AQU CATALUNYA

European Approach

External review report for *ex ante* accreditation

Programme   Master in Intelligent Field Robotic Systems (IFROS)

Institutions   Universitat de Girona (UdG, coordinator)
University of Zagreb (UNIZG)
Eötvös Loránd University (ELTE)

Date of the visit   23rd January 2024

TABLE OF CONTENTS

GLOSSARY

EACEA	Education and Culture Executive Agency
ECTS	European Credit Transfer System
EHEA	European Higher Education Area
ELTE	Eötvös Loránd University
EMJM	Erasmus Mundus Joint Master
EQAR	European Quality Assurance Register for Higher Education
EQF	European Qualifications Framework
ESG	Standards and Guidelines for Quality Assurance in the EHEA
FER	Faculty of Electrical Engineering and Computing
QF-EHEA	Qualifications Frameworks for the European Higher Education Area
HEI	Higher Education Institutions
IFROS	Intelligent Field Robotic Systems
LO	Learning Outcomes
IQAS	Internal Quality Assurance System
ISCED	International Standard Classification of Education
MoA	Memorandum of Agreement
SER	Self-Evaluation Report
SMEs	Small and Medium Enterprises
UdG	Universitat de Girona
UNIZG	University of Zagreb

INTRODUCTION

The Intelligent Field Robotic Systems (IFROS) Master Programme is a joint English-master's degree of 120 European Credits (ECTS) which is offered as a full-time two-year, integrated multi-university programme in Spain, Croatia, and Hungary. Given these specific features, the panel based its assessment on the standards of the European Approach for Quality Assurance of Joint Programmes in the European Higher Education Area. The standards to be assessed are based on the Standards and Guidelines for Quality Assurance in the EHEA (ESG). This procedure allows the possibility that only one procedure can lead to accreditation in several countries.

IFROS is coordinated by the Universitat de Girona (UdG, Spain) together with the University of Zagreb (UNIZG, Croatia) and Eötvös Loránd University (ELTE, Hungary) as consortium programme partners. IFROS is supported by 28 associated partners encompassing global/local partners, major industrial companies and SMEs, academia, and research centers. Their support will enable the IFROS consortium to foster relationships with their home countries (Latin America, West Balkans, and Asia, among other regions) thereby enhancing the attractiveness of European Higher Education in these areas.

The IFROS programme is designed to train a new generation of engineers who will develop new applications and tools to expand the capabilities of field robots in the near future. The technology behind these systems comes from different research areas such as artificial intelligence, computer vision, control, machine learning, manipulation, all of them under fast-paced evolution in the current digital revolution.

IFROS ensures a clear and structured educational progress, integrating the expertise of the three universities that are part of the consortium, and offering students the possibility to choose between two different itineraries, according to their preferences.

The Master is divided into four modules of 30 ECTS each. The initial two modules are conducted at UdG during the first year. Regarding the third module, students can opt for a program focused on multiple robots and unmanned aerial vehicles (M3a. conducted at UNIZG) or a program centred on autonomous systems particularly autonomous cars (M3b. conducted at ELTE). In the final module, students undertake a master's thesis, which can be completed with any of the consortium members or

associated partners. Successful program completion awards students a Joint master's degree and a European Diploma Supplement.

Established in 2020 as an Erasmus Mundus program, IFROS is funded by the European Education and Culture Executive Agency (EACEA) for the period 2021-2025.

In 2023, following the completion of the first graduating cohort, the consortium conducted a review of the master's program, making minor adjustments to the 2020 program and opting for a unique validation at the European level, aligning with the European Approach.

This report is an *ex-ante* evaluation. The panel based its assessment on the Standards for Quality Assurance of Joint Programmes in the European Higher Education Area (EHEA), issued in October 2014 and approved by the EHEA ministers in May 2015. This European Approach for Quality Assurance of Joint Programmes should be applied to quality assurance of international joint programmes if some of the cooperating higher education institutions require external quality assurance at the programme level. The standards to be assessed are based on the Standards and Guidelines for Quality Assurance in the EHEA (ESG). This procedure allows the possibility that only one procedure can lead to accreditation in several countries.

The panel members studied the application documentation of the programme and reported their preliminary findings before the site visit to the secretary. The secretary collected them and processed them for the preparatory meeting on 17th January 2023. Both the preparatory meeting and the site-visit were online meetings. At the preparatory meeting, the panel discussed the preliminary findings, identified the most important issues for discussion and prepared the sessions with the delegations.

The online site visit took place on 23rd January 2024. The panel discussed with delegations of the management of the consortium and the programme, as well as with lecturers, students, graduates, and the professional field. The visit ran fluently, and all participants provided valuable input to better understand the training programme proposal, giving the panel sufficient proof for a positive assessment of the IFROS programme.

On April 1st, the consortium sent their comments to the previous report, which had been reviewed by the panel member. The updated report, incorporating some changes, has been submitted to the Specific Commission for their final decision.

Basic information of the programme proposal reviewed

Full name: Master in Intelligent Field Robotic Systems (IFROS)

EQF level: Level 7 master's degree

Degrees awarded: Master in Intelligent Field Robotic Systems" by Universitat de Girona, University of Zagreb, and Eötvös Loránd University.

ECTS: 120 ECTS- 2 years, 4 semesters

ISCED field(s) of study: 06 – Information and Communication Technologies and 07 – Engineering, manufacturing, and construction

Panel composition

Chair: José Antonio Macías Iglesias
Computer Engineering Department, Universidad Autónoma de Madrid

Academic: Zlatan Car
University of Rijeka, Faculty of Engineering, Department of Automation and Electronics

Academic: María José Erro Betrán
Electronic Technology, Universidad Pública de Navarra

Student: Petrică Leancă
Master's Degree Artificial Intelligence and Vision, Technical University of Cluj-Napoca

Professional: Francesc Cortés
Industrial robotics, manufacturing processes, applications, and innovation, LEITAT

Secretary. Teresa Pitarch Jovani
Methodology, AQU Catalunya

Agenda

23rd January 2024

Time	Activity
09:00-10:00	Meeting with programme coordinators and management team
10:00-10:10	Break
10:10-11:10	Meeting with teaching staff
11:10-11:20	Break
11:20-12:10	Meeting with graduates and students
12:10-12:20	Break
12:20-13:00	Meeting with employers
13:00-14:00	Internal work
14:00-14:15	Preliminary conclusions

List of evidence reviewed

IFROS Self-Evaluation Report

Annex 1_MOA_with_Addendum

Annex 2_Letters_of_Support

Annex 3_IFROS Course Syllabi

Annex 4_Plan_Frameworks_LO_Aligment

Annex 5_Teaching staff

ASSESSMENT CRITERIA

1. ELIGIBILITY

1.1. Status

> The institutions that offer a joint programme should be recognised as higher education institutions by the relevant authorities of their countries. Their respective national legal frameworks should enable them to participate in the joint programme and, if applicable, to award a joint degree. The institutions awarding the degree(s) should ensure that the degree(s) belong to the higher education degree systems of the countries in which they are based.

Evidence

IFROS is a two-year joint master's degree with 120 ECTS coordinated by the Universitat de Girona (UdG, Spain) together with the University of Zagreb (UNIZG, Croatia) and Eötvös Loránd University (ELTE, Hungary), as consortium programme partners.

The self-evaluation report describes the programme's history. The master's program was created in 2020 as an Erasmus Mundus and funded by the Education and Culture Executive Agency (EACEA) for the years 2021-2025. In 2023, following the completion of the first graduating cohort, the program underwent a review leading to the implementation of some minor adjustments.

IFROS is an ERASMUS+ program (Project Reference: 619789-EPP-1-2020-1-ES-EPPKA1-JMD-MOB), and the European Approach assessment is not necessary for legal purposes. The objective of the European Approach assessment, in this case, is to provide an external and expert evaluation to enhance and strengthen the program's eligibility for renewing the ERASMUS+ Label. Additionally, obtaining European Approach *ex ante* accreditation will facilitate the recognition of this degree in all the countries involved.

The institutions delivering the programme are recognised as higher education institutions by the authorities of their countries as stated in the SER and are duly registered in EQAR:

- – Universitat de Girona (Spain) – DEQARINST0788
- – University of Zagreb (Croatia) – DEQARINST1270
- – Eötvös Loránd University (Hungary) – DEQARINST1304

The respective national frameworks enable the institutions to engage in the programme. Legislations within the three countries government allows universities not only to collaborate in a joint programme, but also to award and recognise a joint degree.

However, the documentation provided does not demonstrate how the authorization for organizing and implementing the study program was formally conducted between the University of Zagreb (UNIZG) and the Faculty of Electrical Engineering and Computing (FER). The University of Zagreb (UNIZG) is one of the lead partners; nevertheless, the teaching and conduct of the studies take place at another legal entity, the Faculty of Electrical Engineering and Computing (FER). Upon request of the panel due to the national legal framework requirements, a letter of commitment between UNIZG and FER has been provided, however, the letter corresponds to the Erasmus Mundus call of 2021, not the current program.

The program also offers 28 associated partners for students undertake internships and complete their master thesis. Endorsement letters have been supplied.

- UTP Universiti Teknologi PETRONAS - PETRONAS University of Technology
- Universidad de Santa Catarina
- Atlas-Elektronik
- EURECAT Technology Center
- NATO Science and Technology Organization
- CIDESI: Centro de Ingeniería y Desarrollo Industrial
- Continental Automotive Romania Srl
- KRISO (Korean Research Institute of Ships & Ocean Engineering)
- IQUA Robotics, SL
- CORONIS Computing, SL
- Geomar Helmholtz Centre for Ocean Research Kiel
- Robotnik Automation SLL
- Universidade Federal Do Rio Grande-Frung
- Graal Tech
- SMD (Soil Machine Dynamics Limited)
- TAVID
- Metal Maker 3D
- SUBDRON
- Deutsches Zentrum für Luft und Raumfahrt e.V
- H2ORobotics d.o.o.
- Innovation Centre Nikola Tesla (ICENT)
- RoMb Technologies d.o.o.
- University of Sarajevo
- CATEC Sevilla. Fundación Andaluza para el Desarrollo aerospacial
- Elte-Soft Research and Non-profit Ltd.
- Inter-Volume Ltd.

Graduates will be awarded a joint diploma issued by the coordinating institution (UdG), specifying the selected itinerary: multiple robots, human-machine interfaces, and air vehicles; or autonomous systems and self-driving land vehicles. These diplomas will be integrated into the respective national systems following the agreements made by the three institutions.

Assessment

The panel considers that institutions offering the joint programme are recognised as higher education institutions by their respective national authorities allowing them to participate in the joint programme.

While the University of Zagreb (UNIZG) is a partner of the consortium, the actual teaching and administration of this program take place at the Faculty of Electrical Engineering and Computing (FER), a separate legal entity under UNIZG. In compliance with Croatian law, to showcase FER's teaching and infrastructure capabilities it is necessary to provide an updated formal letter of agreement between UNIZG and FER or an updated MoA specifying the participation of FER, for the current assessed program.

Regarding the associated partners, although some institutions are not higher education institutions, it is considered that their experience and research activity are sufficiently relevant to add value to the proposed program.

The panel concludes that **the standard is compliant with conditions**.

Requirement

- A formal agreement evidencing the establishment or transfer of obligations and rights from the University of Zagreb (UNIZG) to its constituent (FER) for the implementation of the mentioned program is required.

1.2. Joint design and delivery

The joint programme should be offered jointly, involving all cooperating institutions in the design and delivery of the programme.

Evidence

The IFROS Consortium —the three HEIs (UdG, UNIZG and ELTE), and Associated Partners— has established the working mechanisms, governing bodies, and management tools in the MoA (Annex 1).

All the three institutions have been involved in the design of the program and, although the leading institution -UdG- has a more relevant role on the administrative and legal aspects of the program, all the universities are equally represented in the Academic Board that is the main structure in charge of the degree.

There are three main management bodies: the Academic Board (AB), the Quality Board (QB), and the Industrial Board (IB).

The Academic Board (AB) is expected to meet at least three times annually. Its members include the master coordinator, course directors from the three universities; a minimum of three academic delegates from each university; at least two administrative staff,

(ideally three) representing three universities, and two student representatives, from different batches.

The Quality Board (QB) will meet once a year. It comprises one representative from each university, at least one representative of the academic associated partners, two student representatives, and at least one external evaluator.

The Industrial board (IB) will consist of one representative from each university and at least two, preferably four, external advisors from industrial partners. It will meet once a year.

There is also strong evidence that all three institutions are involved in the delivery, evaluation, and improvement of the joint programme. Moreover, the proposal is based in taking advantage of the different lines of specialization of the three members of the consortium so that students can study in depth what most interests and suits them for their professional future, having to complete the master studies at least in two different universities of the three involved in the consortium.

The proposal includes a Memorandum of Agreement (MoA) within the three universities (Annex 1) and support letters from the Associated Partners (Annex 2).

According to the MoA provided, the programme consists of two study years (120 ECTS) according to a unified semester scheme, starting annually in September/October:

- Semester 1: compulsory fundamental courses at UdG, 30 ECTS
- Semester 2: compulsory specialisation courses at UdG, 30 ECTS
- Semester 3: intensification programme at UNIZG or ELTE, 30 ECTS
- Semester 4: master thesis at any HEI or Associated Partner, 30 ECTS.

However, as noted in point 1.1., there is a lack of a formal agreement between the University of Zagreb (UNIZG) and the Faculty of Electrical Engineering and Computing (FER) for implementing the IFROS program that should be provided.

Overall, the IFROS master's program exemplifies a well-coordinated, multi-institutional effort with a strong emphasis on collaboration, inclusivity, and international participation. The evidence suggests a comprehensive contribution from each institution, ensuring the joint nature and added value of the program in the academic landscape and labour market.

Assessment

The panel considers that the programme is offered jointly, involving all cooperating institutions in its design and delivery.

The panel concludes that **the standard is compliant.**

1.3. Cooperation agreement

The terms and conditions of the joint programme should be laid down in a cooperation agreement. The agreement should in particular cover the following issues:

- Denomination of the degree(s) awarded in the programme

- Coordination and responsibilities of the partners involved regarding management and financial organisation (including funding, sharing of costs and income etc.)

- Admission and selection procedures for students

- Mobility of students and teachers

- Examination regulations, student assessment methods, recognition of credits and degree awarding procedures in the consortium.

Evidence

The IFROS MoA (Annex 1) covers thoroughly the items listed in the standard:

a) Denomination of the degree(s) awarded in the programme

Master in INTELLIGENT FIELD ROBOTICS SYSTEMS (IFROS)

b) Coordination and responsibilities of the partners involved

The coordination and responsibilities of the partners primarily lies with the Academic Board (AB) comprised of course coordinators representing each university, two student representative and at least three administrative representatives from each institution. As outlined in the agreement, the board is assigned various functions:

i. *Annually agreeing on the admissions target for the programme, for both the target recruitment countries and the EU.*
ii. *Organizing the application process and the selection/admission of students, bearing in mind principles of fair access.*
iii. *Keeping a periodic review of the learning outcomes of the programme.*
iv. *Designing and validating of the content, coherence, and assessment strategy for the programme.*
v. *Performing ongoing curriculum enhancement.*
vi. *Coordinating the language policy and of language learning opportunities.*
vii. *Coordinating the quality control.*
viii. *Ensuring standardization of ICT support.*
ix. *Ensuring mutual recognition (through ECTS) of student performance and achievement.*
x. *Addressing academic and administrative issues about students.*
xi. *Monitoring student achievement and progression.*
xii. *Reviewing feedback from students and coordinating issues and actions arising.*

xiii. *Addressing administrative issues about the organization of teaching.*
xiv. *Keeping oversight of the degree programme handbook.*
xv. *Advertising and performing public relations relating to the programme.*
xvi. *Reporting to the European Commission as required.*
xvii. *Addressing General Administrative and Financial Issues.*
xviii. *Developing protocols for the quality assurance of the award in relation to the requirements of the different national quality assurance frameworks applicable to consortium members. Following initial programme approval to the satisfaction of all member institutions, drawing up an agreed scheme for programme quality assurance monitoring and review.*
xix. *Monitoring and evaluation of the course and follow up actions.*
xx. *Nominating External Reviewers*

Universitat de Girona (UdG) leads the consortium coordination, that involves general administrative oversight of the programme as well as financial issues.

c) Admission and selection procedures for students

The MoA covers:
- Application procedures
- Admission criteria and selection procedures
- Selection procedures for Intensification Program
- Enrolment of students
  At the commencement of the program, students will be enrolled at the coordinating institution, and during the second semester, at the institution where they pursue their intensification program. Enrolment requires the acknowledgment and acceptance of commitments to statutes, ordinances, regulations, and rules of these institutions.

d) Mobility of students and teachers

According to the MoA, the programme consists of two study years (120 ECTS). The first academic year will be conducted at UdG (S1 + S2, 60 ECTS). In the third semester (S3, 30 ECTS), students will choose an intensification programme at either UNIZG or ELTE. Finally, in the final semester (S4, 30 ECTS), students will work on a master's thesis which can be conducted at any consortium member or associated partner. Students will have a supervisor from the university where they completed the third semester and a second supervisor from the company, university, or research centre they select for their master thesis.

This complies with the EMJM framework which states that programmes must include compulsory physical mobility for all students "consisting of a minimum of two study periods in two countries. Each of these mandatory study periods must correspond to a workload of at least one academic semester (30 ECTS credits or

equivalent) and the two countries must be different from the country of residence of the student at enrolment stage".

The program has organized an exchange of professors between ELTE and UNIZG for the second semester, as well as an aerial workshop at UNIZG for the 3rd semester. However, the current MoA does not provide details regarding the procedure for facilitating the exchange of academic staff and teaching experiences.

e) Examination regulations, student assessment methods, recognition of credits and degree awarding procedures in the consortium.

The agreement establishes equivalence among the various grading systems used by each partner university. However, it gives precedence to the examination regulations of each institution, and the assessment criteria will be determined by the university responsible for the module. It is important to highlight that the Assessment Board (AB) is responsible for harmonizing and agreeing on these criteria.

Assessment

The panel concludes that the terms and conditions of the program are clearly outlined in the MoA. However, the definition or specification of exchange of the academic staff and teaching experiences is not clearly defined. During conversations in the online visit, it was noted that some exchanges have taken place, but they lack formal structure.

This document covers all relevant topics that they are governed adequately. The panel concludes that **the standard is compliant.**

Recommendations

- It is recommended to consider a review and clarification of the definition and specifications concerning the exchange of academic staff and teaching experiences in the MoA to enhance the structure for such exchanges.

2. LEARNING OUTCOMES

2.1. Level

The intended learning outcomes should align with the corresponding level in the Framework for Qualifications in the European Higher Education Area (FQ-EHEA), as well as the applicable national qualifications framework(s).

Evidence

The SER provides evidence that the learning outcomes of the IFROS program meet the requirements of the EHEA framework. These requirements include demonstrate knowledge and understanding, applying knowledge in new or unfamiliar environments, integrating knowledge to handle complexity, communicating conclusions clearly, and possessing self-directed learning skills. The program's specific learning outcomes, such as proficiency in programming languages used in intelligent robotics and applying machine learning methods, align with these EHEA requirements.

The intended learning outcomes align with level 7 in the EQF and with the applicable national frameworks of Spain, Croatian and Hungary:

1. **Spanish Qualification Framework (MECES):** The IFROS program aligns with the Spanish Qualification Framework, particularly at the master's level, which is level 3 in MECES. This level includes acquiring advanced knowledge, applying, and integrating knowledge in new environments, evaluating, and selecting appropriate scientific theory, predicting, and controlling complex situations, and communicating research results effectively. The program's learning outcomes align with these descriptors.

2. **Croatian Qualification Framework (CROQF):** The IFROS program is categorized under Level 7 in the CROQF, aligning with the expectations for university graduate studies. The program's learning outcomes correspond with CROQF descriptors, which include evaluating specialized facts and principles, applying knowledge to solve complex tasks, and taking ethical and social responsibility.

3. **Hungarian Qualification Framework (HuQF):** The IFROS program is categorized under level 7 in the ISCED university education system. The learning outcomes of the program align with the HuQF descriptors, which cover a wide range of knowledge, skills, attitudes, autonomy, and responsibility. This includes performing exhaustive analysis, identifying profession-specific issues, and managing professional projects in unpredictable situations.

Assessment

The panel of experts consider that the intended learning outcomes align with the corresponding level in the Qualifications Frameworks in the European Higher Education Area (QF-EHEA) as well as the three national qualifications frameworks involved.

The panel concludes that **the standard is compliant**.

2.2. Disciplinary fields

> The intended learning outcomes should comprise knowledge, skills, and competencies in the respective disciplinary field(s).

Evidence

The SER provides a comprehensive analysis of the industry's needs for the upcoming years. According to the Service Robotics Market Analysis by Application and Segment Forecasts 2020 by Grand View Research, it is predicted sustainable growth in the service robotics sector.

The program's approach is described as "a*imed to change the paradigm where robots are only found in industries such as food, metallurgy, automotive or electronics, performing highly deterministic tasks, in isolation and following a program, to a more flexible operation in an open environment integrated in teams composed of other robots but also human workers, perceiving the world around them and acting based on AI algorithms in a wide variety of applications such as agriculture, security, inspection, or logistics*".

Regarding sustainability, IFROS aims to address at least 5 out of the 17 UNESCO Sustainable Development Goals: Quality of Education, Decent working and economic growth, Industry, innovation and infrastructure, Responsible consumption and production, Partnerships for the goal, Life under water and Life on land, areas where the adoption of intelligent robotic field technology will help to improve.

As a result, the program is described as "a *unique opportunity to educate and equip students with the knowledge and skills needed to become culturally aware, environmentally conscious, and technically proficient experts in the field of intelligent field robotics and systems. Therefore, the main objective of the master's program is to provide students with specialized, cutting-edge, and research-focused postgraduate education in the field of intelligent robotics, with a special interest in developing practical field applications*".

The program is focused on practical application and simultaneously offers essential theoretical knowledge. Students will be exposed to real-world cases enabling them to

develop de necessary skills to embark on a professional career or pursue doctoral studies.

Considering this, the IFROS program outlines the following key objectives:

- To complement the graduates' education with a scientific and technical excellence that enables them to engage in R&D activities or work in technology-based companies.

- To equip students with the ability to solve technological and research problems.

- To train students in teamwork, document preparation, and project presentation skills.

- To provide students with opportunities to participate in or engage with activities or projects in different environments: research laboratories, other universities, companies, or institutions.

- To prepare students for the development of a doctoral thesis. The master's program serves as the necessary training period for the completion of a doctoral thesis.

- To enhance Europe's international position in research and technology development within the thematic areas covered by the master's program.

- To develop students' abilities for autonomous or self-directed learning.

Assessment

IFROS provides knowledge, skills, and competencies in the disciplinary field of intelligent field robotic systems, contributing to integrating these three aspects. The program focuses on robotics, autonomous systems, and artificial intelligence fields. This knowledge will ensure a steady supply of talented individuals capable of developing and implementing intelligent field robotics solutions. Additionally, fostering the emergence of research institutions and start-ups working on cutting-edge technologies will further strengthen Europe's position in the market.

The panel concludes that **the standard is compliant.**

2.3. Achievement

> The programme should be able to demonstrate that the intended learning outcomes are achieved.

Evidence

The structure and content of each course is designed to meet defined learning goals that match the intended learning outcomes of the overall programme (Annex 3).

An overview of the correlation between the learning outcomes (LO) of the IFROS program and the individual courses has been presented, illustrating that students have numerous opportunities to engage with the defined learning outcomes within the three modules offered. The sequencing of courses is meant to ensure the progressive development of each learning outcome across the various modules. Furthermore, the Master Thesis contributes to consolidating all the defined learning outcomes, ensuring that students gain a comprehensive understanding of the essential components that constitute intelligent field robotic systems. They also acquire multidisciplinary knowledge encompassing fundamental aspects and values within this field.

The program employs a diverse range of pedagogical approaches, blending traditional lectures with interactive sessions, lab work, and project-based learning.

Students are evaluated throughout the program using a combination of learning and assessment methodologies. The program utilizes a mix of written exams, projects, and presentations, aiming to comprehensively evaluate both the students' knowledge and their practical competencies.

Assessment

Since program has already been running as an Erasmus Mundus project since 2021, demonstration of learning outcomes with past exams, projects, lab reports, should be performed. On the master's webpage, the master's thesis from the first promotion is published and demonstrate that students have been able to achieve the objectives established in the joint program. Therefore, based on the documentation submitted and the conversations during the onsite visit, the panel considers that the intended learning outcomes of the programme will be achieved.

The panel concludes that **the standard is compliant.**

3. STUDY PROGRAMME

3.1. Curriculum

The structure and content of the curriculum should be fit to enable the students to achieve the intended learning outcomes.

Evidence

IFROS consists of a four-module (Fundamental courses, Specialization courses, Intensification program, Master thesis) two-year programme (120 ECTS):

- First academic year delivered at UdG: **Fundamental courses** (S1, 30 ECTS; 5 module courses x 6 ECTS + 2 module courses x 3 ECTS) and **Specialization courses** (S2, 30 ECTS; 4 module courses x 6 ECTS + 2 module courses x 3 ECTS).
- Second academic year, third semester to choose from two specialization programs (S3, 30 ECTS; **Multiple robots and UAVs and HRI** at UNIZG: 5 module courses x 5 ECTS + 1 module course x 3 ECTS + 1 module course x 2 ECTS or **Autonomous systems and self-driving vehicles** at ELTE: 6 module courses x 6 ECTS + 1 module course x 4 ECTS + 1 module course x 2 ECTS).
- Second academic year, fourth semester (S4, 30 ECTS), students develop their **Master Thesis**. Students have the flexibility to choose any of the consortium universities (UdG, UNIZG, or ELTE) or one of the research centres or companies associated with the master's program.

IFROS study programme design:

M1 UdG 30 ECTS	M2 UdG 30 ECTS	M3a UNIZG 30 ECTS	M4 30 ECTS
Fundamental Courses	Specialisation Courses	Multi-robot Systems, UAVs and HRI	Master Thesis

		M3b ELTE 30 ECTS	
		autonomous systems and	
		self-driving vehicles	

Assessment

The curriculum is structured according to the study programme objectives, presenting a two-year program divided into four semesters. This design creates a well-defined training path that simulates the complete innovation journey, ensuring students acquire the necessary knowledge and progress towards achieving the intended learning outcomes.

The master's structure is well-formed and consolidated, leveraging existing infrastructure and support. Positive collaboration with the industry is evident through numerous of partnerships and collaborations.

According to the panel, IFROS offers a crafted and calibrated curriculum with a solid core basis and sufficient room for specialization. The panel finds the subjects appropriate, and the two mobility tracks interesting and relevant. The structure and content of the IFROS curriculum enable students to achieve the intended learning outcomes.

The panel concludes that **the standard is compliant.**

3.2. Credits

The European Credit Transfer System (ECTS) should be applied properly, and the distribution of credits should be clear.

Evidence

The IFROS master's program is structured to align with the European Credit Transfer System (ECTS), which is a standard across the EHEA for ensuring academic quality and comparability of study periods abroad. The program spans two years and comprises a total of 120 ECTS, which is consistent with the expected workload for a master's degree in the Bologna Process framework.

ECTS Distribution and Clarity:

- Module ECTS Allocation: Each module in the IFROS program is valued at 30 ECTS, reflecting a clear and systematic distribution of credits across the curriculum. This is in line with the ECTS guidelines where one academic year is typically worth 60 ECTS credits, and a full master's program is often 120 ECTS credits.
- Program Structure: The program starts with two mandatory modules, followed by an optional module allowing students to specialize in one of two intensification programs. This choice supports the ECTS principle of student-centred learning by offering flexibility and personalization of the study trajectory.
- Master Thesis: In the final semester, students undertake a fourth module dedicated to their master's thesis, which is also allocated 30 ECTS. This substantial credit allocation for the thesis underscores its importance as a

capstone project demonstrating mastery and integration of the program's learning outcomes.

- Detailed Information: The program provides a detailed overview in Table 1.3 of the report, and further details for each course, including the corresponding ECTS credits, are available in Annex 3. This transparency ensures that students and stakeholders can clearly understand the credit distribution and workload expectations.

Assessment

The IFROS program's application of the ECTS is proper, with a clear distribution of credits that align with the standard requirements for a European master's program. The structure of the curriculum, with defined credit allocations for each module and the master's thesis, supports a coherent educational progression aimed at achieving the intended learning outcomes. The detailed documentation provided in the program's annexes further affirms the program's commitment to transparency and adherence to ECTS standards.

The panel considers that the European Credit Transfer System (ECTS) is applied properly, and the distribution of credits is clear.

The panel concludes that **the standard is compliant.**

3.3. Workload

A joint bachelor programme will typically amount to a total student workload of 180–240 ECTS-credits; a joint master programme will typically amount to 90–120 ECTS-credits and should not be less than 60 ECTS-credits at second cycle level (credit ranges according to the FQ-EHEA); for joint doctorates there is no credit range specified.

Evidence

As said in the previous section, IFROS is a two-year master's programme of 120 ECTS divided into 4 semesters 30 ECTS each.

The workload for each ECTS credit is defined as 25-30 hours, with an annual study effort of 1,500-1,800 hours, with 30 ECTS per semester. Thus, the program requires a total workload of 3,000-3,600 hours. For the Master Thesis, a typical workload of 750-900 hours (equivalent to 30 ECTS) is required. This range is because the specific workload per ECTS credit may vary depending on the partner university:

- UdG adheres to the regulations outlined in Royal Decree 1125/2003 of September 5, 2003, which establishes the European credit and grading system for official

university degrees in Spain. According to this decree, each credit corresponds to a workload of 25 to 30 hours. Typically, an academic year is valued at 60 ECTS credits.

- At UNIZG, 1 ECTS credit is equivalent of approximately 30 working hours. Credits are awarded only when the course has been completed and all required examinations have been successfully taken. 60 ECTS credits represent the workload of a year study, 30 ECTS credits per semester.

- At ELTE, according to the Hungarian academic credit system following the Hungarian law, is an ECTS-compatible system. The calculation of the credits is based on the number of working hours of the students, one credit is 30 working hours, on average.

Assessment

During the online visit, conversations with students and alumni revealed it was perceived a high workload in ELTE and UNIZG, leading to difficulties to completing robotics-related tasks within the allotted time.

The panel acknowledges this concern and emphasizes the importance of evenly distributing the workload over the 120 ECTS of the master's programme, especially considering that the program is taught in different locations. Feedback from the previous report indicates that the consortium has implemented various measures to address this challenge. Efforts will focus on promoting more equitable distribution of tasks, including assignments, labs, and exams. Additionally, students will receive clear guidance on weekly workload expectations, covering deadlines, assessments, and lab schedules. This proactive approach will enable students to effectively manage their time and minimize last-minute rushes. Continuous monitoring will be essential to verify the efficacy of the proposed solution in addressing the workload distribution concern.

The panel concludes that **the standard is compliant.**

Recommendations

- To ensure improved workload distribution and effective time management, it is recommended that the consortium continues its efforts to promote fairness in task allocation and provide clear guidance on workload expectations. Additionally, ongoing monitoring is advised to assess the effectiveness of these measures in addressing workload distribution concerns.

4. ADMISSION AND RECOGNITION

4.1. Admission

> The admission requirements and selection procedures should be appropriate in light of the programme's level and discipline.

Evidence

The MoA and SER stablish admission establish requirements and selection procedures.

To be eligible for admission to the IFROS program, there are two defined prerequisites:

1. **Academic profile**: Candidates must hold a higher education degree preferably in Industrial or Mechanical Engineering, Electronics, Computer Science, Robotics, Physics, Mathematics, or a related field.
2. **English proficiency**: The minimum level requirement for non-native English speakers is B2.

For the application submission process, students will need to prepare various documents, including a letter of motivation, a short curriculum vitae, a scan of a certified copy of the bachelor's degree or equivalent with records translated into English, proof of competency in English, ID documentation, and optionally, the names of two referees. The entire process is completed via the degree's webpage where all necessary information, including documentation requirements and timelines, is clearly stated.

The selection process incorporates a multi-faceted evaluation of academic records, motivation, curriculum vitae, and assessment of up to two referee letters. In the event of receiving more applicants than available slots for the master's program, candidates meeting the minimum requirements (i.e., previous degree and English proficiency) will be evaluated based on the following criteria:

$$CGPA + ML + CV + Rf$$

- CGPA (Cumulative Grade Point Average): 0 - 4
- ML (Motivation Letter): 0 – 1
- CV (Curriculum Vitae): 0 – 1
- Rf (referees' letters): 0 – 0,5

The assessment will be conducted by the IFROS Academic Board, with final admissions decisions requiring approval from at least one representative from each university (UdG, UNIZG, and ELTE).

Assessment

The IFROS master's program has instituted that are not only rigorous and aligned with the academic and professional standards of the program but also reflective of the

collaborative nature of the consortium's institutions. These standards ensure that the selection of candidates is based on a combination of academic merit, language proficiency, and personal motivation, all of which are crucial for success at the master's level.

The panel considers that the joint admission requirements and selection procedures are appropriate given the programme's level and discipline.

The panel concludes that **the standard is compliant.**

4.2. Recognition

Recognition of qualifications and of periods of studies (including recognition of prior learning) should be applied in line with the Lisbon Recognition Convention and subsidiary documents.

Evidence

In the SER it is indicated:

"In line with the Lisbon Recognition Convention, students can apply for an exemption from a course, given previous studies and/or work experience. IFROS will accept two major categories of exemption:

- *Exemption based on Recognition of Prior Qualifications: In this case, the exemption is requested based on programmes or courses that students have completed successfully before. The procedure is based on certificates that can prove the student succeeded in a certain programme or course.*
- *B. Exemption based on Recognition of Prior Learning: The exemption is in this case requested based on experiences outside of the education system. The procedure requires a greater commitment as it implies interviews and an assessment.*

If the Academic Board accepts the request for recognition of prior learning or work experience, this recognition will be conducted in accordance with the procedures established at the university in charge of teaching the course(s) in question (i.e., UdG, UNIZG or ELTE)".

Assessment

The students may apply for recognition of previous qualifications and non-formal learning, as recommended in the Lisbon Recognition Convention. However, this aspect is not addressed in the MoA or any other official document available to the panel. Additionally, there are no references to this point on the IFROS website.

The absence of a standardized process and criteria across all universities can lead to unfair situations and a lack of transparency. To address this, it is recommended to provide more specific information in the SER regarding recognition. This includes

examples of evidence for professional experience or prior learning recognition, the minimum required professional experience and the relevant fields of industry.

The Academic Board, responsible for assessing recognition, should also oversee the procedure to ensure consistency. Additionally, it would be beneficial to establish guidelines regarding types of formal qualifications or non-formal learnings that will be considered for exemptions.

The panel concludes that **the standard is compliant.**

Recommendations

- Publish clear and accessible information about all types of recognition for stakeholders.
- Include recognition procedures in the MoA.
- Establish guidelines regarding formal qualifications or non-formal learnings that will be considered for exemptions.

5. LEARNING, TEACHING AND ASSESSMENT

5.1. Learning and teaching

> The programme should be designed to correspond with the intended learning outcomes, and the learning and teaching approaches applied should be adequate to achieve those. The diversity of students and their needs should be respected and attended to, especially in view of potential different cultural backgrounds of the students.

Evidence

The program is structured to guide students through a progression of learning experiences. Initially, they acquire foundational knowledge and skills, transitioning from theoretical to practical applications. Subsequently, they deepen their understanding within specific areas of the curriculum before culminating their learning in a capstone project. Teaching and learning activities vary across subjects, encompassing lectures, practical sessions, seminars, problem-solving exercises, and project work, tailored to the intended learning outcomes of each field. The details of each course learning and teaching methodologies are shown in Annex 3.

During the 4th semester, students will develop their own master's thesis. The students will be provided with a list of master's thesis topics during the third semester. The Academic Board will review and validate the list to ensure alignment with the learning outcomes associated with the master thesis. Following the selection of thesis topics, students will be paired with a thesis director and co-director. Alternatively, students may propose their own topics, subject to validation by the program to ensure alignment with the learning outcomes of a master's thesis. Upon validation, the program will assign a director and co-director to the proposed topic.

Assessment

The programme has been designed considering the alignment between learning outcomes, learning and teaching activities and the assessment procedures.

However, there seems to be a disparity in the teaching approaches among the three partners, as reported by students and alumni from UNIZG and ELTE. Although both centres have robots and labs, students noted they have limited time for practical experience due to excessive workload. Additionally, students at ELTE noted that contents are a bit too theoretical. Feedback from the previous report indicates that the balance between practical experiences (project work) and theoretical content is continuously monitored and adjusted based on opinions from students and the Academic Board.

Theoretical exams and practical project deadlines at ELTE often coincide towards the end of semester, resulting in potential overwhelm for students. To tackle this issue, efforts will be directed to assist students to effectively managing their study progress with the aim of alleviating pressure and workload overflow.

The panel concludes that **the standard is compliant.**

Recommendations

- Continue with implementing initiatives aimed at assisting students in effectively managing their study progress, particularly focusing on alleviating potential overwhelm resulting from overlapping theoretical exams and practical project deadlines at ELTE.

5.2. Assessment of students

> The examination regulations and the assessment of the achieved learning outcomes should correspond with the intended learning outcomes. They should be applied consistently among partner institutions.

Evidence

The examination regulations and assessment of achieved learning outcomes align with the intended learning outcomes and are consistently applied across partner institutions. Teaching coordination and supervision mechanisms are well-defined, overseen by an Academic Board responsible for setting common regulations and quality standards. This board discusses and decides on all academic and educational aspects related to the IFROS program, ensuring assessments are conducted in a valid, reliable, and transparent manner.

The Academic Board also monitors the quality of student evaluations and assessment forms, including tasks such as peer-reviewing exams, analysing student survey results, curriculum/course evaluations, and reviewing pass/failure rates. Program regulations outlined in the MoA specify that each course's examination is organized by the partner university responsible for offering or coordinating the course. For courses, the Degree Awarding University coordinating the course is responsible for organizing evaluations. For the master's thesis, assessment is conducted by a Degree Awarding University. Decisions regarding study progress, such as those related to insufficient academic performance, are made by the Course Directors.

All partners are committed to achieving the intended learning outcomes through diverse instructional and assessment methods outlined in the course ECTS tables provided. Since the three universities employ distinct grading systems, a set of tables has been

established, utilizing equivalences for grades provided by the Spanish Ministry of Education where feasible.

An IFROS student who successfully earns 120 ECTS within the Joint Degree Program will automatically be awarded the joint degree by the Universitat de Girona on behalf of the Degree Awarding Parties.

Assessment

The IFROS program has put in place an assessment system that is comprehensive and varied, and directly correlates with the intended learning outcomes of the program.

Regarding the assessment of the master's thesis, there is a document titled "Master Thesis Regulations Draft" available on the IFROS website. Nevertheless, the panel recommends publishing a final version for clarity and guidance.

The panel considers based on the information provided and the conversations during the online visit that the examination regulations and the assessment of the achieved learning outcomes correspond with the intended learning outcomes and there are rules to be applied consistently among partner institutions.

The panel concludes that **the standard is compliant.**

Recommendations

- Publish a final version of the Master Thesis Regulations to provide clarity and guidance in the assessment process.

6. STUDENT SUPPORT

> The student support services should contribute to the achievement of the intended learning outcomes. They should take into account specific challenges of mobile students.

Evidence

The SER describes the services that will be needed for students and provided from the Consortium, in accordance with the Erasmus+ Programme guidelines.

The three partner universities offer general information on visas, residence permits, and necessary documentation to obtain these permits. In addition, they provide local language courses, support for students with special needs, insurance, complementary courses, a welcome guide, tutoring and community activities.

Pre-arrival information packs cover housing options, food, transportation, living costs, budgeting, legal advice, and work opportunities. This proactive approach ensures that students can prepare effectively for their relocation and studies. Assistance is available for visa applications; residency permits and other paperwork.

A joint starting ceremony at the UdG fosters a sense of community, where students are welcomed by representatives from all participating universities as well as former students, regardless of their physical location.

All three universities have extensive experience in hosting international students and have dedicated International Offices that organize various activities and assist with their integration into the country and institution. The consortium issues admission certificates to facilitate visa applications. Each partner institution has procedures to offer special assistance to students who may require it.

Health services are available to aid students with personal health or mental issues, addressing both academic needs and personal well-being. The program provides study counselling, advice, and career services, crucial for guiding students in their academic journeys and preparing them for future careers. Platforms such as an official LinkedIn channel promote information sharing and bolster the sense of community among students and lecturers, especially beneficial for mobile students studying abroad.

The fact that all students will stay at least at two of the three partner universities addresses the need of students support for this program. The three partner institutes are aware of the challenge the required mobility presents to the students.

Assessment

The IFROS master's program appears to have a comprehensive support system for students, specifically tailored to help them achieve the intended learning outcomes, particularly given the unique challenges faced by mobile students in a foreign environment.

Given that students will relocate during the third semester, effective management of accommodation and administrative tasks is crucial. The IFROS program has taken steps to address accommodation challenges in Girona, such as establishing partnerships with agencies and helping students. Similarly, efforts are underway in Zagreb to assist students in finding suitable accommodation, including the creation of a database of available residences. ELTE offers comprehensive guidance to students on finding apartments.

The program has adopted a proactive approach to expedite visa processes but continues to advocate for a more sustainable solution, including proposing collaboration among European institutions and embassies for consistent visa processing guidelines. However, concrete actions from the European Union have not yet materialized.

Services are clearly identified, and functions are well-defined, without overlapping. This allows students to know whom to approach in case of any doubts or questions.

The panel considers that support services will contribute to the achievement of the learning outcomes. The fact that all students will have to stay at least at two partner universities addresses the challenge of mobility and the support to be provided by the three partners.

The panel concludes that **the standard is compliant.**

Recommendations
- Continue advocating for a more sustainable solution to visa delays by collaborating with European institutions and embassies to establish consistent visa processing guidelines.

7. RESOURCES

7.1. Staff

> The staff should be sufficient and adequate (qualifications, professional and international experience) to implement the study programme.

Evidence

The IFROS program is supported by three research groups from the partner universities, with the staff's expertise described as complementing each other effectively to cover all the proposed learning outcomes of the master's program.

The proposal includes 23 academics (10 UdG, 60 ECTS; 8 UNIZG, 30 ECTS, and 5 ELTE, 30 ECTS). Lecturers at all three partner institutions are generally experts in the field of robots and related areas such as computer vision and artificial intelligence. They actively participate in research projects and share their findings in international publications and conferences. Moreover, they bring years of teaching experience in both bachelor's and master's programs in the field, demonstrating their dedication and expertise, which are deemed sufficient for the program's needs.

The program also involves academic assistants, Ph.D. researchers, and other professionals who provide specialized guidance, especially for lab sessions. This inclusion of a variety of experts ensures that students receive comprehensive support in both theoretical and practical aspects of their studies.

It is noted that the professors have strong didactic and educational skills and participate in initiatives aimed at enhancing these abilities. This dedication to pedagogical excellence is important for effectively conveying complex material and fostering a conducive learning environment.

Assessment

The panel considers that the staff is sufficient and have adequate qualifications, professional expertise, and international experience, to effectively implement the study programme.

However, it is noted that while the number of academics at UdG and UNIZG appears to be adequate for the assigned credits, ELTE has a proportionally lower number that should be increased. Currently, ELTE only has one associate professor, with the remaining staff comprising of assistants, externals, and lecturers. Increasing the number of associate professors at ELTE would enhance the academic capacity and expertise available to students, ensuring a more comprehensive learning experience within the program.

Within the program curriculum, there are several hours allocated for seminars and similar activities, offering opportunities for external experts to contribute. Many of

these experts, as observed on the IFROS webpage, are affiliated with the academic world, and possess solid backgrounds in the field. The panel considers that integrating the expertise of associated partners into the delivery, design, and improvement of the program is advantageous.

The panel concludes that **the standard is compliant.**

Recommendations
- Increase the number of associate professors at ELTE.

7.2. Facilities

> The facilities provided should be sufficient and adequate in view of the intended learning outcomes.

Evidence

The Consortium describes in detail the facilities involved in the course in the specific section of the SER.

Partner universities possess the necessary educational infrastructure to facilitate both on-campus and online teaching and learning, including classrooms, study rooms, laboratories, and various other facilities. Additionally, there are provisions for Wi-Fi access, computer availability, ICT services, libraries, and digital collections, ensuring comprehensive support for educational endeavours.

Moreover, the consortium possesses specific facilities and equipment such as robotic manipulators and autonomous aerial, ground, and underwater vehicles.

At UdG, the master's degree is hosted at the School of Engineering, utilizing a classroom fully equipped with overhead projectors, video projectors, screens, or other audio-visual materials, with a capacity of 30-40 students. Additionally, dedicated facilities such as a robotics laboratory, a computer vision laboratory and computer labs and a recognized library are available for students use.

At UNIZG, the program takes place at the Faculty of Electrical Engineering and Computing (UNIZG), which offers facilities prepared for the master's programme, including 8 computer-equipped classrooms, 19 non-computer classrooms, a congress centre, open workspaces and the Laboratory of Robotics and Intelligent control Systems (LARICS) for laboratory practices.

The Faculty of Informatics at ELTE include various computer laboratories such as the main computer laboratory, the artificial intelligence laboratory, and the computer graphics laboratory, among others. Furthermore, a dedicated laboratory for the IFROS program is in the EIT Digital Co-Location Centre housing the robots and other technical

equipment. Additionally, an IFROS hub serves as a venue for lectures and provides a working space for students.

Assessment

The facilities provided by the IFROS master's program appear to be well-aligned with the requirements of the curriculum and are conducive to the achievement of its intended learning outcomes.

The adequacy of these facilities, especially when combined with the program's academic resources and support services, suggests that the IFROS program is well-equipped to deliver a comprehensive educational experience that will enable students to succeed in the field of intelligent robotics.

The panel considers that the facilities are sufficient and adequate.

The panel concludes that **the standard is compliant.**

8. TRANSPARENCY AND DOCUMENTATION

> Relevant information about the programme like admission requirements and procedures, course catalogue, examination and assessment procedures etc. should be well documented and published by taking into account specific needs of mobile students.

Evidence

The SER describes the structure and content of the IFROS master's website, which includes details on admission requirements, program structure, curriculum, examination and assessment procedures, and mobility plans. It also provides profiles of partner universities and associated partners, along with a sample agreement between students and the program consortium.

Additionally, it includes information on external professors contributing through seminars, as well as updates relevant to current and prospective students.

Prospective students can find guidance on the application process, associated costs, and available scholarships. Accepted students can access enrolment procedures, FAQs, and a contact form is available for inquiries. Moreover, the website serves as a platform for master partners to advertise internships and job opportunities, and there is a LinkedIn group for students and alumni to network, share experiences, and seek advice.

Assessment

The consortium has developed a unified website for the IFROS master's program with essential information including admission conditions, curriculum, and examination regulations. Clear application requirements are outlined in the IFROS applicants' section.

Additionally, the program section provides relevant details about the study program's content and structure. This information is freely available on the websites of all three universities facilitating easy access for students and prospective applicants.

The panel concludes that **the standard is compliant.**

9. QUALITY ASSURANCE

> The cooperating institutions should apply joint internal quality assurance processes in accordance with part one of the ESG.

Evidence

The Quality Assurance System is founded on the existing systems of the three university partners, particularly emphasizing the system established by the coordinating institution, UdG. This system has undergone verification and approval by the relevant bodies and has been operational for several years.

The IFROS program has established joint internal quality assurance processes. The partners of the IFROS master program are committed to continuous improvement of the program and have established a joint quality strategy.

The main structure for the management of the joint internal quality assurance is the Academic Board (AB), which oversees various aspects of the IFROS program including admissions, curriculum, quality assurance, and administrative matters. To support the AB, an external evaluator will assess different aspects of master's program at least every two years. The evaluator will review the curriculum and program implementation, gather feedback from stakeholder groups, and develop an improvement plan accordingly.

Assessment

The cooperating institutions describe an IQAS that covers adequately the quality processes set in part one of the ESG for joint programmes.

The panel concludes **the standard is compliant.**

Recommendations

- Pay attention to the details of the quality assurance process as the broader framework appears to be in place, however the details still seem to be missing, for instance, create documents for examination regulations, define collection of information from stakeholders, and provide detailed procedures and tools for information collection.

DECISION

Summary of the assessment

STANDARD	ASSESSMENT
ELIGIBILITY	**Compliant**
- *Status*	Compliant with conditions
- *Joint design and delivery*	Compliant
- *Cooperation agreement*	Compliant
- *Extension credit load*	Compliant
LEARNING OUTCOMES	**Compliant**
- *Level*	Compliant
- *Disciplinary fields*	Compliant
- *Achievement*	Compliant
- *Regulated professions*	Compliant
STUDY PROGRAMME	**Compliant**
- *Curriculum*	Compliant
- *Credits*	Compliant
- *Workload*	Compliant
ADMISSION AND RECOGNITION	**Compliant**
- *Admission*	Compliant
- *Recognition*	Compliant
LEARNING, TEACHING AND ASSESSMENT	**Compliant**
- *Learning and teaching*	Compliant
- *Assessment of students*	Compliant
STUDENT SUPPORT	**Compliant**
RESOURCES	**Compliant**
- *Staff*	Compliant
- *Facilities*	Compliant
TRANSPARENCY AND DOCUMENTATION	**Compliant**
QUALITY ASSURANCE	**Compliant**

This External assessment committee recommends to the Institutional and Programme Review Commission of AQU Catalunya the favourable ex-accreditation of the programme evaluated with the level of "**Compliant**". The Chair of the external evaluation committee states that this document constitutes the assessment report.

José Antonio Macías Iglesias

Madrid, 30/04/2024

Summary of requirements

1. Eligibility

> A formal agreement evidencing the establishment or transfer of obligations and rights from the University of Zagreb (UNIZG) to its constituent (FER) for the implementation of the mentioned program is required.

Summary of recommendations

1. Eligibility

> It is recommended to consider a review and clarification of the definition and specification concerning the exchange of academic staff and teaching experiences in the MoA to enhance the structure for such exchanges.

3. Study programme

> To ensure improved workload distribution and effective time management, it is recommended that the consortium continues its efforts to promote fairness in task allocation and provide clear guidance on workload expectations. Additionally, ongoing monitoring is advised to assess the effectiveness of these measures in addressing workload distribution concerns.

4. Admission and recognition

> Publish clear and accessible information about all types of recognition for stakeholders.
> Include recognition procedures in the MoA.
> Establish guidelines regarding formal qualifications or non-formal learnings that will be considered for exemptions.

5. Learning, teaching and assessment

> Continue with implementing initiatives aimed at assisting students in effectively managing their study progress, particularly focusing on alleviating potential overwhelm resulting from overlapping theoretical exams and practical project deadlines at ELTE.
> Publish a final version of the Master Thesis Regulations to provide clarity and guidance in the assessment process.

6. Students support

> Continue advocating for a more sustainable solution to visa delays by collaborating with European institutions and embassies to establish consistent visa processing guidelines.

7. Resources

> Increase the number of associate professors at ELTE.

9. Quality Assurance

> Pay attention to the details of the quality assurance process as the broader framework appears to be in place, however the details still seem to be missing, for instance, create documents for examination regulations, define collection of information from stakeholders, and provide detailed procedures and tools for information collection.