the FRA can be found in <https://www.fao.org/forest-resources-assessment/background/national-correspondents/en/>. The agroforestry practices definition can be seen in table 6.

Agroforestry is defined as a management technique that can be linked to the different types of land uses that the CAP supports croplands defined as arable crops, permanent crops and permanent grasslands (croplands) and forestlands. The link of agroforestry to these type of CAP recognized land uses can be seen in Table 6.






Agroforestry practice	Description	
Silvopasture		Combining woody with forage and animal production. It comprises forest or woodland grazing and pastoral land with hedgerows, isolated/scattered trees or trees in lines or belts
Homegardens or kitchen gardens		Combining trees/shrubs with vegetable production in periurban and urban areas, also known as part of “trees outside the forest”
Riparian buffer strips		Strips of perennial vegetation (trees/shrubs) natural or planted between croplands/pastures and water sources such as streams, lakes, wetlands, and ponds to protect water quality. They can be recognized as silvoarable) or silvopasture but are signified by its role in preserving water streams
Silvoarable		Widely spaced woody vegetation intercropped with annual or perennial crops. Also known as alley cropping. Trees/shrubs can be distributed following an alley cropping, isolated/scattered trees, hedges and line belts design
Forest farming		Forested areas used for harvesting of natural standing especially crops for medicinal, ornamental or culinary uses.

Table 6: Spatial agroforestry practices in Europe

The agroforestry extent specifies that most of the agroforestry practices are linked to silvopasture as the 10% of the grasslands are handled with agroforestry practices, while silvoarable only represents the 0.01% of the arable lands (Figure 17).

Land use and agroforestry practice		Common name	Brief description
AGRICULTURE	Silvopasture	Wood pasture and parkland	Typically areas of widely-spaced trees that are also used for forage and animal production.
		Meadow orchards	This practice includes fruit orchards, shrubs which are grazed or sown with pastures, but also olive groves and vineyards
		Hedgerows and windbreak systems	Here the woody components are planted to provide shelter, shade, or parcel demarcation to a crop and/or livestock production system
	Silvoarable	Alley-cropping systems	Widely spaced woody perennials inter-cropped with annual or perennial crops. It comprises alley cropping, scattered trees and orchards and line belts within the plots. These practices are sometimes found only during the first few years of the plantation
		Riparian buffer strips	Riparian buffer strips
FOREST	Silvopasture	Forest grazing	Forested areas with the understory grazed
	Forest farming	Forest farming	Forested areas used for production or harvest of naturally standing especially crops for medicinal, ornamental or culinary uses
URBAN AND PERIURBAN	Homegardens	Homegardens	Combining trees/shrubs with vegetable production usually associated with peri-urban or urban areas

Table 7: Agroforestry practices linked to main farm types and land use (agriculture, forest or peri-urban) from AGFORWARD

Silvopasture

Silvoarable

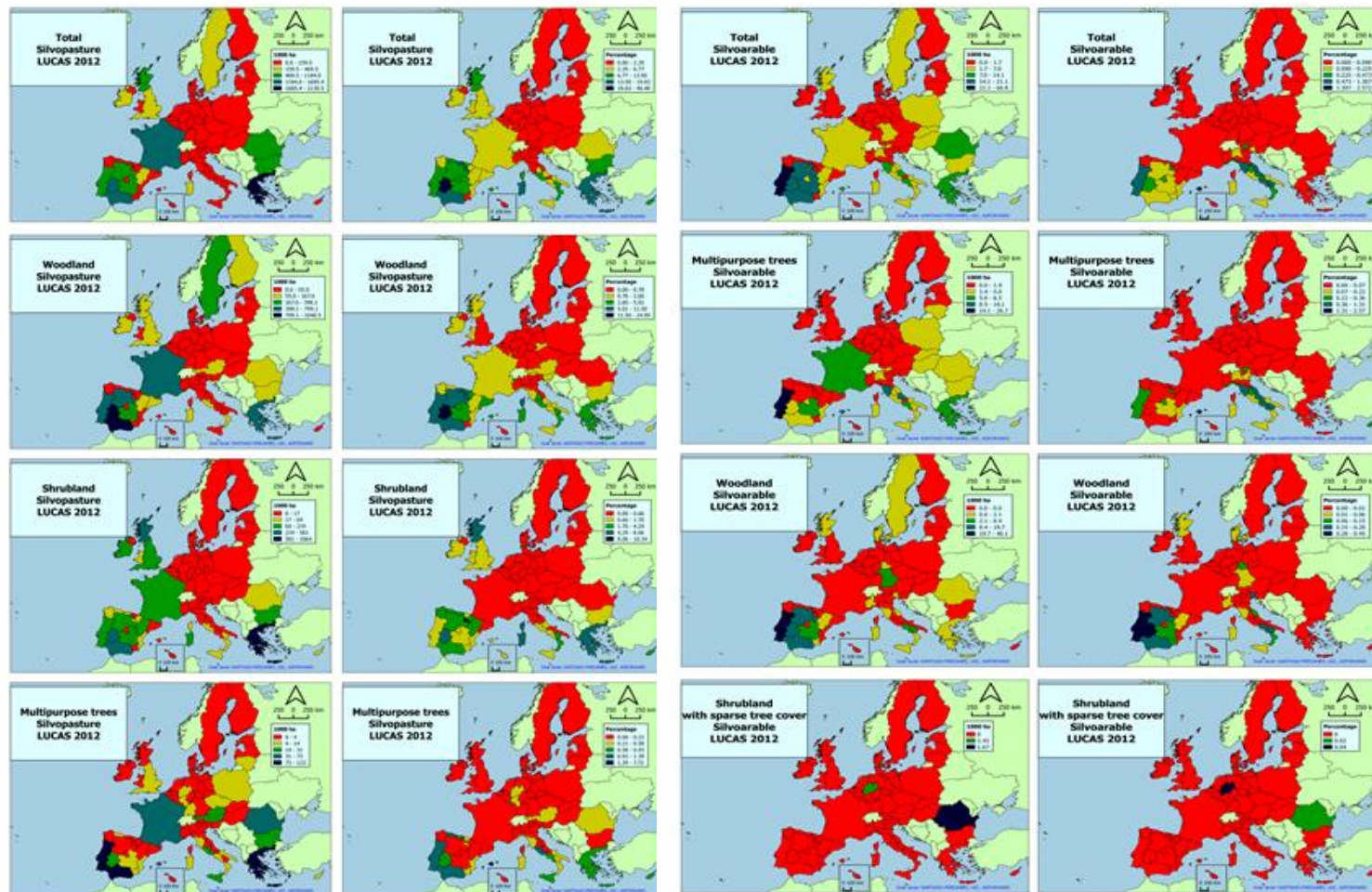


Figure 17: Area and proportion of the silvopasture and silvoarable woodland in Europe

Policy interventions

Pillar I

The pillar one ecoscheme interventions are not targeting forestlands and therefore forestry. This means that only agroforestry support from pillar I can be analysed. The Direct payment ecoschemes interventions can be seen in Figure 18. Most of the EU countries are targeting agroforestry with the exception of northern countries like Sweden and Norway, South-West countries like Spain and Portugal that promotes agroforestry in the Pillar II, most of the Eastern countries excepting Czech Republic, Estonia, Lithuania and Bulgaria as well as countries like Ireland, Belgium and The Netherlands. These interventions are not linked to knowledge exchange.

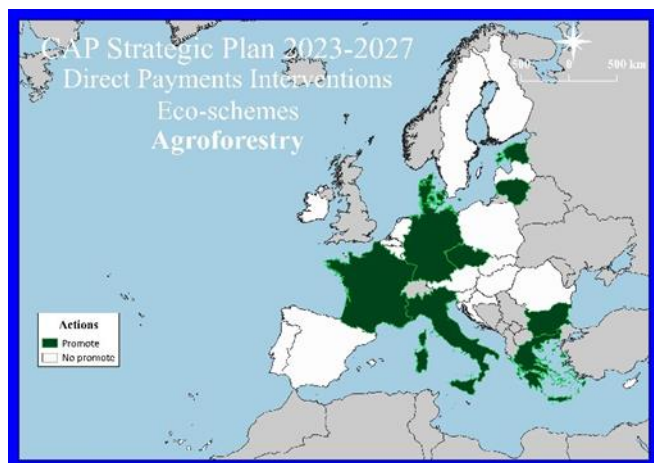


Figure 18: CAP strategic plans with interventions associated with direct payment ecoschemes naming agroforestry

Pillar II

A global analysis of the policy interventions has been carried out thanks to the collaboration of AF4EU for agroforestry, showing that there are forest and agroforestry interventions linked and not linked to 77 COOP and the 78 KNOW. These interventions include forest agroecosystem and social interventions (Table 8).

There are 3 types of forest and agroforestry interventions that may foster the agroecosystem innovations (climate change and habitats protection), and 5 that may foster social innovations by deploying social interventions (investments, rural employment, tools and knowledge exchange).

The agroecosystem interventions represent only the 24% of the Pillar II number of interventions for agroecosystems far below from the 75% for social interventions, but the share changes when we consider forest or agroforestry. The forest interventions follow the same patterns that the global with a 86% of the interventions allocated to social and the 14% allocated to agroecosystem. The opposite can be found with respect to the agroforestry measures with a share of the 64% of the interventions allocated to agroecosystems and 36% linked to social interventions. Similarly, AF has a share of 61.5% for the climate change and habitat protection interventions while only represents the 11% within the social interventions. Therefore, it is inferred that interventions in forestry need to address more social needs than agroforestry with regard to the investments, rural employment, tools and knowledge exchange.

Pillar II Interventions				
Types of Pillar II interventions		Number of RD interventions		
		Total	AF	F
Agroecosystem interventions	CLIMATE CHANGE AND HABITAT PROTECTION	91	56	35
Social interventions	INVESTMENTS, RURAL EMPLOYMENT, TOOLS AND KNOWLEDGE EXCHANGE	290	32	217
Total interventions	Agroecosystem and Social Interventions	381	67	314

Table 8: Number agroecosystem and social Pillar II Interventions

Agroecosystem Rural Development Interventions

The agroecosystem Pillar II interventions can be seen in Table 9. Agroforestry or forestry interventions are not linked to article 71 (Natural or other area specific constraints), agroforestry interventions are not linked to article 72 (Areas with specific disadvantages resulting from certain mandatory requirements) which is only allocated with forestry. Article 70 linked to environmental, climate related and other management commitments is the most relevant agroecosystem Pillar II intervention and the second most relevant Pillar II intervention after the social intervention of investments. AF and F are mostly equally.

Agroecosystem Pillar II Interventions				
Types of intervention for rural development		Number of RD interventions		
		Total	AF	F
CLIMATE CHANGE	70 ENVCLIM Environmental, climate related and other management commitments	76	35	41
HABITATS PROTECTION	71 ANC: Natural or other area-specific constraints	0	0	0
	72 ASD Areas with-specific disadvantages resulting from certain mandatory requirements	15	0	15
Total Agroecosystem interventions	Agroecosystem Interventions	91	35	56

Table 9: Number agroecosystem Rural Development Interventions linked to Pillar II

Therefore, most relevant forest and agroforestry agroecosystem intervention is linked to the ENVCLIM article 70 of the EU Regulation 2021/2115 due to the relevance of agroforestry to sequester carbon whose measurement is quite standardised at EU and global level as “carbon off-setting projects”. As can be seen (Figure 19), most of the countries are deploying both forestry and agroforestry interventions, being agroforestry, understood as a form to “naturalize” agricultural systems better supported across the EU than forestry. The results of the joint analysis of the ENVCLIM (70)

and the agroforestry support in the eco-schemes are rather complementary, as for example the lack of promotion of forest/agroforestry in the ecoschemes are compensated by the Pillar II support in areas like Ireland, Germany, Denmark or Latvia. Meaning that all countries, but not all regions support forestry and agroforestry in their Strategic Plans across the EU.

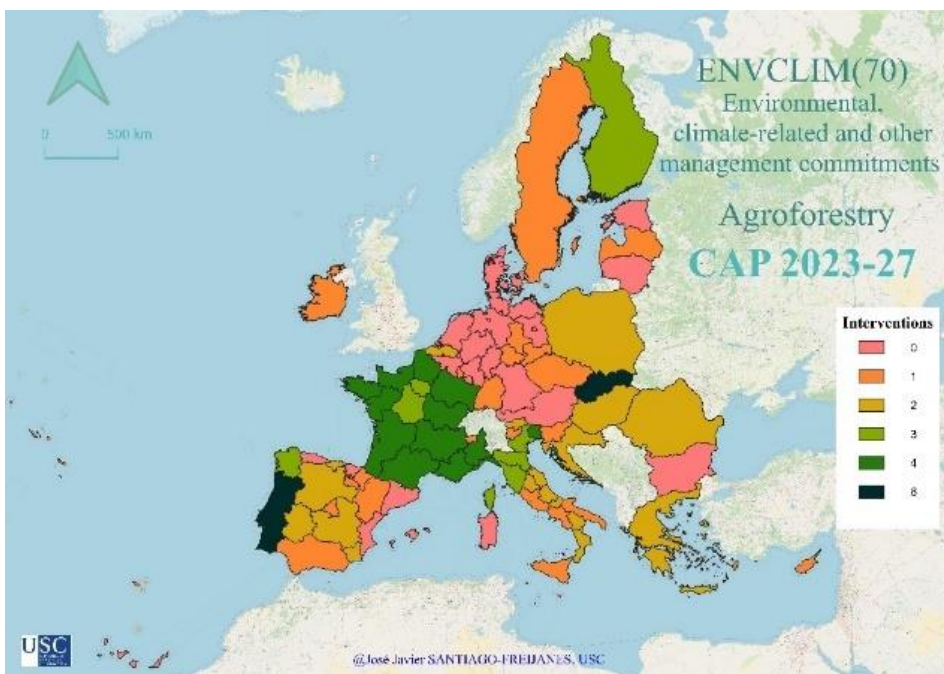
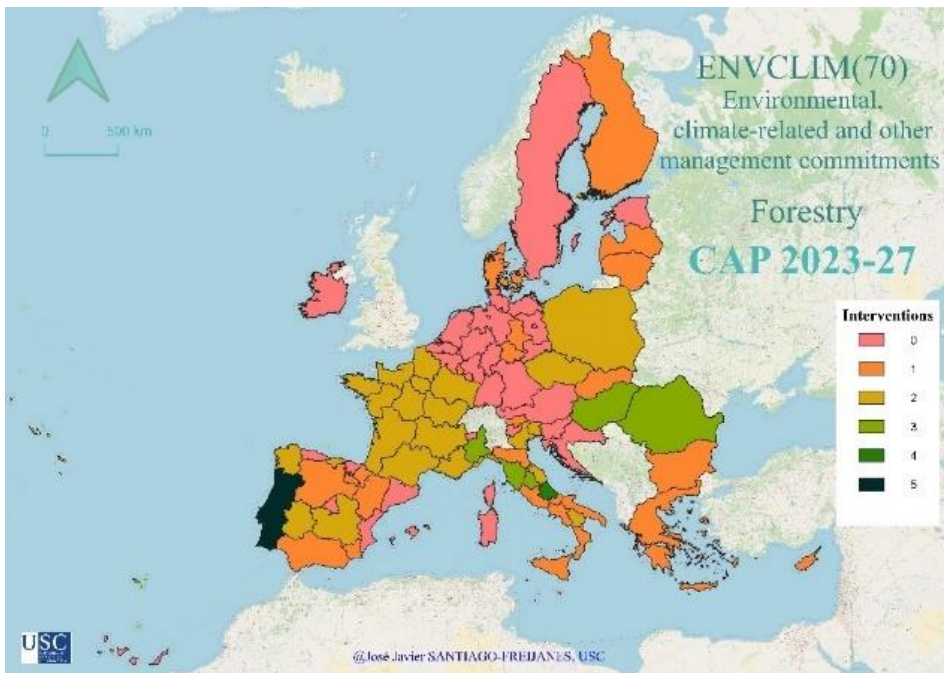


Figure 19: Member States CAP strategic plans with interventions associated with the article 70 of the rural development linked to forestry (top) and agroforestry (below)

Article 71 of the EU Regulation 2021/2115 does not support forestry or agroforestry, while article 72 linked to area-specific disadvantages resulting from certain mandatory requirements supports countries in some areas in Italy,

France, Slovakia, Hungary and Croatia. There is not an agroforestry support linked to the article 72 of the CAP.

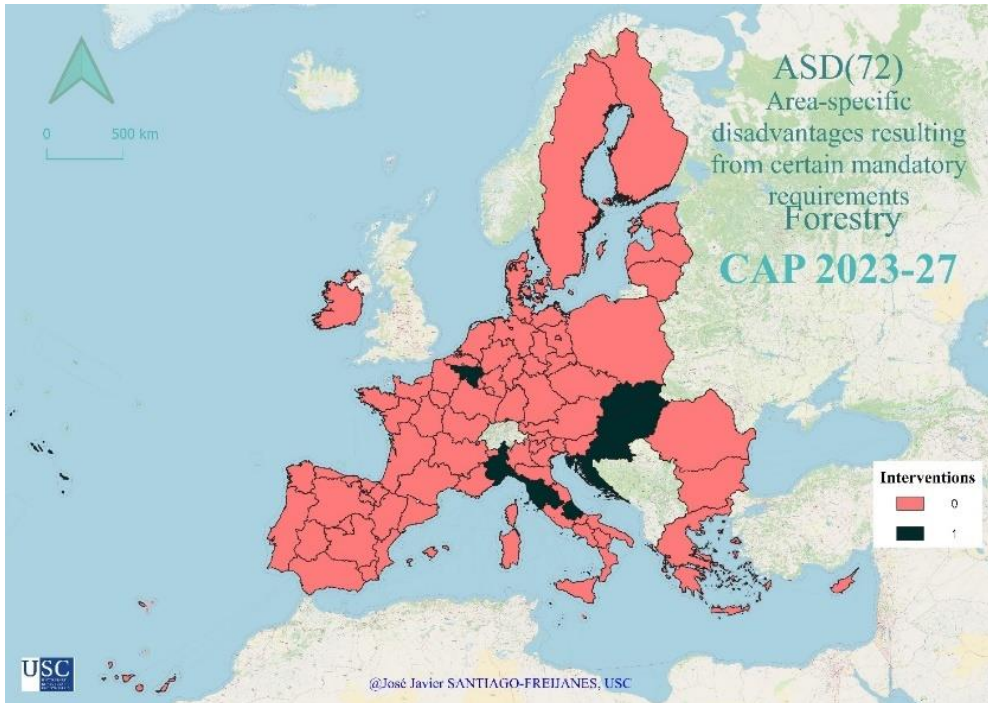


Figure 20: Member States CAP strategic plans with interventions associated with the article 72 of the rural development linked to forestry

These articles are supporting the EU goal of planting 3 new billion trees, and the type of topics they are dealing with are carrying out can be seen in Figure 21. The type of activities that are supported by the Interventions 70-72 across the EU are associated with genetic improvement and afforestation, linked to the establishment of new forest/agroforestry areas, the maintenance and management associated with the care that agroforestry and forestry stands deserves to support healthy and commercially viable stands. Cooperation among foresters and agroforesters is also promoted. The management compromises involve the improvement of conservation stage of forest areas, the increase of ecosystem services and biodiversity, the no productive activities and the autochthonous species promotion. The maintenance is linked to complement other activities promoting plantations. Finally, more than 25% of the budget is allocated to previous compromises of the afforested land support established by the European Commission lasting from the nineties.

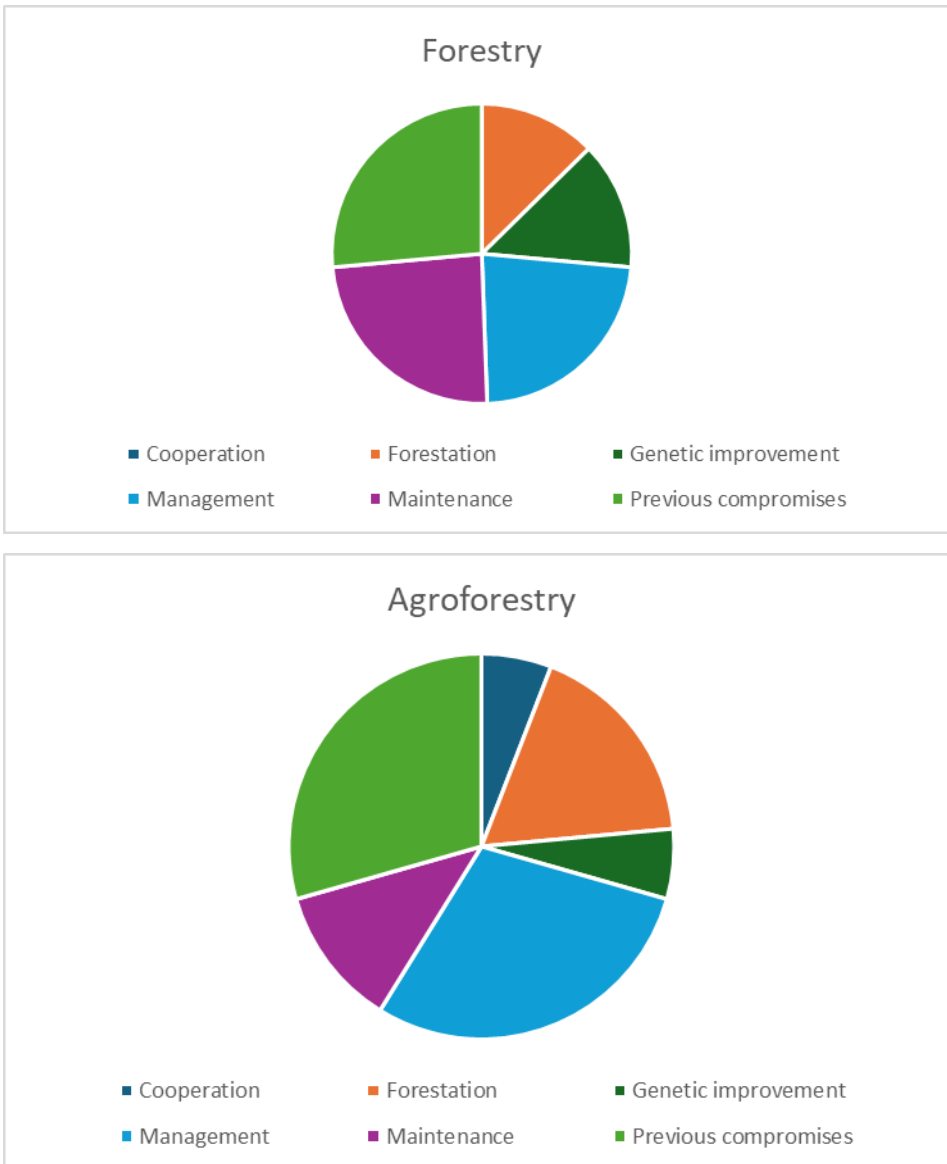


Figure 21: Member States CAP strategic plans with interventions associated with the agroecosystem Pillar II interventions of the rural development linked to forestry and agroforestry

Social Rural Development Interventions

The total number of social rural development interventions can be seen in Table 5. The most relevant social intervention is that linked to investments, as it represents the 85% of the number of interventions linked to social pillar II interventions, followed by knowledge (6%) and cooperation (4%). No forest or rural employment and risk interventions were linked to agroforestry or forestry, which probably means that forest fire risk among other hazards are not included in the article 76. Most of the investment’s interventions were linked to forestry (87%) with a lower share for agroforestry (13%).

Agroecosystem Rural Development Interventions				
Types of intervention for rural development		Number of RD interventions		
		Total	AF	F
INVESTMENTS	73-74 INVEST Investments, including investments in irrigation	249	32	217
RURAL EMPLOYMENT	75 INSTAL Setting-up young farmers and new farmers and rural business start-up	0	0	0
TOOLS	76 RISK: Risk management tools	0	0	0
KNOWLEDGE EXCHANGE	77 COOP Cooperation	13	0	13
	78 KNOW Knowledge exchange and dissemination of the information	19	0	19
Total Social Interventions	Social Interventions	290	32	258

Table 10: Number of social Rural Development Interventions linked to Pillar II

Knowledge interventions

The knowledge interventions, where both operational groups and advisory are included, are the second most relevant social intervention linked to investments but it is exclusively linked to forest in some countries (Austria, Italy, Greece and Portugal), as the rest of the countries (excepting Luxembourg and Denmark) which has open the article 78 intervention only mentions “agriculture” as such that may be include forest as part of the system. Knowledge includes both operational groups and advisory. This intervention is linked to the CAP objective X that is open in all the Pillar II, namely XCO objective: “Cross-cutting objective of modernizing the sector by fostering and sharing of knowledge, innovation and digitalization in agriculture and rural areas, and encouraging their uptake”.

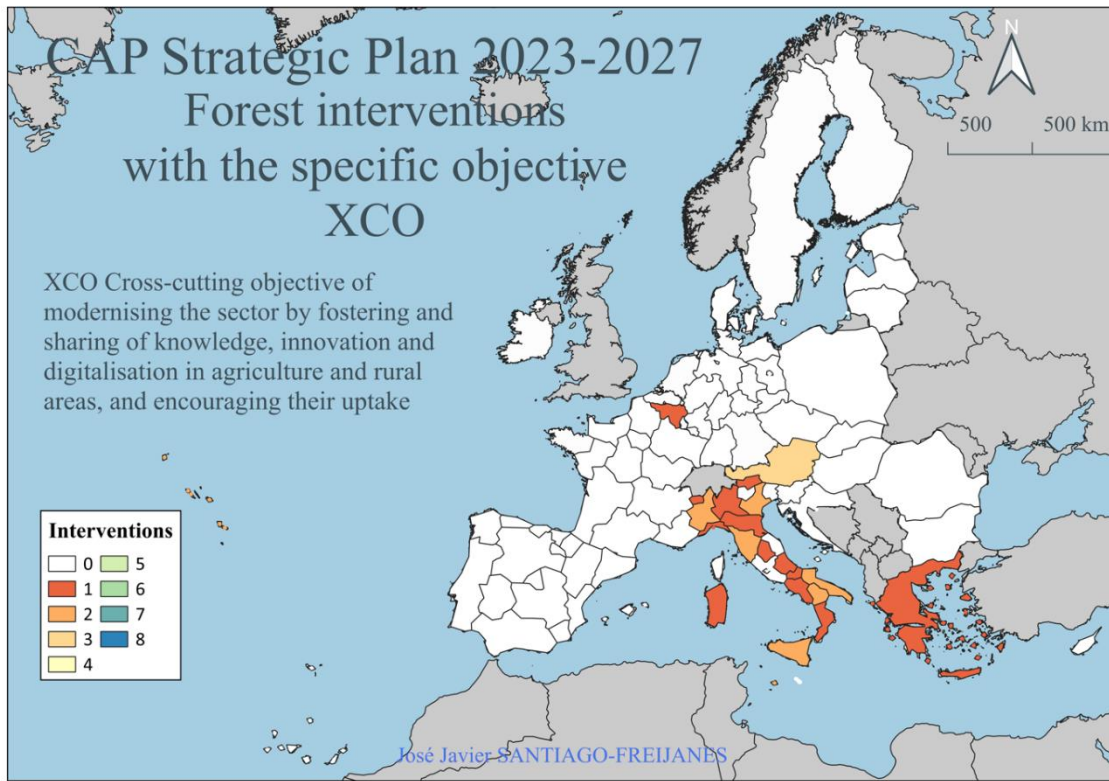
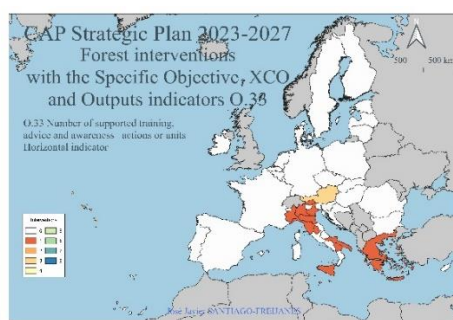


Figure 22: Forest interventions linked to the XCO

The distribution of XCO objective is linked to the outputs indicators as shown in the figures below.



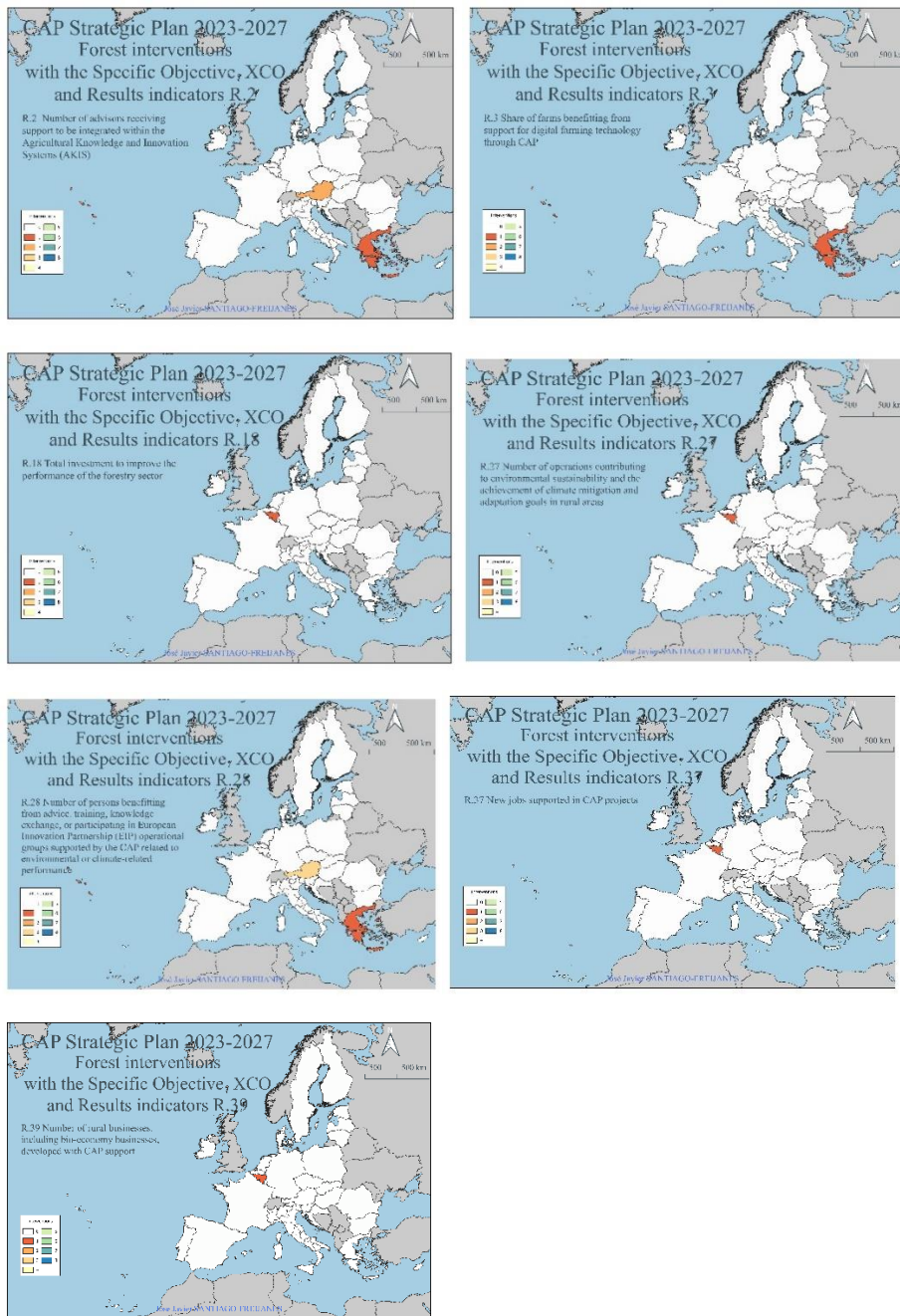


Figure 23: Results indicators associated with XCO

Key insights of CAP policy analysis

Silvopasture represents the 10% of the grasslands, while silvoarable are linked to the 0.01 % of the arable lands.

The extent of forest and agroforestry in Europe is of high relevance to make land use management more sustainable.

Pillar II is the unique Pillar funding forestry, while Pillar I and II are rather complementary with regard to the interventions related to agroforestry.

For the agroecosystem interventions, the intervention linked to Article 70 (environmental, climate related) is the most relevant agroecosystem Pillar II intervention and the second most relevant Pillar II intervention after the social intervention of investments. AF and F are mostly equally supported.

For the social interventions, the most relevant interventions are linked to investments (85%) followed by knowledge (6%) and cooperation (4%).

In spite that the intervention linked to knowledge and cooperation is largely used across Europe, only countries like Italy, Austria, Greece and Portugal mention specifically forestry as part of it.

7. Conclusions

The present report examines the enabling conditions and constraints for innovation in forestry and agroforestry in four different macro-regions of Europe: Central Europe, South-East Europe, South-West Europe, and Northern Europe. These macro-regions are partly overlapping with different forest management regimes. A 'sustained yield' regime characterizes forestry in Northern and Eastern Europe, and Austria. 'Multipurpose forestry' is more common in Central Europe and France. 'Ecosystem management' characterizes forestry in Southern Europe. Accordingly, clear-cutting is more common in boreal forests, while shelterwood systems are frequent in Central Europe.

Because of climate change impacts, management regimes have been challenged over the last decade. This seems to be true for Central and Southern Europe in particular. In the given countries, there are heated debates whether closer-to-nature or intensive forestry are the more effective adaptation strategies whereas forestry in the North seems to benefit from climate change because of higher tree growth.

Against this backdrop, there is interesting evidence about different understandings of forest sector innovativeness. In Central Europe, the forest sector is perceived as innovative if it increases its ability to adapt to changes that affect forestry incl. socio-political developments and to improve management practices. In South-East Europe, the forest sector is perceived as innovative if it improves forest management and adopts new technology. In South-West Europe, there are similar views. There, the innovativeness of the forest sector is often perceived as including both: enhanced management practices and adoption of new technologies. The latter is a means for the former. In Northern Europe, the forest sector is perceived as innovative if it creates new products, is sustainable and supports ecology. Here, the outputs of innovation are emphasized rather than potential contributors and inputs.

Climate change is perceived as the major driver for innovation yet slightly less in Northern Europe. Loss of biodiversity and the bioeconomy are clearly drivers in Northern and South-West Europe but met with some skepticism in Central and South-East Europe. The same is true for forest ecosystem service markets as a driver for innovation. About half of the respondents from Central and South-East Europe either disagree or are undecided whether this is the case.

Nonetheless, across all macro-regions there seems to be broad agreement that innovation in the forest sector requires knowledge transfer from research into practice. According to the OG members who participated in the survey, the most important channels for knowledge transfer are: foreign contacts, talking to colleagues, and social media – followed by other channels incl. Printed journals.

D3.2 presented mixed results with respect to the performance of EIP-Agri funding for OGs in forestry and agroforestry. The present report sheds more light on the administration of this funding scheme and reviewed the available evaluation reports of EIP-Agri implementation in partner countries to examine the constraints for innovation in forestry and agroforestry in greater depth. Accordingly, a major obstacle for beneficiaries is the perceived complexity of the application procedure, followed by the level of detail needed in budgetary planning. Moreover, in many countries' government authorities seem to face many difficulties in the implementation of calls, handling and coordination of the administrative procedures, and transfer of payments. EIP-Agri funding is a relatively novel measure in rural development policy, which has been further strengthened in the current CAP. Looking at the administration of this funding scheme therefore helps to enhance its user-friendliness for (potential) beneficiaries.

The results of the present and preceding reports inform the ongoing dialogue with the policy makers, interest groups and researchers in the policy focus groups meetings in FOREST4EU and at EU level in Brussels. They will also be further elaborated for scientific publications.

8. Appendix

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