



Transilvania
University
of Brasov



Master of Science in European Forestry (MSc EF)

Quality Assurance System and Procedures Handbook



MSc European Forestry
ERASMUS MUNDUS

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Glossary

AP	Applied period in forest institutions
APT	AgroParisTech
AUT	Agricultural University of Tirana
BFW	Austrian Research Center for Forests
BOKU	BOKU University
CAF	Chinese Academy of Forestry
CB	Consortium Board
CTFC	Forest Science and Technology Centre of Catalonia
EACEA	European Education and Culture Executive Agency
EB	Employer Board
EFFC	European forestry field course
EFI	European Forest Institute
EGD	EU European Green Deal
ELO	European Landowners' Organization
EMJM	Erasmus Mundus Joint Master
EMJMD	Erasmus Mundus Joint Master Degree
EU-FS	EU Forest Strategy
EQF	European Qualifications Framework
FSC GD	FSC International Center GmbH
GC	Grand Challenge
HEI	High education institution
IIASA	International Institute for Applied Systems Analysis
INRAE	Centre INRAE Grand-Est-Nancy
IPBES	Intergovernmental Science-Policy Platform on Biodiversity & Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
MSc EF	Master of Science in European Forestry
MSU	Michigan State University
NGO	Non-governmental organisation
NUBiP	National University of Life and Environmental Sciences of Ukraine
NWAFU	Northwest A&F University
ONF	Office National des Forêts
QRB	Quality Review Board
SDGs	Sustainable Development Goals
SME	Small and medium enterprises
SU	Stellenbosch University
TA	Thematic Area
TEEB	The Economics of Ecosystems and Biodiversity
UBC	University of British Columbia
UdL	University of Lleida
UEF	University of Eastern Finland
UFPR	Federal University of Paraná
UFR	University of Freiburg
UI	University of Ibadan
UNB	University of New Brunswick
UNFU	Ukrainian National Forestry University
UNITBV	Transilvania University of Brașov
USM	Moldova State University
USP	University of São Paulo
UTM	Technical University of Moldova
WU	Wageningen University

I. General overview

1. Scope

The 2-year Master programme (120 ECTS) "Master of Science in European Forestry (MSc EF)" provides a multidisciplinary and innovative programme to train future forest leaders who understand the wide variety of ecological and socio-economic drivers that affect forests in a diversity of settings and are able to manage trade-offs between policy and societal goals. The international networks of the European and non-European High Education Institutes (HEIs) involved in the MSc EF Consortium provide the platform to this degree programme. Teachers, invited scholars and enrolled students will be provided with excellent opportunities for mobility, and will be able to establish strong connections with the best international research institutions currently active in forest management (multiple ecosystem services, adaptation of forests to climate change, halting biodiversity loss).

This Quality Assurance System and Procedures Handbook (QASPH) describes how assessment outcomes are used by the Quality Review Board (QRB) to monitor, upgrade and improve the quality of the MSc EF programme. It is a reference guide for policies, procedures, principles and practices related to educational quality assurance in the MSc EF programme and is available at the programme website (www.europeanforestry.eu).

This handbook provides a framework and pointers for quality assurance. QA in the MSc EF programme is nevertheless not simply compliance based; it is equally focused on perceiving quality as fitness for purpose, consistency, and striving for excellence.

2. Basic information

Full name of the programme: Master of Science in European Forestry

EQF level: 7

Degrees awarded: Currently, the MSc EF programme issues a double degree. In the next phase, the MSc EF programme will deliver two types of master's degrees to graduates and will gradually move towards a joint degree with those Full partner HEIs who can award joint degrees:

Joint master's degree: Master of Science in European Forestry (the intended first joint degree).

Double degree, i.e., two national MSc degree certificates. The first degree will be issued by the Coordinator (UEF), as it is the host institution for the first year of the programme: Master of Science in Agriculture and Forestry (UEF). The second certificate is issued by the degree-awarding Full Partner HEI where the student spends the second year.

All Full Partners are universities that have a legal status and they have accreditation to deliver a master's degree in the designated field. In addition, all participating degree-awarding Full Partner HEIs are now ready and willing to take steps towards a joint degree. However, some national restrictions and specific requirements still exist in some countries. Therefore, it is planned that joint degrees will be developed by taking into account the specific requirements of the degree-awarding institutions and will first be awarded to those students who complete their second year at institutions that can award a joint degree. Also, the other Full Partner HEIs plan to implement joint degrees when possible (legal frameworks and the acceptance of electronic signatures, for example, must be taken into consideration). The Joint Diploma Supplement will be awarded to all students in addition to possible national Diploma Supplements, if required by the degree-awarding Full Partner HEI in question.

Number of ECTS points: 120 ECTS

ISCED field(s) of study: 08 – Agriculture, forestry, fisheries and veterinary

List of the institutions delivering the programme:

Name of the institution	Higher education institution (yes/no)	Degree awarding institution (yes/no)	Role in the consortium (i.e. coordinator etc.)
AgroParisTech (APT)	yes	yes	Full Partner
BOKU University (BOKU)	yes	yes	Full Partner
Transilvania University of Brașov (UNITBV)	yes	yes	Full Partner
University of Eastern Finland (UEF)	yes	yes	Coordinator
University of Freiburg (UFR)	yes	yes	Full Partner
University of Lleida (UdL)	yes	yes	Full Partner
Wageningen University (WU)	yes	yes	Full Partner
Agricultural University of Tirana (AUT)	yes	no	Associated Partner HEI
Federal University of Paraná (UFPR)	yes	no	Associated Partner HEI
Lakehead University (Canada)	yes	no	Associated Partner HEI
Michigan State University (MSU)	yes	no	Associated Partner HEI
Moldova State University (USM)	yes	no	Associated Partner HEI
National University of Life and Environmental Sciences of Ukraine (NUBiP)	yes	no	Associated Partner HEI
Northwest A&F University (NWAFU)	yes	no	Associated Partner HEI
Stellenbosch University (SU)	yes	no	Associated Partner HEI
Technical University of Moldova (UTM)	yes	no	Associated Partner HEI
Ukrainian National Forestry University (UNFU)	yes	no	Associated Partner HEI
University of British Columbia (UBC)	yes	no	Associated Partner HEI
University of Ibadan (UI)	yes	no	Associated Partner HEI
University of New Brunswick (UNB)	yes	no	Associated Partner HEI

University of São Paulo (USP)	yes	no	Associated Partner HEI
Arbonaut Ltd. and	no	no	Associated Industrial/Public/NGO Partner
Austrian Research Center for Forests (BFW)	no	no	Associated Industrial/Public/NGO Partner
Centre INRAE Grand-Est-Nancy (INRAE)	no	no	Associated Industrial/Public/NGO Partner
European Landowners' Organization (ELO)	no	no	Associated Industrial/Public/NGO Partner
Forest Ownership Centre of Catalonia	no	no	Associated Industrial/Public/NGO Partner
Forest Science and Technology Centre of Catalonia (CTFC)	no	no	Associated Industrial/Public/NGO Partner
FSC International Center GmbH (FSC GD)	no	no	Associated Industrial/Public/NGO Partner
Chinese Academy of Forestry (CAF)	no	no	Associated Industrial/Public/NGO Partner
European Forest Institute (EFI)	no	no	Associated Industrial/Public/NGO Partner
Forstamt Johanniskreuz	no	no	Associated Industrial/Public/NGO Partner
Hasslacher Holding GmbH	no	no	Associated Industrial/Public/NGO Partner
International Institute for Applied Systems Analysis (IIASA)	no	no	Associated Industrial/Public/NGO Partner
Ocolul Silvic Ingleby	no	no	Associated Industrial/Public/NGO Partner
Office National des Forêts (ONF)	no	no	Associated Industrial/Public/NGO Partner
PEFC	no	no	Associated Industrial/Public/NGO Partner
Ponsse Plc.	no	no	Associated Industrial/Public/NGO Partner
Société Forestière de la CDC	no	no	Associated Industrial/Public/NGO Partner
Stora Enso Oyj	no	no	Associated Industrial/Public/NGO Partner
Tornator SRL	no	no	Associated Industrial/Public/NGO Partner

Accreditation status per institution:

Name of the institution	Relevant External Quality Assurance Agency (if any)	European Approach allowed (yes/no)	Additional information
AgroParisTech (APT)	Haut Conseil de l'évaluation de la recherche et de l'enseignement supérieur (HCERES)	yes	https://www.hceres.fr/en
BOKU University (BOKU)	Agentur AQ Austria	no	In 2021, BOKU's quality management system (QMS) underwent the audit procedure in accordance with the Higher Education Quality Assurance Act and was certified in January 2022 with a condition for 7 years. In accordance with the relevant guidelines, BOKU is therefore authorised to use the AQ Austria quality seal.
Transilvania University of Brașov (UNITBV)	The Romanian Agency for Quality Assurance in Higher Education (ARACIS)	yes	
University of Eastern Finland (UEF)	The Finnish Education Evaluation Centre (FINEEC)	yes	The third audit of the University of Eastern Finland's quality system took place on 9–10 March 2022 as an international audit. The FINEEC Higher Education Evaluation Committee confirmed that the university passed audit on 3 March 2023. The FINEEC quality label is valid for six years, until 3 March 2029.
University of Freiburg (UFR)	ZEvA - Central Evaluation and Accreditation Agency	yes	https://www.zeva.org/
University of Lleida (UdL)	Agencia Nacional de Evaluacion de la Calidad y Acreditacion (ANECA)	yes	
Wageningen University (WU)	Accreditation Organisation of the Netherlands and Flanders (NVAO)	yes	

II. Governance

1. Jointness and governance structure

The current curriculum design is a joint effort from the Full Partner HEIs through extensive analysis of the forest sector, societal demands, research trends, European policies and former MSc programmes, as well as the strengths and expertise of the Full Partner HEIs.

The programme will include several key elements to promote coherence, from student recruitment to graduation:

- Joint recruitment strategy and implementation.
- Single online platform centralising all student applications for joint management.
- Joint evaluation procedure with common admission criteria and policy.
- Joint management platform for sharing administrative and student-related documents.
- Single and systematic mechanism that ensures ECTS recognition from all participating institutions.
- Joint master's thesis policy and guidelines and a joint on-line thesis seminar.
- Joint master's degree delivered by those Full Partner HEIs that are able to award a joint degree (e.g. between UEF and BOKU).
- Joint graduation ceremony (incl. Working Life event), as well as virtual on-line events (twice a year) for alumni, current students and Full and Associated Partners.
- Joint and consistent internal and external quality assessment of the programme.

The general overall structure and mobility periods are described in **Fig. 1**.

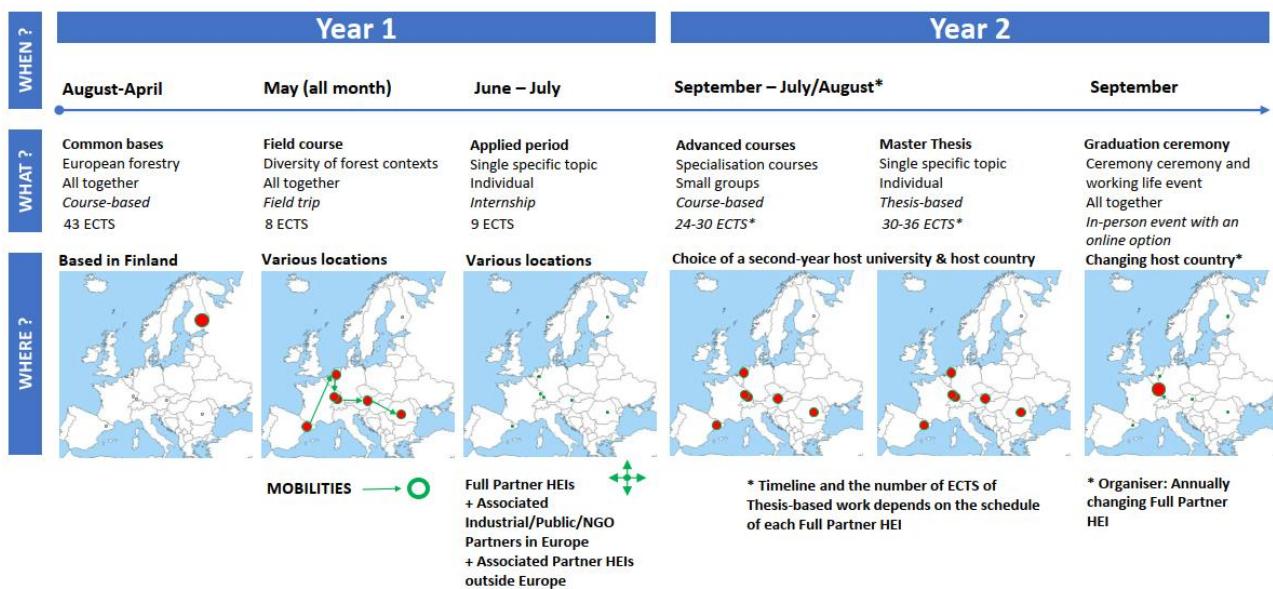


Figure 1. Structure and mobility periods of the MSc EF programme.

The total number of credits for the academic programme is 120 ECTS, with 1 ECTS corresponding to 25–28 working hours, as jointly agreed by the Full Partner HEIs in the Partnership Agreement. The enrolled students must complete 60 ECTS (approximately 30 credits per semester) in each of the two academic years, which corresponds to an annual workload of about 1,600 hours.

The joint programme management is based on shared responsibilities of **Full Partner HEIs** as shown in **Fig. 2**. UEF will organise student admissions and financial monitoring and is responsible for overall general management. BOKU will coordinate global marketing and visibility. UFR will be responsible for thesis supervision and evaluation processes. AgroParisTech will be responsible for the programme's sustainability

and fund-raising campaigns. WU will coordinate general quality monitoring and QRB activities. UNITBV will organise EB activities to receive feedback and ideas on how to improve the programme's engagement with employers. UdL will maintain the alumni related activities and events. In terms of the first-year curriculum, each Full Partner HEI contributes to Trends in European Forestry by giving lectures on topics in which they specialise. They also offer internship positions in conjunction with Associated Partner HEIs and Associated Industrial/Public/NGO Partners and contribute to student assessment. They also organise the European Forestry Field Course and graduation ceremony. In the second academic year, the six Full Partner HEIs offer advanced courses of 24–30 ECTS and supervise master's theses (30–36 ECTS). They integrate the students into their research teams, and the teaching staff can act as supervisors or co-supervisors. The staff and faculty support the students in their daily life, accommodation, language courses, etc. during the second year.

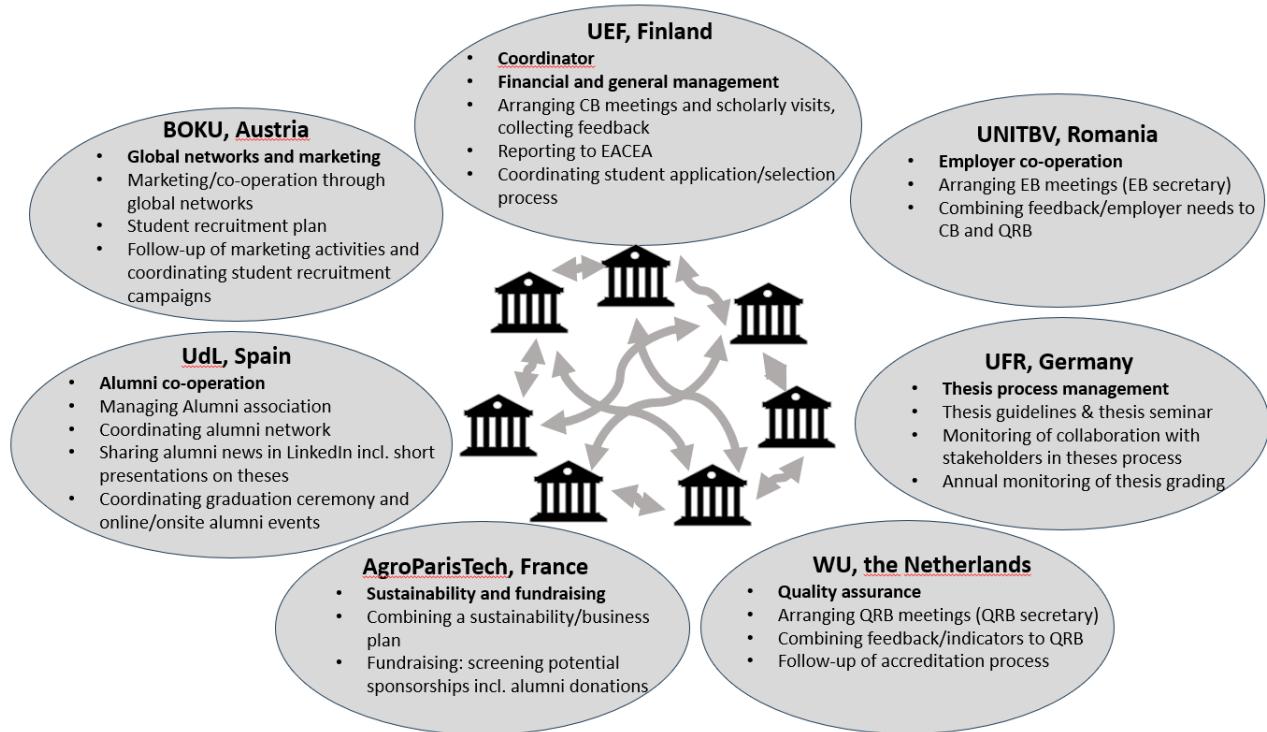


Figure 2. Definition of roles and tasks of Full Partner HEIs within the MSc EF programme.

The Associated Partner HEIs add value to the academic team by broadening the view and scope of the integrated forest bioeconomy from both local and European perspectives to a wider international perspective. and will have the following roles:

- Provide opportunities for applied periods (internships) and master's thesis projects.
- Provide content for a joint module for the “Global Virtual Seminar” course. Associated Partner HEIs will be invited to provide lectures and relevant online teaching materials on global issues.
- Provide feedback in Quality Review Board (QRB) and participate in marketing programme promotion activities.
- Provide a large pool of potential BSc graduates to apply for the programme.

The Associated Industrial/Public/NGO Partners have an important role in several tasks. They provide temporary teachers (with strong practical experience) during the first year of study in several courses. They are also periodically asked to comment on the curriculum and their suggestions are highly relevant to curriculum development through the Employer Board (EB). The Associated Partners also provide internship positions and transfer specific complementary knowledge and skills to the students and contribute to courses with non-education lectures and demonstrations, visits to industrial plants and field courses. They will also

provide and evaluate the internships, as well as contribute experience, knowledge and skills transfer during the internships. Specific complementary training in the form of lifelong learning activities or courses, organised by the companies for their employees (i.e. software or equipment training, lab techniques), will be available to students by the industrial partners that provide the internships. An important part of course promotion is also carried out by these Associated Industrial/Public/NGO Partners and by former alumni that are currently employed in different environments. Bi-annual online alumni events ("Virtual MSc EF Christmas Glogg" in December and "Virtual MSc EF Summer Opening" in June) are used to showcase the careers of former students to current students and other alumni, and to increase and promote networking between the different student cohorts, alumni and Associated Industrial/Public/NGO Partners, who are also invited to give talks and to share information during these events.

The Partnership Agreement signed by the Full Partner HEIs sets out the basic terms and conditions of the joint programme. The cooperation agreement follows the guidelines and fulfils the requirements and recommendations of the EACEA. In addition to the objectives and scope of the programme and key formal aspects (degree titles, mobility, etc.), the agreement describes the coordination and responsibilities of all partners involved in the management and financial organisation (incl. funding, sharing of costs and income etc.). It also includes the admission and selection procedures for students and student mobility, as well as examination regulations, student assessment methods, credit recognition and degree awarding procedures in the consortium. More detailed information on examination regulations, student assessment methods and degree awarding procedures can be found in the MSc EF programme Study Guide published annually on the programme website (www.europeanforestry.eu) and on the websites of each Full Partner HEI.

Rules and procedures related to implementation and monitoring have been jointly developed and agreed by all Full Partner HEIs, initially through experience and convergence over several years in previous programmes, and more recently through critical analysis of academic, administrative and financial functioning to redefine guidelines for the programme. Common standards have been developed based on existing regulations and national legal requirements of the participating institutions and are documented in the Partnership Agreement.

The cooperation and organisation of the master will be managed through three established Boards: **the Consortium Board (CB), the Quality Review Board (QRB) and the Employer Board (EB)**. CB members are the coordinating professors (local coordinators) of each Full Partner, and the administrative director of UEF. The QRB is the authority responsible for quality assurance, while the CB is the authority responsible for, amongst others, the implementation of the QRB decisions. As a new feature, EB is introduced and is used to maintain the working life relevance and stakeholder relations.

2. Consortium Board (CB)

A general overview of the general organisational management structure, including the main responsibilities and relationships between all three boards, is presented in **Fig. 3**. The CB is the "core structure" of consortium management and decision making. The members of the CB are the MSc EF programme Academic Director (UEF), the local Academic Coordinators (UFR, UdL, AgroParisTech, BOKU, UNITBV and WU) and the Administrative Director (UEF). The CB meets face-to-face at least twice a year (in January and in September during the Graduation Ceremony and Working Life event). In addition, the CB holds a video meeting in mid-March on the selection of students. If necessary, additional meetings are held by video conference. The CB members also interact via an intranet platform (for issues related to course content and pedagogical aspects), telephone, e-mail and videoconference, depending on the urgency of the matter. Student and alumni representatives will be invited to attend CB meetings but without a voting right. Local coordinators from Associated Partners or other staff (administrative or academic) will also be invited to attend if appropriate but without a voting right. The decision-making process within the CB is based on democratic consensus, with each full member (except the administrative coordinator) having one vote. The responsibilities of the CB at the

academic level are: (i) to define the course structure, credit recognition, module contents and common rules of assessment and examination and their possible modifications; (ii) to control the programme of course procedures; (iii) to guarantee the availability of compulsory and optional courses in each institution and their curricula; (iv) to select students and scholars and define their mobility; and (v) to monitor the performance of students throughout the master's cycle, etc. At the management level, finance and policy, the CB will be responsible for (i) monitoring the correct implementation of the technical and administrative operations in the universities; (ii) deciding the redistribution of the budget between the partners; (iii) implementing the MSc EF programme policy (selection, gender equality, participation costs and quality improvement); and (iv) promoting the sustainability policy, among other tasks.

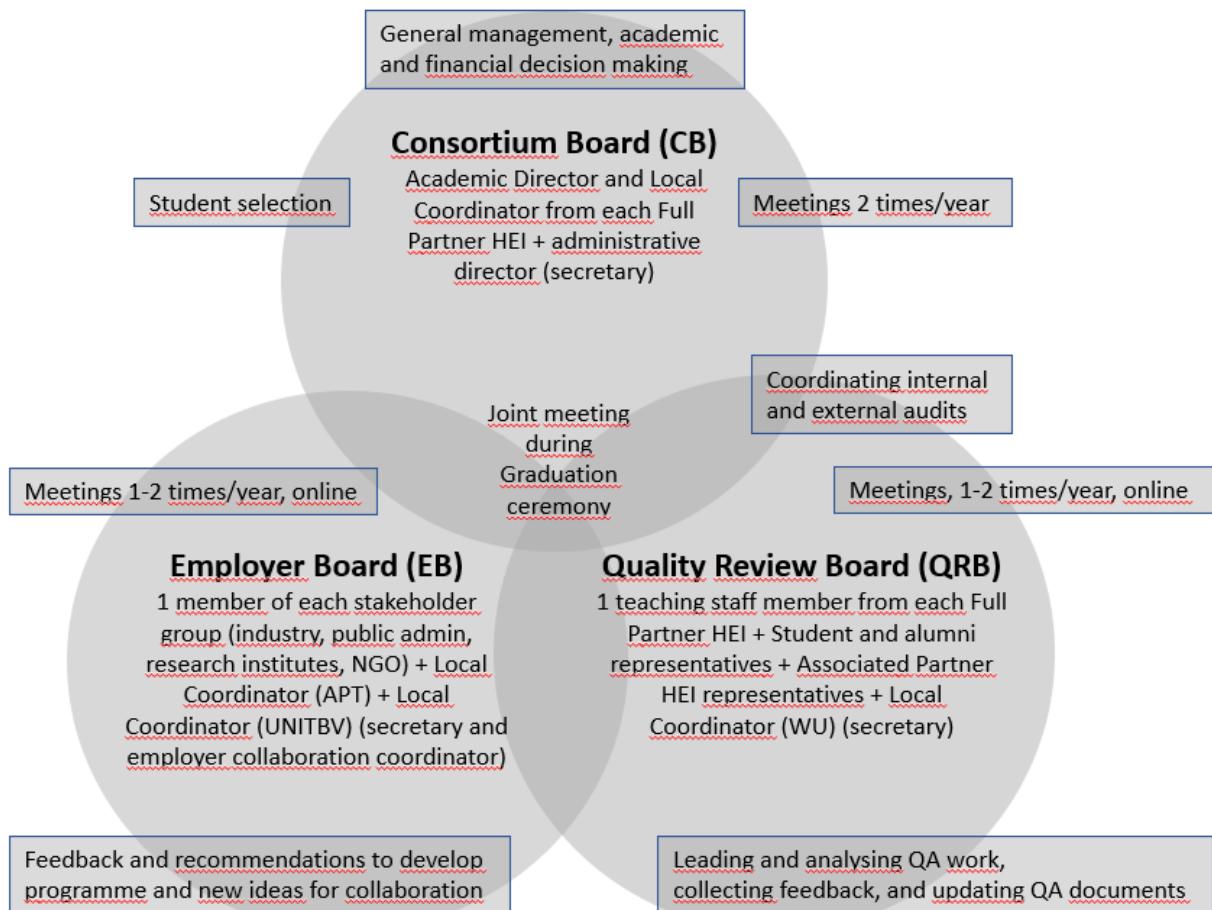


Figure 3. Roles of governing bodies: Consortium management (CB), quality assurance (QRB) and employer relations (EB).

3. Quality Review Board (QRB)

The QRB is the body in charge of quality assurance and is regarded as an advisory board to CB (Fig. 3). The QRB will meet annually. The chairperson is elected from among the participants for each meeting and a Full Partner representative (WU) organises the secretariat. Depending on the agenda of the QRB meetings, representatives of local quality assurance committees and/or additional representatives are invited to attend. An external quality report completed by the QRB is further discussed at the annual CB meetings. The report analyses student/graduate feedback and monitors the quality indicators adopted at the first meeting.

4. Employer Board (EB)

The EB is used to maintain stakeholder relations with industry, public administration, research organisations and NGOs, and to gather recommendations for programme development. Typically, graduates are employed in the private, public and non-governmental sectors. The forest industry includes pulp and paper companies, the timber industry and other forest-related product/service sectors. Public sector employers include international organisations, research, government departments and agencies. NGOs are also important actors in many countries. The chair of the EB is elected from among the participants for each meeting and the full partner representative (UNITBV) organises the secretariat. In addition, the EB includes representatives from Associated Industrial/Public/NGO Partners, as well as two alumni students. Depending on the items on the agenda of the EB meetings, representatives of other Associated or Full Partners are invited to attend. A report prepared by the EB is further discussed at the annual QRB meetings. The report analyses the monitoring quality indicators adopted at the first meeting, identifies current needs in the labour market, and makes recommendations for curriculum development. The EB will gather during the annual Graduation Ceremony and Working Life event and online (at least once per year), to discuss the working life relevance of the programme and to suggest improvements and means of collaboration.

5. Operational staff responsibilities

The Academic Director has the overall responsibility for the programme (incl. administrative and financial aspects), and acts as the chair of the CB. The Administrative Director of the programme at UEF has various roles and responsibilities related to the programme: (i) Coordination of the entire cycles of the MSc EF programme; (ii) organisational, administrative, contractual and financial aspects; (iii) coordination of student information, selection, admission, induction, mobility, registrar, professional integration; (iv) coordination and centralisation of programme documentation and information: academic, administrative, financial, student information, reporting to the consortium, the MSc EF programme website, marketing and promotion, and (v) coordinating and providing student supervision and counselling. In each Full Partner HEI, the Local Coordinator and the local support/administrative services are in charge of (i) implementation of the decisions taken by the CB; (ii) managing the coordination and organisation of the teaching activities and general counselling of the students; and (iii) managing the coordination and organisation of learning outcomes evaluation and of individual monitoring sessions between each student and their Academic advisor/thesis supervisor.

As Coordinating university of the MSc EF programme, UEF is responsible for the general coordination, implementation and management of the programme in cooperation with the partners; the provision of reports (administrative and financial) to the CB and the QRB; the verification of all completed online applications with regard to eligibility criteria; the payment of EMJM scholarships (if any) to students that participate in the programme; the management of financial resources (participation costs and income distribution between partner institutions, if applicable); and reporting activities to the EACEA.

Student and alumni representatives to the management activities will be elected each semester from among the MSc EF programme students and act as spokespersons for the cohort in question. They are the link between the Local Coordinator, the Academic Director, the Administrative Director and act as the student and alumni representatives of the CB and QRB (if different) and will provide very important feedback and student perspective in these meetings.

To improve partner engagement, it is essential to clearly define mutual expectations, align incentives and establish mechanisms for accountability and long-term collaboration. We have defined clear roles and responsibilities for all partners. In addition, by formalising expectations, incentives and accountability through well-structured agreements, we can foster stronger, more sustainable partnerships for the MSc EF programme.

The Consortium will be responsible for follow-up to the academic, administrative and financial activities. The commitment of each partner is recorded in the Partnership Agreement signed by the legal representatives of the Full Partner HEIs. However, all Consortium partners go beyond the written commitments and contribute more than stated in the agreement with their own staff and infrastructure, e.g. to support self-paying students with mobility grants or scholarships or partial/full participation fee waivers. Contact persons in each institution are designated and empowered to carry out support activities. As the coordinating institution, UEF will manage the EMJM grant (according to the EACEA financial rules) and the budget (jointly agreed by the partners) and will be responsible for applying academic and administrative procedures related to the implementation and monitoring of this programme. The Full Partners will be responsible for applying the academic and administrative procedures related to the implementation and monitoring of the studies. As a rule, the CB will be responsible for the joint programme-specific and EMJM related management, whereas local administrative bodies of each Full Partner will be responsible for locally managed issues.

The partnership agreement defines the processes and content of the sustainable commitment of the partner institutions after the end of the project. If all Full Partners agree to terminate the partnership agreement (and thus the programme) during a consortium meeting, they are obliged to make arrangements for all students who have started the programme to complete their studies and obtain their diploma in a satisfactory manner. The coordinating institution is responsible for informing the Agency (EACEA) before the change takes effect. The Consortium has already agreed several times on how to organise the study area without EU funding and grants. The programme has been running continuously for the last 20 years, even without Erasmus Mundus status.

6. Management of restructured consortium

The consortium currently has an ideal structure. However, it is always possible that some members may leave the consortium due to staff or funding issues, in which case the management of the programme would need to be restructured. When restructuring the management of an Erasmus Mundus Joint Master Programme (EMJM) due to changes in funding or consortium composition (e.g., when a partner university steps out), it's crucial to ensure academic integrity, legal compliance, and operational continuity.

Restructuring the management of the consortium in the event of the withdrawal of members is a sensitive and strategic process. A key priority is to maintain the academic integrity and relevance of the programme, especially since it is designed to deliver specialised European and local skills that are not easily transferable.

MSc EF is designed to cover a variety of ecological conditions and niche areas of knowledge, such as governance, legal issues, silvicultural practices and alpine environments. If it were to be discontinued, this would create a gap affecting both the academic depth and the employability outcomes for students.

To address this, the remaining partners must review the competencies critical to programme outcomes and assess where these competencies now reside. This may involve strengthening the role of existing partners who can partially fill the gap, even if they lack the exact local context. Alternatively, new strategic collaborations could be established with universities or institutions situated in similar regions or offering complementary expertise. In some cases, local practitioners, industry partners or governmental bodies may be engaged to maintain the programme's practical and localised character through guest lectures, fieldwork or internships.

Ultimately, the goal is to preserve the programme's distinct identity and excellence. Therefore, any structural changes must be driven not only by feasibility or funding shifts, but also by a deliberate strategy to maintain the intellectual vision and European added value that underpin Erasmus Mundus programmes.

Here's a structured approach to managing the change:

1. Immediate actions

- Formal Notification and Documentation: Request a formal withdrawal letter from the exiting partner (including, reasons for leaving, date of withdrawal, remaining obligations (teaching, supervision, students hosted)).
- Notify EACEA (Education, Audiovisual and Culture Executive Agency): Use the Participant Portal (Funding & Tenders Portal) to formally update the consortium composition.
- Explain the rationale for the change and ensure continued compliance with the Erasmus+ guidelines.

2. Academic adjustments

Curriculum adaptation

- Review and adapt the mobility tracks and academic calendar to maintain ECTS balance and learning outcomes.
- Ensure alternative pathways for students originally planned to study at the withdrawing institution.
- It is possible to replace the withdrawing institution with a new one, if strategically and academically suitable.

Degree-awarding model

- Ensure at least two remaining universities can still confer a joint or multiple degree.
- Revise diploma supplement templates and issuing mechanisms accordingly.

3. Governance re-structuring

Update the Partnership Agreement and re-negotiate and sign an amendment to the consortium agreement reflecting:

- Roles of remaining and incoming members
- Redistribution of responsibilities (academic, financial, administrative)
- Revisions in mobility paths, degree awarding, and quality assurance

Re-balance work packages and responsibilities

Reallocate academic modules, thesis supervision, or mobility paths previously managed by the departing institution. Adjust budget shares, including: Scholarships, coordination costs and participation costs.

III. Thematic learning outcomes

All learning outcomes are specified as concrete outcomes of a student-centred learning process, and all course-level outcomes are directly assessed to enable students to obtain the award of a credit, using a variety of instruments for the assessment. A common framework among the partners ensures the achievement of credits, which align with qualification descriptors of national authorities and relevant sectorial and professional bodies, thereby providing academic integration and quality assurance throughout the programme.

The multicultural study periods and the wide range of expertise available at the Full Partner HEIs provide students with a unique opportunity to select individual Thematic Areas (TAs) according to their interests. The relevance of the offered TAs ensures their employability in many different disciplines. Detailed information on the courses offered in each TA will be annually updated and available at the programme website

(<https://sites.uef.fi/europeanforestry/courses/>) and in the related MSc EF programme Academic Study Guidebook (<https://sites.uef.fi/europeanforestry/study-guides-instructions-and-forms/>).

Table 1. List of learning outcomes achieved by the students of MSc EF programme according to their selected Thematic Area (TA) and their relation to the Grand Challenges (GCs) addressed in the MSc EF programme (GC1: Adapting to climate change; GC2: Supporting the bioeconomy; GC3: Conserving biodiversity; GC4: Support decision making and respond to societal demand). The number of stars reflects the relevance of each learning outcome in each TA to the four GCs.

Learning outcomes	GC1	GC2	GC3	GC4
TA1 Forest information technology and decision support:	***	***	**	***
	***	***	**	***
TA2 Ecosystem services and bioeconomy:	**	***	*	***
	***	***	*	***
TA 3 Disturbance ecology and risk analysis:	***	**	**	*
	***	**	**	***
	***	*	**	**
TA 4 Silviculture and forest engineering:	***	***	***	**
	***	***	**	***
TA 5 Policy, society and governance:	***	***	***	***
	**	**	**	***
	**	**	**	***

The intended learning outcomes of the MSc European Forestry were developed based on the fact that students would need to have knowledge and skills from a broad range of disciplines as forestry is a multi-disciplinary and complex field of sciences. Therefore, the MSc EF Curriculum consists of a large number of elective

courses during the first academic year and as well as a wide selection of courses for the second academic year covering many disciplinary fields. The wide selection of courses included in the Curriculum enables students to choose courses according to their needs and interests so that they would receive skills and knowledge that they did not receive during their previous degree. In contrast, the compulsory courses of the first academic year are focusing on the development of the multi-disciplinary generic skills and methodological skills which have been demonstrated to be the skills appreciated by the working life as they will enable students to tackle novel and complex problems in the multi-disciplinary field of forest sciences related to the defined four Grand Challenges as below:

Needs with respect to Grand Challenge 1: Adapting to climate change

There is a need for a deep understanding of the impacts of climate change to manage forest ecosystems for an improved resilience and resistance. This includes knowledge of global climate systems, greenhouse gas dynamics, and the localized impacts of climate change on forest ecosystems. Equally important is expertise in forest ecology and ecosystem dynamics, enabling experts to understand how stressors like drought, pests, fires and extreme weather affect forest health and biodiversity. The ability to understand these general issues and processes and how they translate into forest management challenges in specific contexts is one of the targets of the programme. Technical skills are also relevant for professionals addressing climate change impacts. Proficiency in geospatial analysis, remote sensing, and statistical modeling equips them to assess risks, monitor forest health, and design effective adaptation strategies. Additionally, practical field skills, such as conducting vulnerability assessments and implementing climate-resilient forest designs, ensure they can apply theoretical knowledge to real-world challenges. Policy and socio-economic awareness are critical in addressing climate change adaptation. Forest experts must understand the socio-economic impacts of climate change on forest-dependent communities and be familiar with national and international policies, such as the Paris Agreement and adaptation plans. Integrating traditional and indigenous knowledge into forest management practices further enhances the relevance and acceptance of these strategies.

Needs with respect to Grand Challenge 2: Supporting the bioeconomy

The forest bioeconomy represents a sustainable approach to utilizing forest resources for economic development while addressing environmental challenges. To support this transition and enhance wood biomass production, university-level forest experts must acquire a combination of scientific, technical, and managerial skills. A deep understanding of sustainable forest management is central to this education. Experts must learn advanced silvicultural practices to optimize forest productivity while preserving ecological balance. Techniques such as species selection, mixed-species planting, and precision forestry ensure high yields of wood biomass while maintaining biodiversity and soil health. Knowledge of tree genetics and biotechnology is also critical for developing high-growth and resilient tree species tailored to specific environmental conditions. Technical skills in geospatial analysis are indispensable for modern forest management. These tools allow experts to assess biomass potential, and plan efficient harvesting strategies. Additionally, proficiency in data analytics helps integrate forest inventory data with market trends, ensuring that biomass production aligns with the demands of the bioeconomy. To fully understand the forest bioeconomy, experts also need knowledge of the value chains associated with forest products, including timber, bioenergy, bioplastics, and other innovative materials. Training should include exposure to sustainable supply chain management, circular economy principles, and the economic policies that promote forest-based industries.

Needs with respect to Grand Challenge 3: Conserving biodiversity

Forests are home to a vast array of species and play a critical role in preserving global biodiversity. Training university-level forest experts to maintain biodiversity requires a multidisciplinary approach that combines ecological knowledge, technical skills, and socio-political awareness. A solid foundation in forest ecology and ecosystem dynamics is essential. Experts must understand the relationships between species, habitats, and

environmental factors. This includes knowledge of keystone species, ecosystem services, and the impact of human activities on forest ecosystems. Additionally, they should be familiar with biodiversity indicators and metrics to monitor and evaluate conservation efforts effectively. Technical skills are indispensable in biodiversity management. Proficiency in geospatial technologies enables experts to map habitats, track species distributions, and assess threats like deforestation or habitat fragmentation. Statistical and modeling skills are also vital for analysing biodiversity data and predicting the impacts of environmental changes on species and ecosystems. Policy and socio-economic knowledge play a crucial role in maintaining biodiversity. Experts must understand international agreements like the Convention on Biological Diversity (CBD) and national biodiversity strategies. They also need the ability to integrate conservation goals with sustainable land-use practices, balancing ecological preservation with economic development and the needs of local communities. Field-based skills are equally important. Experts need training in conducting biodiversity assessments, habitat restoration techniques, and invasive species management. The ability to design and implement conservation projects tailored to local ecosystems ensures practical and effective biodiversity protection.

Needs with respect to Grand Challenge 4: Support decision-making and respond to societal demand

Forests are vital for meeting societal demands and delivering essential ecosystem services, including clean air, water regulation, carbon sequestration, and recreation opportunities. Training university-level forest experts to address these needs requires a combination of ecological knowledge, technical expertise, and socio-economic understanding. A deep understanding of forest ecology and ecosystem functions is the foundation of this training. Experts must grasp how forests contribute to water cycles, carbon storage, and biodiversity. Knowledge of ecosystem services frameworks, such as the Millennium Ecosystem Assessment, equips them to evaluate and quantify the benefits forests provide to society. Expertise in adaptive management techniques ensures forests can continue to provide ecosystem services despite challenges like climate change and land-use pressures. Socio-economic and policy knowledge are essential for aligning forest management with societal demands. Forest experts must understand the needs of different stakeholders, including governments, businesses, and local communities. Familiarity with policies promoting sustainable development and payments for ecosystem services (PES) helps them design strategies that incentivize conservation while meeting economic goals.

IV. Study programme

1. Curriculum development

The first academic year includes two study modules (Modules 1 and 2, **Table 2.**) that introduce the Full Partner HEIs, the Associated Partner HEIs and the Associated Industrial/Public/NGO Partners to the students. These modules provide a common background on forest management issues at European and global scales, along with academic presentations and the research methodologies required for the successful completion of the second academic year. More specifically, the compulsory courses in the first academic year focus on developing multi-disciplinary generic skills and methodological skills (e.g. critical thinking, digitalisation, interaction and communication, identification and development of expertise, ethics and leadership). These skills have been demonstrated to be highly valued by employers, as they enable students to address novel and complex problems in the multi-disciplinary field of forest sciences. The jointly agreed package of elective courses offers students the opportunity to deepen their knowledge and skills in their desired topics and interests (e.g. geoinformatics, forest inventory and modelling, remote sensing, forest economics, policy analysis). The available elective courses are monitored annually based on feedback provided by the students, alumni and the QRB of the programme. Additional online courses provided by the Full Partner HEIs and

Associated Partner HEIs further enhance the offering and can serve as additional material to those students that are not sufficiently competent in some topics or Thematic Areas (TAs).

In the second academic year, students choose a university where they can focus on a specific TA in Module 3 (**Table 2**). The co-supervision practice of theses enables the integration of the wide expertise of all Full Partner HEIs. The TAs (1) Forest information technology and decision support, (2) Ecosystem services and bioeconomy, (3) Disturbance ecology and risk analysis, (4) Silviculture and forest engineering, and (5) Policy, society and governance aim to enhance the competencies and skills of the students, thereby improving their employability. The TAs are complementary and have been defined based on the specific competencies of the Full Partner HEIs to address the identified GCs and achieve the intended learning outcomes. Gaining advanced knowledge in *Forest information technology and decision support* (TA1, GC1, GC2) is considered essential to understand the different demands of stakeholders, and the multiple objectives and options to manage European forests in a sustainable manner. Understanding the principles of forest *Ecosystem services and bioeconomy* (TA2, GC1, GC4) is relevant and timely, given increasing societal demands and the necessity to transition towards a circular economy and/or a bioeconomy. Advancing understanding in *Disturbance ecology and risk analysis* (TA3, GC1) is crucial to address the increase in the severity and frequency of climate-induced disturbances, while considering their impact on the multiple ecosystem services that forests provide. The European characteristics of the bioeconomy will be included in *Silviculture and forest engineering* (TA4, GC1, GC2) studies. The methods and models for the implementation of appropriate “*Policy, society and governance*” (TA5, CG1-GC4) strategies is a prerequisite for activities in a forest-based bioeconomy.

The master's thesis and Online Thesis Seminar are also part of Module 3 (**Table 2**). The Graduation ceremony with a Working Life event will be arranged after this module, bringing all students and graduates together again (with the option to attend the event remotely through the hybrid format). In the Working Life event Associated Industrial/public/NGO Partners will be invited to give presentations on their organisations/companies and recruit graduates. Complete syllabi for second-year courses are also available on the websites of the Full Partner HEIs. Transparency and comparability of the academic programme with other national or international MSc programmes is based on the detailed descriptors for each module that are publicly available on the website of the programme (<https://sites.uef.fi/europeanforestry/curriculum/>).

Table 2. Structure of the academic MSc EF programme. *MSc thesis in Wageningen University (WU) carries 36 ECTS and thus the number of specialisations within thematic areas (TAs) in WU is 24 ECTS.

Year 1	Year 2
MODULE 1 AND ELECTIVE COURSES Professional knowledge Improvement (43 ECTS)	MODULE 3 Specialisation within thematic areas and MSc Thesis and Online Thesis Seminar (60 ECTS)
<ul style="list-style-type: none"> - Trends in European Forestry (5 ECTS) - Academic skills in Forest Sciences (1.5 ECTS) - Research Methodology in Forest Sciences (3.5 ECTS) - Global Virtual Seminar (3 ECTS) - Elective courses (30 ECTS) 	<ul style="list-style-type: none"> TA1 - Forest information technology and decision support (24–30 ECTS) TA2 - Ecosystem services and bioeconomy (24–30 ECTS) TA3 - Disturbance ecology and risk analysis (24–30 ECTS) TA4 - Silviculture and forest engineering (24–30 ECTS) TA5 - Policy, society, and governance (24–30 ECTS) MSc Thesis and Online Thesis Seminar (30–36 ECTS)*
MODULE 2 Practical perspective and industrial visits (17 ECTS)	Graduation ceremony and Working Life event
- European Forestry Field Course (8 ECTS)	

- Applied Period in Forest Institutions (internship) (9 ECTS)	
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The content of the courses, the list of elective courses and the courses associated with the TAs are continuously upgraded. As a result, interdisciplinary, current and multi-scale problem-oriented modules are developed for joint teaching. Quality monitoring of annual courses is performed by surveys and questionnaires and the received feedback is analysed on an individual basis in Consortium Board (CB) and Quality Review Board (QRB) meetings. Alumni are also asked to give their views on teaching quality, as well as on how the programme could be improved to prepare students for their professional careers. This feedback is used to improve the content and structure of the programme, as well as determine the composition of the teaching staff.

2. Credits and workload

The credits that students earn while enrolled at any of the Full Partner HEIs are fully recognised by all other HEIs. In addition, the degrees awarded to the students are widely recognised, making it easy for MSc EF graduates to obtain employment also in countries other than those in which they have studied and received their MSc degrees. A grade conversion table below (**Table 3**) will be available in the Student Guidebook available at the website (www.europeanforestry.eu), as well as in the attached Partnership Agreement.

Table 3. Grade conversion table.

ECTS	UEF	UFR	UdL	APT	BOKU	UNITBV	WU
A	5	1.0–1.6	9–10	≥16	1	10	9
B	4	1.7–2.6	8–8.9	≥14<16	2	9	8
C	3	2.7–3.6	7–7.9	≥12<14	3	7–8	7
D	2	3.7–3.9	6–6.9	≥11<12	4	6	6.5
E	1	4.0	5–5.9	≥10<11	4	5	6
FX	0	5	4–4.9	<10	5	4	Fail
F	0	5	0–3.9	<10	5	1–3	Fail

MSc EF programme has a total amount of 120 ECTS. The *Full Partners* have agreed joint rules for workload (1 ECTS corresponds 25–28 working hours) in the Partnership Agreement (<https://sites.uef.fi/europeanforestry/consortium/>). In MSc EF programme one year of full-time studies requires about 1 600 hours of work and corresponds to 60 credits (about 30 credits per semester). Lectures, exercises, seminars, independent studies as well as examinations have been included in this estimate of required workload of students. The number of ECTS and study modes for each course are listed in the related course descriptions.

The first-year modules: Modules 1 and 2 comprise 13 and 17 ECTS respectively. During the first year the students also choose 30 ECTS of elective courses which account a total of 60 ECTS for the first academic year. The second year includes the Module 3 with 24–30 ECTS in total. The Master's Thesis and Online Thesis Seminar are also included in Study Module 3 with another 26–30 ECTS.

The individual study plans are designed together with the student and the administrative Coordinator to meet the study requirements for each academic year. The study plans will be constructed in a way that the student can obtain at least 60 ECTS during the first academic year, which is a prerequisite for continuing the studies during the second academic year. The student shall graduate by the end of his/her second academic year after completing the required 120 ECTS. The average time to complete the programme is two years. The

possible delays are in most cases caused by the administrative procedures and/or delays related to Master thesis projects.

The monitoring of the effective student workload as well as the time necessary for the completion of the programme are parts of single course evaluations as well as of the overall student survey related to the overall Curriculum which students are asked to fill in upon their graduation. In the surveys, students are also asked about the appropriateness of the workload calculated for individual courses. This information will be available to the individual teacher (as a personal feedback) as well as to the Consortium Board (CB). As the responsible teachers of each course are designing the course, the typical mechanism in case the student feedback shows that the course workload does not correspond the number of awarded credits is that the CB makes a suggestion to the responsible teacher of the course in question to check that the course workload corresponds the number of awarded credits. Similarly, also related to the workload of the courses available at the second-year host universities, the responsible teachers are monitoring the workload of the courses in question.

V. Promotion, admission and recognition

1. Promotion

As a consortium, the MSc EF programme has strong international links to higher educational institutions all over the world and uses these channels effectively in marketing activities. This is enforced by the contribution of Associated Partners and their networks and other networks to which the Consortium belongs, thereby forming a solid foundation for a broad network through which programme marketing is cost efficient.

The MSc EF programme is listed on the focal portals (e.g. Masters Portal, ICA-portal and national study portals) to ensure that our programme can be found by those interested in higher education in the forest bioeconomy and resource management. Furthermore, MSc EF programme alumni with close connections to the EMA (Erasmus Mundus Alumni Association), communicate closely with former students to enhance global visibility. In addition, cooperation with IFSA (International Forestry Students' Association) has ensured that most global forestry students can be reached effectively. Cooperation with IUFRO (International Union of Forest Research Organizations) also provides opportunities to present the programme and can permit alumni to attend the IUFRO conference (the major global forest science event with many MSc EF programme alumni participants). In our marketing activities our strategy is to use modern and cost-effective digital tools (e.g. website, Facebook, LinkedIn, Instagram, Google Ads and TikTok). These include, for example, professional videos, student stories and promotion campaigns. Student ambassadors and specific visits will be enhanced to improve specific marketing in target areas. Thus, joint marketing and advertising activities are organised within the programme (coordinated by BOKU).

In addition, the website of the programme (www.europeanforestry.eu) provides information on the application and selection procedures. In addition, biannual online alumni events that demonstrate various careers and options in the labour markets show the commitment of the MSc EF programme alumni to the programme.

The MSc EF programme has two main social media channels: a Facebook page and a LinkedIn page. The topics published in these channels have included scholar visits, consortium meetings, student excursions, graduation ceremonies, public lectures given during courses, student events, industrial partner news, publications by students and graduates etc. The LinkedIn page is the main channel for academic and professional news. Partner universities, academics, alumni and students have also reposted content produced by the MSc EF programme in their LinkedIn profiles, broadening the network and visibility. Career stories are posted on the website and on the LinkedIn page to ensure programme visibility in the graduates' new professional and academic networks. The MSc EF programme students and alumni are also important ambassadors for the programme. By ensuring the quality of the programme and a positive student experience,

students and alumni will produce their own content. This is both cost-effective and often has more impact than traditional marketing activities. The MSc EF programme students are also encouraged to organise their own events and activities, and these events are promoted on the programme's social media channels

All marketing materials (leaflets, videos, a presentation template and links to social media channels) can be found at <https://sites.uef.fi/europeanforestry/materials/>

2. Admission

The minimum application requirements and the basic principles related to the student selection procedure have been jointly designed and agreed by the Full Partner HEIs and are documented in the Partnership Agreement. The details related to the selection procedure for each year will be discussed annually in the CB meeting and modifications will be implemented, if needed. The admission requirements, instructions on how to apply for admission, timing of the application period, as well as the selection criteria will be available at the programme website (www.europeanforestry.eu) for potential applicants well before the call for applications is open. The call will usually be open in December – January. Application for an EMJM scholarship (if available) can be done within the same application form.

The jointly agreed requirements for student applications are: (1) Bachelor's degree in forestry or related field with good grades issued by an internationally recognised university, and (2) good command of the English language (previous education or higher education in English in Australia, Canada, Ireland, New Zealand, Singapore, South Africa, United Kingdom or United States, or TOEFL (iBT), IELTS, PTE, CPE or CAE language tests with the required minimum scores).

Students populate and submit an online application form (with the required attachments) to the Coordinator through the studyinfo.fi portal. The required attachments are: the original degree certificate (and an official translation if not in English); the original transcript of records (and an official translation if not in English); English language certificate; a motivation letter; a CV, which must be presented in chronological order and must not have gaps longer than 12 months during the most recent five years; a certificate of residence; a copy of their passport and a passport-size photo. The application procedure is carried out electronically and all attachments are scanned and submitted with the electronic application form.

The eligibility check and preliminary ranking of the applications will be carried out by the Coordinator during which all application documents are checked and evaluated by at least two experts. After this, all eligible applications are ranked by all Full Partners according to the five evaluation criteria agreed by the Full Partner HEIs: (1) studies in forestry, (2) academic excellence, (3) motivation letter, (4) work experience, and (5) international experience. The ranking list will be made according to the total score. Whenever two or more applicants have the same total points, the applicant with the higher score in academic excellence will be placed first. Final student selection will take place at a CB meeting (usually videoconference), where a representative from each Full Partner HEI will be present. In the meeting, the CB will agree upon the main list and the reserve list. In cases where there are different opinions related to the grading of the applications between the Full Partner HEIs, voting will be used (each Full Partner HEI has one vote). The Coordinator will inform all applicants of their admission results by email by a given date. Admitted students can also request hard-copy documents sent by mail, if needed. Non-admitted students will be notified on the selection results and on the appeal procedures (incl. an appeal form) by email only. The Coordinator will send all admitted students a welcoming package that will include the following documents: a welcoming letter, a letter of acceptance, a confirmation form, a student agreement, as well as information on how to apply for residence permits and for accommodation and registration instructions. Accepted applicants will be requested to inform the Coordinator by a given date whether they will accept their study place. All accepted applicants who have agreed to accept their study places will be asked to submit their original degree certificates for verification by the deadline given

in the notification of the admission results. The Coordinator will inform EACEA on the selection results (main and reserve lists for EMJM scholarships in case the scholarships have been available). Student scholarship allocation is based on a selection process. The best students will receive the scholarship.

The student selection process is organised transparently, impartially and equitably. Applicants will be informed well in advance as to the eligibility and evaluation criteria, and will have the right to appeal their non-selection. The selection process is designed in an accessible and inclusive way and is open to applicants with diverse backgrounds and abilities. The well-established EMJM equality and non-discrimination guidelines for the grading of each selection criterion, as well as the large number and diversity of experts involved in the process will ensure that these issues are addressed during student selection. Gender diversity and geographic representation are also taken into account in the selection process and are specified in the guidelines. Accepted applicants who have confirmed their study place will sign the Student Agreement, which describes the principles and requirements for participation in the programme. According to the Study Guidelines and Student Agreement, students will inform their mentors about possible challenges or difficulties fulfilling regulations. The Administrative Director of the programme will implement any actions, if needed.

3. Recognition

According to the Lisbon Recognition Convention periods of study and the achieved credits at different Full Partners are fully recognised by all of them. Also, the degrees awarded to the students are widely recognised so that it is easy for MSc EF graduates to find work also in a country other than the ones in which they were studying and received their MSc degrees.

In cases where the admitted students have completed studies at another HEIs before the start of their MSc EF programme studies, and if those studies have not been included in their previous degree(s), students can apply for a substitution of studies based on the recognition of prior learning (RPL). Similarly, in cases where students have non-formal prior-learning (e.g. employment or training), they can also apply for a substitution of studies. Students can discuss possible substitution of studies with the study advisors in their first and second-year universities when drafting their study plans. If students wish to request recognition of their prior learning, the relevant certificates and/or diplomas will be requested from the students. Work experience certifications, interviews and proficiency tests can also be used.

Students are asked to contact the local coordinator in question related to the requests for recognition.

More information can be found from the UEF student handbook available online at <https://kamu.uef.fi/en/tietopankki/planning-and-completing-studies/recognition-of-prior-learning/>

VI. Learning, teaching, special needs and assessment

1. Learning and teaching

The learning and teaching approaches in the MSc EF Curriculum have been carefully jointly designed by the Full Partners to correspond with the jointly agreed intended learning outcomes. In the courses included in the MSc EF Curriculum a variety of learning and teaching methods are used which vary from traditional to more innovative ones as described with the examples below.

Besides conventional lectures and seminars active learning approaches are applied. These active learning approaches may include e.g. asking students to think and respond to a discussion question in pairs or in groups (inquiry-based learning). In this kind of a learning approach, the corresponding teachers may also use interactive technology to get immediate responses from students, for example clickers or similar audience response technology. Inquiry-based learning approaches combined with the normal lecture approach motivate

students' learning. The discussion questions are usually taken from the real world and develop students' discipline knowledge and skills and skills in self-direction, research, critical thinking and in problem solving. Working collaboratively and interacting with others are essential skills that all MSc EF graduates need to learn and demonstrate. Also integrating large and small group learning and working in teams with the traditional lectures provide students with the opportunities to develop essential collaborative learning and communication skills and share their knowledge and experiences.

In many courses also e-learning, wile/dual/blended-learning, flip-teaching, networked learning and distance learning are used in order to increase the expected impact of learning and training activities on students. In many courses during the first academic year, Moodle course sites are also used. These sites depending on the responsible teacher may include lecture material, video-clips (podcasts), possibilities to submit group works, reports and learning diaries electronically as well short tests/exams and discussion forums. Learning and teaching methods in addition to different group/pair works usually include also field site visits, company visits, panel discussions, etc. For example, during Trends in European Forestry in addition to traditional lectures, several group works, panel discussions, field site visits, company visits etc. are included in the course. Also, all material is available for the students in the Moodle course site. In addition, in some courses (e.g. elective first year courses related to forest economics and policy and governance), an active pedagogy approach is implemented to some parts in which students learn by themselves, e.g by conducting group works or reading the relevant course material, before lecture sessions where the main concepts are discussed rather than presenting all concepts in an exhaustive way in lectures as usually done (flip-teaching).

During the courses of Module 2 (incl. European forestry field course and Applied period in forest institutions), learning and teaching approaches are, especially, variable and students get hands-in experience and get familiar with different cultures, environments, working methods etc. During these courses project-based learning and case studies are widely used. For example, during applied period in forest institutions, students usually have at least one research question/project to work with. Applied period in forest institutions –course requires planning, research, critical thinking, problem solving, collaboration and various forms of communication skills and decision-making skills about how to approach the issue or problem. When reporting about their activities after the internship, students also need to analyse their learning and make SWOT analyse about the organisation and to give feedback about their learning experience.

The summary of examples of teaching and learning methods and grading used in the compulsory courses of the first academic year is presented in **Table 4**. Similarly, in all second-year host universities a variety of learning and teaching methods are used. Interactive problem-oriented courses are mixing presentations by teachers, discussions, self-studies (including literature reviews and field studies) and presentations by students as well as written reports. Research workshops start with defining the problem, then looking for appropriate material and methods, data evaluation, presentation of results and are ending with discussions.

Table 4. Examples of teaching and learning methods and grading used in the compulsory courses of the first academic year.

Course	Teaching and learning methods (hours)						Grading (%)			
	Lectures	Field trips	Exercises/ panel discussions/ seminars.	Group works	Self-studies/individual studying for exams/project works	Final exam	Individual report/article/abstract/other assignments	Group report/group presentation	Learning diary/ oral presentation	Supervisor's evaluation/participation
Trends in European Forestry, 5 ECTS	70	10	10	10	20+		60		40	
Academic Skills in Forest Sciences, 1.5 ECTS	20		20		10+			50	50	
Research Methodology in Forest Sciences, 3.5 ECTS	28		14		15+	70	30			
Global Virtual Seminar, 3 ECTS	4		4	20	20+			60	40	
European Forestry Field Course, 8 ECTS	30	100	60	30	60	Grading is based on six assignments, with a weight of 17 % each. The assignments will deal with each of the parts of the field course (evaluated by UdL, APT, UFR, BOKU, UNITBV and WU).				
Applied period in Forest Institutions, 9 ECTS					280		40		30	30

One of the main features of MSc European Forestry programme is that as students come from different backgrounds and cultures, students can also learn from each other and share their experiences among the group. Also, the learning through the compulsory mobility periods of students, which is not acquired by participating only in the national programmes improves, the learning performance in international issues, improves international career prospects, increases international initiatives in forest-based bioeconomy, improves foreign language competences and enhances intercultural awareness and active participation in society.

Similarly, the mobility periods of the teachers (e.g. during Trends in European Forestry course and Global virtual seminar) improve teaching and training competences and increase the quality of their work and activities in favour of students, increase capacity to trigger changes in terms of modernisation and international opening within our educational organisations and increase opportunities for professional and career development in international business. Also, the invited guest lecturers/scholars from the Associated Partners improve teaching and training competences linked to their professional profiles and increase exchanges and collaboration mechanisms between the professional world, the labour market, and the educational world.

2. Special needs

The special needs of a student are noted in his/her personal study plan, and the Coordinator takes care that students will receive adequate assistance regardless of their physical location in any of the partner universities. In cases, where a student has an impediment or a disability, they can request special arrangements. If students need special arrangements for their studies, they can request them at the Coordinating HEI by filling out the special arrangements request form. They can also get in touch with the accessibility contact person in the university/universities or with the local MSc EF programme Coordinator(s). Examples of special arrangements include, e.g. the possibility to have extra time to complete an examination; take an examination orally rather than in writing; take an examination in a quiet and more private setting; obtain extra lighting; obtain lecture materials in advance, in electronic form, or printed with a large font size; complete a course or an examination in an alternative manner (for example, an examination taken at home); use a computer or some other aid; and the possibility to use an interpreter or a personal assistant. In conclusion, all Full Partner HEIs have sufficient capacity to facilitate students with special needs. In addition, MSc EF student tutors can assist students with mild disabilities.

More information can be found from the UEF student handbook available online at <https://kamu.uef.fi/en/tietopankki/students-rights-and-obligations/individual-arrangements/>

3. Assessment

All learning outcomes are specified as concrete outcomes of a student-centred learning process, and all course-level outcomes are directly assessed in order for the student to obtain the award of credit, using a variety of instruments of assessment. A common framework between the partners for achievement of credits, subject to qualification descriptors of national authorities and relevant sectorial and professional bodies, provides academic integration and quality assurance across the programme.

The Consortium has collected rules for examination and resit options at different universities (**Table 5**). In general, exams may be resit at least two times which minimizes the possibility that a student fails the exam. In case a student fails an exam after two or more trials, he/she can contact the responsible teacher and the local coordinator to check whether an alternative way to the course in question could be found or whether the course could be replaced by another course. Presentations, learning diaries, participation, reports, summaries, reviews can be used for course evaluation (**Table 4** in the previous section). The first-year examination procedures and evaluation criteria are described separately in the MSc EF Study Guide. Second year examination procedures and evaluation criteria for the individual core courses are available in each of the local study guides of the Full Partners and/or in the local webpages in addition to the summary presented in **Table 5**.

Table 5. Summary of the examination rules at the Full Partners. + electronic examinations possibility.

Full Partner	Registration for the exam	Number of resit possibilities	Final evaluation may include e.g. presentations, group works, oral exams, reports etc.	Possibility to make electronic exams	A link to official students' assessment regulations and laws
APT France	Automatically registered at the beginning of the semester	Two possibilities	Defined for each courses by the responsible The master thesis has to be defended in an oral front	No. Video conferencing is possible for master thesis defence.	www2.agroparistech.fr/IMG/pdf/2018-19-re-master-aetpf-nancy.pdf
BOKU Austria	Depends on the course (BOKU online, or personal)	Three times generally and one additional possibility in an oral examination in front of a commission	The master thesis has to be defended in an oral front	Multiple Choice Tests are conducted via BOKU Learn for large groups of students	Study services at BOKU provide all the necessary information online https://boku.ac.at/en/studien/services/themen/informationen-zu-pruefungen
UdL Spain	Needed	Usually 2 (not restricted). As a rule, grading exercises adding up to at least 30% of the final grade should have 2 resit possibilities	Yes	Some courses (online courses) Video conferencing is possible for master thesis defence	http://www.udl.es/ca/udl/norma/ordenaci-/
UFR Germany	2 nd week of each 3 week lasting module	1 resit possibility	Yes	No	<ol style="list-style-type: none"> https://www.unr.uni-freiburg.de/en/faculty/administration/examination-office https://www.msc-forst.uni-freiburg.de/en/application-1 https://www.msc-forest-ecology-management.uni-freiburg.de/downloads
UNITBV Romania	Automatically registered at the beginning of the semester	2	Yes	No	University Regulations
UEF Finland	Needed only for general examinations	At least 2 (not restricted)	Yes	Some courses	https://kamu.uef.fi/en/student-book/study-related-laws-and-regulations/

WU the Netherlands	Registration is required. This can be done one year ahead and each period had registrations deadlines.	1 resit per academic year.	Yes	Yes. Exams can be made in ANS on students' own laptop. (bring your own device education). Some courses have remote proctored exams.	https://www.wur.nl/en/education-programmes/current-students/student-charter.htm
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For the first-year courses, the assessment procedures are announced in the MSc European Forestry study guide as well as in the course data base of the University of Eastern Finland (<https://opas.peppi.uef.fi/en/front-page/128263?period=2025-2026>). The methods consist of final exams, oral and poster presentations, discussion papers, group and individual reports on assignments or exercises. Each Full Partner practices an assessment strategy appropriate for its speciality during the second year, for example in Austria courses are categorised in three different categories (lectures, exercises and seminars) and evaluated accordingly. In France, each module has its own rules and evaluation generally associate personal work (production of a report, a poster individually or by groups of students) and a final exam (essay or quiz in a limited time).

During the first academic year, the variety in the evaluation process ensures that the acquirement of all the skills and knowledge formulated in the learning outcomes is considered. One course can be evaluated by taking into consideration several criteria; performance in an examination, quality of a group report and ability to give an oral presentation, for example.

The theses, carried out at the different universities, are evaluated according to jointly agreed guidelines which take into account national evaluation criteria. Thesis evaluation process is continuously reviewed to secure the transparent and equal treatment of the students despite the fact in which Full Partner HEI they complete their MSc Thesis work. European Forestry Field Course, Applied Period in Forest Institutions and Global Virtual Seminar are evaluated by the responsible persons from different institutions in different countries. For example, the evaluation of Applied Period in Forest Institutions consist of supervisor's evaluation (person supervising the internship is often not involved in education or teaching, but the employee in the institution), local coordinators' grading on the written report and evaluation of oral presentation.

VII. Student support

1. Services and support before the mobility periods

In Finland, the Coordinator is responsible for providing support and information on administrative formalities, e.g. how and when to register and apply for residence permit and accommodation in the first academic year. The administrative preparation of the mobility periods starts immediately after the admission decision is delivered to the student, who will receive a welcoming package that contains all relevant information with regard to residence permits, accommodation, orientation programmes, suggested arrival dates etc. After their acceptance into the programme, students can apply for a Finnish residence permit. Special Welcoming Pre-arrival Webinars are also organised for the accepted students to inform them about these issues and to encourage applicants who have not yet confirmed their study places to do so. These Webinars are recorded so that the students can check these at their own convenience.

2. Services and support during the mobility periods

All students begin their studies at UEF, which offers an introduction to MSc EF programme studies and a short excursion for student bonding (incl. intercultural workshop, and a general orientation programme). All second-year Full Partner HEIs offer similar introduction programmes to international students at the beginning of the second year of the programme. Complementary information can be found in the New Students' Practical Guide (available at www.europeanforestry.eu), which deals with (international) student life, programme practicalities, such as registration for courses and exams, personal safety, accommodation, free-time activities, finances and travel in Europe. This specific guide, designed for MSc EF programme students, together with the Practical Guidebooks and websites of each Full Partner HEI, provides students with all necessary information regarding their studies and the practicalities in each country during their two-year study period.

Although the Coordinator has the central role in providing services and information to the students and guest lecturers, all Full Partner HEIs will provide administrative support to the students through the staff members of the universities as well as through the MSc EF programme local coordinators and tutors. The Consortium allocates specific funding for tutoring activities on a regular basis, so that designated tutors provide support to the students during their two-year study period. The Consortium also facilitates and encourages students of the different cohorts to interact and share their experiences and help each other, for example, by providing a variety of student discussion forums and get-together events for them. Peer learning is considered an important part of the MSc EF programme.

In general, by the eighth month of their studies (March of the first year), the second-year host universities will have been decided and the process of applying for the second year's residence permit will begin if needed (in some cases, a 2-year Finnish residence permit will allow students to stay in the second-year host country with the mobility notification). In this case, the Full Partner HEI that hosts the student will issue a support letter and advise the student on the process, in close cooperation with the Coordinator. Since the application is submitted by the student well in advance, the student will receive the residence permit for the second academic year within the following months and always prior to the start of the second academic year. In addition to professional help, the tutors and local coordinators and study advisors in the Full Partner HEIs will provide the students with assistance in solving academic and personal problems. They will also advise the student to contact appropriate authorities when this is needed. Upon arrival, students are encouraged to mingle with their course colleagues and with the local people, which usually makes it easier to comprehend the local way of life. Each Full Partner HEI offers the opportunity for a rich student life, and as all HEIs are familiar with receiving international students, the students will find themselves in multi-cultural environments. As degree students of UEF, all MSc EF programme students will also gain access to student health care in Finland. This includes the

services of nurses, general doctors, psychiatrists, dentists and gynaecologists free of charge or at very low rates. All the degree students will have these facilities at their disposal regardless of their physical location. However, a trip to Finland from the other side of Europe is seldom needed as all the Full Partner HEIs offer similar services and online medical consultations are also common.

During the first academic year, an elementary course in Finnish is available to the students. Similarly, all Full Partner HEIs offer language courses in their local languages (French, German, Spanish, Romanian and Dutch). In addition, other complementary initiatives, such as the Buddy Network in BOKU or the Linguistic Partner programme in UdL are designed to encourage the practice of local languages.

With regard to issues that might occur in the second year, the local coordinators of all second-year host universities meet the students during their first academic year in Finland and provide this information to the students face-to-face. They also send specific information and detailed guidelines to the students on how and when to apply for accommodation and residence permits in each country, when to arrive and how to register as a current student as soon as the second-year host universities for each student have been decided. Detailed guidelines are also available at the programme website. All second-year Full Partner HEIs will also provide support to the student to find suitable accommodation well before the mobility period of the second-academic year. The study programme is designed to consider the accommodation needs of the student, e.g. the course schedule is designed so that the mobility period fits within whole months, so that the students do not have to pay double rent at any point in their studies.

3. Student scholarships

The jointly agreed course rules and the rights and obligations of the students related to EMJM scholarship payments and duties are described in detail in the EMJM Student Agreement. The full EMJM student scholarship (€1,400/month for a max. 24 months) will cover students' subsistence, installation and travel costs, and includes a tuition fee waiver. The CB ensures within the annual student selection meetings that the requirements for geographical balance are taken into account (no more than 10% of the scholarships awarded during the project implementation should be awarded to candidates from the same nationality excl. top up scholarships for targeted regions). The detailed course rules, student rights and obligations with regard to the academic, administrative and financial aspects of the EMJM scholarships are also described in detail in the New Students' Practical Guidebook and on the programme website. The Coordinator (UEF) takes full responsibility for the financial management of the EMJM scholarships, the monitoring of the students and reporting to EACEA. The methodology for the management of the grants within the MSc EF programme is also described in the Partnership Agreement.

Contribution to the institutional costs of the EMJM takes the form of a unit cost per enrolled student (€750/month for a max. 24 months) and covers part of the costs linked to the implementation of the MSc EF programme. These unit costs include staff costs (teaching, travel), invited guest lecturers, promotion, dissemination, organisational costs (incl. full insurance coverage for the enrolled students, financial support to enrolled students with individual needs in cases where they are not covered by the top-up mechanism, assistance with accommodation, and other student services), administrative costs and all other costs that are necessary to implement the MSc EF programme. The contribution to the institutional costs is managed by the Coordinator and is distributed to the Full Partner HEIs according to the financial management rules agreed jointly in the CB.

Non-EU/EEA students without EMJM scholarships pay a contribution to Participation fees to the Consortium. The annual participation fee is €9,000. Participation fees will not be collected from students from EU/EEA or

Switzerland, which is in line with the national legislation of Finland. Consortium can award partial Consortium fee waivers decided on an annual basis by the CB.

4. Insurance

All students are provided with an insurance scheme by a reliable insurance provider (competitive tendering is conducted by the Coordinator on an annual basis). The administration of the insurance will also be managed by the Coordinator. Students will receive relevant documents immediately after they have confirmed their participation in the MSc EF programme so that they can prove that they have adequate insurance in place when they apply for their Finnish residence permit (insurance card and contact details, general conditions, claim modalities, restrictions, etc.).

5. Safety

Upon arrival to a new mobility destination, MSc EF students have an induction period, where also matters of safety and possible risks are presented. It is important that each Full Partner has their own system in case of emergencies. These services should be local and adapted to local conditions and risks. The CB reacts on consortium level to any major incidents.

UEF has defined providers of help in various crisis situations. They are listed in the UEF student handbook available online (<https://kamu.uef.fi/en/student-book/help-in-crises/>).

VIII. Resources

1. Staff

The key staff involved in MSc EF has international recognition for their research, scientific production and academic merits, and the programme plays to the strengths contributed by each. The competencies expected from all key staff members include high academic knowledge and skills based on most recent research, educational and pedagogical competencies, and coaching skills and intercultural competencies.

The input of academic staff involved in the specific courses varies considerably between years at the participating universities. However, all the Full Partner HEIs are internationally oriented universities, and the teachers and staff involved have international experience and are trained to deliver programmes to international students. Although all the Full Partner HEIs take part in organising courses or a part of a course during the first academic year of the MSc European Forestry programme, the majority of common courses during the first academic year are delivered by the Coordinating University and its staff. However, during Trends in European forestry, Global virtual seminar and European forestry field course teaching is delivered or supported by staff and professors from all the Full Partners HEIs.

It is notable that mobility is also an important feature of the programme. Teaching and administrative staff visit other partners, through these visits the staff gain competences and skills with regards to their own professional practices, integrating good practices and new methods from others. For example, teaching staff can benefit from experiences of other partners regarding the use of online courses in learning activities and of specific technological equipment in lab sessions.

2. Facilities

MSc EF students have access to all facilities at the institutions of the Full Partner HEIs, including classrooms, libraries and computing labs, which are in most cases available 24/7 and are the main necessary facilities for the study programme (**Table 6**). Moreover, there are spaces available for quiet studying, group working and for passing the time at each Full Partner HEI.

In addition, students have access to all the online resources like Moodle and e.g. online library services during the whole programme duration. Local coordinators guarantee that the available facilities are sufficient and adequate for the intended learning outcomes. The feedback provided by the students at the end of the first and second year also provides information about the facilities of the participating universities; this feedback will be available to the CB to take action if needed.

Table 6. The list of key facilities provided by the Full Partners.

Full Partner	Library	Computing labs	Self-study facilities
APT, France	YES 8:30-17:30 Monday-Friday	YES 8:00-19:00 Monday-Friday	YES 8:00-23:59, 7/7
BOKU, Austria	YES	YES	YES
UdL, Spain	9:00 – 21:00/7 (longer during evaluative period)	9:00 – 20:00/Monday to Friday	24/7
UFR, Germany	17/7	17/7	17/7
UNITBV, Romania	YES	YES	YES

UEF, Finland	24/7	24/7	24/7
WU, the Netherlands	YES	YES	YES

IX. Transparency and documentation

General information about the programme including admission requirements and procedures, learning outcomes, course catalogues, examination and assessment procedures have been published at the programme web site (<http://www.europeanforestry.eu>). Future and enrolled students will find all relevant information on this site. Similarly, the annually updated Academic Study Guides and the New Student's Practical Guide Books and other relevant forms and instructions are available there. In addition, all enrolled students as well as MSc EF staff have access to the programme's eLearning platform "Moodle" of the jointly organised courses, which, *inter alia*, serves for internal communication between the MSc EF, with and among students, instructors and administrators. Coordinators of the Full Partner HEIs are also using shared Microsoft Teams site for sharing documents related to the programme.

In order to document the students' progress, the Coordinating University collects the grades obtained by the student during the first academic year in student register of the University of Eastern Finland (Peppi). Students' grades are also registered by the Full Partner HEI where the student will spend the second year of the programme. Similarly, the students (or the academic secretariat in the second-year host university in question) will submit the official transcripts of academic records including grades obtained during the second academic year back to the MSc EF coordinator at the end of the second year so that the final transcript would include all completed courses during the 2-year study period. Moreover, two study plans (for the first and for the second academic year), and evaluation reports (the mid-term report) are submitted by the students. Study plans are filled at the beginning of each academic year and in this document the student plans the courses he/she is planning to attend. The evaluation report is done halfway on the second academic year, and this report is designed for students to document their progress during their second academic year (and especially the progress of their thesis project).

The Consortium shall operate a documented continuous improvement system that is aligned with good practice. The Consortium Board (CB) approves quality measures and the study plans annually. Changes to joint processes are ongoing. The Employer Board and the Quality Review Board can propose changes to the programme. Proposed changes to harmonised practices require an Impact Analysis (student workload, ECTS, mobility, IT, legal) and CB approval. Approved changes specify Effective Date, Transition Arrangements, and Communication.

There are also continuous topics that need to be developed and documented between partners. Topics include:

- Harmonised processes for admissions,
- Recognition of prior learning,
- The role of AI in learning tasks,
- Evaluation methods, as well as
- Assessment and the thesis lifecycle.

X. Quality assurance: Internal and external measures

The general principles of quality assurance management and practical procedures are publicly available on the programme website.

1. Internal quality assurance

Internal quality assurance measures are implemented and managed by CB: Course evaluations are shared annually and go beyond the individual university standards set by their formal Quality Offices. An important part of the annual CB meetings will be devoted to this feedback and to discussion of its implications. Thus, one of the main tasks of the CB is to monitor quality indicators which have been defined at the system level, at the institutional level and at the individual level (**Annex 1**).

During the first year, feedback from students is collected by the Coordinator immediately after the courses have ended. If necessary, the Coordinator will take immediate action. The student representatives (at least one second-year representative, and one first-year representative) and alumni representatives invited to CB meetings can freely express their views and suggest changes. Actions are taken to improve the curriculum, and the students and the lecturers concerned are immediately informed of the results of the feedback and the future actions agreed.

During the second academic year, all Full Partner HEIs request their own Quality Offices to collect student feedback under similar headings (ENQA standards). The Coordinator collects this information and also presents conclusions at the annual CB meeting. Upon completion of the MSc EF programme, the coordinator will again ask the students for feedback on the entire curriculum. This is also an opportunity to gather their views on the second year of study, particularly the dissertation-related assessments. Feedback on academic activities, outcomes and even practical arrangements is compiled into a report and analysed in the CB meeting and used to improve the next year's programme. Questionnaires are also sent to alumni upon their graduation to obtain suggestions on how to make the study programme more relevant to their professional needs.

The QRB will be re-established at the beginning of the project, and it will meet online at least once per year. The QRB is the body responsible for quality assurance (especially academic). The invited QRB members will include representatives of external teaching staff (not directly involved in the MSc EF programme) from each Full Partner HEI and from selected Associated Partner HEIs. The Chairperson will be elected among the participants for each meeting. The local coordinator of WU will act as secretary of the QRB. In addition, the QRB includes two alumni and two students (one from the second year and one from the first-year student editions). Depending on the agenda of the QRB meetings, representatives of local quality assurance committees and/or additional representatives of the Associated Industrial/Public/NGO Partners are invited to attend. An external quality report completed by the QRB will be further discussed at the annual CB meetings. This report analyses student/graduate feedback and monitors the quality indicators adopted at the first QRB meeting.

Overall internal quality assurance monitoring: All quality information, including student feedback, collected by the Coordinator, is sent to the QRB, which analyses the material at its meeting. The QRB makes recommendations for the development of the curriculum and the management of the programme, and these recommendations are forwarded to the CB for further analysis at its meetings (as described above). The Coordinator is open to external feedback throughout the year and takes timely and appropriate action in consultation with the CB. All comments are welcomed and, depending on their urgency, action is either taken immediately, or the issue is discussed at the next CB meeting. The Coordinator also collects and analyses feedback from guest lecturers and scholars, who have been invited to contribute their expertise. In addition to the activities carried out and the results achieved, each guest lecturer/invited scholar is asked to provide feedback on the practical arrangements in the form of reports.

2. External quality assurance

External quality assurance activities are implemented and managed by external audits. The programme is committed to the European Approach accreditation scheme (accredited by AQAS for 2019–2025). This accreditation is upon renewal and will include the new Full Partner HEI (WU). This accreditation will result in a report to the CB and QRB for internal follow-up and/or external reporting. In addition, the EB is used to evaluate the working life relevance of the programme. A report prepared by the EB will be discussed at the annual QRB and CB meetings. The report analyses the monitored quality indicators adopted at the first meeting, identifies current needs in the labour market and makes recommendations for curriculum development. Each Full Partner HEI and its study programmes are also subject to external quality assurance procedures in accordance with their national evaluation schemes, which are carried out periodically in each partner university as part of general university audits.

On the basis of the information gathered from internal and external quality procedures, measures are taken to improve the quality of the programme. Quality information is used to improve, e.g. (i) the content of the studies, (ii) teachers' performance and teaching methods, (iii) timetables, and (iv) organisational arrangements and project management procedures.

XI. Social, socio-cultural and professional integration

1. Social integration and wellbeing

The MSc European Forestry (MSc EF) programme supports social integration and wellbeing through its strongly international and community-oriented structure. Students study in at least two European universities and participate together in a one-month field course that travels across several European countries such as Spain, France, Germany, Austria, Romania and the Netherlands. These shared experiences create natural social cohesion and help students integrate into an international learning community. The programme is fundamentally designed to connect people—students and teachers who wish to engage with the European dimension of forestry—thereby strengthening interpersonal networks and fostering a sense of belonging.

Through intensive group activities, particularly during the European Forestry Field Course, students work together in hands-on situations, develop forest management strategies collaboratively, and gain practical experience in real forest environments. This shared academic and personal journey promotes a strong peer community, which supports both social integration and overall wellbeing.

Wellbeing is also supported through practical measures. All enrolled MSc EF students are provided with insurance that covers them throughout their studies and mobility periods, which contributes to their sense of safety during extensive travel and fieldwork. The participating universities offer strong academic environments and close collaboration with experts and faculty, providing additional guidance and support. Furthermore, the programme emphasises networking with potential employers, which can reduce stress related to career planning by offering the clarity and confidence students need as they transition into professional roles.

More information on student well-being and support services can be found from the UEF student handbook available online at <https://kamu.uef.fi/en/tietopankki/student-life-and-well-being/>

2. Socio-cultural and professional integration

The MSc European Forestry (MSc EF) programme offers strong socio-cultural integration through its highly international student cohort, which includes participants from about 70 nationalities. Students study at several European universities and interact with teachers, researchers and industry partners from multiple countries, reinforcing intercultural understanding.

A key integrative feature is the European Forestry Field Course, which takes students through countries such as Romania, Austria, France, Germany, the Netherlands and Spain, exposing them to diverse forestry traditions and local cultures. Students then spend their second year in another European partner university, deepening their cultural immersion.

Language learning (Finnish, French, German, Romanian, Spanish, Dutch) further supports cultural adaptation. Students often describe the programme as exceptionally international, reflecting the strong social and cultural learning built into its structure.

The MSc EF programme also organises several social onsite and online events (e.g. excursions, student gatherings, visits and meetings with other national/international students).

The MSc European Forestry (MSc EF) programme integrates professional development through strong collaboration with employers and the forestry sector, resulting in consistently high graduate employability. The curriculum is designed to meet labour-market needs, preparing students for careers in forest agencies, research institutions, environmental NGOs, and forest-based industries. Professional integration is further supported by a two- to three-month internship and a one-month European Forestry Field Course, which provides hands-on experience across multiple countries and direct interaction with practitioners and policy experts. The programme's international mobility, delivered by a consortium of leading European universities, strengthens students' intercultural skills and familiarity with diverse forest management systems.

3. Alumni co-operation

Alumni co-operation in the MSc European Forestry (MSc EF) programme is an essential and carefully cultivated aspect of the educational experience. Students become part of a large and diverse international community already during their studies, and this network continues to support them long after graduation. The programme notes that graduates leave with "an amazing network of alumni," formed through shared coursework, field excursions across Europe, and daily collaboration within multicultural cohorts. These experiences help students build long-lasting professional relationships and intercultural communication skills.

The programme also supports formal avenues for alumni engagement. Graduates and current students can maintain connections through the MSc European Forestry Alumni group on LinkedIn as well as the Erasmus Mundus Students and Alumni Association (EMA), which offers events, mentoring and professional development opportunities for members of Erasmus Mundus programmes worldwide.

Students become part of the MSc EF community during their studies and are stimulated to remain involved upon graduation. Alumni are invited to stay connected through social media channels, are represented in the Quality Review Board and join MSc EF alumni/student events (e.g. annual online events in December and in June and an onsite/online meeting in conjunction with the graduation ceremony in September), either in person or remotely. In addition, alumni questionnaires collect feedback on the learning outcomes and career paths of alumni. To achieve this, alumni are asked to give some permanent contact email where the programme can reach them.

XII. Student selection appeals and other complaints

The appeal process related to the student selection follows UEF's general admissions policy. An appeal is permitted only when there has been an error in how the application was processed. This may include situations where a submitted document was not evaluated, a qualification was incorrectly interpreted, or a scoring or

administrative mistake occurred. Appeals cannot be submitted simply because an applicant disagrees with the selection outcome; the grounds must relate to a procedural or factual error.

The requirements and modalities for other complaints are informed to the students at the beginning of their studies and documented in the student agreement. Appeal procedures depend on the case and level of the appeal. Some appeals can be handled locally e.g. by the local coordinators but programme specific cases will be handled by the CB.

XIII. Risk management

The MSc EF programme has recognised the following risks, uncertainties or difficulties and the measures/strategy for addressing them.

1. Changes in the list of Full Partners of the Consortium, i.e. a drop-out of a Full Partner.

Good governance, openness in CB and QRB actions between Full Partners, respecting local regulations.

2. Departure of a Coordinating or Academic person (a responsible teacher and/or a thesis supervisor).

Intensive communication, well documented management guidelines, and a pool of staff available. Within the CB, QRB and EB a vice chair will be designated. MSc EF programme courses are taught by different professors, materials are shared when possible and there will be at least two thesis supervisors.

3. National regulations change (e.g., new tuition fee regulations).

Each Full Partner has contacts with national authorities to be aware of possible changes.

4. Misalignment in academic calendars, course content or evaluation methods.

Facilitate regular meetings among academic coordinators, develop a standardised academic framework for the programme and implement a feedback loop for continuous improvement.

5. Changes in insurance criteria necessary for legal residence.

Information exchange and consultation with the international offices of each Full Partner and (alternative) insurance providers.

6. Budgetary discrepancies or financial mismanagement.

Implement a transparent financial tracking system, conduct regular financial audits and establish clear guidelines and a plan for budget allocation and expenditure.

7. Lack of effective communication and/or a communication breakdown between Full Partners, Associated Partners and students.

Utilisation of digital platforms for real-time communication, establishment of known central point of contact for programme-related queries and scheduling regular meetings to discuss programme updates.

8. Loss of electronic or physical documents due to the failure of equipment or a catastrophe.

Continuous archiving and backups of all important documents.

9. Low number of applicants from target regions or only few non-scholarship holders.

Increased marketing and recruiting efforts and support for students to identify third-party funding opportunities and improve recruiting efforts in target regions.

10. Some students do not obtain the required documents to travel according to the mobility requirements of the programme

Students are informed in good time about the procedures required to enter the countries in question. Each partner supports the students with an international office that is in direct contact with the national authorities.

11. Contact teaching and face-to-face CB meetings not possible due to pandemic, political risks, etc.

A plan to move to online or hybrid teaching and consortium meetings, collaboration with EACEA to handle actions in the changed environment.

12. Data protection issues: personal data leaks, inadequate handling of particularly sensitive data.

Data protection and information security guides available for students and staff.

13. Equality of students is not respected.

Special attention is given to equality in student selections, the organisation of teaching and the evaluation of studies. Measures to ensure the prevention of sexual harassment and gender-based discrimination will be promoted.

14. Temporary inability of student to attend the course due to health, or other personal issues or poor academic performance and/or drop-out of the student.

Personal student support, provision of insurance, individual counselling and individual study arrangements. Regular contact with each student, monitoring academic performance, communicating with teaching staff, flexible examination practices, counselling and providing special study arrangements.

15. Ethical guidelines are not respected (e.g. plagiarism, cheating in an exam, prohibited cooperation, inappropriate use of an AI, acting on behalf of another person).

Students will be made aware of the ethical guidelines in cases of suspected fraud and that plagiarism detection tools are used. Student agreements as well as internship agreements will ensure that students are committed to respect ethical guidelines.

XIV. Annexes

Annex 1. Quality indicators defined at the system level, at the institutional level and at the individual level.

Annex 1. Quality indicators defined at the system level, at the institutional level and at the individual level.

A. Expected impacts of EMJM programmes, contribution of the MSc EF programme and defined indicators of the impacts at the system level.

Expected impact	Contribution of the MSc EF	Defined indicators
Foster academic co-operation within the EHEA and beyond by supporting joint teaching and qualifications, quality improvements, promotion of academic excellence.	The MSc EF programme curriculum includes three jointly organised courses. The quality of the programme is monitored by the CB twice a year and by the QRB on an annual basis. Improvement of academic quality is assured by the accreditation according to the European approach of joint programmes every five years.	Annual numbers of -joint courses and tasks. -CB and QRB meetings and their minutes. -Number of years with European Approach accreditation.
Enhance the international dimension of higher education through cooperation between institutions in Europe and abroad, and through mobility for the best students worldwide.	All students have at least two mobility periods at two different Full Partner HEIs. In addition, all students stay a short period at each Full Partner during the European Forestry Field course. All students complete their two months compulsory internship at any Full Partner or Associated Partner organisation in the EU or outside the EU. Several scholars and visiting lecturers participate in the teaching activities each year.	Annual numbers of -mobility periods and internships. -scholars from Associated Partner HEIs, Associated Industrial/Public/NGO Partners. -invited teachers/experts participating in joint courses.
Increase the synergies between higher education, innovation and research.	The MSc EF programme is closely linked with innovation and research through the Associated Industrial/Public/NGO Partners (Employer Board, internship, MSc thesis supervision, visiting lectures, employment fairs). On an annual basis more than 20 master's theses and internships increase the synergies between HEIs and Associated Industrial/Public/NGO Partners.	Proportion of MSc theses made jointly with Associated Industrial/Public/NGO Partners. Number of internship months spent at Associated Industrial/Public/NGO Partners.
Remove barriers to learning, improving access to high quality and innovation-driven education and making it easier for learners to move between countries.	For all the courses (either jointly organised or at the Full Partners) feedback is collected on a regular basis to remove barriers in education at the system level. All MSc EF programme students receive support and assistance from the application stage until graduation and beyond from the designated local coordinators, and international offices of each Full Partner, as well as from student tutors.	Proportion of student feedback with high level of satisfaction. Number of innovative careers identified (employment survey).
Respond to societal and labour market needs.	The curriculum has been designed according to GCs and labour market needs identified by the EB. The continuous monitoring of the career path of the alumni allows us to check the success and employability.	Number of students that are employed one year after graduation. Documented response of EB and QRB meetings.

Contribute to the development of innovative education policies	The innovative teaching and learning methods of the MSc EF programme curriculum (blended learning, flipping the classroom, project-based learning, e-learning tools, hands-on work, virtual events, etc.) help to shape national standards and serves as good practice for education policies.	Number of dissemination activities from the MSc EF programme related to innovative education policies by Full Partners.
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B. Expected impacts of EMJM programmes, contribution of the MSc EF programme and defined indicators of the impacts at the institutional level.

Expected impact	Contribution of the MSc EF	Defined indicators
Provide European and non-European HEIs with more opportunities for structured and sustainable academic cooperation worldwide.	The joint courses, internships and thesis projects will allow existing and new non-European Associated Partner HEIs to promote structured and sustainable cooperation opportunities for students and teachers/scholars.	Number of invited scholar visits, internships and thesis projects worldwide between Full Partners and non-European HEIs.
Improve the quality of programmes at Master level and supervision arrangements.	Most of the courses included in the MSc EF programme curriculum are also open to other students. Visiting lecturers increase the quality of the teaching and enable the change of good practices. The jointly defined thesis guidelines guarantee quality of the thesis and the supervision process.	Student feedback documented and analysed. Minutes of CB meetings. Grading of thesis Number of co-supervised thesis between partners
Increase the internationalisation and competitiveness of participating organisations.	The proportion of courses offered to international students in English increases, which also attracts additional international students outside the MSc EF programme as full degree students or as exchange students.	Total number of international students in each Full Partner HEI.
Support the creation of new networks and enhance the quality of existing ones.	The MSc EF programme Full Partner HEIs have a long history in co-operation in education and in research, which supports engagement in existing networks and the creation of new ones.	Number of active partnerships in networks.
Increase the attractiveness of the participating organisations towards talented students.	By expanding the MSc EF programme Consortium with new Partners and adapting the Learning Outcomes to the needs of the labour market, the number of applicants will be increased.	Number of applicants.
Contribute to the internationalisation policies of HEIs by developing international awareness through their curricula and the design of comprehensive internationalisation strategies	The MSc EF programme Full Partner HEIs support staff exchange between the international partners by targeted activities and contribute to internal Knowledge Exchange Meetings through institutional cooperation and cross border mobility of people.	Number of staff mobilities between Partners. Number of internal Knowledge Exchange Meetings.

C. Expected impacts of EMJM programmes, contribution of the MSc EF programme and defined indicators of the impacts at the individual level.

Expected impact	Contribution of the MSc EF	Defined indicators
Improve employability of participating students.	Intensive collaboration and networking with potential employers throughout the studies (internship, field course, visiting lecturers, thesis projects, employment fairs, online networking and alumni events, etc.).	Employment rates of the graduates after 1–2 years (Graduation and employment surveys). Annual number of networking and alumni events and external non-academic lecturers.
Improve key competences and skills of students.	The key competences and skills have been implemented at the programme level.	Student feedback and analyses (Course feedback and Graduation surveys).
Forge new mind-sets and approaches to academic studies through international, interdisciplinary, intersectoral and intercultural experience.	The MSc EF programme curriculum provides study periods to develop new mind-sets and approaches (e.g. Global Virtual Seminar, structured mobility periods) and possibilities to improve the intercultural, international, interdisciplinary and intersectoral experience of the student while studying with students from many different countries and cultures.	Student and graduate surveys.
Enhance networking and communication capacities of the students.	The MSc EF programme provides an academic skill course. Students will learn networking and communication between students and teaching staff and visiting lecturers during the courses and related visits and excursions. The MSc EF programme organises several online and onsite events where students can also network and communicate with alumni and employers and stakeholders	Students' grades, and feedback. Academic skills course. Number of participants in the online and onsite alumni events. Language courses. Graduation survey (satisfaction).
Increase the individual contribution to the knowledge-based economy and society.	Students are trained to multidisciplinary and international aspects and are encouraged to participate in professional debates and scientific discussions.	Student feedback on courses. Number of careers in various sectors (employment survey).