

STRATEGY IMPLEMENTATION PLAN 2022–2025

Connecting knowledge to action

Table of Contents

Prefac	Ce	
	ramework	
2 O	perational goals and key performance indicators	6
3 Th	hematic framework	9
3.1	Bioeconomy	9
3.2		
3.3		
3.4		
4 D	escription of EFI Units in 2025	17
4.1	Research Programmes	
4.2		
4.3	Communications Unit	23
	x I. Description of Key Structures and instruments	
Stru	uctures	25
	ategic instruments	

Preface

The EFI Strategy, launched in 2017, remains highly relevant and timely. EFI's vision of a world where forests significantly contribute to sustainable wellbeing and its mission: connecting knowledge to action have become even more relevant during the coronavirus pandemic.

The need for post-Covid economic recovery is also a unique opportunity for EFI to increase its relevance and impact by providing science-informed policy support to accelerate the transition towards a climate-neutral and nature-positive economy. Forests, forestry and forest-based solutions, as reflected in the European Green Deal and the new EU Forest Strategy, are called to play an unprecedented role in catalysing the green transformation that Europe and the world needs.

In this context, the **new Strategy Implementation Plan (SIP) for the period 2022-2025** has been developed as an evolution of the successful 2017-2021 Strategy Implementation Plan.

During the period 2017-2021, despite the slowdown of some important projects due to the pandemic, EFI has increased its credibility and impact as a research-based organization as well as a science-policy-media broker. This can be seen through the increasing number of policy support publications, articles and events as well as the exponential growth in our media reach (for more information, see assessment of key performance indicators: here). The three EFI strategy themes of **Bioeconomy, Resilience** and **Governance** are now well-acknowledged as an integral part of the EFI brand. At the same time EFI is globally perceived as and intellectual authority on the circular bioeconomy concept, demonstrated by the fact that we are hosting the Circular Bioeconomy Alliance established by The Prince of Wales in 2020. Therefore, from a thematic development perspective the SIP 2017-2021 has been successful.

During the last four years, a new EFI organizational ecosystem has been created, consisting of **Research Networks**, **Programmes** and **Facilities**. Three Research **Programmes**, one for each of the strategy themes, have been established (two in Bonn and one in Joensuu) while two new **Facilities** have been developed (on Policy Support and Bioregions) and three **Research Networks** have been co-created with our member organizations (on Nordic Bioeconomy, European forest policy and Planted forests). Finally, to unlock the potential of EFI's membership structure, which consists of 29 Member Countries and more than 130 member organizations, two **funding instruments** have been developed: (i) **EFI Network Fund**, funding research and networking among EFI member organizations based on their EFI membership fees; (ii) **EFI Policy Support Trust Fund**, funding the work of our Policy Support Facility based on contributions from 10 EFI Member Countries. These two strategic instruments have been complemented by a series of **capacity building tools** (such as our Young Leadership Programme, the Solution Hack seminars for journalists, or our short-term mobility visits) to support young professionals.

The new SIP 2022-2025 reflects the new research and policy topics and questions that we would like to address in the coming years in collaboration with our network. It also describes the diversity of EFI structures (Programmes, Facilities and Research Networks) that will populate the EFI organizational ecosystem by 2025. This will include a new office in Rome which will host a new Biocities Facility to bring EFI closer to the urban world. It also describes two additional Facilities on Forest Genetics and on International Partnerships that will evolve from two existing initiatives, EURFORGEN and the FLEGT-REDD Unit. Finally, at least a new Research Network on Climate Smart Forestry will be created. I invite you to read this document and actively participate in its discussion and implementation to realise the full potential of EFI in connecting knowledge to action for the benefit of our forests, people and the planet.

1 Framework

<u>EFI strategy</u> is built around three interconnected and interdisciplinary themes: **Bioeconomy**, **Resilience** and **Governance** and three mutually reinforcing strategic goals (see Figure 1):

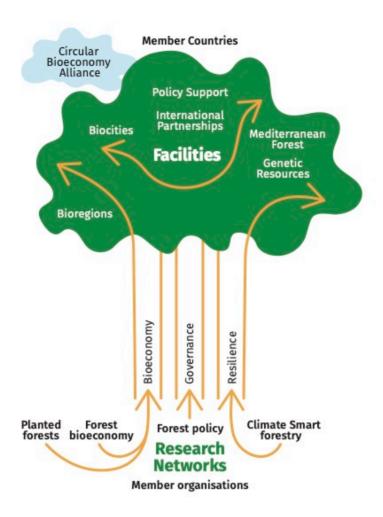
- An ambitious European forest research and innovation area
- Science-informed policies to address societal challenges and opportunities
- Awareness in society of the importance of forests

The strategy also defines EFI's strategic activities (Advocacy, Research and Foresight, Knowledge networking, Capacity building, Building bridges).



Figure 1: EFI's strategic themes and goals

EFI strategic activities are implemented through an ecosystem consisting of **Research Networks**, **Programmes and Facilities**. Research Networks mobilise and coordinate EFI member organizations in order to produce and share scientific knowledge within EFI's thematic framework, as well as connect it to the work of EFI Programmes and Facilities. Programmes' main focus is to produce new scientific knowledge within the Strategy thematic framework, while Facilities connect that knowledge to action within the science-policy-practice interface. **Programmes and Facilities** are parts of the Secretariat while **Research Networks** are administered directly by EFI member organizations (see Annex I for a complete description of EFI structures and instruments). Figure 2 depicts the EFI organizational ecosystem that will be consolidated by 2025 in order to achieve goals and address the topics describe in the following 2 sections. A description of each of the Units is available in section 4.



The Strategy Implementation plan (SIP) for the period 2022–2025 includes operational goals (cascading from the strategy goals) and their respective key performance indicators as well as the priority topics and description of units to be developed and consolidated in the period 2022-25.

2 Operational goals and key performance indicators

Three operational goals for each strategic goal are described below. Key Performance Indicators (KPIs) for each operational goal are also included to assess progress and guide the preparation of annual work plans.

Strategic goal	Operational goal	Key performance indicator				
	Develop a European collaborative platform to define forest-related research priorities	EFI (co-)leads a European project on strengthening the forest research and innovation area – in the period 2022-2025 EFI (co-)leads (at least one) European project or activity to establish a European Forest Partnership ¹ . Developing a European forest research and innovation agenda – EFI leads the development of a European forest research and innovation agenda to be prepared as follow up of the new EU Forest Strategy and other relevant policy developments.				
An ambitious European forest research and innovation area	Enhance forest-related transnational and intersectoral research coordination and cooperation	EFI Network Fund - In the period 2022-2025 EFI will make available at least 800 k€ of funding for its member organizations to enhance transnational research cooperation within the new EFI Strategy. Capacity building – for the period 2022-2025 EFI will provide a total of 40 grants for early-stage researchers and young professionals. Research Networks – in the period 2022-2025 EFI has at least one Research Network active in connection to each strategic theme.				
	Lead research on highly relevant forest-related topics	EU project coordination – in the period 2022-2025 each EFI research programme continuously coordinates at least one European project. EFI external research funding - By 2025 EFI's external research funding has increased by 100% compared to 2016. Scientific publications – In the period 2022-2025 EFI has published at least 200 articles in scientific journals of which at least 50% were published in journals of highest impact level (SJR ² Q1 group).				

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 $^{^{1}\,\}underline{\text{https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/european-partnerships-horizon-europe en$

² SJR (SCImago Journal Rank) indicator - It expresses the average number of weighted citations received in the selected year by the documents published in the selected journal in the three previous years—more at: https://www.scimagojr.com

Strategic goal	Operational goal	Key performance indicator					
		Policy impact - Number of policy makers participating in EFI's science-policy events increases by 30% between 2022-25 (baseline 2020).					
		Publication impact - From 2022-2025 the number of EFI science-policy publications downloads (from EFI homepage, ResearchGate, EFI blogs, EFI Network homepages) and uptake (Google references) increases by 20%.					
	Increase the uptake of forest- related scientific work in supporting relevant policy processes and policy development	Media impact – From 2022-25 the results of EFI's main science policy publications are translated into national languages and published in practice journals/newspapers via tria experiments (30%)					
		Supporting Forest Europe process – EFI systematically supports the science knowledge uptake of the Forest Europe process and intensifies science-policy-media collaboration.					
Science- informed policies to address societal challenges and opportunities		Establishing a forest risk knowledge mechanism – in the frame of the Forest Europe process, EFI will facilitate the establishment of a pan-European forest risk knowledge mechanism.					
	Increase the commitment by Members to EFI's science- informed policy support	Trust Fund funding – by 2025 the annual budget for the Policy Support Trust Fund is consolidated to one million € per year. Trust Fund members – by 2025 at least 60% of EEL Member.					
		Trust Fund members – by 2025 at least 60% of EFI Member Countries contribute and participate in the Trust Fund.					
	Consolidate an effective European science-policy- practice interface within EFI's thematic framework	EFI facilities - By 2025 EFI has the following Facilities operating at the science-policy-practice interface within the strategy thematic framework (see description in section 4): • Biocities Facility • Bioregions Facility • Genetic Resources Facility • International Partnerships Facility • Mediterranean Forest Facility • Policy Support Facility					
	Strengthen EFI as a global brand and recognized source of reliable, contextualized, and comprehensive	Media visibility - In the period 2022-2025, media visibility as measured by Meltwater doubles its current level when compared to 2020.					
Awareness in society of the importance of forests	information on forests for media and society	Multimedia – In the period 2022-2025, visibility of EFI as measured by Google search hits and social media analytics doubles when compared to 2020.					
	Build and facilitate capacities to effectively support a better-informed dialogue between media, scientists,	EFI science-media-policy programme - In the period 2022- 2025 EFI has organised 15 training events for science-media- policymakers-stakeholders dialogue and capacity building.					

Strategic goal	Operational goal	Key performance indicator				
	policy makers, practitioners and society					
	Develop a better understanding of forest- related debates in media	Media analysis - By 2025, EFI has developed media analyses and informative engagement tools within each of the three strategic themes.				

3 Thematic framework

EFI structures (Research Networks, Programmes and Facilitates) as well as funding and capacity building instruments need to address the topics and research questions below.

3.1 Bioeconomy

3.1.1 The role of a forest based circular bioeconomy for a post-fossil society³

A circular bioeconomy that is inclusive, climate neutral and nature positive should be at the centre of a post-fossil economy. However, such a transition requires interdisciplinary and cross-sectoral research on the sustainability impacts and circularity of new products and value chains, resource availability, as well as the policy and social implications of new business models, including public perception, impacts on employment, and consumer preferences. Research questions are:

- What are the key environmental, economic and social questions that guarantee the sustainability of the transition to a forest-based circular bioeconomy, including the role of bioenergy⁴?
- How can the most valuable uses of forest resources be incentivised, including wood, non-wood
 and ecosystem services, while minimising the environmental impacts over their life cycle e.g.
 by cascading, circular systems, and smart product and service design?⁵
- How can the transition to a circular bioeconomy be governed, including policies, marketing, market-based instruments and communication with society?

3.1.2 The dynamics of wood-based bioeconomy markets

Wood-based products play a key role in decarbonising important industries such as textiles, construction, and packaging, including the energy sector. However, there is not enough knowledge about emerging markets for many of the new products that are about to become available. Research questions are:

- What is the global market potential of forest-based products and energy, including their role in meeting the EU and global climate targets?
- What are the global drivers, risks and uncertainties of forest bioeconomy markets development in Europe and beyond, including in countries such as Russia and China, and in the tropics, and how do globalizing markets and trade patterns develop?
- What are the environmental and socio-economic impacts of these market and business developments?

³ This priority topic contributes to the EU Forestry objective to promote a "sustainable forest bioeconomy for long-lived wood products", as described in Section 2.1 of the Strategy.

⁴ This may include research related to the objective set out in the EU Forest Strategy to strengthen the "sustainability safeguards of forest-based bioenergy", inter alia through "strengthened sustainability criteria for bioenergy" as "proposed in the revision of the Renewable Energy Directive as part of the Fit-for-55 package."

⁵ This supports the intended "reinforcement of the implementation of the cascading principle" as also emphasized in the proposed revision of the Renewable Energy Directive, according to the EU Forest Strategy.

9

3.1.3 The contribution of non-wood forest products and ecosystem services to a sustainable bioeconomy⁶

Non-wood forest products (e.g., as part of the food system) and forest ecosystem services related innovations and business developments (e.g. related to carbon, biodiversity, water, education, health and recreation) are an essential part of a holistic forest-based bioeconomy. In some countries, non-wood forest products contribute significantly to livelihoods and employment; in other countries, ecosystem services related business innovations are some of the fastest growing branches of the bioeconomy. Research questions are:

- What is the socio-economic potential of non-wood forest products and forest ecosystem services markets?
- How can policies, market instruments and business models/innovations unlock their potential?
- What are the environmental and socio-economic (e.g., jobs) implications of non-wood forest products and ecosystem services?

3.1.4 Understanding and supporting forest-based innovation across sectors

Emerging forest-based innovations are increasingly cross-sectoral (including sectors such as construction, textiles, chemicals, packaging or transport) and complex (value chains) in nature which accentuates the need for specific knowledge and targeted resources and mechanisms to support them. Research and policies, as well as public and private actors need to join forces to create an enabling environment for forest-based innovations across sectors. Research questions are:

- What policies, tools and mechanisms (including funds and public-private partnerships) are needed to create an innovative environment for start-ups, scale-ups and new value chains?
- How can technological, social and business innovations exploit opportunities created through changing social, economic and environmental conditions?
- Which are the most promising forest-based innovations and how should forest research and education support them?

3.2 Resilience

3.2.1 Impacts and management of disturbances in European forests

Disturbances and global change related risks do increasingly impact forests and their multiple functions and uses. Mitigating the risks of forest-related disturbances by prevention measures and increasing the resilience and adaptive capacity of forest social-ecological systems is an urgent task. Successful adaptation needs to take a systemic approach, integrating the biophysical and socioeconomic dimensions. Research questions are:

- What are the impacts of climate change and other disturbances on forest ecosystems under different forest management regimes and what can be expected in the future?
- How can the resilience of forest social-ecological systems be assessed efficiently?

⁶ This priority theme contributes to the EU Forest Strategies goal to promote a "non-wood forest-based bioeconomy, including ecotourism", as described und detailed with regard to concrete measures in Section 2.3. of the Strategy.

• Which adaptation and post-disturbance management strategies can we implement to enhance and restore forests that are resilient?

3.2.2 Integrative approaches as a basis for Sustainable Forest Management⁷

The tools and approaches for implementing Sustainable Forest Management at stand and landscape level need to be diversified and adapted to a rapidly changing environment, changing societal demands and new available scientific knowledge so forest landscapes can contribute to address key societal challenges. These include mitigating climate change, adapting forests to cope with global change, increasing forest landscape resilience, enhancing biodiversity and ensuring forest ecosystem services essential for human wellbeing and a circular bioeconomy. Research questions are:

- How can adaptation and mitigation goals in forest management be combined through climate smart forestry to sustain biodiversity rich ecosystems that can provide the resources for a sustainable bioeconomy and meet societal demands for ecosystem services?
- How can we design, diversify and operationalise integrative forest management approaches through the combination of different scientific disciplines, monitoring technologies, decision support systems and sustainability indicators?
- How can sustainable forest management be governed and implemented in different contexts and at different scales, including in different ownership types, to minimize trade-offs and strengthen synergies among management goals?⁸

3.2.3 Combining adaptation and restoration ('Prestoration'⁹) for conserving and enhancing biodiversity¹⁰

Conserving and restoring biodiversity rich forest ecosystems is crucial for enhancing biodiversity in Europe and increasing forest resilience which in turn is needed to ensure the contribution of forest ecosystems to climate change mitigation, and to provide a broad range of ecosystem services in a rapidly changing environment. We aim to support science-informed strategies (from local to European scale) and management approaches integrating gene to landscape level considerations as well as connecting old-growth forests conservation to integrative forest management. The need to adapt forests to climate change ('prestoration') while restoring and conserving biodiversity will be address through the following research questions:

• How can prestoration approaches be defined that aim to restore biodiversity in a context of climate change and increasing impacts of natural disturbances?

⁷ This priority topic contributes, as a whole, to the work foreseen in the EU Forest Strategy on Sustainable Forest Management, and specifically supporting with evidence the foreseen "additional indicators as well as thresholds or ranges for sustainable forest management concerning forest ecosystem conditions, such as health, biodiversity and climate objectives" to be developed "by the Commission, together with the Member States and in close cooperation with different forest stakeholders".

⁸ Research on this question may contribute to the "closer-to-nature" forestry voluntary certification scheme foreseen under the EU Forest Strategy.

⁹ "Prestoration" refers to restoration of ecosystems but in a way that takes the changing climatic conditions into account. ¹⁰ This priority topic contributes, in its whole, to the EU Forest Strategy's objectives on "Protecting EU's last remaining primary and old-growth forests" (Section 3.1), "Ensuring forest restoration and reinforced sustainable forest management for climate adaptation and forest resilience" (Section 3.2), and "Re- and afforestation of biodiverse forests" (Section 3.3) including several activities listed under these Sections, e.g. the envisaged "legally binding instrument for ecosystem restoration" and the pledge to plant at least 3 billion additional trees by 2030 in full respect of ecological principles.

- What are, at a regional level, the most suitable biodiversity conservation strategies, combining land-sharing-land-sparing approaches?
- How can forest owners be incentivised to implement prestoration measures?

3.2.4 Agroforestry for resilient landscapes

Understanding the supporting function of agroforestry and other management systems integrating agriculture and forestry, ranging from silvo-pastoral systems up to trees in the agricultural landscape, is critical for creating future resilient rural landscapes. We will learn from traditional extensive land management systems from Europe and beyond, and will explore opportunities for highly innovative land management systems integrating elements of both forestry and agriculture in the future. Research questions are:

- What is the potential of agroforestry and trees in the landscape to improve the carbon/water balance (e.g., as part of "carbon farming"), the biodiversity and the recreational potential of agricultural landscapes?
- What is the economic feasibility of different management systems integrating elements of agriculture and forestry, and how can innovations be supported?
- How can political, socio-economic and cultural barriers be overcome to unlock the potential of agroforestry and other "mixed" management systems integrating forestry and agriculture in Europe?

3.3 Governance¹¹

3.3.1 International forest governance: stopping deforestation and advancing sustainable forest management

Global forest policy is dynamically evolving at the nexus between bioeconomy (including food systems), trade, finance, climate, energy, and biodiversity policies. Comprehensive approaches are critical to stop deforestation and advance in the sustainable management, conservation and restoration of the world's forests. We analyse policy making, implementation and policy effects in both so-called "consumer countries" (e.g., EU, but also countries such as China) and "producer countries" (e.g., in tropical regions of Africa, Asia and Latin America) to understand the dynamics between policies and different regions of the world and their impacts along forest and "deforestation" value chains. Research questions are:

- What are the key economic, social and environmental drivers affecting deforestation, forest degradation and unsustainable management?
- How do policies and governance relating to bioeconomy, climate, biodiversity, trade, sustainable finance¹², legality or zero deforestation develop in major "consumer" and "producer" countries, and are these approaches consistent across these countries?

¹¹ The Governance strategic theme as a whole is contributing to the EU Forestry Strategy's key ambition to advance an "inclusive and coherent EU forest governance framework" (Section 6).

¹² Work on sustainable finance in the contet of forest policy is especially relevant also in the context of the current further evolution of this policy as noted in the EU Forest Strategy to "review, complement and update the Taxonomy Climate Delegate Act technical screening criteria for forestry and bioenergy where necessary to take better into account biodiversity friendly practices that are under development such as close to nature forestry.", and to "consider including 12"

 Which governance, policies and market mechanisms can be identified as the most promising to effectively stop deforestation "on the ground" and create the environment for SFM in tropical countries?

3.3.2 The role of the private sector and non-state driven forest and environmental governance

We focus on the private sector as the key driver and innovator in global forest management, value creation and conservation. We seek to understand how investors, companies, landowners, and industry, environmental and social interest groups respond to demands from consumers, markets and the policy system to advance sustainability aspects and to develop credible self-governance, and what impact the private sector has through non-state forest and environmental governance. Research questions are:

- How does the private sector approach forest sustainability issues and what (non-state) governance strategies are applied at the interface between profitability and sustainability?
- How does private sector driven governance evolve in response to market and consumer demands and in co-evolution with the public policy framework, and what is the role for public policy regulators?
- What is the role and impact of non-state forest and environmental governance and what would be needed to make it more effective?

3.3.3 The future governance of European forests

The European/EU policy framework is dynamically evolving. We focus on its development and how it governs the forest-society-economy interface and drives forest management. One specific focus is on policy integration - how different sectoral policies affect each other and can work together, and how sectoral competition plays out. As well as analysis, we provide knowledge for the development of a European forest and forest sector policy framework that aligns the provision of multiple forest ecosystem services with societal "demand". Research questions are:

- How is the European forest-related policy framework developing in the context of the EU Green Deal and recovery plans?
- How do EU and country-level policies respond to the increasing need for forest products and ecosystem services as a major component of a circular bioeconomy while addressing the increasing risks of climate change and biodiversity needs?
- How are EU and national forest and environmental policies implemented, including issues related to the subsidiarity principle, and how does this affect the forest-society-economy interface?¹³

3.3.4 Diverging societal perceptions, forest conflicts and how to manage them

Policy and public debates around forests are increasingly polarizing. We aim to understand the drivers and the evolution of conflicts and involve stakeholders and policy makers in co-designing

13

sustainable activities related to harvesting, production and use of wood products in the forthcoming delegated acts of the Regulation Taxonomy on other environmental objectives."

¹³ Research on this question and the entire priority topic will contribute with evidence to the key ambition formulated in Section 7 of the EU Forest Strategy ("Stepping up implementation and enforcement of existing EU acquis") which looks at a variety of measures to improve implementation and increase impact of EU policies.

and testing approaches to resolve them through adequate governance schemes. This includes analysing diverging societal perceptions, e.g. relating to culture and gender, and related demands towards forests, and the role of media, and of science as an honest broker. A major focus is on inclusive governance and management approaches to align diverging societal expectations related to distinct paradigms and interests. Research questions are:

- What are the drivers of forest-related conflicts and how do they evolve across contexts?
- How can equality issues as well as conflicts be addressed through science-informed processes and inclusive governance schemes (e.g., "Model Forests"), including new roles for media and new ways of forest communication and transparency?
- How can we align "biodiversity bioeconomy" demands and advance integrative solutions, including payment of ecosystem services?¹⁴

¹⁴ Research relating to this question is specifically supporting the series of activities foreseen in the EU Forest Strategy to provide "Financial incentives for forest owners and managers for improving the quantity and quality of EU forests" (section 3.4), and specifically to provide advice and technical guidance on the development of ecosystem service payment scheme by November 2021, and to promote forest-related remuneration schemes in an action plan for both carbon farming and carbon removal certification, to be adopted by the end of 2021 and carry out a study on behavioural science regarding the uptake of public funds by foresters to better identify further policy improvement routes, and to identify and address possible hurdles posed by current EU legislation and the State Aid Guidelines to grant adequate public support to services beneficial for the public interest.

14

3.4 Cross-cutting topics

EFI will also address the following cross-cutting topics:

3.4.1 Circular Biocities: from a concept to the new urban reality

Cities consume close to two-thirds of the world's energy, account for more than 70% of global greenhouse gas emissions and are rapidly growing - more than two-thirds of the global population will live in urban areas by 2050. We urgently need to rethink our cities through circular bioeconomy lenses, based on a new and synergistic relationship between urban economy and ecology. We aim to provide new knowledge on the potential of forest-based solutions in creating sustainable and resilient cities. A holistic approach: from adapted trees and urban forests to green design and wood construction, as emphasized in the New European Bauhaus initiative ¹⁵is urgently needed. Research questions are:

- What are the benefits of urban forests for human health and wellbeing, as well as for climate and biodiversity smart cities and how can these forests be governed and managed?
- What role can wood play in reimagining cities globally, in view of their decarbonization and the need for circular urban systems?¹⁶
- Which planning strategies, tools (including indicators) and policy instruments¹⁷ are necessary to facilitate the transition to circular biocities, also addressing the interrelationship between cities and (rural) hinterlands?

3.4.2 A holistic approach to European forest information 18

Reliable, up-to-date, and coherent European forest information is more important than ever. We need up-to-date reliable information on the state of forest ecosystems and the products and services they deliver, taking into account climate and biodiversity aspirations and the need to monitor sustainable forest management practices within emerging bioeconomy markets. We aim to support the development of harmonized and reliable European forest monitoring systems and indicators through data gathered with interdisciplinary methodologies and approaches. Research questions are:

 How can comprehensive forest information systems that align information on forest state, ecosystem services (including biomass) provision and socio-economic ecosystem services demands be designed?

¹⁵ "Following the New European Bauhaus, research and innovation on architecture, green design and construction materials should be amplified" (EU Forest Strategy).

15

¹⁶ This focus on the potential of wood and wood construction contributes to the EU Forest Strategy mandate for the Commission to "develop a 2050 roadmap for reducing whole life-cycle carbon emissions in buildings and, in the context of the revision of the Construction Products Regulation, to develop a standard, robust and transparent methodology to quantify the climate benefits of wood construction products and other building materials".

¹⁷ This is contributing to the EU Forest Strategy's ambition to encourage Member States to "reflect best available scientific knowledge in the design of regulations favourable to long-lasting wood products, including acting on energy and environmental performance of building and construction products, promoting ecolabels related with carbon sequestration and increased circularity and by targeting the crucial phases in the life of buildings, including construction, renovation and deconstruction".

¹⁸ This priority topic contributes evidence to the EU Forest Strategy's focus on "Strategic forest monitoring, reporting and data collection" (Section 4), including the foreseen "legislative proposal for a Forest Observation, Reporting and Data Collection framework" in order to "establish an EU-wide integrated forest monitoring framework" and related "Strategic Plans" for forests to be developed by the EU Member States.

- What are the key solutions for the development, combination, and utilization of reliable data from multiple sources (national forest inventories, remote sensing, environmental monitoring, large scale societal surveys, etc), including the analysis of trends and scenarios for the future?
- What is the potential for digitalization (new solutions, applications, business models)?

3.4.3 Tree growing and land restoration in the tropics: a landscape and value chain approach

Tree growing and land restoration is a widely accepted policy goal for their potential in carbon offsetting but also for other goals related to the SDGs. Holistic approaches to align tree-based climate mitigation with bioeconomy and biodiversity targets while contributing to local social and economic development goals are urgently needed. Interdependencies and trade-offs between products (energy, materials, food, etc) and ecosystem services (soil, water, biodiversity related) can hamper success if there are no inclusive governance arrangements. Financial investments can be misguided if the value webs connecting to a circular bioeconomy transition are not considered. Research questions are:

- How can tree growing and landscape restoration be designed and implemented in different contexts to ensure both environmental and socio-economic benefits?
- How can governance be designed inclusively to ensure that investments and decisions relating to restoration and forest landscape management reflect the interests of local communities?
- How can effective implementation of social and environmental standards and the inclusion of smallholders in value chains be combined within investable projects?

4 Description of EFI Units in 2025

4.1 Research Programmes

4.1.1 Bioeconomy Programme

The **Bioeconomy Programme** is a reference research programme in scientific understanding on the role of the forest sector in the development of a circular bioeconomy for a post-fossil society. This includes sustainability impact assessments of using wood to replace fossil material-based products, understanding the dynamics of future development of bioeconomy markets, as well as how bioeconomy development is linked to various ecosystem services and sustainable forest management.

The Programme addresses the following priority topics:

- The role of a forest-based circular bioeconomy for a post-fossil society
- The dynamics of wood-based bioeconomy markets
- Understanding and supporting forest-based innovation across sectors
- Integrative approaches as a basis for Sustainable Forest Management
- Agroforestry for resilient landscapes
- Circular Biocities: from a concept to the new urban reality
- A holistic approach to European forest information

The programme has an annual budget of 2 million EUR and employs 20 staff.

4.1.2 Resilience Programme

The **Resilience Programme** is a scientific reference in providing policy-practice knowledge and information on socio-ecological resilience, forest risks, adaptative and integrative forest management, forest and biodiversity restoration, urban forestry and agroforestry. Research activities directly support the most crucial policy questions of today, e.g., the role of forests under the EU's Green Deal (i.e. adaptation of ecosystems, communities and the economy to climate change, mitigation of climate change) or the global biodiversity crisis. The programme also coordinates a network of demonstration sites on the benefits and opportunities of integrative forest management and forest biodiversity restoration.

The Programme addresses the following priority topics:

- Impacts and management of disturbances in European forests
- Integrative approaches as a basis for Sustainable Forest Management
- Combining adaptation and restoration for conserving and enhancing biodiversity
- Agroforestry for resilient landscapes
- Forest conflicts and how to resolve them
- Circular Biocities: from a concept to the new urban reality
- A holistic approach to European forest information
- The contribution of non-wood forest products and ecosystem services to a sustainable bioeconomy
- Tree growing and land restoration in the tropics: a landscape and value chain approach

The programme has an annual budget of 2 million EUR and employs 20 staff.

4.1.3 Governance Programme

The **Governance Programme** focuses on critical questions related to human-forest interrelations. The programme aims to take a broad perspective on forest governance, looking into the interplay of different policy sectors as well as distinct governance mechanisms such as markets, rules, and participatory decision making, as well as across different countries and regions within and outside Europe. It investigates the "stewardship" of forests ranging from i) the understanding of societal values, interests and demands towards forests and ii) how these demands are translated into policy, including how decisions are made, at different levels down to iii) the "on the ground" level of implementation and impacts, where policies and governance arrangement play out in concrete actions regarding forest landscape or forest-related value chains.

The Programme addresses the following priority topics:

- The bioeconomy-environment nexus in global forest governance
- The role of the private sector and non-state driven forest and environmental governance
- The future governance of European forests
- Forest conflicts and how to resolve them
- The contribution of non-wood forest products and ecosystem services to a sustainable bioeconomy
- Integrative approaches as a basis for Sustainable Forest Management
- Circular Biocities: from a concept to the new urban reality
- A holistic approach to European forest information
- Tree growing and land restoration in the tropics: a landscape and value chain approach

The Programme has an annual budget of 2 million EUR and employs 15 staff.

4.2 Facilities

4.2.1 Biocities Facility

The **Biocities Facility** is a global reference in generating and communicating relevant scientific knowledge on the potential of the circular bioeconomy concept to rethink urban areas, particularly based on forest-based solutions. The Facility is a leader in developing a new and holistic conceptual framework for the use of green infrastructures and biobased solutions in urban environments. Increasingly relevant "urban" sectors and challenges such as building construction (e.g., European Bauhaus initiative), fashion, transport, packaging, waste and human health and wellbeing directly benefit from the knowledge and activities generated.

The Facility addresses the following priority topic:

Circular Biocities: from a concept to the new urban reality

The Facility implements the following key activities:

- Science-policy-business reports to connect the dots between disciplines and sectors that can catalyse transformational change in urban environments.
- Science-policy-business events and to raise awareness and create a new and informed debate on Circular Biocities around key sectors.

• A range of raising awareness communication activities engaging journalists, using different communication platforms and tools: from blogs, exhibitions, awards, etc

The Facility has an annual budget of 1 million EUR and employs 10 staff.

4.2.2 Bioregions Facility

The **Bioregions Facility** is recognized as Europe's leading collaborative and co-learning platform for regions in support of the forest-based circular bioeconomy transition. The Facility is a leading actor in understanding and communicating the necessary conditions that allow for a dynamic innovative bioeconomy, as well as a provider or tools and methodologies to speed up knowledge flows, deployment of innovation and societal engagement. The bioregions network hosts one of the most active and relevant business acceleration networks on forest bioeconomy in Europe.

The Facility addresses the following priority topics:

- Understanding and supporting forest-based innovation across sectors
- The role of a forest-based circular bioeconomy for a post-fossil society
- The dynamics of wood-based bioeconomy markets
- The contribution of non-wood forest products and ecosystem services to a sustainable bioeconomy
- A holistic approach to European forest information

The Facility implements the following key activities:

- A Policy Learning Platform: to help policymakers create the environment for regional bioeconomies, through a combination of workshops, surveys, technical reports, documentation of best practices, cross visits, and peer to peer exchanges.
- An Innovation & Business Discovery Hub to catalyse implementation of innovative bioeconomy ideas in the private sector, through a collaborative *European Circular Bioeconomy Acceleration Programme* and supporting strategic partnerships, Bioeconomy Matching events.
- The Societal Awareness Toolkit to provide facts and figures and show case real life cases depicting the success and challenges of the circular bioeconomy, as tools to raise awareness, create trust, and foster consumer demand for sustainable biobased products and services.

The Facility has an annual budget of 0.7 million EUR and employs 4 staff.

4.2.3 Genetic Resources Facility

The **Genetic Resources Facility** is the European reference for science-policy-practice dialogue on forest genetics. The Facility has consolidated its position in forest genetics in Europe. In addition to EUFORGEN, the facility manages the European Information System on Forest Genetic Resources (EUFGIS) and leads communication activities related to the Network of Excellence EVOLTREE. Through continuous collaboration with the European forest genetic community, the Facility leads/supports the creation and implementation of new initiatives and projects related to forest genetic resources.

The Facility addresses the following priority topics:

- Impacts and management of disturbances in European forests
- Integrative approaches as a basis for Sustainable Forest Management
- Combining adaptation and restoration for conserving and enhancing biodiversity
- Forest conflicts and how to resolve them

The Facility implements the following key activities:

- Science-based dissemination related to the choice and production of forest reproductive material targeting forest managers, nurseries and policy makers.
- Science-policy-practice events to raise awareness on the relevance and role of forest genetics in the EU Green Deal ambition to plant 3 billion trees.
- Development of communication channels with nature conservation actors to prevent conflicts on the need to manage genetic conservation units.
- Leading the identification of research needs in forest genetics in Europe.
- Development of initiatives to support the conservation of forest genetic resources in Europe's neighbour countries.

The Facility has an annual budget of 0.5 million EUR and employs 6 staff.

4.2.4 International Partnerships Facility

The International Partnerships Facility is a global centre of knowledge and expertise in support of partnerships and governance reforms. The Facility promotes sustainable forest management, climate-smart land-use and restoration, and encourages legal, deforestation-free and sustainable commodity production and trade. It supports the development and implementation of legally binding instruments, dialogues and partnerships between producing and consuming countries legal frameworks and practices on sustainable land-use and commodity production and ensure alignment with sustainable development objectives and market requirements. The Facility uses its knowledge and experience to inform policy developments in consuming countries. The facilitation of multi-stakeholder processes at national, subnational and local level is at the core of the Facility's approach. Close collaboration with the Governance Programme provides the Facility with latest scientific knowledge and methodologies to support the implementation of its activities.

The Facility is addressing the following priority topics:

- Forest conflicts and how to resolve them
- The bioeconomy-environment nexus in global forest governance
- The role of the private sector and non-state driven forest and environmental governance
- Tree growing and land restoration in the tropics: a landscape and value chain approach

The Facility implements the following key activities:

- Building effective partnerships with governments, civil society, the private sector, international organisations and the scientific community
- Providing information, analysis and guidance through impact assessments, legal analyses, policy analyses, market analyses, background papers and other means
- Facilitating inclusive deliberative processes and multi-stakeholder initiatives

- Assisting countries to define, implement and monitor legality and sustainability of land-use, commodity production and related trade
- Piloting and developing of tools and approaches in support of forest and land-use governance reforms and deforestation-free commodity production and trade
- Promoting gender equality and the integration of smallholder, customary groups and MSME perspectives into dialogue platforms and processes
- Using communication processes and tools to support stakeholder engagement, amplify the voices of our partners, and share our results and impact

The Facility has a budget of 8 mio EUR and employs 45 staff.

4.2.5 Mediterranean Facility

The **Mediterranean Facility** is a reference in the Mediterranean region and other Mediterranean climate areas, as the provider of relevant knowledge emerging from science and practice. The Facility is a cornerstone in Mediterranean forest-related networks, and offers a dynamic platform to exchange knowledge, identify and advocate for common priorities, and to generate new research and innovation partnerships. Specifically, it gathers all relevant actors and initiatives active in landscape and community-based approaches to wildfire risk mitigation and the provision of ecosystem services. The Facility is an intellectual leader in Mediterranean forest bioeconomy, including the socio-economic and policy underpinnings of innovative value chains based in wood, non-wood forest products and ecosystem services.

The Facility addresses the following priority topics:

- The role of a forest based circular bioeconomy for a post-fossil society
- The contribution of non-wood forest products and ecosystem services to a sustainable bioeconomy
- Understanding and supporting forest-based innovation across sectors
- Impacts and management of disturbances in European forests
- Integrative approaches as a basis for Sustainable Forest Management
- A holistic approach to European forest information

The facility implements the following key activities:

- Coordination and Support Actions and Innovation Actions, supporting a transition towards a new paradigm for Mediterranean forest and forestry.
- Nurturing policy-science interfaces in collaboration with key stakeholders, including through specific policy relevant publications and events.
- Networking, brokerage activities, to regularly update and permanently facilitate the implementation of research priorities in the Mediterranean Forest Research Agenda.
- Capacity building, at multiple levels, including a well-recognised Young Leadership Programme.

The Facility has a budget of 0.8 million EUR and employs 7 staff.

4.2.6 Policy Support Facility

The **Policy Support Facility** synthesises evidence-based knowledge and disseminates scientifically sound and policy-relevant information on forests and forestry. The Facility is well-recognised by scientists, policy makers, environmental NGOs and stakeholders alike for its science-policy-practice knowledge transfer activities and publications in Europe and beyond. The Facility provides an effective platform for EFI Members to take up the latest comprehensive science on forest-related questions.

The Facility also systematically supports the Forest Europe process by providing science-informed policy support, communication and dissemination services, and ensures a strong link to the scientific and policy support capacities of EFI member organizations.

The Facility implements the following key activities:

- Science-policy studies and scientific assessment reports to synthesise existing scientific knowledge and develop policy recommendations and future pathways to inform policy making and stakeholders' work.
- Awareness raising for forest and governance-relevant scientific knowledge by providing
 evidence and science-based answers to pressing political problems, and organising high-level
 ThinkForest events and implementing a webinar strategy for EFI member organizations and
 countries to disseminate evidence-based knowledge.
- Strengthened integration of policy support activities within EFI together with all EFI units.
- Evaluation of EFI's science-policy-practice engagement formats to further improve policy support activities.

The Facility has a budget of 1.0 million EUR and employs 6 staff.

4.2.7 Circular Bioeconomy Alliance

The **Circular Bioeconomy Alliance** is a global partnership, working collectively to accelerate the transition to a circular bioeconomy that is climate neutral, inclusive and prospers in harmony with nature. The Alliance provides knowledge-informed support as well as a learning and networking platform to connect the dots between investors, companies, governmental and non-governmental organizations and local communities to advance the circular bioeconomy while restoring biodiversity globally.

The Alliance addresses the following priority topic:

- Tree growing and land restoration in the tropics: a landscape and value chain approach
- The role of a forest based circular bioeconomy for a post-fossil society
- The dynamics of wood-based bioeconomy markets
- Combining adaptation and restoration for conserving and enhancing biodiversity
- Agroforestry for resilient landscapes

Key activities:

 Raising awareness and inspiring action towards a circular bioeconomy: from nature-based solutions to reimagining our cities.

- Catalysing investments and connecting investors to companies, start-up, and scale-up projects to bring the circular bioeconomy from niche to norm.
- Supporting governments to develop science-informed strategies to transition towards a circular bioeconomy.
- Establishing a global network of <u>Living Laboratories</u> to support land restoration based on a landscape and circular bioeconomy value chain approach.

The Alliance has a direct annual funding of 0.25 million EUR and has mobilized 100 million EUR for projects in partner countries since 2022. The Alliance is coordinated by the director and employs 5 staff.

4.3 Communications Unit

The Communications Unit focuses on EFI's strategic aim of increasing awareness of the role of forests and forest science in building a sustainable society, based on a science-informed narrative and evidence-based approach, which especially addresses media, policy makers, young people and urban populations.

Key activities

- Development of EFI's visibility and recognition via digital communications and media coverage, with the support of the entire organization.
- Connecting communities (media, science, policymakers, practitioners, society) with training and interaction to facilitate better-informed dialogue
- Corporate communications, maintaining EFI's network of member organizations and wider network, and facilitating internal communication.

The Unit has a budget of 0.3 million EUR and a team of 5 staff.

Table 1: Overview of EFI units in 2025: priority topics and target values

a	Priority topic	Research programmes			Facilities ¹⁹					
Theme		Bioeconomy	Resilience	Governance	Biocities	Bioregions	Circular Bioeconomy Alliance	Genetic Resources	International Partnerships	Mediterranean Forests
Bioeconomy	The role of a forest based circular bioeconomy for a post-fossil society	Х				х	Х			Х
	The dynamics of wood-based bioeconomy markets	Х				х	Х			
	The contribution of non-wood forest products and ecosystem services to a sustainable bioeconomy		Х	х		Х				х
	Understanding and supporting forest- based innovation across sectors	Х				Х				Х
silience	Impacts and management of disturbances in European forests		Х					Х		Х
	Integrative approaches as a basis for Sustainable Forest Management	Х	Х	Х				Х		Х
	Combining adaptation and restoration for conserving and enhancing biodiversity		Х				Х	Х		
	Agroforestry for resilient landscapes	Х	Χ				Х			
overnance	The bioeconomy-environment nexus in global forest governance			Х					Х	
	The role of the private sector and non-state driven forest and environmental governance			Х					Х	
	The future governance of European forests			Х						
	Forest conflicts and how to resolve them		Х	Х				Х	Х	
Cross-cutting	Circular Biocities: from a concept to the new urban reality	Х	Х	Х	Х					
	A holistic approach to European forest information	Х	х	х		х				Х
	Tree growing and land restoration in the tropics: a landscape and value chain approach		Х	Х			Х		Х	
				Targe	et indicator	'S				
	Target funding in 2025 (in mio EUR)	2.0	2.0	2.0	1.0	0.7	0.25	0.5	8.0	0.8
	Number of staff	20	20	15	10	4	5	6	45	7

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¹⁹ The Policy Support Facility contributes to all priority topics.

Annex I. Description of Key Structures and instruments

Structures

Research Networks

Strategic goals: An ambitious European forest research area

Main strategic activities: Knowledge networking, Capacity building, Building bridges; Advocacy

Research networks consist of a subset of EFI member organizations and other relevant research partners. Research Networks aim to **enhance European and/or Regional cooperation and coordination of transnational research** in the context of EFI's priority topics. Research Networks are coordinated by an EFI member organization. Research Networks are important to maintain a permanent dialogue between EFI member organizations and EFI Programmes and Facilities, and to advance scientific knowledge generation on priority topics through transnational collaboration. Research Networks operate for a certain period (five years, subject to renewal) and their coordination is self-financed.

Programmes

Strategic goals: An ambitious European forest research area; science-informed policies **Main strategic activities:** Research and foresight; Advocacy

Programmes are responsible for **leading and implementing EFI research activities** within the three strategic themes. EFI Programmes conduct research at the European and global level together with member organizations and other partners across disciplines, sectors, and landuses to address effectively research questions that are of high policy and societal relevance.

Facilities

Strategic goals: Science-informed policies; Awareness in society

Main strategic activities: Knowledge networking; Capacity building; Building bridges; Advocacy

Facilities are key structures for **connecting knowledge to action**. They facilitate knowledge uptake by policy makers, practitioners and other stakeholders via capacity building, knowledge networking and the provision of demand-based expertise. Facilities are flexible structures that can address a particular policy, topic or activity. Facilities build on the research knowledge generated by Programmes, Research Networks, other EFI member organizations and the wider science community. Facilities also aim to provide feedback to EFI's Programmes and Research Networks from end-users. Facilities interact closely with policy makers, practitioners and other stakeholders, and have an important advocacy role.

Communication Unit

Strategic goal: Awareness in society

Main strategic activities: Knowledge networking; Capacity building; Building bridges Advocacy

Communication and advocacy are an integral part of all EFI's activities and a shared responsibility of all EFI staff members. However, in addition, the EFI Communications Unit ensures high visibility and the successful branding of EFI. The Unit plays a vital role in engaging with society on EFI priority themes, using a unified visual image, innovative digital tools, and strategic media collaboration.

Strategic instruments

EFI's main competitive advantage is its membership structure, consisting of 29 Member Countries and over 130 member organizations from 38 different countries working in diverse research fields. This dual membership places EFI in a unique position to generate, connect and share knowledge at the interface between science, policy and practice. To unlock the full potential and serve the needs of this dual membership, EFI applies two main types of strategic instruments: (1) funding instruments and (2) capacity building instruments.

Funding instruments

Policy Support Trust Fund

Strategic goal: Science-informed policies

Main strategic activities: Knowledge networking; Capacity building; Advocacy

The aim of the Policy Support Trust Fund is to support forest-related policy making through science-informed policy support. EFI Member Countries can join the Trust Fund by providing a voluntary contribution, which also allows them to become a member of the Fund's steering committee, providing strategic guidance on the activities to be implemented and topics to be addressed by the Fund. The Trust Fund finances the synthesis and contextualization of existing scientific knowledge in appropriate formats to effectively address policy questions. Therefore, the Trust Fund directly addresses the need of Members for policy-relevant and science-informed knowledge. The EFI ThinkForest Forum, also funded by the Trust Fund, provides a high-level platform to present the most relevant results of its activities in European circles.

EFI Network Fund

Strategic goal: An ambitious European forest research and innovation area **Main strategic activities:** Knowledge networking; Capacity building; Research and foresight; Advocacy

Activating the transnational cooperation of EFI member organizations is a precondition for building an ambitious and effective pan-European forest research and innovation area. In that context, EFI established the **EFI Network Fund, which supports the transnational cooperation** of its member organizations in **implementing** the EFI Strategy. The EFI Network Fund addresses the following strategic activities: research, knowledge networking and capacity building. The Fund is based on the annual fees of member organizations.

Capacity building instruments

EFI works to build capacity among scientists, policy makers and practitioners to be able to tackle future societal, scientific and knowledge and communication needs.

Strategic goal: An ambitious European forest research and innovation area; Science-informed policies; Awareness in society

Main strategic activities: Capacity building; Knowledge networking; Building bridges; Advocacy

The following capacity instruments are used to implement effectively the EFI Strategy.

EFI Grants

The aim of *EFI Grants* is to strengthen EFI's network by fostering collaboration and knowledge exchange. The grants are provided to **early-stage researchers** and **young professionals** from EFI Associate Member organizations to address EFI priority topics. These *Grants* provide an opportunity for young researchers and professionals to get involved in international-level forest research and research cooperation.

EFI Young Leadership Programme

The Young Leadership Programme (YLP) aims to increase the capacities of young professionals with leadership potential coming from the academic, business, public administration or non-governmental organization sectors. YLP offers an opportunity for participants to interact with their global peers, and to better understand the emerging opportunities and challenges within the complex forest-related operating environment, as framed by the EFI thematic framework. YLP provides access to new information and knowledge shared by researchers, policy makers, and business leaders working on those issues. Participants build new networks and obtain new

knowledge by learning and sharing practical experiences. They also improve their leadership and communication skills to translate knowledge into action.

EFI Science-media programme

EFI Science-media programme aims to **improve science communication** to better facilitate an informed societal dialogue. EFI, together with partners, organizes online training and capacity building to connect and bridge these communities, with the aim of enabling participants to see the bigger picture, understand forest-related issues from a variety of perspectives and break down silos and barriers. These seminars take place within a wide range of projects and topics, for example via the Lookout Station, Integrate Network, SUPERB etc. Media/social media analysis will be used to establish better understanding and develop informative engagement tools.