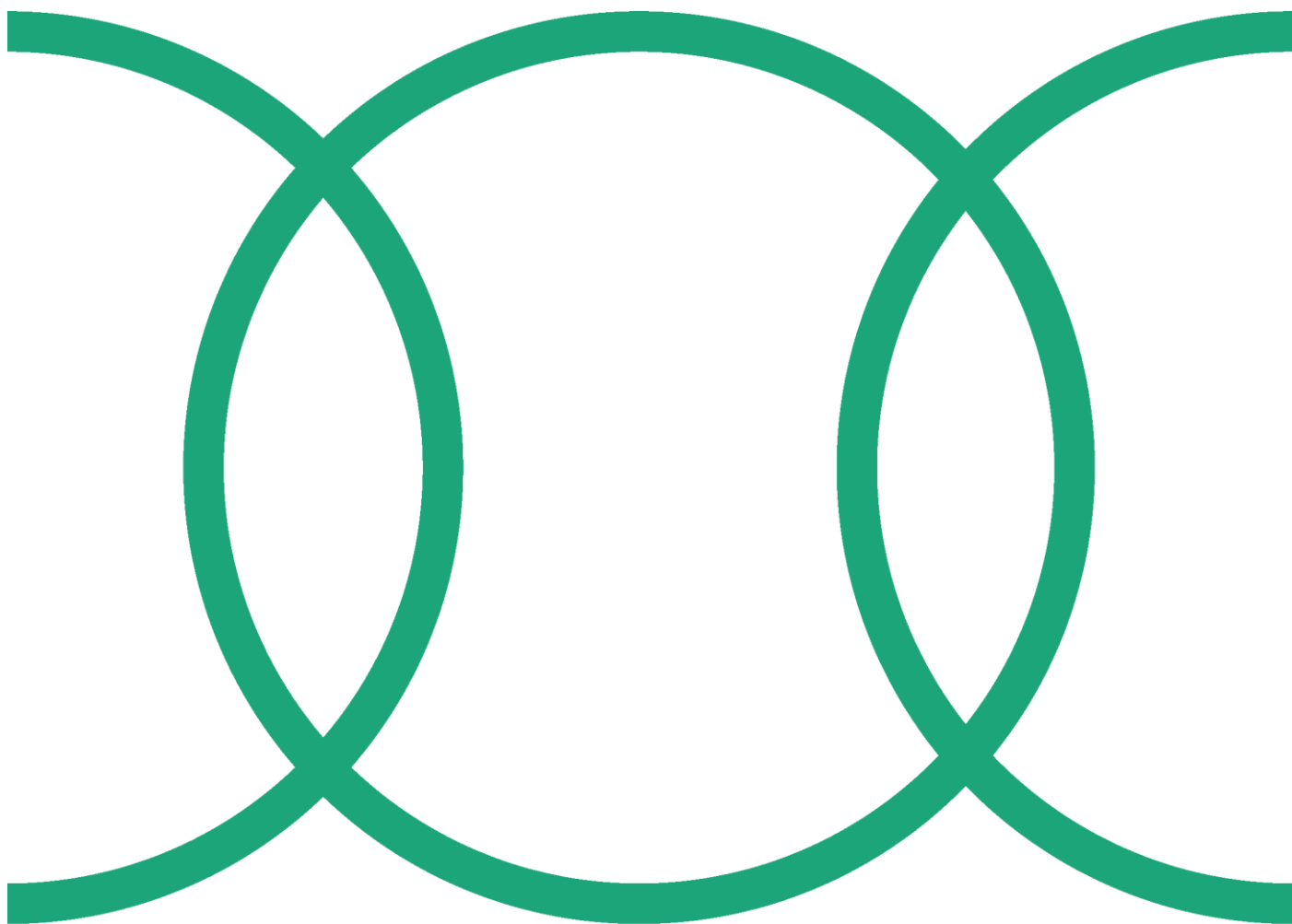


D5.2 Project Management and data Management Plan



Horizon Europe EU project
Grant Agreement No. 101091554



Funded by
the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement no. 101086216.

Document control sheet

Project	FOREST4EU – European innovation partnership network promoting operational groups dedicated to forestry and agroforestry
Grant Agreement n°	101086216
Coordinator	Università degli Studi di Firenze UNIFI
Work Package n°	5
Work Package Title	Management of the project
Work Package Leader	Francesca Giannetti
Document title	Project Management and data Management Plan
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Reference period	01/01/2023 – 30/04/2023
Due date	30/04/2023

Executive Summary

This deliverable provides an overview on the features and functioning of the project management and data management plans procedures, employed by the FOREST4EU consortium to monitor the project progress and ensure a proper and efficient data management.

This deliverable has been specifically designed to manage the FOREST4EU project with its large consortium and serves the needs and purposes of the FOREST4EU internal communication.

Decision making in FOREST4EU will take place at two levels: strategic and operational. While strategic decisions regarding the project management structure will be taken by the General Assembly (GA), operational decisions regarding project management will be decided by the Steering Committee (SC).

The reporting in FOREST4EU project is paperless (as in all Horizon Europe projects) and is split into continuous and periodic reporting. FOREST4EU will follow a bottom-up approach to conflict management and will develop an “early warning” system for risk management.

To share and discuss the project’s activities and work sharing data, email, and in a common area an internal collaborative platform (MS Teams) will be set-up.

The FOREST4EU consortium will use the MS Teams' platform to collect information on all tasks and keep track of the responsibilities of each partner according to their role in the project. It will also be used for planning, reporting, and controlling activities as well as financial management.

The FOREST4EU consortium will actively use TEAMS tools to upload/update data on a regular basis to ensure the project activities are deployed effectively and to prevent any unwanted deviations from the initial plan.

The FOREST4EU MS Teams site will also serve as the main information repository knowledge resource, gathering all relevant data and information on the project’s partners (providing e.g. contact lists) and project work planning. With its various functions and features for documenting and sharing information, the MS Teams platform will contribute greatly to facilitate communication and work between partners.

Keywords

Consortium, project management, governance, internal communication, MS Teams, risks, data management, data, metadata, re-used, platform, FAIR.

Definitions and acronyms

Acronym	Definition
ANSUB	ANSUB - ASSOCIACAO DE PRODUTORES FLORESTAIS DO VALE DO SADO
AP	ASSOCIATED PARTNER
BOSCAT	FEDERACIO CATALANA D'ASSOCIACIONS DE PROPIETARIS FORESTALS
CA	Consortium Agreement
CEKOM	CENTAR KOMPETENCIJA DOO ZA ISTRAZIVANJE I RAZVOJ
CENCIAS	FACULDADE DE CIENCIAS DA UNIVERSIDADE DE LISBOA
CESEFOR	FUNDACION CENTRO DE SERVICIOS Y PROMOCION FORESTAL Y DE SU INDUSTRIA DE CASTILLA Y LEON
CNPF	CENTRE NATIONAL DE LA PROPRIETE FORESTIER
DMP	DATA MANAGEMENT PLAN
DOA	DESCRIPTION OF THE ACTION
EC	EUROPEAN COMMISSION
EFI	EUROPEAN FOREST INSTITUTE
EIP-AGRI	THE EUROPEAN INNOVATION PARTNERSHIP FOR AGRICULTURAL PRODUCTIVITY AND SUSTAINABILITY
ETA	ETA - ENERGIA, TRASPORTI, AGRICOLTURA SRL
FC.ID	FCIENCIAS.ID - ASSOCIACAO PARA A INVESTIGACAO E DESENVOLVIMENTO DE CIENCIAS
GA	GENERAL ASSEMBLY
GIS	GOZDARSKI INSTITUT SLOVENIJE
GRA	GRANT AGREEMENT
LLA	LATVIJAS LOGISTIKAS ASOCIACIJA
OG	EIP AGRI OPERATIONAL GROUP
PC	PROJECT COORDINATOR
PM	PROJECT MANAGER
PMP	PROJECT MANAGEMENT PLAN
REA	RESEARCH EXECUTIVE AGENCY
RT	REGIONE TOSCANA
S2I	STEINBEIS 2I GMBH
SOLUTOPUS	SOLUTOPUS – RECURSOS E DESENVOLVIMENTO LDA.
STMELF-LWF	BAYERISCHES STAATSMINISTERIUM FUR ERNAHRUNG, LANDWIRTSCHAFT UND FORSTEN – BAVARIAN STATE INSTITUTE OF FORESTRY (LWF)
UNIFI	UNIVERSITA DEGLI STUDI DI FIRENZE
USC	UNIVERSIDAD DE SANTIAGO DE COMPOSTELA
WP	WORK PACKAGE

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Project Management Plan

1. Introduction

This document serves as a guideline on how the **FOREST4EU** project will function internally. With 17 partners (1 Coordinator, 15 beneficiaries and 1 associated partner) across Europe, **FOREST4EU** requires a clear management structure. This management structure is set up to guarantee high quality implementation through a transparent, flexible, and routinized management approach. It will ensure fluent communication and responsiveness and timely achievement of objectives, milestones, and deliverables.

The main guiding documents of the Project are the Grant Agreement (GrA) with its annexes (including Annex 1 - Description of the Action (DoA), Annex 2 – Estimated budget of the action and Annex 3 - Accession form for beneficiaries), Annex 4 Model for the financial statements, Annex 5 -Specific rules) signed with the EC and the Consortium Agreement (CA) that has been negotiated among project partners.

Items that are addressed in Annex 1 and 2, 3, 4 and 5 of the GrA, such as the content of the project, its schedule of deliverables and milestones, division of tasks and allocation of budget, are not addressed in this document. Still, several sections of this document have been taken from the GrA and the CA. Respective sections in the GrA and the CA contain comprehensive description of all aspects of the Project management and are the primary references for any type of query, while this document serves as their supplement.

2. Project overview

The FOREST4EU consortium consists of 17 partners (1 Coordinator, 15 beneficiaries and 1 associated partner)

Table 1. Consortium Composition

N	Role	Short Name	Legal Name	Country
1	COR	UNIFI	UNIVERSITA DEGLI STUDI DI FIRENZE	IT
2	BEN	CESEFOR	FUNDACION CENTRO DE SERVICIOS Y PROMOCION FORESTAL Y DE SU INDUSTRIA DE CASTILLA Y LEON	ES
3	BEN	EFI	EUROPEAN FOREST INSTITUTE	FI
4	BEN	S2I	STEINBEIS 2I GMBH	DE
5	BEN	GIS	GOZDARSKI INŠTITUT SLOVENIJE	SI
6	BEN	CNPF	CENTRE NATIONAL DE LA PROPRIETE FORESTIER	FR
7	BEN	ANSUB	ANSUB - ASSOCIACAO DE PRODUTORES FLORESTAIS DO VALE DO SADO	PT
8	BEN	BOSCAT	FEDERACIO CATALANA D'ASSOCIACIONS DE PROPIETARIS FORESTALS	ES
9	BEN	LLA	LATVIJAS LOGISTIKAS ASOCIACIJA	LV

10	BEN	StMELF-LWF	BAYERISCHES STAATSMINISTERIUM FUR ERNAHRUNG, LANDWIRTSCHAFT UNDFORSTEN	DE
11	BEN	Solutopus	SOLUTOPUS – RECURSOS E DESENVOLVIMENTO LDa.	PT
12	BEN	RT	REGIONE TOSCANA	IT
13	BEN	ETA	ETA - ENERGIA, TRASPORTI, AGRICOLTURA SRL	IT
14	BEN	FC.ID	FCIENCIAS.ID - ASSOCIACAO PARA AINVESTIGACAO E DESENVOLVIMENTO DECIENCIAS	PT
14.1	AP	CENCIAS	FACULDADE DE CIENCIAS DA UNIVERSIDADE DE LISBOA	PT
15	BEN	CEKOM	CENTAR KOMPETENCIJA DOO ZAISTRAZIVANJE I RAZVOJ	HR
16	BEN	USC	UNIVERSIDAD DE SANTIAGO DE COMPOSTELA	ES

3. Project Management and Governance

3.1. Project Management Strategy

Project management encompasses all critical tasks to guarantee that the project’s activities will be in line with the technical and financial specification outlined in the GA.

WP 5 of FOREST4EU, coordinated by UNIFI, focused on managing and coordinating the FOREST4EU project to keep it on track regarding the scope, costs, resources, and quality. All the necessary modifications or optimizations will be continuously discussed with the beneficiaries, and decision will be made with the partners’ consent. For that reason, effective communication management is vital for ensuring accurate information and transmission to have a prompt decision-making process.

3.2. Project bodies & governance

Decision making in **FOREST4EU** will take place at two levels: strategic and operational. While strategic decisions regarding the project management structure, content, overall financial issues will be taken by the **General Assembly (GA)**, operational decisions regarding management and monitoring of progress will be decided by the **Steering Committee (SC)**.

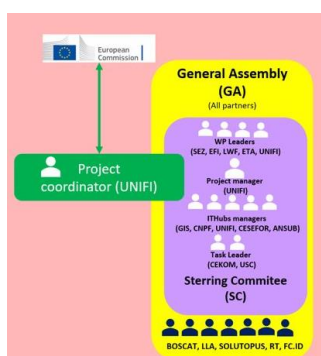


Figure 1. FOREST4EU project Governance

The **GA** is the highest decision-making body and make high-level, strategic project decisions and consists of one representative per beneficiaries. The GA, formed at the kick-off meeting, will meet

online at least every two/three months on-line and in person or with a hybrid approach during the Annual Meeting (see Table 5 for the details of the GA meetings). The GA plays a key role in the management structure because every decision concerning acceptance of the developed results, amendment requests and milestones are done here. The GA will act as a board for review and assessment of the project implementation and will be responsible for problem solving. The GA decides on: (i) all budget-related matters, (ii) acceptance of new partners as well as the exclusion of partners in common agreement with the Commission services, (iii) updating the Work Plan, (iv) alteration of the Consortium Agreement and (v) premature completion/termination of the project.

The role of the **Project Coordinator (PC)** Prof. Davide Travaglini (UNIFI) is to be the intermediary between the beneficiaries and the Funding Authority REA and shall perform all tasks assigned to it as described in the GrA and the CA, primarily responsible for the administrative and financial elements of the project. The details of the main assignments and functions are reported in Table 4.

The **Project Manager (PM)** will take responsibility for the day-to-day technical project and financial aspects. The PM, Dr. Francesca Giannetti will take responsibility of the project and its administrative aspects. Moreover, the PM will guarantee an effective communication among project bodies and project partners. The details of the main assignments and functions are reported in Table 2.

The **Work Package (WP) leaders** (Table 2) take decisions related to WP coordination and technical implementation. They are responsible for the programme of work within their work package. The details of the main assignments and functions are reported in Table 4.

Table 2 - WP Leaders

Role	Assigned representative
WP1 leader	Dr. Francisco Javier Casado Herbrard (S2i)
WP2 leader	Dr. Mercedes Caron (EFI)
WP3 leader	Dr. Kathrin Boehling (StMELF-LWF)
WP4 leader	Giulio Poggiaroni (ETA)
WP5 leader	Dr. Francesca Giannetti (UNIFI)

The **Task Leaders (TL)** are responsible for the work within their task, ensuring that tasks are delivered on time and to budget, reporting any deviations from the work plan to the WP leader, for further escalation, if necessary, until the project board.

The **Project Coordinator (PC), Project Manager (PM)** and **WP leaders** will distribute without delay all relevant information to their WP members. Project results, reports and meeting minutes will be made available to all partners, i.e. through MS Teams. In the SC meetings, the participants will receive important project updates, e.g., to mitigate risks of delays.

The FOREST4EU deal with the collection of practical-knowledge from EIP-AGRI OGs, that are national project financed in the context of CAP intended to bring together multiple actors such as farmers, researchers, advisers, businesses, environmental groups, consumer interest groups or other NGOs to advance innovation in the agricultural and forestry sectors.

To collect practical knowledge form OGs 5 innovation topic hub (ITHUBs) were identified and set-up (ITHub 1 – wood mobilisation, ITHubs 2 - Forest adaptation to climate change, ITHub 3 - Sustainable

forest management and ecosystem services, ITHub 4 -Non-wood forest products, ITHub 5 - Agroforestry systems. Each beneficiary has a representative member (ITHub member) in the ITHubs where it is involved (see Figure 2), and for each of the country where the ITHub is active a Single National Point of Contact (NSPOC) is identified. Each ITHub have a manager that coordinate the works and activities among different WPs.

Table 3. ITHub managers

Role	ITHub manager Assigned representative
ITHub 1	Triplat Matevž (GIS)
ITHub 2	Benjamin Chapelet (CNPf)
ITHub 3	Francesca Giannetti (UNIFI)
ITHub 4	Aída Rodríguez (CESEFOR)
ITHub 5	Pedro Pacheco Marques (ANSUB)

The ITHub managers form the Transversal IHub to ensure a collaborative approach and identified common activities and needs of innovation.

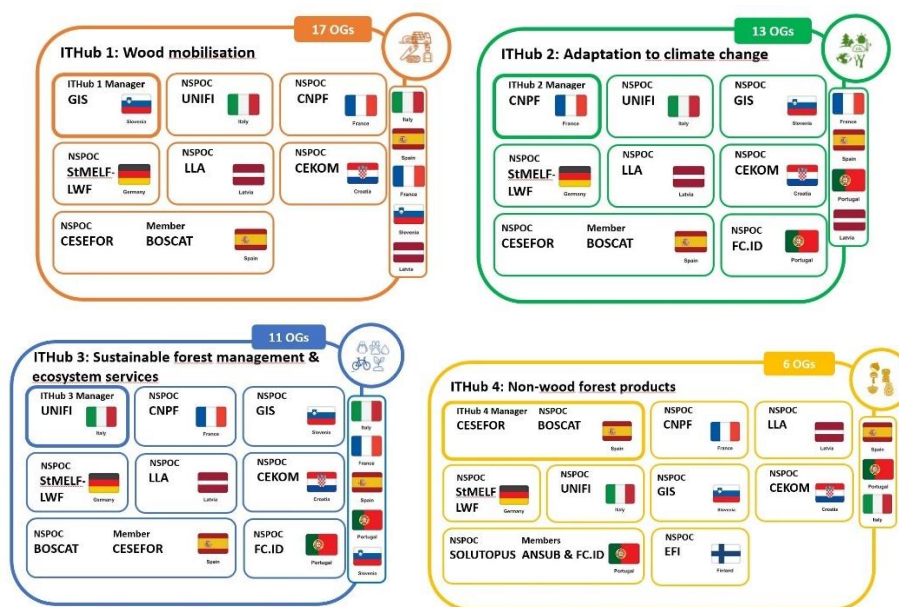
The SC is composed by PC, PM, WP leaders, TL and ITHubs Managers. The role of SC is to develop and monitor the technical and scientific activities within the different WPs of FOREST4EU and keep control on risk assessment.

Table 4. Bodies of FOREST4EU project

Body Composition	Main assignments and functions
Project Coordinator (PC) [UNIFI]	Responsible for overall project coordination and management; Acts as intermediary between the Consortium and the EC; Supervises overall technical and project progress; Directly assisted by UNIFI Project Manager (PM). PC tasks include: <ul style="list-style-type: none"> • Communicate all relevant information with the EC (i.e., periodic reports for EC), • Monitor ethical procedure compliance and gender issues with the SC, • Monitor project development against deliverables, milestones, and risk assessment, • Monitoring compliance by the beneficiaries (parties) with their obligations • Coordinate, prepare and chair SC meetings and General Assemblies (GAs), facilitate decision making, and ensure decisions implementation, • Ensure quality and relevance of deliverables and reports for which an internal quality review system will be set up, mostly amongst WP and task leaders. • Keeping the address list of Members and other contact persons updated and available. • Transmitting documents and information connected with the Project to any other Parties. Concerned <ul style="list-style-type: none"> • Collecting, reviewing to verify consistency, and submitting reports, other deliverables (including financial statements and related certifications) and specific requested documents to REA.
Project Manager (PM) [UNIFI]	The Project Manager (PM): <ul style="list-style-type: none"> • Assists the PC daily, • Sets up project administrative procedures and reporting to the EC,

	<ul style="list-style-type: none"> ● Set up and support the PC in the coordination of project progress, ● Conducts day-to-day project financial, administrative, and contractual management, ● Prepares and facilitates decision making, attends SC and GA meetings, prepares minutes, ● Manages the SharePoint site (storage of all documents, progress monitoring), ● Manages all modern tools of video calls: like Zoom, Teams, Skype for business, ● Reports to PC, notifies the PC of any deficiencies;
General Assembly (GA) All beneficiaries [See Figure 1]	<p>Highest decision-making body; Makes high-level, strategic project decisions (e.g., Grant Agreement (GA) amendment proposals, exchange of tasks, intellectual property, partner contractual obligations under the GA or CA); Consists of one representative per partner; Further decision procedures are detailed in the CA. The GA has the power to:</p> <ul style="list-style-type: none"> ● Approve major project implementation decisions, ● Approve actions requiring GA changes or major changes of the work plan, ● Agree on potential financial issues in accordance with GA and CA;
Steering Committee (SC) [See Figure 1]	<p>Main management and decision-implementing body. It is composed by PC, PM, WP leaders, ITHubs Managers, and TL. The SC will:</p> <ul style="list-style-type: none"> ● Approve detailed work plans and follow their implementation, ● Monitor and review work progress, ● Monitor risk assessment and mitigate risks as needed, ● Discuss possible work plan changes, ● Monitor ethical issues with the PC;
WP Leaders	<p>Responsible for day-to-day management and technical and strategic coordination of their respective WP. Report WP progress and critical issues to SC; Their specific tasks include:</p> <ul style="list-style-type: none"> ● Design their detailed WP work plan, ● Ensure timely and high-quality delivery of milestones and deliverables, ● Communicate and collaborate with other WP leaders and their teams, ● Communicate and collaborate with ITHub Managers ● Prepare reports for the EC, and monitoring reports for the SC, ● Find solutions for bottlenecks and possible complications, ● Regularly communicate with the PC, PM and in SC meetings, ● Identifying and reporting risks and deviations within their work package to the Project Manager;
Task Leaders (TL)	<p>Responsible for assigned tasks and deliverables; support WP Leaders in all project management aspects; Typically, one of the Task Leaders functions as Deputy WP Leader with extended responsibility.</p>
ITHUBs	<p>The 5 Innovation Topic Hubs (ITHubs) are built on the pre-identified urgent innovation, challenges and opportunities of the Forest and Agroforestry sectors. ITHubs are composed by ITHubs Managers and ITHub Members. Each ITHub will be coordinated by a project partner (ITHub Manager) and will have a National Single Point of Contact (NSPOC) in the country where the ITHub is active. For each of the five ITHubs, the involvement of the corresponding OGs will be done through the different National Single Point of Contact (NSPOC). In some cases, NSPOC are members of OGs but not always.</p>
ITHubs Manager	<p>Responsible for managing and coordinating their ITHubs activities across partners, incl. contacts to stakeholders and OGs, coordinate the activities with WP Leaders and TL, coordinate the activities and implementation of actions. Being part of the Transversal IHub.</p> <p>Their specific tasks include:</p> <ul style="list-style-type: none"> ● Design the work plan of ITHub in agreement with WP Leaders and other ITHubs Managers ● Helping WP Leaders to ensure timely and high-quality delivery of milestones and deliverables,

	<ul style="list-style-type: none"> • Communicate and collaborate with WP leaders and their teams, • Communicate and collaborate with the ITHubs Managers in the Transversal IHub • Coordinate the work and activities of ITHubs Members • Animate the ITHubs • Coordinate the activities with the Single National Point of Contact (NSPOC) • Prepare reports for the EC, and monitoring reports for the SC, • Find solutions for bottlenecks and possible complications, • Regularly communicate with the PC, PM and in SC meetings. • Monitor the work of ITHubs Member,
ITHubs Member	<p>Responsible for collecting the information on OGs and contact stakeholders to animate ITHubs in their country. Under the coordination of the ITHubs managers they are responsible, and they contribute in:</p> <ul style="list-style-type: none"> • Collecting information and data from OGs in their ITHubs • Identified the challenges & need of ITHubs • Mapping the OGs and provide information. • Collecting and prepare the practical knowledge. • Prepare the practical abstracts. • Animate the ITHubs • Prepare the capacity building materials. • Collaborate in the preparation of the Prioritisation workshop
Single National Point of Contact (NSPOC)	<p>NSPOCs is the national contact, and it is in direct contact with the responsible for their related topic at national level. NSPOC will work to share and disseminate at national level the results of the different WPs.</p>
Trasversal ITHubs	<p>The five ITHub Managers will compose the Transversal IHub, whose role is to ensure proper communication and coordination across the five ITHubs</p>



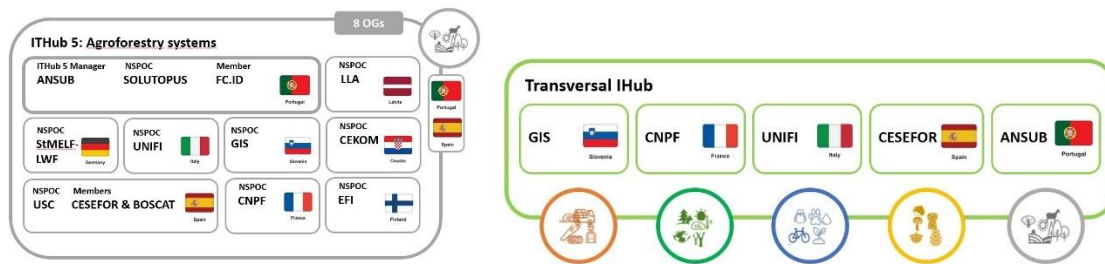


Figure 2. FOREST4EU composition of ITHubs

4. Set-up of main project meetings

Both the GA and the SC meetings require quorum of two-thirds of its members, decisions require simple majority, and the decisions become binding with accepted minutes. Members of both project bodies may appoint a substitute to attend and vote at any meeting. The deadlines for the meetings of these two project bodies are presented in Table 5.

Table 5. Deadlines for Kick of meeting, Annual Meetings, GA meetings, and SC meetings

Type of meeting	Time	Organizer	Participants	Location and type of meeting	Detailed information
Kick-Off Meeting (KoM)	M2	PC	All project partners	Florence	Setting up operational management
GA meeting	1 st Wednesday of M3, M5, M7, M9, M11, M15, M17, M19, M21, M23, M25, M28, M30, M32, M31, M36	PC	All project partners	Online meeting	Strategic decisions
SC meeting	Every month 1 st Wednesday of each month.	PC and PM	PC, PM, WP Leaders, T L, ITHubs Managers	On-line meeting, In person during the KoM and the Annual meeting	Monthly meetings, mostly virtual, in-person together with GA meeting during the KoM and the Annual Meetings. Additional meetings as requested; Virtual meetings can be changed into physical meetings and vice versa. The SC will be in regular exchange (e.g., on-line virtual meeting, virtual meetings) to implement an efficient process of project-implementation. UNIFI will set up regular monthly meetings (1 st Wednesday of each month) to steer the exchange of project progress and foster the exchange of ideas throughout the entire FOREST4EU consortium. This way, symbiotic collaboration between partners will be enforced and timely delivery of all deliverables and outputs guaranteed
Annual meeting	M12-13 M25-26	2 nd StMELF-LWF 3 rd FC.ID	All project partners	Germany Portugal	Setting up operational management and progress report
Final Meeting and Final Event	M34-M36	ETA	All partner	Need to be decided	Setting up final report and conclusion of the project
ITHubs meeting	The last Wednesday of every month of M3, M5, M7, M9, M11, M15, M17, M19, M21, M23, M25, M28, M30, M31, M32, M36	ITHub Managers	ITHubs members, ITHub Managers, WP Leaders, Task Leader	On-line	Setting-up the work and analyse the work done.
Transversal ITHub meeting	1 st Wednesday of every month of M3, M5, M7, M9, M11, M15, M17, M19, M21, M23, M25, M28, M30, M31, M32, M36	ITHub Managers	ITHub Managers, WP Leaders	On-line	Setting-up the work and analysed the work done.
Ad hoc meeting	When needed	All partners	Partner involved	On-line	The scope of the meeting will vary according to specific needs

Changes in the Grant Agreement

If there is a major change required to the GrA to fulfil the project's tasks, then these changes should become amendments to the Project's GrA. Changes for which amendment to the GrA is needed include:

- Termination of project or beneficiaries and/or adding a beneficiary
- Significant changes in the tasks and/or in division of tasks among the beneficiaries
- Subcontracting
- Budget change between beneficiaries and/or budget categories due to a significant change of description of action
- Redistribution of tasks in Description of Action
- Transfers between forms of costs (actual costs, unit costs, etc. - if the 'form' receiving the transfer was not included in the budget)

The procedure for making amendments to the GrA is:

- beneficiary notifies the Coordinator and PM on intent to introduce an amendment;
- coordinator contacts the Project officer for pre-approval of the amendment;
- GA votes on the proposal to introduce the amendment;
- coordinator uploads the request for GA amendment to the Funding & Tender opportunities Portal;
- EC provides a decision on the GA amendment.

There may also be changes to the project that do not require an amendment to the GrA. These may include:

- Change from one budget category to another,
- Change of name/address of the beneficiary,
- Change of beneficiary due to universal takeover

The procedure for introducing changes where amendments to the GrA is not needed:

- Beneficiary informs the Coordinator and PM on the changes;
- Beneficiaries must keep information stored in the 'Beneficiary Register' up to date via the Funding & tender opportunities Portal (Article 7 of the grant agreement);
- Validation Services validate the information in the IT system.

5. Reporting

The reporting in FOREST4EU project is paperless (as in all Horizon Europe projects) and is split into continuous and periodic reporting.

5.1. Continuous reporting

Beneficiaries can at any point fill-in forms of continuous reporting by themselves through the Funding & Tender opportunities Portal. However, as the SC is responsible for creating project progress reports at least every six months, the same time-period will be applied as the maximal timespan in which all beneficiaries must provide information on the project implementation within the continuous reporting to the PM. Although each beneficiary can upload its own

progress report to the Funding & Tender opportunities Portal interface of continuous reporting, the continuous report of each beneficiary will first be sent to the Coordinator and PM office for a review, with a primary goal of consistency in reporting across beneficiaries. PM will send to all beneficiaries an off-line reporting template that exactly matches the continuous reporting interface on the Funding & Tender opportunities Portal. After consistency of reports is secured, data is uploaded by each beneficiary. The continuous reporting consists out of:

- Publishable summary of publications
- Deliverables
- Report progress in achieving milestones
- Follow up critical risks
- Questionnaire on horizontal issues (e.g., publications and communication activities)

The reports should be sent to the coordinator and project manager one month before the deadline.

5.2. Periodic reporting

Periodic reporting is due every eighteen months of the project's implementation, where the first deadline is 30th of June 2024 (reporting period 1 - 01/01/2023-30/06/2024). As for the continuous reporting, all beneficiaries should send their part of the period report for review to the Coordinator and PM' offices one month before the deadline, which means 31st of December 2025 (reporting period 2 – 01/07/2024-31/12/2025) and once more the following eighteen months. The periodic report consists out of:

1. Periodic Technical Report

Part A

- Publishable summary
- Deliverables, milestones, risks, etc.
- Answers to the questionnaire

Part B – narrative part

- Explanation of the work carried out by the beneficiaries and overview of progress
- Update of the plan for exploitation and dissemination of results
- Explanations on deviations from DoA

2. Explanations on deviations from DoA Periodic Financial Report

Individual financial statements

Explanations on the use of resources and the information on subcontracting and in-kind contributions provided by third parties

A periodic summary financial statement including the request for payment

Part A of the technical report is automatically generated from the system of continuous reporting, i.e. it coincides with the end of third cycle of the continuous reporting, and subsequently every third cycle after that. Part B of the technical report is uploaded by the PC and PM. Each beneficiary must upload its own Periodic financial report. Beneficiaries e-sign and submit their Financial Statements to the Coordinator. The Coordinator approves the elements of the Periodic

Report & submits to the EU Services. The EU Services then review the submitted Periodic Report and accept or reject it. Off-line reporting tables will be provided by the PM.

6. Critical risks for implementation and proposed risk mitigation

FOREST4EU will follow a bottom-up approach to conflict management. Conflicts will be discussed and regulated at the task and WP level. If this fails, the WP leader must inform the SC to put the issue on the next SC meeting agenda. The conflict parties (partners) will be invited to attend the part of the meeting where the conflict is discussed, with further procedures being subject to the provisions of the CA. FOREST4EU will develop an “early warning” system for risk management, implemented by the PM and reported to the SC. The system will allow monitoring risks from the project outset onwards during the regular meetings of the SC, and more in-depth during the project review and reporting process. A risk register will be prepared for the risk mitigation strategies already identified in the proposal stage in the list of critical risk in the DoA and reported in Table 6. The early warning system will be set up through: a) revising the list of risks and related mitigation strategies, b) prioritising them and c) associating them with specific monitoring procedures. Emphasis will be given to timely responses to risks including possible reallocation of resources, and processes to identify new and unforeseen risks. The system will subsequently be implemented by the PM and will report to the SC. Examples of risks within the project and possible risk mitigation measures are described in Table 6.

Table 6. Foreseen risks table and proposed mitigation measures

Description of risk (indicate level of likelihood: Low/Medium/High)	Work package(s) involved	Proposed risk-mitigation measures
Delays in tasks (low)	WP1, WP2, WP3, WP4, WP5	A monitoring system will be developed at the beginning of the project (WP5) to follow the implementation of activities. If delay will occur the on-line meeting will be organized with WP leaders and co-leaders to discuss the problems and search for the best solutions. More experienced partners will support less experienced in implementation of tasks.
Varying quality of deliverables and dissemination material between countries (low)	WP1, WP2, WP3	To ensure the quality of deliverables in English, WP leaders and TL together and PC will be responsible. The quality will be checked also by WP4 leader if necessary. The ITHubs Members will check the quality of the materials, while the prioritization workshop will help to select the right innovation to be spread in each country.
Willingness of forest owners, advisors and other target groups to interact, participate and communicate (low)	WP1, WP2, WP3	Active involvement of key stakeholders is crucial for the implementation of the project. To minimize this risk the partnership was built from many OGs. If the willingness to participate happens to be low, Project Partner will get more time and resources dedicated to work with key target groups and existing networks and communication channels will be used. The National Single Point of Contact (NSPOC) from the different countries will help to mitigate the risk since they know very well forest and agroforestry sectors in their country and they will help in the selection of the right channel (e.g. platform, forest associations, events) to reach the practitioners. Since OGs are multi-actor projects and we have on board already many of them and many others will be networked during the project in WP1 and WP2, we can use their channels to interact with different types of practitioners.

7. Conflict resolution

Transparency and effective communication among project members are crucial to prevent challenges and conflicts from arising. Proper implementation of the project plan and realization of its objectives can be ensured through project and quality management activities, as well as by ensuring that all partners are aware of their commitments. Decisions will typically be made by the responsible partners, as described in the GrA.

The processes to be followed during the project for resolving various issues and reaching agreements start with informal contacts such as oral discussion or ad-hoc meeting, followed by written notification through email, minutes, etc.

The general principle for resolving conflicts is to solve them at the lowest possible level, starting with the task level and ITHubs levels, while placing a strong emphasis on using negotiation skills. The PC is responsible for overseeing this process.

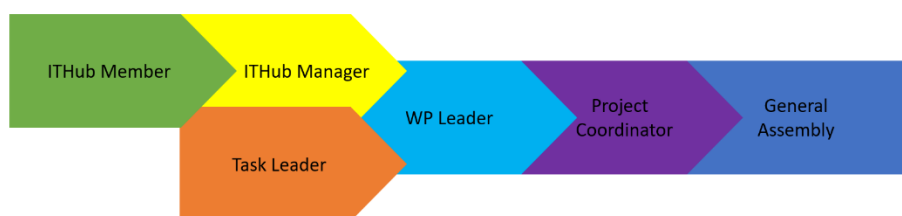


Figura 3 - Conflict resolution chain

To resolve conflicts effectively, good communication among all involved parties is crucial. In case of conflicts arising, ITHubs Managers, TL and WP leaders should promptly notify the PC so that intermediate corrections can be made. If the conflicts cannot be solved at the PC level, they will be reported to the GA. Any corrective actions taken will be in accordance with both the GA and the CA.

8. Internal communication and data management

In the project, the consortium will communicate internally mainly through the MS Teams platform but also, we will have other forms of internal communication such as e-mail exchanges, quarterly newsletters, and regular virtual meetings. As the project develops, other forms of internal communication will be established. The MS Teams site contains project documentation, a joint calendar, timeline, and a platform for communication. All contacts provided by all the beneficiaries have access to the MS Teams site. The MS Teams site contains all project deliverables, tasks, documents, data, and meeting info in a synchronized way.

The deliverables should be submitted to the SC one month before the deadline for review. Deliverables will be assigned to individuals responsible for quality check, and those individuals will be notified on the upcoming deliverable deadlines by the project management office, SC and /or on the MS Teams site posts. The deliverables final versions will be uploaded in the WPs respective deliverable folders and submitted to the FT portal. As the Steering Committee will meet at an at least monthly basis and discuss all the issues that are of concern to the project's implementation, it can also coordinate the responsibility takeover for the quality check of all upcoming deliverables.

The digital platform of the project is set-up by UNIFI as an MS Teams site at the following link

<https://teams.microsoft.com/l/team/19%3a70pov7Gzj4kYy8yX85j20BYKLOFjEM5W6gYitGhmwo1%40thread.tacv2/conversations?groupId=1a03e2b9-adf0-425a-a0db-c28fa1b6ccdb&tenantId=af7fbb09-23f3-4aff-8e08-0e4bec0d9ee7>

The details on the usage of the MS Teams platform are laid out in Annex 1 (Internal Communication Platform manual for the FOREST4EU project).

9. Resources

The list below shows all the resources available for the efficient and proper implementation of the FOREST4EU project.

- Project's Grant Agreement
- Project's Consortium Agreement
- FOREST4EU MS Teams project site

- [Horizon Europe Online Manual](#)
- [Explanation of the Periodic reporting](#)
- [Periodic reporting template](#)
- [Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon Europe](#)
- [Publisher Copyright Policies and Self-Archiving list](#)
- [Registry of Open Access Repositories](#)

Data Management Plan

1. Introduction

FOREST4EU is a Horizon Europe Coordination and Support Action (CSA) project that aims at effectively sharing useful and easy-to-understand knowledge for the forest and agroforestry sector by developing a European multi-actor network, promoting, and disseminating in EU countries the best practices and other practical knowledge and results, related to the "innovation" of national/local forest and agroforestry EIP-AGRI OGs. This will promote the sustainability of private forestry and agroforestry (and rural areas in general) through new business models, social innovation, and climate change resilience measures. **FOREST4EU** provides intensive knowledge transfer activities to guide the formation of new alliances of farmers, foresters, policy makers, practitioners, and other stakeholders in Europe to demonstrate the feasibility of alternative strategies and systems that are or could be funded at the local/national level by EIP-AGRI OGs.

As requested in the context of Horizon Europe, **FOREST4EU** follows the Open Research Data (ORD) policy which requires that the project prepares a Data Management Plan (DMP) and to update it throughout the project. This deliverable is the first version of the DMP, updates are foreseen during the project lifetime.

The purpose of the DMP is to provide relevant information concerning the data that will be collected and used by the partners of the project **FOREST4EU**.

The DMP oversees that the balance between public data accessibility and protection of Intellectual Property Rights (IPR) of partners is managed according to the highest standards available. This document has the general purpose of:

- Identifying the type of data that will be collected and generated within the project and defining the data management life cycle.
- Establishing general procedures to make the data findable, openly accessible, interoperable, and re-usable (FAIR principles).
- Setting the operational steps for data security and ethical and legal issues.

The DMP Template provided by the Commission was used as guideline for this deliverable, complemented with information from the CA and GrA, as well as information from the different WPs. **FOREST4EU** aims at making data as open as possible and as closed as necessary to safeguard the rights of the partners.

1.1. Project concept

The main objective of **FOREST4EU**'s methodology is to ensure the efficient transfer of knowledge from OGs through modern tools. **FOREST4EU** is based on four key elements:

1. Establishment of five inter-regional Innovation topic Hubs (ITHubs) related to the five key priorities, and a Transversal innovation Hub (connecting the 5 ITHubs) (IHub), to ensure that the existing knowledge about (?)innovation reaches forestry and agroforestry sectors in the EU
2. Facilitation of integrative knowledge exchanges across EU-borders using knowledge sharing platforms, identifying communities of practices and different modes of capacity building.
3. Identification of lessons learned on strengths and weaknesses of EIP-AGRI OGs for policy makers at EU and national levels.
4. Targeted outreach of relevant knowledge to maximise the impact.

With these key elements, **FOREST4EU** will allow forest and agroforestry practitioners and related stakeholders to know, adopt and apply best innovation practices of EIP-AGRI National/local OGs across the EU, connecting and sharing practical knowledge and innovative solutions in the five key innovation topics. This will strengthen the sustainability of forestry and agroforestry and improve EU interregional competitiveness and rural development.

This multi-actor approach is based on the following assumptions:

- Forest and agroforestry OG's outcomes have their own strengths and weaknesses, and usually knowledge transfer occurs mainly at local and national levels (results are available mainly in national languages). Therefore, they usually fail to transfer knowledge at the EU level. European frameworks seem fragmented and not all solutions proposed by OGs can be applied everywhere. Therefore, the transferability of the results should be analysed.
- The results of OGs in forestry and agroforestry can play an important role in the implementation of the Green Deal, the EU Forest Strategy, the EU Biodiversity Strategy, the harm-to-environmental objectives of the Regulation (EU) No 2020/852 and in the digitalisation of the forest and agroforestry sectors. However, the European framework for establishing OGs appears to be inconsistent. In some countries, many OGs are funded, while in others the OG measure of CAP/Rural Development Plan has not been used for the forest and agroforestry sectors.

To address these key elements, **FOREST4EU** will (1) provide networking and interactions with different stakeholders to multiply and widely disseminate the results of the different OGs among interregional ITHubs and across the EU, (2) produce intensive know-how and innovation transfer activities for stakeholders, (3) analyse how the results of OGs can support the new EU policies and (4) identify the barriers to the creation of OGs in forestry and agroforestry in countries where they have not been funded.

2. Data Summary

Will you re-use any existing data and what will you re-use it for? State the reasons if re-use of any existing data has been considered but discarded.

What is the origin/provenance of the data, either generated or re-used?

FOREST4EU will collect and re-use available data though which it will generate new data.

The data summary figure of WP1, WP2 and WP3 is summarized in the Figure 1.

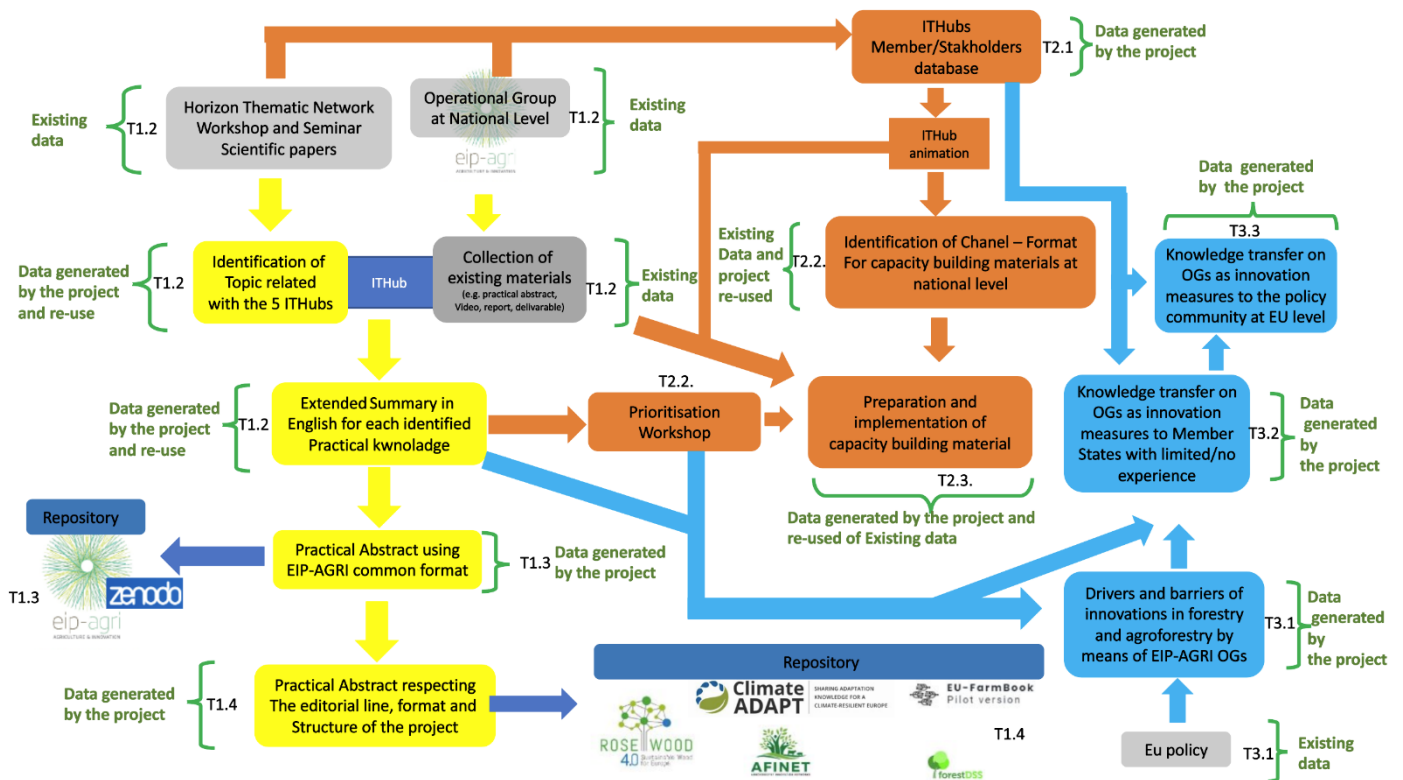


Figure 2 - Summary of data re-used and generated by FOREST4EU in WP1 (yellow), WP2 (orange) , WP3 (blue). In the figure are represented the existing data that will be re-used by FOREST4EU and the data generated by the project for each of the WP and task.

FOREST4EU will re-use:

- the results/reports/deliverables and other types of materials generated by EIP-AGRI Forestry and Agroforestry Operational Groups (OGs) produced at national level and published in national languages (WP1);
- the results from scientific and technical papers (WP1-WP3);
- the available information, data and results generated by others Horizon Thematic Networks and EU Projects (WP1);
- the results and reported generated by the Forest and Agroforestry innovation EU Workshops/Seminars (WP1, WP3);
- EU policy papers and related documents (WP3);
- existing channels EIP and formats to disseminate capacity building materials (WP2)

The data collected from Horizon Thematic Network, others EU Projects, Innovation Forestry and Agroforestry Workshops and Seminars and scientific/technical papers deal with innovation in forestry and agroforestry. It will be used in WP1 to identify the most important topic of innovation related with the different 5 ITHubs. The data collected will be of different nature and will be:

Types of existing data	Information regarding the available existing data
Deliverable of project	The deliverable of previous and ongoing EU Thematic Network projects, other EU projects, national projects, and local projects, published as PUBLIC will be collected (WP1)
Report and summary of innovation workshops/seminars dealing	The reports, summaries of innovation workshops and seminars done at EU, national, and local level published as PUBLIC will be collected to identify the most important topics of innovation related with the 5 ITHubs (WP1)

with Forest and Agroforestry innovations	
Scientific papers	Scientific papers published as open-access and dealing with review of innovations needed for forestry and agroforestry

The collection of existing practical knowledge (WP1) generate at national level by EIP-AGRI OGs is crucial for **FOREST4EU** and will guide all the activities of all the other WPs (WP2-WP3-WP4).

The existing data will be collected from EIP-AGRI OGs. **FOREST4EU** will collect the data through direct interaction of ITHUB members (beneficiary of the FOREST4EU projects) with EIP-AGRI OG's Coordinators/partners. An easy consent form will be put in place to be completed by all the coordinators of the contacted EIP-AGRI OGs to have the consent of using the data and results produced by their OGs for the activities of **FOREST4EU**. With this consent, the coordinators accept that the **FOREST4EU** project will use their generated innovations and knowledge to be disseminated at EU level through different type of material (e.g. practice abstracts, videos, etc.) and channels (e.g. existing online repositories) and that their materials will be re-used and reworked.

Moreover, the data and results related with EIP-AGRI OGs data can be collected, also, through open-access existing repositories (e.g. web site of the OGs, EIP-AGRI portal <https://ec.europa.eu/eip/agriculture/en/node> and EU CAP Network https://eu-cap-network.ec.europa.eu/index_en, national repository such as national rural network https://enrd.ec.europa.eu/home-page_en).

The data collected from OGs can be of different nature:

Types of existing data	Information regarding the available existing data	Example of data that will be collected and re-used
EIP-AGRI Practice Abstracts	The EIP-AGRI OGs for interactive innovation have a common format consists of a set of basic information that includes practical abstracts with information regarding the OGs. This information is provided in English and Native language. In the template are also reported the Objectives of OGs, the Project Coordinator data (name and contact) and the project partners (name and contact). See. For the full list of information that can be founded in the EIP-AGRI common format https://ec.europa.eu/eip/agriculture/sites/default/files/eip_common_format_-_14_oct_2015.pdf	https://ec.europa.eu/eip/agriculture/en/find-connect/projects/supporto-decisionale-alla-pianificazione-forestale
Video	EIP-AGRI OGs financed at national level have produced some videos. The video will be used to extract information regarding the innovations to produce extended summary/practical abstract/factsheet (WP1) and can be used to produce capacity building materials (WP2). Moreover, the videos will be analysed, if necessary, for the WP3.	https://www.youtube.com/watch?v=BaqKFnd-mCc
Report/Deliverables/Technical Notes	EIP-AGRI OGs financed at national level have produced some reports/deliverables/technical notes. The reports will be used to extract information regarding innovation to produce extended summary/practical abstract/factsheet (WP1) and can be used to produce capacity building materials (WP2). Moreover, the reports/deliverables/technical notes will be analysed, if necessary, for the WP3.	https://www.go-surf.it/download-2/2-report.html?download=4:quadro-di-riferimento-sulle-tipologie-forestali-e-sistema-nomenclaturale
Communication not/on-line article/communication materials	EIP-AGRI OGs have produced at national level some communication notes such as brochures, roll-ups, on-line articles. These articles will be analysed in WP1, WP2, WP3 to identify the related innovation and extract extended	https://www.go-surf.it/index.php/download-2?download=3:gosurf-brochure

	summary/practical abstract/factsheet/capacity building materials.	
Interview	Direct interview with EIP-AGRI OGs Coordinators/partner will be set up by ITHubs Members to extract the different innovation coming from different EIP-AGRI OGs.	
Existing repository	The existing on-line repository will be used to understand the form of data that they can share to prepare the materials to deliver the factsheet	

All these data will be collected in row mode and will be uploaded in the ITHubs channels in Teams repository. This allows to create a common database of data that can be used and re-used for the activities of the project. For each of the EIP-AGRI OGs contacted a dedicate folder will be created. The access to this data is guaranteed to the beneficiary of the FOREST4EU projects only.

The results, reports and presentations of Forest and Agroforestry innovation EU Workshops/Seminars will be collected through open access repositories such as EIP-AGRI Portal, Rural Development Network, and Zenodo and could be of different nature.

Types of existing data	Information regarding the available existing data	Example of data that will be collected and re-used
Presentation	Presentation done in the context of innovation Seminar and Workshop available on-line.	https://ec.europa.eu/eip/agriculture/en/event/eip-agri-seminar-turning-forest-innovation
Video	Videos innovation workshop and seminars	https://www.youtube.com/watch?v=xKvh2jHDgYI&feature=youtu.be
Report/Deliverables/Technical Notes	Reports on the Seminars	https://ec.europa.eu/eip/agriculture/sites/default/files/eip-agri_seminar_turing_forest_innovation_into_practice_final_report_2022_en.pdf

What types and formats of data will the project generate or re-use?

The existing materials collected from EIP-AGRI OGs (WP1) will be re-used by FOREST4EU and transformed into:

Data re-used by FOREST4EU	Transformed data by FOREST4EU and generation of new data:
	Innovation topics list (WP1):
Interview, Videos, Report, Deliverable, Communication note coming from EIP-AGRI OGs financed at national level	Extended Summary (WP1): “Extended summaries” are essential for the whole implementation of the project, as containing all innovations generated by the different selected OGs in English, being key for the preparation of “practice abstracts” to be delivered to EIP-AGRI. A dedicate template will be used.
Extended summaries create by FOREST4EU ITHUBs members	Practical Abstract (WP1): FOREST4EU partners involved in the different ITHubs will collaborate on the preparation of “practice abstracts” from the identified innovations using the EIP-Agri common format. For each elaborated “extended summary”, at least one “practice abstract” will be produced.
Practical Abstract create by FOREST4EU translate in national languages	Practical abstracts translate in national language (WP2): For the prioritisation workshop the practical abstract that, based on expert opinions, can be applied in the countries where ITHubs are active, will be

	translated to use them in the prioritisation workshop. The selected innovations will be used to create the capacity building materials
Extended summaries/ Practical Abstracts produced by FOREST4EU	Factsheet (WP1): Factsheets are derived from the extended summaries and practical abstracts. The factsheets are done to share innovation through existing repositories. Therefore, a dedicate form with information required by the platform is created.
Interview, Videos, Report, Deliverable, Communication note coming from EIP-AGRI OGs, information derived by Prioritisation workshop	Capacity Building Materials (WP2): Based on data coming from different EIP-AGRI OGs and the results of the prioritisation workshop, capacity building materials (such as videos, training materials, details technical notes) will be create by the ITHubs Members for the different ITHubs.
Extended summaries/ Practical Abstracts produced by FOREST4EU	Policy Matrix (WP3): This data will be used for the policy matrix that links the OGs innovations with the EU policy level

What is the purpose of the data generation or re-use and its relation to the objectives of the project?

Data generated by FOREST4EU and description	Relation with the object of the project
Innovation topics list (WP1) Identification of innovation topics for each one of the ITHUBs	SO1 – Establishment of five inter-regional Innovation topic Hubs SO3 - Identification of lessons learned on strengths and weaknesses of EIP-AGRI OGs for policy makers at EU and national levels
Extended Summary (WP1) “extended summaries” contain all innovations generated by the different selected OGs in English	SO1-Establishment of five inter-regional Innovation topic Hubs (ITHubs) related to the five key priorities, and a Transversal innovation Hub (connecting the 5 ones) (IHub), to ensure that the existing knowledge and innovation reach forest and agroforestry in the EU SO2 - Facilitation of integrative knowledge exchanges across EU-borders using knowledge sharing platforms, identifying communities of practices and different modes of capacity building SO3 -Identification of lessons learned on strengths and weaknesses of EIP-AGRI OGs for policy makers at EU and national levels SO4- Targeted outreach of relevant knowledge to maximize the impact
Practical Abstract (WP1)	SO2 - Facilitation of integrative knowledge exchanges across EU-borders using knowledge sharing platforms, identifying communities of practices and different modes of capacity building SO3 -Identification of lessons learned on strengths and weaknesses of EIP-AGRI OGs for policy makers at EU and national levels
Practical abstracts translate in national language (WP2)	SO2 - Facilitation of integrative knowledge exchanges across EU-borders using knowledge sharing platforms, identifying communities of practices and different modes of capacity building SO3 -Identification of lessons learned on strengths and weaknesses of EIP-AGRI OGs for policy makers at EU and national levels SO4- Targeted outreach of relevant knowledge to maximize the impact
Factsheet (WP1)	SO2 - Facilitation of integrative knowledge exchanges across EU-borders using knowledge sharing platforms, identifying communities of practices and different modes of capacity building SO3 -Identification of lessons learned on strengths and weaknesses of EIP-AGRI OGs for policy makers at EU and national levels
Capacity Building Materials (WP2)	SO2 - Facilitation of integrative knowledge exchanges across EU-borders using knowledge sharing platforms, identifying communities of practices and different modes of capacity building SO3 -Identification of lessons learned on strengths and weaknesses of EIP-AGRI OGs for policy makers at EU and national levels

	SO4- Targeted outreach of relevant knowledge to maximize the impact
Policy Matrix (WP3)	SO3 - Identification of lessons learned on strengths and weaknesses of EIP-AGRI OGs for policy makers at EU and national levels
Database of partitioners/stakeholders (WP2)	SO1-Establishment of five inter-regional Innovation topic Hubs (ITHubs) related to the five key priorities, and a Transversal innovation Hub (connecting the 5 ITHubs), to ensure that the existing knowledge and innovations reach forest and agroforestry in the EU SO2 - Facilitation of integrative knowledge exchanges across EU-borders using knowledge sharing platforms, identifying communities of practices and different modes of capacity building SO3 -Identification of lessons learned on strengths and weaknesses of EIP-AGRI OGs for policy makers at EU and national levels SO4- Targeted outreach of relevant knowledge to maximize the impact
Communication and dissemination materials (WP4)	SO1-Establishment of five inter-regional Innovation topic Hubs (ITHubs) related to the five key priorities, and a Transversal innovation Hub (connecting the 5 ITHubs), to ensure that the existing knowledge and innovations reach forest and agroforestry in the EU SO2 - Facilitation of integrative knowledge exchanges across EU-borders using knowledge sharing platforms, identifying communities of practices and different modes of capacity building SO3 -Identification of lessons learned on strengths and weaknesses of EIP-AGRI OGs for policy makers at EU and national levels SO4- Targeted outreach of relevant knowledge to maximize the impact

What is the expected size of the data that you intend to generate or re-use?

In most WPs, the size of data is expected to be small, less than 1 GB. Further to be evaluated during the project and will depend on the extent and the nature of the data that are made available. The data generated, collected, and re-used, by FOREST4EU partners will be useful to the a different number of stakeholders such as FOREST4EU partners, academics, forest managers, policy makers, forest associations, scientific communities. The results of FOREST4EU will support the forest innovation process done by forestry stakeholders (e.g., practitioners and forest and other land owners) and policy makers. The public will also benefit from the FOREST4EU data. Moreover, the data processed by FOREST4EU will be shared in many platforms and the re-used of data will be guarantee.

To whom might your data be useful ('data utility'), outside your project?

The data generated, collected, and used in the FOREST4EU project will be useful to:

- the FOREST4EU consortium partners and associate partners
- Forest managers
- Landowners
- Forest companies
- Students
- Policy makers involved in CAP
- Policy makers at different levels (EU, National, Regional, Local level)
- Academics/scientific community

- Funders

The results will support the innovation in forestry and agroforestry sectors sharing experience coming from EIP-AGRI OGs across national borders, giving access to easy to use information on innovation based on 5 ITHubs to forestry stakeholders (e.g., practitioners and forest owners), financing institutions and policy makers of European Commission services and other European Agencies, EU national bodies and a general audience. The general public will also benefit from the FOREST4EU data by learning about restoration projects all over Europe and related challenges and opportunities.

3. FAIR data

The FAIR data principle is required to be used in EU-Projects by the “Guidelines on FAIR Data Management in Horizon Europe”. It should support the exchange of scientific data and lead to knowledge discovery and innovation. The FAIR data approach is described by the acronym:

- **Findable data:** Clear naming and versioning of (meta-) data, easy to find by both humans and computers
- **Accessible data:** It is clearly specified how the data is made available, including needed tools, protocols, authentication, and authorization
- **Interoperable data:** The published data uses standards and vocabularies that allow interoperability with applications and workflows for analysis, storage, and processing
- **Re-usable data:** The goal of the FAIR is reusability; therefore, it is clearly defined when and for which duration data is made available and under which licensing the data was published

The **FOREST4EU** consortium will publish data whenever possible under the FAIR principle. The FAIR data management approach enables the exchange of EIP-AGRI OGs data which fosters knowledge discovery and innovation.

3.1. Making data findable, including provisions for metadata

Will data be identified by a persistent identifier?

All open results, data, publication produced in FOREST4EU will be identified by a unique Uniform Resource Locator (URI) that will be set up during the project according to the different materials and results that will be generated. A URI is a unique sequence of characters that identifies logically the resource that will be generated. It will be generated according to the organization of a common internal platform.

The results that are generated in FOREST4EU will be uploaded on the Zenodo repository, which will be the FOREST4EU default Open Access repository. In Zenodo it is already available the community “FOREST4EU”, that will host all the data that will be produced. The Zenodo repository allow to assign a DOI automatically to all materials/data that will be uploaded there. FOREST4EU results will thus benefit from Zenodo’s DOI versioning support. Moreover, also the EUFarmBook platform that will be used to upload the data and assign a specific DOI that can be used to identify the data produced and up-loaded. Moreover, Eu-FARM book permits to add to the document uploaded also an existing DOI if it is needed.

Will rich metadata be provided to allow discovery? What metadata will be created? What disciplinary or general standards will be followed? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.

In general, the Zenodo deposition metadata domain model (<http://developers.zenodo.org/#representation>) which is based on Data Cite's metadata schema (<https://schema.datacite.org/>) minimum and recommended terms will be used for open data generated by FOREST4EU and deposited in an appropriate in the Zenodo go-forest community repository.

For FOREST4EU, the following deposition metadata fields are mandatory:

- title

Title of the deposition.

- **description**

Abstract or description for deposition.

- **files**

Deposition files identifiers, filenames, size of the files in bytes and MD5 checksum of files

- **upload_type**

Type of the deposition from a controlled vocabulary (publication, dataset, software, ...).

- **publication_date**

Date of publication in ISO8601 format (YYYY-MM-DD).

- **creators**

The creators/authors of the deposition.

- **license**

Open license from controlled vocabulary "Open Definition Licenses Service" (see 2.3.2 and 2.2.11).

- **doi**

Digital Object Identifier assigned by the DOI registrant (e.g. Zenodo), also used for versioning (see 2.1.4)

- **keywords**

Free form keywords for this deposition.

- **related_identifiers**

Persistent identifiers of related publications, datasets, and software

- **communities**

List of communities the deposition to appears in (<https://zenodo.org/communities/clarity/>)

- **grants**

Will search keywords be provided in the metadata to optimize the possibility for discovery and then potential re-use?

FOREST4EU will use keywords in delivering all the data that will be create according to the ITHubs keywords. In this sense, some keywords were already identified to make the research as easy as possible for the stakeholders. The keywords will be enlarged during the project according to the materials that will be produced.

EIP AGRI common format keywords	Agricultural production system Animal husbandry and welfare Biodiversity and nature management Climate and climate change Energy management Farming equipment and machinery Farming practices Farming/Forestry competitiveness and diversification Fertilisation and nutrients management Food quality/processing and nutrition
--	--

Forestry
 Genetics resources
 Landscape/land management
 Pest/disease control
 Plant production and horticulture
 Soil management/functionality
 Supply chain, market and consumption
 Waste, by-products and residues management
 Water management

EIP AGRI projects keywords	Adaptation to climate change Agroforestry Biomass Business model Carbon stock Circular bioeconomy Cooperation Decisional Support System Digital platform Digital tools Drone Ecosystem services Food industries Food security Forest degradation Forest industries Forest restoration Forestry 4.0 Innovation social systems ITC instruments ITC technology Managing ecosystem services Mitigation to climate change Multifunctional forest management New plantation New planting system New products Non-wood forest product Non-wood forest product transformation New value chain Organisational innovation Precision Forestry Production of plants Proximal sensing data Remote Sensing data Satellite Silviculture Smart-application Sustainable Forest Management Wood mobilization Wood transformation
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Will metadata be offered in such a way that it can be harvested and indexed?

The data will be indexed thanks to Zenodo and EU-FARM book using DOI.

3.2. Making data accessible

Repository

International dissemination of knowledge: to widely disseminate the knowledge from the OGs, EIP-AGRI practice abstracts (T1.3) and factsheets for existing online repositories (T.4) will be prepared in WP1. Thanks to T1.3, the resulting innovative knowledge from this project will feed into the EIP-AGRI (The agricultural European Innovation Partnership) website for broad dissemination to practitioners. End-user material will be produced in the form of several summaries for practitioners in the EIP common format ("practice abstracts"). The project details will also be submitted to the platform with the first deliverable submission. Guidance and templates for these practice abstracts are available on the EIP-AGRI web site: <http://ec.europa.eu/eip/agriculture/en/content/eip-agri-common-format>.

A total target number of 150 practice abstracts is foreseen for the project.

Moreover, to respect the principles of FAIR all the data generated by **FOREST4EU** (extended summary, practical abstract, capacity building materials, policy matrix) will be uploaded on Zenodo repository. That allow to the data produced to be accessible, interoperable, and re-usable also after the project life. Moreover, for each one of the data produced a metadata will be clearly named and a metadata will be generated according to Zenodo manual.





Zenodo is an open dissemination research data repository, and the uploader of content responsible to ensure that the content is suitable for open dissemination and that it complies with applicable laws, including, but not limited to, privacy, data protection, and intellectual property rights. Zenodo is compliant with the data management requirements of Horizon Europe, the ERC and other EU research and innovation funding programmes. "The OpenAIRE project, in the vanguard of the open access and open data movements in Europe, was commissioned by the EC to support their nascent Open Data policy by providing a catch-all repository for EC funded research. CERN an OpenAIRE partner and pioneer in open source, open access and open data, provides this capability." The default repository of the **FOREST4EU** project for depositing publications, open data and open-source capacity building materials is Zenodo (<http://www.zenodo.org>). A DOI is automatically assigned to all Zenodo files, which can be uploaded in any file format. Zenodo allows researchers to deposit both publications and research data, while providing means to link them. Data is stored in the CERN cloud infrastructure. Zenodo is compliant with the open data requirements of Horizon Europe, the EU Research and Innovation funding programme and OpenAIRE.

Factsheets will be published in existing online thematic knowledge repositories, and they will be edited to respect their editorial line, format, and structure. These repositories have been funded by the EC and have been online for several years. Therefore, they have an existing community of end-users. **FOREST4EU** would capitalise on these previous efforts while saving its own resources. In that way, the outcomes of the **FOREST4EU** project will contribute to the animation, curation, sustainability, and maintenance of these existing and well-established repositories, as well as the knowledge sharing at EU level. The proposed repositories for each ITHub are summarized below.

Since some of these repositories do not respect all the FAIR principles, but just a part of that, T1.4 will upload the same material and all corresponding datasets into EU FarmBook (funded by HORIZON-CL6-2021-GOVERNANCE-01-24) and Zenodo. Below are reported the proposed repository to share the ITHubs factsheets.

The **FOREST4EU** consortium will also use existing repositories to share the generated factsheets:

1. **Wood mobilisation:** Knowledge platform for regional forest innovation, <https://www.forestinnovationhubs.rosewood-network.eu/en/best-practices>, by ROSEWOOD 4.0, GA: 862681, managed by EFI, S2i and Cesefor
2. **Adaptation to climate change,** Climate-ADAPT Case study explorer, <https://climate-adapt.eea.europa.eu/knowledge/tools/case-study-explorer/>, by Climate-ADAPT, a partnership between the European Commission and the European Environment Agency, maintained by the EEA with the support of the European Topic Centre on Climate Change Impacts, Vulnerability and Adaptation;
3. **Sustainable forest management & ecosystem services:** Oppla is foreseen as a repository for innovations related to ecosystem services while forest management innovations can be uploaded into EU-FarmBook or Oppla depending on the exact nature of the innovation <https://oppla.eu/> ;
4. **Forest DSS** that is a Community of Practice for Forest Management Decision Support Systems developed in the context of the IUFO <http://www.forestdss.org/>
5. **Non-wood forest products; Knowledge repository for Non-Wood Forest Products,** <https://repository.incredibleforest.net/>, by INCREDIBLE, GA: 774632, managed by EFI;
6. **Agroforestry systems: AFINET Knowledge Cloud,** <https://euraf.isa.utl.pt/afinet/knowledge-cloud/search>, by AFINET, GA: 727872, managed by USC
7. **EU-FARM book EU-FarmBook** is a collection of vetted best practices for farmers & foresters <https://eufarmbook.eu/> GA: 817863 and 862790.

ITHub	Innovation topic	Online repositories	Link
1	Wood mobilisation		ROSEWOOD4.0 Knowledge Platform
2	Adaptation to climate change		Climate ADAPT – Case Study Explore
3	Sustainable forest management and ecosystem services	 	Oppla forestDSS EUFarmBook

			
4	Non-wood forest products		Incredible Knowledge Repository
5	Agroforestry systems		AFINET Knowledge Cloud

For each of the repository we evaluate through “Self-Assessment Tool to Improve the FAIRness of Your Dataset” – (<https://satisfyd.dans.knaw.nl/#:~:text=SATIFYD%20stands%20for%3A%20Self%2DAssessment,the%20deposit%20of%20a%20dataset.&text=The%2012%20questions%20of%20the,on%20the%20FAIR%20data%20principles>):

FAIR self-assessment was based on the study of the platforms and direct interaction with the managers, except for EU-FARM Book on which the analysis was done using information from D4.3 – Farm Book data repository and search engine with code/installation documentation and a user guide (available at <https://zenodo.org/record/7574542>). Here we reported the analysis for the different repositories.

ROSEWOOD			
	Assessment item	Response	Score
Findable	Did you provide sufficient metadata (information) about your data for others to find, understand and reuse your data?	Rich metadata with as much information as possible	78%
	Did you use standards such as controlled vocabularies, taxonomies (thesauri) or ontologies to describe your dataset?	Controlled vocabularies	
	Did you provide rich and detailed additional documentation?	Provenance	
Accessible	Is the metadata publicly accessible even if the data is no longer available?	Yes	75%
	Does your dataset contain personal data?	No	
	Which of the usage licenses provided by EASY did you choose to comply with the access rights attached to the data?	Other access	
Interoperable	Are the data in your dataset stored in preferred formats?	All the data are in preferred formats	73 %
	Do you link to other (meta)data and is this (meta)data online resolvable?	Yes, but they are not available on-line	
	Did you provide contextual information about your dataset?	Reference to other datasets	
Reusable	What kind of information did you provide about the provenance of your data?	Origin of data	55%

	Which usage license provided by EASY did choose for your dataset?	Other access	
	Does your (meta)data meet domain standards?	Domain standards in metadata	
	Total FAIRness score		70 %

CLIMATE ADAPT			
	Assessment item	Response	Score
Findable	Did you provide sufficient metadata (information) about your data for others to find, understand and reuse your data?	Rich metadata with as much information as possible	78%
	Did you use standards such as controlled vocabularies, taxonomies (thesauri) or ontologies to describe your dataset?	Controlled vocabularies	
	Did you provide rich and detailed additional documentation?	Provenance	
Accessible	Is the metadata publicly accessible even if the data is no longer available?	Yes	75%
	Does your dataset contain personal data?	No	
	Which of the usage licenses provided by EASY did you choose to comply with the access rights attached to the data?	Other access	
Interoperable	Are the data in your dataset stored in preferred formats?	All the data are in preferred formats	73 %
	Do you link to other (meta)data and is this (meta)data online resolvable?	Yes, but they are not available on-line	
	Did you provide contextual information about your dataset?	Reference to other datasets	
Reusable	What kind of information did you provide about the provenance of your data?	Origin of data	55%
	Which usage license provided by EASY did choose for your dataset?	Other access	
	Does your (meta)data meet domain standards?	Domain standards in metadata	
	Total FAIRness score		70 %

OPPLA			
	Assessment item	Response	Score
Findable	Did you provide sufficient metadata (information) about your data for others to find, understand and reuse your data?	Rich metadata with as much information as possible	78%
	Did you use standards such as controlled vocabularies, taxonomies (thesauri) or ontologies to describe your dataset?	Controlled vocabularies	
	Did you provide rich and detailed additional documentation?	Provenance	
Accessible	Is the metadata publicly accessible even if the data is no longer available?	Yes	75%
	Does your dataset contain personal data?	No	
	Which of the usage licenses provided by EASY did you choose to comply with the access rights attached to the data?	Other access	
Interoperable	Are the data in your dataset stored in preferred formats?	All the data are in preferred formats	73 %

	Do you link to other (meta)data and is this (meta)data online resolvable?	Yes, but they are not available on-line	
	Did you provide contextual information about your dataset?	Reference to other datasets	
Reusable	What kind of information did you provide about the provenance of your data?	Origin of data	55%
	Which usage license provided by EASY did choose for your dataset?	Other access	
	Does your (meta)data meet domain standards?	Domain standards in metadata	
	Total FAIRness score		70 %

FOREST DSS			
	Assessment item	Response	Score
Findable	Did you provide sufficient metadata (information) about your data for others to find, understand and reuse your data?	Rich metadata with as much information as possible	78%
	Did you use standards such as controlled vocabularies, taxonomies (thesauri) or ontologies to describe your dataset?	Controlled vocabularies	
	Did you provide rich and detailed additional documentation?	Provenance	
Accessible	Is the metadata publicly accessible even if the data is no longer available?	Yes	75%
	Does your dataset contain personal data?	No	
	Which of the usage licenses provided by EASY did you choose to comply with the access rights attached to the data?	Other access	
Interoperable	Are the data in your dataset stored in preferred formats?	All the data are in preferred formats	73 %
	Do you link to other (meta)data and is this (meta)data online resolvable?	Yes, but they are not available on-line	
	Did you provide contextual information about your dataset?	Reference to other datasets	
Reusable	What kind of information did you provide about the provenance of your data?	Origin of data	55%
	Which usage license provided by EASY did choose for your dataset?	Other access	
	Does your (meta)data meet domain standards?	Domain standards in metadata	
	Total FAIRness score		70 %

INCREDIBLE			
	Assessment item	Response	Score
Findable	Did you provide sufficient metadata (information) about your data for others to find, understand and reuse your data?	Rich metadata with as much information as possible	78%
	Did you use standards such as controlled vocabularies, taxonomies (thesauri) or ontologies to describe your dataset?	Controlled vocabularies	
	Did you provide rich and detailed additional documentation?	Provenance	
Accessible	Is the metadata publicly accessible even if the data is no longer available?	Yes	75%
	Does your dataset contain personal data?	No	

	Which of the usage licenses provided by EASY did you choose to comply with the access rights attached to the data?	Other access	
Interoperable	Are the data in your dataset stored in preferred formats?	All the data are in preferred formats	73 %
	Do you link to other (meta)data and is this (meta)data online resolvable?	Yes, but they are not available on-line	
	Did you provide contextual information about your dataset?	Reference to other datasets	
Reusable	What kind of information did you provide about the provenance of your data?	Origin of data	55%
	Which usage license provided by EASY did choose for your dataset?	Other access	
	Does your (meta)data meet domain standards?	Domain standards in metadata	
Total FAIRness score			70 %

EU-FARM BOOK			
	Assessment item	Response	Score
Findable	Did you provide sufficient metadata (information) about your data for others to find, understand and reuse your data?	Rich metadata with as much information as possible	100%
	Did you use standards such as controlled vocabularies, taxonomies (thesauri) or ontologies to describe your dataset?	Controlled vocabularies Taxonomies (thesauri) Ontologies	
	Did you provide rich and detailed additional documentation?	Readme file Versioning Provenance	
Accessible	Is the metadata publicly accessible even if the data is no longer available?	Yes	75%
	Does your dataset contain personal data?	No	
	Which of the usage licenses provided by EASY did you choose to comply with the access rights attached to the data?	Other access	
Interoperable	Are the data in your dataset stored in preferred formats?	All the data are in preferred formats	58%
	Do you link to other (meta)data and is this (meta)data online resolvable?	No	
	Did you provide contextual information about your dataset?	Persistent identifiers	
Reusable	What kind of information did you provide about the provenance of your data?	Origin of data	55%
	Which usage license provided by EASY did choose for your dataset?	Other access	
	Does your (meta)data meet domain standards?	Domain standards in metadata	
Total FAIRness score			72%

AFINET			
	Assessment item	Response	Score
Findable	Did you provide sufficient metadata (information) about your data for others to find, understand and reuse your data?	Rich metadata with as much information as possible	78%

	Did you use standards such as controlled vocabularies, taxonomies (thesauri) or ontologies to describe your dataset?	Controlled vocabularies	
	Did you provide rich and detailed additional documentation?	Provenance	
Accessible	Is the metadata publicly accessible even if the data is no longer available?	Yes	75%
	Does your dataset contain personal data?	No	
	Which of the usage licenses provided by EASY did you choose to comply with the access rights attached to the data?	Other access	
Interoperable	Are the data in your dataset stored in preferred formats?	All the data are in preferred formats	73 %
	Do you link to other (meta)data and is this (meta)data online resolvable?	Yes, but they are not available on-line	
	Did you provide contextual information about your dataset?	Reference to other datasets	
Reusable	What kind of information did you provide about the provenance of your data?	Origin of data	55%
	Which usage license provided by EASY did choose for your dataset?	Other access	
	Does your (meta)data meet domain standards?	Domain standards in metadata	
	Total FAIRness score		70 %

For each of the repository metadata of the factsheet will be collected according to the repository needs. Here we report the corresponding metadata of each one of the repositories:

ROSEWOOD.4

<https://www.forestinnovationhubs.rosewood-network.eu/en/best-practices>

- **LANGUAGE**
- **INNOVATION URL**
- **TITLE OF FACTSHEET** (Meaningful title, avoid acronyms. Max 255 characters)
- **TITLE (NATIONAL NAME, MAX 100 CHARACTER)**
- **TITLE (ABBREVIATION)** (If specific name, brand or acronym of solution)
- **SHORT DESCRIPTION** (Short descriptive text summarising the content (subtitle). Max 250 characters)
- **PROJECT UNDER WHICH THIS FACTSHEET HAS BEEN CREATED**
- Rosewood
- Rosewood 4.0
- FOREST4EU
- Other
- **PROJECT ACRONYM**
- **PROJECT URL**
- **ABSTRACT** (Should contain context, objective, main results, lessons learned, main recommendations)
- **CHALLENGE ADDRESSED** (see options below, only one possible)
- Improve forest resilience and adaptation to climate change
- Improve infrastructures and capacity of public actors
- Activate private owners and cooperative forest management
- Ensure a well-trained workforce through attractive skills development and education
- Enhance economic and environmental performance of forest supply chains
- Grow the forest-based bioeconomy through circular use and value-added products
- Raise public awareness, social acceptance and political support for forestry
- Other

- **KEYWORDS MAXIMUM 4 KEYWORDS**

Location of Best Practice

- **Scale of application** (At which geographical scale this best practice or innovation should be applied to be meaningful and have impact?)
 - Continental
 - Cross-border/multi-lateral (several countries)
 - National
 - Regional/sub-national
 - Local
- **COUNTRY OF ORIGIN**
- **REGION OF ORIGIN**
- **LICENSE**

Features

- **START YEAR** (Start year of development / launch)
- **END YEAR** (End year. Leave empty if still active/ongoing)
- **MAIN DOMAIN.** If more than one domain, name the others in decreasing order of relevance in the fields below.
 - Inventory, monitoring
 - Ownership, cooperation
 - Forest management, ecosystem, resilience
 - Forest disturbances, risks
 - Products, markets, trade
 - Harvesting, infrastructure, logistics
 - Forest based bio/circular economy
 - Wood construction industry
 - Wood energy industry
 - Education and training
 - Research and development
 - Financing, funding schemes
 - Innovation management, hubs, clusters
- **DIGITAL SOLUTION**
 - Yes
 - No
- **TYPE OF SOLUTION**
 - Advice and services for forest owners
 - Awareness, educational campaigns
 - Cascade funding, innovation vouchers
 - Circular, bio-based products
 - Collaboration platforms, logistical hubs
 - Data platforms, data hubs
 - Data standards
 - Design software
 - eLearning, blended learning
 - Grant schemes
 - Insurance solutions
 - Joint management
 - Knowledge transfer, education

- Land reform
- Legal framework
- Marketing platforms
- Modelling simulation optimization
- Networks, testbeds, R&D platforms
- Sensors, measurement equipment
- Smart biotechnologies
- Smart machinery, equipment
- Smartmaterials
- Traceability tools
- Training educational actions
- Urban planning
- **INNOVATION** (Is the factsheet describing an innovative best practice?)
- Yes
- No

Contact data

- **OWNER OR AUTHOR ORGANIZATION**
- **OWNER OR AUTHOR NAME**
- **OWNER OR AUTHOR E-MAIL**
- **OWNER OR AUTHOR WEBSITE**
- **CONSENT FOR PUBLICATION**
- Accept
- **CONSENT FOR CONTACT DETAILS**
- Accept
- **REPORTER ORGANIZATION**
- **REPORTER NAME**
- **REPORTER E-MAIL**

Multimedia (collect if available)

- **MAIN PICTURE** (Main picture or image to illustrate the best practice)
- **MAIN PICTURE CAPTION** (Description/explanation of picture content)
- **LOGO OF BEST PRACTICE (FILE)**
- **LOGO OF MAIN ORGANIZATION (FILE)**
- **LOGO OF PROJECT (FILE)**
- **ADDITIONAL VISUAL 1**
- **ADDITIONAL VISUAL 2**
- **ADDITIONAL VISUAL 3**
- **ATTACHMENTS**
- **PICTURES COPYRIGHT (AUTHOR / OWNER OF PICTURE REFERENCE (GIVES CONSENT FOR PUBLICATION ACCORDING TO OUR TERMS))**
- Give consent
- **HAS VIDEO**
- Yes
- No
- **VIDEO URL** (Vimeo or Youtube URL – more than one video is possible)
- **DESCRIPTION** (The description which may be used as a label)

Resources and references

Dissemination Level [PU]

- **MAIN WEBSITE** (URL of the website of the best practice or its documentation)
- **PROJECT REFERENCE** (Name of project, grant number and/or funding organisation)
- **PROJECT WEBSITE** (Website of project or funding programme/organization)

UP TO 3 ADDITIONAL RESOURCES ADDITIONAL

TITLE - RESOURCE 2

LINK - RESOURCE 2

FILE - RESOURCE 2

Additional Features

- **TYPE OF WOOD** (Type of wood, wood/tree species, or wood product)
 - Non-stemwood
 - Recycled or waste wood
 - Stemwood
- **ORIGIN OF WOOD** (Source of wood, type of supplier or industry)
 - Agriculture/plantations
 - Deconstruction work
 - Forest
 - Industry
 - Landscaping
 - Municipal woodlands
- **MOBILIZATION POTENTIAL** (Provide, if possible, the growth of wood mobilised compared to normal practice (in % or in m³/ha) or the absolute increase of wood mobilised (in m³/area affected) and add a short explanation.
 - **KIND OF WOOD CONCERNED**
 - **SUSTAINABILITY POTENTIAL – VALUE**
 - Very positive
 - Positive
 - Medium
 - Negative
 - Very negative
 - **SUSTAINABILITY POTENTIAL**
- **IMPACT ON ENVIRONMENT & BIODIVERSITY**
- **EASE OF IMPLEMENTATION – EVALUATION**
 - Every easy
 - Easy
 - Medium
 - Difficult
 - Very difficult
- **ECONOMIC IMPACT** (Provide, if possible, the growth of the company's turnover (in %) or the cost effects (in €/m³ or in €/ha) and add a short explanation.)
 - JOB EFFECT
 - INCOME EFFECT
 - SPECIFIC KNOWLEDGE NEEDED
 - COSTS OF IMPLEMENTATION (EURO - €)
 - COSTS OF IMPLEMENTATION (DETAILED)

- EXPLOITATION POTENTIAL
- KEY PREREQUISITES
- COUNTRY REGION CITY

CLIMATE-ADAPT

<https://climate-adapt.eea.europa.eu/en/knowledge/tools/case-study-explorer>

Selection criteria

Five mandatory criteria have been defined for selecting Climate Adapt case studies:

- Clear link to climate change adaptation: the case studies shall describe measures that have been clearly developed as response to climate change challenges, to reduce vulnerability to climate change and/or address its impacts or opportunities, therefore also adopting a long-term perspective.
- Actual implementation. Case studies shall describe either implemented/under implementation adaptation measures or initiatives that are preparing or enabling the conditions to implement adaptation (e.g., adjustment in governance such as improvement in processes, institutional settings, policies planning, and legislation), tracking both the process and the effectiveness of adaptation across Europe.
- Accessibility to more detailed information. More detailed information on the case studies shall be easily accessible and re-assessment should be feasible.
- Geographical scope. The case studies should have the same geographic coverage as Climate-ADAPT .
- Avoiding maladaptation. Initiatives that increase vulnerability of some locations and social groups, that strengthen the causes of climate change, and that create conflict with environmental and sustainability policy goals are not taken into account.
- **TITLE**
- **INNOVATION URL**
- **PROJECT NAME**
- **PROJECT ACRONYM**
- **PROJECT URL**
- **CREATOR**
- **LANGUAGES**

LICENSE

- DESCRIPTION (UP TO 500 WORDS)
- CLIMATE IMPACTS
- Droughts
- Extreme Temperatures
- Flooding
- Ice and Snow
- Sea Level Rise
- Storms
- Water scarcity
- No-impact specific
- CHALLENGES
- OBJECTIVES
- ADAPTATION MEASURES IMPLEMENTED IN THE CASE
- SOLUTIONS
- RELEVANCE FOR ADAPTATION
- Case developed and implemented as a climate change adaptation measure
- Case developed and implemented and partially funded as a climate change adaptation measure
- Case mainly developed and implemented because due of other policy objectives, but with significant consideration on climate change adaptation aspects

- KEYWORDS
- SECTORS
- Agriculture
- Biodiversity
- Buildings
- Coastal areas
- Disaster Risk Reduction
- Ecosystem-based approach
- Energy
- Financial
- Forestry
- Health
- Marine and fisheries
- Transport
- Urban
- Water management
- No-sector specific

- YEAR
- STAKEHOLDER PARTICIPATION
- SUCCESS AND LIMITING FACTORS
- COSTS AND BENEFITS
- LEGAL ASPECTS
- IMPLEMENTATION TIME
- LIFETIME
- CONTACT
- WEBSITES
- REFERENCE

- GOVERNANCE LEVEL
- Local
- National
- Sub-national regions
- Transnational region

- GEOGRAPHIC CHARACTERISATION
- Global
- Europe

Macro-transnational regions:

Biogeographical regions:

- COUNTRIES

Countries:

NUTS2 (if relevant):

Municipality (if relevant):

- PICTURES

Title:

Description:

Author:

Dissemination Level [PU]

Source:

- DOCUMENTS I

Metadata fields for Climate-ADAPT DB items type “Case studies”

	Fields	Format	Comments
Compulsory fields	Title	Free text	Name of the case study clearly identifying its scope and location (100 character limit)
	Description	Free text	Brief introductory summary description about the case study; it is meant to be a sort of abstract of the full case study description (1,000 characters limit)
	Climate impacts	Tick boxes	More than one allowed: Droughts, Extreme Temperatures, Flooding, Ice and Snow, Sea Level Rise, Storms, Water scarcity, No impact specific
	Challenges	Free text	Describe what are the main climate change impacts/risks and related challenges addressed by the adaptation solutions proposed by the case study. Possibly include quantitate scenarios and projections of future climate change considered by the case study (5,000 characters limit).
	Objectives	Free text	Describe the objectives, which triggered the adaptation measures (1,000 characters limit).
	Adaptation measures implemented in the case	Tick boxes	More than one allowed from the Climate-ADAPT list of adaptation options available at http://climate-adapt.eea.europa.eu/data-and-downloads
	Solutions	Free text	Describe the climate change adaptation solution(s) implemented (5,000 characters limit).
	Relevance of adaptation	Tick box	Select only one category below that best describes how relevant this case study is to climate change adaptation: <ul style="list-style-type: none"> • Case developed and implemented as a CCA (Climate Change Adaptation) measure; • Case developed and implemented and partially funded as a CCA measure; • Case mainly developed and implemented because of other policy objectives, but with significant consideration of CCA aspects.
	Keywords	Multiple item selection	Describe and tag this case study with relevant keywords; this must be specific and not general (e.g., avoid key words ex.: adaption, climate change, measure, integrated approach, etc.).
	Sectors	Tick boxes	More than one allowed, but all those selected should be explicitly considered in the other relevant fields of the form (in particular Challenges and Solutions). Available items: Agriculture, Biodiversity, Buildings, Coastal areas, Disaster Risk Reduction, Ecosystem-based Adaptation, Energy, Financial, Forestry, Health, Marine and fisheries, Transport, Urban, Water management, No sector specific.
	Year	Number	Date of case study publication or update
	Stakeholder participation	Free text	Describe the Information about actors involved, the form of participation and the participation process. Focus should be on the level of participation needed and/or adopted already (from information to full commitment in the deliberation and implementation process), with useful notes e.g., regarding motivations. (5,000-character limit)
	Success and limiting factors	Free text	Describe factors that have been decisive for a successful implementation and expected challenges or limiting factors, which may have hindered the process and need to be considered (5,000 characters limit).
	Costs and benefits	Free text	Describe costs (possibly providing quantitative estimate) and funding sources. Describe benefits provided by implemented solutions, i.e.: positive outcomes related to climate change adaptation, co-benefits in

			other areas, quantitative estimation of benefits and related methodologies (e.g., monetization of benefits for cost benefit analysis, indicators of effectiveness of actions implemented, etc.) (5,000 characters limit)
	Legal aspects	Free text	Describe the Legislation framework from which the case originated, relevant institutional opportunities and constrains, which determined the case as it is (5000- character limit)
	Implementation time	Free text	Describe the time needed to implement the measure, i.e. time frame, typically entered as a time range, with brief explanation (250 characters limit).
	Lifetime	Free text	Describe the lifetime of the measures, i.e.: time frame, typically entered as a time range, with brief explanation (250 characters limit).
Compulsory fields	Contact	Free text	Contacts of reference institution (and person) directly involved in the development and implementation of the case. This should enable others, who for example are interested to transfer the good practice, to request more detailed information or re-evaluate or update the case. Contacts should include: name, position, affiliation, address, telephone, personal e-mail address and generic e-mail address (500 characters limit).
	Websites	Free text	List the most relevant websites that refer to the original documents and information directly related to the case study and its responsible actors.
	Reference	Free text	List of 4-5 papers, reports of communication materials providing more detailed information on the case studies. Include also the link to the on-line available document. Please note that project websites must be included in the previous field.
	Governance level	Tick box	Select among: Local, National, Sub-national regions, Transnational region.
	Geographic Characterisation	Tick box – various level	Different levels of information are required (please specify in the template all the three): <ul style="list-style-type: none"> • Global or Europe; • Select the Macro-Transnational Regions (more than one allowed): Northern Periphery, Baltic Sea, NorthWest Europe, North Sea, Atlantic Area, Alpine Space, Central Europe, SouthWest Europe, Mediterranean, SouthEast Europe, Caribbean Area, Macronesia, Indian Ocean Area; • If known select the Biogeographical Regions (more than one allowed): Alpine, Atlantic, Arctic, Continental, Mediterranean, Panonian.
	Countries	Tick boxes	Input the country/ies related to the case study. Select also subnational regions according to NUTS2 classification. In case of local case study, include the municipality name
At least 1 Picture compulsory	Pictures	Various formats: jpg, png, bmp	Pictures of the area implemented interventions, and/or relevant charts, graphs and maps. More than one item allowed. At least one is compulsory; this should be more general (e.g., the area of the case study or the general something illustrating the general applied concept or the approached impact). For each picture, please include: (i) title, (ii) short description, (iii) author and/or source. Image publishing permission rights should be asked, in written form to case's owner (e-mail is enough).

	Documents	Doc or pdf	In case provide (1-2) documents highly relevant to improve case study description, such as report, plan, strategy, brochure, presentation. These will be uploaded in the case study page
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EU-FarmBook (used categories in the pilot version of the EU-FarmBook)

<https://eufarmbook.eu/>

- ELEMENT
- TYPE
- FORMAT
- TITLE
- DESCRIPTION 500 CHARACTERS
- PROJECT NAME
- PROJECT ACRONYM
- PROJECT URL
- PROJECT LOGO
- HIGH LEVEL SUBJECT
- SPECIFIC SUBJECT
- CATEGORY
- SUBJECT LEVEL 1
- SUBJECT LEVEL 2
- KEYWORDS
- CREATOR
- LANGUAGES
- LICENSE
- INTENDED PURPOSE
- DATE OF COMPLETION
- GEOGRAPHICAL LOCATION
- FILE SIZE

Forest Management Decision Support Systems

http://www.forestdss.org/wiki/index.php?title=Main_Page

- HAS FLAG
- HAS FULL NAME
- HAS COUNTRY
- HAS LOCATION
- HAS RESPONSIBLE ORGANIZATION
- HAS TYPE OF OWNER ORGANIZATION
- HAS RELATED DSS
- HAS START DATE
- HAS END DATE
- HAS DSS DEVELOPMENT STAGE
- HAS DECISION STAGE
- HAS TEMPORAL SCALE
- HAS SPATIAL CONTEXT
- HAS SPATIAL SCALE
- HAS DECISION MAKING DIMENSION
- HAS OBJECTIVES DIMENSION
- HAS GOOD AND SERVICES DIMENSION
- HAS WORKING GROUP THEME
- HAS WEBSITE

- HAS DESCRIPTION
- HAS REFERENCE
- HAS WIKI CONTACT PERSON
- HAS WIKI CONTACT E-MAIL
- HAS DSS DEVELOPMENT
- HAS DECISION SUPPORT TECHNIQUES
- HAS KNOWLEDGE MANAGEMENT PROCESSES
- HAS SUPPORT FOR SOCIAL PARTICIPATION

Incredible

<https://repository.incredibleforest.net/>

- **AUTHOR'S CONTACT:** maximum 3 people, full name, professional e-mail address and professional website.
- **AUTHOR'S ORGANISATION:** maximum 3, same order of author's contact.

- **THEME/QUESTION**

To be filled in by the rapporteur.

- **NON-WOOD FOREST PRODUCTS:** select the relevant ones of this innovation. If there are more than one, indicate the most relevant one, if there is any.
 - Aromatic & Medicinal Plants
 - Cork
 - Resins
 - Wild Mushrooms & Truffles
 - Wild Nuts & Berries
- **TYPE OF FACT SHEET**
 - RESEARCH
 - Practice
- **POSITION IN THE CHAIN VALUE:** select the most relevant one.
 - Forestry
 - Harvesting
 - Primary industry
 - Secondary industry
 - Marketing & Consumers
 - Policy
 - R&D
 - Training and support decision tools
- **TYPE OF DATA:** select the most relevant one.
 - Scientific book
 - Scientific article
 - Practitioner article
 - Technical documentation
 - EU publication
 - Project results
 - Database
 - Success story
 - Good practice
- **INNOVATION URL**
- **LANGUAGES**

- **LICENSE**
- **DATE OF COMPLETION**
- **SOURCE:** select the most relevant one.
 - Bibliographic review
 - Personal communication outside Incredible events
 - Personal communication in an Incredible events (interregional workshop)
 - Personal communication in an Incredible events (science to practice)
 - Personal communication in an Incredible events (cross-cutting seminar)
 - Personal communication in an Incredible events (policy forum)
- **SCALE:** geographical scale of application of the innovation presented in the factsheet.
 - Global
 - Continental
 - Sub-continental
 - National
 - Subnational
 - Local
- **PROJECT NAME**
- **PROJECT ACRONYM**
- **PROJECT URL**
- **COUNTRY OF THE INNOVATION**
- **REGION OF THE INNOVATION**
- **TITLE**

Max 150 characters

- **KEYWORDS:** maximum 6 keywords.
- **FIGURE 1:** send it to the rapporteur (your INCREDIBLE local contact point of your iNet) attached by e-mail along this form.
 - Figure for decorative purposes, no caption
 - High quality, files must be less than 20 MB
 - Allowed file types : png gif jpg jpeg
- **FIGURE 1 CAPTION AND CREDIT**
- **FIGURE 2:** send it to the rapporteur (your INCREDIBLE local contact point of your iNet) attached by e-mail along this form.
 - Figure for explanatory purposes (can be a graphic or a table), caption required
 - High quality, files must be less than 20 MB
 - Allowed file types : png gif jpg jpeg
- **FIGURE 2 CAPTION AND CREDIT**

- **LOCATION**

Indicate a location (at municipal level) that could be assigned to this factsheet (for illustrative purposes only)

- **OBJECTIVE**

min 300 characters to max 600 characters

What problems/opportunities does the project address that are relevant for the practitioner/end-user, and how will they be solved ?

- **CONTEXT**

Min 300 characters to max 600 characters.

E. g. drivers or other causes that were at the origin.

- **MAIN RESULTS**

Min 500 to max 750 characters

- **MAIN PRACTICAL RECOMMENDATIONS**

Min 500 to max 750 characters

- **IMPACTS AND WEAKNESSES**

min 300 to 600 characters max

- **FUTURE DEVELOPMENTS**

Min 300 to max 600 characters

- **FURTHER INFORMATION**

List of references (scientific or grey literature), links to films or websites, etc. If a reference is included, please follow the reference style of (<https://www.elsevier.com/journals/forest-ecologyand-management/03781127/guide-for-authors>)

AFINET

<http://agroforestry.net.eu/afinet/kc-upload-manual-for-non-registered-users>

Contact person MOSQUERA LOSADA MARIA ROSA <mrosa.mosquera.losada@usc.es>

- **DOCUMENT TYPE** (eg. publication, poster, presentation, dataset, audio/video etc.)
- **INNOVATION URL**
- **TITLE**
- **DOCUMENT'S SUBTYPES** (if it has: book, book section, conference paper, journal article etc.)
- **DOCUMENT'S ENGLISH TITLE**
- **PUBLICATION DATE**
- **AUTHORS**
- **ENGLISH DESCRIPTION** (Abstract)
- **ENGLISH KEYWORDS** (Which describe the document)

- **DOCUMENT'S LANGUAGE**
- **ACCESS RIGHTS/LICENSE TYPE** (eg. open access, closed access etc.)

You can set the **optional parameters** if you would like to. These parameters may be the following:

- **DOCUMENT'S IDENTIFIER**
- **PUBLISHER**
- **CONTRIBUTOR(S)**
- **PROJECT NAME**
- **PROJECT ACRONYM**
- **PROJECT URL**
- **GEOGRAPHICAL LOCATION**
- **REFERENCES**
- **ADDITIONAL NOTES**
- **ORIGINAL TITLE, KEYWORDS, DESCRIPTION** (if the document was written in a foreign language)
- **SPECIFIC PARAMETERS DEPEND ON THE TYPE OF THE DOCUMENT**
 - Journal title, volume, issue, date etc.
 - Conference title, date, place, website etc.
 - Book title, ISBN, publisher, date etc.
 - Thesis title, awarding university, supervisors.

Have you explored appropriate arrangements with the identified repository where your data will be deposited?

To ensure the visibility of the project, to the end-users we are discussing with the managers of the platforms to implement in their system the possibilities to search and explore the materials uploaded by **FOREST4EU** independently and distinctly from the rest of the collection. In some cases these could not be possible. However, in all the cases **GOFOREST** will be always used as keyword. Moreover, in all the materials uploaded in the different repositories the claim of the project such as: **"FOREST4EU- project has received funding from the European Union's Horizon Europe (HORIZON) under grant agreement no. 101086216"** will be added .

Will the data be deposited in a trusted repository?

As trusted repository **FOREST4EU** will use Zenodo.org (at CERN). Zenodo is publicly funded and takes up to 50GB of data for free. Zenodo is not officially certified but meets all the requirements of a trustworthy digital repository.

Does the repository ensure that the data is assigned an identifier? Will the repository resolve the identifier to a digital object?

A FOREST4EU project page in Zenodo (community) has been set up for easy upload of project datasets. The community can be accessed through these links:

Collection URL: <https://zenodo.org/communities/forest4eu/>

Moreover, as indicated before, we are discussing to have an identification as FOREST4EU project in the available repositories.

This is already done for the Rosewood 4.0 platform that will allow to have a digital identifier as **FOREST4EU** for all the factsheets that will be uploaded there.

Will all data be made openly available? If certain datasets cannot be shared (or need to be shared under restricted access conditions), explain why, clearly separating legal and contractual reasons from intentional restrictions. Note that in multi-beneficiary projects it is also possible for specific beneficiaries to keep their data closed if opening their data goes against their legitimate interests or other constraints as per the Grant Agreement.

Yes, all data will be openly available except for the only data which contains personally identifiable information (e.g., individual evaluation forms) that are covered by GDPR and deliverables that are classified as sensitive.

If an embargo is applied to give time to publish or seek protection of the intellectual property (e.g. patents), specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.

The embargo is not applied to **FOREST4EU** data. Except to the personal data that cannot be distributed according to the GDPR Regulation

Will the data be accessible through a free and standardized access protocol?

The data produced by **GOFORREST** that were not covered by fee or standardized access protocols will be published open-access.

Metadata:

Will metadata be made openly available and licenced under a public domain dedication CC0, as per the Grant Agreement? If not, please clarify why. Will metadata contain information to enable the user to access the data?

Metadata will be accessible especially in Zenodo platform where it is allowed to upload the metadata and provide detailed information. In other repositories the upload of metadata it is not permitted. However, the data will be structured according to the repositories' metadata to allow the users to find the materials of **FOREST4EU**.

How long will the data remain available and findable? Will metadata be guaranteed to remain available after data is no longer available?

All the data will be stored in Zenodo repository, both the data and the metadata will remain open.

Will documentation or reference about any software be needed to access or read the data be included? Will it be possible to include the relevant software (e.g. in open source code)?

Many coding languages have developed open-access packages and tools to interact with the Zenodo repository allowing to download the metadata and the associated file. For example, here we reported the R-CRAN packages zen4R - R Interface to Zenodo REST API (<https://zenodo.org/record/7552287#.ZEIzKXZByWw>), and Python package

PyZenodo (<https://zenodo.org/record/3772154#.ZEIzW3ZByWw>). Both packages allow to download metadata and data from Zenodo repository. Both the packages and functions are open-source code.

3.3. Making data interoperable

What data and metadata vocabularies, standards, formats or methodologies will you follow to make your data interoperable to allow data exchange and re-use within and across disciplines? Will you follow community-endorsed interoperability best practices? Which ones?

Metadata was already described in the previous sections including the vocabulary and keywords that allow to create standards to extract/filter and download the materials product by **FOREST4EU** WP1 (Extended Abstract, Practical Abstract, Factsheet), WP2 (capacity building materials), WP3 (Innovation-Policy Matrix, Policy briefs), WP4 (communication and dissemination materials). As reported in previous sections, Zenodo repository can be accessed through an API with different language code.

In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies? Will you openly publish the generated ontologies or vocabularies to allow reusing, refining or extending them?

Now, the ontology created to store the data is related with ITHubs and different OGs involved, in order to understand the linked between the OGs, that have generated the data, and the related ITHub.

Will your data include qualified references¹ to other data (e.g. other data from your project, or datasets from previous research)?

The data generated will always contain the reference of the any other data that will be used and will always contain the claim to the **FOREST4EU** project.

3.4. Increase data re-use

How will you provide documentation needed to validate data analysis and facilitate data re-use (e.g. readme files with information on methodology, codebooks, data cleaning, analyses, variable definitions, units of measurement, etc.)?

To guarantee the reuse of data the metadata will be published in the Zenodo repository. Moreover, the publication in other platforms that are already used by stakeholders dealing with the different ITHubs will guarantee a dissemination through existing communities. As we reported in the other sections of the present DMP, the Zenodo repository can also be accessed through a different AIP using different coding languages. The materials produced by **FOREST4EU** will be published open-access, that will guarantee the re-use.

Will your data be made freely available in the public domain to permit the widest re-use possible? Will your data be licensed using standard reuse licenses, in line with the obligations set out in the Grant Agreement?

Will the data produced in the project be useable by third parties, in particular after the end of the project?

All the materials produced by **FOREST4EU** in WP1 (Extended Abstract, Practical Abstract, Factsheet), WP2 (capacity building materials), WP3 (Innovation-Policy Matrix, Policy briefs), WP4 (communication and dissemination materials) and metadata will be licensed under the Creative Commons Attribution 4.0 International (CC BY 4.0) license. This means that reuse is allowed, provided appropriate credit is given and changes are indicated.

The data produced in the project will be useable by third parties, in particular after the end of the project. The provenance of the data will be documented, but not in a machine-readable format.

Will the provenance of the data be thoroughly documented using the appropriate standards?

¹ A qualified reference is a cross-reference that explains its intent. For example, X is regulator of Y is a much more qualified reference than X is associated with Y, or X see also Y. The goal therefore is to create as many meaningful links as possible between (meta)data resources to enrich the contextual knowledge about the data. (Source: <https://www.go-fair.org/fair-principles/i3-metadata-include-qualified-references-metadata/>)

Appropriate standard for the materials that will be collected in FOREST4EU are not available. However, during the project implementation, common formats and standards will be developed following the metadata to create document that can give free and easy access increasing the possibility of data re-used.

Describe all relevant data quality assurance processes.

The data produced in **FOREST4EU** will be controlled by the beneficiaries involved in each WP and Task. With a view to the functionality of ITHubs, transversal ITHubs and SC, the revision of the data and deliverables will be guaranteed. ITHubs Members will work to coordinate and prepare the materials, moreover if needed external experts can collaborate on voluntary basis to assess the quality of the materials and data products of **FOREST4EU**.

4. Other research outputs

In addition to the management of data, beneficiaries should also consider and plan for the management of other research outputs that may be generated or re-used throughout their projects. Such outputs can be either digital (e.g. software, workflows, protocols, models, etc.) or physical (e.g. new materials, antibodies, reagents, samples, etc.).

Other research output can be obtained by **FOREST4EU**. In this case the data, as requested by GrA will be published open access as for example scientific papers, codes and workflows used to analyse the data collected by OGs and others relevant stakeholders that will interact with **FOREST4EU** during the workshop/events/study visiting.

Beneficiaries should consider which of the questions pertaining to FAIR data above, can apply to the management of other research outputs, and should strive to provide sufficient detail on how their research outputs will be managed and shared, or made available for re-use, in line with the FAIR principles.

As for all the other data that is produced by FOREST4EU, except for personal data, also others research outputs will be uploaded in Zenodo to guarantee the re-used and interaction with other the data.

5. Allocation of resources

What will the costs be for making data or other research outputs FAIR in your project (e.g. direct and indirect costs related to storage, archiving, re-use, security, etc.) ?

The cost linked to the storage of data in Teams platform before they publication are covered by the coordinator though own cloud space infrastructures. The FAIR repository chased Zenodo allow to upload data for free, so we considered just Personal Month as cost for analysing, archiving, and managing the data. During the proposal the PM rate for each beneficiary have been already calculated according to the activities needed to produce and manage data and results. The cost for data security oversees the coordinator though its own infrastructures. The personal data collected in the project related with stakeholders and Coordinators of the OGs linked with FOREST4EU will be preserve in a security database as request by GDPR.

How will these be covered? Note that costs related to research data/output management are eligible as part of the Horizon Europe grant (if compliant with the Grant Agreement conditions)

The cost for open access scientific publications will be covered by beneficiaries through the other cost category or with the services costs.

Who will be responsible for data management in your project?

All partners are responsible to handle data according to the guidelines defined by the applicable data regulations as well as this DMP. However, the project manager is in charge to control the DMP and control that the data will be created and re-used according to the DMP.

How will long term preservation be ensured? Discuss the necessary resources to accomplish this (costs and potential value, who decides and how, what data will be kept and for how long)?

The resources for long term preservation (costs and potential value) will be covered by the Coordinator and it will be kept for at least 5 years after the project finalization.

6. Data security

What provisions are or will be in place for data security (including data recovery as well as secure storage/archiving and transfer of sensitive data)?

In **FOREST4EU**, personal data will be collected and processed. This personal data can be connected to the person, for example, with name, email address, work related information, and their interaction with the project (such as answers to interviews, events, ITHubs Members). Respondents and participants of interviews, surveys and the focus group meeting will receive information on what will happen with their personal data, and what their rights are in this respect. The controller and holder of personal data will be the organisation responsible for the respective milestone or deliverable. All involved organisations will follow applicable data protection regulations at their own institutional cost. Separate databases for stakeholder analysis, identification, and selection will be created in full respect of said regulations. Personal information of participants is used only if the participants have given their consent for the use and because the use is necessary for the implementation of **FOREST4EU** in the public interest (incl. storing project material for audits). Personal data might also be used to comply with rules and regulations applicable to project partners. Transfer of personal information may be shared with third parties, in or outside of the EU, for the purposes mentioned above. Such sharing of personal information with a third party can take place if the concerned subject has consented to it and it is necessary for project implementation that is carried out in the public interest. When the information is no longer needed for the purposes described above, the data is either deleted or anonymised. All personal information will be protected with appropriate technical and organisational measures, such as a strict access rights policy and confidentiality arrangements. These measures will depend on the risks associated with the processing. All personal information will be encrypted, and whenever possible also anonymised. Access to the personal information is given only on a need basis to fulfil tasks in relation to the purposes stated above. The respondents will have the right to ask the project consortium about processing their personal information and, if so, what information is processed. If respondents think that certain information should not be used, or if they consider some information incorrect, they can contact the designated data protection officers with their requests at the visibly marked contact e-mail address. If the respondents consider that their personal information has not been handled in a correct way, they will also have the right to make a complaint.

- Network protection, encryption, access control, and hardware and software update
- Assessing potential threats, vulnerabilities or exploitation techniques which could affect ICT, as well as proposing action to be taken: this can for example be blocking access to specific web pages and blocking email addresses from being received by email recipients.
- Identifying and addressing changes in the ICT environment or externally which affect, or could affect, the security management
- Setting up incident/breach management processes for the ICT environment and ensuring that the protocols are actively activated/implemented as required.

Open results deposited in the Zenodo repository are stored in CERN's EOS service (<http://eos.web.cern.ch/content/about-eos>) in an 18 petabytes disk cluster. Each file copy has two replicas located on different disk servers. For each file, two independent MD5 checksums are stored. The servers are managed according to the CERN Security Baseline for Servers. For more information see <http://about.zenodo.org/infrastructure/> 1-100.

Annex 1 – Internal communication platform

Executive summary annex 1

This annex contain the information related with the use of Internal communication platform: Microsoft Teams. The document illustrate how to use the platform and its implemented functions. Moreover, illustrate how to use the different channels and how to upload and use the documents.

1. How to start MS Teams



You can download Teams on the mobile phone (easier to check information) and/or on the computer.

On the mobile phone: Download the app. If you have two Teams accounts, you can switch without logging out (see below for more information on how to work on Teams with multiple accounts)

On the computer: Teams typically comes pre-installed with your employer’s Microsoft Office version. If you do not have it, you can:

download it for free: <https://www.microsoft.com/en-us/microsoft-teams/download-app>.

You can access to the FOREST4EU team through the link to the SharePoint and to the Teams app [here](#). You will see the General channel and the other channels you were added to (see section 3 to have an overview of the channels available on Teams).

If you have multiple Teams accounts and want to work in them simultaneously, follow these steps:

As recommended above, you can download **Teams on your mobile phone** which is convenient to check messages and conversations while allowing you to switch between different accounts without logging out. To add an account on your mobile phone, go on your profile picture (top-left) and select “+ Add account” from the list. Follow the instructions.

On your computer, you can **open a separate instance of Teams in your browser**. Visit

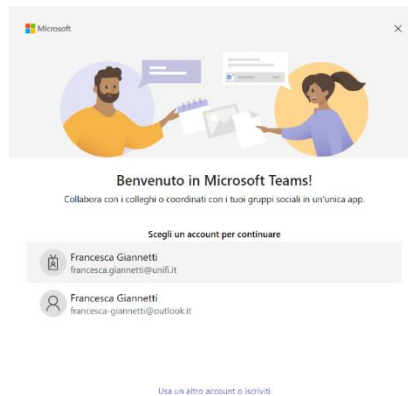
<https://www.microsoft.com/en-us/microsoft-teams/log-in> and sign in with your second Teams account. If they ask you to download the Teams app, click on “Use the web app instead”.

If you do not want to open your browser every time, you can **create a direct shortcut that you can use from your desktop or taskbar**. You can find the instructions here: <https://www.onmsft.com/how-to/how-to-open-multiple-microsoft-teams-channels-in-separate-windows>.

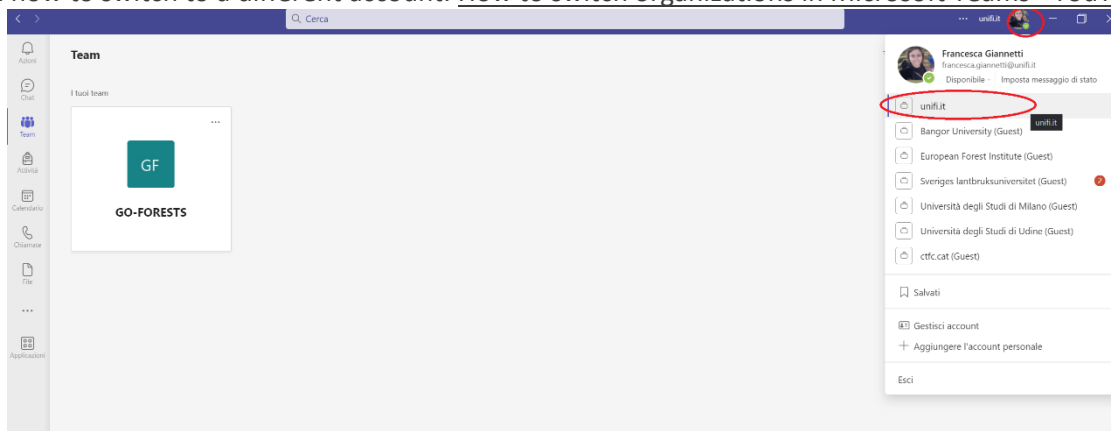
FYI: A new feature for switching accounts will be implemented by MS Teams in the second half of 2022.

Accessing FOREST4EU Team

Sign in with your e-mail address linked to the FOREST4EU Teams.

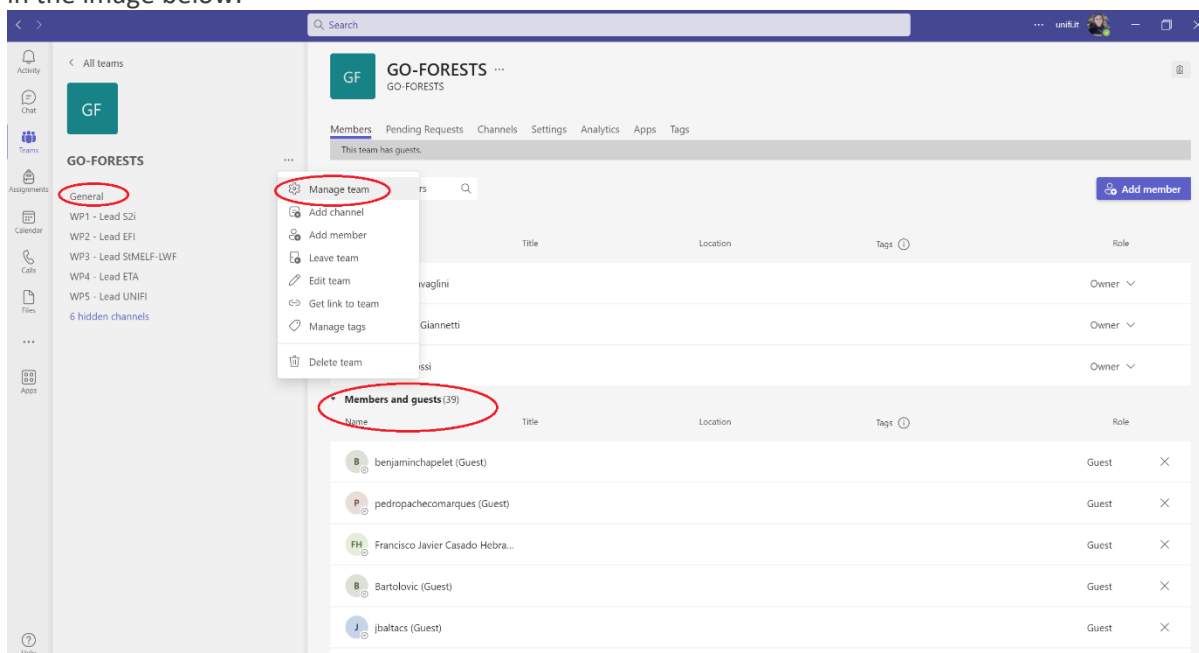


To switch to a different organizational Teams, look in the top right-hand corner of the Teams app. Click on your profile picture and there you will see the different organization Teams. Please refer to this video where you can see detailed on how to switch to a different account. [How to switch organizations in Microsoft Teams - YouTube](#)



2. Who has the access to the channels?

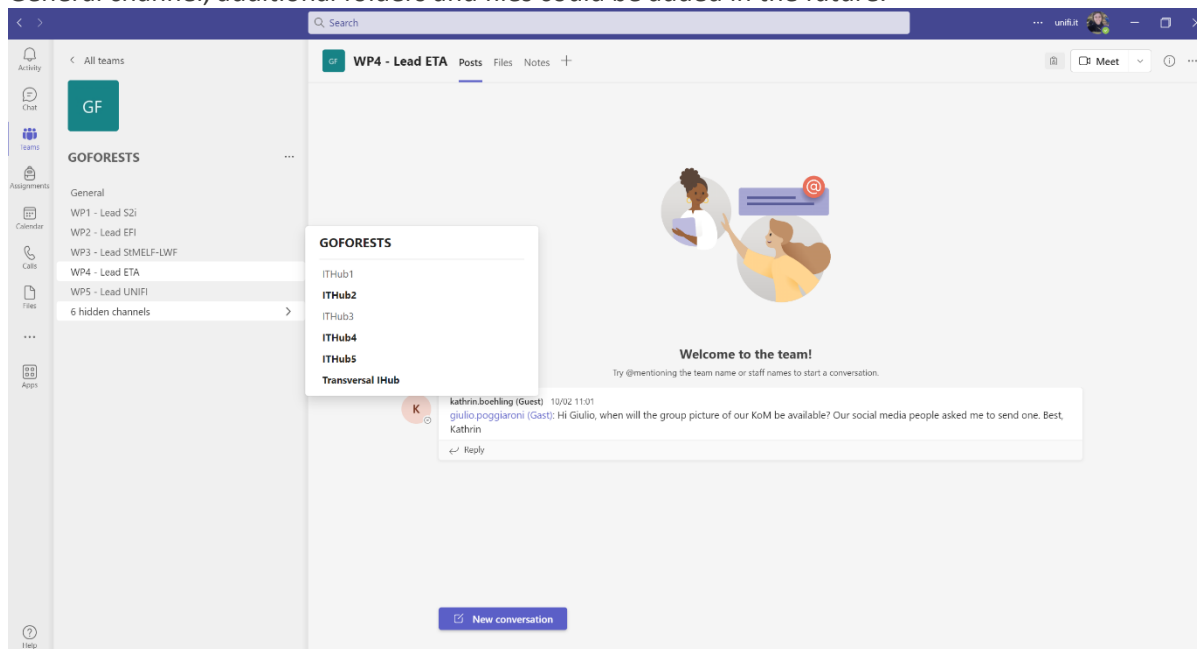
As a guest you can see the list of members in the General channel and the tags assigned to each member, as shown in the image below.



If you want to add new members or other email addresses to the FOREST4EU Team, please contact francesca.giannetti@unifi.it, davide.travaglini@unifi.it; or patrizia.rossi@unifi.it

3. Functions of the channels and how to find files

The figure below provides an overview of the various channels under FOREST4EU team. Please note that on the General channel, additional folders and files could be added in the future.



3.2. The General channel

The General channel is open to everyone. This channel has the following folders:

Communication material: This folder contains documents related to general communication of the project e.g. External and internal newsletters, presentation templates, flyers, visual identity of the project (logo and branding guidelines), partner logos, photos, etc.

External collaboration: Documents related to external collaborations, e.g GD sister projects.

Templates – Deliverables, milestones: Word templates for deliverables and milestones templates.

3.2. The WP 5 channel

WP 5 – Management of the project channels is open to everyone. This channel has the following folders:

Official documents: This folder contains documents related to administrative aspects that need to be shared with all partners, including the proposal, the grant agreement and consortium agreement.

Partner contact e-mails lists: This folder contains an excel document with contact info of all FOREST4EU members.

KoM and Annual Meeting: contain the KoM and annual meeting documents and presentation and related minutes.

Deliverables: This folder contains deliverable documents, including final versions.

Meetings: Minutes and materials for WP meetings.

Milestones: This folder contains Milestones documents

Tasks: This folder contains tasks documents in progress divided by tasks.

Workplan: Workplan_Table excel document

3.4. The WP channels

The **Work Package (WP) channels** are accessible and editable by all members of FOREST4EU to share the working files. Every WP channel has their own chat and calendar. The documents are visible to members belonging to other WP. **WPs channels are free to add files and folders as needed, but the folders listed below are to be kept in each WP channel:**

Deliverables: This folder contains deliverable documents, including final versions.

Meetings: Minutes and materials for WP meetings.

Milestones: This folder contains Milestones documents

Tasks: This folder contains tasks documents in progress divided by tasks.

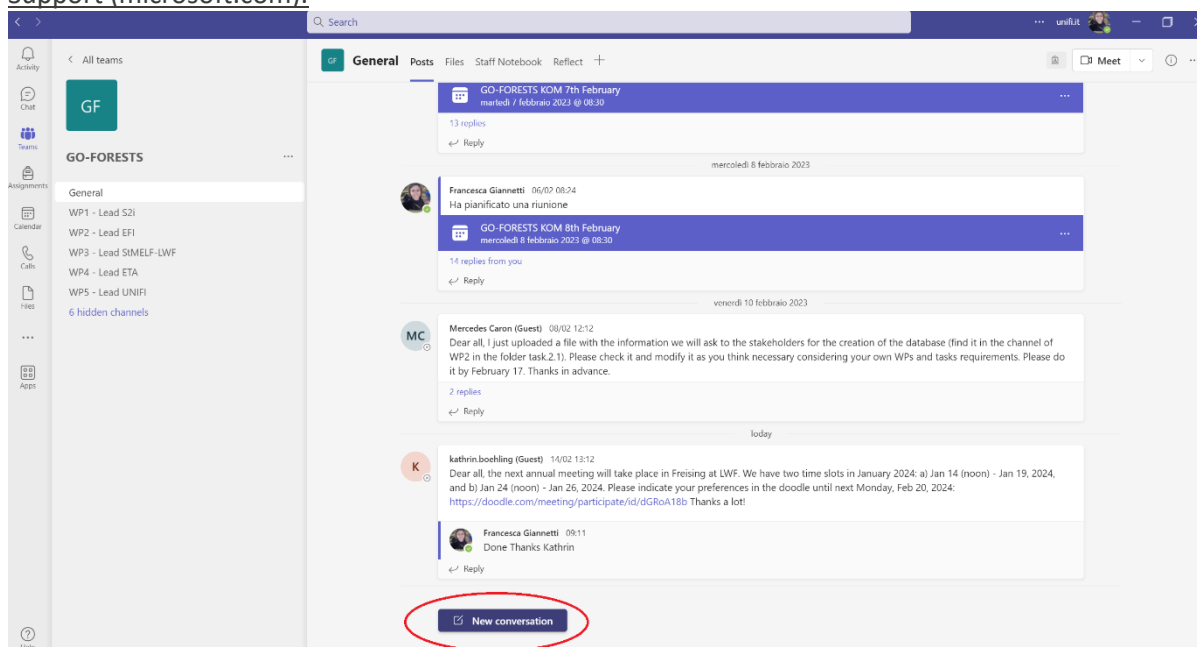
Workplan: Workplan_Table excel document

4. Internal communication

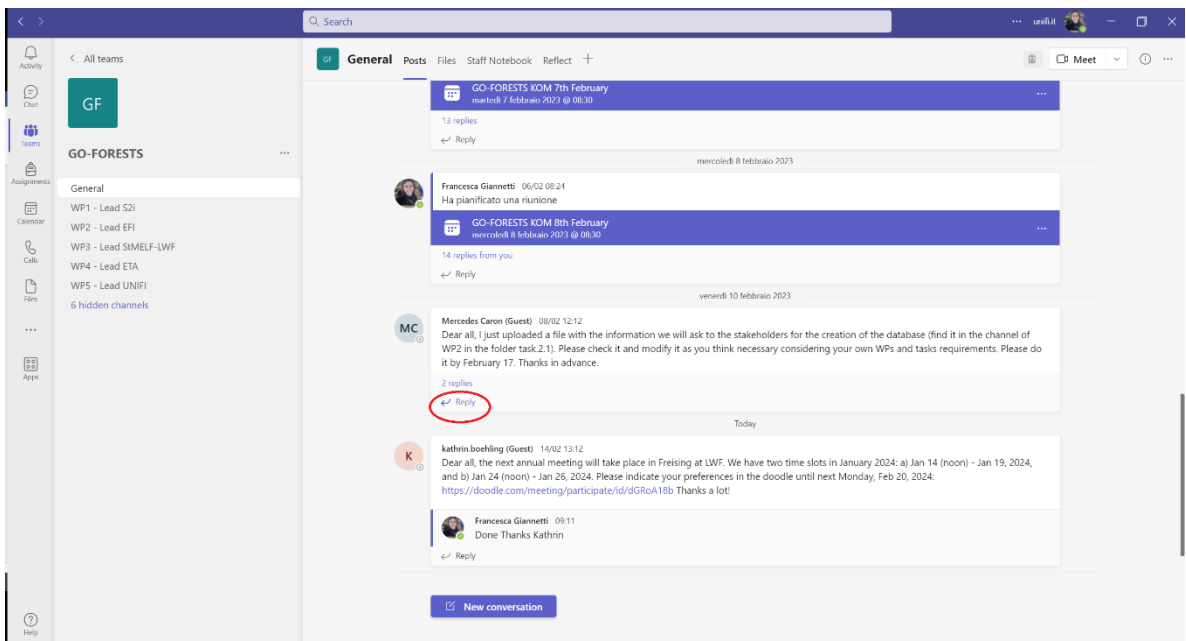
4.1. Writing messages

The chat shall be used for important announcements and urgent to do's. In the General channel, only important information concerning all project members will be shared. WPs should agree upon their preferred communication mode – if they allow for informal chat or rather focus on information exchange.

To write messages you can access the chat by clicking on the button “new conversation” (see the red circle in the screenshot below). This video gives an overview on how to use the channels conversations: [Work in channels - Office Support \(microsoft.com\)](#).



To reply to a message, do not start a new conversation, but click on the button “reply” under the message. When a message is addressed to you, but you don't need to respond with a text, we recommend to still react to the message, by using the emoticons appearing on the message.



When writing your message, click the Edit symbol at the bottom left. Edit mode allows you to add links, a title (we recommend adding the title to highlight the subject of your message), or change fonts, etc. **You can edit or delete a post that has been already posted by you by pressing the three dots to the right of the post.**

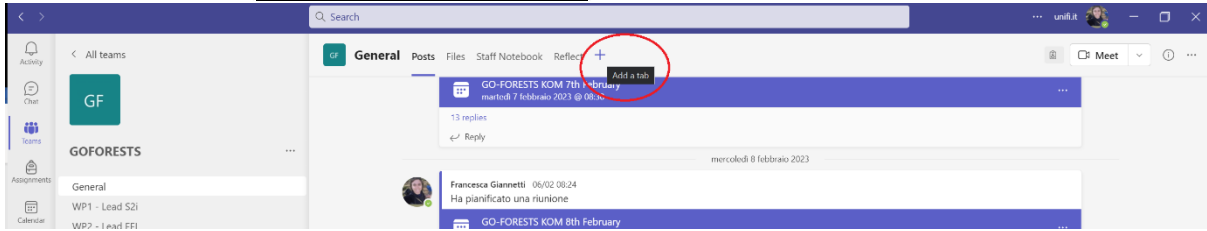
4.2. How to use Tags

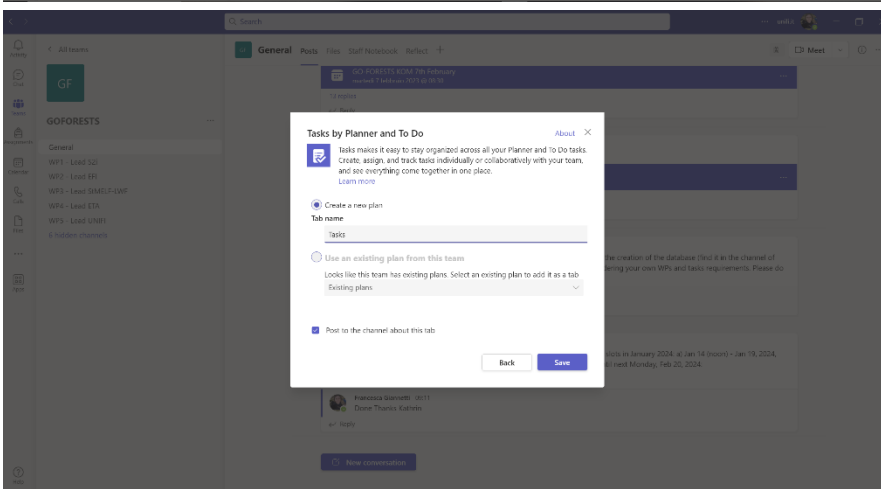
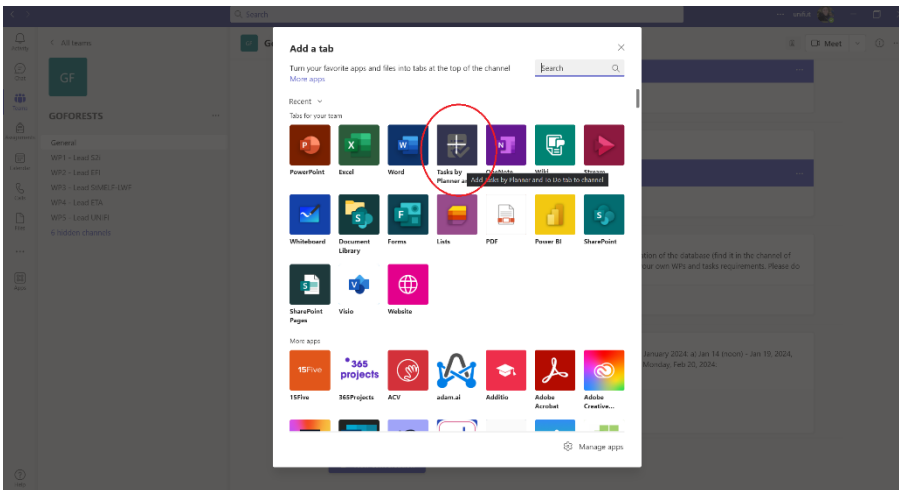
In case you are writing directly to another member of Teams you should use the @mention function by typing the “@” followed by the name of a person. If you want to address everyone in FOREST4EU, type “@FOREST4EU”. Look at this [video](#) explaining how to mention people and [use tags](#). When you use tags the person or group tagged will receive an email notification, so you are sure she/he will see your message. The tags are used for SC, ITHubs, WP Leader, and WP participants.

Name	Members	Description
@SC	13	
ITHUBmanagers	6	ITHUB managers
WPLEaders	7	WP Leader group

4.3. How to attribute tasks

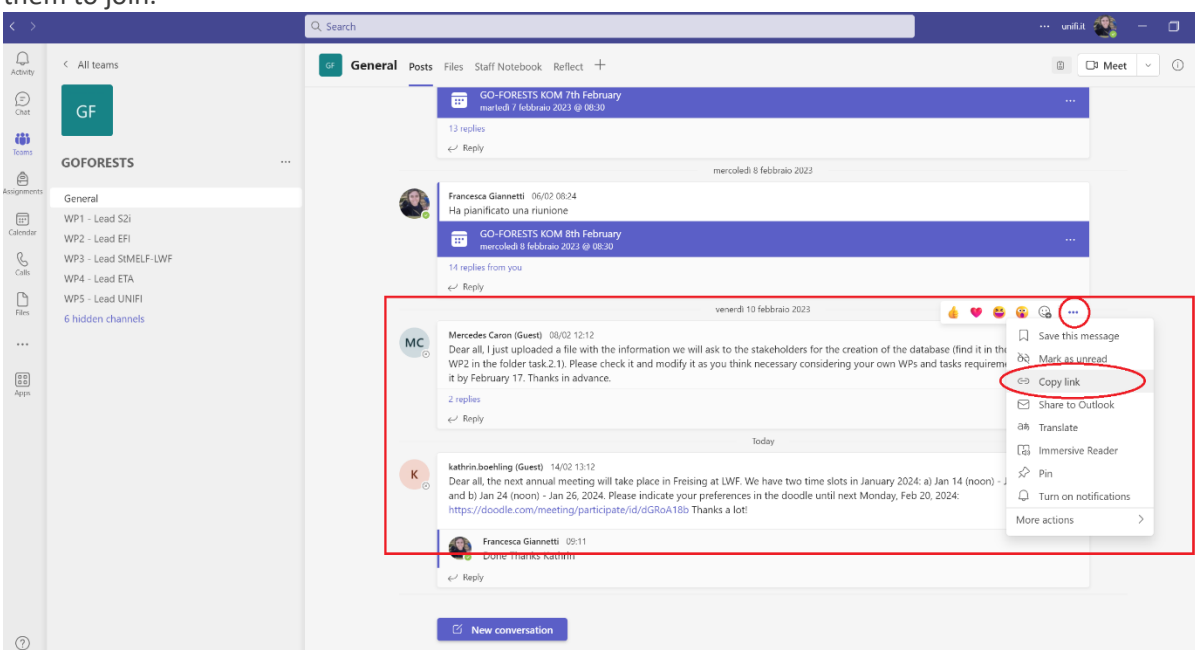
In case of necessary to attribute a specific activity to one member, WP-Leaders and ITHUBs manager can use the tools “Tasks and To-Do”. That tool allow to attribute a specific activity to one member of group of member giving the deadline. More information can be seen in that [video](#) that show how the tool works. In case WP leads, ITHubs managers and task leaders are interested in this MS Teams function and wont to know more they can contact Francesca Giannetti (francesca.giannetti@unifi.it)



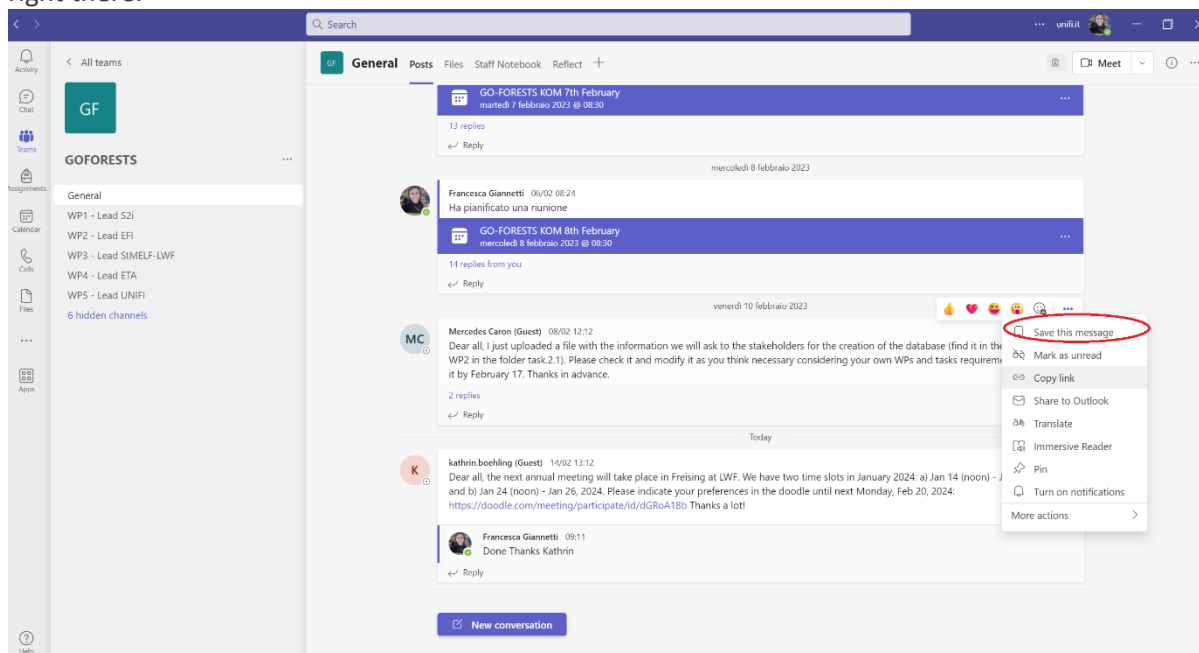


4.4. How to share and save a conversation

To point someone to a conversation they may have missed, click the ellipsis icon in the first message of a thread, and click Copy link. You can use that link to send to anyone who needs to go right to the conversation you want them to join.

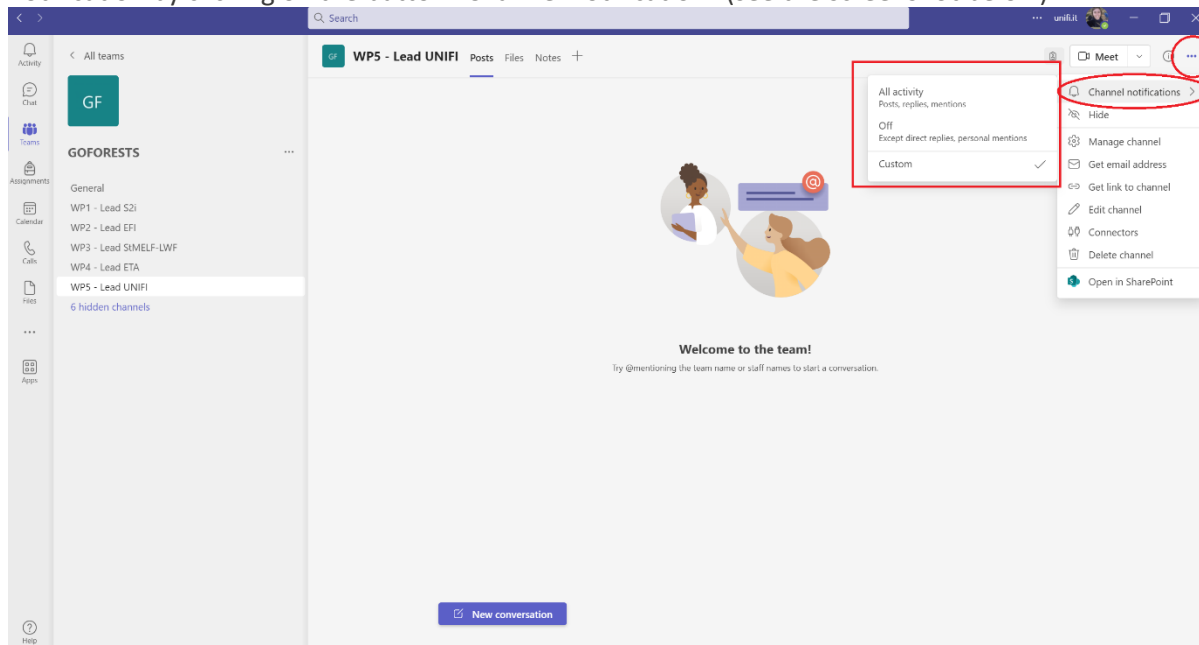


You can also **Flag a conversation** for follow-up. Hover over the top right corner of a conversation and click the Save this message icon when it appears. Click on your profile photo, and then Saved—all your saved conversations will be right there.

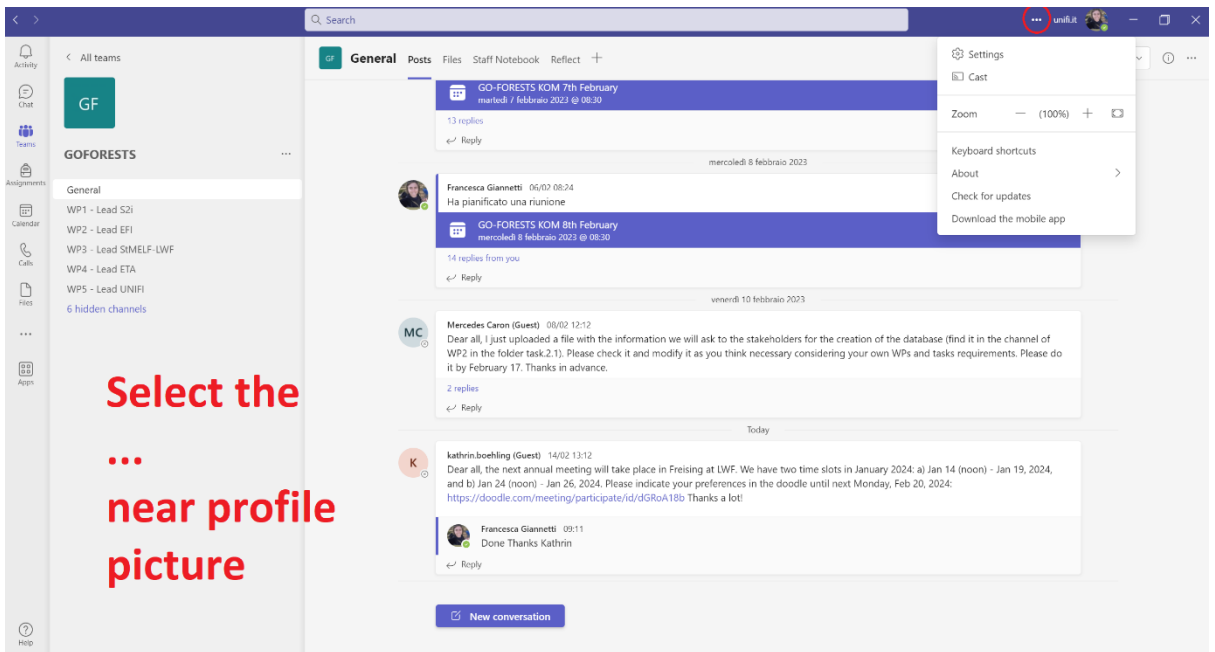


4.5. How to avoid missed activities/receive notifications

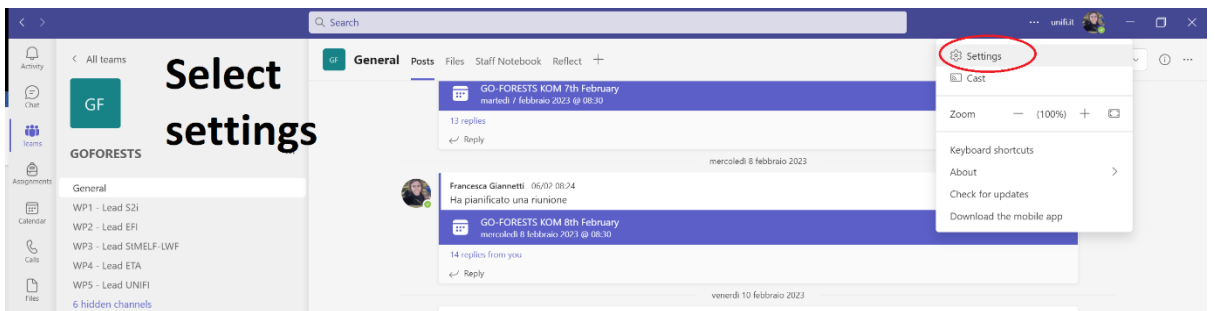
To receive updates and messages from the FOREST4EU Team, it is important you activate the notifications. You can choose the channels that are relevant to you in a specific moment of the project and activate or deactivate the notification by clicking on the button “Channel notification” (see the screenshot below).



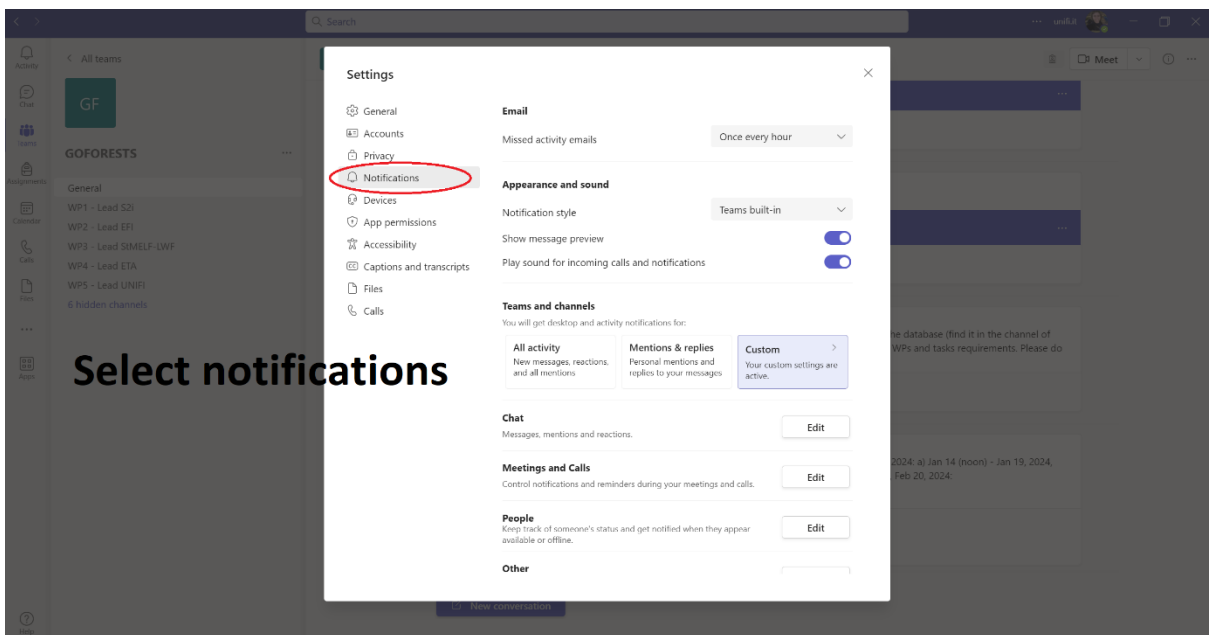
You can turn them off if you don't want to receive any updates (besides the messages where you are mentioned in). We recommend **activating the notifications for all the activities in the General channel if you are a WP leader or ITHUB manager**. This way, you are sure you will not miss any meeting plans, agendas, minutes, or other important messages from the colleagues. However, if you are part of the administrative or finance staff, you might not need to keep the notification activated, and you can then customize them by clicking on “Custom”. Another option that we highly recommend is to activate the function to **receive daily email updates**. You can do it by following these steps or watching this [video](#):



1.

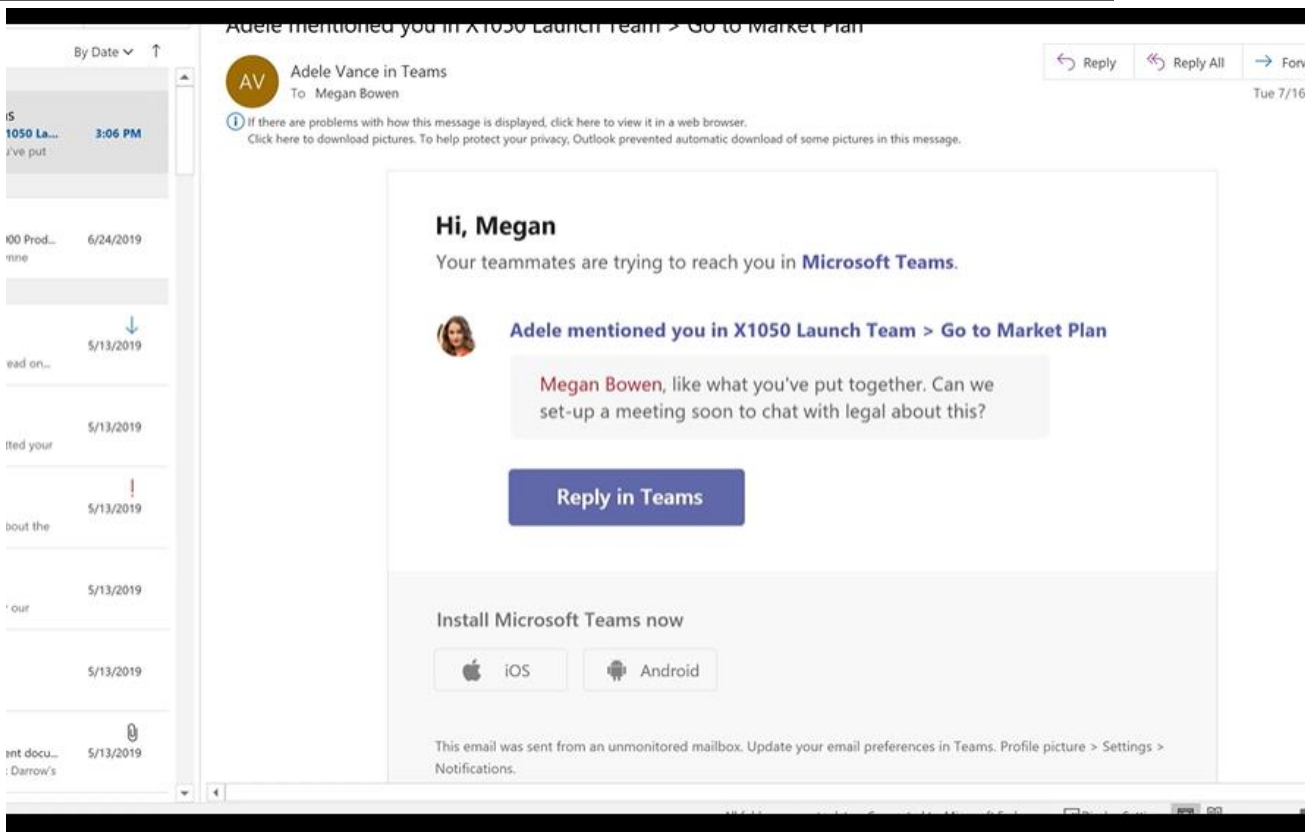
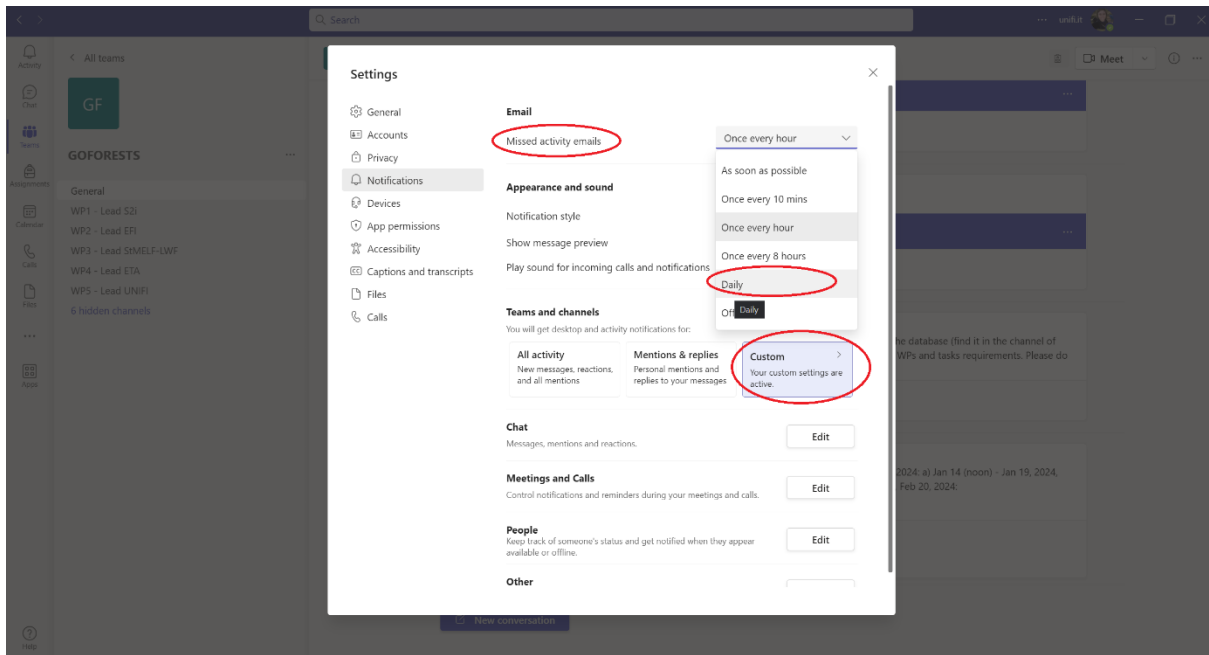


2.



3.

4. Select missed activity daily and notification Custom

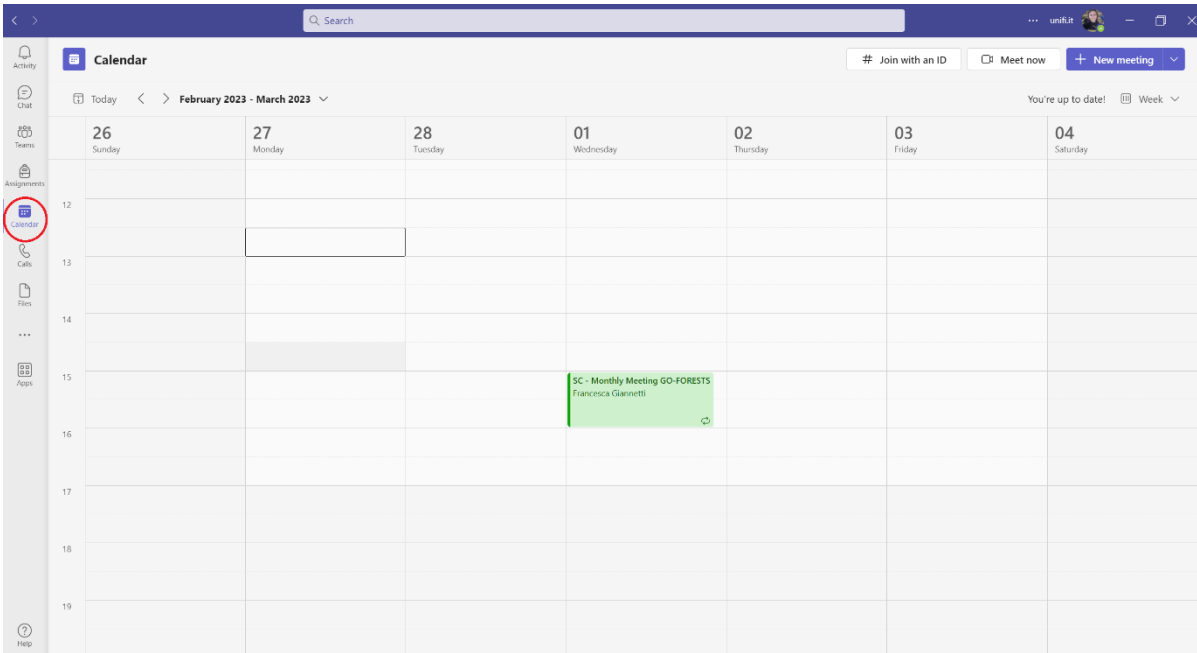


5.

4.6. How to use the Calendar function

The calendar function is available in the General channel as well as in the WPs channels. Here you will find the meetings planned within FOREST4EU.

To invite to a meeting, you can send a calendar invitation to a specific person or group of people by going to **your own personal calendar** and clicking on the day and time you are planning to have the meeting.



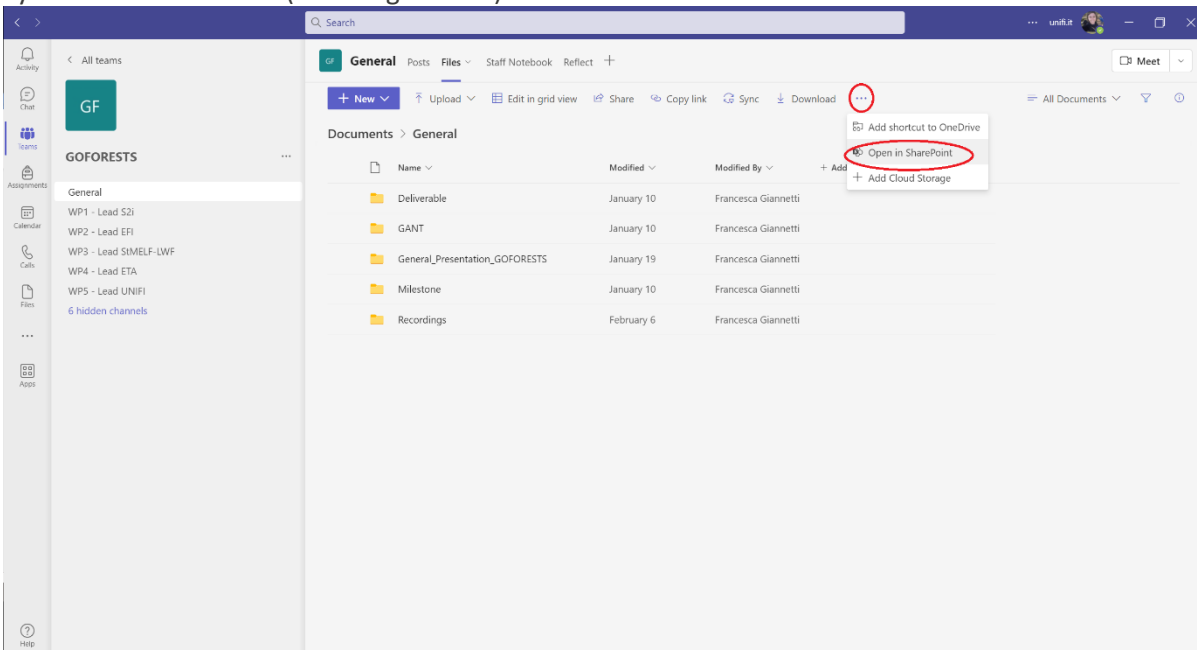
On the field “Add required attendees” you add the people required for your meeting.

5. File management

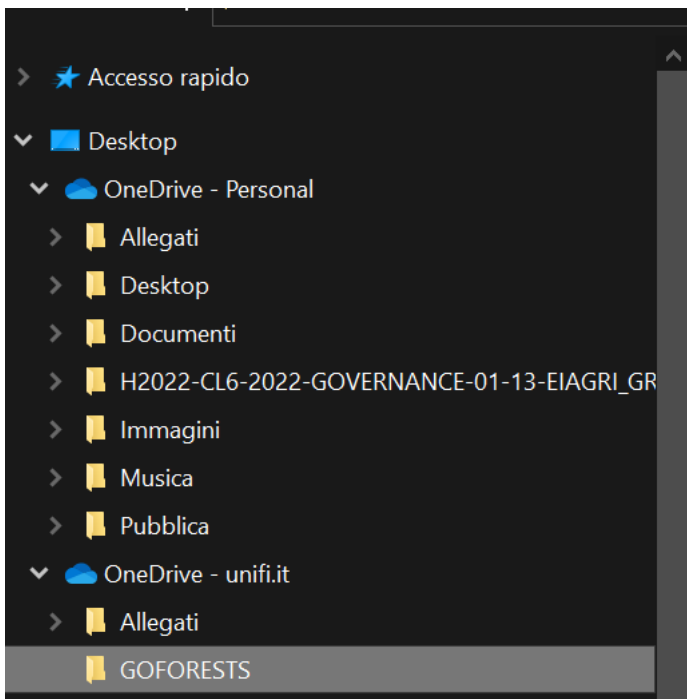
5.1. How to open Teams Documents on SharePoint or as a local driver

From the channel on Teams, you can click on “Open in SharePoint” (see image below).

If you would like to have the channel and its folders also as a local driver (available from your desktop), you can click Sync on the SharePoint (see image below).

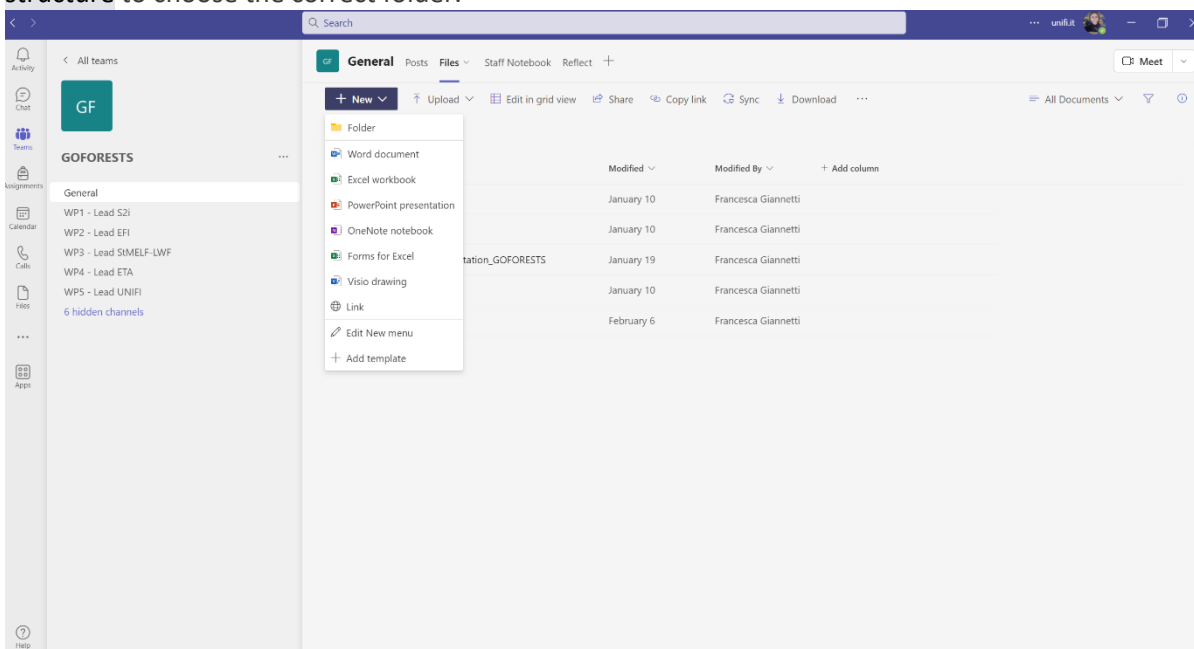


Eventually you will have this overview of the channels on your desktop:



5.2. Creating or uploading new files

You can create new files by clicking on “New” in the appropriate folder. You can also drag existing files from your computer to the channel. Please consult the section [3 Finding files in a channel - Simplified Teams Documents structure](#) to choose the correct folder.



Work package leaders are asked to upload to the WP channel the final version of the deliverables and milestones, to allow the project coordinator (UNIFI) to deliver them to the EC.

5.3. Document formats and naming conventions

A lot of material will be prepared and shared during the implementation of the project. Table 6 shows the recommended formats and tools that shall be used.

In order to ease the communication process and the identification of documents and versions all partners are advised to use some naming conventions based on the principle of self-explanatory titles and versions. The general file name conventions are as follows:

[name of the document]_Vxy_date_[partner acronym/person name].FileExtension

The name of the document shall be as concise as possible but also self-explanatory i.e.,

Kick_Off_Project_Meeting_Minutes

The date should be presented in the form yyyyymmdd i.e., 20230115.

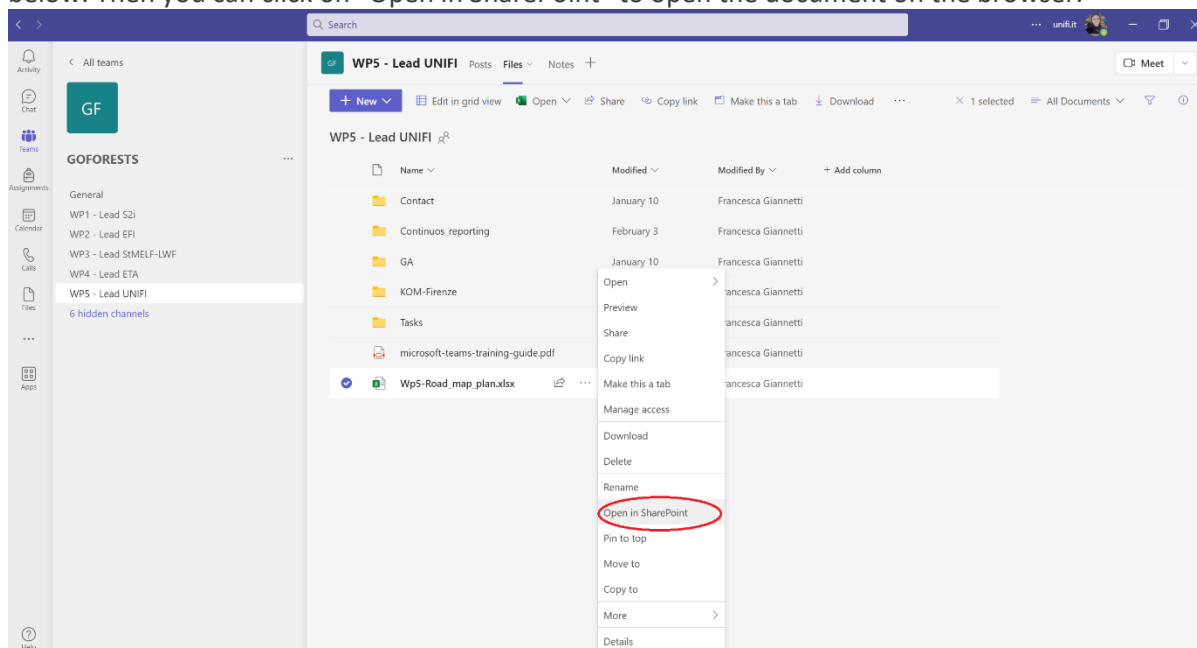
When uploading a deliverable and milestone, the name of the document of deliverables and milestones can include an M indicating milestone and a D indicating deliverable, the number and the title (e.g., D52Project-Management-Plan_yyyymmdd_UNIFI.doc).

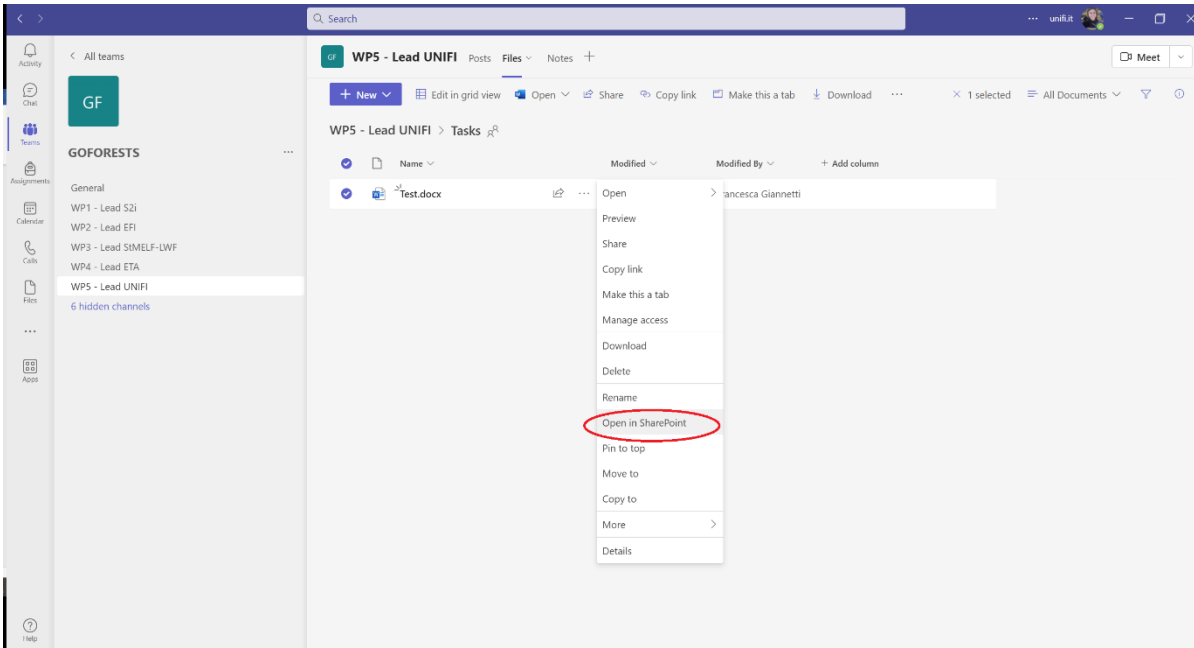
Tabella 1 - Tools formats recommended to be used in FOREST4EU


Type	Format	Production Tool	Version
Documents	.docx	Microsoft Word	“Word 2010 or later”, Google Docs
Data in tabular form and graphics	.xlsx	Microsoft Excel	“Excel 2010 or later”, Google Docs
Scientific papers	various	various	Any desktop or online release
Images	.jpeg, .png etc	Any software tools that can produce images	various
Portable Document Format	.pdf	Any software tools that can produce .pdf files	various
Presentations	.pptx	Microsoft PowerPoint	“PowerPoint 2010 or later”, Google Docs
Compressed files	.rar & .zip	WinRAR	WinRAR 5.60 or later

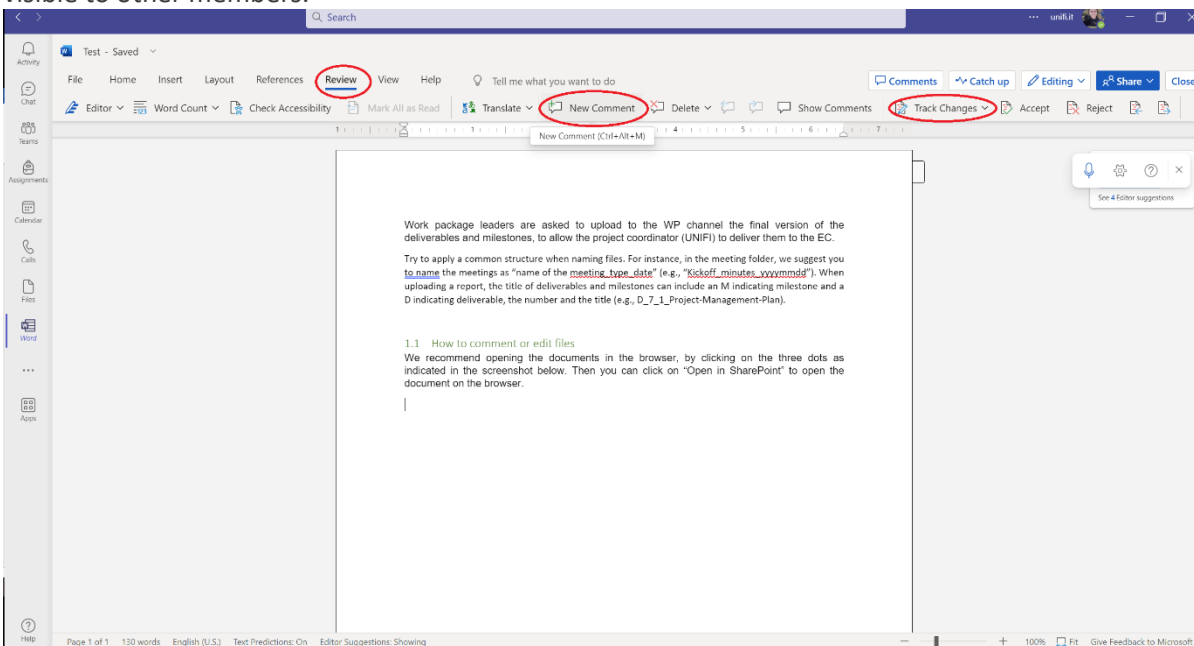
5.4. How to comment or edit files

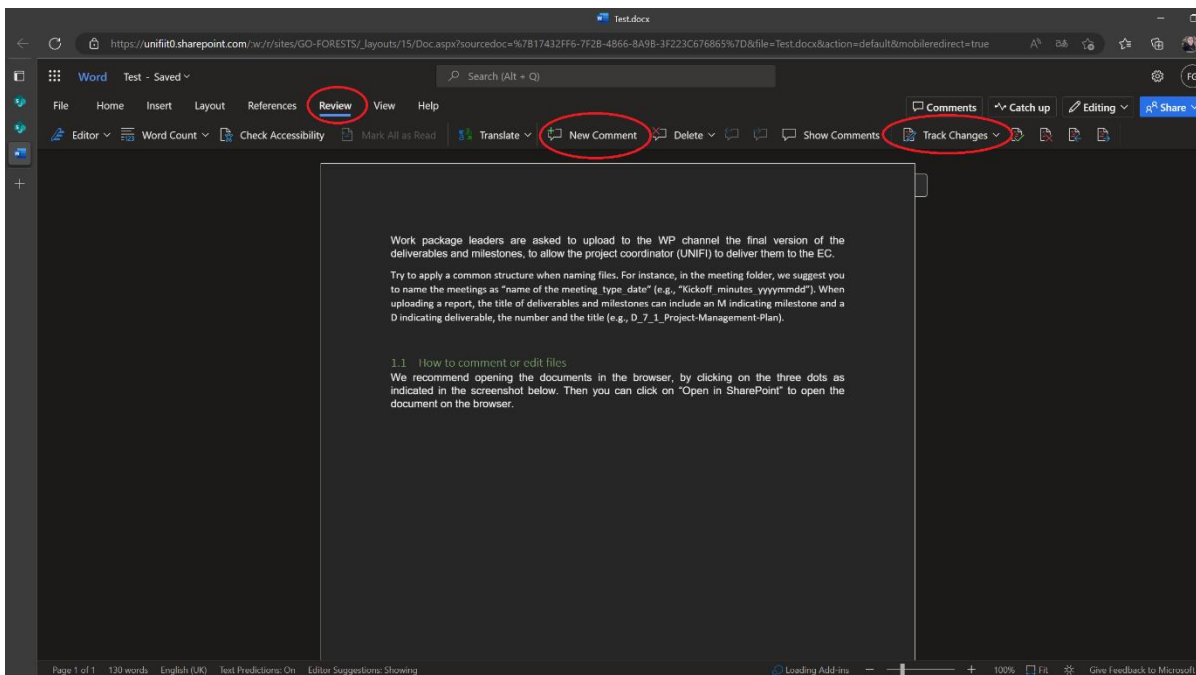
We recommend opening the documents in the browser, by clicking on the three dots as indicated in the screenshot below. Then you can click on “Open in SharePoint” to open the document on the browser.





Once you are in the document, you can make comments by clicking on the icon:  or add your changes directly to the text, use the Track Changes function. See the image below, how to add your changes in a way that is visible to other members.





6. Useful online resources

- [Video on how to change notification settings on MS Teams](#)
- [Video on how to mention people](#)
- [Video on how to use channels conversation](#)