



PROGRAMME
DE RECHERCHE
RÉSILIENCE
DES FORÊTS

Partenariat européen Forêts et sylviculture pour un avenir durable & Opportunités européennes

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Bordeaux, 19 septembre 2024

Contexte européen

FORÊTS

à l'intersection de nombreux défis que l'UE doit relever (CC, perte de la biodiversité, dégradation des sols...)

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Biodiversity strategy for 2030

New EU forest strategy for 2030

Contexte européen



Contexte européen



Rôle de la recherche

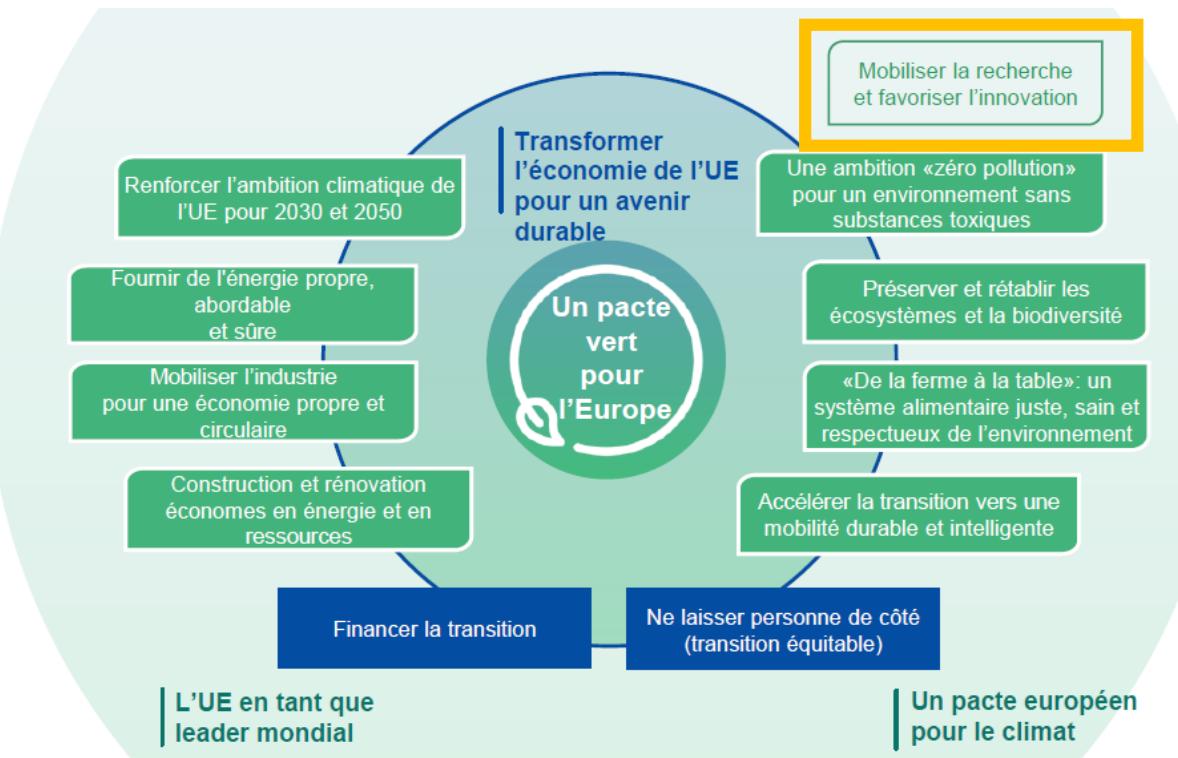


- L'Union européenne comme acteur de politiques publiques : besoin d'éclairage scientifique pour concrétiser les priorités stratégiques
- Favoriser l'innovation et garantir des avancées technologiques
- Intensifier la coopération internationale pour répondre à des enjeux globaux



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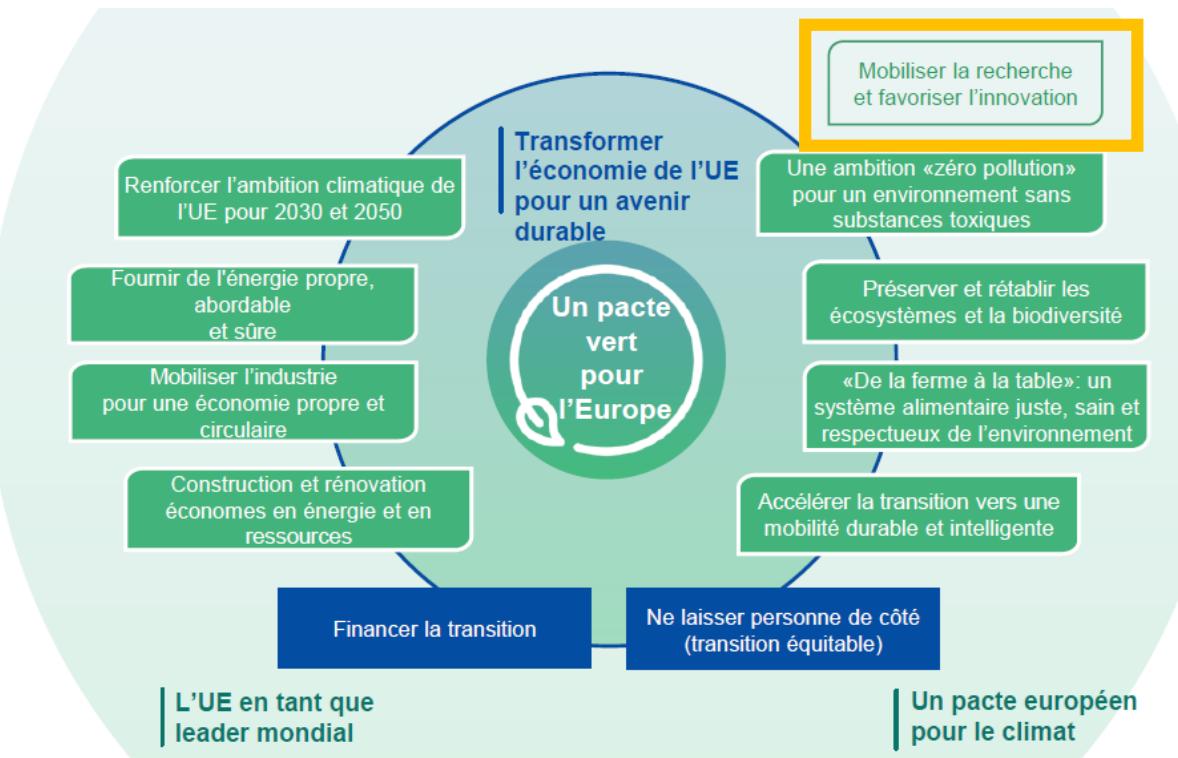
« Ce défi dépasse les moyens des États membres pris isolément. **Horizon Europe**, en synergie avec d'autres programmes de l'UE, **jouera un rôle central** [...] Au moins **35 % du budget d'Horizon Europe financeront de nouvelles solutions pour le climat** qui permettront de mettre en œuvre le pacte vert. [...] **L'ensemble des instruments disponibles dans le cadre du programme Horizon Europe soutiendra les efforts de recherche et d'innovation nécessaires.** »

GREEN DEAL (2019)



Rôle de la recherche

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Besoin d'un investissement ambitieux dans la recherche et l'innovation



Panorama européen riche de programmes, instruments, initiatives en matière de R&I

Panorama des opportunités européennes pour la recherche



Fonds structurels / Programme **INTERREG**

Programme **LIFE**, instrument de la DG ENV

Mécanismes, instruments programmes des **DG**
de la CE non spécifiques à la recherche

Actions **COST**

Programme dédié à la zone méditerranéenne,
PRIMA

Partenariats européens

HORIZON EUROPE,

programme le plus ambitieux pour la R&I

...



Favoriser les activités de **mise en réseau** pour faire émerger une communauté autour d'un enjeu

Travailler avec des **acteurs non-académiques**

Transposer des méthodes, des solutions etc. à **plus grande échelle** aux niveaux européen & international

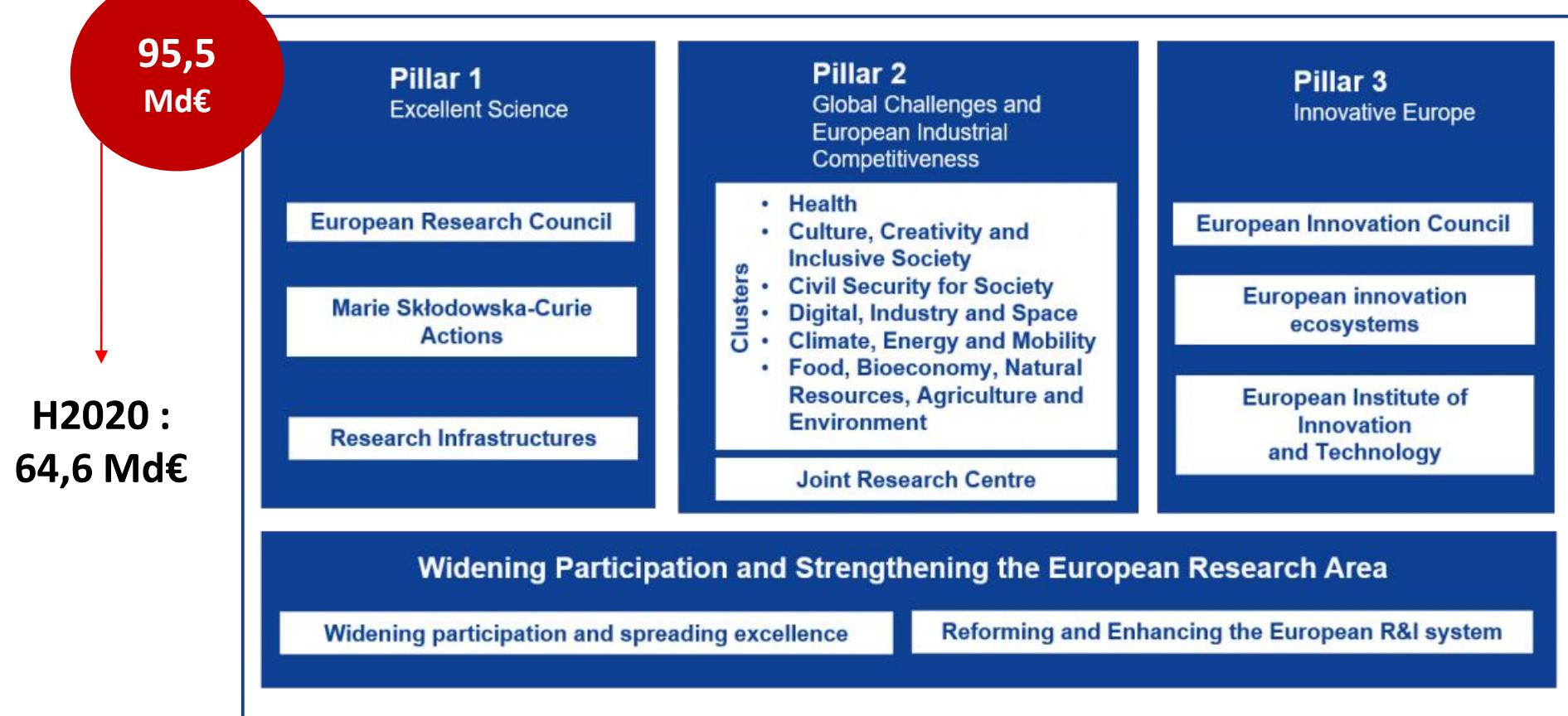
Développer le **niveau de maturité** d'un projet

Porter un projet de recherche via une **mobilité**

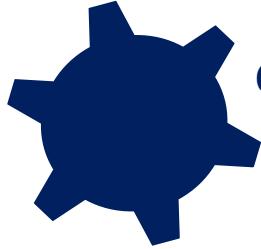
Développer des **formations** doctorales

...

HORIZON EUROPE (→ FP10)



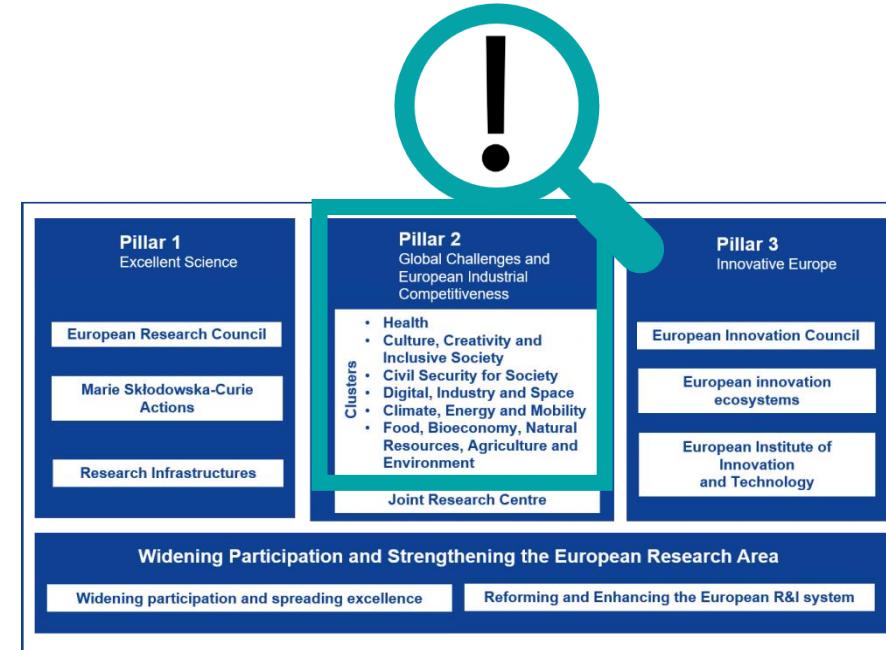
HORIZON EUROPE (→ FP10)



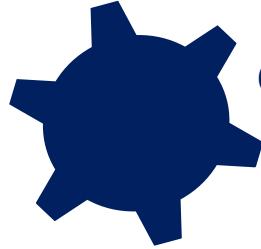
CLUSTERS

6 catégories thématiques (divisées elles-mêmes en « Destinations ») pour répondre aux enjeux mondiaux

- [Health](#)
- [Culture, Creativity and Inclusive Society](#)
- [Civil Security for Society](#)
- [Digital, Industry and Space](#)
- [Climate, Energy and Mobility](#)
- [Food, Bioeconomy, Natural Resources, Agriculture and Environment](#)



HORIZON EUROPE (→ FP10)



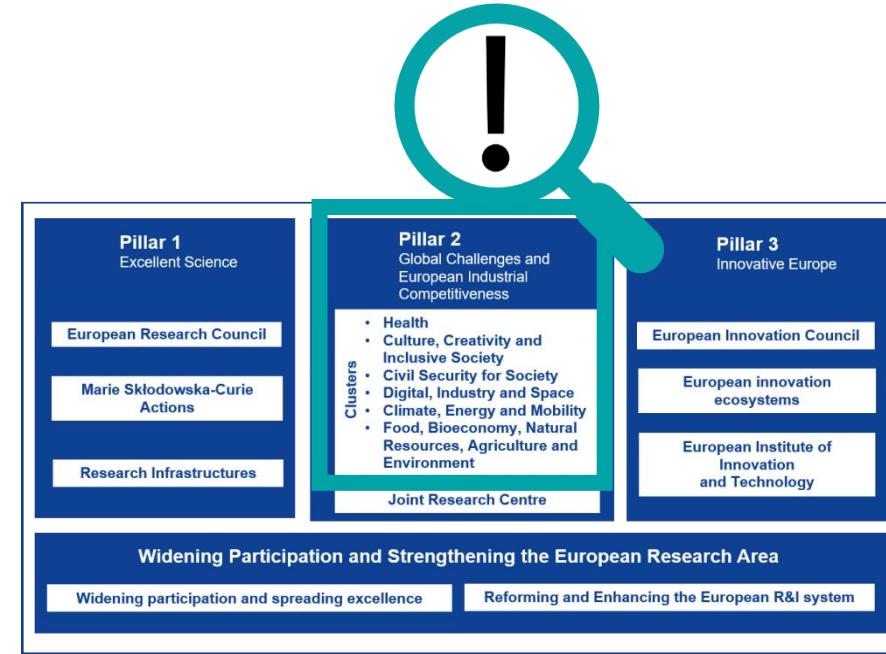
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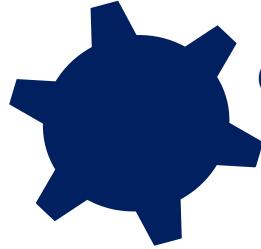
climate science and solutions...

disaster-resilient societies ; climate-related risks and extreme events; geological disasters ; ...



environmental observation
biodiversity and natural resources
agriculture, forestry and rural areas
seas, oceans and inland waters
food systems
bio-based innovation systems in the EU's bioeconomy
circular systems

HORIZON EUROPE (→ FP10)



CLUSTERS

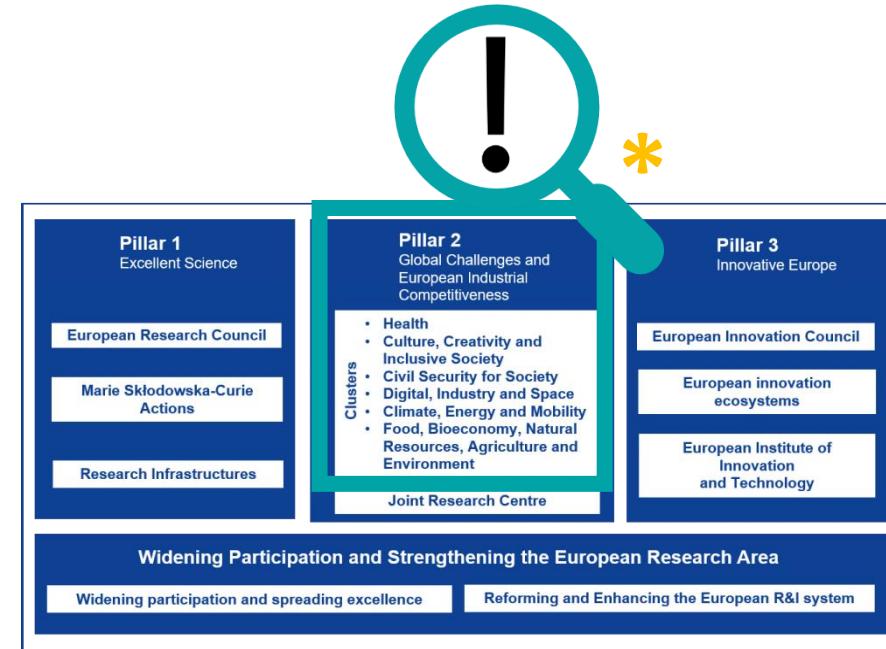
6 catégories thématiques (divisées elles-mêmes en « Destinations ») pour répondre aux enjeux mondiaux



EU Missions :

Work Programmes complémentaires dédiés à 5 défis clairement définis avec des objectifs chiffrés :

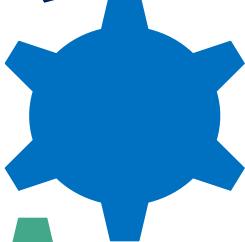
- **Soil health**
- **Adaptation to Climate Change**
- **Oceans & Waters**
- **Climate neutral and smart cities**
- **Cancer**



HORIZON EUROPE (→ FP10)

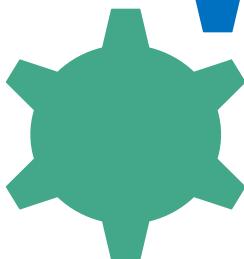


CLUSTERS & MISSIONS



Travailler sur toute l'échelle de l'innovation

A partir du TRL 3 et jusqu'au TRL 7 en moyenne, avec l'ensemble des acteurs de cette chaîne (partenaires académiques et non-académiques)



Développer des coopérations internationales

Avec nos partenaires en Europe mais aussi dans le reste du monde

→ Se confronter à de nouveaux terrains d'études, à de nouvelles approches, partager des données...



Projets collaboratifs en réponse à des appels thématiques ciblés ouverts annuellement

Généralement programmes de travail pour 2 ans



HORIZON EUROPE (→ FP10)

Quelques exemples de projets :



- [**FORECAT**](#) – Biogeochemical impact of land-use intensification and its legacy effects on tropical forest recovery through cation limitation : [ERC](#) ; 2024-2028 ; EU contribution € 1 500 000,00 ; Coord. Belgique (bourse individuelle)
- [**ForExD**](#) - Forest vulnerability to compound extremes and disturbances in a changing climate : [ERC](#) ; 2022-2027 ; EU contribution € € 1 425 000,00 ; Coord. Allemagne (bourse individuelle)
- [**Eco2adapt**](#) - Ecosystem-based Adaptation and Changemaking to Shape, Protect and Maintain the Resilience of Tomorrow's Forests : [Pilier 2 Cluster 6](#) ; 2022-2027 ; EU contribution € 9 788 452,00 ; Coord. France (+ 22 participants)
- [**TRANSFORMIT**](#) - Transforming forest management for multiple ecosystem services and nature conservation via the integrative approach : [Pilier 2 Cluster 6](#) ; 2024-2027 ; EU contribution € 6 931 666,25 ; Coord. Finlande (+ 13 participants)
- [**ForestPaths**](#) - Co-designing Holistic Forest-based Policy Pathways for Climate Change Mitigation : [Pilier 2 Cluster 5](#) ; 2022-2027 ; EU contribution € 5 594 787,00 ; Coord. Finlande (+ 12 participants)
- [**SWIFTT**](#) - Satellites for Wilderness Inspection and Forest Threat Tracking : [Pilier 2 Cluster 4](#) ; 2022-2025 ; EU contribution € 2 853 249,00 ; Coord. France (+ 9 participants)
- [**PARDI**](#) - The impact of disturbances on the productivity and biomass of European forests : [MSCA PF](#) ; 2024-2026 ; EU contribution € 214 934,40 ; Danemark/France (bourse individuelle)
- [**LiWeFor**](#) - Living labs for Wetland Forest research : [WIDERA Twinning](#) ; 2023-2025 ; EU contribution € 1 499 406,00 ; Coord. Estonie (3 bénéficiaires)

Objectif.

Partenariats européens

Initiatives où une variété d'acteurs européens s'engagent pour soutenir conjointement le développement et la mise en œuvre d'un programme d'activités de recherche et d'innovation (UE, Etats, acteurs privés et publics)



- Périmètre : 1 partenariats = 1 périmètre thématique
- Format : plusieurs types d'activités dont le lancement d'appels à projets collaboratifs (plutôt de type ERA-NET/JPI)



Plusieurs partenariats ont débuté

ERA4Health
Fostering a European Research Area for Health Research

Biodiversa +
European Biodiversity Partnership

Water4All
Water Security for the Planet

Sustainable Food Systems

Agroecology Research
Infrastructures & Living Labs

Animal Health and Welfare

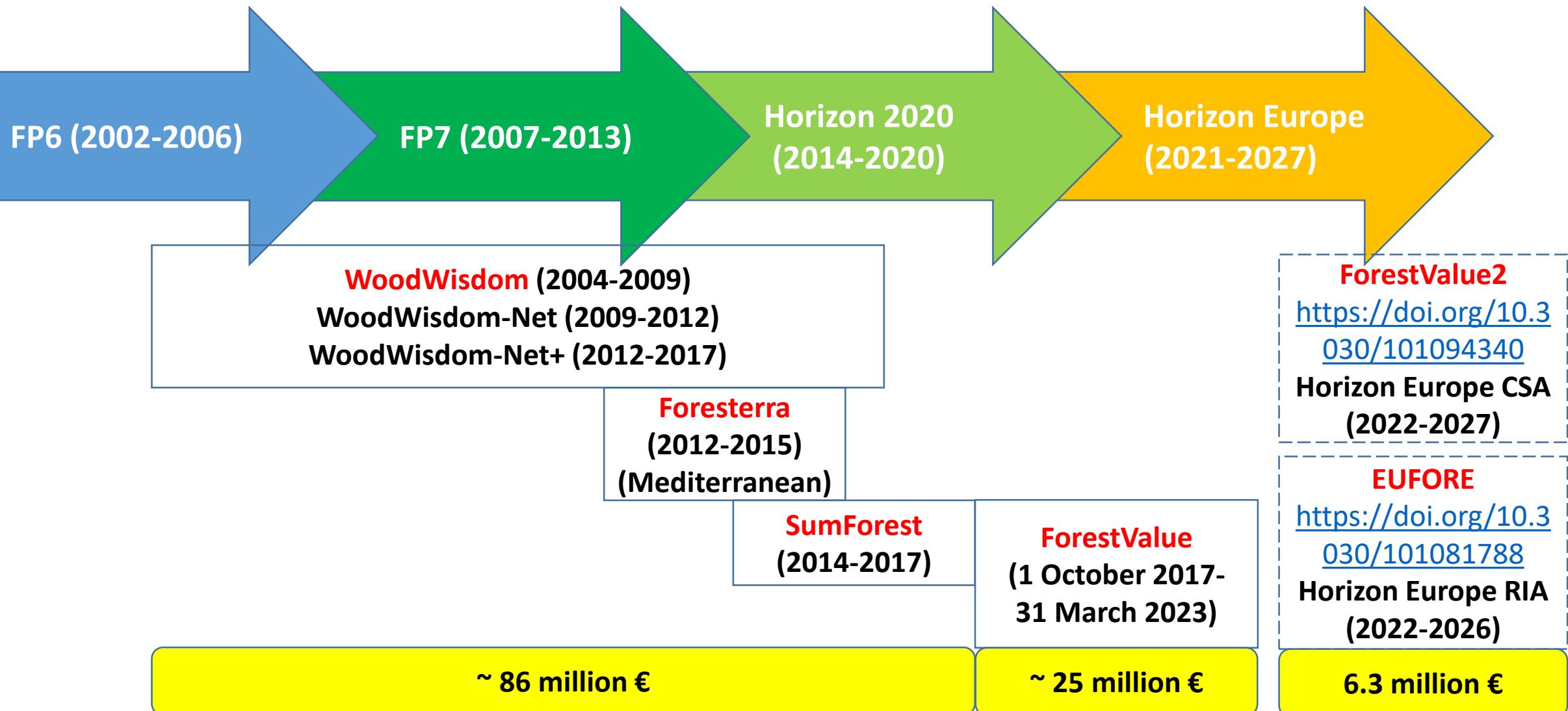
Agriculture of Data



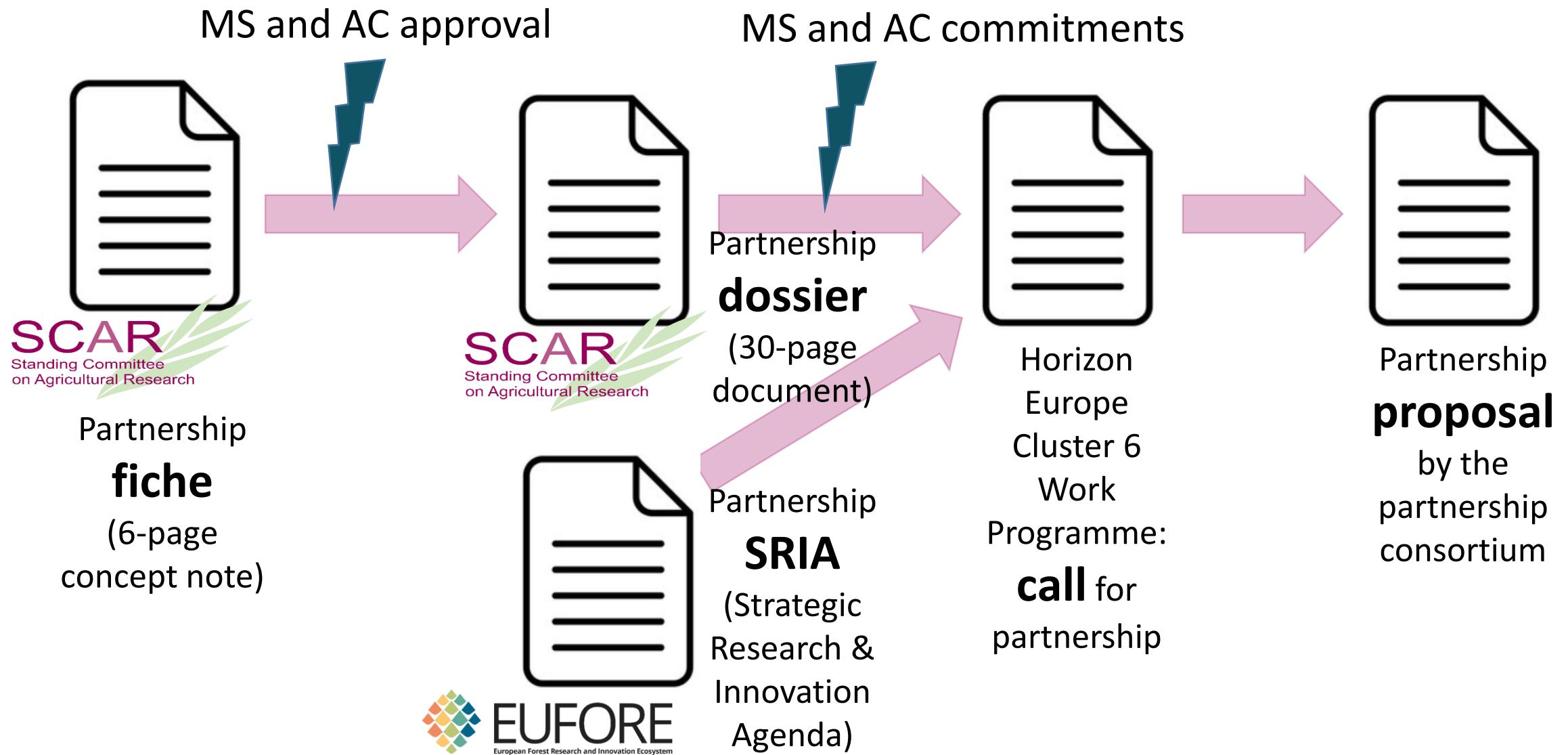
Des partenariats en construction

Forêts

What about forests? The launch of a partnership builds on previous ERA NETs achievements



Building blocks of a EU R&I partnership



The “Forests and Forestry for a Sustainable Future” EU research & innovation partnership

- Co-funded partnership
- Starting from 2025 for 7 years
- DGs involved: AGRI (leader), RTD, ENV, GROW, CLIMA, JRC
- Targeted budget: about €233 million
 - €163 million contributions from countries (cash or in-kind)
 - €70 million additional funding from Horizon Europe (30% funding rate)
- Expected impact: coordinated forest research and innovation at European level to provide a shared and robust knowledge base to make the green transition a success
- Main objective: promote sustainable European forest ecosystem management that is adapted to future environmental conditions and risks, have a strong weight in the bioeconomy value chains, and meet societal expectations

The Strategic and Innovation Agenda (SRIA) for the European forest-based sector and SRIA's roadmap

- ☛ 4 chapters, 18 sub-chapters, 133 topics:
 - A. Forest ecology:** climate change, biodiversity, resilience, carbon sequestration, functional diversity, landscape, disturbances, monitoring, biotic stress, abiotic stress
 - B. Diversifying forest management** of Europe's forests: AI, breeding, climate change, forest genetic resources (FGR), forest ownership, multi-functionality, natural hazards, provision of ecosystem services, remote sensing
 - C. Forest products:** fibres, construction products, forest-based chemicals, eco-friendly packaging, new territories, regulations, value chain, industrial processes, NWFP&S, environmental impact
 - D. Addressing societal and policy dynamics** well-being, governance, and innovation in the forestry and forest-based sector: societal well-being, conflict management, social innovation, policy instruments, governance trends, forest ownership, property rights, regional economics & economies, impact of EU policies, competing land uses, markets, global trade, circular bioeconomy, cascading uses, product life, knowledge & innovation ecosystems, local knowledge, education and training
- ☛ <https://eufore.eu/sria-draft/>
- ☛ The SRIA is not an exclusive document: topics not explicitly mentioned in the SRIA are not excluded from later funding

Get involved

- **Take part in EUFORE's consultations:**
 - To develop the partnership SRIA
 - All kinds of stakeholders are invited to contribute: governance and regulators, industry and business, research, civil society
 - EUFORE webpage: <https://eufore.eu/how-can-i-get-involved/>
 - Upcoming European workshop on 27 Nov, Brussels (tbc)
- **Contribute to the French national mirror group:**
 - To define the French positions to be discussed in the partnership consortium led by MMM (Finland)
 - National mirror group led by MESRI
 - Current members: MESRI, MASA, MTECT, INRAE, CNRS, CIRAD, IRD, IGN, MNHN, AgroParisTech, CNPF, FCBA, OFB, Univ Lorraine, Agreenium, Xylofutur, ANR, Agralife, Agence de programme « Climat, biodiversité, sociétés durables », SCAR FOREST



PROGRAMME
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Retrouvez toutes nos actualités

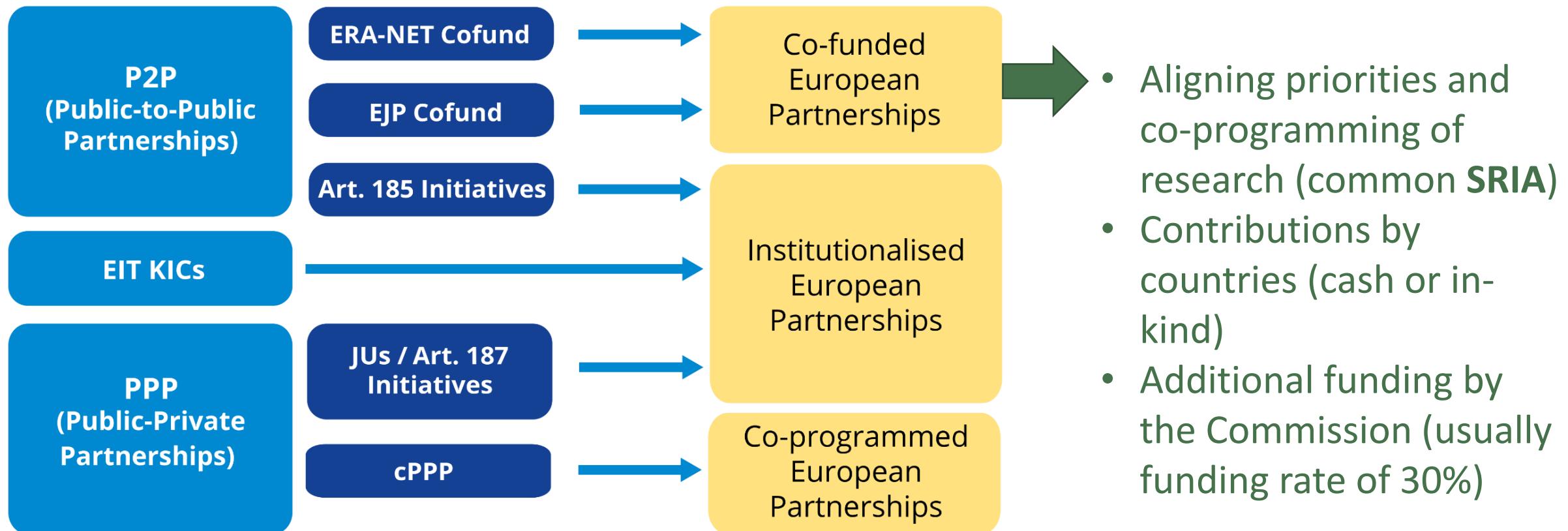


Annexes

Partnerships in Horizon Europe is a unified approach to instruments and initiatives to develop the ERA (European Research Area)

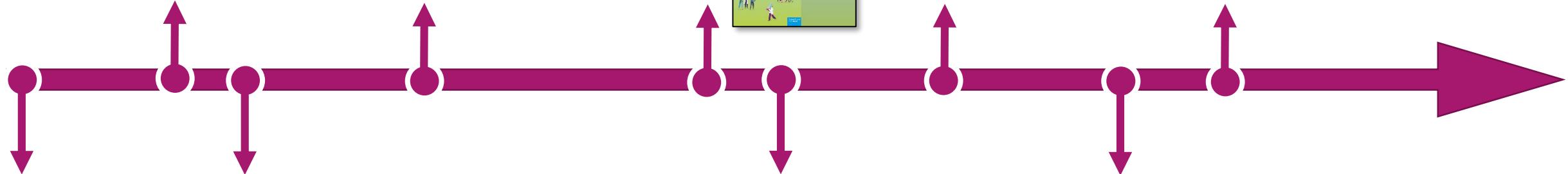
Horizon 2020

Horizon Europe



Past chronology of the partnership development

July 2021: EU Forest Strategy for 2030 sets the objective to set up a forest partnership



2019: proposal for a forest partnership in the 1st Strategic Plan of Horizon Europe is not selected

Sept 2021: DG AGRI asks SCAR FOREST to develop the partnership fiche

July 2023: publication by COM of the **fiches** of the candidate partnerships



19 Dec 2023: selection of the partnerships for the 2nd Strategic Plan of Horizon Europe. **The forest partnership is among the 9 selected partnerships** (out of 15 candidates), with support from all MS & AC except IL, IS and MT

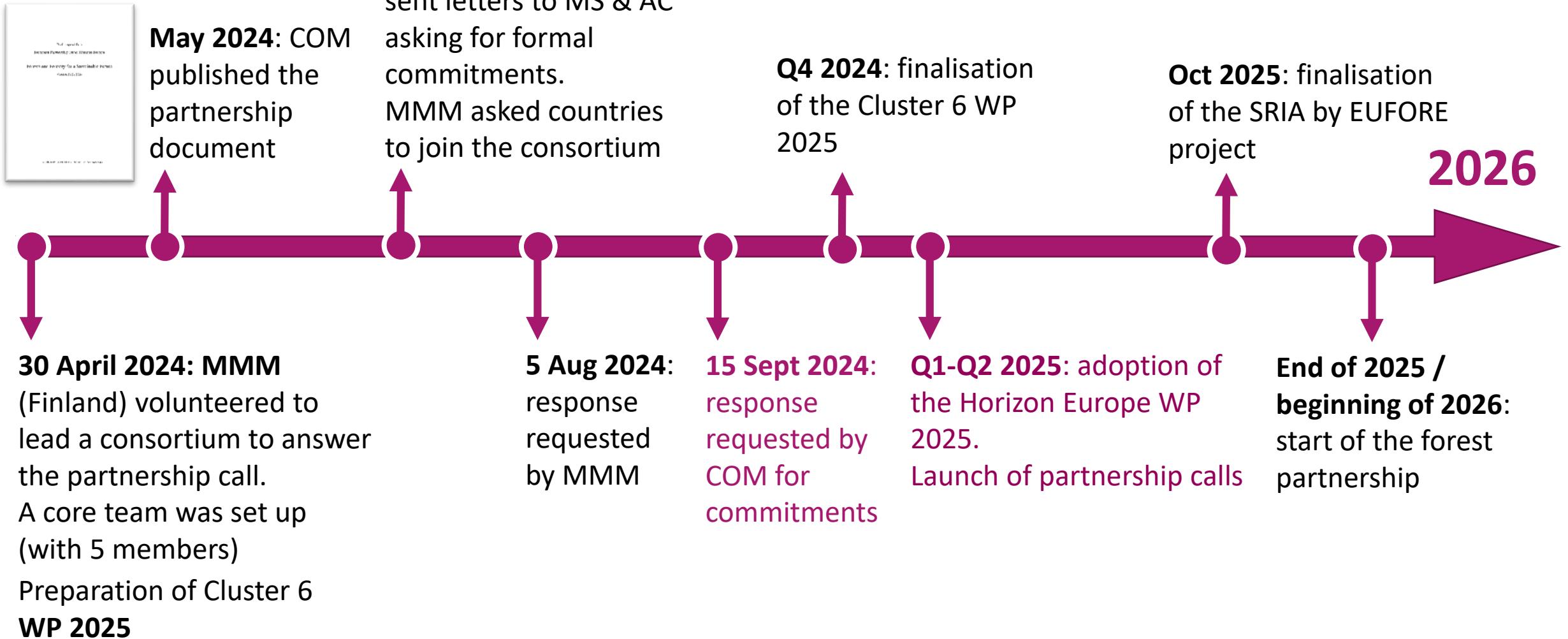


20 March 2024: publication by COM of the 2nd Strategic Plan 2025-2027 of Horizon Europe

16 May 2024: EUFORE project communicates the 1st version of the SRIA

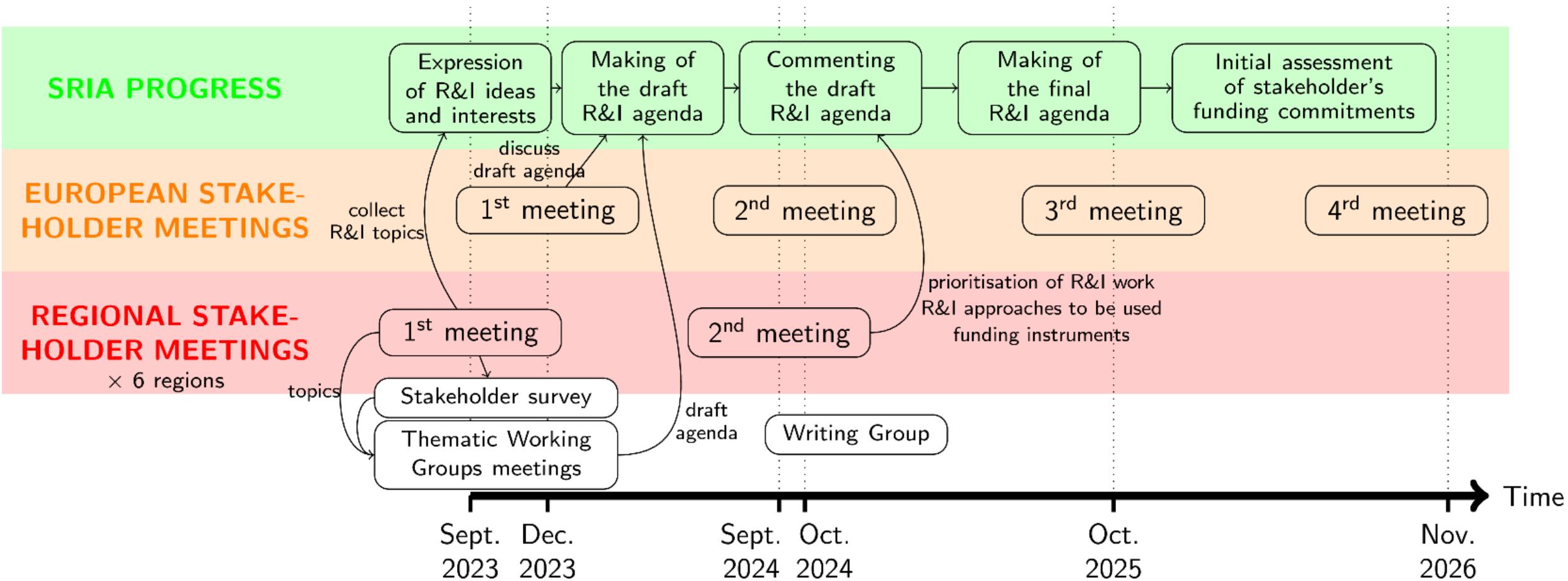


Timeline of the future steps

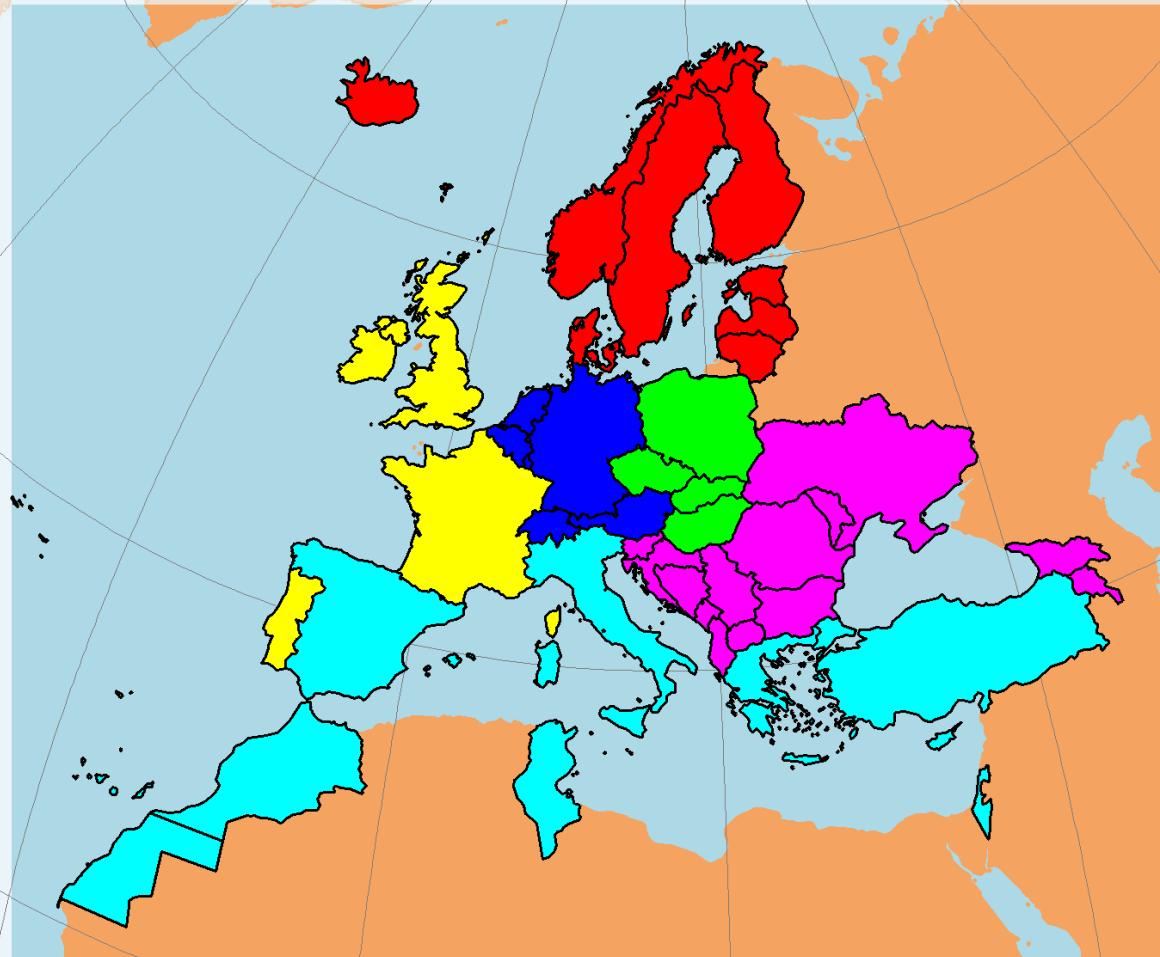


Timeline of the EUFORE project

Overall process towards the SRIA



EUFORE's stakeholder engagement towards the partnership



Regional meetings in six regions:

- Nordic (lead by MMM, FI)
- West Atlantic (GIP-Ecofor, FR)
- Eastern-Central (NLCSK, SK)
- Mediterranean (MASAF, IT)
- West-Central (FNR, DE)
- South-Eastern (CFRI, HR)

What is a Strategic Research and Innovation Agenda (SRIA)?

M A SRIA is a document that identifies the partnership's targeted impact, foreseen portfolio of activities, measurable expected outcomes, resources, deliverables, and milestones within a defined timeframe = master plan towards the achievement of the vision of the partnership

M It translates the vision of the partnership in a long-term systemic approach to define the logic, rationales and principles of its operations also involving dealing with emerging uncertainties

M SRIA must be co-designed and committed to by all partners. Its development must rely on an open and inclusive approach with extensive stakeholder consultation, as well as active and early involvement of Member States

<https://www.era-learn.eu/support-for-partnerships/additional-activities/strategic-research-and-innovation-agendas>

SRIA chapter on Forest Ecology

☛ **Objective:** provide ecological evidence required to maximise the resilience of European forests and their contribution to meeting the most important global challenges

☛ **Sub-chapters:**

- **A.I Forest ecosystems under pressure**

Climate change → stresses (freezing/heat, flooding/drought)

Climate-induced stresses + other stressors (wind, fire, pests & diseases, invasive species, management practices, pollution) → novel disturbances regimes

→ Changes in species composition and ecosystem functioning

- **A.II Forest ecosystems in a changing environment**

Biodiversity can increase resilience. Need to understand the processes that confer resistance and resilience

- **A.III Building a resilient forest landscape**

Regional land use patterns affecting ecosystem services delivered by forests. Need to monitor forest cover, soil microbiota, biomass, health status, carbon sequestration, biodiversity and hazards across Europe

SRIA chapter on Forest Management

☞ **Objective:** provide science-based justifications and solutions for the diversification of forest management in European forests resulting in more multi-functional and economically viable forest structures

☞ **Sub-chapters:**

- **B.I Tree breeding for future environmental conditions and consumer needs**

Needs to have more fast-growing trees with better timber properties while improving the resilience of trees towards biotic and abiotic stressors

- **B.II Sustainable silvicultural practices for improved provision of forest products and services**

Needs to enhance and preserve the multifunctionality of forests and to develop conversion strategies from current management systems to new ones

- **B.III New technologies and skilled labour force to implement future forest operations**

Demands for highly professional workforce, development in machinery and acquisition of up-to-date data for forest operations

- **B.IV Predicting and monitoring development of future forests with convenient inventory data, models and planning tools**

Inventory techniques to provide data, monitor the development of forests, predict and plan their future use (cross-cutting sub-chapter)

SRIA chapter on Forest Products

☞ **Objective:** deploy the full potential of forest resources in the development of products and services in increasing number of application fields, enhancing its valuable properties, while overcoming the technical and non-technical barriers, currently hindering the overall exploitation of their opportunities

☞ **Sub-chapters:**

- **C.I Wood products: types of wood products**

Wood utilization, wooden-based construction, packaging, biorefinery, transformation of wood products industries

- **C.II Forest-based sector technologies & planning**

New business strategies, regulatory aspects, new stakeholders in the forest-based sector and new operating rules, digitalization and more competitiveness, transport and delivery

- **C.III Non-wood forest products**

Promotion and efficient production of NWFP, new market niches for NWFP, local dimension of service delivery and people-centric services, new values chains and actors

- **C.IV Environmental impacts**

Monitor the environmental impacts, fulfil circularity

SRIA chapter on Social Aspects and Policy

☞ **Objective:** deepen our understanding of evolving societal needs concerning forests and supports the exploration of innovative conflict resolution strategies, governance models, and market opportunities

☞ **Sub-chapters:**

- **D.I Societal well-being, stakeholder values, conflict management and social innovation**

Impact of societal changes on the forest sector, including forest owners, managers, companies, workers and the general public

- **D.II Forest sector related policy processes and instruments**

Governance issues in relation to institutional frameworks, political processes, policy instruments

- **D.III Forest ownership, property rights and management models and community engagement**

Property rights regimes and new management approaches, community engagement practices

- **D.IV Regional economics and governance and rural development**

Potential of local resources for development, effects of land abandonment, mechanisms for regional forest-based economies, importance of the forest sector to rural areas

SRIA chapter on Social Aspects and Policy

leaf Sub-chapters (cont'd):

- **D.V Forest products markets, trends, consumer preferences and business models**

Sustainable market trends and global trade impacts, feasibility of substituting fossil-based materials with forest-derived alternatives, gaps between private forest owner demands and ecosystem services, new business models (carbon and biodiversity credits)

- **D.VI Circular bioeconomy models**

Enhance cascading possibilities, use all wood fractions as sources for bioeconomy, close the use circles, extend product life

- **D.VII Knowledge and innovation ecosystems (KIES)**

Role of KIES for the future forestry and forest-base sector and to understand drivers and barriers for innovation

Forest and Forestry for a Sustainable Future: draft proposal

🌿 General objectives

- GO1 Enhance and complement the related Strategic Research and Innovation Agendas from EU MS/AC
- GO2 Foster the development and expansion of collaborations, facilitating the co-creation and dissemination of knowledge and solutions
- GO3 Contribute the advancement of forest protection and restoration by improving prevention, detection measures against disturbances thereby strengthening the preparedness of all actors for current and emerging threats while also enhancing the valorisation and use-efficiency of forest biomass
- GO4 Ensure that the R&I supported by the Partnership will provide results directly usable to deliver on the commitments taken under the multilateral agreements of the EU Green Deal, the UN SDGs, the Paris Agreement, and the Global Biodiversity Framework, thus contributing effectively to global sustainability efforts

Forest and Forestry for a Sustainable Future: draft proposal

☛ Necessity for a European Partnership

- EU Forest Strategy for 2030: build a strong forest research and innovation community
- Ensure a holistic and balanced approach regarding the multiple uses and benefits of forests and forestry (balance of trade-offs) instead of scattering forest questions among different domains (climate change, biodiversity, industry, economy...)
- Inherent relevance of forest research questions at the European scale: ecological biomes spanning Europe
- Global dimension of forest challenges (imported deforestation)
- Joint research needed for climate-beneficial wood-based materials and the penetration of forest products to other sectors
- Integrate knowledge from different European regions

Forest and Forestry for a Sustainable Future: draft proposal

- ☛ Expected composition of the partners
 - Ministries in charge of agriculture and forestry
 - Ministries in charge of R&I policy
 - Ministries of environment
 - Research funding agencies and foundations
- ☛ The Partnership will also engage with other relevant ministries, in particular ministries in charge of climate and/or environmental policy, and environmental protection and biodiversity agencies
- ☛ Research Performing Organizations (RPO) may be partners of the Partnership to implement additional activities beyond joint calls