

UNIVERSITY OF ZAGREB
FACULTY OF ORGANIZATION AND INFORMATICS



Self-evaluation report
in the re-accreditation process in 2025

Varaždin, April 2025

Name of the evaluated higher education institution:

**UNIVERSITY OF ZAGREB FACULTY OF ORGANIZATION AND INFORMATICS
(hereinafter: UNIZG FOI)**

Name of university of which evaluated higher education institution is constituent unit:

UNIVERSITY OF ZAGREB

Year of establishment:

1974

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Date of adoption of the self-evaluation report by the Faculty Council:

**The self-evaluation was accepted at the 7th Faculty Council Meeting in academic year 2024/2025
held on 17 April 2025**

Period covered by the self-evaluation report:

1 January 2020 - 31 December 2024

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INTRODUCTION

The report **Self-evaluation of the University of Zagreb Faculty of Organization and Informatics 2025** was prepared in accordance with the Plan for Re-Accreditation of Higher Education Institutions in 2025 of 10 July 2024. Representatives of the University of Zagreb Faculty of Organization and Informatics (UNIZG FOI) participated in a preparatory workshop for self-evaluation, where a new method of collecting data and creating reports through the CroRIS system was presented. The Committee for the preparation of the self-evaluation in the process of re-accreditation of the UNIZG FOI was officially appointed on January 16, 2025, whereby individual employees were involved in the work of the Committee in accordance with their functions and participated in the preparation of the report through data collection (P), management (V), compilation of a particular part of the report (S) and the overall co-ordination and co-control over the preparation of the report (K) (* [Annex 1.0.1.: Decision of the Committee for the Preparation of the self-evaluation in the Procedure of Re-Accreditation of the UNIZG FOI](#)).

Table 1.1. Roles and tasks of the Committee members for the self-evaluation preparation

Member of the Committee	Role	Standard I	Standard II	Standard III	Standard IV	Standard V
Marina Klačmer Čalopa	Dean	VSK				
Zlatko Erjavec	Vice-Dean for Study Programmes		VSK			
Martina Tomičić Furjan	Vice-Dean for Science, Projects and International Cooperation					VSK
Ivan Malbašić	Vice-Dean for Business and Human Resources				VSK	
Zlatko Stapić	Vice-Dean for Education and Students			VSK		
Blaženka Divjak	Head of the Department	SK				
Goran Hajdin	Head of the Department		SK			
Robert Fabac	Head of the Department					SK
Iva Gregurec	Head of the Department					SK
Sandra Lovrenčić	Head of the Department			SK		
Igor Tomičić	Head of the Department				SK	
Katarina Tomičić-Pupek	Head of the Department				SK	
Renata Mekovec	President of the Quality Committee	SK				
Tatjana Zrinski	Faculty Secretary	PK				
Goran Leskovar	Administrator	PK	PK	PK	PK	PK
Nenad Perši	ISVU and ISPIK Coordinator	P	P	P	P	P
Nikolina Dreven	Assistant Representative					PK
Gloria Galić	Student Representative			P		

The following staff members also participated in the collection and processing of data: Josipa Bađari, Bernardo Golenja, Darko Grabar, Ljiljana Hajdin, Romina Kelemen, Amalija Koren Cavaleiro, Bernarda Kos, Miodrag Levačić, Tanja Novoselec, Izabela Oletić Tušek, Maja Šalamun, Lea Friščić, Matea Šoštarec and Petra Vondra.

* Annexes marked with an asterisk (*) are available only in Croatian.

Short history of the development of the University of Zagreb Faculty of Organization and Informatics

UNIZG FOI is one of the most important higher education institutions in Croatia in the field of information sciences and a central place for the development of the IT profession in Croatia. In the last 15 years, UNIZG FOI has established itself as an important center for the development of study programs in the field of economics. The roots of UNIZG FOI date back to 1962, when the Higher School of Economics was founded, on the foundations of which the Faculty of Organization and Informatics was founded in 1974. UNIZG FOI is a constituent of the University of Zagreb and predominantly operates in the area of social sciences, in the field of information sciences (5.04), then in the field of economics (5.01) and to a lesser extent in other scientific fields, such as computer science, mathematics and educational sciences, which confirms the interdisciplinarity of the UNIZG FOI activities. **On the occasion of the Faculty Day in December 2024, an [AI assistant](#) was developed at UNIZG FOI, which enables interactive research into the history of UNIZG FOI.**

Overview of the current situation

UNIZG FOI operates at three locations in Varaždin: in the main building of the former Jesuit monastery that is more than two hundred and fifty years old (Pavlinska 2, FOI 1, [virtual walk through FOI 1](#)), in the building of the former music school (Prilaz Fausta Vrančića 3, FOI 2) and in the newly renovated Villa Oršić (Petra Preradovića 15, FOI 3). The renovation of Villa Oršić (FOI 3) was largely financed by business partners from the IT sector. UNIZG FOI is the owner of the FOI 1 and FOI 2 buildings, while FOI 3 received the building for use from the city of Varaždin for 30 years. The historic building FOI 1 is located on the central city square in Varaždin and is important for the preservation of the cultural heritage of the city of Varaždin. In addition, UNIZG FOI conducts classes in centers in Zagreb and Sisak. UNIZG FOI has 13 computer laboratories (5 computer laboratories at FOI 1, 2 computer laboratories at FOI 2, 3 computer laboratories at FOI 3, 2 computer laboratories in Zagreb and 1 in Sisak) equipped with modern desktop computers, and students also have the option of using their own devices (BYOD). Some computer-equipped classrooms are adapted to project-based learning, with specially designed furniture that allows the layout to be adjusted according to the requirements of working in groups. Most projectors have been replaced with large LCD screens to ensure high graphic quality and facilitate the presentation of materials and presentations as part of hybrid teaching. Students have access to rooms with Wi-Fi from 7 a.m. to 9 p.m., and there is also the possibility of borrowing a laptop for the academic year. The process of long-term laptop lending is carried out through a tender, and decisions are made according to predefined criteria. UNIZG FOI uses rented space in Zagreb (on the premises of the University of Zagreb, Faculty of Forestry and Wood Technology, Svetošimunska cesta 23) and in Sisak (on the premises of the Grammar School Sisak, Trg hrvatskih branitelja 1) for teaching within professional undergraduate study programme Information Technologies and Business Digitalization.

One of the key strategic infrastructure projects in 2025 is the planned construction of the Regional Center for Pre-Incubation in Smart Industry ([*Annex 1.0.2: Application Form of the Regional Center for Pre-Incubation in Smart Industry](#)). This project is implemented in cooperation with the City of Varaždin, and the building will be financed through the ITU mechanism. The regional center will be located in the courtyard of Villa Oršić, and it is planned to launch a public procurement for construction works in May 2025. The pre-incubation center should also become a central place that brings together resources, knowledge and experts to support the development of innovative ideas

and technologies. The purpose of the pre-incubation center is to institutionally strengthen the activities of early recognition and development of innovative entrepreneurial ideas, the development of digital, entrepreneurial knowledge and smart technologies, and to support their development and commercialization.

The number of employees of UNIZG FOI (Table 4.1. Analytical contribution to self-evaluation) has been stable over the last five years with minor deviations. In December 2020, UNIZG FOI had 148 employees, in December 2021 155 employees, in December 2022 154 employees, in December 2023 157 employees, while in December 2024 there were 155.

UNIZG FOI has a strong role in the development of the economy and society in general, and its long-term activities are especially valued through the connection with the IT sector. The interdisciplinarity of UNIZG FOI enables teachers to actively participate in complex research and professional projects. Also, UNIZG FOI offers education focused on training and lifelong learning, which further contributes to the development of the profession. **Through strengthening the culture of lifelong learning, innovation and digitalization of business, popularization of science, as well as efforts to achieve equality and equality at the level of the institution, UNIZG FOI seeks to contribute to the strengthening of social responsibility, which, along with teaching and science, is the third important pillar of action.** Cooperation with the economy has played an important role in development since its establishment, so today UNIZG FOI is recognized for its intensive and continuous cooperation with the IT industry. Currently, there are more than 400 business partners in the UNIZG FOI employer database who are connected with UNIZG FOI through student practice, invited lectures, intensive programs, project-based teaching, pre-incubation programme implementation activities, employers' participation in workshops, but also through other joint projects, which ensures the transfer of knowledge in both directions. At UNIZG FOI, the quality of teaching is continuously encouraged, the adaptation of course content to market trends and demands, as well as the application of modern methods of learning and teaching. The technological infrastructure supports e-learning, research, and administrative processes. Teaching is improved by using the Moodle LMS (Learning Management System), through which students have access to all materials related to the courses in their study program. Students have access to an archive of all materials for the last five academic years. UNIZG FOI continuously organizes workshops to improve teaching competencies. **Thanks to its own resources and expertise, UNIZG FOI continuously develops IT services and applications that facilitate teaching and administration processes for students and employees. UNIZG FOI was among the first institutions in Croatia to have a functional system for the transition to online teaching during the COVID-19 pandemic.**

In the past five years, UNIZG FOI has improved and modernized its study programmes, following technological changes and the labor market. The digital transformation of teaching and business processes was successfully implemented, followed by the education of all employees in order for the new processes to be successfully implemented. Since the COVID-19 pandemic, student enrolment has been carried out online, the [FOI Pay](#) system has been introduced, all students and employees requests are accepted through the [FOI Forms](#) application, and [AI assistants](#) have been introduced. UNIZG FOI is at the forefront of the application of digital models of learning and teaching, with its own online infrastructure that enables online teaching, servers, an e-learning system, an authentication and authorization system, and a webinar system. UNIZG FOI has also established [a learning platform](#), a platform for external users, teachers and students in extracurricular programmes. UNIZG FOI places special emphasis on work-based learning and problem-solving, as well as other innovative teaching and learning methods, often in collaboration

with business sector partners. In the implementation of innovative teaching methods, the focus is on the development of students' critical thinking and the ability to solve specific problems. Business partners, as well as the Economic Council of UNIZG FOI (established in 2022) play an important role in the strategic development of UNIZG FOI (*[Annex 1.0.3: Decision on the establishment of the Economic Council](#), [Annex 1.0.3.a: Minutes - 22 March 2023.](#); [Annex 1.0.3b: Minutes - 27 October 2023](#)).

In the academic year 2023/2024, UNIZG FOI has 2,643 students (Table 1a of the Analytical contribution to self-evaluation) enrolled in study programmes at the undergraduate, graduate and postgraduate levels. Students of UNIZG FOI can participate in various academic and extracurricular activities, in which they are involved through student organizations ([Student Council](#), [STAK](#), [BusinessClub@FOI](#), [Sports Association](#), [Academic Choir](#)). Students can also participate in the student part of the scientific international conference [CECIIS](#), which has been organized by UNIZG FOI for more than 35 years, at the [CRODMA conference](#) at which UNIZG FOI is a co-organizer, in projects, as well as in events (e.g. [Career Week](#), [Days of International Cooperation](#)), workshops and hackathons (e.g. [OTP & FOI Hackathon](#) - student solutions of an innovative platform for connecting with the bank) organized for them by the Center for Student Support and Career Development (CPSRK).

At the undergraduate level, UNIZG FOI offers two university study programmes - one in the field of information sciences - [Information and Business Systems](#), upon completion of which the title of university bachelor of informatics is awarded, and the other in the field of economics - [Economics of Entrepreneurship](#), upon completion of which students acquire the title of university bachelor of economics.

At the graduate level, UNIZG FOI offers four university study programmes in the field of information sciences – [Information and Software Engineering](#), [Business Systems Organization](#), [Databases and Knowledge Bases](#) and [Informatics in Education](#). Upon completion of one of the first three mentioned studies, students are awarded the title of University Master of Informatics, and upon completion of *the study of Informatics in Education*, the title of University Master of Informatics in Education is awarded. At the graduate level, UNIZG FOI also carries out one university study programme in the field of economics – [Economics of Entrepreneurship](#), and students are awarded the title of university master of economics after successfully completing their studies.

In addition to university studies, UNIZG FOI conducts professional undergraduate studies in the field of information sciences – [Information Technologies and Business Digitalization](#). Upon completion of this study, students are awarded the title of Bachelor of Business Informatics.

At the postgraduate level, UNIZG FOI is the holder of the doctoral study [Information Sciences](#), upon completion of which students are awarded the academic title of Doctor of Philosophy (Ph.D.) in the scientific area of social sciences, scientific field of information sciences. UNIZG FOI is a co-holder of the doctoral study of [Digital Innovation Management](#) together with the Faculty of Economics and Business of the University of Zagreb, and upon completion of the study, students are awarded the academic title of Doctor of Philosophy (Ph.D.) in the scientific area of social sciences, scientific field of economics. UNIZG FOI independently carries out two university specialist study programmes [Business Systems Management](#) (in the field of economics) and [Information Systems Security Management and Audit](#) (in the field of information sciences), and the university specialist study programme [E-learning in Education and Business](#) (in the field of information sciences) is carried out in cooperation with the Faculty of Humanities and Social Sciences of the University of Zagreb and Croatian Academic and Research network - CARNET.

Table 1.2. Overview of study programmes at UNIZG FOI

		Study programme	Code of Stud programme	ECTS	Performing	Venue	CroQF level	Held since	Last revision
UNDERGRADUATE	UNIVERSITY	Economics of Entrepreneurship	33	180	Full time, Part time	Varaždin	6.	2006/07	2023/24
		Information and business systems Specialization: Software Systems Development, Artificial Intelligence in Business, Networked Systems and Computer Games, and Business Systems Analysis and Design	283	180	Full time, Part time	Varaždin	6.	2005/06	2020/21
	PROFESSORIAL	Information Technologies and Business Digitalization Modules: Application Development, IT Business Support	2682	180	Full time, Part time	Varaždin	6.	2008/09	2021/22
		Information Technologies and Business Digitalization	2683	180	Part time	Sisak	6.	2008/09	2021/22
		Information Technologies and Business Digitalization	2684	180	Part time	Zagreb	6.	2022/23	2021/22
GRADUATE	UNIVERSITY	Databases and Knowledge Bases	615	120	Full time, Part time	Varaždin	7.1.	2008/09	2023/24
		Economics of Entrepreneurship	1938	120	Full time, Part time	Varaždin	7.1.	2010/11	2019/20
		Information and Software Engineering	613	120	Full time, Part time	Varaždin	7.1.	2008/09	2023/24
		Informatics in Education	624	120	Full time, Part time	Varaždin	7.1.	2008/09	2023/24
		Business Systems Organization	614	120	Full time, Part time	Varaždin	7.1.	2008/09	2023/24
POSTGRADUATE	SPECIAlIST	E-learning in education and business	2441	90	Part time	Varaždin	7.2.	2021/22	2021/22
		Business Systems Management	827	90	Part time	Varaždin	7.2.	2006/07	2006/07
		Information Systems Security Management and Auditing	830	90	Part time	Varaždin	7.2	2006/07	2021/22
	DOCTOR	Information Sciences	641	180	Part time	Varaždin	8.2.	2006/07	2013/14
		Digital Innovation Management (in cooperation with EFZG)	4778	180	Part time	Varaždin	8.2.	2024/25	2024/25

After completing university specialist studies, students are awarded the title of Business Systems Management Specialist, Information Systems Security Management and Audit Specialist and Specialist in E-Learning. In addition, UNIZG FOI participates as an institutional co-holder in university study programmes at the Croatian Military Academy "Dr. Franjo Tuđman" in Zagreb.

At the same time, UNIZG FOI systematically deals with the adaptation of its study programmes and business processes to international standards and guidelines of organizations such as [EFMD](#) (EFMD). *European Foundation for Management Development*) and [ASIIN](#) (eng. Accreditation Agency for Degree programs in Engineering, Informatics/Computer Science, Natural Sciences and Mathematics). **In 2024, EFMD accredited the university's graduate [study programme Economics of Entrepreneurship](#), which thus gained international confirmation of compliance with the highest European standards in higher education.** By acquiring this international accreditation, UNIZG FOI has received an international confirmation of the quality of its study programme in the field of economics and the possibility of academic cooperation with the world's leading higher education institutions and universities that have this accreditation. In May 2025, UNIZG FOI plans to start the process of ASIIN accreditation of the university's undergraduate study programme *Information and Business Systems*. In this way, UNIZG FOI will further confirm its commitment to excellence in the field of information sciences and interdisciplinary studies and ensure greater international recognition and competitiveness of Information and Business Systems study.

For a number of years, UNIZG FOI has been implementing lifelong learning programmes ([Pedagogical-Psychological-Didactic-Methodical Education Program](#), [Public Procurement Training Program](#), [workshops for mentors in doctoral studies](#)), about which information is also available on the official [website of the University of Zagreb](#). Programmes are organized to acquire knowledge, skills and competencies for personal, social, professional and labor market needs.

UNIZG FOI is a recognized higher education institution with intensive [project activities](#). Between 20 and 30 projects are applied annually, and in December 2024, UNIZG FOI participated in projects with a total value of 18 million EUR, with its own co-financing of 500 000 EUR. **In December 2024, 25 projects were active, while a total of 32 projects were completed (out of 94 active projects from 2020 to 2024), with more than 50 % of the projects being carried out in collaboration with international partner universities.**

Organization and Management of the University of Zagreb Faculty of Organization and Informatics

UNIZG FOI is a dynamic system, open and multi-level structured. A process structure is implemented in the decision-making and management process. The participation of various stakeholders, including employees and students, is a central feature of the decision-making process at UNIZG FOI. This inclusive approach ensures a broader perspective and a more efficient decision-making outcome. The main features of the decision-making process at UNIZG FOI are: inclusive participation, committee structure, strategic planning, data-driven decision-making, transparency, adaptability, legal and ethical aspects, and continuous improvement. [The organizational structure](#) is shallow, which allows for a relatively fast flow of information and quick decision-making. The emphasis is on transparency in the decision-making process.

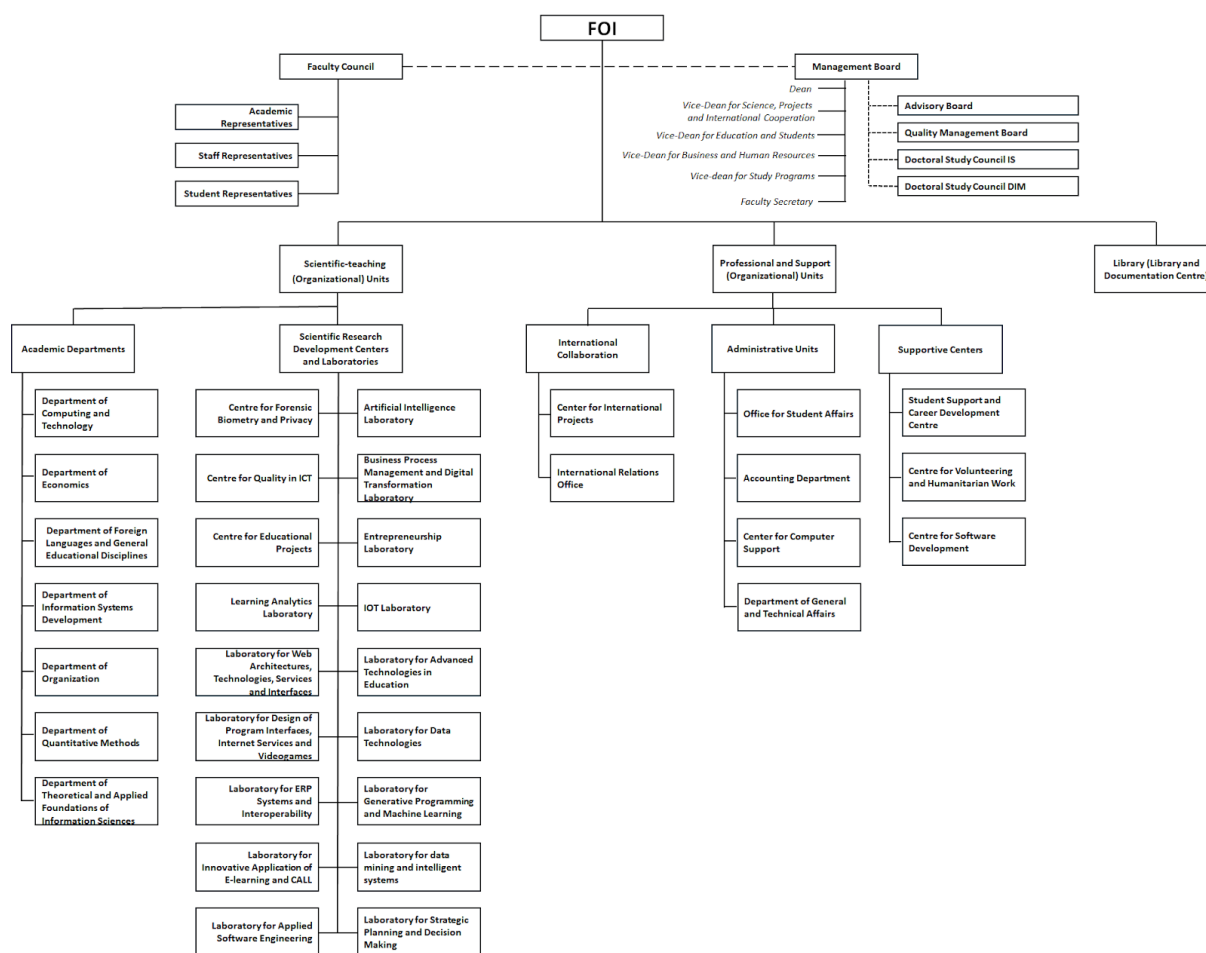


Figure 1.1. Organizational structure of the UNIZG FOI

Given a number of measures taken to improve research and teaching activities, the composition and function of certain elements of the structure has changed over the years (e.g. the introduction of new research laboratories), and the Rulebook on Internal Organization and Systematization of job positions is **currently in the process of being amended**.

All strategic and operational decisions made for the purpose of efficient management of all processes and available capacities and further growth and development of UNIZG FOI are based on systematically collected data and an elementary presentation of results. The collection and presentation of data is supported by numerous applications developed and maintained for the needs of the institution by UNIZG FOI's [Centre for Software Development \(CZRPP\)](#). **An overview of applications/services intended for employees and students is available on the [FOI Apps Launcher](#).**

Information about decisions and their potential impacts is transmitted via email, e-learning system, [document management system](#), Faculty Council meetings, meetings of the Management Board with Heads of departments, meetings of Departments, direct face-to-face communication, etc. At UNIZG FOI, learning analytics and academic analytics are applied within the [Learning Analytics Laboratory](#), and the results of the analyses are available to the Quality Assurance Committee, Management Board and other employees, in accordance with the needs and authorization. Although quality results and analyses have been delivered so far, the learning analytics system is still in development to the desired level of functionality at the institutional level.

Review of the results of previous external evaluations

In the previous re-accreditation procedure, the Expert Panel on the Re-accreditation Procedure visited the UNIZG FOI on 20 November, 2018, and prepared [the Report of the Expert Panel for the Implementation of the Re-Accreditation Procedure from May 2019](#). During the visit, the Expert Panel held several meetings with various stakeholders, visited the buildings of UNIZG FOI, reviewed the available documentation and prepared a report on re-accreditation.

As part of the final report of the Expert Panel from May 2019, there are also assessments of the quality level by topics shown in Table 1.3.

Table 1.3. Assessment of the quality level by topic

<i>Quality grade by assessment area</i>				
Topic name	The standard is not fulfilled	Minimal fulfilment of the standard	Satisfactory fulfilment of the standard	The standard is completely fulfilled
<i>I. Higher Education Institution Management and Quality Assurance</i>			X	
<i>II. Study programmes and lifelong learning programmes</i>				X
<i>III. Student-centred learning and teaching – the teaching process and support</i>				X
<i>IV. Teaching capacities and infrastructure of the higher education institution</i>			X	
<i>V. Research/ artistic and professional activity</i>		X		

As part of the final report from May 2019, the Expert Panel also listed the following list of advantages and disadvantages of UNIZG FOI and a list of examples of good practice.

ADVANTAGES:

- The teachers are experienced, and the study programmes run smoothly according to a well-established process.
- UNIZG FOI owns a consolidated brand that combines informatics and economics.

- UNIZG FOI has established excellent connections with many companies.
- UNIZG FOI employees at all levels are motivated and well-qualified.
- UNIZG FOI support services (Student Support and Career Development Centre, Office for Students with Disabilities, Centre for International Projects, etc.) are well organized and provide excellent support.

IMPROVEMENT POSSIBILITIES:

- UNIZG FOI's research activities and results are in the early stages of development.
- Some of the teaching structures are inflexible and unnecessarily complex.
- The entire organization and development strategy are focused on teaching, and not on research.
- Spatial capacities lack flexibility and are not fully suited to its activities.

EXAMPLES OF GOOD PRACTICE:

- The Student Support and Career Development Center (CPSRK) provides integrated support to important aspects of student life.
- The Center for Software Development (CZRPP) provides flexible analysis of important data about its business.
- Personnel policy rewards teachers who are authors of quality scientific publications.

On 14 April 2020, the Accreditation Recommendation of the Agency for Science and Higher Education was adopted in the re-accreditation process, recommending to the minister responsible for science and higher education to issue the Letter of request for improvement for the period of 3 years. Within 6 months of receiving Letter of request for improvement, the UNIZG FOI was obliged to adopt and submit an Action plan in order to eliminate the deficiencies in accordance with the recommendations of the Expert panel. Every year, until the date of submission of the report on the elimination of deficiencies, it was necessary to report on the implementation of the action plan and to update the conditions of implementation in MOZVAG accordingly. On the basis of re-accreditation assessments and recommendations for improvement, the Committee for the adoption of the Quality Improvement Action Plan was established at the UNIZG FOI ([*Annex 1.0.4: Decision on the establishment of the Committee](#)). Based on the analysis of the report of the Expert Panel, the Committee for the Adoption of the Quality Improvement Action Plan ([*Annex 1.0.5: Action Plan](#)) was adopted at the Faculty Council meeting held on September 24, 2020 (Class: 011-01/20-01/1, Reg.No.: 2186-62-14-20-3). The action plan was submitted by the UNIZG FOI to the Agency for Science and Higher Education within the set deadline.

UNIZG FOI continued to work on the execution of the activities listed in the Action Plan and thus further improved the quality in accordance with the recommendations from the re-accreditation in 2019. On 15 March 2022, the Ministry of Science and Education issued a certificate (Class: 602-04/20 13/00057, Reg.No.: 533-04-22-0004) confirming that the University of Zagreb Faculty of Organization and Informatics meets the conditions for performing higher education and research activities ([Annex 1.0.6: Certificate of Fulfillment of Conditions for Performing Higher Education and Scientific Activities](#)). UNIZG FOI received this certificate on March 24, 2022. Upon receipt of the confirmation, the UNIZG FOI was obliged to submit a five-year action plan within 6 months in order to improve quality, in accordance with the recommendations in the Final report of the Expert Panel. **Based on all**

of the above, UNIZG FOI developed a five-year Action plan in September 2022 (*[Annex 1.0.7: Action Plan 2022 to 2027](#)). The final report on the implementation of the Action plan in the process of external evaluation of higher education institutions was prepared on March 24, 2025 (*[Annex 1.0.8.: Report on the implementation of the Action Plan UNIZG FOI-24.3.2025](#)).

Highlights of the implemented Action Plan

Taking into account the opinion of the Accreditation Council in the process of re-accreditation of UNIZG FOI from 2019, UNIZG FOI has made great efforts to increase the relevance, quality and efficiency of studying. Some of the results are:

- A survey system [has been developed](#) (cro. FOI Ankete). To enhance the teaching process, surveys are conducted for all courses as well as for incoming students.
- In the [FOI Ankete](#) (FOI Surveys) application, it is possible to survey students on the compliance of ECTS with the actual student workload.
- Recommendations for monitoring and assesment models were given, according to which changes were made in the courses. The monitoring and assesment models were approved by the Departments and the Faculty Council in July and September 2024.
- For the purpose of drafting a new [Development Strategy for the period 2025 - 2029](#), a SWOT analysis was made in July 2024 for the areas of Teaching and Students, Science and Research, Innovation and Social Contribution.
- As part of the Startup@foi programme, two student startups were launched in 2022, 2023 and 2024 ([DoMore](#) and [Choncha](#)), for which UNIZG FOI provided financial, organizational, legal and marketing assistance.
- As part of the Career Week 2023, two alumni panels were held on the topics "My career path to IT management" and "FOI alumni and strategic management". In 2024, the election assembly of the [FOI Alumni Association](#) was held, and as part of the FOI Alumni Day, on May 28, 2024, a round table was held on the topic "[Developing skills for the future: FOI experts' advice for the era to come](#)".
- At the session of the Faculty Council held on October 20, 2022, the members of the [Economic Council](#) were appointed: The Economic Council held two meetings during the academic year 2023/2024.
- During 2023, [five occupational standards](#) related to qualifications associated with information science study programmes carried out, which have expired and have been re-entered in the CroQF Register, were revised.
- The qualification standards of the University Bachelor of Informatics and the University Master of Informatics, which were once proposed by the UNIZG FOI and which were entered in the CroQF Register, have been renewed and [re-entered in the CroQF Register](#), making UNIZG FOI **the first higher education institution in the Republic of Croatia** to successfully revise the qualification standards related to its study programmes, and [extend their validity](#).
- In the academic year 2023/2024, six new assistant positions and two new positions of senior expert associates in the science and higher education system were secured, twelve new employees were hired (nine of which were teaching and research assistants).

- On May 24, 2023, after [two years of renovation](#), a use permit was obtained for [Villa Oršić](#), which enabled UNIZG FOI **to increase its spatial capacity, giving added value** by becoming an incubator for the development of research potentials and the implementation of teaching and extracurricular activities of students and researchers at UNIZG FOI.
- Throughout the year, entrepreneurial activities are continuously promoted among students, from presentations to freshmen, at the [Career Week](#), at the [Faculty Day](#), as well as at workshops and through panels in which students who have started their ventures participated.
- The total number of citations of UNIZG FOI papers according to **Google Scholar as of March 10, 2025 is 37,226** (note that it is not possible to remove self-citations). Compared to the period of the previous reaccreditation (2013 - 2017), when a total of 6,260 citations were recorded, a significant increase in the number of citations is visible, which indicates the continuous strengthening of the scientific recognition of UNIZG FOI in the academic community.

I. HIGHER EDUCATION INSTITUTION MANAGEMENT AND QUALITY ASSURANCE

1.1. The mission of a higher education institution guides the process of operational planning and the development of quality assurance processes

The process of formalizing the strategy began with [the Development Strategy 2010 – 2014](#) which introduced indicators to monitor the effects in individual areas of action. A significant step forward occurred with the [Development Strategy 2018 – 2023](#), which was extended to 2024. This strategy not only enabled a strategic approach to the growth and development of UNIZG FOI, but was crucial for establishing new development guidelines and strategic goals. According to this Strategy, research laboratories were established that became drivers of scientific excellence at the UNIZG FOI.

At the Faculty Council on February 20, 2025, a new [Development Strategy for UNIZG FOI](#) was adopted. For the new five-year period, new goals and metrics have been defined that are in line with development policies, technological progress, scientific achievements of employees and the institution itself, and changes in the academic and social environment. With this approach, the Development Strategy is adapted to the requirements and changes in the environment and thus ensures that UNIZG FOI continues to be among the leading institutions in higher education, with a clear plan for implementing all aspects of technology and innovation in teaching, research and administration in order to continue educating future professionals ready for the jobs of the future and the challenges of the dynamic labor market.

Publicly available state-of-the-art mission

The Development strategy of the Faculty of Organization and Informatics is publicly available on [the website](#), published to students, promoted through promotional materials, and the mission, vision and fundamental values are visible on promotional boards placed at the entrances to the buildings, and we can conclude that the stakeholders are familiar. A translation of the Strategy into English was also made so that it would be available to international partner universities and faculties.

UNIZG FOI has a [publicly available mission](#) that clearly defines its specific role in performing higher education, research and professional activities and contributing to the development of modern society. At the same time, UNIZG FOI has a vision that guides it in the national and international context, determines the framework and direction of action, and represents a starting point for strategic planning and development of study and lifelong programs. The revision of the UNIZG FOI Strategy 2019–2024 was carried out with the aim of modernizing the mission, redefining the vision and more clearly setting strategic goals for the next planning period. The new Strategy emphasizes modernization and focus on improving education, research and innovation, which UNIZG FOI wants to ensure its long-term relevance and recognition in the academic and economic environment. Achievements in relation to the planned goals were analyzed and key developments and challenges were identified.

MISSION:

University of Zagreb Faculty of Organization and Informatics (UNIZG FOI) is a higher education and research institution with international impact in the field of information sciences and STEM interdisciplinary field, as well as in the field of economics in the context of entrepreneurship and innovation.

VISION:

Our vision is to lead innovation in higher education, teaching, and research with aim to develop sustainable digital society.

With a new mission and vision, a new development impulse has been created. The UNIZG FOI has made significant progress since the period defined by the previous strategy. **The mission clearly defines the specific role of UNIZG FOI in the national and international context in the performance of higher education, research and professional activities** in information sciences, STEM interdisciplinary field and economics. The mission itself directs the organization and development of existing study programmes and provides the possibility of developing other forms of educational programmes (e.g. micro-credentials and other lifelong learning programs). The new vision positions UNIZG FOI as a leader focused on the development of modern society. **The [UNIZG FOI Development Strategy for the period 2025 to 2029](#) also clearly defines the Strategic Guidelines in Digital Transformation, the Strategic Guidelines for Scientific and Research Activities and the Strategic Guidelines for the Internationalization of Teaching and Research.**

Participation of different stakeholder groups in the design of the mission

In the development of the [Development Strategy of UNIZG FOI for the period from 2025 to 2029](#) **representatives of different stakeholders** participated: employees, students and employers. The representative of employers is also the president of the Economic Council at UNIZG FOI. (*[Annex 1.1.1.: Decision on the appointment of the Committee for the development of the Strategy UNIZG FOI](#)). The proposal of the Strategy document was considered at the [departments of the UNIZG FOI](#), a public consultation was conducted and, after agreeing on the final version, was adopted at the Faculty Council on February 20, 2025.

The process of designing, adopting, implementing and reviewing of the mission

The process of drafting the Development Strategy 2025 to 2029 followed a methodology of 7 steps: (1) evaluation of the existing Strategy of the Faculty of Organization and Informatics, (2) Determination of the purpose, principles and methodology of development, (3) Definition of the strategic framework, (4) Analysis of development needs and potentials, (5) Planning and design of priorities and objectives by areas of development needs and potentials, (6) Selection and elaboration of priority measures and activities, and (7) Definition of the framework for monitoring and evaluation. According to the evaluation of the existing strategy, the mission and vision were reshaped and development guidelines were given through the strategic positioning of the UNIZG FOI for the future five-year period. The methodology is clearly described in the [Development Strategy of the Faculty of Organization and Informatics for the period 2025 - 2029](#).

After the evaluation of the UNIZG FOI Strategy for the period 2019 to 2024, the purpose of drafting the new Strategy was defined. Relevant strategic documents at the international, national, university and institutional levels are mapped and trends inside and outside the institution that can affect

further development are analyzed. In order to analyze development needs and identify potentials, a SWOT analysis was conducted through three key strategic areas:

- **Teaching and students** – Teaching activities, student experiences and support, quality of study programmes and adaptation to modern labor market needs are analyzed.
- **Science and research** – The scientific research potential was explored through the publication of papers, participation in projects, development of research groups and academic cooperation.
- **Innovation and social contribution** – Activities aimed at connecting with the industry, organizing conferences and other professional events, as well as contributing to the community through research and projects were evaluated.

Based on the SWOT analysis, corrective strategies aimed at eliminating weaknesses and threats were defined, as well as strategies that encourage the use of opportunities and the strengthening of institutional strengths. Strategic goals are formulated in accordance with the development needs of UNIZG FOI. Continuous analysis of the results will enable timely adjustments and ensure the targeted development of UNIZG FOI in accordance with the planned vision.

Involvement and contribution of stakeholders to the realization of the mission of the higher education institution

UNIZG FOI continuously monitors the needs of the labor market and accordingly adjusts its study programmes in order to educate experts needed by the labor market. UNIZG FOI has participated in the implementation of the following CroQF projects in order to develop occupational standards, qualification standards and improve study programmes in the field of information sciences with the needs of the labor market: [Stand4Info](#) and [DIP2Future](#) projects. As part of Stand4Info, five occupational standards have been developed: ICT operations manager, business systems analyst, software engineer, business systems architect and ICT systems architect. Also, two qualification standards have been developed: **the University Bachelor of Informatics/University Bachelor of Informatics and the Master of Informatics/Master of Informatics**. As part of the DIP2Future project, four occupational standards have been developed: architect of intelligent information systems, architect of distributed and/or interactive systems, architect of information security and privacy, and architect of business systems transformation. Also, as part of the DIP2Future project, four qualification standards have been developed: **Master of Digital Transformation and Innovation, Master of Data, Master of Distributed and Interactive Systems, and Master of Information Security and Privacy**. UNIZG FOI has become the first higher education institution in the Republic of Croatia to successfully revise the qualification standards related to its study programmes and extend their validity in the CroQF Register. These are the qualifications of a university bachelor of informatics and a university master of informatics.

Teaching in study programs is based, in addition to basic knowledge in the field of profession and learning theories, also on knowledge acquired through the implementation of competitive scientific projects that are mostly carried out in cooperation with other recognized national and international scientific research institutions as well as partners from the economy, which is proof of the involvement of various stakeholders in the realization of the mission of UNIZG FOI. The following can be cited as an example of good practice:

- Through guest lectures held by experts from the industry, classes are enriched with the latest knowledge from practice. In the academic year 2023/2024, there were 50 invited lectures, of which 26 during 2023 and 24 in 2024. In the academic year 2024/2025, 17 lectures were held in 2024, and by the end of the winter semester in 2025 eight more invited lectures were held. In 2023/2024, 38 employer-led workshops were held, and in 2024/2025 to March 2025, another 24 workshops were held.
- [Joint creative classrooms](#) (2024) and [Joint creative classrooms](#) (2025) were held as an innovative approach to learning and teaching (then [Arbona Academy](#), [Speck Academy](#), [FINA Academy](#), [Solvership Academy](#) where students acquire additional ECTS and continuously work with partner companies for a short period of time.
- Virtual mobility with students from [the Netherlands](#) and [the USA](#).

Development of quality assurance processes

Through the quality assurance processes and developed information systems, UNIZG FOI collects, analyzes and uses data to improve study programmes and lifelong learning programs. The basic document of the internal quality assurance processes of the UNIZG FOI established in 2010 consists of [the Rulebook on the Quality Assurance System](#) and [the Quality Assurance Manual](#). The Rulebook regulates the objective, purpose, areas of evaluation and the organization and operation of the quality assurance system at the UNIZG FOI, the role of the Faculty Council of the UNIZG FOI in the quality assurance processes, the organization and operation of the UNIZG FOI Quality Assurance Committee (*[Annex 1.1.2: Decision on the appointment of the UNIZG FOI Quality Assurance Committee](#)), as well as the areas within which quality assurance measures and activities are carried out at the UNIZG FOI. The areas of quality assurance and improvement that UNIZG FOI was among the first to harmonize with the Standards and Guidelines for Quality Assurance in the European Higher Education Area are: quality assurance policy, development and approval of study programmes; student-centered learning, teaching, and assessment; student enrolment and promotion, recognition and certification; teaching staff; learning resources and student support; information management; informing the public; student assessment model and periodic revision of study programs; periodic external evaluation; scientific and research activities; professional activity; mobility and international cooperation and internationalization. All of these areas are covered by the annual [quality assurance activity plans and quality assurance reports](#). **With the aim of increasing transparency and informing the interested stakeholders about the activities of the quality assurance processes in 2024, the [website](#) has been redesigned.**

UNIZG FOI actively encourages international cooperation and participation in projects through two key organizational units: the [Center for International Projects](#) (CMP) and the [International Relations Office](#) (UMS), which have been operating for more than 20 years. The Center for International Projects provides support to researchers and teachers of UNIZG FOI in applying and implementing international projects and transfers knowledge and methodologies about international projects outside UNIZG FOI. The International Relations Office establishes and intensifies cooperation with foreign universities, coordinates the mobility of students and staff, and organizes international events, including the [FOI International days](#), which have been held regularly since 2008. Together, these units contribute to strengthening the international presence of UNIZG FOI, enabling students and staff to participate in global educational and research initiatives.

1.2. The higher education institution defined the internal organizational structure and processes that are managed responsibly, efficiently and effectively, and the higher education institution's stakeholders are included in the decision-making processes.

UNIZG FOI bases its management on academic self-government and autonomy, acting in accordance with the Act on Higher Education and Scientific Activity. The basic act of the UNIZG FOI is the [Statute](#) that regulates the organization, activities and operations of the University of Zagreb Faculty of Organization and Informatics, the powers and decision-making methods of the faculty bodies, the organization and implementation of studies, the status of teachers, associates, scientific and other employees, the status of students and other issues of importance for the UNIZG FOI. For the performance of registered activities, the following types of organizational units are established at the UNIZG FOI: 1. Scientific-teaching (organizational) units; 2. Professional and support (organisational) units; 3. Library (Library and Documentation Centre). The organization and activities of the organizational units of the UNIZG FOI are defined by a general [act](#).

For the purpose of efficient, responsible and effective management, the Faculty Council may appoint permanent and temporary committees as its expert and advisory bodies, in accordance with the Statute of the UNIZG FOI and the Statute of the University of Zagreb. The UNIZG FOI has committees that deal with specific areas important for the functioning of key processes. These are, for example: [the Quality Assurance Committee](#), [the Ethics Committee](#), the Publishing Committee, the Awards and Recognitions Committee, etc.

Furthermore, in addition to the Statute, the work of the UNIZG FOI is also defined by regulations and decisions such as: [Rulebook on the Work of the Faculty of Organization and Informatics](#), [Regulations on Disciplinary Liability of Employees](#), [Regulations on disciplinary and material responsibility of students and other attendees](#), [Regulations on the distribution of own revenues and revenues for special purposes](#), [Rulebook on Studying of Undergraduate study of Economics of Entrepreneurship](#), [Rulebook on Studying of Graduate study of Economics of Entrepreneurship](#), [Regulations on Studying on undergraduate study of Information and Business Systems](#), [Rulebook on Studying of professional undergraduate study ITDP](#), [Rulebook on Studying of graduate study of informatics](#), [Rulebook on Studying at Specialist Studies](#), [Rulebook on Postgraduate University \(Doctoral\) Studies](#), [Rulebook on the Joint Doctoral Study of Digital Innovation Management](#), [Regulations on awards and honours](#), [Regulations on the bachelor and master thesis](#), [Regulations on student practice](#), [Rulebook on Mentoring and Evaluation of the Work of Associates](#), [Rulebook for the Management of Public Documentary Material](#), [Rulebook on Internal Organization of FOI](#).

Financial reporting

UNIZG FOI transparently manages its financial resources, regularly reports on the implementation of strategy and business, and actively involves students and other stakeholders in decision-making and development processes. Financial operations are based on compliance with financial regulations that apply to public institutions in the system of higher education and science, and are additionally determined [by the Rulebook on the Basics of Financing of the University of Zagreb](#) and [the Rulebook on Amendments to the Rulebook on the Basics of Financing of the University of Zagreb](#). The overall business is aimed at creating conditions for the long-term performance of teaching and scientific tasks and ensuring the material and other rights of employees, even above the level provided for in

the collective agreement. **The strategic goal was and will be to increase revenues, but also to change the relative relations in favor of a higher ratio of own revenues in the structure of total income.** In accordance with the Instructions for the Preparation of the State Budget Proposal of the Republic of Croatia and on the basis of the applicable regulations, the [Financial Plan for the three-year period is adopted and accepted every year](#). In accordance with the financial plan and in accordance with the Public Procurement Act, a Public Procurement Plan is adopted and publicly published every year, which transparently plans the spending of funds. [Reports on the implementation of the financial plan](#) or necessary changes or rebalances are regularly submitted, as well as specially created financial statements for the University of Zagreb. Monitoring is also regularly carried out through posting by units of account, reporting by accounts and reporting through financial statements according to the instructions and tables of the University.

Financial statements, financial plans and procurement plans are regularly submitted and adopted as reports to the Faculty Council and published on [the website](#). In the context of business transparency, it is important to mention the Fiscal Responsibility Questionnaire (*[Annex 1.2.1: Fiscal Responsibility Questionnaire](#)) on the basis of which UNIZG FOI provides a Statement of Fiscal Responsibility for each year. Every year, controls are carried out through questions and test forms in the following areas: budget planning/financial plan; implementation of the budget/financial plan; public procurement; accounting; Reporting. On the basis of the Fiscal Responsibility Questionnaire, the UNIZG FOI identifies its own weaknesses and irregularities in certain areas. In the plan for the elimination of weaknesses and irregularities for each budget year (which is an integral part of the Statement on Fiscal Responsibility), we try to highlight the most specific activities that we must undertake in order to eliminate the irregularity. In areas where weakness has been noticed, we make additional efforts throughout the year to eliminate it. A Report on Eliminated Weaknesses and Irregularities is also drawn up every year (*[Annex 1.2.2: Report on Eliminated Weaknesses and Irregularities for the Financial Year 2024](#)).

From 1 January 2024, the [form of spending funds](#) is published on a monthly basis (according to the Instruction on the framework content, minimum set of data and the manner of public publication of information on the spending of funds on the websites of local and regional self-government units and budgetary and extra-budgetary users of the state budget and local and regional self-government units (Official Gazette, No. 59/23).

On the financial side, UNIZG FOI, as well as other components within the University of Zagreb, is financed through a model of program contracts that have not changed since 2018. Program contracts are no longer sufficient to finance higher education because the real value of these funds has decreased due to inflation, and higher educational institutions, including UNIZG FOI, face challenges in providing the necessary resources to cover all costs and enable the continued high quality of the teaching process. The largest part of the financial resources comes from the tuition participation subsidy, as well as tuition fees paid by part-time students and enrolment fees paid by full-time and part-time students. In addition, UNIZG FOI receives financial resources from the co-financing of research (based on the indicators of program contracts from 2018), income from market activities (economic projects), income from lifelong learning programmes and education from lifelong learning programmes, as well as donations/sponsorships that complement the financial picture. **Thanks to research, development and economic projects, as well as other income activities, UNIZG FOI has the possibility of additional employment, strengthening scientific excellence through additional opportunities to participate in conferences, publications in journals, but also to upgrade the infrastructure.** UNIZG FOI proactively strives to ensure that adequate financial support is obtained

for teachers' professional development (workshops, trainings and support for student services), equipped classrooms, an extensive library and improved physical and digital infrastructure.

The annual total revenue of UNIZG FOI in 2024 amounted to EUR 8,963,792.69, which is an increase of 16.10 % compared to the previous year. **Total expenditures** in 2024 amounted to EUR 8,840,914.13, which is an increase of 8.90 % compared to the previous year. **Material costs** in 2024 amounted to EUR 1,784,753.66, which is 20.19 % of total expenditures. More about the financial structure of the UNIZG FOI in Standard 4.6.

([*Annex 1.2.3 Financial Report 2020](#), [*Annex 1.2.4 Financial statement 2021](#), [*Annex 1.2.5 Financial Report 2022](#), [*Annex 1.2.6 Financial Report 2023](#), [*Annex 1.2.7 Financial Statement 2025](#))

The projects at UNIZG FOI are the basis for additional employment of associates and non-teaching staff, as well as the development of the institution. In December 2024, 16 employees at UNIZG FOI (slightly more than 10 % of the total number of employees) were employed in organizational units in charge of project application and monitoring, student support and career development, software product development and project accounting.

In order to facilitate the application and management of projects, and thus the decision-making process on the implementation of individual projects at the level of UNIZG FOI, the Center for International Projects has prepared [a Guide for Project Managers from the initial idea to the result](#). The guide is designed to make it easier for current and future applicants and project managers to find their way around the institutional practices of project applications and the [FOI Project Database](#), but also to offer basic templates for a better and coordinated path from idea to result. This Guide also contains a roadmap that allows easier coordination through typical project-related processes. The second document describes the Organization of Work of the FOI Center for International Projects ([*Annex 1.2.8: Catalog of CMP Services](#)), as a kind of Catalog of Services, and was created in order to define the roles and services of project administrators and project managers of the CMP, while the responsibility for all activities, results and project management remains with the project manager. On the website [projekti.hr/en](#) managed by the Center for International Projects of UNIZG FOI, there is also [a Project brochure](#) with all the most important projects over the past few years.

UNIZG FOI has developed its own services, cro. Baza Mobilnosti ([Mobility Database](#)) and cro. Baza Projekata (engl. [Project Database](#)) and based on the recorded data in the services and their analysis, decisions are made and performance indicators and results of individual activities and resource utilization are visible and transparent.

The [Project Database](#) is a system for collecting data on project initiatives and projects, designed with the basic purpose of easier review, search and analysis of project activities of researchers and associates. The database is a set of data that enables researchers, employees and the Management Board to register, search, support and monitor project activities, as well as to make decisions about inclusion in new projects. **During the academic year 2023/2024 the project database has been upgraded with new functionalities that make it easier to communicate directly through the system of entering a new project with the Center for International Projects and the Management Board, thus enabling easier obtaining of the Consent of the Management Board for a specific project application.** The [Mobility Database](#) enables the International Relations Office, as well as the Management Board, to monitor incoming and outgoing international mobilities of employees and students, which includes records of visits to foreign universities, scientific research and study stays, as well as participation in conferences and project meetings. Thus, the Mobility Database provides an overview of official international trips of all employees, and also records incoming mobility, i.e. visits

and stays of foreign teachers. Also, student mobility is entered into the Mobility Database – outgoing and incoming (semester stays, but also shorter mobilities – such as summer schools and study visits). In this way, it is possible to monitor and report on incoming and outgoing mobility of students and employees. By applying the project database and the mobility database, it is possible to monitor the realization of goals in terms of international cooperation, mobility and projects of the UNIZG FOI, and based on that, the adoption of appropriate decisions and development guidelines.

According to the available data from the Mobility Database, which is kept up to date by UNIZG FOI and which contains data on all mobilities, trainings, project meetings, etc., teachers and associates of UNIZG FOI actively participate in conferences in the country and abroad, about which there is an obligation to report to the Faculty Council (*[Annex 1.2.9: Example of reporting on mobility/scientific achievement at the Faculty Council](#)). **On average, 40 to 60 teachers and associates annually participate in one of the international scientific conferences and professional conferences in the country and abroad. In the period from 2020 to 2024, UNIZG FOI employees (teachers and non-teaching staff) achieved mobility in a total of 37 countries around the world.**

1.3. The higher education institution collects, analyses and uses data relevant for the effective management of all activities, and publishes the information about its work.

UNIZG FOI has been a leader in the application of e-learning for years, setting the standard for innovative approaches in education. As a pioneer in the integration of digital technologies into teaching processes, UNIZG FOI developed guidelines for the application of e-learning methods in teaching back in 2007, ensuring students have access to quality educational content and flexibility in learning. Even today, these guidelines not only facilitate the acquisition of knowledge, but also encourage the active participation of students through interactive and collaborative tools. However, it is necessary to modernize the approach, which includes the use of artificial intelligence in education, analytics and learning design at the level of the UNIZG FOI, and the systematic transfer of results into practice (quality assurance of teaching). As an example of a response to the disruptive potential of technologies, **UNIZG FOI was among the first institutions that quickly responded to the challenges of applying new technologies and created a comprehensive document for the responsible use of artificial intelligence (AI) in the academic community**, covering applications in education, research and practice. With the document entitled [Framework for the Use of Artificial Intelligence Tools in Teaching, Student Papers and Research at the University of Zagreb Faculty of Organization and Informatics](#), UNIZG FOI emphasized its commitment to the ethical, responsible and legally compliant use of artificial intelligence, in accordance with relevant national and international laws and standards.

Although UNIZG FOI is transforming into a digitally mature organization through a number of initiatives, the priorities of UNIZG FOI go in the direction of further upgrading existing and building new applications to support business processes, teaching and research, as well as their systematic introduction and connection. UNIZG FOI will continue to carry out activities to improve the digital competences of employees and students, provide digital support to encourage excellence, inclusiveness and openness in research and education, develop digital visibility and recognition. UNIZG FOI will continue to integrate the latest digital technologies into curricula, which is evident from the Strategic Guidelines in Digital Transformation within the [UNIZG FOI Development Strategy](#).

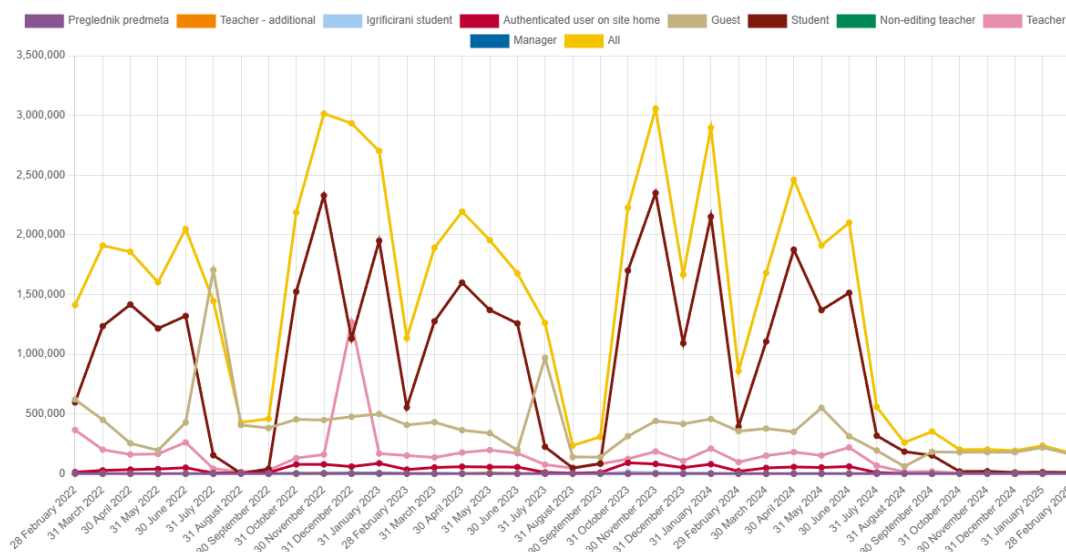


Figure 1.3. Overview of student activity by course

BigBlueButton, BBB's online web conferencing and virtual learning platform enables the organization and delivery of virtual meetings, seminars, and classes online, providing users with an interactive and dynamic learning and collaboration environment. The system is designed to support various forms of online communication, from simple meetings and consultations to complex webinars and virtual classrooms with a large number of participants. Attendees can use functionalities such as screen sharing, interactive whiteboard, chat, and polls, while presenters and organizers have the ability to monitor, analyze attendance, and record sessions for later use. The system is also adapted to integrate with e-learning platforms (LMS), which enables synchronization of teaching content, automatic attendance records and analysis of participant engagement. Key functionalities are: Advanced interaction and collaboration among participants (Screen sharing for presentations and demonstrations, Interactive whiteboard for visuals and brainstorming, Chat for real-time communication, Polls and polls to collect feedback, Breakout rooms for group discussions and exercises); Integration with the learning system (LMS: Synchronization of teaching materials and activity schedules, Automatic records of attendance and participation, Storage of recorded lectures and seminars for later review, Connection to user accounts and authentication systems) and Monitoring and analytics (Monitoring of attendee participation and engagement during the session, Analysis of interactions (duration of speech, chat activity, participation in surveys), Generation of attendance and activity reports Ability to record and view the sessions held for later analysis).

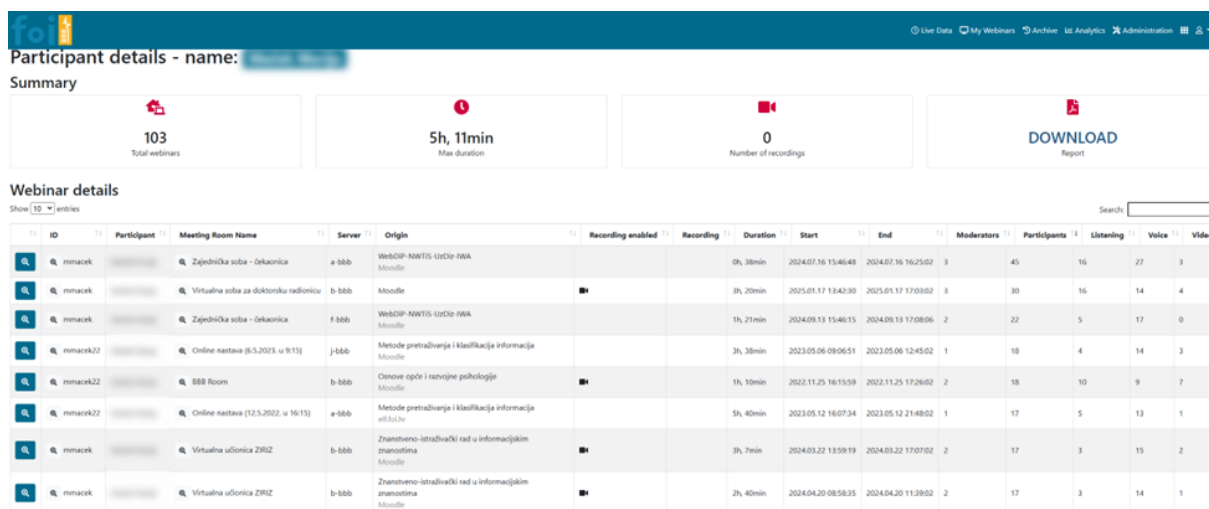


Figure 1.4. Analytical review of participation in online lectures/meetings for one student

2024

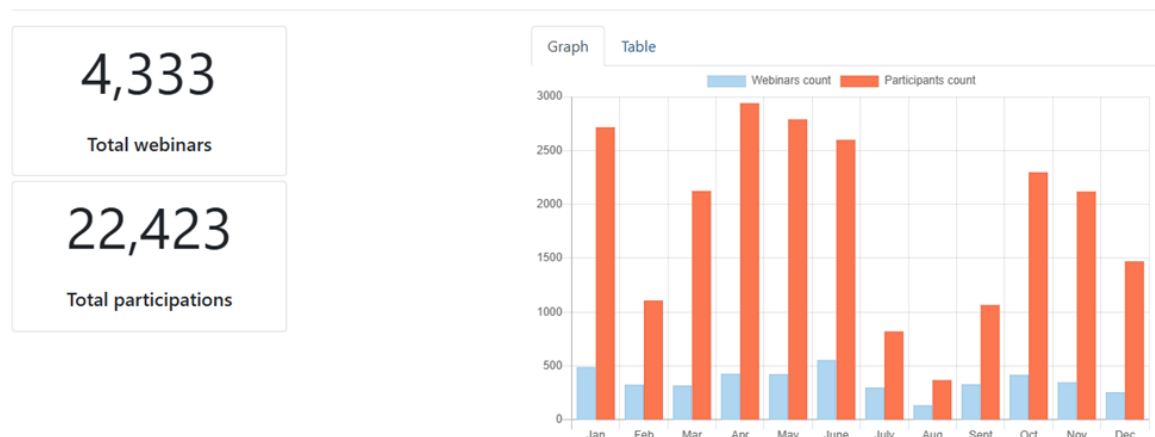


Figure 1.5. Basic statistics related to webinars

The Student Information System (STIS) was developed for the purpose of monitoring the implementation of study programmes at UNIZG FOI. It is a centralized place for recording all information about students and their study programs. The application is primarily used to download data from the ISVU, but in addition, it also provides additional functionalities that complement the ISVU system. In addition to downloading the data, the system provides services for accessing this data and enables the storage and management of information that is not supported by ISVU, such as course categories, detailed ECTS structure for individual studies and other specific parameters. The basic functionalities are: Unified records – Centralized management of data about students and their studies, enabling easy access and management of information; Notification system – An advanced system for defining criteria and automatically notifying students through a centralized platform; Analytics and reporting – Enables the creation of basic analyses and statistical reports based on the collected data; REST API Layer – Provides standardized access to student data to other parts of UNIZG FOI's information system, allowing for easy integration and data exchange.

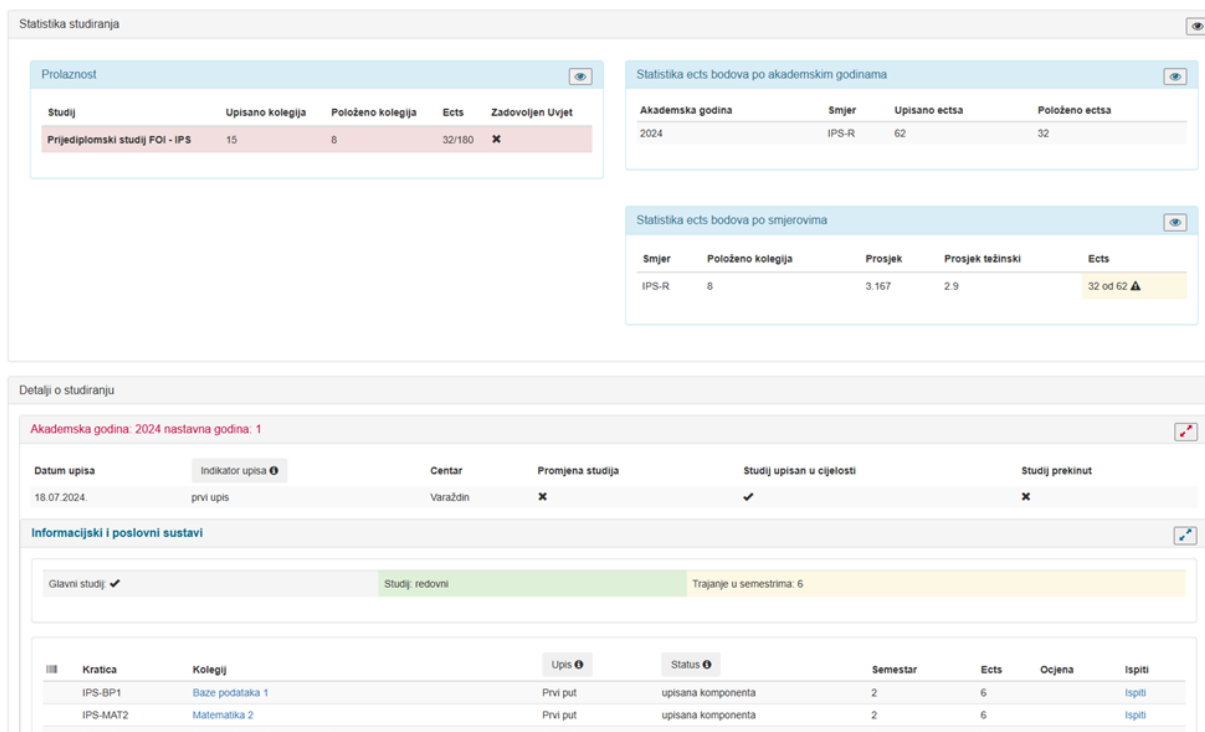


Figure 1.6. Basic statistics for one student

10 rezultata po stranici

Poslani

Q

Naslov	Posiljatelj	Ak. god	Studij	Nastavna god	Centar	Datum poslano	Akciji
Ponovno pomaknute crte na rang listama za dodjelu STEM stipendija	zstapic	2024				27.02.2025.	
Upis u ljetni semestar ak. god. 2024./2025. - 2. godina IPS - produženje roka	zstapic	2024	Prijediplomski studij FOI - IPS	2		25.02.2025.	
Upis u ljetni semestar ak. god. 2024./2025. - 3. godina IPS - produženje roka	zstapic	2024	Prijediplomski studij FOI - IPS	3		25.02.2025.	
Objavljen natječaj za Erasmus+ studijski boravak	dgrabar	2024				19.02.2025.	
Upis u ljetni semestar ak. god. 2024./2025. - 3. godina IPS - ispravak	zstapic	2024	Prijediplomski studij FOI - IPS	3		18.02.2025.	
Upis u ljetni semestar ak. god. 2024./2025. - 2. godina IPS - ispravak	zstapic	2024	Prijediplomski studij FOI - IPS	2		18.02.2025.	
Poziv za sudjelovanje u istraživanju	dgrabar	2024				17.02.2025.	
Besplatna Perplexity Pro licenca za studente	zstapic	2024				14.02.2025.	
Upis u ljetni semestar ak. god. 2024./2025. - Stručni prijediplomski studij ITDP	zstapic	2024	Stručni studij ITDP			13.02.2025.	
Upis u ljetni semestar ak. god. 2024./2025. - 2. godina IPS	zstapic	2024	Prijediplomski studij FOI - IPS	2		12.02.2025.	

Figure 1.7. Overview of sent emails / notifications to groups of students

Student performance indicators - At the end of each semester, the Vice-Dean for Education and Students prepares (1) data on the success of studies - these data include data on the total number of students, the number of students in all studies, fields of study and all academic years, the success of studying in each of the studies and fields, the number of repeaters with regard to the number of students enrolled in the previous academic year, etc.; (2) data on the percentage of pass rates in exam periods (*[Annex 1.3.1.: Example of presentation of data on pass rates in courses](#)) – this section contains data on pass rates in all courses in all terms in the last few years; (3) data on the duration of studies and the number of completed students – data on the average duration of studies are

collected. This data is currently being obtained in collaboration with the university's computing center SRCE; (4) data on teachers – data on all teachers, their titles, elections to titles and other information important for the teaching process (*Annex [1.3.2: Schedule of lectures for the academic year 2023/2024](#), *Annex [1.3.3: Schedule of lectures for the academic year 2024/2025](#)).

A **Balanced Design Planning (BDP)** system is an innovative and modular solution based on the latest research in the field of learning design and learning analytics. The system was developed within the Learning Analytics Laboratory with co-financing of development through several projects. It is based on a student-centered constructivist approach, integrating the principle of constructive alignment of learning outcomes, learning and teaching activities, evaluation and student workload. It enables the planning and structuring of courses and study programs. Also, the system supports the collaborative work of teachers on course design and provides advanced analytics that can be connected to other systems (e.g. Moodle) and used to monitor the quality of teaching and give feedback to students. Key functionalities are: Planning of learning outcomes and their weights with the help of artificial intelligence (AI); Planning of topics, teaching units and course content with the help of AI; Collaborative work – Possibility of teachers working together on planning courses and study programs; Analysis at the course level; Analysis at the level of the study program; Evaluation of the entire program with an analysis of the relationship between courses, learning outcomes and student workload; Semi-automatic placement of courses in Moodle based on design from Balanced Design Planning and export of data to other formats. The system is available on learning-design.eu and is currently used by over 2300 users from more than 40 countries.

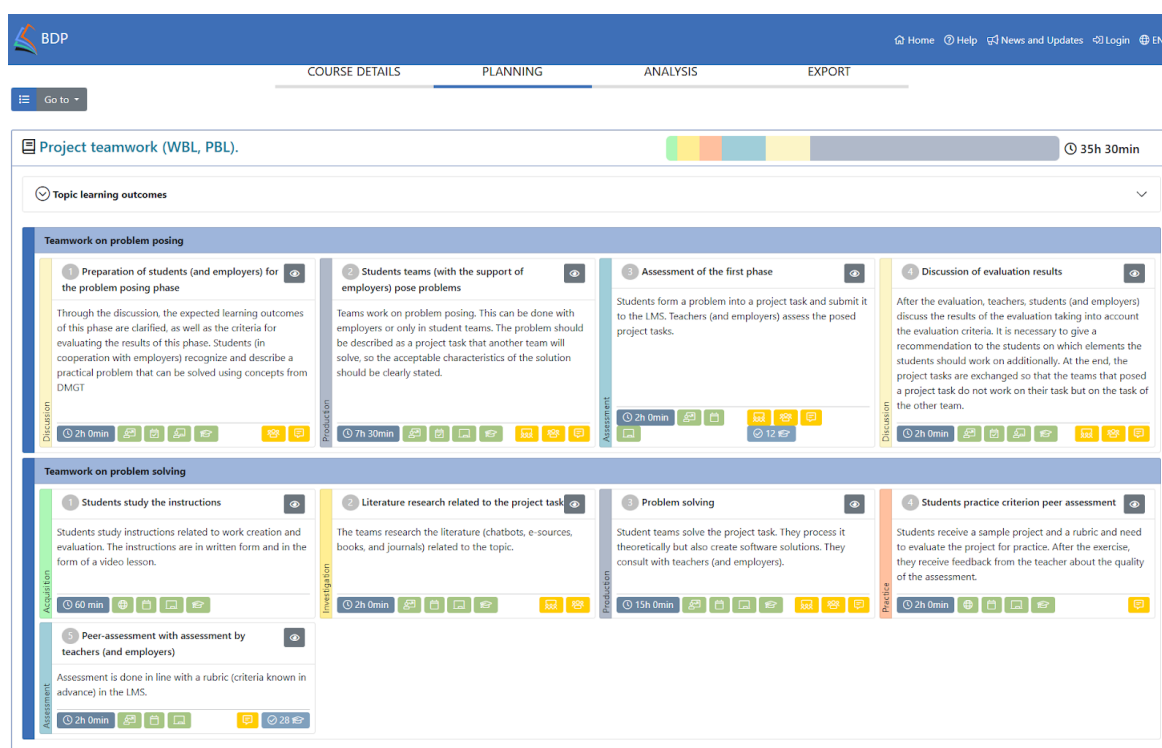


Figure 1.8. Planning the implementation of the teaching unit

The system for managing final and graduate theses, cro. FOI Radovi ([FOI Papers](#)), enables complete digitization of the process of drafting, mentoring and defending final and graduate theses. Students, mentors, and administrative staff can easily manage key steps, from topic selection to final paper publication. The basic functionalities are: Review and reservation of topics – Students can browse

available topics and book them in agreement with mentors; Mentoring – Allows you to track student progress, exchange materials, and take notes throughout the work creation process; Scheduling and locking of the defence – Digital records of the date of the defence with the possibility of locking the work before the official evaluation; Analytics and reporting – Display of key data on the process of creating and defending theses, including statistical analyses and report generation; Automatic publication of papers in Dabar – Integration with the Dabar repository for automatic storage and publication of final papers.

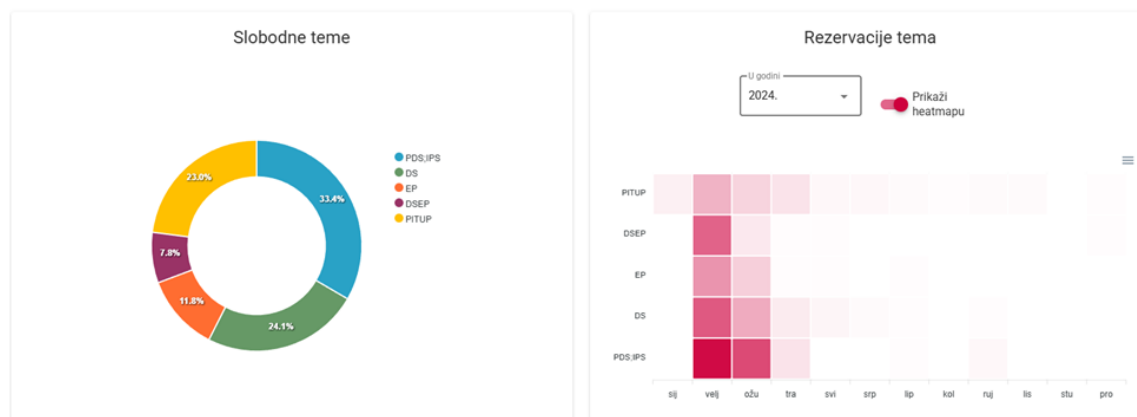


Figure 1.9. Analytical overview of free and reserved topics

As an upgrade to the existing systems, in 2024, the **Information System for the Management of Applications and Requests (FOL Forms)** was developed, which enables digitized and centralized submission, processing and monitoring of all student applications and employee requests. It is designed to speed up administrative processes, reduce paperwork and improve transparency in the process of approving and resolving applications. Students and employees can easily submit their applications via an online interface, whereby the system automatically directs requests to the responsible persons for further processing. Throughout the process, users have the opportunity to monitor the status of their requests and receive notifications about changes and decisions. The system also allows for integration with other academic and administrative systems, including the billing system, which ensures efficient management of the financial aspects of individual requirements. The basic functionalities are: Creating arbitrary forms and processing processes – Administrators can define customized forms and rules for different types of requests and requests, allowing flexibility and adaptation to the specific needs of the institution; Monitoring of the processing process and analytics – Users can monitor the status of their requests in real time, while administrators have access to analytical data and statistical reports on the frequency and type of submitted requests; Integration with the billing system – Automatic connection to financial systems allows you to manage the billing associated with individual types of requests, reducing the need for manual entry and administration.

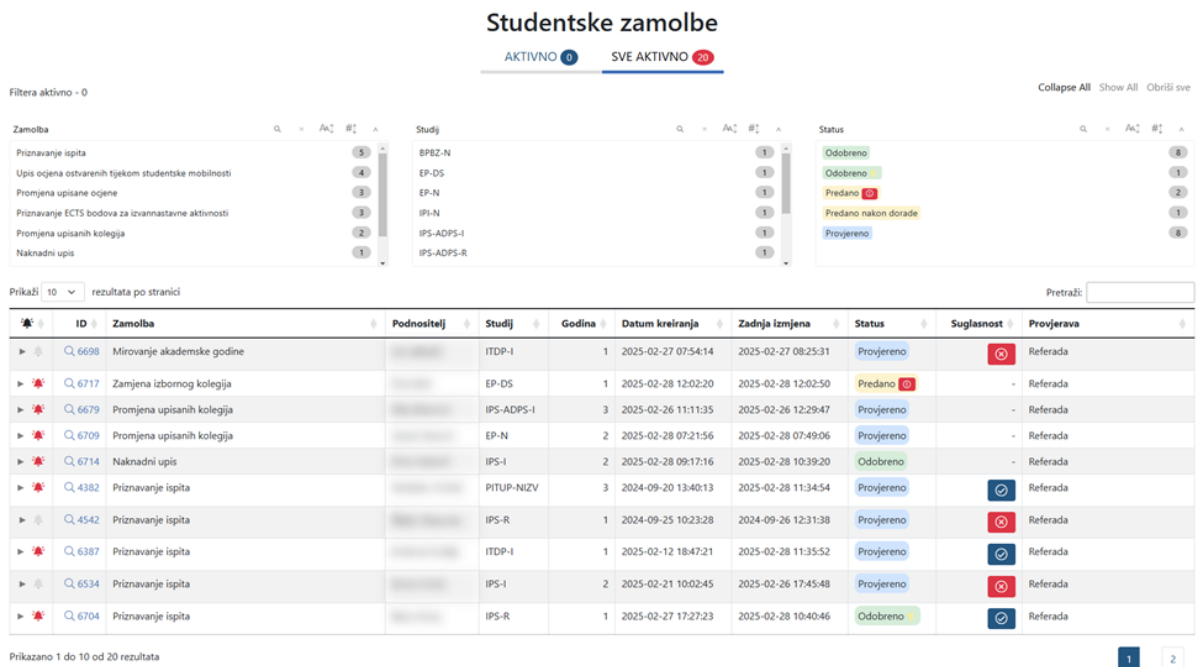


Figure 1.10. Overview of currently active student applications and their processing status

2025.

Sve zamolbe po studijima (ukupno)

145	57	46	33	9	9	3
PDS IPS	DS FOI	ITDP	PDS EP	PITUP	DS EP	PDS IS / PS

Završene zamolbe po studijima (ukupno)

131	52	39	31	9	9	3
20h, 31 min	1d, 17h, 46min	1d, 20h, 6min	1d, 10h, 46min	5d, 13h, 49min	3d, 18h, 15min	1d, 6h, 29min
PDS IPS	DS FOI	ITDP	PDS EP	PITUP	DS EP	PDS IS / PS

Zamolbe po vrstama (ukupno)

122	Upis manje ECTS bodova (Kolegiji i ECTS)
58	Upis više od 35 ECTS bodova (Kolegiji i ECTS)
16	Produženje teme završnog / diplomskog rada (Ocjenski radovi)
14	Promjena upisanih kolegija (Kolegiji i ECTS)
12	Nastavak studija (Status i studij)
11	Priznavanje stručne prakse (Stručna praksa)
10	Zamjena izbornog kolegija (Kolegiji i ECTS)
10	Upis semestra tijekom studentske mobilnosti (Mobilnost)
9	Priznavanje ispita (Ispiti i ocjene)
8	Priznavanje ECTS bodova za izvannastavne aktivnosti (Kolegiji i ECTS)
7	Upis ocjena ostvarenih tijekom studentske mobilnosti (Mobilnost)
5	Upis stručne prakse (Stručna praksa)
4	Upis kolegija putem horizontalne mobilnosti (Mobilnost)
4	Naknadni upis (Status i studij)
3	Promjena upisane ocjene (Ispiti i ocjene)
3	Mirovanje akademske godine (Status i studij)
3	Izdavanje nove studentske iskaznice (Razno)
1	Promjena centra studiranja (Status i studij)
1	Prijava nove teme završnog / diplomskog rada (Ocjenski radovi)
1	Pisanje završnog / diplomskog rada na engleskom jeziku (Ocjenski radovi)

Zamolbe po statusu (ukupno)

199	Odobreno i završena obrada
73	Odbijeno i završena obrada
11	Provjereno
10	Zatražena dorada
5	Odobreno
2	Otkazano
1	U izradi
1	Predano nakon dorade

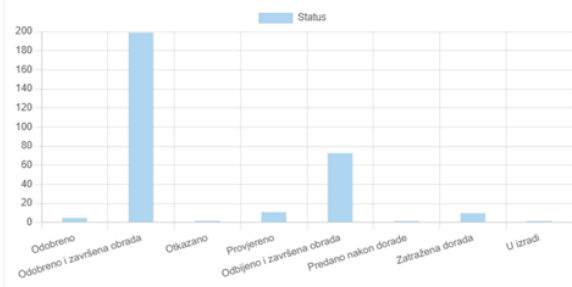


Figure 1.11. Analytics of sent and processed requests

The **FOI Praksa** (FOI Practice) is used to collect, store and analyze data on companies/employers, students and practice offered and completed, as well as the results of practice satisfaction surveys of both students and employers.



Figure 1.12. FOI practice

The information system for event management and room reservation, **FOI Events** - has been developed as a central platform for managing all forms of events and room reservations. The system supports all steps in the planning and organization of various activities – from internal meetings and workshops to scientific conferences and other events organized by UNIZG FOI. The system enables easy resource management, monitoring the activities of teaching and non-teaching staff, and involving students and external participants in events. The basic functionalities are: Reservation of premises, registration of participants, registration fees for the conference, analytics on participation and engagement, reports for the needs of the organizers and management.

Figure 1.13. Book an appointment

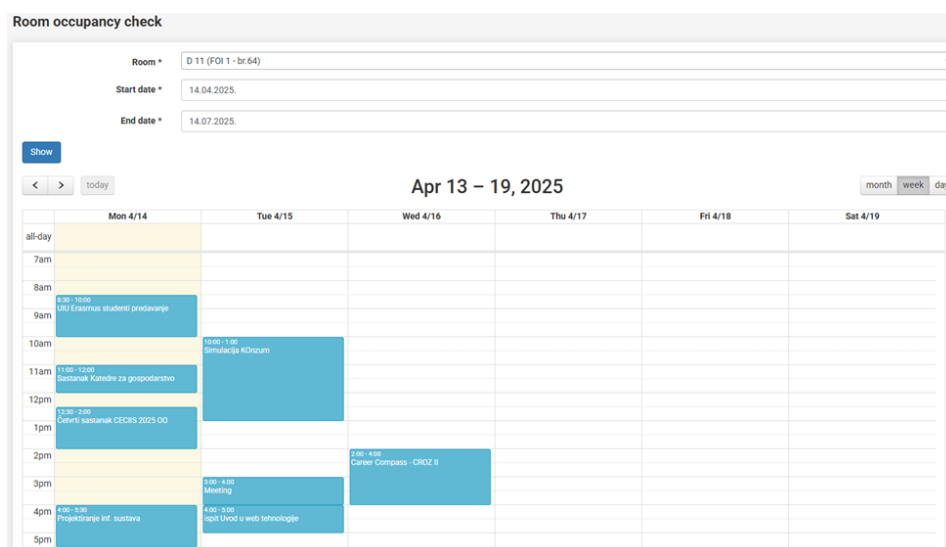


Figure 1.14. Checking the occupancy of the halls

There are also a number of other services, e.g. the Mobility Database and the Project Database serve as a basis for decision-making and management based on recorded data and their analysis, and make visible and transparent performance indicators and results of individual activities and resource utilization.

During the pandemic, the [FOI online portal](#) was designed where you can find materials and advice designed for higher education teachers and students for successful online learning and teaching, as well as links to important resources and services.

All developed and implemented applications that UNIZG FOI uses to support its activities and processes show that UNIZG FOI, in addition to research and teaching, is digitally oriented in business support. UNIZG FOI's experience in the digital transformation of research, education and business was integrated into the [University Strategic Guidelines for Digital Transformation](#) of the University of Zagreb, and two UNIZG FOI employees participated in the development of this document.

UNIZG FOI informs the interested public about the admission criteria, enrolment quotas, study programmes, learning outcomes and qualifications, as well as forms of support available to students. Decisions on admission criteria, enrolment quotas and learning outcomes are made by the Faculty Council. All information about enrolment can be found on the website, and details about study programs are available on the service [nastava.foi.hr](#) to the course level. In addition to basic information about teachers, studies, departments and class schedules, the [FOI Nastava](#) (FOI Teaching) is also used for planning, recording and checking held classes (possible deviation from the plan) at the level of courses and teachers, capacity and occupancy of classrooms, and thus effective management of resources – human and material, based on available reports. For each course, students (and all interested individuals) have access to information about the procedures applied in teaching, learning and evaluation, and the FOI Teaching system provides basic information, professors, curriculum (content of lectures, seminars, exercises, learning outcomes of the course, learning outcomes of the program, basic and supplementary literature), monitoring model, exam dates, schedule and consultations of the provider.

Various communication channels are used to inform the general public about study programs, enrolment quotas and other information related to studying at UNIZG FOI. In addition to the

website that contains all the general and relevant information about UNIZG FOI, a [special webpage has been created for future students](#) of UNIZG FOI, which summarizes the most important information about study programs for future students as well as all the details about the conditions of enrolment in individual study programs. A [Guide for Freshmen has also been prepared](#). On the UNIZG FOI website, in individual categories, the main indicators are highlighted, for example, on the number of students, projects and project partners, and the implemented mobilities. Information on the results of various evaluations and the consequent activities is publicly available on the [website of the Quality Assurance System](#). Information on the quality policy and the annual report on the work of the UNIZG FOI, the Economic Council, the working bodies of the UNIZG FOI, the outcomes of external evaluations, plans of quality assurance activities, annual reports on quality assurance, recommendations of the Quality Assurance Committee, the results of surveys for the evaluation of studies and the results of surveys on the perception of the quality of teaching have been publicly published.

The emphasized importance of the promotion of study programs is reflected in the engagement of students, assistants and professional associates who actively participate in the promotion in secondary schools. **Every year, promotion teams visit between 20 and 30 high schools in Croatia and neighboring Bosnia and Herzegovina, in order to present study programs among high school graduates.** In addition, UNIZG FOI is presented at the five most important education fairs in the region, including the *University of Zagreb Review*, *IRO EDU*, the *Regional Education Fair "Which Will You Go to College?"*, *Dubrovnik EXPO* and others (*[Annex 1.3.4.: Report on the Implementation of the Promotion of Study Programs in Secondary Schools in Eastern Croatia in the Academic Year 2023/2024](#)). When presenting study programs by secondary schools, students are provided with information on the conditions of enrolment, the number of enrolment places, the method of study, learning, scholarship opportunities, completion of studies and the employability of students who complete their studies at UNIZG FOI (*[Annex 1.3.5: Decision on enrolment quotas in undergraduate studies 2023/2024](#), *[Annex 1.3.6: Decision on Admission Criteria for Undergraduate Studies in the Academic Year 2023/2024](#), *[Annex 1.3.7: Decision on Enrolment Criteria 2023-2024 Matura until 2022](#), *[Annex 1.3.8: Decision on enrolment quotas in graduate studies 2023/2024](#), *[Annex 1.3.9: Decision on the conditions for enrolment in the first year of graduate studies](#), *[Annex 1.3.10: Decision on the conditions for enrolment in the differential year of graduate studies](#)).

The usual practice of informing the public is also the organization of the [Open Day](#) (contact and online). On the [Student Support website](#), the Center for Student Support and Career Development and the [Office for Students with Disabilities](#) are particularly highlighted. In addition to the website, students are informed about the support, for example, through forums for freshmen and forums on enrolment in the new semester and professional practice, as well as presentations of student associations and activities for freshmen. Through the [FOI Projects](#) portal of the Center for International Projects, news about various funding programs, open tenders, events in the field of project financing, and presentations of project and scientific activities and successes of UNIZG FOI employees and students are transmitted.

Information on study programmes and other activities of the higher education institution is publicly available in Croatian and English. UNIZG FOI publishes information about study programs and other activities **on its website in Croatian and English and on social networks: Facebook - 30.1 thousand followers, X - 278 followers, Instagram - 3,336 followers, Youtube - 194 subscribers, Flickr - 18 followers, LinkedIn - more than 6,460 followers and Tik-Tok - 937 followers.** UNIZG FOI is one of the few higher educational institutions that has its [own webshop](#), developed entirely with in-house

resources. Also, enrolment competitions are published on the University of Zagreb website, portals and in the media. UNIZG FOI has also published several promotional videos with the aim of promoting it to the general public, and some of them were presented at the [Faculty Day in December 2023.](#) and [Faculty Day in 2024.](#)

[The right of access to information](#) held by UNIZG FOI is regulated by the [Law on the Right of Access to Information](#). The law gives all national and foreign legal persons, in the same way and under the same conditions, the right to access information. The Act prescribes the principles of the right of access to information and reuse of information, restrictions on the right of access to information and reuse of information, the procedure for exercising and protecting the right of access to information and reuse of information. UNIZG FOI implements the protection of personal data in accordance with the General Data Protection Regulation and the Act on the Implementation of the General Data Protection Regulation. More information can be found on the [website](#). The Decision on the Storage of Materials Related to the Activities of the Teaching Process sets the deadlines for the storage of paper and digital materials related to the activities of the UNIZG FOI teaching process and the storage of documents related to the teaching process in the e-learning system.

One of the important forms of informing students and future students about employment and career development opportunities takes place during [the Career Week](#). This event provides an opportunity for students to talk directly to potential employers, gain insight into the labor market and get all the necessary information about employment during and after graduation. Every year, about **70 employers participate in the Career Week (out of over 400 who rotate to diversify the offer every year)**, who present their companies, open positions, practice opportunities and perspectives for further professional development to students. Students have the opportunity to participate in workshops, lectures and panel discussions. Career Week is an extremely important event because it allows students to **make their first contacts with employers, get acquainted with employment methods and trends, and gain valuable experiences that can help them make career decisions**. In addition, it is at this event that many students find their future employers and get the opportunity for employment or practice.

Information about the social role of UNIZG FOI is available to the interested public. Activities and events and projects implemented and organized by UNIZG FOI, and contributing to society, are regularly announced and documented. Contribution to society is realized through student projects, seminars and as a formal part of the curriculum. One of the main bearers of the social role is the [Centre for Volunteering and Humanitarian Work](#) , which regularly publishes information about its events. In June 2022, UNIZG FOI joined the UN Global Compact — the largest and most prominent global initiative for sustainable development and corporate and institutional sustainability. Participation in the [Global Compact](#) represents a key step forward in further advancing UNIZG FOI's efforts in the field of social responsibility. Additionally, in September 2023 the Faculty Council adopted **[Annex 1.3.11.: Gender equality plan UNIZG FOI](#)*

UNIZG FOI actively participates in local events and thus contributes to the community and strengthens the sense of belonging. Collaborative research projects with local entities are aimed at addressing specific challenges and opportunities in the region. UNIZG FOI allows students to do practices and participate in employment programs within local businesses and organizations. This not only helps students in their professional development, but also strengthens the links between UNIZG FOI and the local labor market. Also, UNIZG FOI transfers expert knowledge to the community through workshops on digital literacy, entrepreneurship, finance, strategic planning in educational institutions and information security.

As part of the project [Green Step Forward: Days of Sustainable Development](#), UNIZG FOI focused on practices that support environmental protection, recycling, waste reduction and the promotion of healthy food. Students had the opportunity to consider sustainable practices and propose solutions to improve the quality of student life. Also, on May 13 and 14, 2024, the first [Global Goals Jam](#) was held at UNIZG FOI. This event was a significant step towards promoting sustainable development and encouraging creative solutions to global challenges. Both initiatives were presented as part of the celebration of [World Environment Day](#), which is held every year in Varaždin. On this occasion, three constituents of the University of Zagreb (Faculty of Organization and Informatics, Faculty of Geotechnical Engineering and Faculty of Textile Technology) present their initiatives related to environmental protection, aimed at educating the general public, especially children and young people, about the importance of environmental protection, through a series of interesting activities such as educational content, interactive quizzes, workshops and experiments. In addition to these activities, during 2023, [a humanitarian action](#) was organized to help the "Bedem ljubavi" Association and the Social Supermarket "Bread of St. Anthony". On May 17, 2023, UNIZG FOI volunteers responded to the national volunteer campaign "Croatia Volunteers" and marked it by cleaning and beautifying the environment of UNIZG FOI. During May 2023, the 11th Student Research Symposium on Intercultural Learning was held, and the volunteers of [the Centre for Volunteering and Humanitarian Work](#) made a significant contribution to its organization and success. The Centre regularly participates in the national event [Festival of Science](#), as part of which a digital exhibition of artworks by preschool and primary school children is organized. Every year, about 80 children's artistic artworks in various techniques arrive at the exhibition, and the artworks are published on the Facebook page and the website of the Centre.

1.4. The higher education institution supports ethics and transparency, academic integrity and freedom, and prevents all types of unethical behaviour, intolerance, and discrimination.

Ethics, transparency, social responsibility and sustainability are the basic principles integrated into every process at UNIZG FOI. Both on an institutional and personal level, UNIZG FOI as well as UNIZG FOI employees actively participate in socially useful work and volunteer activities, UNIZG FOI donates IT equipment to kindergartens, schools and associations and integrates an extensive environmental, social and governance (ESG) approach agenda into its courses. Reporting on sustainable development and social responsibility is carried out through [a separate website](#).

Teachers are regularly educated in the areas of business ethics and transparency (e.g. education on the General Data Protection Regulation – GDPR (2018), workshops on [the Turnitin tool](#), application of artificial intelligence in teaching and research (2024). Procedures for research ethics and compliance with GDPR principles when processing data for the purposes of scientific research are defined (*[Annex 1.4.1: DPIA research](#)). The research manager must submit the research plan and the data protection impact analysis form to the Data Protection Officer (*[Annex 1.4.2: Application for research authorisation](#)). In addition, UNIZG FOI employees sign statements on the (non)existence of conflict of interest in accordance with the Public Procurement Act. Teachers exercise their right to independently decide on the field in which they will deal and in which they will realize their potential and professional development.

Employees, students and external stakeholders base their work on the principles of academic ethics. When planning research and applying for projects, teachers consult and seek the approval of

[the Ethics Committee for ethical issues](#). As part of the Workshop for Students: Preparation of Final and Graduate Theses, students are educated about ethical and academically acceptable behavior in the preparation of evaluation papers, and part of their evaluation papers is the Statement of Originality (*[1.4.3.: FOI - Citation and Referencing Recommendations Using the APA Referencing Style](#)). The Ethics Committee (*[Annex 1.4.4.: Decision on the appointment of the Ethics Committee of the UNIZG FOI](#)) is appointed in accordance with [the Code of Ethics of the University of Zagreb](#) and [the Guidelines for Handling Appeals](#). The ethical principles of research are taken very seriously – students are required to sign a Statement of Originality of the Paper, and teachers and associates are encouraged to use plagiarism detection tools such as Turnitin.

[Regulations on disciplinary and material responsibility of students and other attendees](#) regulates the issues of liability of students and other participants related to non-compliance with legal and other regulations and decisions, jurisdiction to initiate disciplinary proceedings (hereinafter referred to as the procedure), conduct of the procedure, manner of work and decision-making of the Disciplinary Court, limitation periods for initiating proceedings, implementation of imposed measures, records of imposed measures and others related to liability and enforcement disciplinary proceedings." In the period from October 2023 to September 2024, 37 students were registered with the Disciplinary Court and a total of 11 hearings of the Disciplinary Court were held. All but one student was registered by teachers, while one student was registered by the Office for Undergraduate and Graduate Studies. A total of 33 students (89.2 %) committed a serious disciplinary offence, while 4 students (10.8 %) committed a minor disciplinary offence. Based on the discussion and the attached evidence, two students were acquitted of responsibility, while the others were given disciplinary measures: a ban on taking the exam for a certain period of time (3-9 months), the last warning before expulsion, or a public warning (for a minor disciplinary offense). Two students appealed against the decision of the Disciplinary Court, and the appeals were rejected by the Administration (*[Annex 1.4.4a.: Report on the work of the Disciplinary Court in the academic year 2023-2024](#)).

UNIZG FOI also has [an Rulebook on Disciplinary Liability of Employees](#), which regulates "the issues of liability of UNIZG FOI employees in cases of breach of obligations arising from the employment relationship, i.e. in cases of liability for non-compliance with legal and other regulations and decisions, jurisdiction to initiate proceedings, determination of facts and responsibilities of employees, conduct of proceedings, protection of employees and employers, enforcement of imposed measures for established violation of work duties". UNIZG FOI carries out activities to sanction unethical behavior, intolerance and discrimination. These activities are in the domain of the Ethics Committee and the Disciplinary Court and the Dean/Vice-Dean in accordance with the Rulebook on Disciplinary Responsibility.

The higher education institution systematically solves the problems of plagiarism, copying and falsification of results. Teachers and mentors are obliged to report every case of plagiarism, copying and/or falsification of results, and sanction the committee in accordance with the Rulebook on Disciplinary and Material Liability of Students and Other Students. In the event of problems of plagiarism, copying and falsification of results, the UNIZG FOI acts preventively. Students are educated in the field of proper citation and referencing of used sources (* [Annex 1.4.5.: Workshop for students - paper production](#)), warn about the consequences of rewriting in student work monitoring models, while teachers are instructed to use the Turnitin plagiarism detection tool.

The system of competences for resolving conflicts and irregularities is functional at all levels of the higher education institution. As part of the Student Council, [the Student Ombudsman](#) "receives complaints from students related to their rights and discusses them with the competent authorities,

UNIZG FOI, advises students on the manner of exercising their rights, participates in proceedings conducted by the Ethics Committee in disciplinary proceedings against students, and performs other tasks determined by the general acts of the Union and UNIZG FOI" in order to protect their rights.

Students and employees are encouraged to participate in local community activities with people from socially vulnerable groups, as well as to participate in blood donation campaigns, environmentally oriented projects and activities, 3D printing visors that have been donated to medical staff and other employees in direct contact with citizens in risky situations, such as the COVID-19 pandemic. In September 2023 the Faculty Council adopted [the Gender Equality Plan 2023 - 2030](#). On the basis of the Gender Equality Plan, [the Protocol for the Prevention and Treatment of Cases of Discrimination, Harassment and Violence](#) was adopted, and the [Recommendations related to zero tolerance towards gender discrimination, and](#) the Language Recommendations on the Gender-Unmarked Use of Language in Business [were drafted](#). [Protocol](#) for regular information and monitoring of the needs of employees and students in exercising their rights and work-life balance, [Protocol](#) for the prevention and treatment of cases of discrimination, harassment and violence, [Recommendations related to zero tolerance towards all forms of violence](#), and an analysis of the situation of the UNIZG FOI in 2024 in terms of gender equality of employees and students was made (*[Annex 1.4.6: Decision on the appointment of the Commissioner for Gender Equality for Employees and Students](#), *[Annex 1.4.7: Decision on the appointment of the Commissioner for the Protection of the Dignity of Workers](#), *[Annex 1.4.8: Commission for the Implementation of the Gender Equality Plan UNIZG FOI](#)).

UNIZG FOI is proud of public recognition for its achievements in socially responsible action at the local, national and international level. UNIZG FOI is the winner of the national award for volunteering, and in 2022 it was also recognized by the City of Varaždin, i.e. it is the winner of the award for its long-term contribution to the improvement of science, economy and education in the city of Varaždin. The Centre for Volunteering and Humanitarian Work gathers volunteers – employees and students – with the aim of supporting the local community and strengthening social sensitivity. Depending on the volunteer projects, students, employees and members of the local community are involved in the work. Volunteer activities are recorded through volunteer booklets, and based on these activities, volunteer contracts are concluded. After the devastating earthquake in Zagreb and Sisak-Moslavina counties four years ago, UNIZG FOI exempted students from the affected areas from paying tuition fees, provided them with free internet access and the necessary computer equipment, and the funds were raised through donations from employees and students.

UNIZG FOI carries out activities in accordance with the "green" recommendations ([Green FOI](#)). An electric vehicle was purchased and a charging station was installed, and in 2023 UNIZG FOI received the "[Friend of Cyclists](#)" plaque. UNIZG FOI is among the first institutions to introduce systematic waste separation, LED lighting in all rooms and digitalization of business (abolition of paper application forms, indexes, printed final/diploma theses, etc.). The UNIZG FOI Library regularly participates in international professional conferences, including the conference "Libraries and UN Agenda 2030", and organizes environmental campaigns such as collecting plastic caps for the Association of Leukemia and Lymphoma Patients.

The Office for Students with Disabilities provides one-on-one support to students, ensuring that exams, communication tools, and other academic needs are accommodated. The UNIZG FOI website includes options to accommodate people with dyslexia, the visually impaired, and other students with special needs.

1.5. The quality assurance system is periodically improved and revised on the basis of the results of implementation of regular internal and external quality assurance procedures.

UNIZG FOI has a quality assurance system that is aligned with European standards and guidelines for quality assurance in the European Higher Education Area (ESG). The basic document of the internal quality system at UNIZG FOI, established in 2010, is the [Rulebook on the Quality Assurance System](#). This Rulebook defines the objectives, purpose, areas of assessment, organization and functioning of the quality system at UNIZG FOI. It also prescribes the role of the Faculty Council, the organization and work of the Quality Assurance Committee, as well as the areas in which quality assurance measures and activities are implemented. The UNIZG FOI publishes clear, accurate, objective, valid and easily accessible information on internal and external evaluation procedures, plans of quality assurance activities, plans of quality assurance activities, recommendations of the Quality Assurance Committee, results of surveys for the evaluation of studies and results of surveys on the perception of the quality of teaching. [The Rulebook on the Quality Assurance System](#) covers the following areas of quality assurance and improvement: procedures for the development, assurance and improvement of the quality system; design, approval, supervision and periodic evaluation of study programmes; teaching and assessment of students; learning resources and support for students from enrolment to graduation; teachers' competencies; scientific research and professional activities; mobility and international cooperation; resources for educational, scientific and research activities; information system of the institution and transparency towards the public. All measures and activities in the quality assurance system are based on the application of the Demming quality management circuit: continuous repetition of *plan - actions - check and - act* for each identified business process or sub-process, preconditions are created for the achievement of the final goal, which is the continuous improvement of overall efficiency and quality.

Based on the observations, research and findings of the study program audit team, the university graduate study program *Economics of Entrepreneurship* received a recommendation of the EFMD accreditation program for a period of three years in October 2024 ([Annex 1.5.1.: EFMDa_FOI_University of Zagreb_PRR_15.07.2024_Complete](#)). At the moment, final preparations are being made for ASIIN accreditation of the university undergraduate study program *Information and Business Systems* ([EFMD Certificate](#); [Annex 1.5.1a.: EFMD Accredited - UNIZG FOI EE - SAR](#)).

At the beginning of each academic year, the Quality Assurance Committee proposes a plan of activities of the quality assurance system based on the verification of the achievement of quality indicators, with the proposals of internal and external stakeholders. On the basis of the defined plan, the method of monitoring the implementation of activities is planned and organized, and this is reported in [the Annual Report on the Quality Assurance System](#). The purpose of this method of data collection is (a) to enable all stakeholders involved in the quality assurance system (especially administrations and faculty councils) to comprehensively and comprehensively discuss individual elements of quality assurance, (b) to encourage the establishment of a functional data collection system for individual activities and indicators on an annual basis, which would improve and facilitate periodic monitoring and evaluation. A complete report on the implemented activities of the quality assurance system for each academic year is based on planning, implementing, verifying and proposing corrective and preventive measures. [Plans of activities for quality assurance](#) as well as [annual reports on the quality assurance system](#) for each individual year are publicly published on the UNIZG FOI quality website. The Quality Assurance Committee at the end of each academic year.

analyses the implementation of the UNIZG Quality Assurance System Activity Plan for the reporting year and provides [recommendations on planning future activities](#) (from 2024). The recommendations that were applied for the development of the plan for the academic year year 2024/2025 are: It is necessary to analyze all unrealized activities and make a decision on the plan for their future realization (abandonment of the activity or planning/providing resources for its realization); It is necessary to analyze all partially realized activities and plan/provide resources for their realization; Continuous activities of the quality assurance system should be discussed and corrections or improvements should be proposed accordingly; To make all stakeholders aware of their contribution to quality assurance, but also to encourage proactive action. Special attention should be paid to the visibility of the strategic direction of the UNIZG FOI in the plan of activities for the next period.

Given that teaching is the most important pillar of the UNIZG FOI, most attention is paid to the provision of activities related to teaching. UNIZG FOI uses various methods of collecting information on quality ([student surveys on the perception of teaching](#), [surveys on study satisfaction](#), etc.).

In 2024, the Quality Assurance Committee of the UNIZG FOI proposed the criteria of excellence for the selection of candidates for the associate position of assistant (*[Annex 1.5.2. Decision on criteria for the employment of assistants](#)) and the criteria for hiring external associates ([Annex 1.5.3. Proposal of criteria for the selection and evaluation of external associates at FOI](#)). Based on the above criteria and the discussion conducted at the departments, the Faculty Council made a decision on the criteria of the competition for associate positions. When hiring external associates, departments discuss meeting the defined criteria, and when voting on the engagement of new external associates, all members of the Faculty Council have access to their CVs. For existing external associates, the decision on re-engagement is made based on the analysis of the survey results. The Committee for Quality Assurance of that department at the end of the semester and at the end of the academic year. years discuss the realization of classes in the previous year/semester with a special emphasis on monitoring the passing rate of students in certain courses. Anomalies are identified and a corrective decision is made, if necessary. At the beginning of the academic year. The years of the department define models of student work monitoring where the way of work and elements of student work monitoring are defined. Based on the analysis of the success rate in previous years and the results of surveys by which students evaluate each subject, teachers and departments propose changes to the monitoring model.

The internal quality assurance system actively involves all stakeholders (students and external stakeholders – employers, alumni, representatives of professional and professional associations, civil society organizations/associations and internal stakeholders). All stakeholders are actively involved in all important aspects of the functioning of the UNIZG FOI, such as the development and revision of curricula, the development of regulations and strategic documents, as well as the functioning of the internal quality assurance system. [The Quality Assurance Committee](#), as an advisory and expert body of the Faculty Council and the Dean with the task of planning, coordinating, implementing, monitoring and evaluating measures and activities within the quality assurance system at UNIZG FOI, consists of six representatives of employees in scientific-teaching, teaching and associate positions, provided that at least one is in an associate position, one student representative, one representative of administrative and technical staff and one representative of external stakeholders (alumni, employer, etc.). This composition of the Commission is regulated by Art. 9, st. 1 of the Rulebook on the Quality Assurance System. Meetings of the Commission are held regularly throughout the year, and in its work the Commission uses an internal, secure website and a repository of documents. Quality assurance at UNIZG FOI is based on the reference documents of the University of Zagreb -

[Politika kvalitete.pdf](#) and the defined principles for the establishment of the quality assurance system and [the Quality Assurance Manual](#) (Article 14, paragraph 1 of the Rulebook on the Quality Assurance System).

Representatives of the Quality Assurance Committee are involved in the work of all committees that develop strategic guidelines for the UNIZG FOI, e.g. the Committee for the development of the UNIZG FOI Development Strategy 2025-2029; Committee for the preparation of self-evaluation in the process of re-accreditation of UNIZG FOI, Committee for the development of the Work Regulations, Committee for the development of the Study Regulations. Since the academic year 2012/2013, UNIZG FOI has been participating in cyclical surveys, but the last cyclical survey was conducted in the academic year 2018/2019. In addition to the three-year Revised Cyclical Survey Plan for the purpose of evaluating teachers' work/teaching, teachers are encouraged to voluntarily submit a request for a survey in their courses every year (either due to the need for advancement or to check the effectiveness of new teaching methods). The Quality Assurance Committee analyses the results of the research and adopts opinions, recommendations and action plans for lower-rated teachers (according to the instructions of the University for those teachers whose average grade is less than 2.50). Recommendations include a discussion of individual teacher assessments at course level to improve the quality of teaching. These discussions also take place at the department level to identify methods to improve teaching work.

UNIZG FOI organizes [training](#) for new associates and professional development of teachers involved in the teaching process, and the focus is on improving teaching competencies. These trainings are carried out periodically. Teachers with lower grades are required to submit a written report, stating the reasons for the lower results and a plan for improving their work. In the academic year. year 2023/2024. The Quality Assurance Committee has adopted a roadmap for conducting the 2024/2025 survey (*[Annex 1.5.4: Survey Roadmap 2024/2025.](#)) in which they defined a new proposal on the criteria for the preparation of the survey plan, the dates for conducting the surveys and the decision on the surveys. An important change is that the survey is mandatory for teachers who have a choice for a higher scientific-teaching or teaching position in the next two academic years. and that the survey is conducted online, but the interviewers come to the halls where students fill out the survey on mobile phones or tablets. Also, a survey was conducted for external associates. The UNIZG FOI Quality Assurance Committee proposed to the Faculty Council that in the academic year 2025/2026, conduct a cyclical survey of all teachers.

From 2019/2020, in addition to surveying students for the purpose of evaluating teachers' work, data on students' perception of the quality of teaching in courses are collected. The system enables anonymous surveys of students based on various criteria, including study, course, teacher and other relevant parameters. It was developed with the aim of improving the quality assurance system of the teaching process, providing a detailed insight into the experiences and opinions of students. The collected data is processed and analyzed to obtain aggregated results that allow teachers and administration to continuously improve teaching and the academic environment. Aggregated results are available on the system in the form of analytical reports and data visualizations, allowing for easy review and informed decision-making. The basic functionalities are: Polling – Allows students to quickly and easily complete anonymous surveys through a digital platform; Analytics – Processing and analysis of collected data in order to identify trends and key indicators of teaching quality; Reporting – Generating detailed reports and visualizations of results, available to teachers and management for strategic decision-making.

Pregled rezultata - DS FOI

Naziv ankete: Anketa o percepciji kvalitete izvođenja nastave 2024/2025 (zimski semestar)

Vrsta ankete: Ankete za predmet

Akademski godina: 2024/2025

Napomene:

- Sudjelovanje u anketi je bilo dobrovoljno, te stoga skup studenata ne mora biti reprezentativan
- Kada je broj studenata koji su ispunili anketu manji od 10 ili manji od 50% od broja upisanih studenata na predmet, rezultati ankete ne mogu se smatrati pouzdanim pokazateljima vrednovanih karakteristika predmeta
- Izričito je zabranjena neovlaštena distribucija, umnožavanje ili izmjena sadržaja podataka o kvaliteti izvođenja nastave na Fakultetu organizacije i informatike Sveučilišta u Zagrebu

Grafički prikaz Srednje vrijednosti Tablični prikaz

ORGANIZACIJA PREDMETA I KOMUNIKACIJA

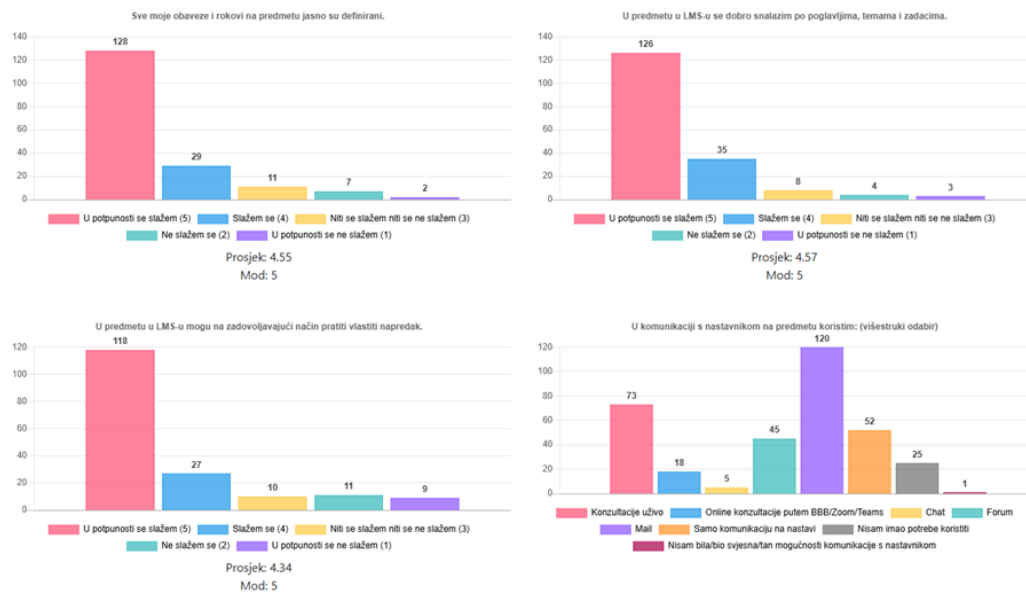


Figure 1.15. Public review of survey results

Pregled rezultata - Katedra za teorijske i primijenjene osnove informacijskih znanosti

Naziv ankete: Anketa o percepciji kvalitete izvođenja nastave 2024/2025 (zimski semestar)

Vrsta ankete: Ankete za predmet

Akademski godina: 2024/2025

Napomene:

- Sudjelovanje u anketi je bilo dobrovoljno, te stoga skup studenata ne mora biti reprezentativan
- Kada je broj studenata koji su ispunili anketu manji od 10 ili manji od 50% od broja upisanih studenata na predmet, rezultati ankete ne mogu se smatrati pouzdanim pokazateljima vrednovanih karakteristika predmeta
- Izričito je zabranjena neovlaštena distribucija, umnožavanje ili izmjena sadržaja podataka o kvaliteti izvođenja nastave na Fakultetu organizacije i informatike Sveučilišta u Zagrebu

Grupirano po studiju

Pretraživanje: <input type="text"/>		
Studij	Broj anketa	Akcije
DS FOI	19	Prikaži
ITDP	54	Prikaži
PDS FOI	128	Prikaži
SVI STUDIJI	201	Prikaži

Prikazano 1 do 4 od 4 rezultata po stranici

Nazad 1 Naprijed

Ankete za predmet

Prikaži: 25 rezultata po stranici Copy CSV Excel PDF

Pretraži:

Studij	Predmet	ISVU žifra	Broj anketa	Akcije
PDS FOI	Programiranje 1	214449	80	Prikaži
ITDP	Dizajn programskih proizvoda	228811	33	Prikaži
PDS FOI	Razvoj računalnih igara	214474	29	Prikaži

Figure 1.16. Overview of the results of the survey – report of the Head of the department

Feedback on the quality of studies and the acquired competencies of graduates is collected through [university surveys after graduation](#) and through recommendations from the alumni community, the Economic Council and from business partners as part of the internal quality process (Annex [1.5.5: Report S4C](#), Annex [1.5.5a.: EE alumni employers](#)). Learning outcomes at the level of the study programme are closely related to the practice, which is supervised by the heads of professional practice, usually teachers at the scientific-teaching workplace (*Annex [1.5.6.: Decision-Darko Andročec – Head of student practice at the Undergraduate University Study of Information and Business Systems](#), *Annex [1.5.7.: Korent Decision – Head of student Practice EP Graduate Study](#), *Annex [1.5.8 Decision-Head of student practice PITUP-Petra Grd](#)). Students are encouraged to write their theses in cooperation with employers in order to verify the application of learning outcomes in business practice (Example of the thesis [Managing changes in the case of the introduction of the euro in the IT sector | Repository of the Faculty of Organization and Informatics](#)).

In order to improve the system of practice, as well as the studies themselves, the evaluation of students/interns and employers is carried out. UNIZG FOI has developed its own information system for monitoring practice, and the project is co-financed by the European Social Fund. In the procedure of implementing [the FOI Practice](#), (cro. FOI Praksa) interns fill out an evaluation form in the system in which they evaluate the employer from the aspect of organization and implementation of the practice, and employers evaluate the interns from the aspect of the practice performed. PhD students enrolled since 2012 as part of the annual reporting in the information system of the University of Zagreb OBAD fill out a questionnaire in which they evaluate their own work, the work of a study advisor or mentor, and the quality of the annual doctoral study program. **The grades for 2024 given by 52 doctoral students show that doctoral students are more critical of their own work and progress, while the majority rated mentors and the quality of the annual study program with grades of 4 or 5.**

Examples of improvements based on the collected data are visible, for example, in the revisions of study programs, amendments to regulations, changes to strategic and operational decisions, as well as in the improvement of spatial and personnel capacities. Based on the Report of the Expert Committee on the Re-Accreditation of UNIZG FOI from 2018 ([*Annex 1.5.9: Report of the Expert Committee on the Re-Accreditation of UNIZG FOI from 2018](#)) at the thematic session of the Faculty Council, the guidelines for research work of the UNIZG FOI for the period 2021-2023 were presented, where the main goal was to increase the number of scientific research projects and increase the number and quality of scientific papers. The guidelines included 6 objectives and 19 measures and indicators. **UNIZG FOI ensures the competence of internal assessors and encourages them and enables them to acquire the necessary knowledge and skills. All employees are encouraged and supported to continuously develop their professional careers. UNIZG FOI offers internal training and informs about external training important for the professional development of employees and (co)finances their implementation. Employees are provided with financial support for participation in conferences and training in accordance with the Decision on co-financing scientific and educational training** (*Annex [1.5.10.: Decision on co-financing scientific and educational training](#)). Employees are granted funds to co-finance scientific and educational training. The funds are provided from earmarked funds for the improvement of activities (training) and own revenues. With the aim of increasing our own research capacities and initiating new scientific research collaborations, the internal project [Time4Science was launched](#). Through the Time4Science project, a series of invited [scientific lectures](#) and workshops by eminent researchers from Croatia and the world are organized. **From 2020 to 2024, a total of 14 lectures were held on different topics with aim to raise the level of competence of teachers and scientists, but also to popularize science** (e.g. on September 17, 2024,

a lecture was held on the topic "Preparing Future Generations for Digital Disruption: Developing Skills for the 21st Century"). As part of the doctoral study, a series [of workshops for potential mentors has been launched](#), which aim to prepare inexperienced mentors for mentoring doctoral students. The workshops are organized through 4 modules, and the last cycle of workshops was held in January and February 2023.

Administrative, professional and technical staff have also been approved funds for professional development activities as necessary support for teaching and scientific work. For example, **from 2020 to 2024 inclusive, employees of the UNIZG FOI Library (three employees) participated in more than 100 workshops where they underwent professional training** (e.g. International Professional-Scientific Conference "Information Service in the Library").

Furthermore, as an example of monitoring and rewarding the work performance of employees, incentives are appropriately paid due to increased workload, increased effort, etc., in accordance with [Regulations on the distribution of own revenues and revenues for special purposes](#).

II. STUDY PROGRAMMES AND LIFELONG LEARNING PROGRAMMES

2.1. The intended learning outcomes at the level of a study programme are aligned with the competences a student should gain by completing the study programme, as well as with the CroQF level (ESG 1.2.).

At the undergraduate level, UNIZG FOI offers two university and one professional study programmes. The university undergraduate study programme [Information and Business Systems](#) (IPS) and the professional undergraduate study programme [Information Technologies and Business Digitalization](#) (ITDP) belong to the scientific field of information sciences, and the university undergraduate study programme [Economics of Entrepreneurship](#) (PS EP) to the field of economics.

At the graduate level, UNIZG FOI carries out five university study programmes. In the field of information sciences, the studies [Database and Knowledge Base](#) (BPBZ), [Information and Software Engineering](#) (IPI), [Informatics in Education](#) (IO) and [Business Systems Organization](#) (OPS) are carried out, and in the field of economics, the graduate study [Economics of Entrepreneurship](#) (DS EP).

UNIZG FOI is the holder of three [university specialist studies](#), two in the field of information sciences: [Information Systems Security Management and Auditing](#) (USiRIS) and [E-learning in Education and Business](#) (EUOP), and one in the field of economics: [Business Systems Management](#) (MPS).

UNIZG FOI is delivering two [doctoral study programmes](#). UNIZG FOI is the holder of the doctoral study programme [Information Sciences](#) (IZ) in the field of information sciences and the co-holder of the joint doctoral study programme [Digital Innovation Management](#) (UDI) in the field of economics, which is performed in cooperation with the University of Zagreb Faculty of Economics and Business.

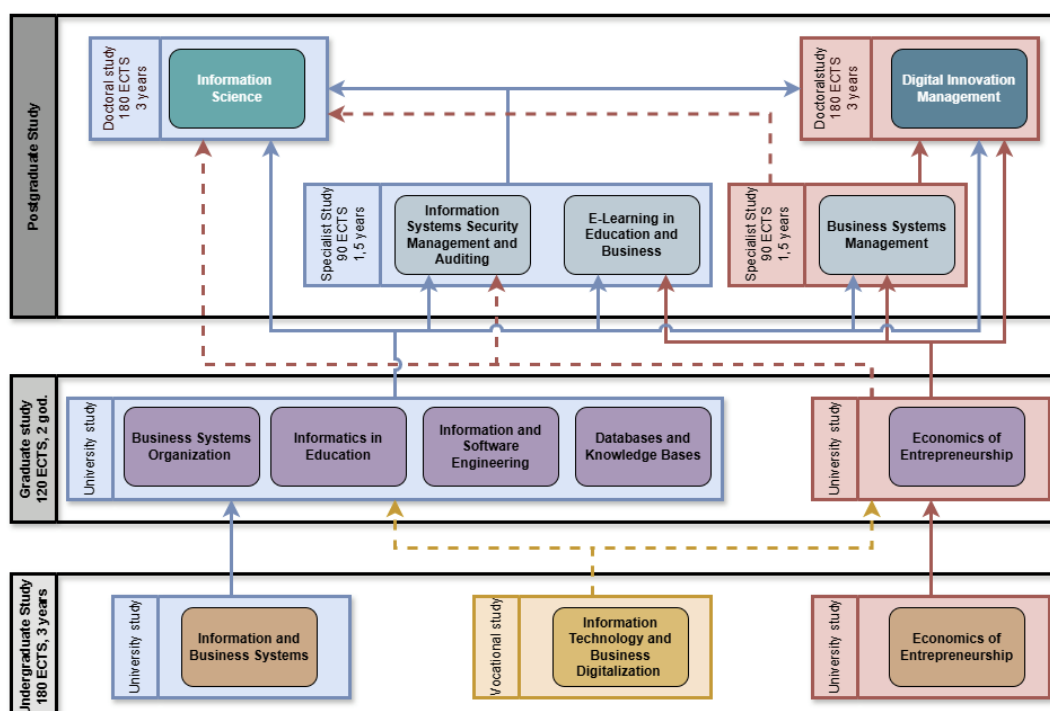


Figure 2.1. UNIZG FOI study programmes

Furthermore, UNIZG FOI participates as a partner in delivering university undergraduate and graduate study programmes [Military Leadership and Management](#) and [Military Engineering](#), as well as in the university specialist study programme *Public Administration*.

In all study programmes, the learning outcomes of the programme and other elements of the study are clearly defined, in accordance with examples of good practice and many years of experience based on the manual developed within the project *Learning Outcomes in Interdisciplinary Study Programmes* conducted at UNIZG FOI in 2009. The learning outcomes of all UNIZG FOI study programmes are listed in Table 2.1 of the Analytic supplement to self-evaluation report, on the UNIZG FOI website (*[Annex 2.1.1.: Example of Study Outcomes - ITDP](#)), on the websites of individual courses in the e-learning system (*[Annex 2.1.2: Example of Learning Outcomes of Courses - Mathematics for Economists 1 \(PS EP\)](#)) and in the [FOI Nastava](#) application (*[Annex 2.1.3: Example of learning outcomes of the course Software Engineering \(IPS\)](#)).

All study programmes carried out by UNIZG FOI are aligned with the mission and strategic goals of the UNIZG FOI, which were adopted by the Faculty Council on February 20, 2025 in the document [Development Strategy of the University of Zagreb of the Faculty of Organization and Informatics for the period 2025-2029](#).

The purpose of the strategic positioning of scientific disciplines and study programmes in the context of the development of UNIZG FOI is to determine the areas of knowledge and skills and learning outcomes that scientific activity and corresponding study programmes cover within a certain science and profession.

UNIZG FOI strategically positions itself within the IT education sector by integrating three core areas: Information Systems, Information Technologies, and Software Engineering. These areas will shape the development of information sciences in the next decade, and the key emphasis will be on interdisciplinarity and their convergence. In order to overcome complex challenges and create effective business software solutions tailored to the needs of organizations, future experts in this field will need technical expertise, strategic thinking and interdisciplinary knowledge. All these competencies can be recognized in the learning outcomes of UNIZG FOI's study programmes in the field of informatics.

The strategic positioning of UNIZG FOI in the field of economics is based on university study programmes (undergraduate and graduate) *Economics of Entrepreneurship*, which combine key aspects of economics, entrepreneurship and digital technologies as supportive and innovative business support. Both study programmes develop interdisciplinary competencies necessary for the modern labor market, providing students with a unique combination of knowledge from different economic disciplines and digital technologies. Achieving the learning outcomes of the study programmes *Economics of Entrepreneurship* enables the achievement of the aforementioned competencies.

In accordance with the recommendations for improvement from the previous re-accreditation, UNIZG FOI **continued to improve the process of harmonizing learning outcomes with target qualifications and competencies, monitoring the achievements of the intended learning outcomes of study programmes, and introducing regular revisions and improvements to the teaching process.**

The intended learning outcomes of the study programmes conducted by the UNIZG FOI and all elements of the study programmes are mutually aligned. In the last fifteen years, the harmonization of learning outcomes of individual courses and learning outcomes of study programmes at UNIZG FOI

has been carried out during the application of a new study programme and the revisions of existing study programmes. The process of analysing the compliance and contribution of the learning outcomes of individual courses to the learning outcomes of the study programme is carried out through the [FOI NPP](#) web application developed at the UNIZG FOI in 2012. The application enables that during the introduction or revision of the study programme, after teachers have linked the learning outcomes of the course with the learning outcomes of the programme, their compliance is analyzed and potential overlaps detected. (*[Annex 2.1.4: Example of an analysis of the relationship between courses and learning outcomes of the ITDP study programme in the FOI NPP application](#)). After the analysis, the committee in charge of the audit decides on the necessity of introducing additional courses that will more strongly support the insufficiently highlighted learning outcome of the study programme or on the need to reduce the content of overlapping courses. The contribution of all other elements of the study programme is manifested in the achievement of learning outcomes of individual courses, and their implementation is prescribed by the implementation of the [study programme implementation plan](#).

Finally, in accordance with the [Act on Quality Assurance in Higher Education and Scientific Activity](#), upon completion of the UNIZG FOI study, each student is issued a diploma (*[Annex 2.1.5: Example of DS IPI diploma](#)) and the diploma supplement that explicitly states the learning outcomes that the student has achieved by completing a certain study programme. The diploma supplement, as well as the diploma, is issued in Croatian and in English. ([Annex 2.1.6: Diploma supplement - DS IPI in Croatian](#) and [Annex 2.1.7: Diploma supplement - DS IPI in English](#)).

Each study programme at the UNIZG FOI is delivered according to the [study programme implementation plan](#) adopted by the Faculty Council before the beginning of the academic year in accordance with the [Act on Higher Education and Scientific Activity](#) and the [Rulebook on Studying at Undergraduate and Graduate Studies of the University of Zagreb](#), the provisions of which are implemented in the Regulations on Studying at all UNIZG FOI studies, published on the website of the Faculty ([link to the Rulebook on Studying at the IPS](#)).

At the course level, the study programme implementation plan defines, for each academic year, the instructors and associates responsible for teaching, the location of instruction, the teaching schedule, the teaching methods, models of continuous monitoring and assessment, and the methods of examination. **The achievement of the learning outcomes of a particular course is verified through the implementation of a continuous monitoring model**, i.e. through midterm exams, seminars, essays, projects, problem solving and on a written and/or oral exam. At the end of each academic year, at the meetings of the UNIZG FOI departments, teachers analyze the performance of teaching, discuss the implementation of the monitoring model and the results achieved by students in each course (*[Annex 2.1.8: Statistics of Continuous Monitoring 2023-24](#)) **and, if necessary, propose corrections and improvements to the monitoring model**. One of the criteria for assessing the effectiveness of the monitoring model is the percentage of students who have passed the course based on the successful fulfillment of all the criteria given in the monitoring model for a particular academic year. Course monitoring models are published in the [FOI Nastava](#) application (*[Annex 2.1.9: Example of a continuous monitoring model for the Information and Computer Systems course in FOI Nastava](#)).

Also, through the implementation of scientific projects [i-LED](#) and [TRUELA](#), UNIZG FOI directly contributes to the improvement of the implementation of study programmes and the evaluation of student achievements. To this end, workshops were held for teachers and an associated [MOOC](#) on teaching planning and **harmonization of methods of evaluation of the achievement of learning**

outcomes with planned learning and teaching activities using [BDP tools](#) ([link to BDP of the Financial Mathematics course](#)).

Learning outcomes in the Croatian Qualifications Framework (CroQF) are presented through knowledge, cognitive skills, psychomotor skills, social skills, and the associated independence and responsibility. In accordance with the [Act on the Croatian Qualifications Framework](#), the study programmes carried out at the UNIZG FOI correspond to the following levels: university undergraduate studies – level 6.sv, professional undergraduate studies – level 6.st, university graduate studies – level 7.1, university specialist studies – level 7.2 and doctoral studies – level 8.2. Although most of the study programmes carried out by the UNIZG FOI were launched before the entry into force of the Act on the CroQF, the **learning outcomes achieved by completing the study programmes correspond to the descriptors of the level of the CroQF and the European Qualifications Framework (EQF)**. During 2015 and 2016, UNIZG FOI, in cooperation with partners from other universities, professional associations and industry, implemented a project called *Stand4INFO - Development of Higher Education Occupational Standards, Qualification Standards and Study Programmes on the Basis of the Croatian Qualifications Framework in the Field of Informatics*. The aim of the [Stand4INFO](#) project was to improve the quality of higher education in the field of information and communication sciences in accordance with the objectives of the CroQF, to increase the employability of students of information and communication sciences and technologies, and to continuously improve the competencies of teachers in accordance with the principles of the CroQF. During the implementation of the project, about forty employers and IT experts of various positions expressed their opinion on the competencies that UNIZG FOI students should possess through detailed surveys. **The final result of the project was the entry of 5 occupational standards** (*Software Engineer, Business Systems Analyst, ICT Operations Manager, ICT Systems Architect and Business Systems Architect*) **and 2 qualification standards** (*University Bachelor of Informatics and University Master of Informatics*) **in the CroQF Register**. In 2019, these were the first qualification standards entered in the CroQF Register in the Republic of Croatia. Given that occupational standards and qualification standards have an expiration date, after their expiry in 2023, the UNIZG FOI has initiated the process of their revision and re-entry in the CroQF Register. **The procedure for the revision and registration of occupational standards was completed in June 2024, and the procedure for the registration of qualification standards in February 2025.** (* [Annex 2.1.10: Decision on the entry of the SC University Bachelor of Informatics in the CroQF Register](#)).

The qualification standards of the *university bachelor of informatics* and the *university master of informatics* are the **first revised qualification standards at the higher education level entered in the Register of the CroQF in the Republic of Croatia**. Their peculiarity in relation to other standards from the CroQF Register is that each qualification meets the competencies of not only one, but two occupational standards (* [Annex 2.1.11.: Qualification Standard University Master of Informatics](#)). In the process of joining the CroQF Register, support and the intention to harmonize study programmes with the mentioned qualification standards were also provided by HEI's that carry out similar study programmes in the Republic of Croatia: the **Faculty of Informatics and Digital Technologies of the University of Rijeka** (* [Annex: 2.1.12.: Opinion of potential contractors – UNI RI](#)) and the **Faculty of Informatics of the Juraj Dobrila University of Pula**. (* [Annex 2.1.13: Opinion of potential contractors - UNI PU](#)). In this regard, **the study programmes and the defined learning outcomes of the UNIZG FOI study programmes, based on qualification standards, are directly comparable to similar ones in the Republic of Croatia, but also in Europe**. Namely, the occupational standards on which the qualification standards are based, are based on the [European e-Competence Framework](#).

In the period from 2019 to 2022, as a continuation of the Stand4INFO project, UNIZG FOI implemented the project titled [DIP2Future: Development of educational programmes, qualification standards and occupational standards in the field of ICT in accordance with the CroQF](#). **The result of the project were four new occupational standards (Intelligent Information Systems Architect, Distributed and/or Interactive Systems Architect, Information Security and Privacy Architect and Business Systems Transformation Architect) and four new qualification standards at the level 7.1 of CroQF (Data Technologies and Artificial Intelligence, Management of Information Security and Privacy Systems, Distributed and Interactive Systems, and Management of Business Systems Transformation and Innovation).**

The university undergraduate study *Information and Business Systems* is fully aligned with the qualification standard *University Bachelor of Informatics*. The achievement of the mandatory sets of learning outcomes of the standard qualification *University Bachelor of Informatics* is explained in Table 2.2 of the Analytic supplement to self-evaluation report of the UNIZG FOI. A detailed analysis of the coverage of the sets of learning outcomes of the standard qualification *University Bachelor of Informatics* with the learning outcomes of the study programme *Information and Business Systems* at the level of credits according to ECTS is provided in the table [*Annex 2.1.14.: Realization of ECTS of SIU's SK uni.bacc.inf. through compulsory courses of the IPS study](#). The university graduate study *Information and Software Engineering* is largely aligned with the qualification standard *University Master of Informatics*, but full compatibility will be achieved after the next revision of the study programme.

For all its study programmes, when proposing a new programme, UNIZG FOI made an analysis of the reasons for starting the study, an analysis of social and economic needs, and an analysis of the necessary capacities for the implementation of the study programme in accordance with the [Rulebook on the content of the license and the conditions for issuing a license to perform higher education activities](#), and from 2022 in accordance with the [Act on Quality Assurance in Higher Education and Science](#).

Furthermore, every year the Croatian Employment Service publishes recommendations for educational enrolment policy for university and professional studies that are considered at the UNIZG FOI, and the enrolment quotas for the enrolment of new generations of students are adjusted accordingly. **In accordance with the recommendation of the Croatian Employment Service for 2025** ([*Annex 2.1.15: CES recommendation for enrolment 2025-26](#)), **the Faculty Council has made a decision not to enrol students in the professional undergraduate study programme ITDP delivered in Sisak Study Centre in the academic year 2025/2026.** ([*Annex 2.1.16.: Decision on non-enrolment of students at ITDP SK](#)).

Confirmation of the acquisition of competencies necessary for inclusion in the labor market is also obtained through the feedback of graduate students collected on the basis of university surveys ([link to the Results of Study Evaluation Surveys](#)) for students who have completed their studies, as well as through alumni stories of former students of UNIZG FOI who have achieved successful careers after graduation. Alumni stories are made on the basis of interviews, and are published on the Student Support and Career Development Centre (CPSRK) portal ([link to Alumni stories](#)). The interview consists of a dozen questions that focus on student activities, current workplace, but also opinions about teaching and the applicability of the competencies acquired during their studies in the labor market. According to the answers obtained, the correlation of learning outcomes and acquired competences can be determined, in such a way that **the intended learning outcomes correspond to the requirements of the profession, ensure the modernity of the programme and**

reflect the competencies necessary for inclusion in the labor market. According to the answers collected so far and published alumni stories, UNIZG FOI has distinguished itself as a faculty that provides students with IT and business knowledge that includes the development of technical, organizational, business and generic skills. With these knowledge and skills, students meet the current demands of the profession and the market, are desirable personnel for potential employers and find a job soon after graduation. Also, in 2022, UNIZG FOI, in cooperation with the First School Television, launched [FOI Business Talks](#), a podcast whose goal is to present former students of UNIZG FOI who have achieved successful business, academic or other careers, in order to inspire current and future students and act as positive role models.

The intended learning outcomes of the study programmes also include the strengthening of ethical awareness and the ability to think ethically and apply ethical principles in decision-making related to issues from the profession and related to the profession. **As part of the mandatory workshop for the preparation of final and diploma theses, students are educated about ethical and academically acceptable behavior** in the preparation of evaluation papers, and part of the evaluation papers themselves is the student's statement on the originality of the work. Also, **in addition to professional competencies, the learning outcomes of study programmes contain other generic competencies** such as "apply learning skills (including e-learning) and planning necessary for lifelong learning, continuing education at graduate studies and career development in the profession".

The most important **confirmation of the acquisition of competencies necessary for inclusion in the labor market is the high employability of UNIZG FOI students upon completion of their studies** (*[Annex 2.1.17: Analysis of the employability of alumni](#)). The national survey on the employability of graduates for the year 2023, conducted by ASHE, **showed that the proportion of graduates from UNIZG FOI with permanent employment contracts, as well as the proportion of graduates earning above-average salaries, exceeds the average of other HEI's in the Republic of Croatia.** (*[Annex 2.1.18: AZVO Employability Survey for 2023](#)).

Based on all of the above, **the intended learning outcomes of study programmes clearly reflect the competencies needed for inclusion in the labor market, continuing education or other needs of individuals.**

- 2.2. The higher education institution determined the processes for planning and developing new study programmes, and for monitoring and periodically revising the existing ones. This ensures that the study programme is up-to-date, and that the content of study programmes is aligned with the latest scientific / artistic / professional knowledge (ESG 1.2. i 1.9.).

The procedure for the evaluation of the new and the revision of the existing study programme at the UNIZG until 2024 was regulated by the [Rulebook on the Procedure for the Evaluation of Study Programmes of University Undergraduate, Master, Integrated Undergraduate and Graduate and Professional Studies of the University of Zagreb](#), and accordingly the UNIZG FOI followed a predefined procedure when proposing a new study programme or revising an existing one,

whereby the preparation of documentation differed depending on whether it was minor or major changes to the study programme. When proposing a new study programme, it was necessary to prepare: (1) a study on the justification for the implementation of the proposed study programme, (2) a study of the study programme, (3) a description of personnel and spatial conditions; (3) a teacher's curriculum vitae, (4) analysis of financial viability of the study programme proposer; (5) plan of the study programme quality assurance.

Depending on the scope of the amendments, the request for the evaluation of minor amendments (up to 20%) and the request for the evaluation of major amendments to the study programme (above 20%, but not more than 40%) implied the preparation of additional documentation of a smaller scope: (1) a description of spatial and personnel conditions, (2) CVs of course holders, (3) a plan of the study programme quality assurance procedure, and (4) a description of amendments to the study programme. Amendments to a study programme above 40% shall be interpreted as the introduction of a new study programme.

In the period since the last re-accreditation, UNIZG FOI has introduced only one new study programme - the doctoral study programme [Digital Innovation Management](#) and revised most of the existing study programmes.

Competencies in the process of evaluation of new and revision of the existing study programmes at UNIZG FOI are established in such a way that the **responsibility for the development of the study programme revision plan lies on the Management Board of UNIZG FOI, particularly, in the domain of the Vice-Dean for Study Programmes. The Faculty Council, in accordance with the revision plan, appoints committees for the revisions of study programmes.** In their work, the committees are guided by the UNIZG FOI guidelines for the revision of study programmes (*[Annex 2.2.1: Guidelines for the revision of study programmes](#)). When introducing a new study, the Faculty Council also appoints a Head of study (*[Annex 2.2.2.: Appointment of the Head of the UDI doctoral study](#)) who, in cooperation with the Vice-Dean for Study Programmes, takes care of quality assurance in the new study programme. The Head of study programme performs his/her duty from the establishment to the successful implementation of the study programme, after which the responsibility is taken over by the Vice-Dean for Study Programmes. At the moment, UNIZG FOI has appointed Heads of university specialist and doctoral studies.

In accordance with **the study programme revision plan** (*[Annex 2.2.3: Overview and plan of study programme revisions](#)), **in the period since the last re-accreditation, UNIZG FOI has carried out revision of almost all undergraduate and graduate studies:** university undergraduate study *Information and Business Systems*, university undergraduate study *Economics of Entrepreneurship*, professional undergraduate study *Information Technology and Digitalization of Business* and all graduate studies in informatics (*Databases and Knowledge Bases*, *Information and Software Engineering*, *Informatics in Education and Organization of Business Systems*). Also, in 2024, the university graduate study *Economics of Entrepreneurship* acquired the prestigious [EFMD accreditation](#), and activities related to the acquisition of ASIIN accreditation for the university undergraduate study *Information and Business Systems* are being conducted. **These accreditations will greatly contribute to the international recognition and comparability of study programmes with similar ones abroad.**

The revision of the university undergraduate study programme [Information and Business Systems](#) (IPS) implied a major revision of the study programme, given the change in the structure of the study in such a way that common compulsory courses were established in the first two years, and the

specialization in the third year (*Development of Software Systems, Artificial Intelligence in Business, Networked Systems and Computer Games, Analysis and Design of Business Systems*). At the same time, the IPS study programme is **fully aligned with the qualification standard University Bachelor of Informatics**. (*[Annex 2.2.4: SK uni.bacc.inf.](#)): The implementation of the revised university undergraduate study [Information and Business Systems](#) began in the academic year 2020/21, and since all three years of the revised study were carried out in 2022/23, the effects of the audit were analyzed and minor adjustments were made within the competence of the UNIZG FOI. Among other things, the success rate and completion of students were analyzed (*[Annex 2.2.5: Analysis of the completion of the IPS](#)), the attractiveness of the choice of elective courses and modules of the third year of study, as well as the harmonization of the ECTS of the courses within a particular semester (*[Annex 2.2.6.: Analysis of the workload of students and the choice of the IPS major](#)).

The revision of the professional undergraduate study programme [Information Technology and Business Digitalization](#) (ITDP), completed during 2020, also included major changes, and the study began to be carried out in 2021/22. With the changes, several new compulsory courses were introduced, in the third year, the modules *Application Development* and *IT Business Support* were defined, and the study changed its name from *Application of Information Technology in Business* (PITUP) to *Information Technologies and Business Digitalization* (ITDP) ([link to the ITDP study programme](#)). In 2023/2024, the third year of the study programme was carried out for the first time, so the impact analyses of the revision are ongoing.

The revision of the university undergraduate study [Economics of Entrepreneurship](#) (EP) was carried out during 2022 and included minor changes related to the replacement of old elective courses, new courses of the third year of study, updating of course holders and literature. The introduced elective courses (Visualization and Automation of Business Analyses, Business Intelligence, Building Business Applications) **enable the acquisition and improvement of digital skills of students**. The study began to be carried out in 2023/2024. In 2024/2025, the second year of study will be carried out for the first time ([link to the Decision on the start of the study programme EP v.1.2 and the end of the study v.1.1](#)). As part of the audit, a constructive alignment of the learning outcomes of the course and the learning outcomes of the programme was carried out using the [BDP tool](#) (*[Annex 2.2.7: Workshop materials for the constructive alignment of the AI](#)).

Minor revisions of the university graduate study programmes of informatics [Databases and Knowledge Bases](#), [Information and Software Engineering](#), [Informatics in Education](#) and [Business Systems Organization](#) were carried out during 2022 ([link to the description of the graduate study programme in Informatics v.1.4.](#)). According to the revised programmes, studies are carried out from the academic year 2023/2024. In 2024/2025, the second year of graduate studies will be carried out for the first time ([link to the Decision on the start of graduate studies in informatics v.1.4](#)).

In the academic year 2023/2024, audits of the university graduate study programme [Economics of Entrepreneurship](#) (*[Annex 2.2.8: Decision on the appointment of the committee](#)) and university specialist study programme [Business Systems Management, Information Systems Security Management and Audit](#) and [E-learning in Education and Business](#) have been initiated, and are currently taking place according to the plan.

When introducing new study programmes or making major revisions of existing study programmes, UNIZG FOI regularly involves external stakeholders in the process. Also, both in the implementation of revisions and outside of revisions, the Management Board of UNIZG FOI, in

cooperation with the [Economic Council](#) of UNIZG FOI, continuously discusses and considers potential decisions related to the needs of the labor market.

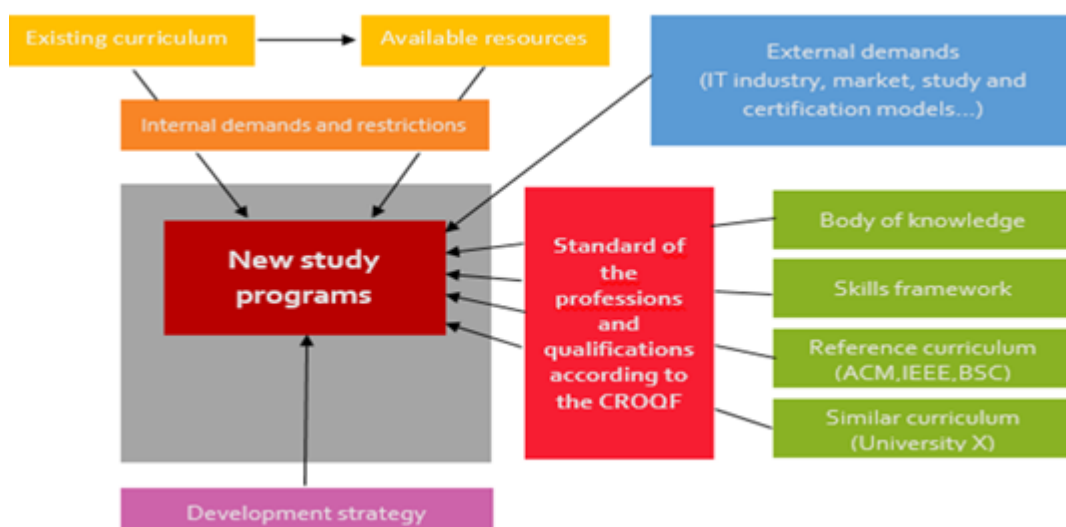


Figure 2.2. Curriculum innovation aligned with the strategy, occupational standards and qualifications according to the CROQF

The procedures for the evaluation of current proposals for amendments to the study programmes of the UNIZG FOI will be carried out in accordance with the new procedures prescribed by the [Act on Quality Assurance in Higher Education and Science](#) and the [Quality Standards for Evaluation in the Procedure of Initial Accreditation of Undergraduate, Graduate, Integrated, Specialist and Short Studies](#) and instructions and criteria for the proper application of these standards. Based on the above documents, the evaluation of all forms of study programmes at the UNIZG will be carried out in accordance with the [Rulebook on the Procedure for the Evaluation of Study Programmes of the University of Zagreb](#), which entered into force on May 23, 2024. According to the Rulebook, the *Quality Management Committee of the UNIZG* conducts the procedure of preliminary assessment and evaluation of new (internal initial accreditation) and the assessment and [evaluation of amendments to existing study programmes](#) as well as the evaluation of university elective courses.

The connection with the labor market is also emphasized in the constant contact of the [Centre for Student Support and Career Development](#) (CPRSK) and UNIZG FOI teachers with **FOI alumni, based on whose feedback the content of individual courses is modernized, especially those that are carried out on a project-based basis and are directly related to the labor market.** Furthermore, the involvement of employers is also reflected in the fact that the employers' representative is a member of the UNIZG FOI [Quality Assurance Committee](#).

UNIZG FOI publishes current versions of study programmes in the [FOI Nastava](#) application and in the [FOI NPP](#) application. The [FOI Nastava](#) and [FOI NPP](#) applications simultaneously provide access to the archive of study programmes for previous academic years ([link to the course of the academic year 2020/2021 in FOI Nastava](#)). **Changes on study programmes are recorded in the FOI NPP** and taken into account when changing existing or proposing new study programmes.

For each study programme, [FOI Nastava](#) lists all important information about courses and teachers and **ways of evaluating the achievement of learning outcomes of the course through the elements of the model of continuous student monitoring.** For each academic year exam periods (regular and part-time) and the teaching schedule in the class calendar are defined (*[Annex 2.2.9.: Published](#)

[exam dates of courses in FOI Nastava](#)). In addition to [FOI Nastava](#) and [FOI NPP](#), the curricula of all study programmes are also published on the [UNIZG FOI website](#).

UNIZG FOI continuously **collects and analyzes information that can contribute to the improvement of study programmes**. Student workload, progression, pass and completion rates, as well as dropout rates, are monitored and evaluated (*[Annex 2.2.10: Analysis of dropping out of studies at the transition from 2023/2024 to 2024/2025](#)). Additionally, the effectiveness of student assessment procedures, student expectations, needs and satisfaction, and the adequacy of support services in programme implementation are also assessed.

For each academic year, **course teachers define the monitoring models in which they describe in more detail the ways of verifying the achievement of the intended learning outcomes within a particular course**. The monitoring models are publicly available in the [FOI Nastava](#) application (*[Annex 2.2.11.: Example of a course monitoring model in FOI Nastava](#)), as well as in the e-learning system of each course via links to [FOI Nastava](#).

Based on the results of student surveys on the implementation of teaching in courses and the analysis of teaching performance presented by the teachers, **at the end of each academic year, the departments review and, if necessary, propose improvements to the monitoring model for each course** (*[Prilog 2.2.12.: Example of the department meeting minutes related to monitoring models](#)).

The contents of all study programmes of the UNIZG FOI enable horizontal and vertical mobility of students in the national and European education area. Horizontal mobility is enabled by the application of the UNIZG guidelines on the implementation of horizontal mobility that we carry out at the UNIZG FOI ([link to the procedure for horizontal mobility](#)) and the possibility of participation of students in Erasmus student exchanges ([link to the student mobility website](#)). The key role in the realization of Erasmus exchanges at UNIZG FOI is played by the [ECTS coordinator](#) and the [International Relations Office](#). **Vertical outgoing and incoming student mobility is enabled through the harmonization of UNIZG FOI study programmes with related programmes at other HEI's**, which enables undergraduate students to continue their studies at the graduate level at HEI's that perform related studies in the country and abroad. On the other hand, **UNIZG FOI has well-defined procedures that allow students who have completed their undergraduate studies at other related HEI's to pursue graduate studies at UNIZG FOI**. In this sense, every year the Faculty Council adopts the [Criteria and Conditions for enrolment in Graduate Studies at UNIZG FOI](#).

UNIZG FOI, in accordance with the recommendations for improvement from the previous re-accreditation, **continued to improve the mechanisms for collecting feedback from relevant stakeholders within the process of defining and introducing new study programmes and periodic revision (or cancellation) of existing ones, as well as procedures that ensure the correct distribution of ECTS in courses**.

The alignment of ECTS with the actual student workload at UNIZG FOI is ensured at different levels through different procedures. The **correct distribution of ECTS in the course is initially enabled by good planning of activities**, in which UNIZG FOI teachers also have a [BDP tool](#) at their disposal, which enables detailed planning of the student workload per individual planned activity at the course level ([link to the GDP of the Financial Mathematics course](#)) and at the level of the study programme. Furthermore, **a fundamental check of the compliance of ECTS of individual courses with the actual study load is carried out after the introduction or major revision of the study programme**. Such verification may ultimately entail a change in the ECTS of individual courses (*[Annex 2.2.13: Change of ECTS in the study IPS](#)). In general, ECTS student workload compliance checks could be divided into

two types – **relative check and absolute check**. In the relative check, students compare the ECTS of courses of the same semester through questionnaires in order to determine whether individual courses that students consider to deviate from the nominally expressed workload in ECTS stand out (*[Annex 2.2.14: ECTS analysis of IPS courses](#)). In the case of absolute verification, the goal is to determine whether the student workload in ECTS corresponds to the actual workload in a particular course. In order to verify this, in individual courses, a group of students of different levels of knowledge during the semester keep a diary of activities and record the time spent on completing the planned activities in the course, including the time spent on learning. (*[Annex 2.2.15: Example of an activity diary in the course Mathematics for Economists 2](#)). Finally, **by combining the results of the relative and absolute assessment, the correspondence between ECTS and the actual student workload is determined.**

With the help of the [FOI Ankete](#) system, in June 2022/2023, a survey was conducted on the compliance of ECTS with the actual student workload in IPS and ITDP study programmes. After the analysis of the survey results, it was concluded that there is no need to change the number of ECTS of individual courses. **A more precise adjustment of the actual student workload with the defined number of ECTS courses is carried out by teachers by correcting the monitoring model, based on the discussion at the departments at the end of each academic year.**

All changes in the structure of ECTS are adopted by the Faculty Council of the UNIZG FOI. **Changes in the structure of ECTS are recorded during the revisions of study programmes and are publicly available in the [FOI NPP](#) application.** During each revision, **information on transitions between different versions of the study programme is regularly published**, describing changes in the structure of courses and the structure of ECTS ([Register of Recognition of Courses during the transition of IPS v1.1 and v1.2](#)) and **between related study programmes** ([Register of Recognition of Courses in the transition from IPS to ITDP](#)).

The results of research and professional projects are introduced into teaching in the form of new courses (Application of Artificial Intelligence in Business, Design thinking, Digital transformation), different teaching scenarios (flipped classroom, ...), workshops ([Digitrans workshop](#)) and the model of cooperation with the economy (WBL), thus contributing to the modernity of the programme and connecting with the needs of society (Sustainability Global Jam, BIPs).

Studies at UNIZG FOI end with the completion of enrolled courses and the preparation of a final/diploma thesis and its defense in front of a committee, which **ultimately proves the achievement of all learning outcomes defined in a particular study programme.**

2.3. Student practice is an integral part of study programmes, where applicable.

UNIZG FOI in accordance with the recommendations for improvement from the previous re-accreditation, **continued to develop and improve the existing mechanisms to ensure that student practice is an integral part of study programmes.**

Student practice is an integral part of the curriculum of all 5 graduate studies carried out by UNIZG FOI. Professional practice is a compulsory course in the last semester of study with a scope of 6 ECTS, and students work 20 working days in companies. **Professional practice is a compulsory course in**

two undergraduate studies as well. In the professional study ITDP, students perform practice in the duration of 15 working days within the course of 4 ECTS, and in the university study IPS, student practice is carried out from academic year 2022/2023 in the form of *job shadowing* lasting 5 days and carries 2 ECTS. The student's obligations related to the practice are defined by the [Rulebook on Student Practice in UNIZG FOI Studies](#).

Fulfilling the obligations within the course Professional Practice (*[Annex 2.3.1: Learning outcomes of the course Professional Practice](#)), in addition to the practice within a company, requires students to attend a career workshop performed by the [Centre for Student Support and Career Development](#) (CPSRK) (*[Annex 2.3.2: Invitation to the forum for student practice](#)) and a workshop performed by the employer (*[Annex 2.3.3: Schedule of workshops within the Career Week and an example of a short workshop](#)).

The process of implementing student practice for UNIZG FOI students is supported by the [FOI Praksa](#) information system, which enables the efficient implementation of student practice, from student registration, through monitoring performance, to generating statistics related to student practice. The such system, at UNIZG FOI, was used since the academic year 2011/2012. In 2020/2021, a new system is in place that enables complete digitalization of procedures, e.g.: proposing the desired employer by the student, editing the company's profile by the employer, downloading and transferring the signed cooperation agreement for the field of student practice, reservation of the practice by the student, confirmation of the same by the mentor from the company, and then by the Head of the Practice at the UNIZG FOI, keeping a diary in the system, reviewing and confirming the diary by mentors and supervisors, and filling out evaluation forms by students and mentors (*[Annex 2.3.4: Excerpt from FOI Praksa](#)).

Over the past two years, [FOI Praksa](#) has been upgraded again, so that from the academic year 2024/2025, employers are enabled to continuously enter free quotas and job descriptions and work assignments, so that students know what to expect and in which department of the company they can perform practice. The employer database has also been revised, new agreements have been signed and there are **currently more than 400 companies in the FOI employer database** (*[Annex 2.3.5: List of employers for FOI student practice](#)). Students get acquainted with the rules of practice before enrolling in the course Professional Practice and choosing an employer, through the UNIZG FOI website and the forum for student practice.

Each student arranges a practice with the desired employer from the UNIZG FOI employer database. In the first step, the student makes a reservation of the practice in the [FOI Praksa](#) which must be approved by the mentor from the company and the Head of the Professional Practice of the study (*[Annex 2.3.6.: Decision on the appointment of the Head of the practice](#)). The Head of the Professional Practice of the particular study is the teacher in the scientific-teaching title competent to evaluate the achievement of the learning outcomes of the practice. After the reservation is approved, a referral for practice is available in the system (*[Annex 2.3.7: Example of a referral for professional practice](#)), which can be picked up by the student and the mentor, and on the basis of which the student can start doing the practice. During the practice, **the student is required to keep a practice diary** (*[Annex 2.3.8: Example of a student practice diary](#)), which is first submitted to the mentor for review, and after his approval, the diary is sent to the Head of the Professional Practice for review and approval. Before submitting the diary, the student must fill out an evaluation form related to the practice (*[Annex 2.3.9: Example of a student evaluation form](#)). The mentor also, before confirming the diary, fills out the evaluation form and answers questions about his/her view of the student's practice (*[Annex 2.3.10.: Example of the employer's evaluation form](#)). **Through the**

feedback received from the evaluation forms and the practice diary, the Head of Professional Practice evaluates whether the student has fulfilled the practice task plan and whether the tasks were appropriate from the student's perspective. If the Head of Professional Practice concludes that the practice in a certain company is not performed according to preset standards, the final consequence may be the exclusion of the company from the employer database for performing practice.

There is also the possibility of doing student practice with an employer with whom UNIZG FOI does not have a contract on practice. In this case, there is a procedure by which employers are introduced into the [FOI Praksa](#) system and a contract for student practice is concluded with them (*[Annex 2.3.11: Example of an agreement with an employer](#)). Also, students who are employed and work in jobs in the field of study, in accordance with the [Rulebook on Student Practice](#), are enabled to have their professional practice recognized (*[Annex 2.3.12: Recognition of Student Practice](#)), without additional obligations related to practice.

Students of UNIZG FOI can also perform student practice abroad, in companies and institutions with legal personality or at HEI's that have been awarded the Erasmus Charter for Higher Education. Students are assisted by the [International Relations Office](#) of the UNIZG FOI when looking for student practice abroad. UNIZG FOI recognizes the completed practice activity abroad if it is performed in accordance with the study programme, which is confirmed in advance by the ECTS coordinator. Recognition is based on the Traineeship Diary (adapted for [Erasmus+ Traineeships](#)) and the Learning Agreement for Traineeships ([Annex 2.3.13: Erasmus+ LAT example](#)).

CPRSK is continuously available to the heads of Professional Practice and mentors in companies, related to the organization of student practice or any information that can help students perform professional practice more efficiently. As part of the [Study4Career](#) project, conducted from 2020 to 2023, a [Guide for mentoring FOI students on student practice was also developed](#), which briefly explains the entire process of implementing student practice, what is expected of mentors and how future mentors can successfully prepare for mentoring students on practice.

The distinctive feature of UNIZG FOI related to the performance of student practice is the **possibility of connecting student practice and the preparation of a final/diploma thesis**. Whenever possible, employers are encouraged to offer topics of final/diploma theses related to student practice or to help a student who has already chosen a topic in relation to the practical part of the thesis, research or data sources, all for the purpose of increasing the quality of the final/graduate thesis (*[Annex 2.3.14: Examples of topics of employers' theses](#)).

Regular analyses of the employability of students of the Faculty show a high percentage of employability of students (*[Annex 2.3.15.: Analysis of the employability of alumni](#)), especially in the companies in which they did their practice.

- 2.4. Quality assurance of lifelong learning programmes is part of the internal quality assurance system of the higher education institution. This ensures that study programmes are relevant and up to date and that they meet the current social needs.

The umbrella document for the establishment, implementation and quality assurance of lifelong learning programmes at UNIZG FOI is the [Rulebook on Lifelong Learning of UNIZG FOI](#). The Rulebook regulates the organisation, method of implementation, bodies in charge of implementation, record-keeping, issuance of certificates upon completion and the method of evaluation of lifelong learning.

The following lifelong learning programmes are carried out at UNIZG FOI: ***Pedagogical-psychological-didactic-methodical teacher education, Workshop for mentors at doctoral studies, Differential year of graduate studies, Specialist training programme in the field of public procurement and Professional development programme in the field of public procurement.***

The programmes are designed on the basis of strategic goals that include improving transparency and accountability, strengthening the competencies of scientific and teaching staff and encouraging national and international project-oriented cooperation.

The programme of [Pedagogical-Psychological-Didactic-Methodical Education of Teachers](#) has been carried out by UNIZG FOI since 2014 (*[Annex 2.4.1.: PPDMO license](#)), and **is intended for people who are not teachers by academic title, but want to acquire teaching competencies**. Completion of this programme enables candidates to teach and be employed in educational institutions in accordance with the [Act on Education in Primary and Secondary Schools](#). During the one-year implementation of the programme (1650 teaching hours), candidates acquire 55 ECTS of pedagogical- psychological- didactic-methodological competencies. The courses that candidates take correspond to the courses that are an integral part of the university graduate study *Informatics in Education*. Most of the participants are ICT and economics professionals. Upon completion of the programme, candidates receive a Certificate of Completion of the Pedagogical-Psychological-Didactic-Methodical Education Programme (*[Annex 2.4.2.: Certificate of Completion of the PPDMO Program](#)).

[The workshop for doctoral study mentors](#) is intended for teachers in scientific and teaching positions at HEI's, **who want to be mentors to doctoral students in the preparation of their doctoral thesis**. During the 14-hour workshop, participants receive information related to the employment of doctoral students on projects, potential international mobility, instruments for planning and monitoring the scientific research work of doctoral students, planning doctoral research, academic integrity and protection of personal data and intellectual property during the preparation of the thesis. The workshop is held in accordance with the interest of teachers. In the first cycle of the workshop in 2017/2018, 22 teachers participated, and in 2019/2020, 12 teachers. In the last episode, in 2022/2023, 28 teachers participated, of which nine from the UNIZG FOI, and the rest from other units of the UNIZG and the University of Osijek. (*[Annex 2.4.3: Workshop programme for mentors](#)). The next workshop is planned to be carried out in 2024/2025.

[Differential Year of Graduate Studies](#) is a lifelong learning programme intended for students who have completed a related university or professional undergraduate study to the UNIZG FOI study, but

do not have the competencies to enroll in the selected graduate study of the UNIZG FOI. Upon completion of the Differential Year programme, participants acquire the right to apply for the competition for enrolment in university graduate studies of UNIZG FOI. Differential Year programmes may consist of one or more courses that are part of the accredited study programmes of UNIZG FOI. The scope of the Differential Year programme is from 15 to 60 ECTS, and **it is created separately for each participant depending on the competencies that need to be acquired for enrolment in the graduate study.**

[The specialist training programme in public procurement](#) is intended for persons dealing with public procurement, it consists of 50 teaching hours, and upon completion, a certificate of completion of the specialist training programme in public procurement is obtained (*[Annex 2.4.4: Certificate of completion of the public procurement programme](#)) The certificate is a **precondition for taking the written exam for obtaining a certificate in public procurement.** The programme is carried out in accordance with the [Rulebook on Training in the Field of Public Procurement](#).

The professional development programme in the field of public procurement is intended for persons who have obtained a certificate in public procurement, and in accordance with the [Public Procurement Act](#), they are **obliged to attend it in order to maintain the certificate valid.** Upon completion of the training, they are issued a certificate of attendance at the professional development programme in the field of public procurement (*[Annex 2.4.5: Certificate of attendance at the public procurement programme](#)).

Rules and processes for the development of new and improvement of existing lifelong learning programmes are implemented systematically, in accordance with the aforementioned [Rulebook on Lifelong Learning](#), with the involvement of relevant internal and external stakeholders. The internal quality assurance system of UNIZG FOI includes mechanisms for quality assurance of lifelong learning programmes. The monitoring of the quality of the implementation of lifelong learning programmes is based on indicators that include evaluations of participants' feedback, programme completion rates (*[Annex 2.4.6: Analysis of PPDMO completion](#)), learner satisfaction (*[Annex 2.4.7: Analysis of surveys – Public procurement](#)), competences acquired at the end of the programme and the relevance of the programme for the labour market.

UNIZG FOI's lifelong learning programmes are aligned with current economic and social needs. The adaptation of the content and methodology of the programme is based on analyses of labour market needs and compliance with applicable regulations and standards in education. In addition, **continuous cooperation with the economy and the public sector enables the timely identification of needs for new knowledge and skills, which contributes to the relevance and sustainability of lifelong learning programmes.**

During this academic year, the UNIZG FOI has developed and intends to propose for entry in the CroQF Register the micro-credential ***Analysis and Design of Digital and Platform Services*** (*[Annex 2.4.8: Micro-Credential Proposal](#)). It will be **one of the first higher education micro-credentials at UNIZG.** This micro-credential was created in consultation with an external stakeholder, the [FINA Financial Agency – Informatics Sector](#), based on information on the need to implement such a programme for the purpose of additional education of their employees, as well as other potential participants from the IT sector.

III. STUDENT-CENTRED LEARNING AND TEACHING – THE TEACHING PROCESS AND STUDENT SUPPORT

3.1. Learning and teaching are student-centred and ensure that all intended learning outcomes are achieved.

UNIZG FOI organizes and conducts teaching and learning activities (TLAs) **using standard but also innovative teaching methods and techniques that encourage motivation, self-regulation and active engagement of students in teaching and learning**. Teaching and learning activities in all study programmes are organized in the form of lectures, seminar classes and laboratory exercises, where the sizes of student groups are in accordance with the [Collective Agreement for Science and Higher Education](#) and adapted to each form of teaching in order to ensure the possibility of **interactive participation of students in classes, independent or team performance of tasks, development of discussion and student-centered teaching**.

The way of organizing the TLAs of each course is described in detail through the curriculum, but also the model of student work monitoring that is publicly available for each course through the system [FOI Nastava](#) and in which all aspects of the organization and implementation of the course are listed, including the timetable, lecturers, course goals, learning outcomes of the course, student obligations, the method of testing knowledge and more (Figure 3.1 and examples of [the course Software Engineering](#), [Mathematics 1](#), [Microeconomics](#) or [others](#)). The same information is also available in the official description of study programmes ([IPS](#), [DS INF](#), [EP](#), [ITDP](#), ...).

Figure 3.1. Example of course presentation in the FOI Teaching system

In order to achieve learning outcomes, TLAs are organized through **lectures** where students are exposed to the theoretical concepts of the course, **seminar classes** where students work in small groups and present the results of their own or team processing of individual topics, topics of interest are discussed, and the like, and through laboratory **exercises on computers** in which students in very small groups (typically 15-18 students) in classrooms with computers practically process the material

and acquire practical skills in the domain of each individual course. In this form of teaching, teachers have time **to devote to each individual student** and help them acquire learning outcomes and practical skills. In some courses, **auditory exercises are also carried out** as part of which practical tasks are solved with slightly larger groups of students, and depending on the continuous monitoring and evaluation model, models of project work, teamwork and others are applied in different courses. **An example of a course that encourages students to responsibility, teamwork, exploratory learning, solving real problems in practice and creative and critical thinking, applying good practices and collaborating with industry** is the course [Software Analysis and Development \(1st year, graduate study of informatics\)](#). The course develops students' practical skills through teamwork (4–5 members) on a software development project with the application of agile methodologies (SCRUM), versioning tools and document management (Jira, Confluence, Azure DevOps). A detailed description is available in the attachment (*[Annex 3.1.1.: Student review](#)). TLAs are organized in a model that the first 10 weeks include lectures and exercises, and the final part of the semester is intended for the development and defense of the project. During the semester, students undergo three phases of evaluation: early version (15 points), advanced functional version (20 points) and public defense (25 points), followed by an oral knowledge test (40 points). The specificity of the course is that students choose one of four models of work, **Classic** – mentoring by teachers, **Cooperation with industry** – the student finds a partner from the industry on their own, **WBL** – project and mentoring from a partner company arranged by teachers or **JCC** – an extended course model through which students attend additional lectures and receive additional ECTS based on extracurricular activities (*[Annex 3.1.2: Approval of additional ECTS](#)). In addition to creating the software product, students create projects, technical and user documentation, and carry out documentation of all phases of development. Since projects often involve collaboration with the industry, this provides students with professional software development experience.

Another **example of a course that applies innovative teaching methods and encourages students to be innovative and entrepreneurial** is the course [Entrepreneurial Venture \(3rd year, Economics of Entrepreneurship\)](#) in which students in teams of four develop an entrepreneurial idea, create an entrepreneurial plan and a physical product that they sell at a student fair. A detailed description of the activities in which students actively participate in the teams is available in the attachment (*[Annex 3.1.3.: Student review](#)), and includes: market analysis, marketing, financial plan and business model. The evaluation of student entrepreneurial innovations is evaluated by continuously monitoring the activities of the team, and at the "Sales Fair" respecting the following rules: The product must be innovative and have added value, and trade and sale of food are not allowed; Each team independently determines the price and quantity of the product and arranges its own point of sale with a price list and promotional materials; All products are presented through the product catalogue (*[Annex 3.1.4: Product catalogue](#)); Sales are carried out by one team member who must know how to present the product; Sales are monitored through a special application, and in addition to students and teachers, products are also evaluated by mystery shoppers; The performance of the teams is judged by revenue, innovation, purchase experience and stand design; The day before the fair, the teams submit photos and product descriptions for the catalog; After creating the product, students create a document or vlog with personal reviews, experiences and photos of teamwork (*[Annex 3.1.5: Reflection on the task](#) and *[Annex 3.1.6: Video presentation of the product](#)).

In addition to the above, descriptions of the courses [Platforms for the Development of Computer Games](#) (*[Annex 3.1.7: Student Review](#)) and [Project Cycle Management in IT](#) (*[Annex 3.1.8: Student](#)

[Review](#)) are available in the appendices, which, like many other courses, try to achieve learning outcomes and raise student motivation in innovative ways. The last two contributions were made by students who took these courses and who pointed them out as a positive example of excellently organized and innovative courses.

As part of the Bologna reform, UNIZG FOI introduced **continuous monitoring and evaluation of student work, which includes formative evaluation and feedback to students**, in all courses throughout the semester, where both teachers and students have an insight into the progress in achieving learning outcomes, which is visible through monitoring and evaluation models. Also, UNIZG FOI has **implemented a strategy for the application of the e-learning system, and all UNIZG FOI courses have been set up on the e-learning system (FOI Moodle)** since 2006, through which students are provided with teaching materials, sent notifications, discussion forums are organized, additional teaching materials and content are provided, and more. The attachments include a printout from the e-learning system from the front pages of several randomly selected courses from the previous and current academic year. (*[Annex 3.1.9: E-course Management Accounting](#), *[Annex 3.1.10: E-course Financial Mathematics](#) and *[Annex 3.1.11: E-course Programming for Embedded Systems](#)).

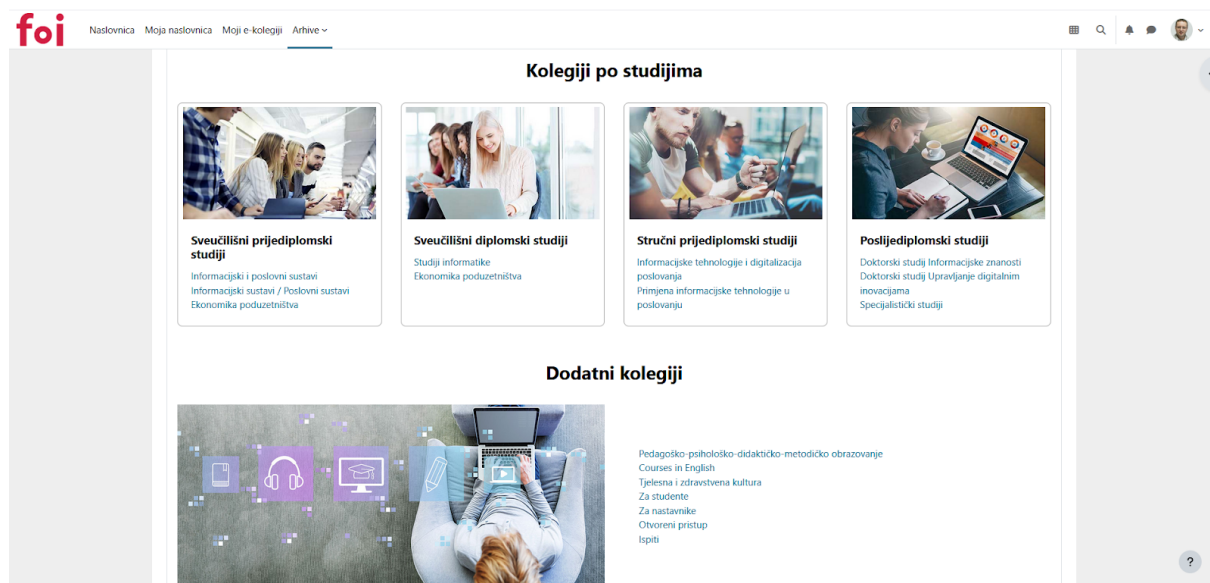


Figure 3.2. Home page of the e-learning system

Given the dynamics of the market for which it educates students, UNIZG FOI **has organized professional practice for students** in all IT study programmes, and in the graduate study programme Economics of Entrepreneurship, where undergraduate students participate in practice lasting 40 hours ([PS IPS](#)), 120 hours ([ITDP](#)), 160 hours ([DS INF](#), [DS EP](#)) with organized preparatory workshops and Heads of Professional Practice.

The collection of student feedback on the TLAs held is carried out in several ways and levels, by teachers who most often use the e-learning system to post anonymous surveys about the course (*[Annex 3.1.12: Questionnaire on the experience of the course](#)) or a specific task (*[Annex 3.1.13: Questionnaire on students' opinions on the tools used](#)), by the Vice-Dean for Education and Students through the FOI's surveying system ([FOI Ankete](#)) about the quality of the curriculum (e.g. [results](#)), the workload of students in the course (*[Annex 3.1.14: Encouraging students to complete surveys](#) and

[*Annex 3.1.15: Review of completed surveys](#)) and the evaluation of study programmes ([results](#)), as well as by the Committee for conducting official surveys on the quality of teachers' work through a standardized ISVU survey, whereby a survey plan is made ([*Annex 3.1.16: Notice to teachers on the university survey](#) and [*Annex 3.1.17: Survey plan](#)) and data for each teacher is obtained separately ([*Annex 3.1.18: Notification of survey results](#) and [*Annex 3.1.19: Example of survey results](#)). The entire process is also supervised by the Quality Assurance Committee, which, among other things, defines the survey schedule ([*Annex 3.1.20: Survey Implementation Schedule](#)) and harmonizes it with the recommendations of the University's Quality Management Committee ([*Annex 3.1.21: Recommendations of the University OUK](#)).

UNIZG FOI strives to **increase the motivation and interest of students in the learning process** in various ways, including the organization **of invited lectures** by national and foreign lecturers, especially those from industry (e.g. [Novosel](#), [Smičić](#), [Mladinić](#), and [others that were announced in a timely manner](#)), but also from other universities and faculties (e.g. [De Marcos Ortega](#), [Campbell](#), [Marić](#) and [others](#)), **organization of student visits to companies and other scientific and educational institutions** with which UNIZG FOI cooperates (e.g. [Tech Park](#), [OTP Banka](#), [Konzum](#), [Gideon and Infobip](#)), **inbound and outbound student mobility**, introduction **of innovative teaching methods, models and approaches** such as WBL and PBL (e.g. [Arbona](#), [Tech Park and Cratis](#), [Mobilisis](#), [Varteks](#)) or JCC (e.g. [SPAN](#), [Partner Universities](#), [Ekobit](#) and [SPAN](#)), organization but also encouragement of students to **participate in professional events** (e.g. [Automation](#), [Unlock](#), [.debug](#), [InfoBip Shift](#)) and **competitions** (e.g. [STEM games](#), [LUMEN data science](#), [Accounting battle](#)) and others.

UNIZG FOI is **continuously working to improve the quality of study programs**, to harmonize with international standards (e.g. [EFMD global accreditation](#), [UNIZG FOI memberships](#), ASIIN accreditation process in progress), and special emphasis is placed on **compliance with the needs of the labor market**. However, the quality of teaching is the most important priority, and both project activities and teacher education are continuously carried out in the domains related to the planning, preparation and implementation of teaching.

In order to **ensure the inclusion of students with disabilities**, UNIZG FOI implements a well-established procedure, where students first report [to the Office for Students with Disabilities UNIZG FOI](#), submit a request for adaptation to the Office for Students with Disabilities of the University of Zagreb ([*Annex 3.1.22: Request for initiating the procedure for adaptation](#)), which also includes a doctor's recommendation. Based on the recommendation of the University, the Vice-Dean for Education and Students issues a decision on approved adjustments in the teaching process ([*Annex 3.1.23: Example of a decision on adjustment](#)). A special e-course has also been created in which the Vice-Dean for Education and Students distributes information to teachers about approved adjustments for each individual student ([*Annex 3.1.24: E-course of the Vice-Dean for Education and Students](#)). Students contact teachers before certain activities and individually arrange the customized performance of activities such as presentations, knowledge tests, exams etc. Students are most often provided with extended duration of the written exams ([*Annex 3.1.25: Example of extended midterm exam duration](#)), presentation in front of a smaller number of listeners, taking exams on the board (e.g. better contrast with a black marker on a whiteboard – [*Annex 3.1.26: Example of adjusted contrast](#)) and test font adaptation for easier reading ([*Annex 3.1.27: Example of font adaptation](#)). Important systems such as [FOI nastava](#) and others have the ability to customize the theme and other settings (contrast, font size, font for dyslexics ([*Annex 3.1.28: Example of adapting the FOI Nastava system](#))).

3.2. The assessment and evaluation are objective and consistent, and they ensure that all the intended learning outcomes are achieved.

The criteria and methods of evaluation and assessment are clear and published in the monitoring models of each course within the FOI Nastava system before the start of classes, and students are introduced to them mainly in the first lesson. In accordance with the [Rulebook on Studying at Undergraduate and Graduate Studies of the University of Zagreb](#), the final grade in each course can be determined on the basis of summative and formative evaluation activities during TLAs and/or on the exam if it is determined by the study plan. Formative assessment is conducted during classes, primarily aimed at providing feedback to students, although it may also have a minor impact on the final grade. It includes student activities specified by the study programme that lead to the achievement of intended learning outcomes (e.g. participation in discussions, written preparation for class, project work, essay writing, information source searches, practical exercises in real-life situations, field research, e-learning, software development, seminar papers, etc.). In addition, continuous summative assessment, such as midterm exams and projects, is used to systematically monitor student achievement. The elements used to monitor student progress are reflected in the total student workload expressed through ECTS.

The regulations on studying at undergraduate and graduate study programmes at UNIZG FOI determine the conditions of enrolment, the organisation and performance of studies, the duration of studies, the obligations, rights and responsibilities of teachers and students, the status of students and the rules of study, as well as other issues of importance for the smooth running of undergraduate and graduate studies at UNIZG FOI. **These regulations are published on [the website](#).**

For the purpose **of transparent, clear, uniform and unambiguous monitoring of the work and evaluation of students**, UNIZG FOI defined the **criteria for monitoring the work and evaluation of students**, the scoring scale, and since then, it has continuously published models of monitoring the work and evaluation of students through the [FOI Nastava](#) system, through which teachers define monitoring models (*[Annex 3.2.1.: Example of defining a monitoring model](#)), heads of departments (and if necessary the Vice-Dean for Education and Students) check the monitoring models (*[Annex 3.2.2.: List of all monitoring models](#)), the Faculty Council accepts the models, and finally teachers generate a final document that is published to students, e.g. on an e-course before the start of classes (*[Annex 3.2.3.: Example of a published monitoring model in PDF format](#)). Ultimately students can see detailed models for each course for the desired academic year (e.g. [Software Product Development 23/24](#), [Software Product Development 24/25](#), [Databases 2](#), etc.).

Thus, **the process of preparing the monitoring and assessment model** for each academic year involves several steps: the model is proposed by the course instructors, discussed and adopted by the department, and finally approved by the Faculty Council at its session. The assessment models are approved during the Council session held in July for the upcoming academic year, which starts on 1 October. These models contain information on the elements used to monitor student progress, the number of points students can earn for each element, the requirements for fulfilling minimum course obligations (confirmed by receiving a course signature), the criteria for obtaining final grades based on the collected points, and the grading scale from 1 to 5. The grading scale is uniform across all courses, regardless of the specific assessment elements included in the model.

In order to ensure **that the criteria and methods of evaluation and assessment are harmonized with the teaching methods and intended learning outcomes**, the elements of the monitoring model, as

well as the evaluation criteria, are discussed by the members of the department to which the course belongs. Special attention is paid to the success of meeting the passing criteria according to the monitoring model and the observed shortcomings of the monitoring model. In doing so, the results of continuous monitoring of the previous academic year are taken into account. years for all courses of the department (*[Annex 3.2.4: Analysis of passing results](#)), student complaints, if any, and the success of demonstrations (if they were held for a particular course). **Monitoring and assessment models include various methods of formative and summative evaluation and assessment**, such as written midterm exams of theoretical knowledge, midterms in laboratory exercises, seminar papers, project papers, team work, critical reviews of selected chapters, analysis of professional and scientific literature, etc.

In all undergraduate and graduate courses of the Faculty, **student achievements are continuously monitored and assessed**. The method of monitoring full-time and part-time students is determined and published by the teachers before the start of the lecture. Full-time and part-time students are required to contact the teachers in the first two weeks of classes in order to be informed about the obligations on the course. **The acquisition of learning outcomes, i.e. the acquisition of knowledge, skills and competencies of full-time students, is assessed during classes, and the final grade is determined on the exam**. In accordance with the [Rulebook on Studying at Undergraduate and Graduate Studies of the University of Zagreb](#), the exams can be theoretical or practical, and they are taken only in writing, only orally, or written and orally or by performing/presenting practical work or the realization and presentation of the task. The practical part of the exam can be performed separately from the theoretical one. Examination periods may be regular or extraordinary. Regular examination periods include the winter, summer, and autumn sessions, while extraordinary examination periods are held in the winter and spring. Continuous monitoring is counted as one examination period (*[Annex 3.2.5: Instructions to teachers on the completion of continuous monitoring](#)). Examination documentation is kept in accordance with the decision on the storage of materials related to the activities of the teaching process (*[Annex 3.2.6.: Decision on the storage of materials from the teaching process](#)). The teacher is obliged to announce the date when the student can get an insight into the written exam. The teacher is obliged to inform the student about the result of the oral exam immediately after the exam, and the result of the written part of the exam no later than five working days from the date of the exam. A student who meets the criteria defined in the assessment model during the first examination period (continuous assessment period) has the right to receive a final grade based on the total number of points earned and the defined grading scale. A student who has not fulfilled the obligations set by the study programme and the course delivery plan for a specific course is not allowed to take the final exam in that course. The teacher is required to assign a failing grade (1) to a student in the following cases: if the student does not attend the written part of the exam or withdraws from it; if the student withdraws during the oral exam; if the student does not attend the oral part of the exam after completing the written part; or if the student is removed from the exam due to inappropriate behaviour, disturbing other students, or using unauthorised materials. UNIZG FOI **actively plans student workload** to avoid situations in which students have multiple midterm exams or final exams scheduled on the same day. (*[Annex 3.2.7.: Midterm exams plan](#), *[Annex 3.2.8.: Exams plan](#).).

All courses at UNIZG FOI are **supported by the use of an e-learning system** ([FOI Moodle](#)), a system for final theses ([FOI Papers](#)) and a system of professional practice ([FOI Praksa](#)) are used, as well as numerous [other systems and services](#) that support the teaching process. By using the activities of the e-learning system, teachers can give students feedback on their work on a particular course: through

discussion forums, comments on activity grades, using rubrics (predefined assessment criteria – descriptive) for assessment, self-assessment tests or using a badge system. Through the system for final theses, students communicate with mentors on final and graduate theses and receive comments and suggestions on their papers. In the system of professional practice, students receive information about the submitted professional practice diaries and possible needs for their change. Students can also get feedback on their work in person during the [office hours for consultations](#) with teachers. For students who need help with learning advice, they can ask for help from the subject teacher, at demonstrations related to the material of a particular course (*[Annex 3.2.9.: Example of requirements for demonstrations for FV](#)), or at the Office for Students with Disabilities that organizes psychological counseling for students with learning problems. Throughout the semester, students in the e-learning system have an insight into their progress in the course, and receive feedback from teachers for activities for which teachers have not given oral feedback and/or for which feedback is expected so that students can make an improvement by the next assessment (e.g. *[Annex 3.2.10: Example of student work report](#), [Annex 3.2.11: Example of assessment criteria](#) or *[Annex 3.2.12: Example of assignment specification](#)). Through the activities of regular collection of feedback from students, among other things, **students confirm the usefulness of the possibility of monitoring their own progress through the e-learning system**. For example, through the Survey on the Perception of the Quality of Teaching 2023/2024 (summer semester), at the PS IPS study (Figure 3.3), students rated the ability to monitor their own progress with an average grade of 4.34 out of 5, the clarity of defined student obligations in the course with a grade of 4.58 out of 5, and the satisfaction of the ability to communicate with the teacher with a grade of 4.5 out of 5.

Finally, through the Information System of Higher Education Institutions (ISVU), students have an insight into the overall progress in their studies (*[Annex 3.2.13: ISVU's view of the student](#)). UNIZG FOI actively encourages teachers to engage in the development of detailed assessment criteria and giving detailed feedback to students in all courses, and the vice-deans and the office have access to a detailed study report of each student (*[Annex 3.2.14: STIS student report](#)).

In accordance with the regulations, **students are allowed to take the exam at least four times during one academic year**, after which the student must re-enroll in the course. In the event that a student fails to pass the course during the second enrolment, the student loses the status of a full-time student and can continue the study in the status of a part-time student, but no longer than twice the duration of the study.

[The Regulations on the Bachelor Thesis at the Undergraduate Studies and the Master Thesis at the Graduate Studies of the UNIZG FOI](#) regulates the procedures for registration, preparation, evaluation, and defence of final theses at undergraduate (university and professional) study programmes, as well as the procedures for registration, preparation, evaluation, and defence of master's theses at graduate study programmes at UNIZG FOI. The Rulebook is publicly published on the [website](#) as well as in the [FOI Radovi system](#), which students use to book the topic of the final/graduate thesis, communicate with the mentor and submit the final version of the thesis. The mentioned system supports the entire process of preparing and approving topics, reserving topics, submitting working and final versions, and organizing and conducting the defense of final and graduate theses (*[Annex 3.2.15: Part of the capabilities of the FOI Teaching system](#).).



Figure 3.3. Results of the survey on the perception of the quality of teaching 2023/2024 (PDS IPS - summer semester)

The undergraduate study is completed **by passing all exams and completing other study obligations, as well as by writing a final thesis and its successful defense**, in accordance with the conditions of completion of studies in accordance with the relevant regulations on undergraduate studies. **The graduate study is completed by passing all exams and completing other study obligations, as well as by writing a master thesis and its successful defense**, in accordance with the conditions of completion of the study of the relevant regulations on graduate studies. The defense of the final/master thesis consists of an oral presentation of the results of the final/master thesis by the student and a test of knowledge. The knowledge test implies that the student answers questions related to the field of the final/master thesis and the study program, which are asked by the mentor and co-evaluator. **The final grade of the student's final/master thesis is made by the mentor and co-evaluator** immediately after the defense, based on the grades of the written final/master thesis, the student's presentation and the student's answers during the defense. If the mentor and co-evaluator do not agree during the evaluation, then the arbitration is performed by the Vice-Dean for Education and Students based on the opinion of the department to which the mentor belongs. When a student is notified of a negative grade of the final/master thesis, the reasons for such a grade must be stated and entered in the minutes. A student whose final/master thesis is evaluated with a

negative grade must choose and submit a new topic of the final/master thesis. The procedure of submitting a new topic after the previous paper has been evaluated with a negative grade can be carried out only once.

Professional practice is a mandatory and integral part of teaching at the undergraduate study programme *Information and Business Systems*, graduate studies and the professional study programme *Information Technology and Business Digitalization*. The obligations of students and the evaluation of professional practice are prescribed by the [Rulebook on Student Practice](#), which is published on the website and in the [FOI Praksa system](#). For each study programme, a Head of Professional Practice is appointed (*[Annex 3.2.16: Decision on the Head of student practice](#)) who actively participates in agreements with companies for student practice, approves requests for student practice, collects feedback from students and companies, and evaluates professional practice diaries. Mentors on student practice are employers for whom UNIZG FOI has also prepared guidelines and instructions in order to achieve the desired learning outcomes [of the student](#) (*[Annex 3.2.17: Guide for mentoring students on practices](#)). For practices that have been successfully implemented and completed, the student office records as completed in the ISVU system. An unsuccessfully completed student practice should be repeated by the student during the next academic year. An excerpt of the functionality of the FOI Praksa system from the mentor's perspective is shown in the attachment (*[Annex 3.2.18: Part of the capabilities of the UNIZG FOI practice system](#)), while students and the Head of practice have a different set of functionalities intended for their role.

The objectivity and reliability of evaluation and assessment are ensured by harmonizing the planned activities in the course with the planned learning outcomes, through the determination of monitoring models that have defined transparent elements and rules, through giving teachers the authority to teach and correcting a certain part of the exam in accordance with their associate, teaching or scientific-teaching position, through the possibility of the student appealing the exam results, as well as through the maintenance of the exam before the commission. If dissatisfied with the exam grade, the student may, within 24 hours after the official review of the written part or failing the oral part, request in writing—stating valid reasons—that the exam be retaken before an academic committee, subject to the Dean's approval. (*[Annex 3.2.19: Decision based on the student's appeal](#)). The examination committee consists of the course teacher, who also serves as the chair of the committee, and two additional members, at least one of whom must hold a scientific-teaching position and be a member of the Department of the course. After the end of each examination period, the student is obliged to check within 48 hours whether the obtained grade has been recorded in the ISVU. If a discrepancy is found, the student is obliged to inform the student service and the course teacher in writing without delay. It is recorded in the official record that the vast majority **of student appeals** relate to the rejection of the application for continuation of studies due to the expiry of the period of the maximum permitted duration of study (50 in the last three academic years), to the decision on suspension of the academic year (2 in the last three academic years), to the decision on the transfer application (1 in the last three academic years), and to the conduct of the examination period (1 in the last three academic years in 2021/2022), while in the last three academic years (2021/2022, 2022/2023 and 2023/2024) there were no complaints about the examination period or the grade. Certain tools used on UNIZG FOI (e.g. Moodle) have the ability to automatically calculate measures of test reliability (e.g. Cronbach alpha) that are also used to improve knowledge tests in individual courses

An infrastructure has been established at UNIZG FOI and student feedback is regularly collected, which includes information on **objectivity, reliability and consistent implementation of evaluation and evaluation methods** through continuous monitoring of student work. Feedback is provided to teachers after the second examination period, in order to ensure the objectivity of teachers in assessment. Also, through a survey on the perception of the quality of teaching, **students evaluate, among other things, teaching materials, seminars and exercises for testing knowledge and achieving learning outcomes, the suitability of methods, examples and tasks in achieving learning outcomes**, and more. An example is the Survey on the Perception of the Quality of Teaching 2023/2024 for summer semester (*[Annex 3.2.20.: Results of the survey on the perception of quality of teaching](#)), which, for example, on the IPS study programme on these issues, showed the results shown in the figure below (Figure 3.4).

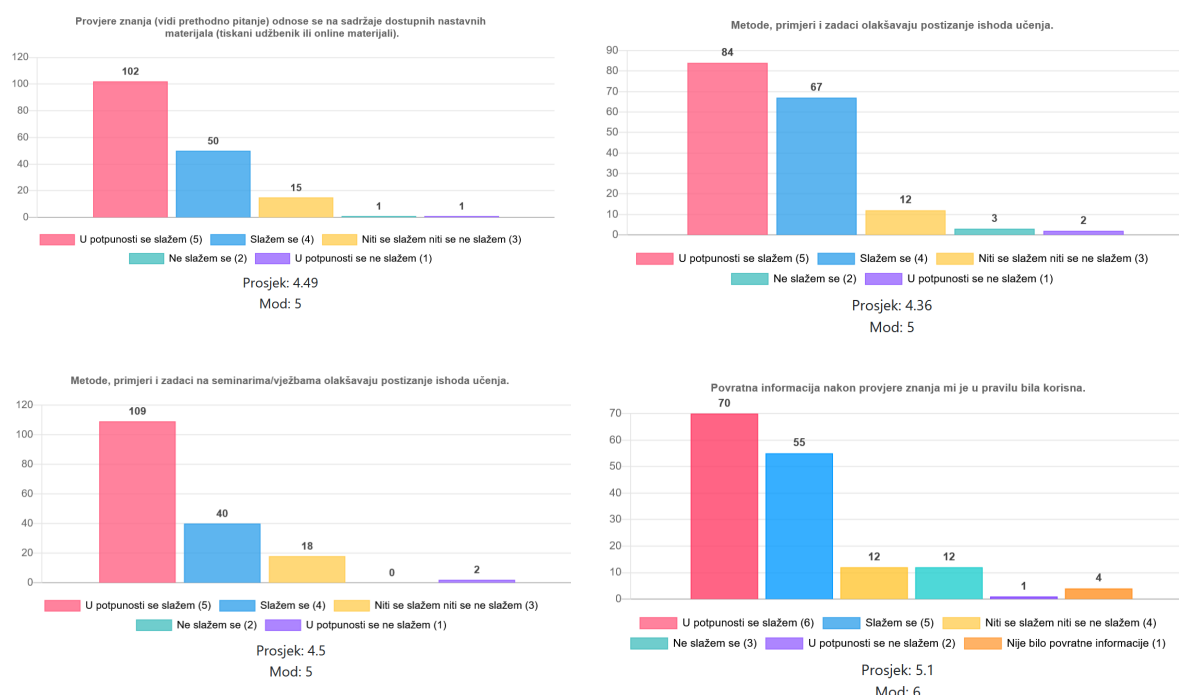


Figure 3.4. Excerpt from the results on the perception of the quality of teaching 2023/2024 (PDS IPS - summer semester)

In order to provide **support to teachers in the development of knowledge and competencies in the context of evaluation and assessment**, UNIZG FOI provides support to teachers to improve their teaching competencies through the organization of workshops for the development of skills that will help them perform their work. The last series of workshops was held in February 2025 (*[Annex 3.2.21: Call for teachers](#)). Nine trainings were held with the aim of supporting teachers, especially younger associates and assistants, in improving teachers' competencies and adapting to modern educational challenges. All workshops are intended for all teachers of UNIZG FOI, and education on the topics of **Basics of Psychology of Education** and **Teaching Basics** was **mandatory** for assistants and other junior associates who are employees of UNIZG FOI who are engaged in teaching, without having previously undergone similar workshops or trainings.

UNIZG FOI also encourages teachers to develop these competencies in other ways, primarily by disseminating information about such events organized within the University or other institutions

(*[Annex 3.2.22: Call for teachers to participate in the webinar](#), *[Annex 3.2.23: Call for teachers to participate in trainings](#)), encouraging teachers to apply for projects in the field of education and educational technologies (e.g. *[Annex 3.2.24: DigitAsia Project](#), *[Annex 3.2.25: My Robot, My Learning Associate Project](#). and others), but also by organising committees and working groups dealing with specific topics and disseminating the results to all teachers (e.g. the Committee for the Preparation of Recommendations for the Preparation of Final and Diploma Theses and the Implementation of Workshops for the Mentoring of Final and Graduate Theses (*[Annex 3.2.26: Instructions on the Mentoring of Final and Graduate Theses](#)), the Working Group for the Development of a Framework for the Application of Artificial Intelligence ([Annex 3.2.27: Framework for the use of AI tools](#)).

UNIZG FOI has an [Office for Students with Disabilities](#) that provides support to students who, due to health conditions or illnesses, require certain accommodations (such as visual or hearing impairments, physical disabilities, chronic illnesses, mental health disorders, or learning difficulties such as dyslexia and dysgraphia, as well as other health conditions that may affect their studies). The [procedure](#) for issuing recommendations for adapting the teaching process and exam-taking is regulated by the Procedure of the University of Zagreb Office for Students with Disabilities in cases where a [request for such recommendations is submitted](#). Upon completion of the request review, the student is granted accommodations through technical adjustments to the facilities, assistive technology, and other [forms of support to ensure an adapted teaching and assessment process](#). Based on the Office's Recommendation, a medical certificate, and, if needed, consultation with the competent student health physician, the Vice-Dean for Education and Students issues a Decision on the scope and duration of the accommodations, taking into account academic standards and the learning outcomes defined by the study programme, and the Office is informed accordingly (*[Annex 3.2.28: Example of an adaptation decision](#)). Students who report to the *Office for Students with Disabilities at UNIZG FOI or the Office for Students with Disabilities of the University* and have been approved for specific accommodations are instructed to contact the subject teachers in person before the exam or midterm exam. Taking into account the good practice of preserving the privacy of students with special needs, the Vice-Dean for Education and Students publishes information about students and their special needs in the e-learning system, where information about the student, the year of study and the recommendation on the adaptation of the teaching process and taking the exam are listed.

3.3. The requirements for student enrolment and progress, recognition and certification are clear, publicly available, and consistently applied.

In the academic year 2023/2024, UNIZG FOI had **2643 students enrolled in all undergraduate, graduate and postgraduate study programmes** (1808 full-time and 835 part-time students). A detailed specification by study programme is shown in Table 3.1. of the Analytic supplement to self-evaluation report of the UNIZG FOI.

Enrolment quotas and criteria for enrolment of students in the 1st year of undergraduate studies (PS) and 1st year of graduate studies (DS) for each new generation of students are adopted by the Faculty Council of UNIZG FOI (*[Annex 3.3.1.: Decision on Enrolment Criteria for Undergraduate](#)

[Studies](#), [*Annex 3.3.2.: Decision on Enrolment Quotas in Undergraduate Studies](#), and [*Annex 3.3.3.: Decision on Enrolment Quotas and Conditions for Enrolment in Graduate Studies](#)), and subsequently these criteria are adopted by the Senate of the University of Zagreb. The criteria for enrolment are published in the [tender documentation for the enrolment of students in the first year of university undergraduate, integrated \(undergraduate and graduate\) and professional undergraduate studies](#) and in the [tender documentation for the enrolment of students in the first year of graduate studies](#) announced by the University of Zagreb on its [website dedicated to enrolment in the current academic year](#). Information on the admission criteria for undergraduate studies is published on the portal [postani-student.hr](#) portal. **The criteria for enrolment in undergraduate and graduate study programmes are published on the UNIZG FOI website**, and for several years, a specialized application, **FOI Upisi**, has been used for Admissions, which guides students step-by-step in the enrolment process and provides feedback on the current enrolment status. The application has different views and functionalities for all roles involved (students, student office, vice-dean...), and attached are a few screenshots ([*Annex 3.3.4.: FOI Enrolment Application.](#)). **The criteria for enrolment or continuation of studies at UNIZG FOI are applied consistently and transparently.** The Central Application Office (SPU) is the national centre for applications for study programmes in the Republic of Croatia. The entire process of applying for undergraduate studies takes place through [the National Information System for Higher Education Institutions](#) (NISpVU), which serves candidates to apply for selected study programs, which also records the state graduation exams that they must pass. Enrolment of students in undergraduate study programmes of UNIZG FOI is carried out by the Central Application Office, while enrolment in graduate studies is carried out by UNIZG FOI independently. In the announcement of the relevant ministry, enrolment in graduate studies in the academic year 2026/2027 will also be carried out through the NISpVU.

Transfer to a study programme carried out by the UNIZG FOI is possible from another related study programme within the institution, from another related study programme within the University of Zagreb, or from another university in accordance with the general act of the UNIZG FOI. The conditions that must be met by students of other studies in order to make the transition to the study of UNIZG FOI are defined in the study regulations for each individual study programmes (e.g. Articles 22-23 of the [Rulebook on Studying at the University Undergraduate Study of Information and Business Systems](#)).

In accordance with the instructions of the University of Zagreb, **when defining the admission criteria** for graduate studies, the constituents must define appropriate undergraduate studies that ensure appropriate entry competencies, the method of acquiring uniform entry competencies ([through differential exams or a differential year](#)), the method of evaluating previous success in the study, ranking and student status. The Faculty Council adopted the Decision on the Admission Criteria for Enrolment in the Graduate Studies of Informatics and the Graduate Study of Economics of Entrepreneurship and the Decision on the Conditions for Enrolment in the Differential Year of Graduate Studies in 2023 ([*Annex 3.3.5: Decision on the Conditions for Enrolment in the Differential Year](#), [*Annex 3.3.6: Decision on Courses of the Differential Year](#)). UNIZG FOI organizes the implementation of [a differential year](#) for enrolment in graduate studies in Informatics and graduate studies in Economics of Entrepreneurship as one of the lifelong learning programs, and if the Commission for the Recognition of Prior Learning ([*Annex 3.3.7.: Decision on the appointment of the Committee for the Recognition of Prior Learning](#)) determines that the student needs to pass up to 15 ECTS of the difference, the graduate study can be enrolled without a differential year, provided that the student passes the differential courses before any graduate study course.

Pursuant to Art. 9 of the [Rulebook on the Recognition of Prior Non-Formal and Informal Learning at the University of Zagreb](#), the [Rulebook on the Recognition of Prior Non-Formal and Informal Learning at UNIZG FOI](#) was adopted which regulates the **procedure of formal recognition of knowledge and skills acquired outside the formal education system**. The Rulebook enables the recognition of competencies for the purpose of enrolment in studies, advancement during studies or personal development, and covers the Croatian Qualifications Framework from 6th to 8th level. Recognition is based on **the principles of equality, fairness, transparency and quality assurance**, with the procedure being carried out by a specially appointed committee ([*Annex 3.3.7: Decision on the appointment of the committee for the recognition of prior learning](#)). Depending on the type of previous learning, automatic confirmation or additional verification of learning outcomes is possible, and recognized outcomes may result in the issuance of a certificate and the award of ECTS.

The UNIZG FOI has an effective mechanism for recognizing prior learning. Students who come from other study programmes carried out by UNIZG FOI or other higher education institutions within or outside the University of Zagreb can exercise the right to have their courses recognized. There are two situations of **recognition of prior learning**: (1) enrolment in the study programme of the UNIZG FOI and (2) transfer to a higher year of study of the study programme of the UNIZG FOI. In the first case, a student who has enrolled in the study of UNIZG FOI, and has previously studied and passed certain exams in another study programme (UNIZG FOI or another higher education institution) submits [an application for recognition of the exam through the FOI Forms](#) system. The application for recognition of the exam is resolved by *the Committee for the Recognition of Prior Learning* on the basis of a comparison of the curricula of courses taught at UNIZG FOI and those carried out in the study programme on the basis of which the student seeks recognition ([*Annex 3.3.8. Presentation of applications in the FOI Forms system](#), and [*Annex 3.3.9.: Example of an application in the FOI Forms system](#)). **Registers of recognition** of courses are publicly published on the website of the UNIZG FOI (e.g. [Recognition Register PDS IPS v.1.2 to PSS ITDP v.1.3](#)). The Committee for the Recognition of Prior Learning also keeps a register of all previous recognition of courses based on passed courses in a study programme carried out by another higher education institution ([*Annex 3.3.10: Register of Recognition](#)). In the second case, a student who has enrolled or acquired the conditions for enrolment in a higher year of study in another study programme carried out by UNIZG FOI or another higher education institution submits [an Application for transfer from another faculty to UNIZG FOI](#). The transition to the study carried out by the UNIZG FOI of the same level is possible in accordance with the conditions and the instructions described above.

Upon completion of undergraduate and graduate university studies, UNIZG FOI issues a diploma confirming the completion of studies and the acquisition of an academic title. The diploma and the diploma supplement are issued in accordance with the relevant regulations. Pursuant to Article 73, paragraph 5 of the [Act on Scientific Activity and Higher Education](#) and the [Rulebook on the Content of Certificates, Diplomas and Supplementary Documents on Studies](#), UNIZG FOI issues a diploma and a supplementary document to every student who has completed their studies. Diplomas and supplements are public documents, and they are issued in a digital version (digitally signed) and printed with the application of appropriate protection mechanisms against forgery. In addition to the diploma ([Annex 3.3.11: PDS IPS \(HR\) diploma](#), [Annex 3.3.12: PDS EP \(HR\) diploma](#), [Annex 3.3.13: DS INF \(HR\) diploma](#), [Annex 3.3.14: DS EP \(HR\) diploma](#), and [Annex 3.3.15: ITDP \(HR\) diploma](#)), the student is also issued **with a diploma supplement**, a document confirming which exams he or she has passed and with which grade, as well as information on the teaching load and teaching content ([Annex 3.3.16: Supplementary document \(HR\)](#)). **The diploma and the diploma supplement are**

issued in Croatian and in English ([Annex 3.3.17: PDS IPS Diploma \(EN\)](#), [Annex 3.3.18: PDS EP Diploma \(EN\)](#), [Annex 3.3.19: DS INF Diploma \(EN\)](#), [Annex 3.3.20: DS EP Diploma \(EN\)](#), [Annex 3.3.21: ITDP Diploma \(EN\)](#), and [Annex 3.3.22: Supplementary Document \(EN\)](#)). A digital diploma is issued within 30 days, and a printed diploma is issued within 45 days from the date of completion of the study (*[Annex 3.3.23: Notice to students](#)). At the student's personal request, a supplementary document is issued even before the completion of the study. In accordance with Article 58 of the [Rulebook on Studying at the University of Zagreb](#), the At UNIZG FOI, **students with the highest overall grades** upon completion of undergraduate or graduate study programmes are awarded Latin honours as follows: Bachelor or Master with highest distinction (*SUMMA CUM LAUDE baccalaureus or magister*); Bachelor or Master with great distinction (*MAGNA CUM LAUDE baccalaureus or magister*); Bachelor or Master with distinction (*CUM LAUDE baccalaureus or magister*) (*[Annex 3.3.24: Text of the commendation](#), [Annex 3.3.25: Praise laude](#), [Annex 3.3.26: Praise laude \(EN\)](#), [Annex 3.3.27: Praise Magna Laude](#), [Annex 3.3.28: Praise Magna Laude \(EN\)](#), [Annex 3.3.29: Praise summa laude](#), and [Annex 3.3.30: Praise Summa Laude \(EN\)](#)). UNIZG FOI in one academic year **issues about 510 diplomas**, out of which 190 are university master's degrees in informatics, university master's degree in informatics education and university master's degree in economics, and 320 diplomas university bachelor's degree in informatics, bachelor's degree in economics, professional bachelor's degree in business informatics. Diplomas, supplementary documents and commendations are **issued to students free of charge**.

The conditions for advancement through the study, the conditions for enrolment in a higher semester or year and the continuation of studies are defined in the [regulations on studying at undergraduate and graduate studies at UNIZG FOI](#) ([PDS IPS](#), [PDS EP](#), [DS INF](#), [DS EP](#) and [ITDP](#)), which are in accordance with the [Rulebook on Studying at Undergraduate Studies and graduate studies at the University of Zagreb](#). The criteria for enrolment in the higher years of undergraduate and graduate study programmes **are publicly published on the website of the UNIZG FOI**. Transparent implementation of the criteria for continuation of studies is ensured by issuing a decision on continuation of studies (*[Annex 3.3.31: Decision on continuation of studies](#)).

At the beginning of the academic year, a forum for freshmen called "Orientation Day for Freshmen" is organized for first-year students, where students receive basic information about the rules of advancement through the study and study at UNIZG FOI, and get acquainted with all the services that can help them through their studies, as well as student associations that operate at UNIZG FOI (*[Annex 3.3.32: Invitation to the Orientation Day for Freshmen](#), *[Annex 3.3.33: Presentation to Freshmen](#), *[Annex 3.3.34: Excerpt from the e-course \(Guide to FOI, E-course - Guide to FOI, Library Workshops\)](#)).

Furthermore, the **criteria for enrolment in the higher years of undergraduate and graduate study programmes** are publicly published on the [website of the UNIZG FOI](#). In the [FOI Nastava](#) system for each course, models of student monitoring and assessment are listed, which list the elements of student work monitoring, as well as **the conditions that a student must meet** in order to achieve the minimum teaching obligations and receive a grade in a particular course.

In the study programme *Information and Business Systems*, **when enrolling in the third year of study**, students choose one of four specializations, and in accordance with the Study Regulations, they choose the elective courses they want to enroll in. Students sort their course selections according to their choice, and upon completion of enrolment and defined quotas (the maximum number of students who can enroll in the course), [the FOI Upisi system](#) creates a ranking list of students who can enroll in each elective course based on their success in the first two years of study

(*[Annex 3.3.35: Decision on Quotas by Modules and Elective Courses](#) and *[Annex 3.3.36: Supplement to the Decision on Quotas by Modules and Elective Courses](#)). Students can view their ranking results and the granted right to enroll in elective courses in the [FOI Upisi](#), after which they may submit an appeal to the Vice-Dean for Education and Students. Exceptionally, students may submit a request to change their elective courses, provided the course in question was not among their top three choices.

Since 2016/2017, the Faculty has been using a special information system - STIS, the Student Information System, whose purpose **is to view the current status of each student's studies** at UNIZG FOI and monitor their progress through the study. For each student, one can see basic information (index number, name, surname, JMBAG, completed school, date of birth, username, email) and information about student status, study statistics, statistics of ECTS per academic year, details of studying, data on enrolled courses in each individual academic year and passed/failed exams. Access to all information about the student is provided by the Vice-Dean for Education and Students and the system administrator (*[Annex 3.3.37: STIS student report](#)).

The Management Board continuously performs **analyses on the progress of students by academic years**, analyses of passing rates by individual courses, analyses of the collected number of ECTS in the academic year, etc. The results of the analyses are the basis for making strategic decisions of the UNIZG FOI. Tables 3.2. of the Analytic supplement to self-evaluation report of the UNIZG FOI show the structure of enrolled students and interest in **undergraduate study programmes** in the academic year 2023/2024 as well as in the previous two academic years, where it can be seen that the undergraduate study programmes *Information and Business Systems* and *Economics of Entrepreneurship* have a stable student interest and a high level of quota occupancy, while the professional study of *Information Technology and Business Digitalization* has a positive trend and an increase in the interest of full-time students, and a slight decrease in the interest of part-time students. Table 3.3. of the Analytic supplement to self-evaluation report of the UNIZG FOI show the structure of enrolled students and interest in **graduate (and postgraduate) study programmes** in the academic year 2023/2024 as well as in the previous two academic years, where it is also possible to see a stable and relatively uniform interest of students in graduate study programmes throughout the years. The study programmes *Information and Software Engineering* and *Business Systems Organization* have the highest occupancy of quotas, and together with the study programme *Economics of Entrepreneurship*, they also have the most enrolled students. Taking into account these and other analyses, the Management Board, teachers and administration are constantly working on **raising the quality of study programmes and promoting them to potential new students** so that the trends remain positive in the future academic years.

For each academic year, an analysis **of student success rates is carried out in all courses** at the undergraduate level, especially the analysis of student success through continuous monitoring. These analyses are the basis for making decisions on changing the model of monitoring a particular course or examination and the method of teaching in a particular course (*[Annex 3.3.38: Analysis of pass rates by courses](#)). Special attention is paid to the professional study programme *Information Technology and Business Digitalization*, which is carried out in Sisak and Zagreb. For each academic year an **analysis of the success rate in the study is conducted with regard to the number of ECTS collected** by students in the previous academic year in order to obtain information on the percentage of students who have been entitled to a subsidy of participation in study costs in accordance with the [Regulation on Programme Financing of Public Higher Education Institutions and Public Scientific Institutes in the Republic of Croatia](#).

Every academic year, an analysis of enrolled students in the first year of undergraduate and graduate studies is carried out in order to monitor changes in student interests, the number of enrolled students and their structure in relation to their success at the state graduation exam (*[Annex 3.3.39: Analysis of residence by counties](#), *[Annex 3.3.40. Analysis of ITDP enrolment](#), *[Annex 3.3.41.: Analysis of the transition to a higher academic year](#), *[Annex 3.3.42.: Excerpt from the analysis of enrolled students in the first year of study](#)).

Statistics on the completion of enrolled students in study programmes, as well as the number of graduates and the average duration of studies are shown in Tables 3.4. of the Analytic supplement to self-evaluation report of the UNIZG FOI. The indicator of the average duration of study as well as the number of students who are still in the process show that the undergraduate study programme *Information and Business Systems* is on average 28.67 % longer than the number of years of study (i.e. a total of 3.86 years of study), and the undergraduate study programme *Economics of Entrepreneurship* 19 % longer (3.57 years), and 60.33 % (4.81 years) in undergraduate professional studies, which is expected since they are most often employed students who study and work. The average extension of studies in graduate studies in information science is 13 % (2.26 years), and in economics of entrepreneurship 7.5 % (2.15 years). An analysis of the progression of the cohort of full-time students first enrolled in the academic years 2020/2021 and 2021/2022 in the *Information and Business Systems* study programme shows that approximately 31 % of all enrolled students completed their studies on time. This indicates that there is still room for improvement, and that UNIZG FOI should continue its efforts to increase both progression and completion rates (*[Annex 3.4.43: Analysis of the Completion of Studies](#)). These data are regularly used in the revision of study programmes, the introduction of additional student teaching sessions (demonstrations), the redistribution of teaching activities to newly appointed staff, and the annual revision of continuous assessment models.

Each academic year, a **list of students with the highest grade point average** is compiled, and these students are awarded the Dean's Award. The Dean's Award for academic excellence is granted to one student per year of study who has achieved the highest grade point average without any delays in study progress, provided that the average grade is not below 4.0.

UNIZG FOI ensures conditions for student mobility in both national and international contexts through the cooperative work of the International Relations Office and the ECTS Coordinator, as described in more detail in Chapter 3.5.

3.4. The higher education institution provides sufficient and easily accessible resources to support students.

UNIZG FOI provides its students with sufficient and easily accessible resources **during enrolment and throughout their studies** to facilitate their course of study. When enrolling, students can find all the important information for a successful start to their studies in the [Student Guide](#). In the first chapter, students are also introduced to all available support resources. For first-year students, a panel discussion titled "[Orientation Day for Freshmen](#)" is organized at the beginning of the academic year, where students receive basic information about the rules of advancement through studies and

studying at UNIZG FOI and get acquainted with all the supporting services, as well as student associations that operate at UNIZG FOI (*[Annex 3.4.1.: Invitation to the orientation day for freshmen](#), *[Annex 3.4.2.: Presentation to freshmen](#), *[Annex 3.4.3.: Excerpt from the e-course guide to FOI, E-course - Guide to FOI, Library workshops](#)). Students have access to various services, offices and centers that are defined [by the structure of the Faculty](#).

[The Department of Student Affairs](#) consists of the **Office for Undergraduate and Graduate Studies** and the **Office for Postgraduate Studies**. These offices are a central place where students can get the necessary information and advice about their studies. The Office for Undergraduate and Graduate Studies conducts enrolment in the first and higher years through the [FOI Upisi](#) system and participates in the process of resolving student [applications](#) submitted through the [FOI Forms](#) system. The Office also supports the procedure of application and defense of final and master theses, digitized through the [FOI Radovi](#) system. The office is available to students during the entire working hours from Monday to Friday via email and phone, and students are admitted every working day from 9.00 to 13.00.

[The Technical Support Unit for Teaching / Centre for IT Support](#) (CIP) provides students with all necessary information, assistance, and advice regarding their electronic identity, user accounts, use of the email service, and access to academic software licenses. The Centre offers support related to computers and digital tools used by instructors and students during classes, and resolves any technical issues that may arise. Given the high number of practical hours, computer labs, and various technologies used in other classrooms, their support ensures the smooth delivery of teaching activities. Instructions and guidelines are also available on a [dedicated website](#), and students can request assistance not only in person, but also via email or telephone (e.g., [instructions for changing LDAP passwords](#) or [email service guidance for first-year students](#)).

[The library](#) is located in the basement of the FOI 1 building and has a reading room that students can use throughout the day on all working days. To help users, the library has published detailed [instructions](#), including [video instructions](#). On its [website](#), in addition to information about the library's holdings, the library also provides a tool for search of the library catalogue and links to various online sources of literature. Also, the library continuously organizes exhibitions (including virtual ones) related to topics important for the areas of activity of UNIZG FOI (e.g. [exhibition IMPORTANT](#), [60th anniversary of its founding](#), [prof. Žugaj – life and work](#) , etc.), and some virtual collections of the UNIZG FOI Library have become part [of the Virtual Collections of the University of Zagreb](#).

[The Center for Student Support and Career Development \(CPSRK\)](#) organizes numerous activities that enable students to acquire additional knowledge and skills and help in career development during the academic year. Visits to companies, workshops and lectures are organized, and CPSRK, in cooperation with the Promotion Office, designs and organizes the participation of UNIZG FOI at the University of Zagreb Fair. Attached is a list of activities carried out during the last two academic years. (*[Annex 3.4.4: List of activities with companies](#)). The application [CPSRK APP](#) enables students to apply for scholarships and [the loan of laptops](#). It supports going to competitions and establishing his own company as part of the [Startup@FOI program](#). Given that practice is mandatory in most studies at UNIZG FOI, CPSRK secures contracts with more than 400 employers and participates in support of the practice process, for which a special portal has been developed to facilitate implementation. In addition to individual student counseling, one of the most important events organized by CPSRK is [the Career Week](#), which offers numerous opportunities for students to connect with future employers, as well as useful lectures, panel discussions and workshops.

[The Office for Students with Disabilities](#) at UNIZG FOI has been operating for a number of years and provides support to students with disabilities within the central Office for Students with Disabilities UNIZG, primarily related to ensuring the right to adjust the teaching process and taking exams. The office also takes care of ensuring access to the halls for students with reduced physical mobility, and in 2020, an [overview of the accessibility of](#) the FOI 1 and FOI 2 buildings was made. The Office provides each student with disabilities with an individual approach to solving challenges when studying, and also encourages students to join the UNIZG [Peer Support for Students with Disabilities course](#). It is also important to mention that the UNIZG FOI has a built-in elevator for accessibility purposes. For many years, the Office has also been operating a **Psychological Counseling Center**, which helps students with problems with learning and motivation, adaptation to study, problems with network addiction, but also with problems such as anxiety and mental health (*[Annex 3.4.5: Report on the work of the Office for Students with Disabilities and the Psychological Counseling Center](#)).

[The International Relations Office](#) provides support to students for mobility as part of an Erasmus+ study stay and Erasmus+ professional practice, but also for shorter mobility, such as the Erasmus+ Blended Intensive Programme (BIP), CEEPUS and DAAD mobility. Likewise, the Office provides support to students on incoming mobility, including assistance in obtaining the necessary documentation, adaptation and problem solving during their stay at UNIZG FOI. Once a year, the Office organizes the [Days of International Cooperation](#), which include workshops for students and the exchange of student experiences. The support of the International Relations Office to students is described in detail in Chapter 3.5 of this document.

[The Center for Volunteering and Humanitarian Work](#) has been operating at UNIZG FOI for 12 years with the aim of engaging students in various activities that enable them to acquire additional competences through volunteering. The Centre also connects students with other volunteer organisations and provides training on the Volunteer Act and the Volunteer Code of Ethics (*[Annex 3.4.6: Report on the Activities of the Center for Volunteering and Humanitarian Work](#)).

[The Student Council](#) is an important body that supports students, safeguards their rights, and initiates various student projects, including humanitarian and volunteer activities such as the [Voluntary Blood Donation Campaign](#). Within the Student Council, there is also a **Student Ombudsperson**, while the **Student Advisor** is appointed by the UNIZG FOI Management from among the applicants to the public call. As one of the bodies of the Student Council, the Student Ombudsperson addresses legal issues and concerns raised by students, who may contact them for assistance. The Student Advisor is available to students during office hours for study-related inquiries, which may also be submitted via email.

[The Centre for Software Development](#) also provides support to students, i.e. the above activities, because it develops applications that significantly facilitate studying (FOI Upisi, FOI Forms, FOI Radovi, FOI Praksa). They have also developed the [FOI Nastava](#) portal where students can see their personal schedule and all the information about the courses. The Center also maintains and upgrades the [FOI Moodle](#) e-learning system used by all courses at UNIZG FOI.

Teachers and teaching assistants at UNIZG FOI hold weekly office hours, which are distributed over a minimum of two working days. All consultation times are published in the FOI Nastava application. Throughout the academic year, the Vice-Dean for Education and Students regularly sends students all relevant information via email, and student forums are organised as needed, either on campus or online (e.g. [enrolment-related forums](#)).

For informatics students of UNIZG FOI, the acquisition **of advanced digital skills** is mandatory as part of study programmes. However, students of economic studies also have computer exercises and compulsory and elective courses that enable the acquisition of digital skills as part of their classes. Also, all students of UNIZG FOI are enabled to acquire digital skills and various competencies through [summer academies](#), [workshops](#), [competitions](#) and [Erasmus+ BIP programs](#), [career events](#) and more. The list of activities organized by different departments at the UNIZG FOI, which were to a greater or lesser extent student-oriented, is presented in the attachment (* [Annex 3.4.7.: List of events](#)).

In addition to support for students with disabilities and other activities mentioned above, UNIZG FOI also supports the work [of student associations](#) to enable students to gain additional experience and competencies. The [FOI Sports Association also operates at UNIZG FOI](#) with the aim of promoting sports among students and organizing various sports activities, including the annual FOIjada competition in which a large number of students and teachers participate. [The Business Club@FOI Association](#) organizes thematic lectures and workshops in the field of business, and [the student newspaper ST@K](#) publishes a newspaper with various information and interesting facts for students. UNIZG FOI students are involved in the work of the [eStudent association](#), and UNIZG FOI also provides support to students in the form of faculty mentors during preparation for the STEM Games student competition, as well as organisational support for their participation.

UNIZG FOI also **employs qualified teachers and associates, as well as administrative and technical staff** operating in the aforementioned centers and offices. Teachers and associates are regularly trained at [workshops organized by UNIZG FOI](#) or on mobilities, as well as through scientific and professional projects.

Our higher education institution **systematically monitors the diverse needs of students**, particularly those from vulnerable and underrepresented groups. It ensures appropriate study conditions and adapts teaching delivery and the assessment of knowledge and skills to individual needs.

More details on the adapted teaching and examination process can be found in Chapter 3.2, in the paragraph describing the Office for Students with Disabilities, as well as in Chapters 4.4, 4.5, and 5.1. Students from lower socio-economic backgrounds are provided with the opportunity to [borrow faculty-owned laptops through regular public calls](#). Within various UNIZG FOI laboratories, students also have access to other equipment (e.g. virtual and augmented reality devices, 3D printers, mobile devices, IoT devices, etc.) that may support their personal development and be used for final or diploma thesis projects.

3.5. The higher education institution provides favourable conditions and support for students entering international outgoing and incoming mobility programmes.

The key role in the implementation **of the international mobility** programme at UNIZG FOI is played by: a) **Vice-Dean for Science, Projects and International Cooperation** – a member of the Management Board responsible for strategic management of the internationalization process and representation of UNIZG FOI abroad; b) [ECTS coordinator \(academic advisor\)](#) – who provides support to students on outgoing and incoming mobility, in planning mobility semesters, in helping with course selection, coordinates with academic advisors at partner universities and facilitates

communication with the teaching staff of UNIZG FOI; c) [International Relations Office](#) – has a key role in promoting international mobility and cooperation opportunities, guiding students through the decision-making and application process, and providing support before, during and after mobility, arranging agreements and communicating with partner universities.

Table 3.5. of the Analytic supplement to self-evaluation report of the UNIZG FOI presents data on student mobility during the last five academic years. From Table 3.5 it can be noted that the trends are positive, that the interest and number of realized mobilizations of students included in a mobility programme grows every year. In 2024/2025, a total of 134 mobilities (62 outgoing and 72 incoming students) are already planned. In addition, Table 3.5 does not include virtual mobility, i.e. cooperation of UNIZG FOI students with students of other universities in several courses where virtual mobility is organized. For example, **during the academic year 2023/2024, UNIZG FOI had 160 students in mobility and 100 students in virtual mobility.** The specific goal of virtual mobility is to meet and network with students from other countries and participate in classes outside the home faculty, without physical travel. An example of such mobility is [the Multi-year virtual mobility project](#) in collaboration with Amsterdam University of Applied Sciences.

The International Relations Office was established in 2002 with the aim of working on the realization of the mission in the field of international cooperation by supporting the mobility of students and teachers, organizing international events at UNIZG FOI and promoting international mobility and international successes of UNIZG FOI students. The focus of the activities of the International Relations Office is to raise awareness of UNIZG FOI students about the importance of international experience during their studies, and to inform them about the opportunities for international cooperation and exchange that are available to them. Students of UNIZG FOI have the most opportunities for mobility through the Erasmus+ program, and most of the work is done to promote this program.

On the website of the UNIZG FOI, information related to [international cooperation](#) is highlighted. There, students can [find various details about international mobility opportunities](#), depending on their preferences. They can access the list of partner universities available for Erasmus+ study stays. Currently, the list includes 25 universities across Europe, and this number is continuously increasing. In addition to information related to mobility within the Erasmus+ program, the International Relations Office regularly publishes other mobility opportunities of interest to UNIZG FOI students, e.g. announcements about summer schools, opportunities for scholarships through various foundations, and more. Furthermore, UNIZG FOI students can also find [mobility-related information and opportunities](#) on the University of Zagreb website.

A guide on international exchange opportunities for UNIZG FOI students entitled "[Why, where and how to go on an exchange](#)", the popular "[FOI Passport](#)", has been published. The guide is available in printed and digital form and contains a lot of useful information (about the process of applying for mobility, partner universities, etc.). It also contains interesting information (e.g. interesting facts about the cities where the partner universities are located, short reviews of students who have been on mobility...). Furthermore, the guide also includes contact information for persons whom UNIZG FOI students can reach out to if they are interested in participating in a mobility exchange. In addition to the above ways of informing, the International Relations Office communicates with students through [the Official Instagram](#) and [Facebook profiles](#) (FOI International - @foivzinternational), by organizing events (*[Annex 3.5.1.: Examples of published posters](#)) such as e.g. [Erasmus+ Info Day 2024](#) (*[Annex 3.5.2.: Presentation Erasmus+ Info Day](#)), [FOI International Days 2024](#), [dissemination of](#)

[information](#) and [presentations](#) or by announcing calls for participation such as calls for Erasmus [study stays](#) or [professional practice](#), [forums](#) and [workshops](#).

In addition to informing students about opportunities for international mobility, the International Relations Office **provides support to students in applying and realizing their exchange**. The Office assists students throughout the process, administratively, when collecting and completing documentation, but also has an advisory role related to all issues that may arise in this process (e.g. accommodation in a foreign country, food, cost of living, mode of travel, *[Annex 3.5.3: Presentation on how to apply for Erasmus+](#), *[Annex 3.5.4: Why Erasmus?](#) or *[Annex 3.5.5: How to choose an exchange university?](#)). Also, the International Relations Office connects "old" and "new" Erasmus students, because the experience of someone who has gone through a similar or the same situation is invaluable for future Erasmus students. If there is a need and the student needs help, the Office communicates with the offices and Erasmus coordinators at foreign faculties/universities regarding the specific situation. An important document is also the instructions for filling out the Online Learning Agreement (OLA) prepared by the Office (*[Annex 3.5.6: Instructions for filling in the Learning Agreement](#)) and instructions given by the Office to students just before departure for mobility (*[Annex 3.5.7: Presentation, information meeting before leaving for Erasmus](#)), as well as [workshops to help students apply for Erasmus](#).

The **ECTS Coordinator** plays an important role, especially **before departure and after returning from a mobility programme** (study stay). They assist students in creating a study plan at the host institution and advise them on the selection of appropriate courses. Any student interested in mobility may contact the ECTS Coordinator to jointly determine the most suitable options. The ECTS Coordinator also communicates with UNIZG FOI faculty members regarding the recognition of courses taken at the host university. After returning from mobility, faculty members who participated in any aspect of student mobility submit a request to the ECTS Coordinator for the recognition of acquired ECTS via the FOI Forms system. The ECTS Coordinator then communicates with the ISVU Coordinator and the Student Administration Office regarding the recognition of completed courses and ECTS earned abroad, and ensures that these are recorded in the ISVU system.

The UNIZG FOI applies the [Rulebook on International Mobility of the University of Zagreb](#), which regulates the mobility of students and scientific-teaching and non-teaching staff of the University of Zagreb. Among other things, the Rulebook provides guidelines for the evaluation and recognition of qualifications acquired at foreign universities. Once a student has been selected for an international mobility programme for a study stay, a Learning Agreement is signed between the student, the home institution, and the host institution, unless otherwise specified by an inter-institutional agreement. The Learning Agreement specifies the courses the student intends to take at the host institution, along with the corresponding number of ECTS awarded for each course. The Learning Agreement may also include information related to research activities aimed at the preparation of a master's or doctoral thesis, or activities related to thesis development, including the corresponding number of ECTS, if such activities are the purpose of the mobility. If the credits at the host institution are not expressed in the ECTS system, the Learning Agreement must include the original credit values, their ECTS equivalents, and the method used for credit conversion. An example of an agreement is shown in the annex ([Annex 3.5.8: Example learning agreement](#)). If UNIZG FOI students participating in a study stay abroad choose courses that align with their study programme at UNIZG FOI (which is most often the case), each successfully completed course and the corresponding ECTS are recognised by entering them into the ISVU system, and the list of these courses is included in the diploma supplement. If a course taken at the host university is equivalent to a course required by the

student's study programme at UNIZG FOI, the student is not required to take that course at UNIZG FOI. Instead, the ECTS earned abroad are recognised, and the foreign course replaces the domestic one. An example of recognised courses taken during mobility is shown in the Annex ([*Annex 3.5.9: Certificate of Completion of Courses](#)). UNIZG FOI has made a comparison of courses (course mapping) of UNIZG FOI with courses from more than 20 partner universities from Europe where students can go on an Erasmus+ study stay ([*Annex 3.5.10.: E-course of ECTS coordinators](#), [*Annex 3.5.11.: Example of a list of recognized courses from a foreign university](#)). Such a document makes it much easier for students to choose a course. The possibility of full recognition of foreign qualifications and courses is important to UNIZG FOI, and it concludes bilateral agreements strategically, with faculties and universities with similar study programs, goals and ways of working. Before students go on mobility, the ECTS coordinator checks the courses that students enroll in and the possibility of their recognition and, if necessary, talks to professors so that the student is fully aware of the possibilities.

For the purpose of improving professional and general **language competencies**, several courses in English and German are an integral part of the study programmes at UNIZG FOI. Students at the beginning of their studies (in the 1st year) must attend at least one course in the language of their choice, while later courses in foreign languages are elective. Also, students have the opportunity to listen to lectures in a foreign language held by visiting foreign teachers (e.g. [De Marcos Ortega, Campbell](#) and others). In addition, UNIZG FOI students participate in classes delivered in English for incoming students, and in this way, interested students of UNIZG FOI have the opportunity to listen to lectures in English, perform exercises in English, work in an international team and actively use literature in a foreign language.

The duration of mobility is a minimum of three and a maximum of 12 months (undergraduate, graduate and postgraduate (doctoral) studies). Going on a study stay [is an invaluable experience](#) for every young person, both for their professional and personal development - students have the opportunity to expand their knowledge through choosing courses and listening to lectures at a foreign university, strengthen the so-called transversal skills that employers highly value in the modern labor market, such as problem-solving skills and coping with a new environment, tolerance and openness to different values and cultures, responsibility, etc. In addition, students build an international network, make friends and have the opportunity to get to know a new country, city and culture. Research by the European Commission has shown that employers across the EU highly value the Erasmus experience, especially those who are present on the international market. For UNIZG FOI students who were on mobility, this is also an important reference in their CV and in the feedback they submit, they often point out that this is what was decisive for their careers.

Participation in [Erasmus+ traineeships](#) is also officially recognised for students, based on the signing of a Traineeship Agreement between the student, the home institution, and the host organisation. By completing an Erasmus+ traineeship abroad (lasting between two and twelve months), students gain a unique opportunity to strengthen both their professional and personal competences through work experience in a foreign country and company. Students often begin working on complex projects from the very start of their traineeship, typically in international and intercultural teams, making it a highly valuable experience. Every second UNIZG FOI student receives a job offer from the foreign company where the traineeship was completed, and Croatian employers also increasingly recognise Erasmus+ traineeships as a highly valuable asset in a CV.

In addition to going on Erasmus mobility, UNIZG FOI students often participate in shorter mobilities (e.g. [Summer Schools](#)), in particular at partner universities. Shorter mobilities are a great

opportunity to gain international experience and expand knowledge, without the need for major changes and preparations, as they usually last a few days or weeks.

The UNIZG FOI stands out in particular through the implementation of **Blended Intensive Programmes (BIPs)**. BIP is a new type of mobility within the Erasmus+ programme that combines short-term physical mobility with virtual learning components. The goal of BIP is to enable students and staff of higher education institutions to develop competencies, exchange knowledge and work on concrete projects through international and interdisciplinary cooperation. Programmes often focus on innovative topics and learning approaches, and participants work in international teams, contributing to the development of their linguistic, professional and intercultural skills (e.g. Transform to sustain: Sustainable future enabled by digital transformation, [Neuro nerds, Communication and AI...](#)). UNIZG FOI's **leading role in organising and implementing Blended Intensive Programmes (BIPs)** is demonstrated by a special BIP entitled "[BIP4BIPs](#)", held in 2024 in Dubrovnik. The programme brought together nearly 30 participants from 11 different universities across Europe, including institutions from Belgium, France, Denmark, Turkey, Austria, Slovakia, Slovenia, Serbia, Spain, and Croatia.

In the context of **incoming mobility**, UNIZG FOI currently offers 55 courses and five workshops that can be delivered in English, and are intended primarily for incoming students ([Annex 3.5.12.: Catalog of courses for incoming students](#)). The list of courses, as well as the list of workshops delivered in English, is available on the [UNIZG FOI website](#). Also, on the same [website](#), information is available on the possibilities of conducting **incoming professional practice** in UNIZG FOI laboratories and centers.

UNIZG FOI has developed a **network of activities that are carried out before and immediately after the arrival of incoming students**. An example of instructions to be sent to partner universities after nomination is given in the attachment ([Annex 3.5.13: Instructions to partner universities after nomination](#)). A [guide for incoming students](#) is available to incoming students ([Annex 3.5.14.: Welcome guide](#)), a welcome week is organized (e.g. [winter 2023](#), [summer 2024](#)), a [dedicated website](#) for incoming students has been set up, a [factsheet](#) has been prepared - a document with key information needed by incoming students, an academic calendar in English has been prepared ([Annex 3.5.15: Academic Calendar \(EN\)](#)), a presentation of courses with basic information including a monitoring model is organized (*[Annex 3.5.16: Invitation to teachers to present courses](#)), and coordinates the organization of the schedule of classes for incoming students ([Annex 3.5.17: Planning the schedule of incoming students](#)), which is ultimately delivered to students, and students are included in e-courses organized in English ([Annex 3.5.18: Example of e-courses for incoming students](#)) or sections for incoming students in English are created as part of the courses in Croatian ([Annex 3.5.19: Example of an integrated e-course in Croatian and English](#)).

The International Relations Office, together with the ECTS coordinator, **assists all foreign students in matters related to the possibility of enrolling in a particular course and the manner of performing study obligations**. The [website](#) lists the content of each course that can be chosen by foreign students, as well as information on the number of ECTS, lecturers, literature, etc. In addition to support related to studying, the Office also helps students with **solving the housing issue** in Varaždin (booking accommodation in the Varaždin Student Dormitory), obtaining personal identification number (OIB), registering residence and other similar actions.

UNIZG FOI **continuously monitors the academic progress of foreign students**. The International Relations Office publishes the feedback received from students in the form of stories on the [website](#). Also, incoming students are happy to participate in the day/week of international cooperation,

during which they present their experience related to studying at UNIZG FOI and in the Republic of Croatia. At the end of each semester, incoming students provide **feedback on the courses attended and the quality of teachers' work**, which is then processed and sent to teachers for review (* [Annex 3.5.20: Results of the incoming student survey](#))

UNIZG FOI has also established [a Student Buddy](#) programme, through which our students provide assistance to incoming students during incoming mobility, introducing them to the educational system in Croatia, programme, teachers and obligations, and at the same time gain experience in intercultural communication.

Exchange students **have the opportunity to learn the Croatian language** in Zagreb at the [Croaticum Centre](#). However, this can present a challenge for incoming students who are studying in Varaždin. Therefore, a special [Croatian Culture and Language Workshop](#) is organised for incoming students to help them become familiar with the Croatian language and culture.

To attract international students, UNIZG FOI regularly [updates its English-language website](#), where prospective international students can find all relevant information related to study programmes and the application process.

The website also includes practical and useful information about the city of Varaždin, accommodation, student meals, and more. In addition, the Office for International Cooperation has prepared an Information Package for international students, which includes:

- [FOI Factsheet](#) (basic information crucial for international students)
- Informative presentation on UNIZG FOI and UNIZG ([Annex 3.5.21.: Presentation on UNIZG FOI and UNIZG](#))
- [Course catalogue](#) (a list of courses available in English).

The Information package is sent to all interested students, particularly those considering Erasmus mobility, as well as to international offices, ECTS coordinators, and other international contacts at partner universities and faculties. In addition, a [brochure about UNIZG FOI](#), available in both printed and digital formats, provides a wealth of information about the Faculty in English.

Alongside the UNIZG FOI website, international students can also visit the "[Study in Croatia](#)" portal, which contains information about the Croatian higher education system, study programmes at higher education institutions, application procedures for international students, tuition fees, and detailed guidance on studying in Croatia.

IV. TEACHING CAPACITIES AND INFRASTRUCTURE OF THE HIGHER EDUCATION INSTITUTION

4.1. The higher education institution ensures adequate teaching capacities.

Teaching at UNIZG FOI is conducted and maintained by teachers elected for appropriate scientific-teaching positions (assistant professor, associate professor, full professor and full professor with tenure), teaching positions (lecturer and senior lecturer) and associate positions (assistant and senior assistant), all by the approved study programs and detailed procedures for the employment of teachers, which are elaborated in more detail within the standard 4.2.. In the publicly accessible part of the UNIZG FOI application ([FOI Kadrovska](#)), aggregate data and statistics are available for all teachers (it is necessary to select affiliation in the appropriate drop-down menu), as well as according to certain departments (chairs) and/or scientific-teaching, teaching or associate positions.

An overview of engaged teachers and associates, including external associates, by individual positions is presented in Table 4.1 of Analytic supplement to self-evaluation report. As of 30 September 2024, the UNIZG FOI had 65 full-time teachers in scientific-teaching and teaching positions – **55 in scientific-teaching positions and 10 in teaching positions, which met the minimum of seven full-time teachers in scientific-teaching positions prescribed by this standard.** In addition, 35 employees in associate positions (assistants and senior assistants) and 53 external associates are included in the teaching process.

UNIZG FOI delivers study programs in the fields of *Information Sciences* and *Economics*, both in social sciences. In accordance with the data presented in Table 1d. and Table 4.2. of the Analytic supplement to the self-evaluation report, during the academic year 2023/2024, **UNIZG FOI had 40 teachers employed in the scientific-teaching position in the field of *Information Sciences* and 12 teachers employed in the scientific-teaching position in the field of *Economics*, as a result of which UNIZG FOI satisfies a minimum of three full-time teachers in scientific-teaching positions in the fields in which it delivers study programs**, as prescribed by this Standard. In addition, UNIZG FOI had five teachers employed in a scientific-teaching position in the scientific area of natural sciences and two teachers employed in a scientific-teaching position in the scientific area of technical sciences, which is important for the realization of the mission of UNIZG FOI as a scientific institution with international influence in information sciences and STEM interdisciplinary field, as well as economics in the context of entrepreneurship and innovation.

The ratio between the total number of enrolled students and the total number of full-time teachers and those with nominal teaching titles at the UNIZG FOI is 23.87 : 1 (calculation shown in Table 1a. of the Analytic supplement to the self-evaluation report), **which is less than the 30 : 1**, as maximum prescribed by this standard.

The total annual teaching load per study programme is shown in Table 4.1.

Table 4.1. UNIZG FOI Total Annual Workload by Study Programmes for Academic Studies year 2023/2024

Code from the register	Name of study program	contact hours of lectures	contact hours of seminars	contact hours of exercises	TOTAL contact hours	TOTAL working hours	FOI teachers	External collaborators
283	Information and Business Systems	2.256	3.258	6.264	11.778	39.245,60	34.464,00	4.781,60
2682	Information Technology and Business Digitalization (Varaždin)	1.266	872	2.709	4.847	17.090,50	14.509,10	2.581,40
2683	Information Technology and Business Digitalization (Sisak)	519	87	279	885	3.903,90	3.813,90	90,00
2684	Information Technology and Business Digitalization (Zagreb)	232	42	205	479	1.974,30	1.947,30	27,00
33	Economics of Entrepreneurship	1.047	1.972	728	3.747	14.775,80	10.921,60	3.854,20
615	Databases and Knowledge Bases	252	142	397	791	2.875,01	2.689,81	185,20
613	Information and Software Engineering	436	359	783	1.578	5.462,27	5.030,67	431,60
624	Teacher of Informatics	320	164	187	671	2.846,86	1.980,96	865,90
614	Business Systems Organization	458	483	532	1.473	5.597,34	4.881,94	715,40
1938	Economics of Entrepreneurship	549	736	188	1.473	6.269,00	5.971,00	298,00
827	Business Systems Management	105	0	0	105	567,00	567,00	0,00
2441	Information Systems Security Management and Auditing	0	0	0	0	0,00	0,00	0,00
830	E-Learning in Education and Business	210	88	26	324	1.134,00	590,60	543,40
641	Information Sciences	73	0	0	73	591,30	550,80	40,50
4778	Digital Innovations Management	0	0	0	0	0,00	0,00	0,00
TOTAL		7.723	8.203	12.298	28.224	102.332,88	87.918,68	14.414,20

According to the [Collective Agreement for Science and Higher Education](#), the total teaching capacity of all teachers and associates employed at UNIZG FOI is 78,772.50 working hours, while the total annual teaching load of all teachers and associates employed at UNIZG FOI is 87,918.68 working hours. From the above, it is clear that **all teachers' total annual teaching load does not exceed 20% of the total annual teaching load in all study programs.**

The teaching load of individual teachers and associates is shown in Table 4.2. of the Analytic supplement to the self-evaluation report. The above data also show that an **individual teacher's nominal total annual teaching load does not exceed 20% of the total annual teaching load.**

The total annual teaching load of teachers at the UNIZG FOI is in accordance with the standard division of teachers' working time defined in Art. 67 of the [Collective Agreement for Science and Higher Education](#), which stipulates that the total fund of working time at scientific-teaching workplaces consists of an average of 45 % of the working time in which teaching is done, the same amount of working time is intended for science, while institutional contributions and administrative tasks belong to 10 % of the working time. Through participation in teaching, as well as in scientific and professional activities, UNIZG FOI teachers act in their areas of interest. With this, **teachers' workload on average at the UNIZG FOI ensures the appropriate distribution of teaching, scientific**

activities, professional and personal development, and administrative duties, given the circumstances of a high teaching load.

UNIZG FOI takes great care to ensure that **all teachers, including external associates, involved in the teaching process have all the necessary qualifications, work experience and relevant knowledge** necessary to conduct teaching at a high level of quality. The conditions and procedure for the selection and employment of teachers are defined at the national level by the [Act on Higher Education and Scientific Activity](#), at the University level by the [Statute of the University of Zagreb](#) and at the level of the UNIZG FOI by the [Statute of the UNIZG FOI](#), which the UNIZG FOI fully adheres to by ensuring a thorough verification of teachers' qualifications for the courses in which they teach (*[Annex 4.1.1: CVs of UNIZG FOI teachers](#) and *[Annex 4.1.2: Examples of decisions of appointment to specific working positions](#)). In addition, when electing to the scientific-teaching position of assistant professor, UNIZG FOI also applies [Instructional Indicators](#) as a kind of above-standard, which ensures that during the transition of career from an associate position (senior assistant) **to the scientific-teaching position of an assistant professor, UNIZG FOI employs candidates who have achieved appropriate results classified into three categories: scientific work, teaching activities and contribution to the institution/society**. Finally, to transfer knowledge to students from the real business sector, external associates are also included in the teaching based on the [criteria for the selection and evaluation of external associates at the UNIZG FOI](#), which are proposed and revised by the Quality Assurance Committee and in accordance with the needs of the departments (*[Annex 4.1.3: Examples of CVs of external associates](#)). A significant number of external associates who engage UNIZG FOI in teaching have successful business careers ([link for example](#)), project experience ([link for example](#)) and other achievements ([link for example](#)). In addition, UNIZG FOI conducts a student survey to evaluate the work of external associates, and the results of this survey are made available in an anonymized format to the heads of departments of UNIZG FOI (*[Annex 4.1.4: Results of the survey for the evaluation of the work of external associates](#)) as a basis for further improvement of the teaching process in which external associates are involved, all in accordance with the recommendations and action plan based on the results of the survey for the evaluation of teachers' work (*[Annex 4.1.5: POK - Recommendations and action plan based on the results of the survey for the evaluation of teachers' performance](#)).

An important criterion in the introduction of new or revision of existing study programs in relation to the definition of the content and holders of individual courses, which the UNIZG FOI continuously implements, are the professional and research competencies of teachers, published scientific and professional papers, books and textbooks, and experience in practice or scientific and professional projects in the field of courses (e.g. *[Annex 4.1.6: Elaboration on University Graduate Studies in Informatics](#)). Teachers regularly implement new scientific knowledge into the content and performance of individual courses. Some of the more recent examples of introducing new content based on scientific insights gained through research work on faculty projects, as well as the implementation of new teaching methods, include the courses *Machine Learning and Intelligent Systems*, which was delivered for the first time in the winter semester of the academic year 2024/2025, and *Application of Artificial Intelligence in Business*, which was delivered for the first time in the summer semester of the academic year 2023/2024 (both courses were content-wise enhanced within the framework of the [Ai2SEP project](#)). Also, as part of the [iLed](#) and [TRUELA](#) projects, a redesign of the courses was carried out (using [the BDP tool](#), which includes analytics for 10 courses from the position of innovative methods, and for 30 it was ensured that the BDP tools and AI

assistant (LeDA) lead to innovative designs), which were not fully implemented because some changes require changes to the study program. The above are examples of how the **latest trends and knowledge from the labor market are regularly integrated into the teaching process, and the results of conducted scientific research and professional projects**. UNIZG FOI is particularly recognizable for the successful transfer of knowledge from classrooms/halls to business practice, on which we have continuous positive feedback, primarily from our former students and employers ([Annex 4.1.7.: Report on the information collected from employers and former students on topics related to improving the quality of study programs and practices](#)), then the [Economic Council](#) whose members are the leaders of strong and important IT and other companies that employ a significant number of UNIZG FOI graduates, a number of different employers who connect with UNIZG FOI through the [Career Week](#) (dozens of them per year), and finally through the implementation of [student practice](#), within which UNIZG FOI has established cooperation with over 400 companies and institutions where students can perform student practice and start their career path. Finally, UNIZG FOI continuously strengthens the capacities of its teachers through various initiatives, projects, associations, competitions, guidelines, etc. Examples of such activities are involvement in projects related to ESG standards (e.g., holding the [Sustainable Development Day at UNIZG FOI](#)), the adopted [Framework for the Use of Artificial Intelligence Tools in Teaching, Student Papers and Research at UNIZG FOI](#), and support for teachers in obtaining industry certificates in their field of expertise ([Annex 4.1.8: Examples of Industry Certificates](#)). Following the above, it is clear that **all UNIZG FOI teachers, including external associates, are qualified for the courses they deliver, have relevant work experience and integrate the latest trends and knowledge from the labor market into the teaching process**.

4.2. Teacher recruitment, advancement and re-appointment is based on objective and transparent procedures, which include the evaluation of excellence.

Every year, UNIZG FOI prepares a **Human Resources Management Plan with a projection of the required new jobs, a projection of planned promotions and retirements**. The Staff Recruitment and Promotion Plan is **regularly updated once a year** for the following academic year (*[Annex 4.2.1: Human Resources Management Plan for 2023](#), and *[Annex 4.2.2: Human Resources Management Plan for 2024](#)). The planned retirement of the employee and the deadlines for the implementation of promotion or re-election procedures are taken into account in the preparation of the recruitment plan. For personnel changes, it is necessary to provide approvals for employment at the expense of the State Budget (realization in the current academic year) or, in justified cases, for employment at the expense of one's own income. **For example, in the academic year 2023/2024, six new associate positions and two new positions of senior expert associates in the science and higher education system were provided. A total of 30 tenders were conducted, with 12 employees employed (nine of which were teaching and research assistants), while the rest were promoted to higher academic ranks**. In addition, at the end of 2023, UNIZG FOI, in coordination with the University of Zagreb, for the first time drafted a framework five-year human resources management plan, which was adopted during 2024 (*[Annex 4.2.3: Five-year HRM plan](#)), which includes basic personnel movements (promotions to higher academic ranks, retirements, expirations of employment contracts of

associates). The plan consists of 36 new jobs, of which 19 are teaching, intending to reduce the teaching load, establishing new organizational units and reducing the number of employment financed from own revenues. During the development of these plans, the needs of individual departments (teaching hours, overtime, need for external associates, promotions and the need for new employees) were analyzed based on monthly and annual work reports submitted to the Management Board.

The overall process of attracting, applying selection methods, selecting and recruiting, and developing and promoting the teaching staff at UNIZG FOI is based on professional, objective and transparent procedures and criteria that promote excellence. Recruitment procedures for new positions are initiated based on **decisions on announcing a public tender** that UNIZG FOI adopts at the sessions of the Faculty Council, all as regulated by positive and applicable legal regulations specified within the previous standard 4.1.

In addition, the UNIZG FOI applies various internal acts and rules, as a kind of above-standard, intending to promote excellence and employment of the best candidates, and an example are the [Instructional Indicators](#) as an above-standard and a recommendation to members of expert committees and the Faculty Council when making decisions on candidates for the position of assistant professor, and the [Decision of the Faculty Council on the criteria for employment to the associate position of teaching assistant](#). All vacancies for positions at the UNIZG FOI are published in the "Narodne novine" (Official Gazette of the Republic of Croatia), the [website of the UNIZG FOI](#), on the official website for jobs of the European Research Area and on the job advertisements/website of the Employment Service - Regional Office Varaždin (examples: [Annex 4.2.4.: Vacancy for an assistant - 27.11.2024](#) and [Annex 4.2.5.: Vacancy for Assistant Professor - 24.04.2024](#)). To increase the transparency of the competition process and attract the best candidates, UNIZG FOI additionally actively promotes job vacancies with modern infographics through its official social media channels (*[Annex 4.2.6: Examples of advertising job vacancies](#)), as well as through a special [career section](#) on the UNIZG FOI website. In the recruitment process, the UNIZG FOI appoints **an expert committee to implement the competition, which submits a report to the Faculty Council, which decides on the selection of candidates. The UNIZG FOI pays special attention to employees in associate positions (assistants and senior assistants)**, so the [internal act on mentoring and evaluation of associates' work](#) regulates the assignment of an institutional mentor and regular evaluation of the work of employees in associate positions, in accordance with which the members of the Faculty Council have an insight into the annual career development plans of associates (*[Annex 4.2.7.: Associate Career Development Plans](#)) and in the annual reports on the evaluation of the performance of contributors (*[Annex 4.2.8: Annual reports on the evaluation of the performance of contributors](#)).

The procedures of teacher recruitment arise from the goals of the development of the UNIZG FOI and are aligned with positive legal regulations and internal regulations, whereby the conditions and procedure for the selection and employment of teachers are defined at the national level by the [Act on Higher Education and Scientific Activity](#), at the level of the University by the [Statute of the University of Zagreb](#) and at the level of the UNIZG FOI by the [Statute of the UNIZG FOI](#). The procedure of selection or re-election to scientific-teaching, scientific and teaching positions is initiated by the adoption of a decision of the Faculty Council on the appointment of an expert committee and is carried out in accordance with the provisions of the aforementioned normative acts and general acts. Until the entry into force of the National University, Scientific and Artistic

Criteria, other criteria and regulations are valid: the [Rulebook on the Conditions for Election to Scientific Titles](#) and the related Rulebook on Amendments to that Rulebook (NN 72/2019, NN 21/2021 and NN 111/2022), the [Decision on the Form and Manner of Conducting the Inaugural Lecture for Election to Scientific-Teaching Titles, Art-Teaching and Teaching Titles](#), [Decision on the necessary conditions for the evaluation of teaching and professional activity in the procedure of election to teaching titles](#) and the corresponding [Decision](#) on amendments to that Decision, [Decision on the necessary conditions for the evaluation of teaching and professional activity in the procedure of election to scientific-teaching titles](#) and the corresponding [Decision](#) on the amendment of that Decision, and [Decision on the minimum conditions of work obligations for re-election to scientific, scientific-teaching, artistic-teaching, teaching and professional positions and on the form of the report of the expert committee on the work of employees in the re-election procedure](#).

In the selection, appointment and evaluation of teachers at UNIZG FOI, their past activities (teaching activity, research activity, student feedback, etc.) are taken into consideration. Expert committees in the implementation of the procedures for employment, promotion and re-election of teachers, on the basis of the submitted documentation of the applicants, **verify the fulfillment of the conditions in the field of scientific and teaching work.** One of the necessary criteria for the selection and promotion of teachers is a positive evaluation of the student survey, which takes into account students' feedback on the work and activities of teachers. An example of these elements in the selection and evaluation of teachers is available in **the reports of the expert committee** (*[Annex 4.2.9: Selection to the position of assistant professor](#)). In the case of employment for vacant positions of lecturers and assistant professors, as well as in the case of all promotions and re-elections to higher teaching and scientific-teaching positions, the reports of expert committees are sent **to the competent expert body at the national level, i.e., to the competent parent committee that verifies the fulfillment of the conditions** for elections and re-election to teaching and scientific-teaching positions. UNIZG FOI, based on the decision of the parent committee, selects and re-elects teachers.

UNIZG FOI has appropriate methods of selecting the best candidates for each position and, in addition to the prescribed national minimum requirements, has prescribed competitive criteria for selecting excellence. In the process of selecting associates, the aforementioned [Decision of the Faculty Council on the criteria for employment to the associate position of assistant](#) is applied, which defines **the criteria for evaluating excellence as an above-standard applied to the UNIZG FOI**, such as the lower threshold of success in the study, the lowest average grade in the study, significant individual results, etc. In the selection process of hiring assistants, psychological testing of candidates is also carried out. **When hiring for a scientific-teaching or teaching position**, an inaugural lecture is conducted, which should be positively evaluated by the expert committee. Also, in the selection of candidates for the scientific-teaching position of assistant professor, UNIZG FOI, in addition to the nationally prescribed minimum requirements, adopted the previously mentioned competitive [Instructional Indicators](#) as a superior standard and a recommendation to the members of expert committees and the Faculty Council when making decisions about candidates.

The procedures for the advancement of teachers to higher ranks are based on the evaluation and rewarding of excellence and take into account important achievements such as the international affirmation of research work, the number and category of published scientific papers, mentoring of final and graduate theses, participation in projects, patents and authorship of textbooks. UNIZG FOI awards [annual awards and recognitions](#) for special achievements in scientific research, teaching,

the best scientific paper, the best young scientist, and for contribution to society and volunteering, in accordance with the [Regulations on awards and honours](#). The elements of evaluation are, for example, the number and category of published papers, citations, project management, patents, teachers' rating on a student survey, the number and types of mentorship, the establishment of new laboratories, the introduction of new courses, the authorship of textbooks and books, and the number of scientific and professional papers with graduates who were mentored. UNIZG FOI encourages the involvement of teachers in the work of the [Association of University Teachers and Other Scientists in Zagreb](#), which also [recognizes and rewards](#) the excellence of UNIZG FOI teachers.

Indicators of excellence include scientific, teaching, and professional activities and contributions to the development of UNIZG FOI as a higher education institution. When selecting and re-electing teachers, expert committees check the indicators of excellence through the criteria of teaching contribution, scientific and professional contribution and institutional contribution, all in accordance with positive legal regulations. The teacher must meet the minimum requirements in each category, and the committee reports to the Faculty Council. Examples of the entire selection process, including the final reports of the expert panels, are available in *[Annex 4.2.10](#). and *[Annex 4.2.11](#). (examples for teaching assistants), *[Annex 4.2.12](#). (example for an assistant professor), *[Annex 4.2.13](#). (example for associate professor) and *[Annex 4.2.14](#). (example of re-election). UNIZG FOI additionally encourages the excellence of its teachers through incentives for special achievements, primarily in terms of scientific excellence and recognition at the international level, all according to the internal [Regulations on the distribution of own revenues and revenues for special purposes](#) which is aligned with the priorities and [Development Strategy of UNIZG FOI](#).

Additional criteria for promoting teachers to higher titles reflect the strategic goals of the UNIZG FOI. The [UNIZG FOI Development Strategy](#) defines specific strategic goals reflected in additional criteria for the promotion of teachers to higher positions, which confirms the compliance of the criteria with the mission, vision and strategic commitments of UNIZG FOI. **In the field of teaching and students**, UNIZG FOI emphasizes the development of interdisciplinarity in teaching and learning (Goal 1), through the launch of interdisciplinary initiatives and cooperation with the industry. Also, additional criteria evaluate innovations in learning and teaching processes (Goal 2), such as the implementation of learning analytics and e-learning, as well as the continuous improvement of study programmes using new technologies (Goal 3). At the same time, importance is given to the continuous improvement of digital and teaching competencies of employees (Goal 4), through education and professional development, while the internationalization of teaching and the mobility of teachers (Goal 5) is further encouraged through the criteria for their advancement. **In the field of science and research**, the strategic goals reflected in the criteria for teacher advancement include increasing the visibility and recognition of UNIZG FOI through cooperation on scientific projects (Goal 1). Furthermore, the redefinition of the scientific workload in order to increase international mobility and take advantage of opportunities such as the sabbatical year for research activities (Goal 2), and the organization of scientific work through a project approach with an emphasis on interdisciplinary and international projects (Goal 3), further strengthen the connection of the criteria for advancement with the strategic goals of the UNIZG FOI. **In the field of innovations and social contribution**, the promotion of industry-focused doctorates as a form of knowledge transfer between academia and the economy (Goal 1) is particularly highlighted. Furthermore, UNIZG FOI encourages new forms of cooperation that promote innovation and social contribution (Goal 2),

while strategic work is done on the branding of UNIZG FOI as an innovation center for selected strategic areas, including entrepreneurial initiatives of teachers (Goal 3). At the same time, additional criteria support the development and implementation of sustainability frameworks according to ESG standards through mentoring student projects and the development of specialized knowledge of employees (Goal 4). Finally, identifying areas of excellence for each teacher with a systematic approach to their professional development (Goal 5) is also part of the criteria that guide teachers toward achieving the strategic vision of UNIZG FOI. **With such clearly defined goals, which are reflected through additional criteria for selection to higher teaching titles, UNIZG FOI systematically ensures the development of teaching staff in the direction of achieving the strategic goals defined in the [UNIZG FOI Development Strategy](#).**

4.3. The higher education institution ensures support to teachers in their professional development.

Continuous professional development of teachers at UNIZG FOI is crucial for efficient and quality work in teaching, science and profession. At the end of 2023, the previously mentioned five-year framework plan for human resources management was developed (*[Annex 4.2.3: Five-year HRM plan](#)), which includes basic personnel movements (promotions, retirements, expirations of employment contracts of associates and new developmental positions). In addition, the UNIZG FOI annually plans and monitors the development of teachers and updates **the teacher development plan with defined performance indicators** that are prescribed by legal acts related to the conditions of promotion. The teacher development plan is also supported by the internal system [FOI Kadrovska](#), through which, based on the data on the expiration of the deadlines for (re)election to a particular position, e-mail reminders are automatically generated and sent to teachers to submit a request for appointment to a higher position (*[Annex 4.3.1.: Reminder for submitting an application for appointment to a higher position](#)). All teachers make an annual work plan in science, while teaching associates (assistants and senior assistants) for each academic year develop a detailed career development plan in agreement and coordination with the institutional mentor (*[Annex 4.2.7: Career Development Plans for Associates](#)).

The evaluation of the quality of teaching is regularly carried out using several mechanisms on the basis of which the necessary resources for the improvement of competencies for work are planned and provided, namely by regular institutional surveys of students on the work of teachers (*[Annex 4.3.2: Questionnaire for the evaluation of teachers of the University of Zagreb](#) and *[Annex 4.3.3: Survey plan for the Teacher Assessment Survey of the University of Zagreb](#)), then by internal evaluation at the level of individual courses through the [FOI Survey system](#) (*[Annex 4.3.4.: Example of an internal survey for students](#)), and through exit surveys (students who have completed their studies) for the evaluation of studies at the level of the [University of Zagreb](#). The results of the institutional evaluation are available to associates and course holders, the Quality Assurance Committee and the Management Board of UNIZG FOI at the end of the semester. The results of the evaluation are used during the election to a higher position or during re-election, in accordance with the defined [Roadmap for the issuance of a certificate of institutional research on the quality of](#)

[teaching work based on the results of the Survey for the Evaluation of Teachers' Work](#), which results in the issuance of a certificate of a positive opinion on the manner of teaching for an individual teacher (*[Annex 4.3.5: Example of a Certificate of a Positive Opinion on the Manner of Teaching for an Individual Teacher](#)), when rewarding teachers based on the [Rulebook on Awards and Honours](#), and for planning and taking measures to improve the quality of teaching that the Quality Assurance Committee gives in the form of [Recommendations and Action Plan based on the results of the Teacher Assessment Survey](#). The results of the evaluation through the [UNIZG FOI student survey system](#) are also available to the heads of departments, and in accordance with the instructions of the Quality Assurance Committee, these results are analyzed at regular meetings of the departments. Consequently, it is evident that by continuously monitoring the effectiveness of planned and implemented measures, **the UNIZG FOI encourages improvements of teachers' competencies based on gathered and analyzed feedback on the effectiveness and efficiency of their work.** Awarding teachers is carried out publicly during the [celebration of Faculty Day](#), in accordance with the [Regulations on awards and honours](#), but also continuously throughout the academic year on the basis of excellent achievements in scientific research, in accordance with the procedure supported through the internal FOI Forms system (*[Annex 4.3.6: UNIZG FOI Forms - Incentive Application Form for Published Scientific Papers](#)), all in accordance with the [Regulations on the distribution of own revenues and revenues for special purposes](#).

The evaluation of modernity and quality of teaching is carried out continuously in cooperation with employers (e.g., the [Study4Career project](#) and other projects implemented in cooperation with UNIZG FOI's [Centre for Student Support and Career Development](#) and partner business entities) through thematic sessions with partners from the industry ([Economic Council](#)), interactions with [UNIZG FOI alumni](#) (Example: [round table "Developing Skills for the Future: Advice from FOIs for the Era to Come"](#)) and through other activities organized by UNIZG FOI. The evaluation of teachers' scientific, teaching and professional work is carried out using a mandatory regular five-year evaluation when elected to higher positions or for re-election based on **clearly defined promotion criteria**, as determined by regulations at the national level for the scientific and scientific-teaching component and available to all teachers, which has already been explained in more detail within the framework of standard 4.2. As previously stated, the UNIZG FOI also applies its additional [Instructive Indicators](#) for screening excellence in the employment of assistant professors, as well as additional criteria from the [Decision on the Criteria for Employment to the Associate Position of Assistant](#), while the [Criteria for the Selection and Evaluation of External Associates at the UNIZG FOI](#) are taken into account when hiring external associates. The evaluation of the scientific, teaching and professional work of teachers is carried out **transparently and consistently** in such a way that expert committees prepare reports that are first considered by the Faculty Council, which are then referred to the national parent committees for decision-making, which is explained in more detail in standard 4.2. During the academic year 2023/2024, the Faculty Council has adopted a new [Rulebook](#) that regulates the regular evaluation of the work of employees in associate positions (assistants and senior assistants), and the annual reports on the evaluation of the performance of associates for the two previous academic years are available in *[Annex 4.3.7.: Annual report on the evaluation of the performance of associates for the academic year 2022/2023](#) and *[Annex 4.3.8: Annual report on the evaluation of the performance of associates for the academic year 2023/2024](#). The Committee for Quality Assurance of the UNIZG FOI has also made recommendations related to the explanation of the fulfillment of the requirements of the Rectors' Conference during the election to

scientific-teaching titles at the UNIZG FOI (*[Annex 4.3.9: Recommendations of the POK related to the explanation of the fulfillment of the requirements of the Rectors' Council during the election to scientific-teaching titles](#)).

Teachers' professional development is planned and implemented through the involvement of teachers in project activities, participation in scientific and professional conferences and workshops with the aim of additional encouragement of employees for scientific training and an increased level of mobility (an example is the participation and organization of [interdepartmental conferences](#) that result, for example, in joint research and [publication of papers](#) or [scientific monographs and/or textbooks](#)), study visits to foreign institutions (e.g., [Annex 4.3.11.: Example of a study visit - Materials Science and Technology, Trnava, Slovakia](#)), online education programmes ([Annex 4.3.12.: Examples of certificates on online education programmes](#)), and various other forms of education ([Annex 4.3.13: Certificates of participation in NEMO and SMART SOC](#) trainings). **UNIZG FOI continuously provides support to teachers in their professional and career development** by providing computer equipment and working conditions (*[Annex 4.3.14: Decision on financing the purchase of equipment](#)), financial resources for co-financing scientific activities to employees in scientific-teaching, teaching and associate positions (*[Annex 4.3.15: Decision on co-financing scientific activities](#)) and internal knowledge transfer and best practice activities. UNIZG FOI teachers also pursue their research interests through [research laboratories](#) with additional financial resources generated through project activities that can be used for professional development per academic research freedoms. On an annual basis, teachers in scientific and teaching positions individually (in accordance with academic freedom of research) plan teaching, scientific and professional development financed from all available sources, and teachers in associate positions of assistant and senior assistant additionally submit a career development plan coordinated with an institutional mentor on an annual basis, which is formalized through the previously mentioned annual career development plans of associates (*[Annex 4.2.7: Associate Career Development Plan](#)).

UNIZG FOI promotes and provides opportunities for improving teachers' competencies at the institutional level and regularly organizes lectures and workshops to which it invites all teachers, especially associates (assistants and senior assistants). Hereby, UNIZG FOI provides support for formal and informal ways of improving competencies focused on the following sets of competencies:

1. **Monitoring current and latest trends in the research field** to transfer knowledge and best practices within the organization, which is significantly organized within the internal UNIZG FOI project [Time 4 Science](#), and some of the examples are:
 - a. Workshop "[Access and use of resources Supek and Vrančić](#)"
 - b. Workshop "[Foundations for the Development of a Successful Academic Career](#)"
 - c. Lecture "[Unveiling scientific connections through editorial board interlocking: a graph analysis](#)"
 - d. Lecture "[Trends in Social Entrepreneurship Research](#)"
 - e. Lecture "[Tips and tricks of scientific research, writing and publication: The 4 Cs model](#)"
2. **Improving teachers' competencies** at the institutional level, [covering topics](#) such as learning outcomes and learning design, problem-based and project-based learning, flipped classroom and inquiry-based learning, learning in the laboratory, work-based learning with employers, and lectures with discussion. UNIZG FOI periodically organizes [pedagogical and psychological](#)

[workshops](#) for newly employed associates, workshops related to [the application of didactic knowledge in teaching practice](#) and other topics that are directly related to the improvement of teachers' competencies (e.g. *[Annex 4.3.16: Certificate of participation in a pedagogical and psychological workshop](#)). Some other examples from this group of competency improvement are:

- a. Learning Design Conference "[How to Design Learning in a Hybrid Environment? - creative, innovative and entrepreneurial teacher](#)"
 - b. Lecture "[Preparing Future Generations for Digital Disruption: Developing Skills for the 21st Century](#)"
 - c. Lecture "[The Impact of Students' Teaching and Extracurricular Activities on Quality and Life Satisfaction](#)"
 - d. Workshop "[From Idea to Entrepreneurship](#)"
3. **Development of teachers' digital skills**, where topics are selected in accordance with the needs of the accelerated development of new technologies. A [series of workshops and lectures](#) was recently organized on the topics of integrating generative artificial intelligence tools into scientific research, the basics of cyber hygiene and tools based on artificial intelligence in the context of higher education. Examples are e-courses on the [FOI Learning Platform](#) developed as part of the [eDesk](#), [RAPIDE](#) and [iLED](#) projects, which are attended by teachers of other institutions and countries in addition to UNIZG FOI teachers. For example, the e-course "Learning Design in the AI-Era" is currently being implemented, which includes 250 participants, of which about 20 are from UNIZG FOI, while the rest are from other faculties from Croatia, and mostly from other universities in Europe (especially Oulu from Finland, Goethe Frankfurt, Germany, Open University London, UK). Other examples of such lectures and workshops are:
- a. Workshop "[Laboratory Based Learning and Gamification - Game Based Learning](#)"
 - b. Workshop "[Cyber Security Awareness](#)"
 - c. Lecture "[Challenges and Solutions in the Automotive Industry in the Field of Computer Security](#)"
 - d. Seminar "[AI Lab Seminar: Limited Data and Fraud](#)"

In addition, UNIZG FOI has been approving its employees for years to co-finance foreign language learning in a foreign language school of their choice (*[Annex 4.3.17: Decision on co-financing foreign language learning](#)).

For training and additional education and work on new scientific research projects, teachers can also use the free study year (Sabbatical) and, depending on the plan of activities during the free study year, teachers can propose whether and to what extent they will retain part of the usual activities in teaching and science, whether and to what extent they will spend the free study year abroad, whether and to what extent it will use additional funding and other elements of the burden (*[Annex 4.3.18: Examples of applications for the use of the free study year - Sabbatical](#)). The decision on the consent to the use of the free study year, at the proposal of the teacher's home department, is made by the Faculty Council, and the teacher submits a report on the implementation of the activity plan to the Faculty Council at the end of the free study year (*[Annex 4.3.19: Examples of reports on activities carried out during the free study year - Sabbatical](#)).

UNIZG FOI encourages improvements of teachers' competencies based on the gathered and analyzed feedback on the conducted evaluations of the effectiveness and efficiency of their work. For example, in 2024, the Management Board of UNIZG FOI conducted advisory individual interviews with all employees in associate positions (assistants and senior assistants) to collect feedback and needs and empower young associates in their academic and professional development (*[Annex 4.3.20: Invitation to associates to select dates for individual interviews](#)). An important component of the academic and professional development of associates is their choice of doctoral studies at UNIZG FOI or at some other educational institution in the Republic of Croatia or abroad, in which they are supported in every form by other colleagues, institutional supervisor and the Management Board.

UNIZG FOI encourages teachers to participate in international mobility programs, collaborative networks and supports teachers' networking with national and foreign scientific institutions by encouraging inclusion activities in programs aimed at networking. Since 2007, UNIZG FOI has been continuously organizing the [Days of International Cooperation - FOI International Days](#), first as a one-day event, and since 2018 as a three-day event, with the aim of networking and exchanging experiences and ideas related to international cooperation and internationalization, as well as promoting its international activities and partnerships with foreign universities. UNIZG FOI regularly publishes [calls for academic mobility on its website](#), and in particular promotes mobility opportunities and programs for younger employees in associate positions (*[Annex 4.3.21: Presentation on the possibilities for international mobility of doctoral students](#)). In the academic year 2022/2023, UNIZG FOI concluded a total of six new Erasmus+ agreements; in the academic year 2023/2024, four new Erasmus+ agreements, and in the academic year 2024/2025, additional four Erasmus+ agreements, which currently includes a network of over 30 partner institutions with over 30 teacher mobilities per year. Also, [UNIZG FOI is a partner institution in the Central European Exchange Program for University Studies \(CEEPUS\)](#). In addition to ERASMUS and CEEPUS programs, UNIZG FOI was a partner institution in the project "Three Seasons of Academic Entrepreneurship Exchange" (*[Annex 4.3.22.: Information about the DAAD project 3SEE - Three Seasons of Academic Entrepreneurship Exchange](#)) and is currently a partner in the project "Creative Software Engineering" (*[Annex 4.3.23.: Information about the DAAD project CSE - Creative Software Engineering](#)), funded by the DAAD (Deutscher Akademischer Austauschdienst). UNIZG FOI is also very active and successful in the implementation of short mobility programs within the Erasmus+ program. So far, UNIZG FOI has participated in 11 combined intensive programs (so-called BIPs), while it has coordinated three, and a total of 13 UNIZG FOI teachers have participated in BIPs. Moreover, **the UNIZG FOI has been recognized within the University of Zagreb, but also at the national level, as the best practice in the organization and implementation of BIPs** (*[Annex 4.3.24.: E-mail from the University of Zagreb on the presentation on the experiences of the UNIZG FOI regarding BIP programs](#)), as a result of which **two workshops were held at the national level organized by the Agency for Mobility and EU Programs (AMPEU), one workshop at the level of the University of Zagreb and one workshop for the University of Osijek, and the workshops were attended by between 30 and 40 participants** (*[Annex 4.3.25.: Presentation of the UNIZG FOI Vice-Dean for Science, Projects and International Cooperation on BIP programs](#)). Furthermore, in September 2024, UNIZG FOI held [BIP4BIPs](#) for teaching and non-teaching staff, which 30 participants from 11 countries attended.

The participation of teachers in international and national competitive projects in establishing partnerships with various European universities, gaining project and research experience, and

creating contributions to science and innovation are extremely important components of employees' scientific research work. **UNIZG FOI actively encourages and supports the participation of teachers in international and national competitive projects** from planning and selecting relevant calls for project applications to project applications and project implementation. An important role in this is played by the [Centre for International Projects](#) of the UNIZG FOI, whose main task is to provide professional and administrative-technical assistance to researchers and teachers through information (example in [*Annex 4.3.26: Bulletin of the UNIZG FOI Center for International Projects - inFOImator](#)) and the transfer of knowledge about methodologies and lines of project financing, providing advisory support in the field of project management, finance, law and other implementation options and restrictions, as well as by providing services in the form of online services (e.g. maintaining a specialised website [projekti.hr](#)). In addition to the support of the [Centre for International Projects](#), other forms of information and education are organized at UNIZG FOI internally or in cooperation with external experts, e.g., [Horizon Europe Information Day](#) was held in cooperation with the Agency for Mobility and EU Programmes (AMPEU) and the Ministry of Science and Education. Also, teachers participate in events outside the UNIZG FOI that are relevant for the application, implementation or dissemination of project results. **The system of intangible motivation** at the UNIZG FOI includes regular highlighting of the achieved project results through several channels, from the meetings of the Faculty Council ([*Annex 4.3.27: Summary list of project applications for the Faculty Council session](#)), print and digital media ([link to the example of the final conference of the HELA project](#)), through official websites to social platforms, while **material remuneration of teachers is carried out in accordance with the provisions** of the [Regulations on the distribution of own revenues and revenues for special purposes](#).

The support that UNIZG FOI provides to teachers in their professional and career development results in significant scientific and teaching results presented in Table 4.3. of the Analytic supplement to the self-evaluation report.

4.4. The premises, equipment and the complete infrastructure is suitable for teaching, scientific/artistic and professional activities.

UNIZG FOI plans and improves the infrastructure development in line with the strategic goals set out in the [Development Strategy of UNIZG FOI](#). Consequently, UNIZG FOI has adequate space, equipment and infrastructure to realize its activities. The headquarters of the UNIZG FOI is in the building of the former monastery (FOI 1) built in the 18th century, which was declared a cultural asset by the decision of the Directorate for the Protection of Cultural Heritage of the Ministry of Culture ([*Annex 4.4.1.: Ministry of Culture - Decision on the building FOI 1 as a cultural property](#)) and is located in the center of the city of Varaždin at Pavlinska 2 and consists of one larger part, L shape and a smaller annex to the main building in Habelićeva Street. The second building of UNIZG FOI (FOI 2) is the former building of the Varaždin Music School and is located at Prilaz Fausta Vrančića 3 in Varaždin. The construction of a new, larger and modernly equipped building is planned at the location of the FOI 2 building, which will meet the needs of UNIZG FOI, but in the meantime, funds are being invested in this building for the purpose of corrective maintenance so that the building remains suitable for teaching activities even in its existing dimensions, so for example, the

dilapidated roof of the boiler room was recently completely replaced. Buildings FOI 1 and FOI 2 are owned by UNIZG FOI. UNIZG FOI also performs its activities in the [newly renovated historic building Vila Oršić](#) (FOI 3), which is also located in the center of the City of Varaždin at the address Petra Preradovića 15. Villa Oršić is owned by the City of Varaždin, but on the basis of the contract on the right to build from October 1, 2020 (*[Annex 4.4.2.: Contract on the right to build - Villa Oršić](#)), it was ceded to UNIZG FOI for use for 30 years. Villa Oršić was renovated with the support of funds from the state budget, the City of Varaždin and Varaždin County, and to a significant extent with the support of UNIZG FOI's partner companies from the ICT sector. In addition, part of the teaching (for the purpose of conducting professional undergraduate studies) is carried out by UNIZG FOI in external centers in Zagreb (in the rented premises of the University of Zagreb Faculty of Forestry and Wood Technology) and in Sisak (in the rented premises of the Sisak Grammar School). All these buildings are equipped with modern technological solutions that meet the teaching and scientific needs of UNIZG FOI.

At the FOI 1 location, classes are held in ten lecture halls and seminar classes (shown in Table 4.3. UNIZG FOI lecture halls) and in five computer laboratories for performing laboratory exercises (shown in Table 4.4. UNIZG FOI computer laboratories) and when creating the class schedule, the accessibility of the premises to students who need access adjustment is taken into account. In the attic of the building, there is a faculty hall of 91.8 m² with 80 seats. At the location of FOI 1, there are 37 teachers' offices of 385 m², the dean's office of 40 m², the accounting and secretariat, and the archive space. On the ground floor of the building, there are offices for postgraduate studies, undergraduate and graduate studies, an archive space, a script room, rooms intended for technical staff and a cloakroom. In the basement of the FOI 1 building, there is a library and reading room with a total area of 150 m² with 23 workstations for students, a catering space leased of 20 m² and a student "Chill zone" of 112 m², a space for student associations of 46 m² and a boiler room. In addition, on the ground floor of the annex of the main building, which administratively belongs to Habdelićeva Street, there are computer laboratories and hall 12 with an area of 30 m² intended for a laboratory for learning analytics, a space for technical assistance for teaching - CIP of 28 m², a storage room for electronic waste and a server room.

At the location of FOI 2, 400 m away from the main building of FOI 1, there are ten halls for lectures and seminar classes (shown in Table 4.3. UNIZG FOI lecture halls). Laboratory exercises at the FOI 2 site are held in three computer laboratories (shown in Table 4.4. UNIZG FOI computer laboratories). The rest of the space consists of a 36 m² student office space, an archive space, a library area of 30 m², a lobby/auditorium area for students with a balcony of 138 m², a space for visiting teachers of 30 m², eight cabinets on the second floor of the building, a total area of 85 m² and a biometrics laboratory of 30 m².

At the location of FOI 3 (Villa Oršić), which is 300 m away from the main building of FOI 1 and which is located between the FOI 1 and FOI 2 buildings, classes are held in two lecture halls and seminar classes (shown in Table 4.3. UNIZG FOI lecture halls) and in three computer laboratories for performing laboratory exercises (shown in Table 4.4. UNIZG FOI computer laboratories). The building also houses five teachers' offices with a total area of 42 m², two spaces intended for teaching with a total area of 43 m², an IoT laboratory and a kitchenette. For the thorough renovation of this historic building, which lasted two years, on May 24, 2023, an occupancy permit was obtained (*[Annex 4.4.3: Use permit for Villa Oršić - FOI 3](#)), which expanded the spatial capacities of UNIZG FOI, and [Villa Oršić](#) became a new incubator for the development of research potentials and the implementation of teaching and extracurricular activities of students and scientists at UNIZG FOI.

For the purpose of teaching in external teaching centers at the undergraduate professional study of ITDP, UNIZG FOI has leased premises in Zagreb and Sisak. **In Zagreb**, UNIZG FOI has leased part of the space in the building of the University of Zagreb Faculty of Forestry and Wood Technology, 83 kilometers away from the main building of FOI 1, where classes are held in two lecture halls and seminar classes and in two computer laboratories for laboratory exercises. **In Sisak**, UNIZG FOI has leased part of the space in the building of the Sisak Grammar School, 134 kilometers away from the main building of FOI 1, where classes are held in two lecture halls and seminar classes and in one computer laboratory for performing laboratory exercises.

In total, at all three locations of UNIZG FOI in Varaždin (FOI 1, FOI 2 and FOI 3), classes are held in twenty-two lecture and seminar halls with a total area of 1777.16 m² and ten computer laboratories for computer exercises with a total area of 530.57 m², worksites with a total area of 233.27 m², while the area of teachers' offices at all three locations is 512 m². Other premises intended for teaching at all three locations cover a total area of 38 m². At leased locations in Zagreb and Sisak, UNIZG FOI holds classes in a total of four lecture halls and seminar classes with a total area of 302 m² and in three computer laboratories for computer exercises with a total area of 106 m². The tables below (4.2.-4.5.) show more detailed data on the buildings, lecture halls, computer laboratories and teachers' offices of the UNIZG FOI.

Table 4.2. UNIZG FOI buildings

Building Identification	Location of the building	Year of construction	The last year of reconstruction	Net usable area in m ²
Registered ownership, FOI 1	Pavlinka 2, Varaždin (FOI 1)	1783	2014 - Extension of the elevator	3,000
Registered ownership, FOI 1	Jurja Habdelića 5, Varaždin (FOI 1)	1975	2003	650
Registered ownership, FOI 2	Prilaz Fausta Vrančića 3, Varaždin (FOI 2)	1982	-	1,600
Right to build, owner City of Varaždin, FOI 3	Vila Oršić - Petra Preradovića 15, Varaždin (FOI 3)	1860	2023	560
Lease of space	University of Zagreb Faculty of Forestry and Wood Technology (Svetošimunska cesta 23, Zagreb)	1898	-	254
Lease of space	Sisak Grammar School (Trg hrvatskih branitelja 1, Sisak)	1930	2023	154
TOTAL				6,218

Table 4.3. UNIZG FOI lecture halls

Location of the building	Ordinal number or designation of lecture halls	Area in m2	Number of seats
Pavlinka 2, Varaždin (FOI 1)	1, 2, 3, 6, 7, 8, 9, 10, 11, Faculty Council Hall	703.33	772
Jurja Habdelića 5, Varaždin (FOI 1)	-	-	-
Prilaz Fausta Vrančića 3, Varaždin (FOI 2)	1, 2, 3, 4, 7, 8, 9, 10, 11, Council Hall	935.83	676
Vila Oršić - Varaždin, Petra Preradovića 15 (FOI 3)	1, 5	138	48
University of Zagreb Faculty of Forestry and Wood Technology (Svetošimunska cesta 23, Zagreb)	024, 321	188	120
Sisak Gymnasium (Trg hrvatskih branitelja 1, Sisak)	Assembly hall, 22	114	64
TOTAL		2,079.16	1,680

Table 4.4. UNIZG FOI computer laboratories

Location of the building	Ordinal number or designation of the laboratory	Area in m2	Number of computer (and seats)
Pavlinka 2, Varaždin (FOI 1)	4, 5	91	32
Jurja Habdelića 5, Varaždin (FOI 1)	13, 14, 15	164.57	51
Prilaz Fausta Vrančića 3, Varaždin (FOI 2)	5, 6	120	42
Vila Oršić - Varaždin, Petra Preradovića 15 (FOI 3)	3, 4, 7	155	54
University of Zagreb Faculty of Forestry and Wood Technology (Svetošimunska cesta 23, Zagreb)	321, 248	66	41
Sisak Gymnasium (Trg hrvatskih branitelja 1, Sisak)	22	40	22
TOTAL		636.57	242

Table 4.5. UNIZG FOI teachers' cabinets

Location of the building	Cabinet number	Area in m2
Pavlinska 2, Varaždin (FOI 1)	24	255
Jurja Habdelića 5, Varaždin (FOI 1)	13	130
Prilaz Fausta Vrančića 3, Varaždin (FOI 2)	8	85
Vila Oršić - Varaždin, Petra Preradovića 15 (FOI 3)	5	42
University of Zagreb Faculty of Forestry and Wood Technology (Svetošimunska cesta 23, Zagreb)	UNIZG FOI does not use cabinets	/
Sisak Gymnasium (Trg hrvatskih branitelja 1, Sisak)	UNIZG FOI does not use cabinets	/
TOTAL		512

As seen from the data in the above tables, **UNIZG FOI has a total of 2987 m2 of area intended for teaching, which amounts to 1.34 m2 per student** (visible in Table 1c of the Analytic supplement to the self-evaluation report), so that **UNIZG FOI meets the minimum 1 m2 of space per student**, as prescribed by this standard.

Following all of the above, it is clear that **UNIZG FOI has sufficient spatial capacities - lecture halls, computer laboratories, a library, teachers' offices, offices intended for the work of professional services and spaces for students**. However, although UNIZG FOI meets all the formal requirements prescribed by this standard, the constant and still unresolved ambition is the construction of a new FOI 2 building, which would further and significantly facilitate the operation and realization of teaching and research activities, especially in terms of development. By putting the FOI 3 building (Villa Oršić) into operation, additional space has been created, and during 2025, the construction of the Regional Center for Pre-Incubation in Smart Industry will begin as a new building (annex to the FOI 3 building) in which the development of students' entrepreneurial ideas will be carried out with the support of business partners. UNIZG FOI will comprehensively improve its spatial needs in the long term by building a new modern FOI 2 building, which will further contribute to the quality of the implementation of new development projects and teaching in terms of greater flexibility of space. The construction of the new FOI 2 building would complete the project of the University Urban Campus, and with the strengthening of educational and scientific infrastructure and through the improvement of spatial conditions for work in the field of information and related sciences, it would enable the improvement of scientific research and educational activities in this part of Croatia, better cooperation with the economy, scientific institutions and better integration into the European research and educational area. Despite exceptional efforts to realize this project, which ultimately resulted in obtaining a building permit, it has not been realized to date. In the meantime, the project has been revised, and after receiving the project revision document ([*Annex 4.4.4.: Revised project of the FOI 2 building - August 2024.](#)), several meetings were held with representatives of the University of Zagreb, representatives of the Ministry of Science, Education and Youth, the Prefect of

Varaždin County and the Minister of Justice, Public Administration and Digital Transformation (an example is [*Annex 4.4.5: Letter to the Ministry of Science, Education and Youth regarding the revision of the FOI 2 project](#)). We have great support from all the mentioned institutions and we hope that the revised project will soon be realized. The new building is of utmost importance for ensuring the future sustainability and strategy of UNIZG FOI.

All classrooms of the UNIZG FOI are equipped with seats for students, a lectern and modern equipment necessary to present instructional content. Computer laboratories are equipped with adequate research equipment for conducting research and teaching practical classes. Offices of teaching staff and offices of employees in professional services are equipped with all the necessary office equipment for the work of teachers and professional services.

The strategic goals of UNIZG FOI are defined by the [UNIZG FOI Development Strategy](#) on a five-year level. To achieve strategic goals, UNIZG FOI regularly, on an annual basis, equips computer laboratories with modern teaching aids and equipment, given the implementation of most study courses in the field of information sciences and the need for a larger number of modern computer equipment. Many partner companies recognize UNIZG FOI for its commitment to continuous equipment improvement. In the interest of successful cooperation, based on joint activities, part of the equipment is procured through sponsorships. Thus, for example, during the academic years 2022/2023 and 2023/2024, UNIZG FOI realized sponsorships for the arrangement of two computer laboratories and the purchase of computer equipment ([*Annex 4.4.6: Sponsorship Agreement with OTP banka](#) and [*Annex 4.4.7: Sponsorship Agreement with Hrvatska poštanska banka](#)), in the total amount of EUR 25,000.00 (excluding VAT). Computer laboratories are equipped with computers with 16-25 workstations with all the necessary computer programs (examples of major computer programs are Dev-Cpp, Python, Postgresql, Node, Gimp, DaVinci Resolve, R, R studio, VSCode, Virtual Box, MS Office 2021, Appraisal Assistant, Wireshark, Scribus, Veyon, Protege, Prolog editor, Neo4j, Npp, QT opensource, SEB, StarUML, VLC, Winrar, FOxitPDFReader, Embracadero Dev++, SAS JMP, Putty, Android studio, JFLAP, Rapidminer studio, ZIS), whereby the [Technical Teaching Assistance Unit](#) regularly updates computer programs and licenses. UNIZG FOI continuously follows technological development because the interdisciplinary field in which it operates is rapidly evolving, so it is important for UNIZG FOI to keep up with the latest tools, computer programs and equipment. UNIZG FOI donates the replaced equipment (which is in a high degree of further usability) to other institutions that express the need for it (e.g., primary schools). In this way, UNIZG FOI makes its **contribution to the sustainable reuse of equipment**. Students and teachers work with technologies used in industry to acquire relevant knowledge and skills that they will need in the labor market, which UNIZG FOI always strives to provide them. The specifications of the laboratory exercise halls are listed in Table 4.6.

Table 4.6. List of computer equipment by computer laboratories for performing exercises on computers

Computer laboratories for performing exercises on computers in the FOI 1 building (Varaždin, Pavlinska 2 and Jurja Habelića 5)	Year of procurement
Hall 4 – equipped with: 16 x All-in-One Lenovo, ThinkCentre Neo 50a Gen5, 27" FullHD (1920 x 1080) IPS, Intel® Core™ i5-13420H Processor 12M Cache, up to 4.60 GHz, 16 GB	2024

DDR5-5200MHz, SSD 1TB M.2 2280 PCIe Gen4 TLC Opal, Integrated Intel UHD Graphics + 1 x UHD TV 85"	
Hall 5 – equipped with: 16 x i7-11700 up to 4.90 Ghz (8-core), 16 GB RAM, 1 TB SSD, VGA GeForce GTX 1660 TWIN X2, 6 GB GDDR5, 16 x Philips Monitor 27"273V + 1 x UHD TV 85"	2022
Hall 13 – equipped with: 19 x PC Intel® Core™ i5 14400F, 20M Cache, up to 4.70 GHz, MEM 16GB DDR5, SSD 1TB NVMe PCIe x4, VGA GeForce GTX 1650 TWIN X2 OC, 4GB GDDR6, (HDMI 2.1, DisplayPort 1.4a, DVI-D), 19 x 27" DELL monitors + 1 x UHD TV 85"	2024
Hall 14 – equipped with: 16 x All in one Lenovo 27" IdeaCentre AIO 3Series Intel Core™ i5-1135G7 Processor, 16 GB DDR4 RAM, 512 GB SSD, Intel Iris Xe Graphics + 1 x UHD TV 75"	2022
Hall 15 – equipped with: 19 x 27" All-in-one HP Intel Core i5 9400T (6 cores), 512 GB SSD, 16 GB RAM + 1 x UHD TV 75"	2020
Computer laboratories for performing exercises on computers in the FOI 2 building (Varaždin, Prilaz Faust Vrančića 3)	Year of procurement
Hall 5 – equipped with: 19 x PC Intel Core i5 12th Gen (6-core), 16 GB DDR4 RAM, 1 TB SSD, VGA RTX 2060 6GB GDDR6, 19 x DELL SE2422H 24" Monitors + 1 x LCD Projector	2022
Hall 6 - equipped with: 22 x PC Intel® Core™ i5 14400, 20M Cache, up to 4.70 GHz, MEM 16GB DDR5, SSD 1TB NVMe PCIe x4 (2 x HDMI 2.1), Intel® UHD Graphics 730, 22 x Monitor 27" DELL SE2722H + 1 x LCD Projector	2024
Computer laboratories for performing exercises on computers in the FOI 3 building (Vila Oršić - Varaždin, Petra Preradovića 15)	Year of procurement
Hall 3 – equipped with: 19 x All in one Lenovo 27" IdeaCentre AIO 3Series 27" FHD (1920x1080) IPS Anti-glare, Intel Core i5-12450H, 12M Cache, up to 4.40 GHz, , MEM 16GB DDR4-3200, 1TB SSD M.2 2280 + 1 x UHD TV 85"	2024
Hall 4 - equipped with: 16 x Lenovo 15.6" AMD Ryzen 5 5500U, 16GB DDR4, 512GB SSD + 1 x UHD TV 85"	2023
Hall 7 - equipped with: 19x All in one Lenovo 27" Intel Core i5-12450H, 16GB DDR4-3200 , 1TB SSD, Intel Iris Xe Graphics + 1 x UHD TV 85"	2023
Computer laboratories for performing exercises on computers in the teaching centers of the professional study ITDP Zagreb and Sisak	Year of procurement
ZAGREB - Hall 248 equipped with: 17 x i5-10500 3.1Ghz, 8GB DDR4, 256 SSD, 10 x AIO Ryzen 5gen - 6 cores//4.5 GHz, 16GB RAM, 1TB SSD, 27" FHD monitor + LCD projector	2023
ZAGREB - hall 321 equipped with: 17 x computers for students (i7-11700 CPU, 8 GB RAM, 512GB SSD), 17 x 27" monitor + LCD projector	2020
SISAK - Hall 22 equipped with: 22 x PC AMD Ryzen 5 5500U, 16GB RAM, 512GB SSD, 22 x Dell monitors + LCD projector	2022

In addition to the computer configurations mentioned in computer laboratories, UNIZG FOI has modernly equipped lecture rooms where lectures and seminar classes are conducted. During the

COVID-19 pandemic, modern video conferencing equipment was purchased for almost all classrooms in which classes are conducted. For example, the central and largest classroom, No. 1 at the FOI 1 location, is equipped with a modern sound system and a videoconferencing system with a smart interactive board, and classroom No. 3 at the FOI 1 location is similarly equipped. In addition, to perform its core business, UNIZG FOI provides its employees with scientific teaching, teaching and associate positions with the funds necessary to finance the purchase of computer equipment (the above-mentioned Decision on financing the procurement of equipment - [*Annex 4.3.13.](#)), which creates a prerequisite for adequate means of work to perform teaching and scientific activities. Table 4.7 clearly shows the number of computers (desktop and laptop) according to the location and assignment of the computer.

Table 4.7. Overview of the total equipment by location and assignment of computer equipment (as of March 26, 2025)

Place	Number of computers
Lecture halls	22
Computer labs	237
Worksites (research laboratories, etc.)	32
Teachers' Cabinets and Services	229
Student Rooms and Library	13
TOTAL	533

UNIZG FOI continuously invests in the purchase and renewal of computer equipment, including equipping network infrastructure, teachers, and equipping halls/laboratories with modern additional equipment and teaching aids (e.g., graphic tablets) and equipping laboratories and centers with specific research equipment. **Over the last four years, the network has been reconstructed at UNIZG FOI, and new communication equipment has been purchased.** At the FOI 1 location, a new cooling device was installed in the server room to maintain safe conditions for the proper operation of the equipment communication (industrial air conditioning device) as part of Carnet's investments, given the importance of the communication node for the entire Varaždin County. 20 WiFi access points have been replaced. At the FOI 2 location, the air conditioning device in the server room was replaced, and 10 access points were replaced. At the location of FOI 3 (Villa Oršić), new network equipment was enabled (4 switches, 1 router and 2 UPSs - donated by Cratis), and 8 WiFi access points were added. The result of constant investments in equipment is that **UNIZG FOI has a modern IT infrastructure (local computer network with a bandwidth of 100Mbps/1Gbps and WLAN) with a large number of different computers and servers, implemented security mechanisms, and network monitoring and management.** The servers provide all the necessary network and data services, with the possibility of advanced data processing and the application of various proprietary applications. In this way, UNIZG FOI is completely independent of the network and server services of the University Computing Center (SRCE) and the Croatian Academic and Research Network - CARNET, as well as of the software solutions with which UNIZG FOI improves its business and processes, thus providing a better service to students and employees. UNIZG FOI currently has 162 servers that provide support for network equipment, applications, services and various central services such as LDAP, mail, WEB, Freeradius, DNS, AAI@Edu applications, etc. Maintenance of all IT devices and systems of UNIZG FOI,

as well as support to students and teachers related to user accounts, is provided by the [Technical Assistance Unit](#). All members of the academic community who have an AAI electronic identity have access to a free wireless internet network in the premises of UNIZG FOI (EduRoam). **Following all of the above, it is evident that UNIZG FOI has an adequate number of computers available to students and wireless Internet access in all rooms intended for students.**

UNIZG FOI, through the Center for Student Support and Career Development (CPSRK) in the last two academic years, sent a public invitation to students to borrow computers (Windows and Apple operating systems) to facilitate the performance of curricular and extracurricular activities. Invitations were announced at the beginning of the academic year. All full-time and part-time students of all majors and years of study could apply for a computer through the [FOI CPSRK application](#). The main conditions for the loan were that the student does not have an adequate computer, motivation, whether they have borrowed a laptop in previous years, socio-economic status and belonging to underrepresented categories of students. The laptop is borrowed for one academic year, and each student signs a computer loan agreement. In the academic year 2022/2023, the laptop borrowed 38 students, and in the academic year 2023/2024, a total of 37 students.

The teachers of UNIZG FOI are provided with the latest technologies in their teaching and research work. An example of the use of appropriate and up-to-date technologies in the teaching process is the use of digital platforms for learning and teaching, where each course has its own page on a *Learning Management System* (LMS) or ELF. In addition, the use of multimedia content as well as distance learning is possible in all lecture halls. The [Technical Assistance Unit](#) maintains a system for conducting online classes, and UNIZG FOI has the ability to hold such classes for all study groups at the same time on its own servers (specifically, it is the Big Blue Button computer platform for virtual classrooms). UNIZG FOI stands out with a portfolio of its own developed information (sub)systems and applications that fully support business processes necessary for the realization of teaching, scientific research and business activities, developed by the [UNIZG FOI Center for Software Product Development](#) (*[Annex 4.4.8: Catalog of \(sub\)systems and applications of UNIZG FOI](#)), and the most important applications are [FOI Upisi](#) (FOI enrolments), [FOI Nastava](#) (FOI Teaching), [FOI Stručna praksa](#) (FOI Professional Practice), [FOI Završni i diplomski radovi](#) (FOI Final and Graduate Theses), [FOI Studentske ankete](#) (FOI Student Surveys), [FOI Baza projekata](#) (FOI Project Database), [FOI Zamolbe i zahtjevi](#) (FOI Applications and Requests), [FOI Baza mobilnosti](#) (FOI Mobility Database), [FOI Repozitorij dokumenata](#) (FOI Document Repository), [FOI Događanja](#) (FOI Events), [FOI Pay](#), [FOI Kadrovska](#) (FOI Human Resources) and [FOI Shop](#). Each of these applications is actually a modular (sub)system that can be used independently or integrated with other (sub)systems, while fully supporting a certain part of UNIZG FOI's business processes. For example, [FOI Events](#) is a system that enables the booking of classrooms, the organization of meetings and events (support for registration, billing...), analytics and reporting, and is available to teachers and non-teaching staff as well as students who can book halls for their activities through the Student Council. UNIZG FOI is a leader among higher education institutions in the Republic of Croatia in terms of the development of its own (sub)systems and applications, so it is not unusual that dozens of other higher education institutions in Croatia use applications developed on UNIZG FOI.

All of the above mean that the space, equipment and entire infrastructure of the UNIZG FOI are suitable for implementing study programmes, ensuring the achievement of the intended learning outcomes, and realizing scientific and professional activities.

4.5. The library and library equipment, including access to additional resources, ensure the availability of literature and other resources necessary for a high-quality of study and scientific-teaching / artistic-teaching activities.

The UNIZG FOI Library is registered in the [Register of Libraries in the Republic of Croatia](#) (Registration Sheet Number: K-1443/6). It is located at the location FOI-1 (Varaždin, Pavlinska Street 2), in the basement of the southern wing of the building. **The library is open from Monday to Friday from 7:00 a.m. to 8:00 p.m.** (a total of 65 hours per week). **The library space consists of an entrance area with an information desk, a reading room for quiet work with 12 workstations, a computer workshop with 11 workstations, and two additional computers for searching the catalog and other library information.** In the same part, there are materials for free access, while within the library, there is also a librarian's study room and two repositories. **The space intended for users is 150 m², while the total space of the library is 200 m²** (Table 4.7 of the Analytic supplement to the self-evaluation report). Due to the lack of space, part of the library material is located in the archive, on the 1st floor of the FOI 1 building (doctoral, master's and final specialist theses) and in two rooms at the location of FOI 2 (Varaždin, Prilaz Fausta Vrančića 3). **The library is equipped with modern ICT equipment,** and a wireless network with free access covers the library space. The reading room also has **connection points for users' personal laptops.** The book lending desk and librarians' workplaces are equipped with all the necessary library equipment, and at the beginning of 2025, the dilapidated and inadequate lighting throughout the library was replaced **with new modern LED lighting that meets the highest library standards,** which has [made the library and reading room even more comfortable to work with and contributes to the principles of sustainability](#). All this results in the fact that **the UNIZG FOI Library and its equipment and access to additional facilities ensure the availability of literature and library services for the purpose of conducting the study programmes and scientific and professional work,** in accordance with which the UNIZG FOI Library and its equipment with all additional content ensure the requirements of quality study at the study in accordance with the conditions prescribed by the [Standard for Higher Education Students, university and scientific libraries](#).

The collection of the UNIZG FOI library consists of 11,841 titles, i.e., 16,426 volumes of monographic publications, and 284 titles, i.e., 2,523 volumes or 10,586 volumes of periodicals. Of the total monographic publications, 4,284 are titles or 7,995 copies of textbooks. The total number of titles of compulsory literature textbooks is 822, and the number of copies is 3,101. The library fund is classified into [19 collections](#). The library gathers the entire circulation of the Higher School of Economics and the UNIZG FOI in the [Collection of Publications of the Faculty](#). The procurement of the library fund is based on the needs of curricula, scientific research, projects, and students and staff. **Relevant and recent literature is acquired,** which can be tracked by [year of publication](#). **The basic**

literature of each course is purchased in five copies, and the additional literature in three copies or on the recommendation of the subject teacher, whereby one copy of the basic or additional literature is always available to users in the reading room, in the [Collection of Basic and Additional Literature](#). Also, the use of information and communication technologies that equip reading rooms, teaching laboratories and teachers' offices provides access to literature stored in electronic form in open access repositories. As can be seen from Table 4.7. In addition to the analytical contribution to self-evaluation, teachers and students of UNIZG FOI have access to 34 bibliographic databases, i.e., 46,117 electronic journals, of which 35,202 are electronic journals with access to the full text. As previously stated, all courses have individual pages with basic authorial teaching materials published on FOI Moodle, which allows students to access teaching materials beyond the use of library resources. Consequently, it is evident that **UNIZG FOI has provided teaching literature and literature intended for the scientific and professional work** of students and teachers.

The UNIZG FOI Library provides its users (employees and students) with access to relevant sources of information. [The website of the UNIZG FOI Library](#) provides users with [basic information about the library](#), the [library's collection](#), [online sources of literature](#), library [services](#), refers to various [user aids](#), such as [Instructions for library users](#), provides access to [virtual exhibitions](#), and informs users about [cultural events in Varaždin](#). The central part of the website informs users about news related to the library, library materials and library events. All online content is created and updated by the library. The UNIZG FOI library uses the MetelWin library software package. The [online catalogue of the library](#) is a place that gathers all book and non-book, printed, digital and digitised materials as well as online materials, which are inventoried and catalogued. **Cataloged online materials are freely accessible or accessed using AAI@EduHr identities.** The online catalogue of the library is included in the [collective catalogue Metel](#) and the [Croatian National Collective Catalogue](#). The library catalogue is available to users through the Moodle e-learning system, and the Moodle system is available through the [library catalogue](#) (in the right menu). This cross-connectivity allows users to access the content they want from one place. Each library user has their own user account, which they access with AAI@EduHr identity. A user account allows you to track your current borrowing, archive loans, reserve materials, extend your assignment and create a wish list. The library users are provided with the [metLib mobile application](#), which is adapted to each segment of the library's online catalog, and the application is available free of charge and adapted to all devices and is accessed AAI@EduHr identity. The online catalog and mobile application have a [light](#) and [dark mode](#), which allows less strain on vision, and allows users with poor vision and those who are sensitive to bright light to see the contents of the catalog better, especially at night. Dark mode saves power and extends the battery life of the mobile phone. In addition, [visually impaired people are intended for additional adjustments](#) such as the size, color and shape of the font and background color. The online catalogue is largely in line with the [Act on the Accessibility of Websites and Software Solutions for Mobile Devices of Public Sector Bodies](#), as evidenced by the [Accessibility Statement](#). **The library pays great attention to students with disabilities and has built a collection of literature for them called [Support for Students with Disabilities](#).** The library has been a partner in eight projects [Adaptation of Literature for Blind and Visually Impaired Students](#) (type [Adaptation in the search engine](#)). It is therefore evident that **in the library of the UNIZG FOI, students and teachers have access to information and communication technology resources**, as well as that they are **provided with access to library materials in printed and/or electronic form**.

At the beginning of each academic year, the [UNIZG FOI library organizes user education](#) through workshops for first-year students of all studies and for doctoral students. Such workshops are also conducted at the request of users or at the request of teachers. At the workshops, it presents library services and library collections, points to independent finding, evaluation and use of literature, gives instructions for using the library, reading room, computer workshop and library equipment, and trains users to search the library's online catalog, available databases and repositories. The Library produces printed and electronic Instructions for [Library Users](#), educational [video materials](#), creates an electronic [Bulletin of Library Materials](#), organizes [exhibitions in physical](#) form and [virtual exhibitions](#), and various [informative and promotional materials](#).

The library has developed interlibrary exchange with national and foreign libraries and institutions, and in addition, it uses [RapidILL](#), an interlibrary service for fast digital delivery of documents (articles and book chapters) from 500 university and higher education libraries around the world, which was procured with funds from the University of Zagreb and the National and University Library. **The Library prepares certificates of representation (indexing) of journals and citations of papers in relevant databases.** It prepares certificates for the purpose of promotion to a higher scientific and teaching position and certificates of representation and status of journals in relevant databases for the needs of editorial boards. Pursuant to the [Act on Libraries and Library Activities](#), **the UNIZG FOI library collects statistical data on library operations** and enters them into the system of uniform electronic collection of statistical data on library operations at the National and University Library in Zagreb.

The library employs three full-time **employees** who are continuously improving and professionally advancing. One graduate librarian and two senior librarians are employed. **They are also the only senior librarians in Varaždin County.** Library employees are active in various committees and committees, in the publishing committees of an international scientific journal and an international scientific conference, they are administrators at HRČAK, Dabar and CroRIS, as well as in international digital databases and repositories. They are active members of the Varaždin County Library Association, in which they participate or have participated in the management and supervisory board of the society, and as editors or members of the publishing board of the society's journals. They are active members of the Croatian Library Association, in which they participate or have participated in the [Committee for awarding the "Library of the Year"](#) award at the national level and in the Commission for Higher Education Libraries. They participate in professional and scientific national and international conferences with presentations, poster presentations, and publish papers in professional and scientific publications.

In conclusion, **the UNIZG FOI Library, with its collection, services and services, provides the requirements of quality studying, as well as quality scientific and teaching activities.**

4.6. The higher education institution provides the necessary financial resources to conduct teaching, scientific and professional activities.

UNIZG FOI is a budget beneficiary for whose operations funds are provided from the State Budget of the Republic of Croatia, intended for the settlement of salary costs and material rights of employees, and which are paid through the Central Payroll Calculation (COP) system. **UNIZG FOI transparently manages its financial resources, regularly reports on strategy and business implementation, and actively involves students and other stakeholders in decision-making and development processes. The financial operations of UNIZG FOI are based on compliance with financial regulations** applicable to public institutions in the system of science and higher education ([Budget Act](#), [Rulebook on Budget Accounting and Accounting Plan](#), [Rulebook on Financial Reporting in Budget Accounting](#) with the accompanying [Rulebook on Amendments and Amendments](#), [Rulebook on Semi-Annual and Annual Report on the Execution of the Budget and Financial Plan](#), [Rulebook on Budget Classifications](#) and the [Act on Higher Education and Scientific Activity](#)), and is additionally determined by the [Rulebook on the Basics of Financing of the University of Zagreb](#). The overall business of UNIZG FOI is aimed at creating conditions for the long-term performance of educational and scientific tasks and ensuring employees' material and other rights, even above the level provided in the [Basic Collective Agreement for Employees in Public Services](#). The strategic goal of the UNIZG FOI is to diversify and increase revenues and change the relative ratios in favor of a higher ratio of own revenues in the structure of total revenues to continue long-term development sustainability.

The UNIZG FOI has prepared a financial plan that includes the planned incomes and expenses to conduct higher education activity and professional activity over a three-year period, whereby the financial plan also contains planned incomes and expenses for the performance of scientific and professional activities. In accordance with the [Budget Act](#) and the [Instructions for the Preparation of the State Budget Proposal of the Republic of Croatia](#), the UNIZG FOI annually adopts a [financial plan](#) for a three-year period, i.e., for the next year, with projections for another two years. In the general part of the financial plan, incomes and expenses are planned according to the economic classification, the sources of financing, and the functional classification. Budget users with receipts and expenditures from borrowing are obliged to prepare a financing account (part of the general part of the financial plan), however, UNIZG FOI has not had any receipts and expenditures on this basis for many years, so they are not planned. In a special part of the financial plan, planned incomes and expenses are allocated according to programs, activities and sources. In addition to the general and special parts, UNIZG FOI, as a budget user, also prepares an explanation of the general and special parts of the financial plan. After the Faculty Council adopts it, the financial plan proposal is submitted by the UNIZG FOI to the Ministry of Science, Education and Youth. After the Croatian Parliament votes on the State Budget, the financial plans are subsequently harmonized according to the limits submitted by the UNIZG. The final financial plan of the UNIZG FOI is published on the [website](#), with all the accompanying documentation. After the financial plan is developed, in accordance with the [Public Procurement Act](#), UNIZG FOI annually adopts and publicly publishes a [public procurement plan](#) that transparently plans the spending of funds. In accordance with the [Budget Act](#) and the [Rulebook on the Semi-Annual and Annual Report on the Execution of the Budget and Financial Plan](#), the UNIZG FOI adopts, [publicly publishes on its website](#) and submits to the relevant ministry a semi-annual and annual report on the execution of the financial plan for the previous year. The report contains, as

well as the plan, a general and special part, explanations of the general and special parts, and several other special reports.

UNIZG FOI has provided evidence of sufficient funds to deliver the study programme, in the form of a signed programme agreement or a projection of income from tuition fees or other sources. In the academic year 2015/2016, the University of Zagreb and the Ministry of Science and Education signed a three-year Agreement on co-financing the study costs of full-time students and material costs for the academic years 2015/2016, 2016/2017 and 2017/2018. In 2018, a new cycle of program financing began, which lasted four academic years (from 2018/2019 to 2021/2022). After that, at the end of 2022, the duration of the same program funding was extended, as a result of which UNIZG FOI is still in that extended program funding period. The contract includes financing the costs of studying for full-time students, covering material costs and overtime work and external cooperation, which were specially compensated by previous financing from the Ministry and the University. This model of program contracts has not been significantly changed in terms of content but has extended its application until the current academic year 2024/2025. According to the [Regulation on Program Financing of Public Higher Education Institutions and Public Scientific Institutes](#), a new model of program financing is being negotiated from the beginning of 2025. Higher education institutions and scientific institutes from the Republic of Croatia are currently in the phase of negotiating the basic, development and implementation components of the programme agreement with the relevant ministry, which abolishes the current receipt of advance remittances for tuition fees for enrolled full-time students and advance remittances for the basic financing of scientific and artistic activities.

The largest part of the financial resources to UNIZG FOI comes from the subsidy of the participation of tuition fees by the Ministry of Science, Education and Youth, as well as tuition fees paid by part-time students. In addition, UNIZG FOI receives financial resources from the co-financing of science (based on the indicators of program contracts from 2018), income from market activities (economic projects), income from education from lifelong learning programs, and other sources (e.g., sponsorships or donations). Thanks to scientific and development projects, UNIZG FOI has the possibility of additional employment, strengthening scientific excellence through additional opportunities to participate in conferences, publications in journals, but also to upgrade the infrastructure. Below are the incomes that UNIZG FOI generates from advance remittances for tuition fees and advance remittances for the basic financing of scientific and artistic activities in the last five academic years, all in accordance with the [Decision on Program Financing of Public Higher Education Institutions in the Republic of Croatia in the academic years 2018/2019, 2019/2020, 2020/2021 and 2021/2022](#).

Table 4.8. Advance remittances of tuition fees paid to UNIZG FOI

Advance remittances of tuition fees	
Academic year	Amount
2019/2020	EUR 577,528.33
2020/2021	EUR 693,840.03
2021/2022	EUR 678.669,56
2022/2023	EUR 648,596.51
2023/2024	EUR 676,646.84

Table 4.9. Advance remittances for scientific and artistic activities paid to UNIZG FOI

Advance remittances for scientific and artistic activities	
Academic year	Amount
2019/2020	EUR 123.396,11
2020/2021	EUR 123.396,11
2021/2022	EUR 132.959,15
2022/2023	EUR 172.958,18
2023/2024	EUR 177.824,70

For example, for the academic year 2023/2024, incomes related to the reimbursement of material operating costs that UNIZG FOI receives based on program contracts (participation of study costs of full-time students) amounted to EUR 676,646.84, while the total material expenses and expenses for investments in equipment during the calendar year 2024 amounted to EUR 1,955,527.55. On average, UNIZG FOI allocates about EUR 150,000.00 to renew computer equipment and cover employees' salaries for the necessary administrative services not financed by the line ministry. A longer time analysis reveals that UNIZG FOI has, practically throughout its entire history, provided the funds it invested in the institution's development. The use of own funds is regulated by the [Regulations on the distribution of own revenues and revenues for special purposes](#).

Financial sustainability and efficiency are evident in all aspects of the higher education institution's activity. The annual total incomes of UNIZG FOI in 2024 amounted to EUR 8,963,792.69, which is an increase of 16.10% compared to the previous year. Incomes from the Ministry of Science, Education and Youth and the University of Zagreb amounted to EUR 6,082,667.19, which is 28.10% more than in the previous year and represents 67.86% of total incomes. Own incomes amounted to EUR 2,881,125.50, or 32.14% of total incomes. The increase in incomes from the Ministry of Science, Education and Youth and the University of Zagreb is due to an increase in remittances from the Ministry of Science, Education and Youth and the University for salaries, transport and allowances, participation of tuition fees with included funds for material expenditures, support for science and more. The salary increase is caused by the [Regulation on Job Titles, Scheduling Conditions and Salary Calculation Coefficients in Public Services](#), which has been applied since March 2024. **The annual total expenses of UNIZG FOI in 2024** amounted to EUR 8,840,914.13, which is an increase of 8.90 % compared to the previous year. About 74.43 % of operating expenses are expenditures for employees because, in 2024, UNIZG FOI employed administrative staff and personnel needed for project activities with part of its own revenues. UNIZG FOI's own funds are also used to implement incentive remuneration for jobs that represent additional activities of employees and jobs that generate their own income, which the internal Rulebook regulates on the distribution of own incomes. Material costs in 2024 amounted to EUR 1,784,753.66, which is 20.19 % of total expenses. Table 4.10 shows the trends of incomes and expenses over five years:

Table 4.10. trends of incomes and expenses over five years

	Year 2020	Year 2021	Year 2022	Year 2023	Year 2024
Income in EUR	5.927.938,81	7.048.751,74	7.443.107,43	7.723.961,79	8.963.792,69
Expenses in EUR	5.776.329,29	6.663.565,47	7.326.656,81	8.118.129,72	8.840.914,13
Difference in EUR	151.609,53	385.186,28	116.450,62	-394.167,93	122.878,56

The table above shows that UNIZG FOI has the funds necessary to carry out its activities since it manages revenues and expenditures in a planned manner. The only deviation from the positive difference between incomes and expenses visible in 2023 is an exception. It arose as a consequence of the following: (1) the Ministry unintentionally changed the dynamics of advance payment payments (e.g., in that period in the total amount of EUR 120,247.99); (2) for several projects that were pre-financed with their own UNIZG FOI funds, payments were delayed to compensate for eligible costs, (3) an increase in all operating costs caused by inflation and global disruptions in energy prices, and (4) infrastructure investments and extraordinary corrective maintenance of space. Already in the following year, 2024, planned results of revenues and expenditures were achieved, which shows that **UNIZG FOI effectively manages its financial resources**.

Transparent, efficient and purposeful management of financial resources is visible in financial plans, reports on the execution of the financial plan (annual and semi-annual), public procurement plans and annual financial statements, published on the [UNIZG FOI website](#) in a machine-readable format with all related documentation. According to the [Instruction on the framework content, minimum set of data and the manner of public publication of information on the spending of funds on the websites of local and regional self-government units and budgetary and extra-budgetary users of the state budget and local and regional self-government units](#), as of 1 January 2024, the UNIZG FOI on a monthly basis on the [website](#) publishes a form of spending funds that includes information on payments to legal and natural persons from the budget or financial plan on any basis, except for information that represents classified information under the law governing the secrecy of data and information the publication of which would be contrary to special regulations. Furthermore, UNIZG FOI reports every month on the spent own, earmarked and project funds through the EVT form (*[Annex 4.6.1: EVT form](#)), which is submitted to the [State Treasury System Portal](#). In addition, with the Statement on Fiscal Responsibility (*[Annex 4.6.2: Statement on Fiscal Responsibility for 2024](#)), in accordance with the [Regulation on the Preparation and Submission of the Statement on Fiscal Responsibility and the Report on the Application of Fiscal Rules](#), the UNIZG FOI confirms the legal, purposeful and purposeful use of funds and the efficient and effective functioning of the financial management and control system within the financial resources determined by the budget, i.e., financial plan. In addition to the Statement, the UNIZG also submits the necessary supporting documentation to the UNIZG FOI – a questionnaire on fiscal responsibility (*[Annex 4.6.3:](#)

[Questionnaire on fiscal responsibility](#)), a plan for the elimination of weaknesses and irregularities (*[Annex 4.6.4: Plan for the elimination of weaknesses and irregularities for the financial year 2024.](#).) and the report on the correction of weaknesses and irregularities (*[Annex 4.6.5: Report on the correction of weaknesses and irregularities for the financial year 2024.](#).) Finally, through the internal system (web application) [FOI Forms](#), through which employees submit different requests, a process workflow is transparently displayed for each individual request with specific instructions and a display of the steps needed to realize each request (*[Annex 4.6.6: Example of instructions to employees with a process timeline for the payment of incentives for successful project applications](#)). **The operations of the accounting department are digitized by using an accounting software tool,** and all payments are made through bank transactions and, in the vast majority of cases (except for transactions that are exempt from the obligation to pay in this way), using the e-invoice system. **In addition, with the development of our own (sub)systems, many accounting processes have been further automated and simplified. For example, the UNIZG FOI Pay system** is designed with the aim of enabling students to quickly and easily pay their study costs (enrolment, applications...), and the functionalities it offers enable card and bank payment of student debts, analytics, sending reminders and integration with accounting and the ISVU system at the national level.

UNIZG FOI uses additional funding sources for its institutional development and improvement of its core business. UNIZG FOI does not rely only on budget funds for material costs, but through cooperation with various stakeholders and donations and sponsorships, it generates additional income invested in infrastructure and the development of teaching and scientific processes. The manner of using these funds is prescribed by the [Rulebook on the distribution of own revenues and revenues for special purposes of the UNIZG FOI](#). The use of funds from scientific research projects is defined by the Project Implementation Agreement, i.e., eligible costs according to the project call, and these funds are intended mainly for new employment, procurement of equipment and similar development-oriented costs. The funds received from the local community are used to carry out various scientific, social and professional activities ([EUI](#), [FINA Development Center](#), [DHV session](#)) that contribute to the visibility of the City and the County, and in this way, through joint cooperation, UNIZG FOI achieves its goals of social contribution to the local community.

UNIZG FOI secures additional funding sources through national and international projects, cooperation with the economy, local community and other sources. UNIZG FOI generates about 68 % of annual revenues from the Ministry of Science, Education and Youth, while the remaining 32 % of total revenues are **additional sources of financing that are provided through the implementation of scientific research and professional projects**, the implementation of specialist and doctoral studies, lifelong learning and various sponsorships and donations. For example, UNIZG FOI, in the last two academic years, successfully continued with its activities in commercial **and other projects (EU projects)**, and project revenues have increased by about 9 % compared to the period two years ago. (*[Annex 4.6.7: Own revenues through commercial and other projects](#)). Part of the income generated from professional **projects with the economy** represents its own income, while the rest of the financial resources are available to the managers of professional projects.

As mentioned, additional funds for investment in the development, improvement and infrastructure of UNIZG FOI are **sponsorships and donations from local self-government units**, primarily the City of Varaždin and Varaždin County. In this type of income, the assistance of Varaždin County and the City of Varaždin for teaching and scientific activities organized at the UNIZG FOI is particularly emphasized

– renovation of halls, international conference [CECIIS, International Research Symposium, Days of International Cooperation, Career Week, Open Days, Science Festival](#) and the like. The activities of UNIZG FOI are also supported by numerous partner companies that support the activities of students with donations. The total amount of donations in the academic year 2022/2023 was EUR 38,484.28, and in the academic year 2023/2024, as much as EUR 53,428.31, which represents an increase compared to previous periods (*[Annex 4.6.8: Donations to UNIZG FOI](#)). Table 4.11 shows the structure of incomes over five years.

Table 4.11. Income structure over a five-year period

Type of income in EUR	Year 2020	Year 2021	Year 2022	Year 2023	Year 2024
Incomes of the Ministry of Science, Education and Youth	3.862.114,41	4.512.651,93	4.437.642,63	4.747.580,69	6.082.667,19
Budget incomes	3.862.114,41	4.512.651,93	4.437.642,63	4.747.580,69	6.082.667,19
Own resources	2.065.824,41	2.536.099,81	3.005.464,80	2.976.381,10	2.881.125,50
Assistance from abroad and within the general budget	993.454,38	1.196.126,88	1.387.205,10	883.818,15	1.399.688,89
Property incomes	4.451,79	76,98	1.953,18	20,33	50,64
Tuition	678.267,04	777.759,77	797.882,21	780.755,95	954.901,63
Incomes from services provided (economic projects, specialist, PPDMO)	389.534,54	558.360,48	814.651,48	1.293.048,06	525.973,84
Proceeds from the sale of fixed assets	116,66	3.775,70	3.772,83	9.122,49	510,50
Other income	0,00	0,00	0,00	9.616,12	0,00

For 2024, in the structure of own incomes of a total of EUR 2,881,125.50, the amount of EUR 1,034,101.63 or 35.89 % refers to incomes related to the payment of tuition fees of students in

professional studies, participation in the costs of studying for part-time students in university undergraduate studies, tuition fees in postgraduate studies and lifelong learning, while the amount of EUR 1,631,153.20 of own incomes or 56.62 % refers to incomes generated based on income from international EU organizations and bodies and commercial projects.

V. RESEARCH / ARTISTIC AND PROFESSIONAL ACTIVITY

- 5.1. The higher education institution is recognisable by scientific research and/or artistic achievements in all the scientific fields in which it conducts studies.

UNIZG FOI stands out as an institution that bases its excellence on scientific and research work focused on original ideas and an innovative approach. Dedication to the development of innovative concepts and approaches ensures that UNIZG FOI has the status of a relevant and respected higher education institution at the University of Zagreb, Croatia, and beyond.

The results of the research of UNIZG FOI teachers provide key contributions to the development of the scientific fields in which they operate, namely the fields of information sciences and economics, with great emphasis on interdisciplinarity and multidisciplinary, based on the meaningful integration of these key areas with other scientific areas of activity of UNIZG FOI teachers, in which excellence is also achieved, including the fields of computer science and mathematics. Information sciences are closely related to science, technology, engineering, and mathematics (STEM). Information sciences develop methods and techniques to support research, education and other sectors, they are recognized as part of the social sciences, and include fields of information systems and information science, organization and informatics, and information and software engineering.

Key trends in development and publication include new digital technologies, such as generative *Artificial intelligence (AI)*, *Big Data - based systems*, *Cloud Computing*, *Edge Computing*, *Blockchain*, *Internet of Things (IoT)*, *Robotic Process Automation* and many other technologies, depending on their development. These trends advance personalization, scalability, security, and operational efficiency, all with a strong focus on privacy, cybersecurity, and ethical use of data. The integration of these trends into scientific research activities, as well as the further development of traditional IT disciplines such as information systems, information technology and software engineering, ensures the success of UNIZG FOI today and in the future, in a rapidly changing environment.

To support high-quality scientific work, research laboratories have been established at UNIZG FOI, in which scientific research groups of teachers with related or complementary research interests operate. They are focused on the application and implementation of projects based on original and innovative ideas, regardless of the formal organizational structure. The publication of scientific papers resulting from project activities and beyond, is also an important segment of the laboratory's activities. In order to direct and monitor the work of laboratories, the operationalization of the [Development Strategy of the Faculty of Organization and Informatics for the period 2018-2023](#) was realized through the [Guidelines of Scientific Research of the Faculty of Organization and Informatics, University of Zagreb for the period 2021-2023](#), focused on business processes related to scientific research activities of the UNIZG FOI. In addition to the above mentioned guidelines, an Overview of Goals and Indicators of Scientific Research Activities of the Faculty until 2023 was also developed (*[Annex 5.1.1.: Indicators - according to the guidelines for scientific research](#)). The key points of development are its own human resources, greater allocation of resources to science, higher priority of scientific research, propulsivity of information sciences, reputation in the economy and networking with partners with whom UNIZG FOI nurtures long-term relationships. These are the resources that UNIZG FOI relies on for the realization of strategic goals. The new Guidelines for the

scientific research work of the UNIZG FOI are part of the [Development Strategy of the UNIZG FOI for the period from 2025 to 2029](#), which are aligned with the university's [Strategic Guidelines for Scientific Research Activities of the University of Zagreb 2023-2026](#), and [the Open Science Policy of the University of Zagreb](#), in the development of which the employees of UNIZG FOI also participated.

Currently, there are 15 research laboratories and three research centers at UNIZG FOI, with the primary goal of continuous implementation of research and projects, improvement of teaching and transfer of knowledge and technology. Research laboratories and centers support scientific and professional work, and the development potential and successes so far, enable further steps forward, despite the different capacities in certain areas. Laboratories play a key role in scientific work, enabling the horizontal connection of researchers of different fields of interest and knowledge. At the moment, the following laboratories and centers operate at UNIZG FOI:

- **Laboratory for Learning Analytics and Academic Analytics:** Focuses on research related to data analysis using learning analytics and academic analytics methods and the application of research to improve the quality of learning and teaching and decision-making in education.
- **Laboratory for Program Interface Design, Internet Services and Video Games:** It deals with the research and development of user interfaces, web services and video games, their improvement and the analysis of accessibility, with an accent on the importance of adaptation to the needs of students and users with various types of difficulties and disabilities.
- **Laboratory for ERP Systems and Interoperability:** It is focused on the research and implementation of ERP systems, ensuring their interoperability with other systems through support to students and users for the analysis of functionality, application and implementation of projects, and the transfer of knowledge to industry.
- **Generative Programming and Machine Learning Laboratory:** Brings together teachers and students for research related to generative programming and machine learning, as well as the implementation of projects and the development of appropriate software.
- **Laboratory for Innovative Application of E-Learning and Computer-Based Foreign Language Teaching:** Explores innovative pedagogical techniques in teaching by using internet/mobile technologies and communication tools, with an additional focus on online teaching of English for vocational education in higher education.
- **Laboratory for Strategic Planning and Decision-Making:** Conducts research in the field of management and in the field of strategic planning and decision-making support through national and international scientific and professional projects, as well as education for industry and public administration.
- **Laboratory for Advanced Technologies in Education:** It deals with the integration of advanced technologies into the educational process in order to improve the quality of teaching and researches their effects on the entire education system.
- **IOT Laboratory:** It brings together teachers and students whose interests are related to the scientific research and professional field of IoT system development, software architecture, data models in IoT environments, but also related information security and open systems.
- **Data Technology Laboratory:** Engaged in theoretical and practical research in the field of data and knowledge management (collection, storage, search, analysis, presentation,

visualization, sharing), while taking into account the challenges posed by large amounts of data and unstructured data.

- **Entrepreneurship Laboratory:** Provides support to students and researchers in the development of entrepreneurial skills and initiatives, by conducting research and projects related to improving the teaching and dissemination of entrepreneurship practices and encouraging the development of the startup community and the community of practitioners.
- **Laboratory for Applied Software Engineering:** Conducts research activities of scientific work, cooperation with industry, knowledge and technology transfer, in order to reduce the gap between theoretical concepts of software engineering and their application in practice.
- **Laboratory for Business Process Management and Digital Transformation:** Focuses on the implementation of research, education and knowledge transfer through projects related to the application of emerging technologies in the field of business process management and digital transformation, measuring the effects of business process improvement as well as strategic planning of information systems.
- **Artificial Intelligence Laboratory:** Conducts contemporary research and education in the field of artificial intelligence, multi-agent systems, computer intelligence, web mining, semantic Web and related areas.
- **Laboratory for Web Architectures, Technologies, Services and Interfaces:** It is engaged in theoretical and practical research in the field of web architectures, technologies, services and interfaces (protocols, programming languages, programming frameworks, program paradigms and development methodologies, interoperability, scalability, accessibility and usefulness, standards, realization of e-learning, IoT, ethical issues).
- **Laboratory for Data Mining and Intelligent Systems:** Conducts research and education in the field of data mining and intelligent systems, in cooperation with national and international educational and research institutions and local government units.
- **Center for Forensics, Biometrics and Privacy:** It is engaged in research and education in the fields of digital forensics, biometrics and privacy protection, works on the certification of biometric, IT products and services, and computer forensics, in cooperation with industry and other scientific research institutions in the field.
- **Center for Quality in ICT:** It is focused on improving the quality of educational processes and services, and promotes and researches the application of modern paradigms, standards and quality methods in various areas of ICT.
- **Center for Educational Projects:** Focuses on the development and implementation of educational projects with the aim of improving the teaching process, through research, development of educational products, education, knowledge transfer and counseling in various educational fields, including traditional teaching methods and e-learning.

UNIZG FOI invests efforts in ensuring the quality of scientific and professional research through [internal education programmes](#) and encourages quality research. In February 2025, a cycle of nine training programmes for teachers was organized, with an emphasis on supporting younger associates in improving their scientific research and teaching skills. The aim of the initiative was to help teachers prepare for contemporary challenges in education. The training covered topics such as learning

design, educational psychology, artificial intelligence, cyber hygiene, evaluation and selection of journals for publication, and statistical analysis.

The scientific achievements of teachers and associates are publicly emphasized at the sessions of the Faculty Council and in the [Newsletter of the Center for International Projects](#), which is published every three months and provides information on the results of UNIZG FOI employees, as well as on project calls and events related to national and international projects.

Through these initiatives, UNIZG FOI seeks to strengthen the research capacities of its employees and further improve the scientific infrastructure.

Research papers of UNIZG FOI teachers are continuously published in scientific journals. Teachers also regularly present their work at international conferences, during which they not only present their research, but also strengthen scientific cooperation and contribute to local and global dialogue in their disciplines.

[The Rulebook on the Conditions for Academic Advancement](#), with its [amendments](#), defines the conditions that teachers and associates must meet for academic advancement in the procedure of regular five-year evaluation and election to the appropriate scientific-teaching position. Given that the largest number of UNIZG FOI teachers have their advancement in the field of social sciences, **papers published in scientific journals indexed in the scientific database Scopus and the Web of Science platform represent publications of the highest category**, in accordance with the aforementioned Rulebook. **Papers referenced in the Current Contents Connect** collection of the latest issues of world's leading journals in scientific fields, relevant for all teachers, and especially for teachers whose advancement is in natural or technical sciences, are also monitored and awarded.

UNIZG FOI fosters a culture of scientific excellence, whereby the number and quality of teachers' scientific papers are aimed at achieving a high level. Teachers' publications are published in scientific journals and at conferences, which rigorously evaluate the originality and significance of research.

On the basis of the Decision for co-financing scientific activities (*[Annex 5.1.2.: Decision for Co-financing Scientific Activities 2023-2024](#)), financed from resources for co-financing of science (based on the indicators of Program contracts from 2018), which is continuously applied, the employees of UNIZG FOI (scientific and teaching, teaching and associate positions) are granted funds for co-financing scientific activities, and they can be used to cover costs of scientific research, publication costs (for teaching and non-teaching staff), and scientific mobility costs. Publication costs relate to: preparation of papers for publication and costs of publication of papers in journals referenced in the WoS Core Collection (SCIE, SSCI or ESCI databases) and/or Scopus or EconLit databases, preparation for publication and costs of publishing chapters in books referenced in the WoS CC collection (BCI-Sci or BCI-SSH databases), and/or Scopus or EconLit databases, participation in international scientific conferences that are referenced in the WoS CC collection (CPCI-Sci or CPCI-SS databases), and/or Scopus or EconLit databases, and for participation at conferences and gatherings that are of particular importance for the field of research and employee networking. According to the Decision on Co-financing Scientific Activities (*[Annex 5.1.3: Decision on Co-financing Scientific Activities 2024-2025](#)), UNIZG FOI employees are also granted additional funds for the co-financing of scientific activity, if the paper is accepted for publication or published in a journal referenced in databases that are part of the WoS CC collection and/or are in the Scopus database.

In 2021, the Faculty Council of UNIZG FOI adopted the Rulebook on the Distribution of Own Revenues (*[Annex 5.1.4: Rulebook on the Distribution of Own Revenues 2021](#)), and in 2022 a new Rulebook on the Distribution of Own Revenues and Revenues for Special Purposes ([Annex 5.1.5:](#)

[Rulebook on the Distribution of Own Revenues and Revenues for Special Purposes of the Faculty of Organization and Informatics 2022](#)), which regulates the methods of income distribution, as well as criteria and procedures for supporting employee initiatives, based on their work results. The Rulebook regulates the amount of support for authors and editors of university textbooks and other faculty publications, as well as for authors of scientific papers referenced in the databases Science Citation Index Expanded (SCIE), Social Science Citation Index (SSCI) and Current Contents Connect.

Every academic year, UNIZG FOI teachers plan their scientific activities in accordance with the standard division of teachers' working time defined in Art. 67 of the Collective Agreement for Science and Higher Education ([FOI Nastava - Science Planning](#)). Scientific research activities included in the plan can be:

- Scientific training and publication of papers through work on competitive national and international projects: a. Work on national scientific projects (e.g. Croatian science foundation); b. Work on international scientific projects (e.g. Horizon, Chance, COST); c. Work on national and international projects with a scientific research component (e.g. ESF, Research and Development, ERDF, Erasmus+ projects); d. Work on scientific research projects of the institution (internal projects of Laboratories and Centers)
- Preparation of scientific projects and application to calls
- Editorial Board activities for Scientific Journals
- Reviewing of scientific papers and projects
- Professional work as a consequence of scientific research, including work on innovations (patents)
- Scientific publications outside the framework of projects - publication of papers after the end of the project or outside the project
- Doctoral study - Work related to activities in the doctoral study (seminars, exams, qualifying exams, dissertations, etc.)

The purpose of science planning is to direct the scientific research activities of the UNIZG FOI, including the mandatory and developmental activities of junior associates in doctoral studies, towards the achievement of scientific goals and continuous improvement of the scientific research activities of the UNIZG FOI.

The scientific reputation of UNIZG FOI is confirmed by the number and quality of published scientific papers. In the last five-year period, from 2020 to 2024, UNIZG FOI scientists published a total of **746 scientific papers** (Table 5.1. of the Analytic supplement to the self-evaluation report) - which include scientific papers in journals, scientific papers presented at scientific conferences and chapters in scientific books.

The number of scientific papers published in scientific journals is 231. Of the total number of these papers, 185 were published in journals indexed in the Web of Science Core Collection (WoSCC) and Scopus database, and 5 in journals indexed in other databases. The number of scientific papers published in journals indexed in relevant databases is shown in Figure 5.1.

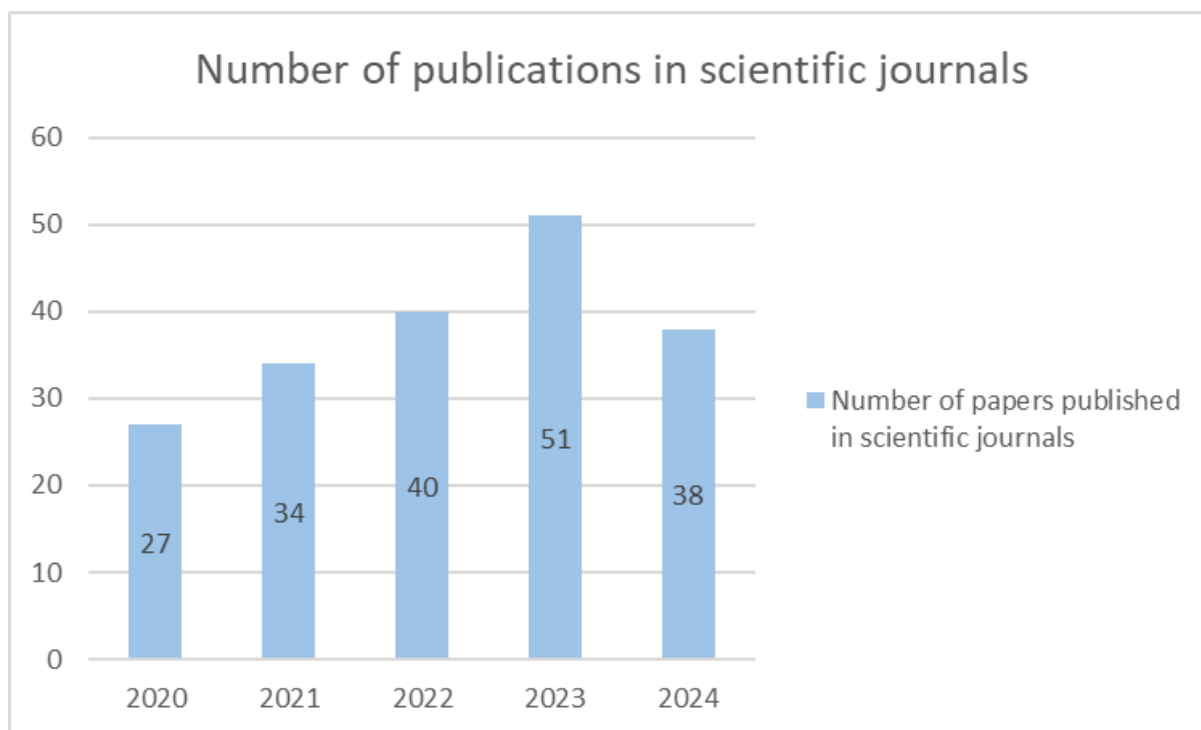


Figure 5.1. Number of papers published in scientific journals indexed in relevant databases in the last five years

A total of 483 scientific papers have been published in proceedings of scientific conferences and 32 chapters in scientific books. In addition, 9 author's books and 20 editorial books have been published.

According to available data, teachers and associates in the academic year 2023/2024 and the first part of 2024/2025, participated in conferences in Bulgaria, Brazil, Czech Republic, France, Italy, Japan, Malaysia, the Netherlands, Germany, Portugal, Serbia, Singapore, Spain, Switzerland, the United Kingdom and South Africa, and some of the most important conferences were: EAN, European Distance and E-learning Network Conference - EDEN, International Conference on Learning Analytics & Knowledge - LAK, International Conference on Artificial Intelligence in Education - AIED, Management International Conference, Microsoft Dynamics Academic Conference, European Framework for Digital Competence of Educators, International Conference on Practical Applications of Agents and Multi-Agent Systems, International Scientific Conference on Economic and Social Development. The number of papers published in the proceedings of international scientific conferences in the last five years is shown in Figure 5.2.

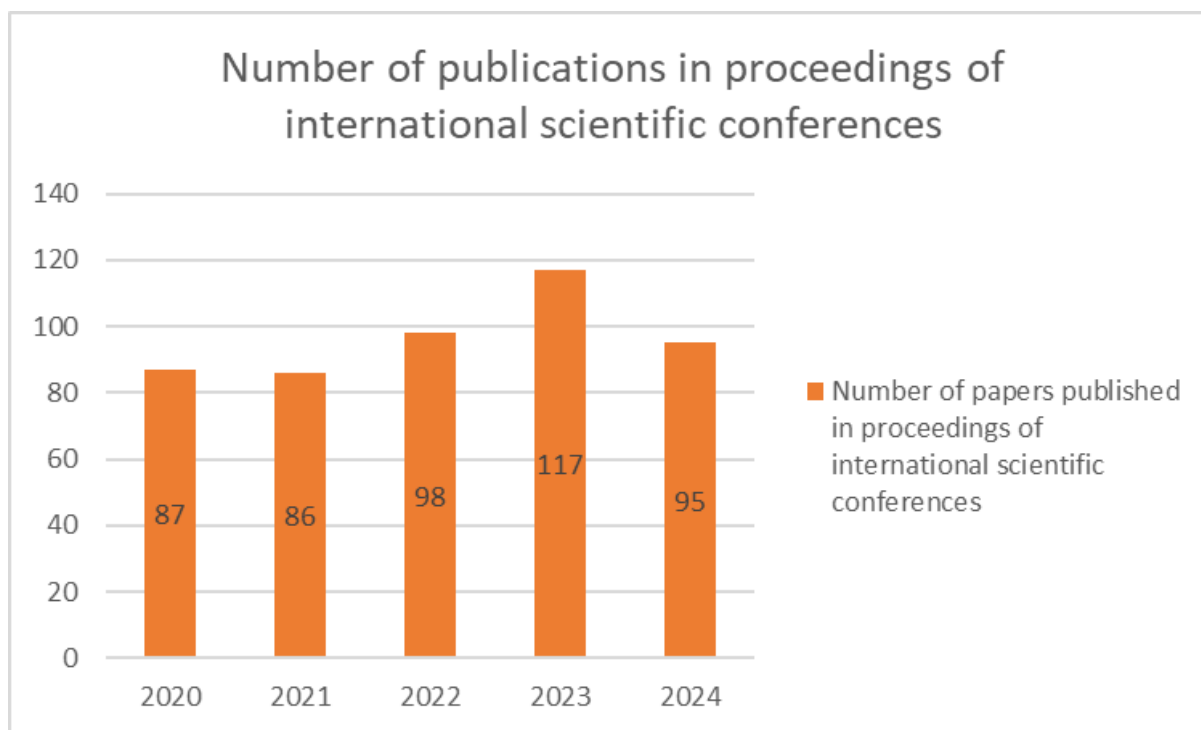


Figure 5.2. Number of papers published in proceedings of international scientific conferences in the last five years

The above overview shows that the share of scientific papers in journals indexed in relevant databases (in the total number of scientific papers) increased in 2021 and since then it has accounted for about 30%. The ratio of scientific papers in journals (indexed in databases) and in conference proceedings is shown in Figure 5.3.

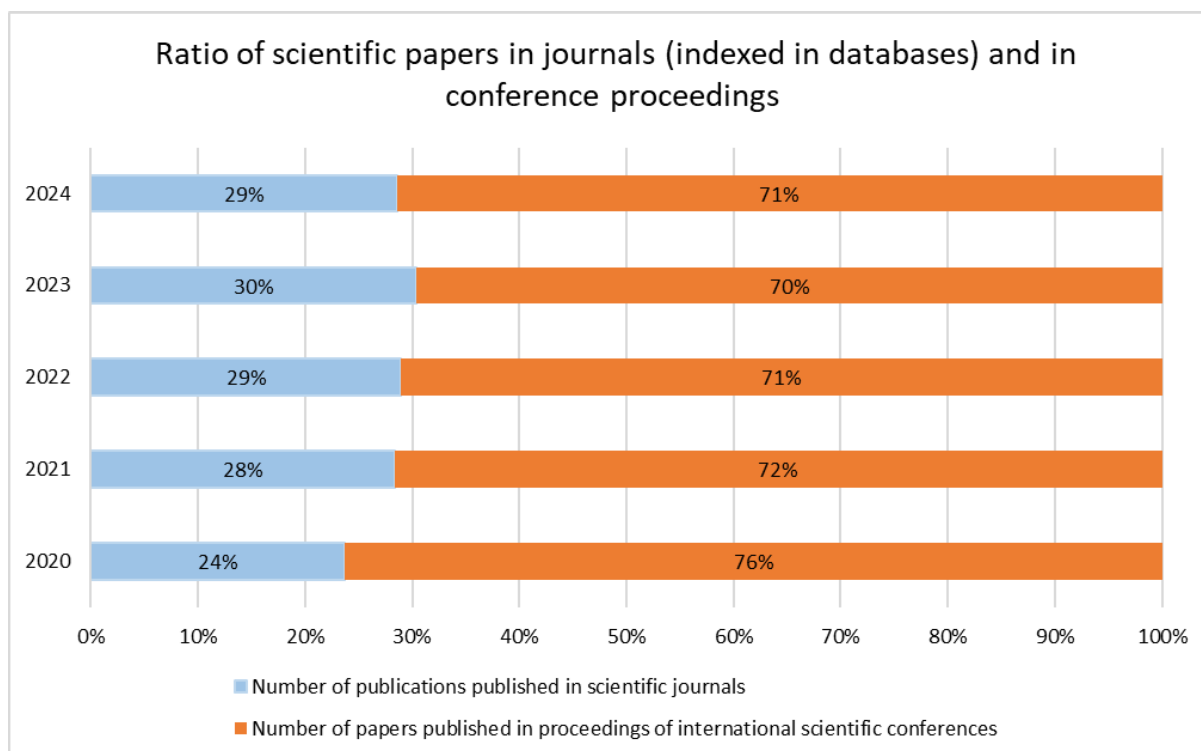


Figure 5.3. Ratio of scientific papers in journals (indexed in databases) and in conference proceedings

Prominent publications of UNIZG FOI teachers and associates, published in the five-year re-accreditation period, are presented in Table 5.2. of the Analytic supplement to the self-evaluation report.

The total number of citations of UNIZG FOI papers according to Google Scholar as of March 10, 2025 is 37226 (note: it is not possible to remove self-citations - [Annex 5.1.6.: UNIZG FOI_Google_scholar citations 2025 03 10](#)).

Analysis of the number of papers indexed in the Scopus database by Scimago Journal Ranking quartiles (SJR, Figure 5.4.) and Web of Science Core Collection databases by quartiles of impact factor from the Journal Citation Report (JCR, Figure 5.5.) **shows an increase in the number of papers published in journals Q1 and Q2 quartiles in the last five-year period** (noting that the Web of Science Core Collection databases are significantly delayed in indexing conferences, and the decrease in the number of conferences in Figure 5.5 for 2024 is not caused by an actual decrease of publications in conference proceedings indexed in that database, but by the time lag of indexing).

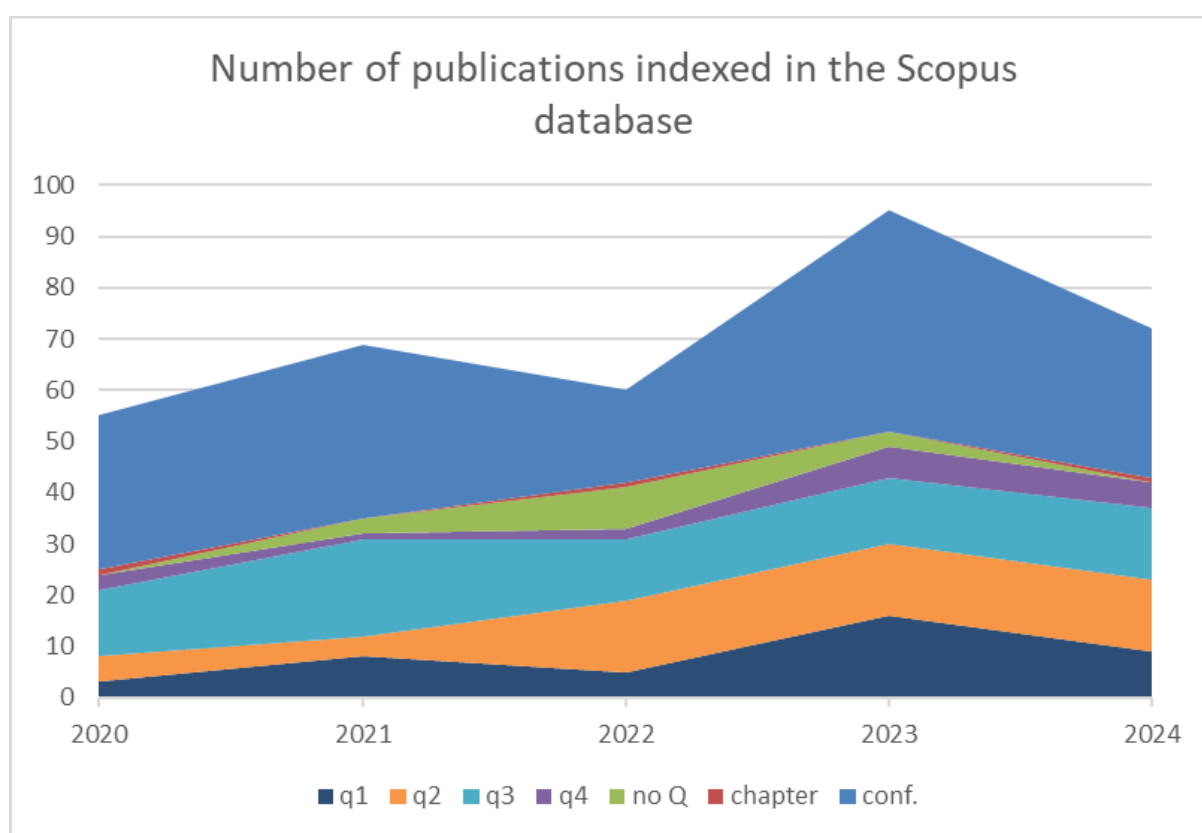


Figure 5.4. Trends in the number of publications indexed in the Scopus database by quartile of journals, conferences and book chapters

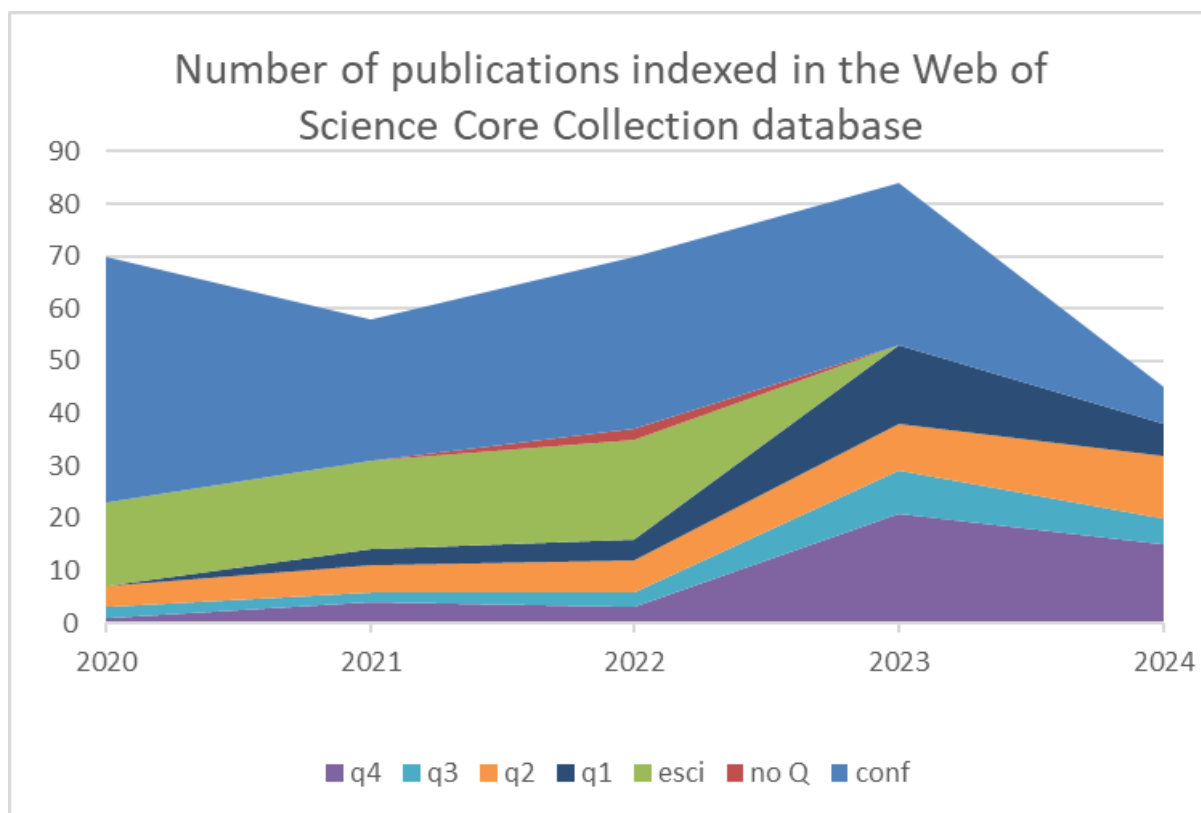


Figure 5.5. Trends of the number of publications indexed in the Web of Science Core Collection databases by quartile of journals, conferences and book chapters

Teachers and associates are encouraged to achieve high quality scientific research, and their results significantly contribute to the development of the scientific field in which they operate. For their scientific research activities, teachers regularly receive prestigious awards, such as: ["Alica Wertheimer-Baletić" award for exceptional contribution to science and education](#) (*[Annex 5.1.7.: Award Annex 5.1.7.: Nina Begičević Redep Award](#)), [Recognition of Professional Excellence called EDEN Fellow Award 2023](#) ([Annex 5.1.8th: Igor Balaban Award](#)), [Annual Award of the Society of University Teachers and Other Scientists](#) in 2022 (*[Annex 5.1.9: Barbara Slibar Award](#)) and [in 2023](#) (*[Annex 5.1.10.: Marijana Bubanić Award](#)), [Award for UNIZG FOI teachers to be among the 50 most influential women in Croatian hi-tech](#) (*[Annex 5.1.11.: Marina Klacmer Calopa Award](#) and *[Annex 5.1.12. Nina Begičević Redep Award](#)), while based on the Rulebook on Awards of the UNIZG FOI ([Annex 5.1.13: Regulations on Awards and Honours](#)), at the end of each year, employees and associates whose work and commitment in the past year have been recognized as an exceptional contribution to raising organizational and social value, are awarded prizes and recognitions for the scientific, teaching and professional results achieved. Every year, on the occasion of [the Faculty Day](#), UNIZG FOI hands out awards for special achievements in scientific and teaching work, an award for a successful young scientist as well as a recognition for the best scientific publication. For its contribution to society, with a special emphasis on scientific achievements, UNIZG FOI also received the [City of Varaždin Award](#) in 2022, for its long-term contribution to the advancement of science, economy and education in the city of Varaždin, Croatia and the international community.

UNIZG FOI teachers also encourage students to do scientific research by submitting papers for the Rector's Award at the University. To this end, UNIZG FOI publicly publishes the [Criteria for Evaluating the Excellence of Papers](#), on the basis of which the Committee for the Evaluation of Student Papers

for the Rector's Award annually evaluates and proposes to the University papers for the Rector's Award. The Decision on proposing students for the Dean's Award intended for rewarding mentors and students (*[Annex 5.1.14: Decision - Nomination of Students for the Dean's award 2025](#)) who have at least 70% of the total number of points in the process of evaluation of student papers for the Rector's Award enables the coverage of the costs of publishing a scientific paper that will include scientific research results achieved within the work nominated for the Rector's Award on one conference or meeting, with the approval of the mentor and the management board. In addition, according to the same decision, mentors are granted additional funds to co-finance scientific activities.

In the last five years, UNIZG FOI has had an active project period (Table 5.6. of the Analytic supplement to the self-evaluation report).

The Rulebook on the Distribution of Own Revenues, and the new Rulebook on the Distribution of Own Revenues and Revenues for Special Purposes of the Faculty of Organization and Informatics from 2022 (*[Annex 5.1.4. Rulebook on the distribution of own revenues 2021](#), [Annex 5.1.5. Regulations on the Distribution of Own Revenues and Revenues for Special Purposes of the Faculty of Organization and Informatics 2022](#)), regulate the method of distributing own income, the criteria and the procedure for obtaining support for employee incentives. The Rulebook regulates support **for project applicants** in which the share of UNIZG FOI exceeds EUR 25,000, with financial means, which are determined according to the project category (International Competitive-Research Projects - HORIZON Europe / Marie Skłodowska-Curie / ERC, etc., National Research Projects - Croatian Science Foundation, International Research Networks - COST and International Development Projects - Eureka / Erasmus+) and status (UNIZG FOI is the project leader - Project is funded, UNIZG FOI is the project holder - The project has been positively reviewed but is not funded, FOI is a partner in the project - The project is funded and UNIZG FOI is a partner in the project - The project has been positively reviewed but is not funded).

In the five-year period from 2020 to 2024, a total of 94 projects were implemented at the UNIZG FOI. Of the total number of projects, **57 were scientific projects** (61% of the total), **of which 42 scientific projects** (74% of the number of scientific projects) **were financed from various international sources** (the distribution by source of funding is shown in Figure 5.6). The total value of projects in the five-year period was slightly more than EUR 220 million, and the value of UNIZG's FOI share was EUR 6 million (Figure 5.7). Among the scientific projects are also development projects with a scientific component (N = 19; 33%). These projects also include **numerous Erasmus+ projects (34%)** that are of great international and scientific importance for UNIZG FOI. Since the goal of the Erasmus+ program is to improve (higher) education, and since this is one of the scientific strategic goals of UNIZG FOI, which also operates in the field of educational sciences, i.e. in the interdisciplinary areas of technology application in education, learning analytics, artificial intelligence in education, it is clear why the results of UNIZG FOI scientists within the development projects in which they participate are most often created in the form of scientific results based on the applied scientific and development research. An example are the scientific results achieved as part of Erasmus+ projects: [RAPIDE](#), [TEACH4EDU4](#), [iLed](#), [eDESK](#), published in journals with a high impact factor and high-ranking conferences. In addition, there are laboratories at UNIZG FOI that contribute to the development of the education system: the [Laboratory for Learning Analytics and Academic Analytics](#), the [Laboratory for Innovative Application of E-Learning and Computer Teaching of Foreign Languages](#), and the

[Laboratory for Advanced Technologies in Education](#), whose members **coordinate international projects or participate in them as partners.**

Annually, UNIZG FOI applies to between 20 and 30 project calls, and in December 2024, UNIZG FOI participated in projects with a total value of EUR 13.9 million, with UNIZG FOI's share of EUR 2.4 million. About 80% of the scientific and teaching staff is involved in project activities.

In December 2024, 25 projects were active, while a total of 32 projects were completed (2020-2024 period), with more than 50% of the projects being international, implemented in cooperation with partner universities.

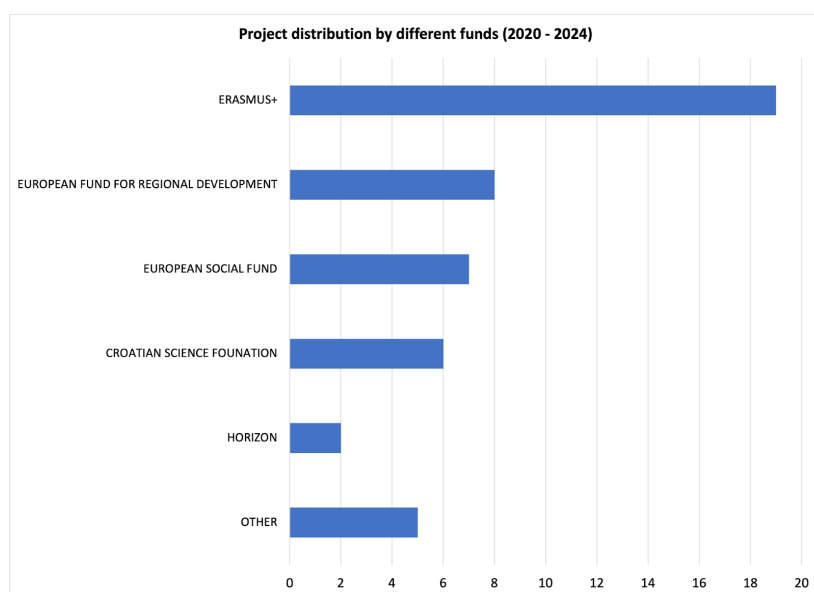


Figure 5.6. Project distribution by different funding sources (2020-2024)

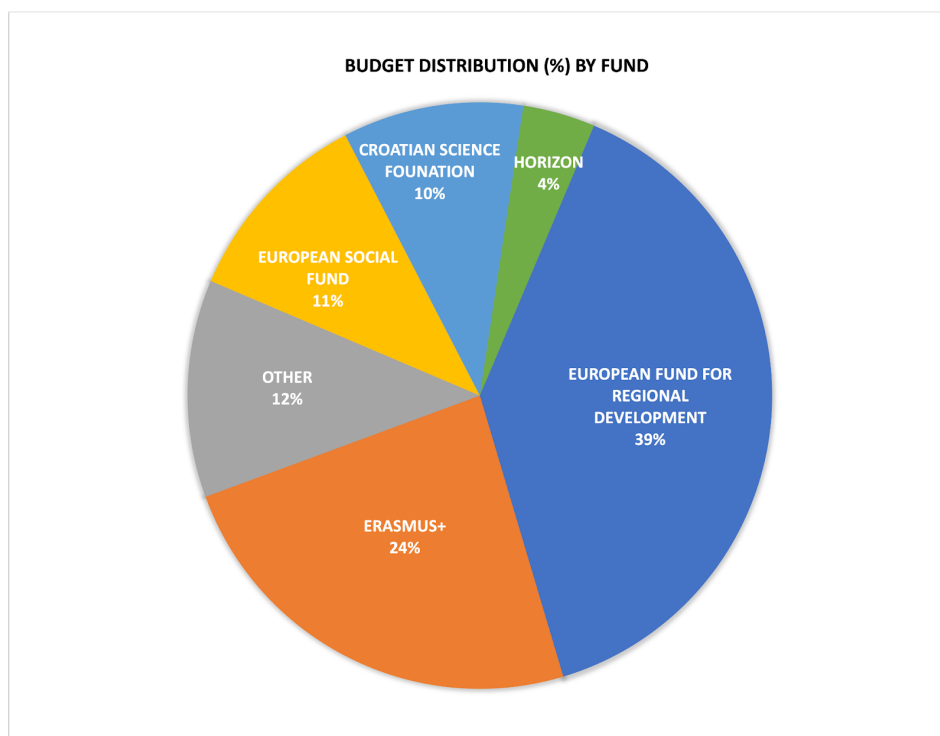


Figure 5.7 UNIZG FOI budget distribution (%) by different funding sources (2020-2024)

In the last five-year period, UNIZG FOI has established more than 290 unique partnerships with various institutions and companies from Croatia (38%), Europe (56%) and the world (7%) within the framework of new applications and approved projects. Of the European countries, UNIZG FOI most often cooperates with educational institutions from Germany (17), Spain (15) and Slovenia (12).

Of the projects, the following should be highlighted:

- **Erasmus+ projects:**
 - [Relevant assessment and pedagogies for inclusive digital education - RAPIDE](#), which received the [Good Practice](#) label and within which 16 scientific papers were published, as well as a MOOC open to the public (Let's flip learning - <https://learn.foi.hr/course/index.php?categoryid=9>)
 - [Strengthening the ecosystem for sustainable student mobility - SuMOS](#) with the aim of strengthening the institutional ecosystem for strategic, structured and sustainable cooperation between higher education institutions in the field of student mobility through the development and purposeful use of green practices, digital tools and approaches to curriculum comparison.
 - [Advancing higher education in Maldives through E-learning Development - AMED](#) which aimed to contribute to the modernisation, ensuring accessibility and internationalisation of higher education in the Maldives by improving the level of competences and skills, through the development of a new and innovative educational programme in the field of e-learning.
 - [The European University of Post-Industrial Cities - Boosting mobility & inclusion for societal impact - UNIC](#), within which UNIZG FOI, as a unit of the University, is part of the Alliance of eight European Universities within the European Universities call. This

is a project with an extremely large long-term impact on the development of the entire University and all its constituents. Students also have a special role in the project, whose representatives from all involved universities have a great influence on shaping the mission of this alliance.

- **Horizon 2020 project** of the research and innovation program [Twinning Open Data Operational – TODO](#), which brought together a consortium composed of six units of the University of Zagreb in cooperation with foreign partners, with the aim of developing and implementing innovative, interdisciplinary approaches to open data research in different fields of application, for the establishment of a critical mass of researchers that will encourage and enable the creation of a sustainable environment, capable of responding to key challenges in open data research and building an understanding of the open data ecosystem in Croatia.
- **Projects of the Croatian Science Foundation - six scientific projects** of different research groups of UNIZG FOI were active in the observed period:
 - [ORKAN - Framework for Control and Monitoring of Unmanned Aerial Vehicles](#) (February 1, 2020 to January 31, 2024) is a project in the field of social sciences, in the field of information science, within which a new architecture for communication of networked systems (drones, Internet of Things) was presented with an emphasis on simplicity, security and energy efficiency of communication. One of the results of the project is the constellation of drones as a platform for scientific research, and in addition to scientific contribution in the form of models, algorithms, software and new protocols, this project has great potential in securing people, property and privacy. The project ended with a conference called "[ORKAN - Unmanned Aerial Vehicle Policy Ecosystem: Glimpse of the Future \(Final Event\)](#)" and attracted experts from practice - Orqa d.o.o. and the Department of Automation and Computer Engineering from the University of Zagreb, Faculty of Electrical Engineering and Computing (UNIZG FER) and students. The conference, with numerous lectures and presentations of research results, was attended by more than 100 participants. The project enables the employment of a doctoral student.
 - [O-HAI 4 Games - Orchestration of Hybrid Artificial Intelligence Methods for Computer Games](#) (February 1, 2020 to April 30, 2024) is a project in the field of social sciences, in the field of information science, in which it is proposed to establish a new framework for the orchestration of hybrid artificial intelligence methods with a special application to the development of computer games. In accordance with this, an ontology and a meta-model of tools for creating models of artificial intelligence methods have been developed, and a modular distributed platform for the orchestration of hybrid artificial intelligence methods has been developed. The project enables the employment of a doctoral student.
 - [HELA - Improving HEI maturity to implement Learning Analytics](#) - (March 1, 2021 to February 28, 2025) is a project in the field of social sciences, in the field of information sciences, whose fundamental purpose is to contribute to a better understanding and optimization of the learning and teaching process supported by learning analytics by improving the maturity of higher education institutions in the application of learning analytics. Within the project, a maturity framework was

developed for the implementation of learning analytics in a hybrid learning environment. The project enables the employment of a doctoral student.

- [SIMON - Intelligent System for Automatic Selection of Machine Learning Algorithms in Social Sciences](#) (May 1, 2021 to April 30, 2026) is a project in the field of social sciences, in the field of information science. The project makes a scientific contribution in the field of meta-learning. The end result of the project is an intelligent system for automatic selection of machine learning algorithms that will give the best performance on a specific data set, taking into account the specific features of that set. The research includes a comparative analysis of a large number of machine learning algorithms on a large number of datasets. The project enables the employment of a doctoral student.
- [DigEntre - Digitalization in Entrepreneurship in the Context of the Exogenous Shock Response: Drivers, Barriers and Impact on Business Resilience](#) (18 December 2023 to 17 December 2027) is a project in the scientific field of economics whose purpose is to develop a framework of conditions for strengthening resilience to the COVID-19 crisis and to foster the digitalization of micro, small and medium-sized enterprises at the level of entrepreneurs, enterprises and ecosystems, including comprehensive guidelines for entrepreneurial practices and economic policymakers. The methodological framework of the research includes quantitative research on secondary data, survey-based research and qualitative research.
- [TRUELLA - Trustworthy Learning Analytics and Artificial Intelligence for Sound Learning Design](#) (December 30, 2023 to October 29, 2027) is a project in the field of interdisciplinary sciences, in the field of information science, educational science and mathematics. The overall objective of the project is to develop new approaches and methods of learning analytics and artificial intelligence that use large amounts of data generated primarily in learning management systems. This project seeks to build on existing achievements in research and design. The aim is to explore and improve synergies between Learning Analytics and Artificial Intelligence by developing new approaches and methods that use large amounts of data. These approaches will primarily focus on teaching and e-assessment methods, learning patterns and learning design. The results of the project will significantly contribute to the existing research and knowledge related to Learning analytics and Artificial Intelligence in education, especially the credibility of Learning Analytics, as one of the areas that has been more in focus lately. The project enables the employment of a doctoral student.

The projects of the Croatian Science Foundation are from the categories of Research Projects and Establishment Research Projects, and have resulted in a large number of publications in journals and conferences, and the establishment of a new UNIZG FOI Laboratory. Their importance in promoting and building scientific research activities was recognized by the teachers of UNIZG FOI, and a total of nine new projects were submitted through March 2025. In addition to the projects of the Croatian Science Foundation, whose applicants are teachers of the UNIZG FOI, the teachers of the UNIZG FOI also participate in the projects of the

Croatian Science Foundation of the applicants of other higher education institutions (e.g. [FORMALS](#)).

- **Digital Europe project** co-financed by the Ministry of Economy and Sustainable Development: [Digital transformation of central Croatia and the northern Adriatic through AI & Gaming](#) with the purpose of establishing a European Digital Innovation Center that will provide support to companies and other stakeholders in digital transformation processes. AI & Gaming EDIH will provide services in the key areas of the Digital Europe Programme 2021-2027: artificial intelligence, cybersecurity and/or high-performance computing. AI & Gaming EDIH will base its work on artificial intelligence with a focus on video game development and gamification, as well as the Blockchain and IoT industries. The main focus of the project is to encourage digital transformation and improve the digital skills of small and medium-sized enterprises and public administration bodies. The project will strengthen the capacities of good governance, digital transition and human resources management.
- **The E-Schools** - UNIZG FOI project participated as a partner in the program "e-Schools: Development of a system of digitally mature schools", (Phase II), the goal of which was to strengthen the capacities of the primary and secondary education system with the aim of training students for the labor market, further education and lifelong learning. The value of e-Schools was also recognized by the European Commission, and in 2020 the project won the first place in the category Inclusive Growth – Skills and Education for Digital Europe within the Regiostars Awards – awards for the best projects at the level of the entire European Union, proving the importance of a holistic approach to the application of modern technology, digital content and support, thus enabling equal opportunities for education for all students. In addition to participating in the development of software solutions and the development of a framework for the digital maturity of schools, the teachers of UNIZG FOI were the authors of part of the educational materials that included: 98 digital educational contents, 1440 teaching scenarios for teaching courses, 350 teaching scenarios for cross-curricular topics with 119 associated interactive contents, as well as the design of the national learning analytics system.
- **DECIDE Project** - As the [Flagship Project](#) of the EU Strategy for the Danube Region (EUSDR), the DECIDE project empowers small and medium-sized enterprises, start-ups and economic development organizations to embrace the circular economy. The project brings practical methods and tools to encourage innovative business models, offering cross-border knowledge exchange and concrete support through pilot projects. Through targeted education and actionable policy recommendations, DECIDE fosters sustainable growth, helping companies across the Danube region to lead the way in implementing circular economy.

In the mentioned period, UNIZG FOI teams were involved in 13 coordinating and 44 collaborative scientific projects. It is encouraging to note that the high number of project applications and project active staff continues from the previous period. In the period from January to March 2025 alone, 25 new projects were applied to the funding lines of the Croatian Science Foundation, Erasmus+ and others.

In project applications that result in scientific research and publication of research results, as well as in project management, teachers are supported by the employees of the [Center for International](#)

[Projects \(CMP\)](#). The established portal projekti.hr is continuously upgraded in order to be able to find information on all tenders as quickly as possible (the support ecosystem is shown in Figure 5.8). In addition, employees are informed about the possibilities of project applications by email through the newsletter "[inFOImator](#)", which is published three to four times a year and, in addition to direct email, is also disseminated by publication on the [FOI Projects portal](#) and through CMP's social networks (<https://www.facebook.com/projekti.hr>; <https://www.linkedin.com/company/projekti-hr/posts/?feedView=all&viewAsMember=true>).

Also, in the accounting department, staff in charge of project accounting has been allocated, which allows teachers and associates to focus on the research aspect of projects.

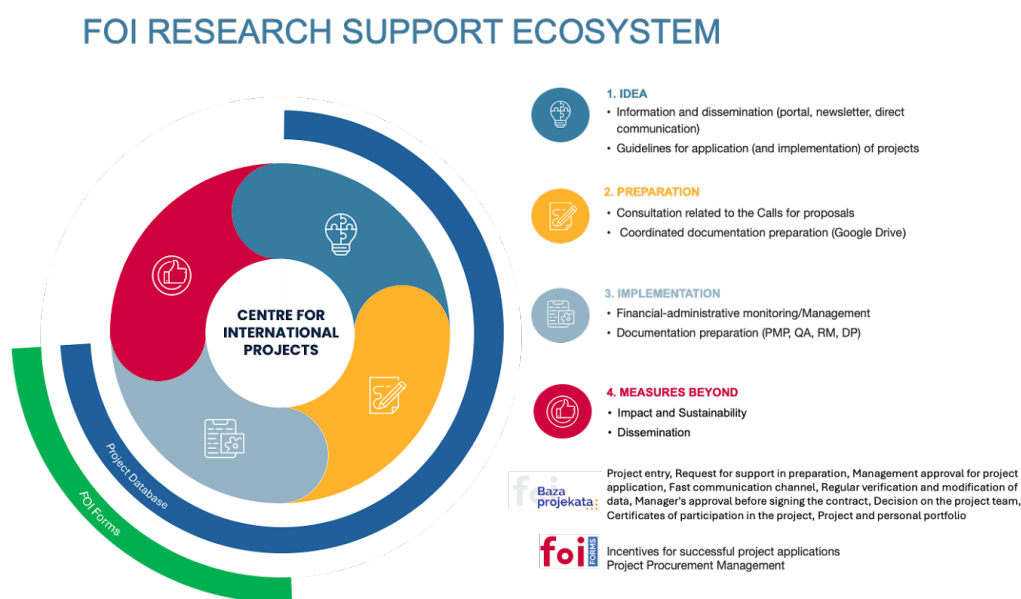


Figure 5.8 UNIZG FOI's research support ecosystem

Due to the large number of scientific, development and professional projects, CMP, in cooperation with the [Center for Software Product Development \(CZRPP\)](#), continued to upgrade its own system of collecting data on all project initiatives and projects of scientists and teachers of UNIZG FOI with the basic purpose of easier review, search and analysis of project activities of scientists and associates. It is a database [FOI Baza projekata](#) (FOI Project Database), the functionality of which is continuously improved. The database is designed as a set of data, which enables employees to enter (basic data on project applications, amendments to existing project data), search (current and completed projects, project partners, project topics by keywords), support (sending official requests to the Management, access to the digital treasury of project documentation) and monitoring (activities of the project activities of UNIZG FOI and the employees themselves, automatic statistical processing of entered data, employee project activities) project activities.

Over the past few years, UNIZG FOI's Center for International Projects has been working intensively on refining procedures and procedures related to facilitating project applications and implementation.

For this purpose, two documents have been produced:

- [A guide for project proposers from the initial idea to the result](#), designed to enable current and future applicants and project managers to find their way around the institutional practices of project applications and the FOI Project Database, but also to offer basic templates for a better and coordinated path from idea to result. This guide also contains a roadmap that allows for easier coordination through typical project-related processes
- Catalog of services (*[Annex 5.1.15: Catalog of CMP services](#)) of CMP, which is designed with the aim of bringing the roles and services of available project administrators and project managers closer to all employees.

Furthermore, the [FOI Baza projekata](#) (FOI Project Database) has been regularly upgraded in the last years to include new functionalities, such as faster download of relevant documents, simpler direct communication with CMP and the Management Board, and an overview of all project postings conducted in accounting in real time.

During 2024, the **FOI Research BOX** promotional package ([Annex 5.1.16: CMP Research Booklet](#)) was designed to increase the visibility of scientific efforts and successes and open up new opportunities for cooperation.

UNIZG FOI has actively participated in **26 mobility and internationalization initiatives** with a total value of around EUR 150.000,00, which include the organization and participation in various intensive workshops for students, international summer schools, participation in the Central European Exchange Program for University Studies and mobility projects of the Croatian Science Foundation.

For 35 years, UNIZG FOI has been continuously organizing the international conference [Central European Conference on Information and Intelligent Systems \(CECIIS\)](#), where teachers, scientists and associates of UNIZG FOI, partner institutions, scientific and research institutions and communities from Croatia and abroad publish the results of their scientific research. CECIIS is the largest IT conference in the continental part of Croatia and one of the most important conferences in the field of applied information sciences in Central Europe. The conference presents papers grouped into about 10 thematic units (sections), which focus on current trends and challenges of the profession. The conference is traditionally held in the premises of UNIZG FOI in Varaždin, with the exception of 2022 and 2023, when it was held in Dubrovnik. The thematic emphasis of the CECIIS conference in 2024 was on Cyber-Physical and Embedded Systems, while in 2023 the emphasis was on Digital Human. The scientific program includes invited lectures by eminent international experts, presentations of participants' papers, and a number of parallel events such as presentations of student papers, presentations of projects through the project oasis, implementation of various workshops and round tables in cooperation with industry partners and conference sponsors. The papers undergo a double anonymous, international review, and the papers that are accepted for presentation and presented at the conference are published in the Proceedings. The authors of selected papers have the opportunity to expand their papers and publish them in the International Journal of Information and Organizational Sciences (JIOS). [CECIIS proceedings](#), published in open access, have been indexed in the ProQuest SciTech Premium Collection, ProQuest Technology Collection and ProQuest Advanced Technologies & Aerospace Database since 2016. **The volumes of the CECIIS Proceedings from 2015 to 2022 are included in the prestigious Web of Science Conference Proceedings Citation Index (CPCI), and for 2023 and 2024 they are registered for indexing in the same database.**

Since 2016, UNIZG FOI has been the main partner **of the international scientific conference CRODMA**. The conference is organized by the Croatian Association for Direct and Interactive Marketing. The association is non-governmental, non-political and non-profit, and connects natural and legal persons engaged in direct and interactive marketing. The [governing bodies of the Association](#) include employees of UNIZG FOI. One of the goals of the CRODMA scientific conference is to connect interdisciplinary areas close to marketing. Some of the topics covered by the conference are: digital marketing, database marketing, direct marketing, CRM, personalization, privacy, entrepreneurship, digital economy, innovations, technologies that are applied in marketing such as big data, artificial intelligence, Internet of Things, knowledge management, etc. Each year, the main theme of the conference is determined, so in 2025 the theme is "Personalized Marketing in the Age of AI: The Future of Customer Experience". In addition to presenting scientific and professional papers by scientists and practitioners from Croatia and abroad, the conference also includes a minimum of two invited lectures by experts in the field covered by the main topic of the conference. The papers undergo a double anonymous, international review, and the papers are published in the [Proceedings](#), available in open access, according to the presentation at the conference itself. From 2023, the co-organizer of the conference is the Croatian Academy of Sciences and Arts, which further increases the recognition and visibility of the conference. In addition to being the authors of the papers published in the Proceedings, the teachers and associates of the UNIZG FOI are also members of the program and organizing committee of the conference and members of the editorial board of the Conference Proceedings.

UNIZG FOI is also a long-time **co-organizer of the international conference** for information and communication technology, electronics and microelectronics [MIPRO](#), with the aim of strengthening the economy by supporting the development of modern technologies. Every year, teachers and associates of UNIZG FOI participate with presentations and publications of research results, are members of the program committee and invited panelists at this conference.

UNIZG FOI has been cooperating with the Faculty of Electrical Engineering, Computer Science and Information Technology (FERIT) of the University of Osijek for many years. One of the forms of cooperation worth mentioning is the **co-organization of the international scientific conference Conference on Smart Systems and Technologies (SST)**, which brings together scientists and experts from electrical engineering, communications, computer science, control systems, robotics and interdisciplinary research.

In the last five years, UNIZG FOI teachers have **participated in the organization of a number of other scientific conferences**. Data on participation in conference committees in the last five-year period are given in Table 5.7 of the Analytic supplement to the self-evaluation report. Teachers and associates of the UNIZG FOI are **members of numerous university bodies and commissions**, and actively contribute to various aspects of the functioning and development of the UNIZG through various roles, e.g. vice-rector, members of the Senate, members of the extended Rector's Council, the Council of the Social Sciences and Humanities of the UNIZG, the Council of the Natural Sciences of the UNIZG, the Scientific Committees for the field of social sciences, the field of information (and communication sciences) and the field of economics, and the teacher of the UNIZG FOI she also worked in a management position at the national level, as the Minister of Science and Education. Also, one teacher of the UNIZG FOI is the president of the [Committee for Science, Art and International Cooperation of the UNIZG](#), one teacher of the UNIZG FOI is a member of the Committee for the Development of Cyber Security Policy and the one-year university graduate study of Cyber Security (*[Annex 5.1.17.: Decision of the Committee for the Development of Cyber Security Policy](#)

[and the One-Year University Graduate Study of Cyber Security](#)), teachers are members of the Working Group for the drafting of the Act on the implementation of Regulation (EU) 2024/1689 of the European Parliament and of the Council laying down harmonized rules on artificial intelligence (Artificial Intelligence Act) (*[Annex 5.1.18: Decision on the appointment of working group AI.pdf](#)) and the [Croatian Academy of Management \(HrAM\)](#). In addition teachers were actively involved in the development process of the [Internationalization Strategy of the UNIZG 2014-2015](#), [Strategic Guidelines for the Digital Transformation of the UNIZG for the period until 2032](#) and the [Strategic Guidelines for Scientific Research Activities of the UNIZG 2023-2026](#).

External associates of UNIZG FOI are recognized experts in their field and have appropriate scientific and professional competencies, as well as work experience, which is evident from the available examples of CVs ([*Annex 5.1.19: CVs of external associates](#)). For external associates of the UNIZG FOI, the possibility of academic advancement for positions for which they have the conditions is open. **External associates play an important role at UNIZG FOI because they enable the transfer of professional and scientific knowledge from practice to the academic community. As recognized experts in their fields (their election is carried out at the departments and confirmed by the Faculty Council), they pass on the latest trends, technologies and methods of work to students, thus contributing to the quality of the educational process.** In addition, external associates help to connect UNIZG FOI with the economic sector, encouraging collaboration on projects, practices and research activities. As an example, Table 5.1 provides data on scientific and professional papers of some external associates of the UNIZG FOI in the last five-year period.

Table 5.1. Data on scientific and professional papers published in the last five-year period by certain external associates of UNIZG FOI

Teacher	CroRIS ID	CroRIS link	Number of scientific papers in journals, books and conference proceedings	Number of professional papers in journals, books and conference proceedings
Bušelić, Vjeran	35409	https://www.croris.hr/obse/profil/35409?lang=en	8	2
Brajša-Žganec, Andreja	9129	https://www.croris.hr/obse/profil/9129?lang=en	31	1
Brozović, Mateja	32502	https://www.croris.hr/obse/profil/32502?lang=en	25	13
Horak, Hana	6173	https://www.croris.hr/obse/profil/6173?lang=en	7	0

Šimurina, Nika	3798	https://www.croris.hr/obsoe/profil/3798?lang=en	13	1
Zdjelar, Robertina	33285	https://www.croris.hr/obsoe/profil/33285?lang=en	8	0

UNIZG FOI teachers **are members of the editorial boards of numerous scientific journals**. Data on the participation of employees in the editorial boards of scientific journals in the last five-year period are given in Table 5.8. of the Analytic supplement to the self-evaluation report.

UNIZG FOI has organized publishing activities and is a publisher of scientific publications that are nationally and internationally significant and recognizable.

Twice a year, the international scientific [Journal of Information and Organizational Sciences \(JIOS\)](#) is published at UNIZG FOI. The journal publishes original scientific papers, preliminary communications and review papers in the field of information sciences, organizational research and related disciplines, and all papers undergo a double, anonymous, international review. The areas covered by JIOS are: Intelligent and Information Systems, including AI, Machine Learning, Cybersecurity, and Blockchain; Smart industry with a focus on IoT, digital twins and advanced analytics; Organizational Studies on Behavior, Management, and Digital Transformation; Interdisciplinary approaches in informatics, management, psychology and sociology; Human-computer interaction, including user experience and usability; Learning and knowledge management through technology; Trends in software engineering, such as DevOps, AI integration, and microservice architectures; Technologies in education, with a focus on AI, virtual and augmented reality, and learning analytics, as well as a number of related, interdisciplinary topics. JIOS is an open access journal. **All content is published under the Creative Commons BY-NC-ND 4.0 license, and there are no article processing costs. (APC) nor a fee for the publication of the paper.** The editorial board of the journal continuously increases the quality of the journal and supplements it with instructions for reviewers, instructions for references, a statement on publishing ethics and negligence, as well as a list of all reviewers. JIOS is indexed in several major databases and repositories, including Scopus and INSPEC, and since 2017 it has been indexed in the Emerging Sources Citation Index (ESCI) on the Web of Science (WoS) platform. The journal is internationally oriented and publishes scientific articles by national and foreign authors and doctoral students, which also contributes to the quality of doctoral studies. According to the Scimago Journal & Country Rank metric, JIOS's H INDEX is 16, and since 2020 it has increased the quartile value from Q4 to Q3. As of 2024, the [ScholarOne](#) platform, which is a state-of-the-art paper management system, is used for JIOS.

UNIZG FOI is a co-publisher of the journal [Croatian Operational Research Review – \(CRORR\)](#) in addition to the aforementioned JIOS journal. The aim of the journal is to publish high-quality scientific papers covering the theory and application of operations research and related fields, mainly quantitative methods and machine learning. **All content is published in open access.**

There is a permanent Committee for Publishing Activities at the UNIZG FOI (*[Annex 5.1.20: Decision of the Committee for Publishing Activities](#)) and the Rulebook on the Publishing Activity of the UNIZG FOI (*[Annex 5.1.21: Rulebook on the Publishing Activity of the UNIZG FOI](#)), which regulates the publishing activity, structure and manner of work of the Committee for Publishing Activities.

Procedures have also been developed that accompany the publishing activities of UNIZG FOI. In the period from 2020 to 2024 [UNIZG FOI](#) has published 9 monographic publications, 1 faculty textbook, 3 university textbooks, 10 issues of the Journal of Information and Organizational Sciences, 5 issues of the Proceedings of the CECIS Conference. From all of the above, it is evident that the publishing activity of teachers is very fruitful, that it contributes to the scientific reputation of teachers, and that there is a tendency to cover all important strategic areas of UNIZG FOI, related to science and teaching, with textbook material.

5.2. The higher education institution is distinguished by its professional achievements in all fields in which the professional study programme is delivered.

Through their professional work, teachers and professional services of UNIZG FOI deal with solving professional problems in their environment and beyond. Although the publication of professional papers is not a mandatory condition for the promotion of teachers, UNIZG FOI's teachers and associates publish professional papers and work on professional projects, thus **showing their social responsibility and contribution to the development of the profession**. Teachers strive to publish the results of their professional work in professional journals and at professional conferences and gatherings. They regularly participate in interdepartmental conferences related to the field of activity, including the [Interdepartmental Meeting on Business Informatics](#), the last of which was held in 2024 at the UNIZG FOI, and the Interdepartmental Meeting for Organization and Management. Such events bring together scientists and experts in the field of business informatics, organization, management and related disciplines to discuss and analyze current practices and experiences in these fields. The meetings include exchange of experiences, discussions and the presentation of best practices of similar academic programs and departments in Croatia and the region.

In the last five-year period, UNIZG FOI teachers published **50 professional papers**, out of which 34 were published in conference proceedings, 14 in journals and 2 papers as chapters in professional books (Table 5.1. of the Analytic supplement to the self-evaluation report).

In the last five-year period, UNIZG FOI teachers have been leaders or participated in numerous research and development projects that have resulted in innovative ideas and solutions. **In the period from 2020 to 2024, UNIZG FOI participated in 11 different professional projects with a total value of EUR 17.7 million, in which UNIZG FOI had a share of EUR 1.3 million (7%).** In the mentioned period, UNIZG FOI's teams were involved in four coordinating and seven partner professional projects. Professional projects were mostly (72%) financed from European funds (ESF - European Social Fund, ERDF - European Regional Development Fund).

The following professional projects are particularly noteworthy:

- [Green infrastructure - Interactive management and regeneration tested through the Drava River Forest Park in Varaždin](#) - Despite its enormous natural and recreational potentials, the Drava Forest Park is a neglected and underused space, which needs forest restoration processes and infrastructure revitalization. The project tries to close the circle between

citizens, decision-makers (the city) and experts by using existing diverse digital tools, connected in a new and innovative way in the form of a platform. The platform will enable digital interdisciplinary management of the Drava Forest Park, unified into a single user interface that will serve in decision-making and communication between all stakeholders, for timely, direct and sustainable management. It will serve citizens who want to visit or get information about this quadruple protected natural area of international importance. Infrastructure and forest restoration activities will result in high-quality, inclusive and safe public space.

- [DIP2Future: Development of educational programmes, qualification standards and occupational standards in the field of ICT in accordance with the CROQF](#) with the aim of developing new study programmes in the field of ICT that will meet the needs for the acquisition of appropriate skills and competencies of ICT professionals in accordance with the requirements of the labour market and trends in technological progress. The development of 4 new study programs is planned: 1) Data Technologies and Artificial Intelligence, 2) Management of Information Security and Privacy Systems, 3) Distributed and Interactive Systems, and 4) Management of Transformation and Innovation of Business Systems.
- [Establishment of the Regional Center of Competence in Agriculture "Arboretum Opeka"](#) , which improved the opportunities for work-based learning for students and adult participants in vocational education in the (sub)sector of agriculture. The implementation of the project created conditions for providing theoretical and practical skills to students and adult learners in vocational education and increased their ability to enter the labor market.
- [Development of occupational standards, qualifications, curricula, teaching materials, digital educational content based on virtual and augmented reality and organization of trainings related to the development of video games within RCK Sisak](#) , which includes the following activities related to education in the field of video game development: development of occupational standards, qualifications, curricula, teaching materials and digital educational content based on virtual and augmented reality, modernization of the existing educational program and organization of trainings for mentors and teachers.

CZRPP is also actively involved in the work on professional projects for the development of application support, which develops and maintains a whole range of web services, applications and systems that together form the basis of the UNIZG FOI information system and facilitate the research and educational process for students and employees. In addition to this, the main activity of CZRPP, the employees of the Center work on the development and provide support to systems and processes related to e-learning. In addition to the above, the employees of the Center develop systems for clients such as: UNIZG constituents - Faculty of Agriculture, Faculty of Mechanical Engineering and Naval Architecture, Faculty of Economics, Faculty of Transport and Traffic Sciences, Faculty of Pharmacy, Faculty of Graphic Arts, Faculty of Chemical Engineering and Technology, Faculty of Geotechnical Engineering, Faculty of Textile Technology, Faculty of Humanities and Social Sciences, Faculty of Civil Engineering, Faculty of Architecture, University of Rijeka - Faculty of Economics, and the Ministry of Labor, Pension System, Family and Social Policy: Institute for the Improvement of Occupational Safety and the Ministry of Health: Health Care Quality Service.

UNIZG FOI is continuously a **co-organizer and partner of a number of professional conferences and conferences**, nationally and internationally recognizable, among which the following stand out: [CASE](#)

[– conference on the development of business and information systems, Unlock Rab, Women and Entrepreneurship in Varaždin County, Digital Transformation Conference - Smart Industry BrainStorm, Voogel.](#)

Teachers, with their intensive project activity, also contribute to the development of the profession by publishing professional publications. This puts emphasis on the applicability of the results to the wider academic and social community. Examples of professional publications in the publishing or co-publishing of UNIZG FOI are: [Start a Career in the Right Direction](#) and [Models of Work-Based Learning](#) as part of the [Study4Career project](#), [Examples of Authentic Learning Scenarios in Virtual and Blended Learning Environments](#) as part of the [Innovating Learning Design in Higher Education](#) project, and, as part of the [E-schools](#) project publications [Okvir-za-digitalne-kompetencije-ravnateljica-i-ravnatelja-HRV.pdf](#), [Revidirani Okvir dz -s Upitnikom-1.pdf](#)).

UNIZG FOI teachers are members of the following Croatian and international professional associations, individually or through institutional membership, and thus significantly contribute to the development of the profession.

- [Informatics Europe](#), represents the academic and research community in informatics in Europe and neighboring countries. It brings together universities, colleges, university departments and research laboratories, creating a strong common voice to promote, shape and encourage quality research, education and knowledge transfer in informatics in Europe. The [Informatics for All](#) coalition, founded in 2018 by Informatics Europe and others, advocates for making informatics a core subject in schools, on par with math, science, and languages. It aims to improve informatics education across Europe and raise awareness among institutions about their role in supporting this goal, highlighted through a [formal declaration](#), signed by UNIZG FOI among other institutions.
- [The World Wide Web Consortium \(W3C\)](#) is an international community dedicated to standardizing technologies for the web. It was founded in 1994, and its goals are to develop common standards that enable the long-term evolution of the web. Membership in the W3C enables institutions such as UNIZG FOI to participate in defining guidelines for the development of web technologies.
- [Principles for Responsible Management Education](#) are principles for responsible management education. The initiative is supported by the United Nations, established in 2007, with the aim of raising awareness of sustainability in business and management education through seven principles aimed at serving society and preserving our planet.
- [The European Foundation for Management Development \(EFMD\)](#) is a global network of business schools, educational institutions and corporations dedicated to increasing excellence in management education and development on a global level, which has about 900 organizations, members from academia, business and public services worldwide.
- [The Croatian Academy of Engineering](#) and its members work together to fulfill the goals and missions of the development and improvement of the Croatian economy and to affirm the cooperation of technical and biotechnical sciences and the economy on joint economic projects, as well as scientific and professional projects that have application in the economy. UNIZG FOI has been a supporting member since 2020.

- [The Croatian Association for Artificial Intelligence \(CROAI\)](#) was founded in December 2019 and brings together leading companies and startups in the field of artificial intelligence in Croatia and seeks to position Croatia as a country of unique opportunities for the development of human-oriented artificial intelligence through a culture of dialogue between entrepreneurs and decision-makers at the national and European level. UNIZG FOI has a long-standing cooperation with this association, and formalized its membership in 2022. They work together on projects that connect the academic community and students with entrepreneurs in the field of AI technologies.
- [The UN Global COMPACT](#) is the world's largest and most important initiative for sustainable development, corporate and institutional sustainability. The initiative was launched in 2000 with the aim of introducing corporate social responsibility and today it is the largest such initiative, bringing together more than 14,000 corporate stakeholders and more than 4000 stakeholders of civil and non-governmental organizations from more than 140 countries around the world. As part of the Global Compact initiative, UNIZG FOI, which has been a member since 2022, has committed to supporting the principles of the initiative in the field of human rights, workers' rights, the environment and the fight against corruption.
- [BLOXBERG](#) is an international research infrastructure, based on blockchain technology intended for science, established by a consortium of the world's leading research organizations to provide scientists and researchers with various decentralized services around the world, with an emphasis on the protection of their copyrights. UNIZG FOI is the first higher education institution in the Republic of Croatia to join the consortium in 2022, and is one of the 11 founding members of the Bloxberg institution.
- [The Croatian Institute of Cyber Security](#) aims to jointly moderate, shape and represent the views of the information security industry that influence public opinion, government legislation, education and technology with objective expertise and impartiality. UNIZG FOI has been a member since 2023.
- [Croatian Employers' Association](#), which is a voluntary, non-profit and independent employers' association that protects and promotes the rights and interests of its members. UNIZG FOI has been a member since 2023.
- [Croatian Informatics Association](#), founded in 1975, and has been operating continuously since then. Today, it is the umbrella organization of Croatian informatics, which unites the work of those working in the field of information technology, information services, or in the domain generally called informatics.

These memberships enable UNIZG FOI to access global resources, the latest research, and align with standards in technologies, thereby fostering the development of innovation and education in the field of informatics and engineering, as well as related, interdisciplinary fields.

UNIZG FOI employees express their activity in the following international and national associations, as well as commissions and councils at the international, national, regional and local level. NATIONAL LEVEL: Information Technology Council of the Croatian Institute of Informatics, Croatian Society for Operations Research, Croatian Society of Economists, Croatian Mathematical Society, Croatian Statistical Society, Supervisory Board of Erste Bank, INTERNATIONAL LEVEL: Computer Security Institute, Institute of Electrical and Electronics Engineers (IEEE), in the status of Senior Member, Association for Computing Machinery, Association for Information Systems, Society for Learning Analytics Research (SoLAR - [scientist of UNIZG FOI is the vice-president of SOLAR](#)), European

association for biometrics. REGIONAL LEVEL: Council for Education, Economy and Interregional Cooperation of Varaždin County, Supervisory Board and Assembly of the Varaždin Technology Park.

External associates are recognized experts in their field, have appropriate professional papers and relevant work experience, which is evident from the presentation of scientific and professional papers of certain external associates and available examples of CVs ([*Annex 5.2.1. CVs of external associates](#)). Below are some of the achievements of external associates of UNIZG FOI: editor-in-chief of the international electronic journal "Journal of International Research Publications: Economy and Business", president of the program committee of the scientific and professional conference "Management and Security", president of the association "Croatian Accountant" and "Croatian Association of Certified Members of Supervisory and Management Boards - HUCNO", honorary member of the Rotary Society, member of the Committee on Health and Social Policy of the Croatian Parliament, Diplomatic Representative to the UN and WHO at the Permanent Mission of the Republic of Croatia to the UN in Geneva, representative of the Croatian National Bank in the Information Technology Committee of the European System of Central Banks, etc.

5.3. The higher education institution influences the economy and society in general through the scientific and/or artistic work of its teachers.

UNIZG FOI uses various channels to disseminate the results of its scientific and professional efforts, to ensure that its academic and research activities are recognized and accessible to the wider society. This includes organizing and participating in scientific conferences, symposia, workshops, as well as publishing papers in scientific journals. Through a series of invited lectures at prestigious conferences and gatherings, and by participating in scientific and professional panels, UNIZG FOI teachers contribute to the visibility of their scientific research activities, such as:

- [Invited lecture at the prestigious AIED2024 conference in Brazil](#)
- [Panel discussion on the current situation in Croatia in terms of digital skills and comparison with the rest of Europe](#)
- [Panel discussion on the topic University in the Digital Age: Artificial Intelligence in Higher Education](#), as part of the University Day for quality, organized by the University of Zagreb
- [Invited lectures and panel discussion as part of the Voogles Conference](#), which is an international, inspiring and informative event for entrepreneurs, investors and experts from the business world
- [Invited lecture at the conference on the transformation of education in the Persian Gulf countries](#).

In addition, UNIZG FOI regularly uses digital platforms, such as its official [website](#), social media profiles such as [LinkedIn](#), [Facebook](#), [Instagram](#), [TikTok](#) and other online tools to disseminate information about activities, e.g. [YouTube](#), [X](#), etc.

UNIZG FOI intensively participates in projects in cooperation with the economy, which contributes to the development of society through the application of knowledge in practice. This cooperation enables UNIZG FOI to be relevant in the context of the labor market, and to align its teaching and research activities with the needs of society and industry. UNIZG FOI is a co-founder institution of the [Varaždin Technology Park](#), which has been one-third owned by UNIZG FOI since 2007. In the

Technology Park, 50% of start-up companies are owned by (former) students of UNIZG FOI, and also the Technology Park mainly hosts technology companies operating in the field of ICT and related services, employing more than 200 employees, and a significant part of them are IT specialists from UNIZG FOI. In addition to cooperation with the Technology Park Varaždin, UNIZG FOI also intensively cooperates with technology parks in the region (e.g. [Technology and Innovation Center Međimurje – TICM](#), [Development Center and Technology Park Križevci](#)), which contributes to the achievement of the goal of technology transfer and support to the knowledge-based economy. UNIZG FOI is also a scientific partner of deep-tech venture builder 'Nugleus' - an advanced startup incubator. By connecting industry and academic institutions, Nugleus aims to support the development of deep-tech startups – from idea to market entry. UNIZG FOI also has an agreement with Međimurje County in the implementation of the activities of the [Development and Education Center for the Metal Industry](#).

One of the key strategic infrastructural breakthroughs in 2025 is the planned construction of the [Regional Center for Pre-Incubation in Smart Industry](#), in cooperation with the City of Varaždin, which will bring together resources, knowledge and experts to support the development of innovative ideas and technologies. The goal is to strengthen the activities of early recognition and development of innovative entrepreneurial ideas, the development of digital and entrepreneurial knowledge, and their commercialization, which will contribute to the progress and development of UNIZG FOI. As part of the activities related to the development of the Regional Center, a cooperation agreement was signed between the City of Varaždin, UNIZG FOI and the Swiss innovation park Switzerland Innovation Park Biel/Bienne. The agreement refers to cooperation that will be based on knowledge transfer, joint research, education, mentoring, joint entrepreneurial initiatives, implementation of joint EU and national projects, Integrated Territorial Investment mechanisms and similar initiatives. This is to confirm the readiness for continuous learning and adaptation to change, always with the aim of progress and development of UNIZG FOI.

The close **cooperation of UNIZG FOI with the economy and the public sector** in the application of knowledge and technology transfer is reflected in the implementation of a large number of projects, in encouraging the establishment of new knowledge-based companies within the Varaždin Technology Park and through quality relationships with employers within the framework of professional practice performed by UNIZG FOI students. The expertise of teachers and associates has been expressed in numerous commercial, scientific and development projects in cooperation with other educational and research institutions, institutions from the public sector, but also companies from the economy. The competencies of UNIZG FOI teachers are broad - from the conceptual, methodological and strategic level, to the implementation of applied solutions, solving practical problems and knowledge transfer, through projects for state administration, local self-government, public sector and economy. Support for projects through strong connections with employers is provided by the [Student Support and Career Development Centre \(CPSRK\)](#), which currently has more than 400 business partners in the database for cooperation records, connected to UNIZG FOI through student practice, invited lectures, intensive programs, project-based teaching, employer participation in workshops, but also through joint projects, which ensures the transfer of knowledge in both directions. Employers are also involved in planning and participating in the [Career Week](#) and are informed about all the novelties and ways of getting involved in other cooperation activities. Career Week is the largest career event for UNIZG FOI students, and activities include lectures and workshops by employers and additional career and side activities such as employer pitches, career standing, informal events from student associations, a prize game for students and more.

The popularization of science and dissemination of scientific knowledge to the general public is carried out at the UNIZG FOI by developing a dialogue between scientists and the general public, science and society. Through various events, UNIZG FOI encourages open discussion and the creation of opportunities for the development of new ideas and initiatives. Since 2017, every three to four months, the internal project [Time4Science](#) has been carried out for scientists and teachers of UNIZG FOI, interested associates and doctoral students, but also for all those interested in topics that have research and scientific potential. **The topics of the lectures are related to research, scientific research process, social, ethical and legal aspects of scientific research, methodology of scientific research, presentation of prominent scientific contributions, etc.** In the academic year 2022/2023, two invited lectures were organized as part of the Time4Science project (on the topic "Trends in social entrepreneurship research", "Unveiling scientific connections through editorial board interlocking: a graph analysis"). In the academic year 2023/2024, three invited lectures were organized (on the topic "Foundations for the Development of a Successful Academic Career", "SRCE Services for Researchers" and "Preparing Future Generations for Digital Disruption: Skills Development of the 21st Century"). In the academic year 2024/2025 (to date), two invited lectures were organized (on the topic "The Impact of Students' Teaching and Extracurricular Activities on the Quality and Satisfaction of Life", and "Contemporary Challenges in Scientific Publishing: The Publisher's Perspective").

In cooperation with Varaždin County, UNIZG FOI employees implement training programs for principals and teachers of primary and secondary schools (e.g. [Digital Maturity Summer School](#), [How Is Artificial Intelligence Changing Schools?](#)) on topics related to the field of public procurement, public finance, strategic planning and decision-making, entrepreneurship, project management, application of artificial intelligence in education, etc. Journals whose primary purpose is the transfer of knowledge, experience and information about the conducted research to the economy also recognized UNIZG FOI importance (e.g. [Lider](#) media, [Bug](#)). In order to popularize information sciences to the youngest, UNIZG FOI regularly participates in the [Science Festival](#) and [MUZZA Science Week](#). On this occasion, UNIZG FOI opens its doors and invites preschool children, elementary school students, high school students, students and presents its activities to them in the premises of UNIZG and UNIZG FOI. For more than 10 years, UNIZG FOI has been actively promoting science and scientists, as well as informing the public about activities and results from various fields of science.

UNIZG FOI also plays an active role in shaping public policies, especially in the context of the scientific field related to informatics, organization and business. UNIZG FOI participates in various advisory and strategic bodies dealing with policy-making at the national and international level, and contributes to the improvement of the legislative framework and strategies in the field of education, research and technology. Through advisory roles, UNIZG FOI employees are invited to participate in the development and revision of policies related to digitalization, innovation and human resource development in society. UNIZG FOI was a partner in the E-Schools project, fully titled "[e-Schools: Comprehensive Informatization of School Business Processes and Teaching Processes for the Purpose of Creating Digitally Mature Schools for the 21st Century](#)", which enabled teaching to be conducted in a modern way, in classrooms equipped with digital technologies in which teachers can use digital educational content, expand communication beyond the boundaries of the physical classroom and encourage a more active role of students in the educational process. The continuation of the initiative of digitally mature educational institutions is implemented through the project "[e-Universities](#)" with the aim of digital transformation of higher education in the Republic of Croatia, improving digital teaching infrastructure, introducing digital teaching tools and strengthening teachers' digital competencies for teaching in the digital environment, and UNIZG FOI actively

participates in this project as part of a pilot project for the evaluation and implementation of activities.

UNIZG FOI teachers also actively participate in various scientific, managerial and professional bodies, both at the national and international level. This includes the aforementioned membership in the editorial boards of scientific journals, participation in the organization of scientific conferences (Tables 5.7 and 5.8. of the Analytic supplement to the self-evaluation report), and membership in various academic and professional associations. These engagements allow teachers to stay up-to-date with the latest trends and challenges in their fields, and to contribute to the development of the scientific community through the evaluation and development of new ideas and solutions.

UNIZG FOI is already actively involved in the regional economy through the transfer of knowledge and expertise to local companies and SMEs through consulting services, projects and educational programs. UNIZG FOI experts are often involved in consulting work for ministries and public agencies in various sectors. UNIZG FOI employees participated in the development of strategies at the level of cities and counties in Croatia. Also, the employees of UNIZG FOI actively participated in the work of local and regional administration as councilors in the Council of Varaždin County, in the City Council of the City of Varaždin and the Council for Economy, Education and Interregional Cooperation of Varaždin County, as well as other bodies in which UNIZG FOI operates and/or from which employees come.

UNIZG FOI is involved in a large number of national and international projects with a distinct contribution to the development of the region and beyond. Professional and developmental national and international projects, as a rule, include a wide range of teachers and researchers of UNIZG FOI who strive to transfer their knowledge from academic circles to the economy with their professional expertise in a particular field. For many years, UNIZG FOI has been contributing to the recognition of the city of Varaždin and Varaždin County and their development through the creation of new jobs, economic activity and income for the local community. [IT companies recognize the importance of UNIZG FOI](#), but also the competencies of UNIZG FOI alumni, e.g. IBM iX, SICK Mobilis and Emil Frey, and it is precisely because of the location of UNIZG FOI in Varaždin that they open their branches in the region.

UNIZG FOI teachers actively review scientific papers, as members of conference program committees (Table 5.7. of the Analytic supplement to the self-evaluation report). They also participate in national and international project reviews. This activity is crucial for the development of the academic community, as it enables the evaluation of the quality of scientific research and innovation, as well as the selection of the best projects for funding and further development. Through review processes, teachers not only evaluate the quality of research, but also shape guidelines for future research directions and projects, thus contributing to the development of scientific excellence. Over the last few years, seven scientists of the UNIZG FOI have been registered in the register and are conducting the evaluation of national and international scientific projects (for the Croatian national foundation, Horizon, COST, Erasmus and Eureka project lines). Additional efforts to include a larger number of scientists are achieved by invitations at the sessions of the Faculty Council, direct communication with teachers and the organization of the [Horizon Europe Program Info Day at UNIZG FOI](#).

Ultimately, UNIZG FOI, with its engagement in all the described areas, not only contributes to the development of the scientific community and society, but also strengthens its position as a leading institution in the field of organization, informatics and business, ensuring high quality education and research.

- 5.4. Doctoral studies of the higher education institutions are aligned with the higher education institution's strategic programme, state-of-the-art scientific/artistic achievements, or professional standards and internationally accepted standards of high-quality doctoral education, where applicable.

For 50 years, UNIZG FOI has based its mission and development so far on the paradigm of information systems, related to technical and organizational disciplines in its IT studies, as well as complementary economic knowledge supported by innovation and digital technologies in its economic studies. IT experts with competencies in business and economic experts with digital competencies, empowered by competencies from other areas, add a specific scientific and teaching dimension and recognition on the market to UNIZG FOI. These areas will continue to be a fundamental component of the strategic orientation of UNIZG FOI, which is also evident from the new [Development Strategy](#).

[Doctoral study program](#) has a long tradition at UNIZG FOI. The doctoral study *of Information Sciences* has been carried out since 2006, and UNIZG FOI has been the holder of the study since 1985 (*[Annex 5.4.1. License to perform](#)). **It is carried out in the scientific field of social sciences, the scientific field of information sciences, and connects the latest scientific trends in the domain of information sciences with a long tradition of doctoral education at UNIZG FOI.** The study includes activities for the development of scientific and professional competencies and generic skills, with participation in research projects and scientific workshops. The program enables students to get acquainted with modern research in information sciences, including interdisciplinary research. The goal of the study is to educate quality researchers who will contribute to the development of this dynamic scientific discipline, and most will continue their academic careers, while some will collaborate with industry to develop new products and services.

The postgraduate doctoral study *of Digital Innovation Management*, as a new doctoral study that contributes to the national development of higher education and science, has been carried out since November 2024. It is a study upon completion of which the academic title of Doctor of Science is acquired in the scientific field of social sciences, the scientific field of economics. Although UNIZG FOI is the study coordinator, it is a joint postgraduate doctoral study of UNIZG FOI and the partner institution of this doctoral study, UNIZG Faculty of Economics. The joint study is proposed in order to enable students to complete the highest level of education in the economic vertical that UNIZG FOI nurtures on the one hand, and on the other hand to contribute to the national development of higher education and science, given that such an interdisciplinary doctoral study does not exist in the Republic of Croatia and the wider region. When proposing to launch the study, both institutions were guided by the idea of increasing the number of scientists and experts who have the competence to research digital innovations, the determinants of their acceptance, as well as their impact on business and society as a whole. A letter of support for the launch of the doctoral study *of Digital Innovation Management* was signed by leading IT companies and alliances. Execution permit (*[Annex 5.4.2. Licence to perform](#)) was obtained in 2023.

The doctoral study of *Information Science* is aligned with the mission and strategic goals of UNIZG FOI. [Development Strategy of the Faculty of Organization and Informatics for the period 2018-2023](#)

encouraged the development of topics related to the strategic areas of activity of the UNIZG FOI by defining the strategic goal A31: To define the topics of final/graduate and postgraduate theses in accordance with the strategic areas for achieving strategic goals (expansion into new areas, business process management, development of information systems). The UNIZG FOI [Development Strategy for the period from 2025 to 2029](#) also puts special emphasis on the development of doctoral studies through Objective 1 in the field of innovation and social contribution: Encourage "industry-focused" PhDs and the transfer of knowledge from such doctorates, and sets Encouraging cooperation with the Council of the Doctoral Study of *Information Sciences* and the Council of the Doctoral Study of *Digital Innovation Management* for the inclusion of doctoral students in the work of laboratories as one of the most important priorities for the future.

The procedure for applying for a new doctoral study at a constituent part of the University is defined by the [Rulebook on the Procedure for the Evaluation of Study Programmes of Doctoral Studies UNIZG](#) (2016). In one scientific or artistic field, as a rule, one postgraduate doctoral study is carried out at UNIZG. Exceptionally, with a detailed explanation, other postgraduate doctoral studies may be carried out, such as in the case of joint studies or interdisciplinary studies. In addition to the existing postgraduate doctoral study of *Information Sciences* in the Social Field, the field of Information Sciences also conducts a postgraduate doctoral study in the field of Social Sciences, the field of Economics entitled *Digital Innovation Management*, which is not included in this self-evaluation for the reasons related to the coverage period. Due to the fact that UNIZG FOI conducts postgraduate doctoral studies in both fields in which it conducts undergraduate and graduate studies, UNIZG FOI is currently not planning the development of a new doctoral study in its strategic development, and the periodic improvement of the doctoral study program in *Information Sciences*, in accordance with new trends in science and technology and the needs of the economy and the labor market, will be carried out in accordance with the planned dynamics of study program revisions.

With regard to new technologies and approaches that shape modern information systems, which are today in a mature phase of scientific and professional development, strategic areas in which UNIZG FOI are actively operating today have been recognized, i.e., in the Development Strategies of UNIZG FOI. Those strategic areas have been recognized by research groups that operate through established research laboratories as well, and they have a scientific presence through work on project activities, but also by publishing papers resulting from that work on projects or by publishing papers outside the projects in relevant international journals and at relevant scientific conferences. **These strategic areas are: Organization and Business Process Management, Big Data Analytics / Data Science, Educational Technologies, Internet of Things, Information Security, and Open Systems. Strategic areas are relevant in the topics of doctoral theses.**

The procedure for proposing the improvement of doctoral studies at the UNIZG FOI is as follows: (1) Changes to the doctoral study are proposed by doctoral study teachers on the basis of knowledge gained through scientific research and contacts with entities from the economy (changes may include the introduction of new courses, changes in the content, i.e. the names of existing courses, changes in course holders); (2) Proposals for changes to the doctoral study programme shall be considered by the Doctoral Study Council. (3) The accepted proposals shall be consolidated into a proposal for amendments to the doctoral study programme which shall be adopted at the session of the Faculty Council of the UNIZG FOI. (4) The proposal for changes to the doctoral study shall be submitted to the UNIZG - Working Group of the Quality Management Committee, which shall consider the proposal and then send it to the Committee for Doctoral Programmes of the UNIZG for discussion, adoption or rejection.

On 3 November 2017, the *Agency for Science and Higher Education* carried out the re-accreditation of the doctoral study programme in Information Sciences and issued an Accreditation Recommendation ([Annex 5.4.3: AZVO Reaccreditation report](#)), on the basis of which the Ministry of Science and Education of the Republic of Croatia issued a letter of expectation on 7 February 2018 in the process of re-accreditation of the part of the activities of the UNIZG FOI related to the implementation of the doctoral study programme in Information Sciences. On 26 November 2020, the Ministry of Science and Education confirmed the fulfilment of the conditions for the performance of the part of the activity related to the implementation of the doctoral study programme with the obligation to develop an action plan in order to improve the quality and to report to the Agency for Science and Higher Education on the action plan and its implementation. Given that the quality of the doctoral study is inextricably linked to scientific research, the Action Plan is linked, on the one hand, to the Accreditation Recommendations and the recommendations of the committees from previous external evaluation procedures, and on the other hand, to the [Guidelines of Scientific Research of the University of Zagreb of the Faculty of Organization and Informatics for the period 2021-2023](#). Annual monitoring of the implementation of the Action Plan is carried out for a period of two semesters, starting in the summer semester. Within the framework of the periodic internal evaluation of the doctoral study, data on scientific progress and scientific papers that qualify the teacher, i.e. mentor, for participation in the implementation of the doctoral study are analyzed. Scientific projects and previous mentoring that resulted in the defense of the doctoral thesis are also analyzed. The doctoral study of *Information Science* has successfully passed the Re-accreditation procedure in January 2025, the Agency for Science and Higher Education Accreditation Council issued an opinion of the Committee for Follow-up in Re-accreditation Procedures, according to which the annual report on the implementation of the action plan for the period from 2023 to 2024 is aligned with the recommendations of the Expert Committee and the envisaged action plan (*[Annex 5.4.4: Report on the implementation of the action plan](#)).

Based on the Accreditation Recommendation, UNIZG FOI has implemented changes to the Regulations on Doctoral Studies (*[Annex 5.4.5: Rulebook on Doctoral Studies](#)) and introduced a number of measures for improvement. One of the measures was to launch a cycle of Workshops for Mentors. The cycle consists of four half-day workshops that cover various topics relevant to the achievement of appropriate mentoring competencies. The workshops covered topics such as: mentoring in the field of information sciences, the basics of planning and monitoring the scientific research work of doctoral students, the employment of doctoral students on projects and their inclusion in international activities, the analysis of different styles and roles of mentors, the application and evaluation of doctoral thesis topics, doctoral research planning, ethical advice and monitoring of academic integrity, and the protection of personal data in doctoral research as well as the protection of intellectual property, but also many other topics that emerged through the activities at the workshops. Passing all workshops is a prerequisite for taking over the first mentorship within the doctoral study. In this way, UNIZG FOI has taken an active role in the scientific development of young scientists from different institutions, and not only the home one, opening the possibility for them to participate as mentors to doctoral students in the preparation of their doctoral theses. By doing so, doctoral students are offered a greater choice of potential mentors or co-mentors who cover different strategic areas and enable interdisciplinarity of doctoral thesis topics. Workshops for mentors, in the 4th cycle in ak. 2022/2023 were held online through eight two-hour modules. Workshops are also offered to teachers of other institutions of higher education. Invitations to the workshops were sent via email (*[Annex 5.4.6: Examples of workshop calls for mentors](#)), and the workshops were attended by 9 teachers of UNIZG FOI and 16 teachers from the University of

Zagreb and the University of Osijek. Eight teachers of UNIZG FOI went through all the modules of the workshop and gained the conditions for the first mentoring. (<https://events.foi.hr/event/public/show/8302>, <https://events.foi.hr/event/public/show/8385>, <https://events.foi.hr/event/public/show/8667>, <https://events.foi.hr/event/public/show/8731>, <https://events.foi.hr/event/public/show/8878>, <https://events.foi.hr/event/public/show/9109>, <https://events.foi.hr/event/public/show/9464>, <https://events.foi.hr/event/public/show/9622>).

Due to the wide scope of application of information systems and technologies, the topics of doctoral research are generally interdisciplinary, i.e. require the acquisition and application of knowledge and research in the area of their application domain. During the study, doctoral students are introduced to modern research and the latest achievements in the field of information sciences as well as interdisciplinary research related to information sciences. The program is structured in such a way that it encompasses a wide range of scientific disciplines that are now part of information sciences. Part of the courses is domain-focused, and part is dedicated to the development of transfer skills. With this study, UNIZG FOI aims to create new quality researchers capable of actively contributing and advancing this dynamic field of science. It is expected that most students will continue their academic careers after obtaining a doctorate in the scientific field of information sciences, but also that a certain part of them will be in contact with the economy and thus actively contribute to the progress of modern companies and the development of new products and services.

Through the revised Regulations on Doctoral Studies (*[Annex 5.4.5: Rulebook on Doctoral Studies](#)), including the changes that have been implemented according to the Accreditation Recommendations, the development of the doctoral study of *Information Sciences* has been aligned with the strategic guidelines for the development of UNIZG FOI and strategic areas. As a working body established by the Faculty Council, members of the Doctoral Study Council conduct an interview with each applicant, for which an internal form is used ([*Annex 5.4.7.: Study Admission Form, example](#)) for the purpose of standardized monitoring of applicants. On the basis of the motivation letter and the conducted individual interview, the Doctoral Study Council strives to identify the narrower area of interest of the applicant. On the basis of which each student in the doctoral study is assigned a study advisor upon enrolment. Doctoral students are encouraged to publish their course papers at scientific conferences or in scientific journals, in order to receive feedback from the wider academic community on the quality of research results. Students in doctoral studies develop research plans with the advice of a study advisor, and they are expected to publish at least one scientific paper in the field of doctoral thesis topic. The paper must be published or accepted for publication in an internationally peer-reviewed scientific journal and referenced in at least one of the recognized bibliographic databases (Science Citation Index, Science Citation Index Expanded, Social Science Citation Index, Scopus, Inspec). The paper must be published or accepted for publication during the doctoral study. It should be noted that doctoral students are obliged to collect a total of 71 ECTS based on independent research work and published results of scientific research work as part of the doctoral study. In addition to the doctoral dissertation that carries 40 ECTS, as stated earlier, according to the Doctoral Study Regulations (*[Annex 5.4.5: Rulebook on Doctoral Studies](#)), doctoral students are obliged to publish at least one scientific paper in the field of the doctoral thesis topic in a scientific journal referenced in one of the relevant databases, which can carry up to 24 ECTS, depending on the number of authors. Papers published in proceedings of international scientific conferences referenced in one of the recognized bibliographic databases can carry up to 12 ECSTs, also depending on the number of authors. Scientific papers published in a scientific journal or proceedings of a scientific conference that are not referenced in one of the relevant databases can carry up to 6 ECTS. The previous experience of evaluating the quality of

publishing the papers of doctoral students realistically leads to the fact that during their studies, in case that they publish papers with a (potential) mentor, they must publish at least 3 scientific papers in addition to the doctoral thesis. During the study, the doctoral student freely chooses the courses he or she enrolls in, in which he or she is advised by the assigned study advisor. Doctoral workshops (invitation available in [Annex 5.4.8.: Call for Workshops for PhD students](#)), which students in doctoral studies can attend, are conducted three times in one academic year, with presentations of students' work, and include guest appearances by invited lecturers and methodological workshops. Students in doctoral studies are encouraged to participate in the International Doctoral Seminar organized as part of the international scientific conference CECIIS, as well as to publish scientific papers at the CECIIS conference, and other relevant international conferences and in international journals. The preparation of the doctoral thesis is the most demanding burden of the doctoral student and is carried out through individual work, and work with a mentor within the implementation of doctoral research. Before submitting the topic of the doctoral thesis, doctoral students must pass a qualifying doctoral exam, which is a test of the professional and research competencies of students in the doctoral study in the wider field in which they intend to work on the doctoral thesis. Recommendations for the preparation of the qualifying doctoral examination are available to doctoral students ([*Annex 5.4.9: Recommendations for the qualifying doctoral exam](#)), and the Head of the Doctoral study Council informs the members of the Faculty Council about the outcome of the applicant's qualifying examination.

In the period from academic year 2020/21 to 2023/24, 14 doctoral theses were defended, and the distribution of theses by academic year, and grade is shown in Table 5.2.

Table 5.2. The number of defended doctoral theses per academic year and grade

Rating	2020/21	2021/22	2022/23	2023/24	Altogether
laude		2		2	3 (23,1 %)
magna laude	1	3	2	2	8 (61,5 %)
summa laude	1	0	1	0	2 (15,4 %)
Altogether	2	5	3	4	14

As its permanent working body, the Faculty Council established the Doctoral Study Council to ensure compliance with the standards of the profession and modern achievements in the field of information sciences. Doctoral Study Council, among other activities, regularly collects reports on the work of doctoral students every year ([*Annex 5.4.10.: annual student report](#)) and mentors ([*Annex 5.4.11: annual mentor report](#)) for the purpose of evaluating the doctoral student's progress, but also the involvement and competencies of mentors. At the same time, the doctoral student's annual report on work includes a self-evaluation of his or her own annual progress, evaluation of mentors and evaluation of doctoral studies in general. The mentor's annual report includes an annual evaluation of the doctoral student's progress and his/her recommendation to continue his/her studies. The analysis of the results shows that the grades of the quality of mentoring work and the overall quality of the doctoral study are very high throughout the monitoring period, while it should be emphasized that doctoral students are much more critical in evaluating their own work. By reviewing the results of evaluations on both sides, and for the purpose of evaluating studies, the

Doctoral Study Council proposes corrective activities to the Faculty Council in order to maintain or improve the quality of studies. Aggregate data on the work of the study for each academic year. year VDS submits to the Faculty Council through the Annual Work Report (e.g. [*Annex 5.4.12: Annual Activity Report 2022-2023](#), and [*Annex 5.4.13: Annual Activity Report 2023-2024](#)) and the Report for the Mandate Period ([*Annex 5.4.14: Report for Mandate Period](#)).

Although the target level of involvement of candidates who are not employed at UNIZG FOI has not yet been reached, there are more and more doctoral theses that link their scientific excellence to the research of UNIZG FOI in research laboratories and on research projects of teachers - potential mentors. Examples of such projects are the projects of the Croatian Science Foundation, within which the scientific contribution of young scientists is envisaged. In this way, as many as five young scientists enrolled in the doctoral study of *Information Science*, of which one is a student from abroad (e.g. [*Annex 5.4.15.: Decision on the associate selection for the Orkan project](#) and [*Annex 5.4.16.: Decision on the associate selection for the CSF project](#)).

Twice a year, the University of Zagreb announces calls for academic mobility, and the call itself includes covering the costs of the registration fee for the active participation of doctoral students in scientific and professional conferences. PhD students are regularly informed about calls for academic mobility through [forums in the e-learning system](#) and presentations about the institutional support to PhD students. Tenders for mobility ([Call for short mobility of doctoral students for the period -03.03-31.07.2025.](#), [Call for Academic Mobility in 2025 \(second round\)](#) provides additional funding for the mobility of doctoral students to partner Universities. The amount of financial support depends on the costs and other sources of financing provided. UNIZG FOI has so far been a co-organizer of international doctoral seminars in cooperation with the Slovak University of Technology in Bratislava. In 2022, UNIZG FOI organized two international doctoral seminars. Two doctoral students participated in the International Doctoral Seminar with the European Distance Education Network (EDEN), which was held physically in Varaždin, but also online. Three doctoral students participated in the International Doctoral Seminar in cooperation with the Slovak University of Technology in Bratislava, which was held in Slovakia. The costs of the registration fee and travel of doctoral students to the doctoral seminar were covered by UNIZG FOI. An introductory lecture is organized every year for newly enrolled doctoral students ([*Annex 5.4.17: Foi introductory lecture of the DS](#)) where they are introduced to the study, active projects they can join, research laboratories, [Library services](#), [International relations office](#) and the [Centre for Computer Support](#) and rights and obligations in the doctoral study. The International Relations Office informs ([*Annex 5.4.18: International mobility of doctoral students](#)) newly enrolled doctoral students about calls for international mobility, and information about the calls is regularly published through the Forum in the e-learning system to which all doctoral students are subscribed. In order to improve, all studies, including the doctoral study of *Information Science*, should be more open to students from abroad. This includes teaching in English and greater international mobility, which are activities that are currently being worked on intensively. One such example is a foreign student in doctoral studies, employed through a project funded by the Croatian Science Foundation, who attends classes, but also takes all obligations in the study in English.

The doctoral study of *Information Science*, at the national level, is related to the strategic goals of the [National Development Strategy of the Republic of Croatia until 2030](#), especially to the Development Direction 3 - Green and Digital Transition and its strategic goal: SC 11. Digital transition of society and economy. Doctoral studies include courses in the field of information sciences, which provide knowledge in areas such as intelligent systems, artificial intelligence, information systems security,

digital business, information systems modeling, software engineering and computer games. Thus, the Doctoral Study of *Information Sciences* contributes to the realization of SC11. Some of the courses that contribute to the achievement of the goal are:

- [Information Society - Selected Chapters](#)
- [Research Methods for Business Intelligence](#)
- [Selected chapters of digital business](#)
- [Selected AI Chapters](#)

In addition, the fact that the postgraduate doctoral study *Information Science* is aligned with the standards of the profession can be recognized by the regular publication of relevant documentation on the e-learning system to which all doctoral students are subscribed. The documents are useful for both the scientific and professional progress of all students. Some of these documents are available in the Annexes: *[Annex 5.4.19.: Recommendations of the Association of European Universities for the Reform of Doctoral Studies in Europe](#), [Annex 5.4.20.: Framework for the Development of Research Skills of the University of Adelaide](#), [Annex 5.4.21.: Reference Framework for the Planning, Monitoring and \(Self-\)Evaluation of Professional Development of Researchers in Applications in the UK](#), and *[Annex 5.4.22.: Together to PhD - Recommendations for mentors and PhD students](#).

The doctoral study *Information Science* is designed to encourage creativity of doctoral teachers as well as the creativity of doctoral students in their research. The process of proposing changes to the doctoral study is initiated at the initiative of doctoral study teachers who propose the introduction of new doctoral study courses as well as the adaptation of the existing ones in accordance with the latest knowledge in their field of research and trends in the economy based on the knowledge gained through scientific research and contacts with entities from the economy. Based on the above, the postgraduate doctoral study of *Information Science* is currently in the process of revision, and one of the first steps was to conduct a survey ([*Annex 5.4.23.: Audit of the DS - Analysis of surveys - January 2025](#)) among doctoral students, teachers, laboratory and project leaders. It should be noted that doctoral students have the opportunity to adapt their studies according to their own interests and research goals, including the choice of courses and research topics. This flexibility allows for the exploration of new topics and the development of creative solutions. Given the number of enrolled students and the number of courses they can enroll, teaching in the doctoral study is carried out to a lesser extent frontally, and mostly through individual work, where the student shapes his program in cooperation with the mentor in such a way that the content of the selected courses represents the basis for research work on the doctoral thesis. The distribution of ECTS ensures the development of individual scientific skills, and research work, whereby writing and presentation of seminars and the publication of papers at scientific conferences and scientific journals are encouraged. In agreement with the subject teacher, lectures, as well as course taking, can be adapted to the specific research needs of doctoral students, thus enabling creativity in directing their research. Furthermore, modern pedagogical methods are applied, including project-based learning, problem-solving research work, and the use of digital tools, which encourages creativity in doctoral studies. UNIZG FOI actively supports doctoral students in developing and researching innovative ideas, among other things, by providing financial support for research, engaging in competitive scientific research projects, and enabling the use of modern research tools and technologies. Great support for the development of new innovative ideas will also be given by the new [Regional Center for Pre-Incubation in Smart Industry](#), for which funding has already been secured and whose construction is planned to begin in 2025. The spatial capacities of existing and new research laboratories and centers, as well as the

equipment with state-of-the-art research equipment, will enable the realization of innovative ideas and their evaluation.

5.5. The higher education institution applies the principles of open science in its activities, processes and acts.

The value framework of the University of Zagreb is based on transparency, accountability, inclusiveness and cooperation. Open science enables free access to information, greater community involvement and encourages cooperation between different stakeholders. The aim is to improve the accessibility and transparency of research, accelerate knowledge transfer and increase the verifiability and societal benefit of scientific results. In accordance with the above, **on September 19, 2024, the Senate of the UNIZG adopted the [Open Science Policy](#), which modernizes scientific practices, increases the visibility of research, and encourages innovation and social development. As a basic document, this Policy applies to the University and its constituents**, and the teachers of UNIZG FOI also participated in the drafting of this Policy, as the leader and coordinator of the working group. The UNIZG bases its open science policy on the guidelines of the EU ([EU Open Science Policies](#)), UNESCO ([Annex 5.5.1.: Unesco Recommendations on Open Science](#)) and international university alliances ([Annex 5.5.2.: Open science EU Agenda](#)). It also relies on the Croatian Higher Education and Scientific Activity Act ([*Annex 5.5.3.: Act on Higher Education and Scientific Activity](#)), which recognizes open science as a fundamental principle of academic activity.

The University of Zagreb develops open science with the support of the [University Computing Centre \(SRCE\)](#), primarily through the development of the [Croatian Science Information System \(CroRIS\)](#) and institutional repositories ([Digital Academic Archives and Repositories, DABAR](#)). The University Computing Centre has the obligation to ensure the availability of the necessary resources and the timeliness and security of these systems in accordance with best practices. European research infrastructures, including the [European Strategy Forum on Research Infrastructures \(ESFRI\)](#) and the [European Open Science Cloud \(EOSC\)](#), are also available to researchers, fostering data-intensive science and innovation.

At the session of the Faculty Council ([*Annex 5.5.4.: Minutes of the 1st session of the Faculty council](#) about open science policy), the members of the UNIZG FOI Council were informed about the obligation of the UNIZG FOI to encourage open science and create a culture of transparency of research and its results. In accordance with the principles of open science and EU policy, UNIZG FOI encourages teachers to store scientific and professional papers, research data and teaching materials in available repositories for open science and data, while respecting the FAIR principles. In Table 5.3. of the Analytic supplement to the self-evaluation report, the Implementation of Open Science at the UNIZG FOI is presented.

[Development Strategy of the Faculty of Organization and Informatics for the period 2018-2023](#) encouraged the implementation of open learning and open source by defining strategic goals: PO8 Encourage the creation and use of open resources – open access to scientific information, use of open source and A39 Encourage the use of open source in teaching. One of the strategic areas of UNIZG is Information Security and Open Systems. The UNIZG FOI [Development Strategy for the period from 2025 to 2029](#) also defines Information Security and Open Systems as the area of activity

of UNIZG FOI, and further encourages open science through Goal 8 in the field of Science and Research: Establish an open science policy and research strategy, and sets the Development and Provision of Digital Support for Excellence, Inclusiveness and Openness in Science and Education as one of the most important priorities for the future period.

Since 2006, UNIZG FOI has been using the Moodle e-learning system as an official learning management system and platform. From academic year 2009/2010 until today, all undergraduate and graduate courses have created an e-course in the UNIZG FOI e-learning system, thus ensuring high availability of all necessary teaching materials to students. Access to the e-learning system is provided to employees and students of UNIZG FOI through the Central Authentication System (AAI), and student enrolment in courses is enabled through integration with the [Information System of Higher Education Institutions \(ISVU\)](#), which ensures that each student has access to the course they have enrolled in. In order to ensure better availability of teaching content for studies, the e-courses passed by each student are still available through the archives for each academic year, so students are provided with access to teaching materials for a minimum of 5 previous academic years.

Open access to final, graduate, specialist and doctoral theses is provided by access in one place through the website of the [UNIZG FOI library](#).

The [UNIZG FOI Library](#) maintains a website with online resources and repositories in which the works of employees and students in open access are stored. The website presents in one place the available online resources intended for employees and students:

- [Summon](#) - an interface for unified search of all available prepaid e-resources under the national license, e-resources in open access and the collective digital repository [Dabar](#),
- [Portal of electronic resources subscribed to the Croatian academic and scientific community](#),
- [Temporary access to databases](#) provided by the library for UNIZG FOI,
- [Open access to databases and repositories](#) gathered by the library for UNIZG FOI,
- [The EFZG Digital Library](#), a collection of digital publications in the field of economics published by higher education institutions from the country and abroad. The collection is intended for all users of the UNIZG FOI library using access data that can be obtained in the library,
- [CroRIS Portal](#) – Science Information System of the Republic of Croatia,
- Digital Academic Archive and Repository - [DABAR FOI](#),
- Collective Digital Academic Archive and Repository - [DABAR](#),
- Portal of scientific journals of the Republic of Croatia - [HRČAK](#).

The Library [stores and provides open access to students' evaluation papers in](#) the Digital Catalogue ([Collection of Doctoral Theses](#), [Collection of Final Specialist Theses](#)).

Data have been stored in the DABAR repository since June 21, 2016. In this system, during the period of re-accreditation, the following was stored: final theses (1633, of which 830 in open access), graduate theses (872, of which 391 in open access), final specialist theses (5 in open access), and doctoral theses (17 in open access). The availability of all evaluation papers in the period 2020 - 2024 is listed in Table 5.5. of the Analytic supplement to the self-evaluation report.

The number of papers published in open access makes up a total of more than 50% of all published papers of the UNIZG FOI. UNIZG FOI encourages the application of the principles of open science through institutional financing of the costs of publishing scientific papers. In order to continuously

encourage teachers and associates to make quality scientific publications, the UNIZG FOI adopts a Decision on the co-financing of scientific and educational training, and in 2021, the Rulebook on the distribution of own revenues and revenues for special purposes of the Faculty of Organization and Informatics was adopted. Although the Decision and the Rulebook do not explicitly limit to publications in open access journals, in practice most of the financing of the costs of publishing papers refers to open access publication.

The operational implementation of the UNIZG Open Science Policy continues through the Croatian Open Science Cloud Initiative. [The initiative for the Croatian Open Science Cloud \(HR-OOZ\)](#) was launched in June 2021 by the [University Computing Centre](#) (SRCE), with the support of the Ministry of Science and Education and the Croatian Science Foundation. The aim of the initiative is to build a modern, high-quality and internationally relevant scientific system based on the principles of open science, aligned with the European Research Area and relevant European initiatives.

HR-OOZ brings together key stakeholders from the science and higher education system in Croatia, who are working together to create the preconditions for the implementation, realization and promotion of open science. The initiative builds on the national strategic project [Croatian Science and Education Cloud \(HR-ZOO\)](#), which established a computing and data cloud as the basis of the national research and innovation e-infrastructure. Together, HR-OOZ and HR-ZOO form a model of the open science environment in Croatia.

The activities of HR-OOZ include the establishment of an organizational and management structure and technological principles, the development of a national plan for open science, the coordination of participation in European and international open science initiatives, the encouragement of cooperation to ensure the development and sustainability of national research infrastructures and their connection with European and international infrastructures.

UNIZG FOI is one of the [consensual members](#) of HR-OOZ, UNIZG FOI teachers participate in the [Council of the initiative](#) and the [Council's Working Groups](#).

As one of the most important initiatives in the field of open data and open science, 6 units of UNIZG, including UNIZG FOI, were participating in the [Twinning Open Data Operational \(TODO\)](#) project, funded by the European Union program - Horizon 2020, which started in 2019 and lasted 42 months. The aim of the project was to increase the interdisciplinary scientific research activities and innovation capacity of the units of the UNIZG in the field of open data. 39 scientists and associates of partner universities actively participated in this project, of which 6 teachers from UNIZG FOI and other scientists from 5 other units of UNIZG. With the support of national and international experts, open data research initiatives have been launched as a key component in creating and accelerating sustainable and innovative open data and open science ecosystems. Open access research data, as well as all deliveries and other results, resulting from the joint work on the TODO project are available on the [CORDIS](#) portal for EU research. The sustainability of the project results is ensured through the Sustainable Cooperation Structure ([Annex 5.5.9.: TODO project Memorandum of agreement](#)), which encourages the creation of a future joint research agenda of project partners, the establishment of a cooperation structure, work on new joint initiatives and projects, and the preparation of guidelines for open data education in Croatia. The aim of this document is to define a model of cooperation after the end of the project, to explore different ways of formalizing cooperation, and to explore ways of involving other institutions in initiatives.

UNIZG FOI teachers are actively involved in events and training related to open educational materials. Furthermore, as an example of encouraging open education and the benefits associated

with it, in the celebration of the International Open Education Week on March 6, 2024, a panel entitled "[Can open educational content improve the quality of teaching?](#)". During the panel, the quality of teaching in higher education in the digital age was discussed, as well as the use of open educational content as teaching materials.

Research data are also published by UNIZG FOI teachers on the Harvard Dataverse online data repository (where each dataset receives an associated doi). An example of some datasets are:

<https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/OITRGE>

<https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/71JL1U>

<https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/WYENKU>.

The Open Data and Open Science Initiative has also been recognized by younger associates of UNIZG FOI, through the doctoral study of *Information Sciences at UNIZG FOI*, by defending papers related to open science and open data, for which one doctoral student also received the [Annual Award of the Association of University Teachers and Other Scientists in Zagreb](#), and this demonstrates the quality of work in the field of open data and science. Also, junior associates participate in international conferences on open data and their visualization (e.g. [EU DataViz](#), [EU Open Data Days 2025](#)).

In 2025, UNIZG FOI continues to work intensively on initiatives related to open science and systems, so on February 11, 2025, together with the Faculty of Electrical Engineering, Computer Science and Information Technology of the Josip Juraj Strossmayer University of Osijek and the University Computing Center of the University of Zagreb, it signed a Cooperation Agreement on the project Building a System for Collaborative Work with Program Code - OpenCode.HR. The main starting point for building a system for collaborative work with program code is the need to establish a common platform through which the academic and scientific community of the Republic of Croatia will be able to securely exchange open source software. In addition, as part of the SRCE DEI 2025 conference, UNIZG FOI scientists participated in the event "[Open Science and EOSC: From Principles to Practice](#)", where representatives of the European Commission, the EOSC Association, the EOSC Steering Committee, the Ministry of Science, Education and Youth spoke about topics important for the development of open science, the situation in the EU and the plans of the European Commission and EOSC for the future.

UNIZG FOI is the publisher [of the Journal of Information and Organizational Sciences \(JIOS\)](#). JIOS is an [open access journal](#), and the collection of all issues is also available on the website of the [UNIZG FOI Library](#). All content is published under the Creative Commons BY-NC-ND 4.0 license, and there are no article processing costs or a fee for the publication of papers.

For 35 years in a row, UNIZG FOI has been organizing the international conference [Central European Conference on Information and Intelligent Systems \(CECIIS\)](#), where teachers, scientists and associates of UNIZG FOI, partner institutions, scientific and research institutions and communities from Croatia and abroad publish the results of their scientific research. The conference provides participants with the opportunity to present their papers in front of a scientific audience, and the authors publish their original scientific papers in the Conference Proceedings, available in [open access](#) and on the website of the [UNIZG FOI Library](#).

LIST OF ABBREVIATIONS USED

AAI - Authentication and Authorization Infrastructure of the Science and Higher Education System

AI - Artificial Intelligence

AMPEU - Agency for Mobility and EU Programmes

API - Application Programming Interface

APPS - Apps

ASIIN - Accreditation Agency for Degree Programs in Engineering, Informatics/Computer Science, Natural Sciences and Mathematics

AZVO - Agency for Science and Higher Education

BBB - BigBlueButton

BDP - Balanced Design Planning

BIP - Blended intensive programme

BPBZ - Databases and Knowledge Bases

BYOD - bring your own device

CARNET - Croatian Academic and Research Network

CC - Current Contents

CECIIS - Conference on Information and Intelligent Systems

CIP - Information Support Center

CMP - Center for International Projects

COP - Central Payroll

CPCI - Conference Proceedings Citation Index

CPSRK - Center for Student Support and Career Development

CRODMA - Croatian Association for Direct and Interactive Marketing

CroRIS - Science Information System of the Republic of Croatia

CRORR - Croatian Operational Research Review

CZRPP - Center for Software Product Development

Dabar - Digital Academic Archives and Repositories

DS - graduate study

ECTS - European Credit Transfer System

EDEN - European Distance Education Network

EFMD - European Foundation for Management Development

EKO - European Qualifications Framework

EOSC - European Open Science Cloud

EP - Economics of Entrepreneurship

ERP - Enterprise resource planning

EFRI - European Strategy Forum on Research Infrastructures

ESG - Environmental, Social, and Governance

EU - European Union

EUOP - E-learning in education and business

EUSDR - EU Strategy for the Danube Region

FINA - Financial Agency

FOI Forms - Information System for Managing Applications and Requests

GDPR - General Data Protection Regulation

HIZ - Croatian Informatics Association

HKO - Croatian Qualifications Framework

HR-OOZ - Initiative for the Croatian Open Science Cloud

HR-ZOO - Croatian Science and Education Cloud

Hrčak - Portal of Croatian Scientific and Professional Journals

HRZZ - Croatian Science Foundation

HZZ - Croatian Employment Service

ICT - Information and Communication Technology

INF - Informatics

IOT - Internet of Things

IPI - Information and Software Engineering

IPS - Information and Business Systems

ISVU - Information System of Higher Education Institutions

IT - Information technology

ITDP - Information Technology and Digitalization of Business

ITU - Integrated Territorial Investment

IU - Learning Outcome

IUO - Informatics in Education

IZ - Information Sciences

JCC - Joint creative classroom

JCR - Journal Citation Report

JIOS - Journal of Information and Organizational Sciences

JMBAG - Unique Academic Citizen Identification Number

LCD - liquid crystal display

LDAP - Lightweight Directory Access Protocol

LED - light-emitting diode

LMS - Learning Management System

MOOC - Massive Open Online Course

MPS - Business Systems Management

MZOM - Ministry of Science, Education and Youth

NISpVU - National Information System for Higher Education Institutions

NPP - Curriculum

OBAD - Online database of PhD students

OIB - personal identification number

OLA - Online Learning Agreement

OPG - family farm

OPS - Business Systems Organization

PBL - problem-based learning

VAT - Value Added Tax

PITUP - Application of Information Technology in Business

PPDMO - Pedagogical-psychological-didactic-methodical education

PS - Undergraduate Study

RH - Republic of Croatia

USA - United States of America

SCIE - Science Citation Index Expanded

SIU - a set of learning outcomes

SJR - SCImago Journal Rank indicator

SK - Qualification Standard

SPU - Central Application Office

SRCE - University Computing Centre

SSCI - Social Science Citation Index

STAK - Student Activity Studentski list

STEM - Science, technology, engineering, and mathematics

STIS - Student Information System

UNIZG - University of Zagreb

UNIZG FOI - University of Zagreb Faculty of Organization and Informatics

SWOT - Strengths, Weaknesses, Opportunities, and Threats

TICM - Technology and Innovation Center Međimurje

TPV - Technology Park Varaždin

UDI - Digital Innovation Management

AI - Artificial Intelligence

HRM - Human Resources Management

UMS - International Relations Office

UN - United Nations

UNESCO - United Nations Educational, Scientific and Cultural Organization

UNI PU - University of Pula

UNI RI - University of Rijeka

USiRIS - Information Systems Security and Audit Management

VDS - Doctoral Study Council

WBL - work-based learning

WHO - World health organization

Wi-fi - wireless fidelity

WLAN - wireless local area network

WoS - Web of Science