



**DUALMON**  
Strengthening capacities for the  
implementation of dual education  
in Montenegro Higher Education

Co-funded by the  
Erasmus+ Programme  
of the European Union



**FH | JOANNEUM**



## 4.8. Analysis of the results of pilot testing of each of specific Dual models

SATISFACTION WITH PARTICIPATION IN THE DUALMON PROJECT

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Abstract	This document provides more information level of satisfaction of three main groups of stakeholders (dual students, university and companies) with piloting DUALMON project, based on survey.
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# 1. Faculty of Economics report

## 1.1. Concept of specific model of dual education

A specific model of Faculty of Economic comes from the accreditation of study programs, and knowledge and skills that are the focus of individual modules. According to the last accreditation from 2017, basic studies of economics at the Faculty of Economics are organized according to the 3 + 2 + 3 model, in order to harmonize studies with the way of studying at universities in the European Union, and to enable the implementation of the Bologna Declaration. In this way, compatibility with other universities in Europe has been achieved, and preconditions have been created for a better flow of students to European universities. At the same time, this contributed to leverage the international recognition of the Faculty of Economics, and the University of Montenegro at the same time.

Starting from the goals of the project and the way of organizing the studies, in cooperation with the partners, it is decided to implement dual education in the final year of basic academic studies in Economics. Specifically, the pilot project was implemented in the Microeconomics module within the last (VI) semester of study. The reasons for making such a decision are multiple. First of all, the Microeconomics module is predominantly focused on the economic sector, incorporating theoretical knowledge from all crucial functional units of the company (such as finance, accounting, marketing, management, etc.). In other words, this model covers a wide range of areas in the field of Economy, which is in line with the needs of business partners. In this way, students are directed to acquire specific knowledge and skills through dual education, which are especially valued by potential employers, and which are important for their competitiveness in the labour market. In addition, the Microeconomics module is represented in the last semester of basic academic studies, which ensures that the project includes those students who have already acquired theoretical knowledge, necessary to successfully adapt to the work environment within the company and solve real business problems and challenges. In this way, students can apply the acquired theoretical knowledge and upgrade it with practical skills gained through the process of dual education. Finally, this opens the possibility for companies, after completing the dual program (education) and academic studies, to offer employment to students, which opens the possibility to develop professional staff that is tailored to the specific needs of the company.

The piloting of the project was carried out during May and the first half of June 2023, in cooperation with 10 credible companies in Montenegro, with different economic activities. A total of 17 students of the Faculty of Economics performed a dual internship, under the joint mentoring of professors from the Faculty and mentors from the company. Immediately after the internship finished, an internal survey of the satisfaction of students and company mentors with their participation in the project was conducted. The research was implemented on the basis of a survey questionnaire, compiled by members of the project team of the Faculty of Economics. Additionally, for the purposes of the official evaluation of the

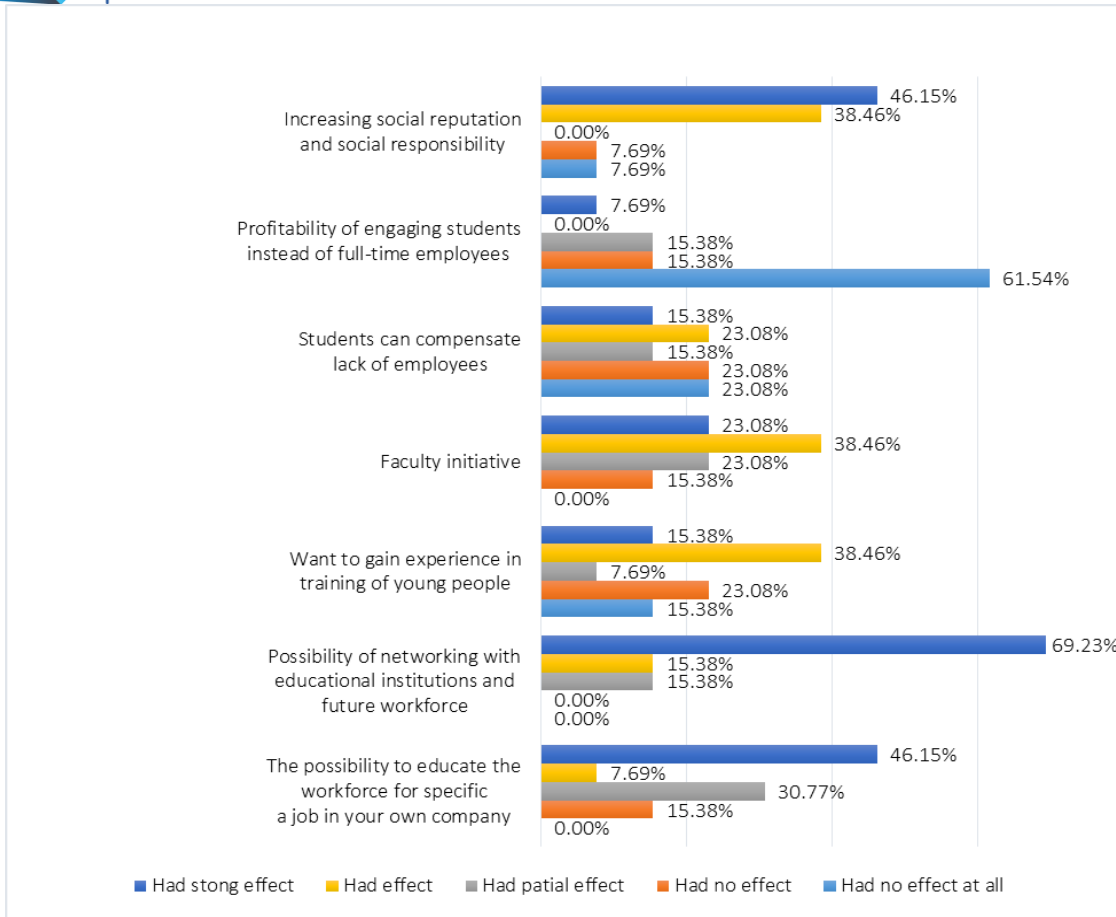


satisfaction of all stakeholders (professors, students and employers) with the participation in the DUALMON project, in April 2024, an official survey was also conducted, for the purposes of preparing the final report planned within the work package 4 - Pilot testing of the generic DUALMON model.

### 1.1.1. Internal evaluation of students' and company mentors' satisfaction with piloting DUALMON project at Faculty of Economics

Internal evaluation, conducted in June 2023, involved mentors from all 10 partner companies who participated in piloting of project. In total, 11 of 17 company mentors participated in the survey. The internal evaluation resulted in encouraging results regarding students' and employers' satisfaction with participation in the dual higher education project – DUALMON. Namely, almost all company mentors are satisfied with the way in which the DUALMON project was piloted by Faculty of Economics (ratings 4 and 5), while only 1 respondent rated his satisfaction with the method of piloting the project with a grade of 3. Among the most important motives for participating in the project were the possibility of networking with educational institutions and the future workforce, as well as increasing the social reputation and social responsibility of the company itself, which is presented in Figure 1.

Figure 1: Reasons that influenced employers to participate in the DUALMON project

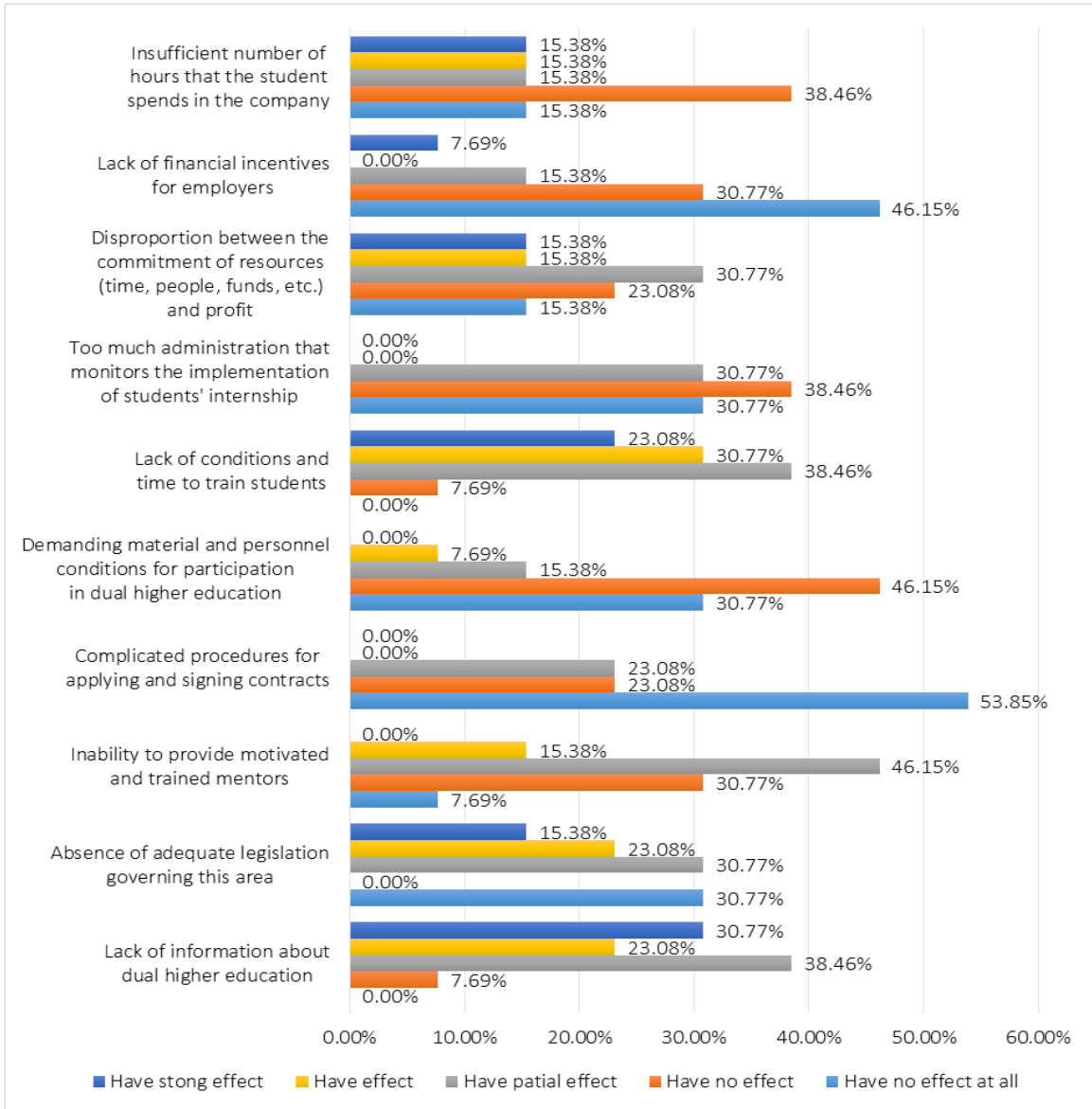


As given in the Figure 1, most of the respondents (46.15%) also recognize dual model of studies as an opportunity to participate in the education of future workforce for specific jobs in their companies, which can long-term contribute to solving problem that they face in the process of recruiting. However, employers have a divided opinion regarding the issue of whether dual students can significantly contribute to the realization of working tasks in the company during the internship. While almost half of them (approximately 47%) think that students cannot compensate lack of employees, the opposite opinion had approximately 39% of respondents, so this can be considered important motive for joining the project. Still, the majority of respondents (61.54%) believe that it is not profitable to hire students instead of full-time employees.

When it comes to the main barriers that prevent employers from participating in a dual higher education program, respondents believe that the most important are lack of information about dual higher education (59.09%) and absence of adequate legislation governing this area (53.85%). Among important ones they also emphasize the lack of conditions and time to train students (53.85% of respondents), as well as insufficient number of hours that the student spends in the company (30.76%). Detail overview of the importance of barriers is presented in the Figure 2.



Figure 2: Barriers that prevent employers from participating in a dual higher education program



However, it is important to point out that all respondents believed that the time the students spent interning in the company within the project was sufficient for the implementation of the task and the acquisition of knowledge defined by the learning outcomes. Additionally, it is encouraging that 92.30% of respondents point out that the students expressed their willingness to learn not only the tasks given in the project assignment, but also to learn what the mentor from the company pointed out to them as relevant. Accordingly, 53.84% of the respondents stated that their company expressed the willingness to hire a student who was performing “learning by doing”, while 30.76% stated that their company was still considering this option. However, the opinion of respondents is divided regarding the question of whether students, who attended practical education in a given company, acquired the knowledge and

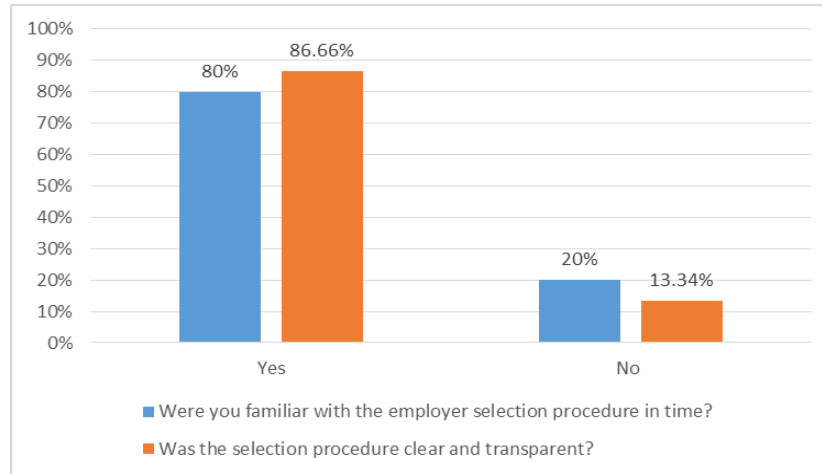
skills to be able to work effectively at another employer. While 30.76% respondents agreed with this attitude, more than half of respondents (53.84%) did not have a defined opinion. When it comes to the quality of established communication between educational institutions and companies, the respondents' satisfaction is at a high level. 77% of the respondents are satisfied with the quality of communication with the academic mentor during the internship (grades 4 and 5), but 84.61% indicated the problem that the learning outcomes at the Faculty are only partially in accordance with the real business tasks performed by companies. This clearly highlights a need to establish more intensive cooperation between educational institutions and the economy, not only during the implementation of study programs, but also in terms of the creation of curricula that will be included in given study programs, in order to successfully respond to the challenges imposed by a dynamic business environment. Another recommendations obtained from the respondents refer the provision of financial incentives to mentors in companies, so that they have the motivation to devote more time to working with students, because this additional obligation is difficult to harmonize with their daily working tasks. Besides of that, they believe that the internship period should last longer, so that the mentors in the companies would be relieved of the time of working with the students on a daily basis, and the students would have more time to master more complex working tasks, so that they could later perform them independently. The common opinion of the majority of respondents is that it is necessary to work on the promotion of the dual higher education programs in the coming period, so that a greater number of employers, i.e. the companies become aware of all the benefits that such programs would provide them in the long term.

When it comes to the internal evaluation of students' satisfaction (conducted in June 2023), the survey included 15 dual students (out of total 17). The overall results indicate high level of success in piloting DUALMON project. Namely, there are two reasons why dual students decided to participate in the project. Half of the students (46.67%) decided to participate because they believed that doing an internship allows them to really learn the job they are studying for, while the remaining students thought that doing an internship provides them with greater employment opportunities after completing their studies.

Most of the students were informed about the project and the possibility of participating in it thanks to the presentation held at the Faculty of Economics, which was dedicated to informing students about the DUALMON project. Also, the students were informed in a timely and appropriate manner about the procedure of selecting the employers within whom they will do their internship, which is shown at Figure 3.

Figure 3: Students' satisfaction with the employer selection procedure

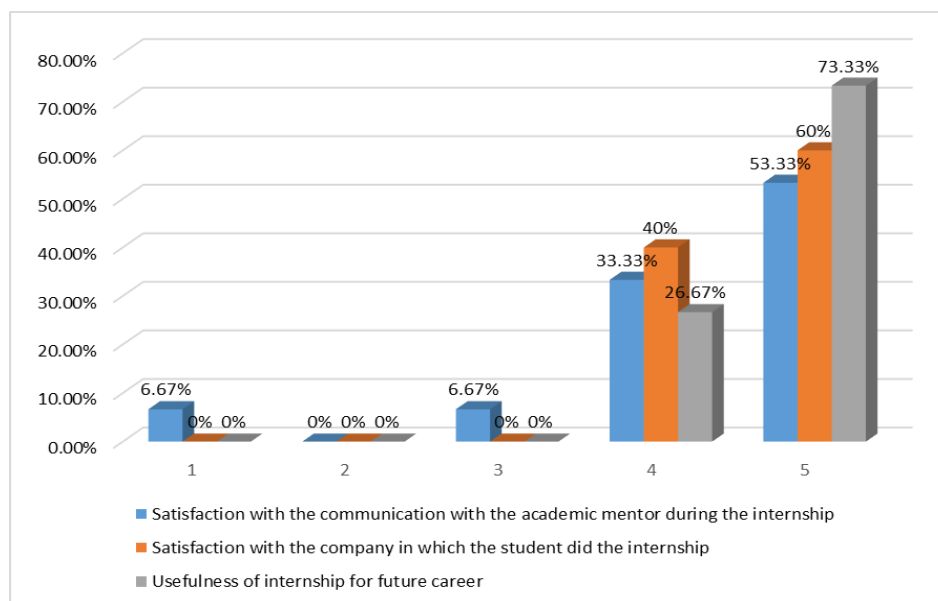




As Figure 3 shows, 80% of students were familiar with the employer selection procedure in time, while 86.66% of them stated that the selection procedure was clear and transparent. The main recommendations of students in this domain referred to the possibility that students themselves choose the company in which they will do their internship (from the offered ones), and that the working time should be shorter than 8 hours a day, so that they have more time to devote to the preparation of final exams.

However, although the students gave a recommendation to enable independent choice of company during dual studies, the research showed that they were all satisfied with the employer where they did their internship, and that they believe that the internship will be of great importance for their future career. The above mentioned is also presented in the Figure 4.

Figure 4: Students' satisfaction with the academic and company during the internship



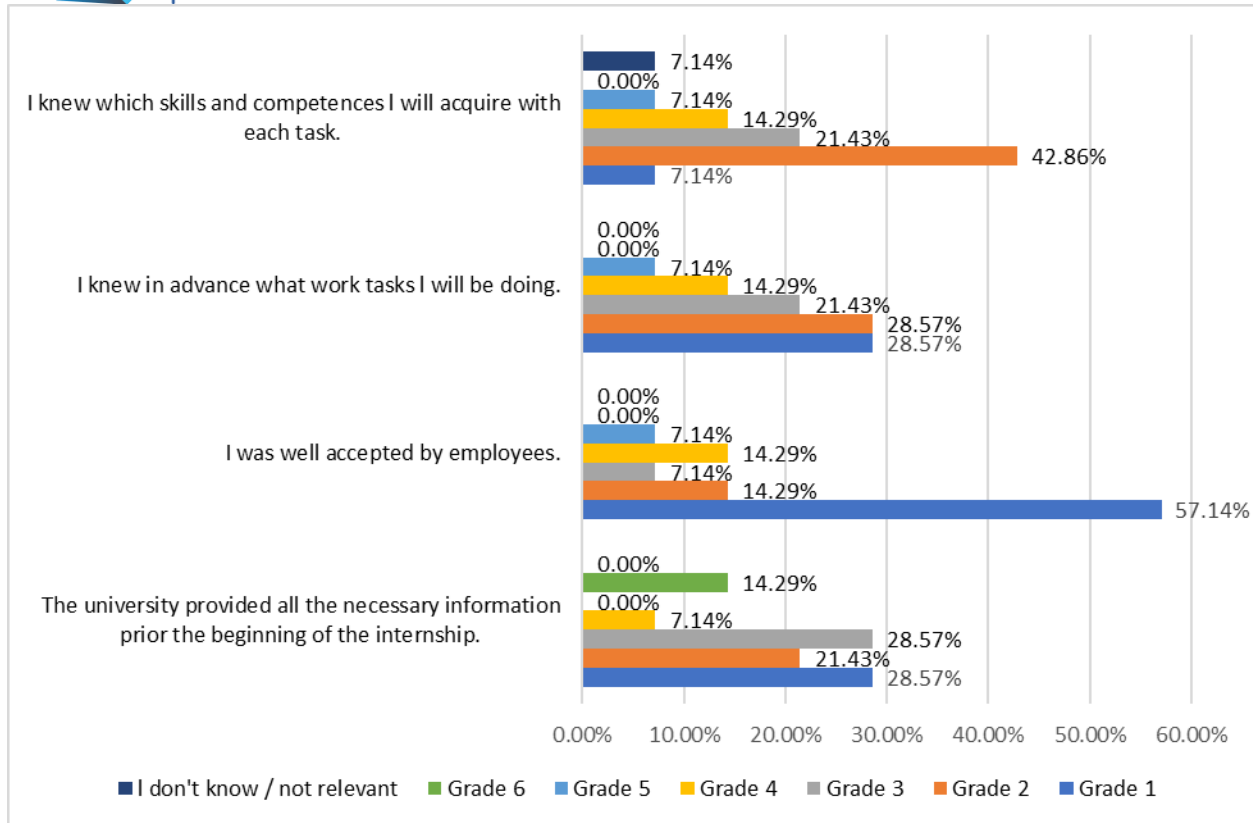
The Figure 4 also reveals that the students are mostly satisfied with communication with their academic mentor during the internship (86% rated their level of satisfaction with grades 4 and 5). Hence, the results of the survey showed that all students of the Faculty of Economics would participate in the dual higher education program again, if they had the opportunity. As the main advantages of dual education compared to traditional one, during last year's survey, students cited the application of acquired theoretical knowledge in practice, better familiarity with the way the business world functions, and greater chances of employment during and after completing their studies. In order to further improve dual education in Montenegro, the surveyed students believe that it would be useful in the future to work intensively on the promotion of this type of education, so that younger generations of students become familiar with its concept and the advantages it offers compared to the traditional type of education. They also share the opinion that the internship should last longer, and that at least some kind of internship, like the one offered by dual education, should be mandatory for all students in their final years of study.

#### 1.1.2. External (official) evaluation of students', company and academic mentors' satisfaction with piloting DUALMON project at Faculty of Economics

The official evaluation of stakeholders' satisfaction (students, company and academic mentors) with piloting DUALMON project was conducted in April 2024, as the part of the working package 4. For the survey purposes, the project team used official questionnaires made by partners from Austria, which was distributed online to all three main groups of stakeholders (mentioned above) that participated in piloting the project.

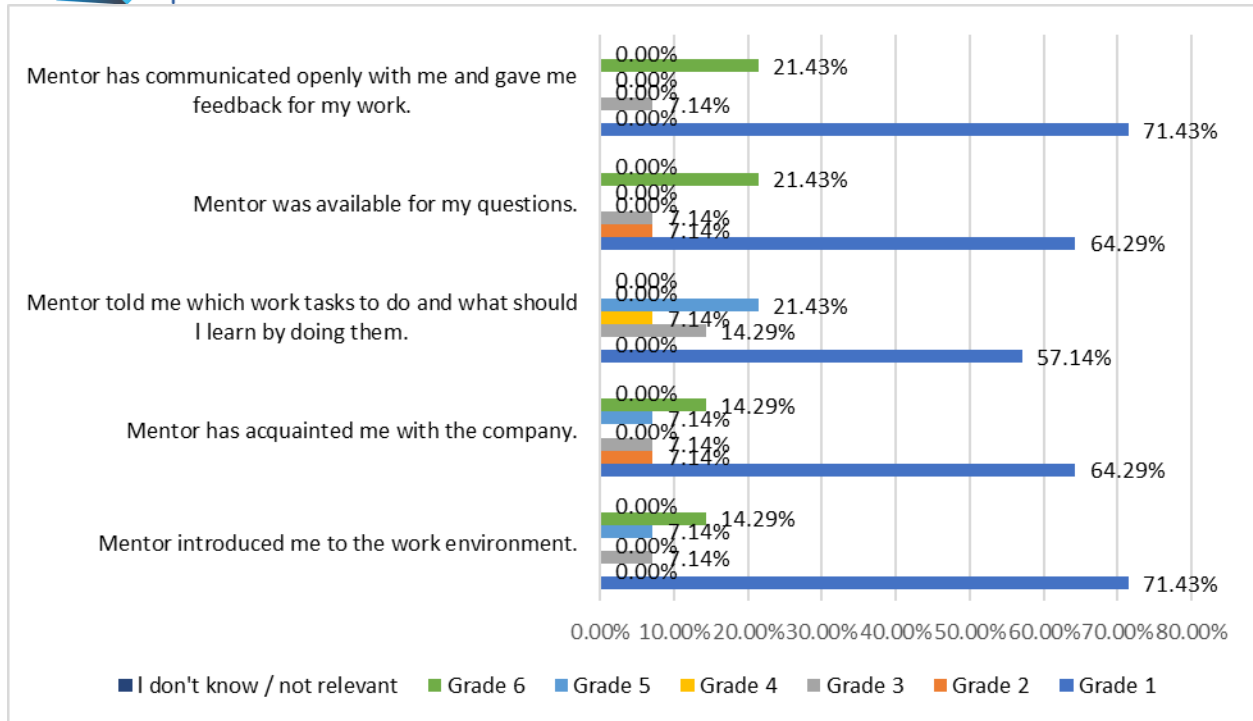
In the official part of the evaluation process 14 dual students (of 17 in total) of Faculty of Economics participated in the survey. The results of the research showed that the majority of students were well informed about all the important details of dual internship by the Faculty, before the start of piloting the project. Also, most of the students were satisfied with the way in which they were accepted by the employer, and stated that they knew in advance what skills they would master during the internship. The above is shown in Figure 5.

Figure 5: Students' familiarity with the internship within dual education program



The results also showed that more than 2/3 of the students were satisfied with the communication they had with the company mentor during the internship. However, a smaller difference in the degree of satisfaction is observed depending on the aspect of communication, which is shown in Figure 6.

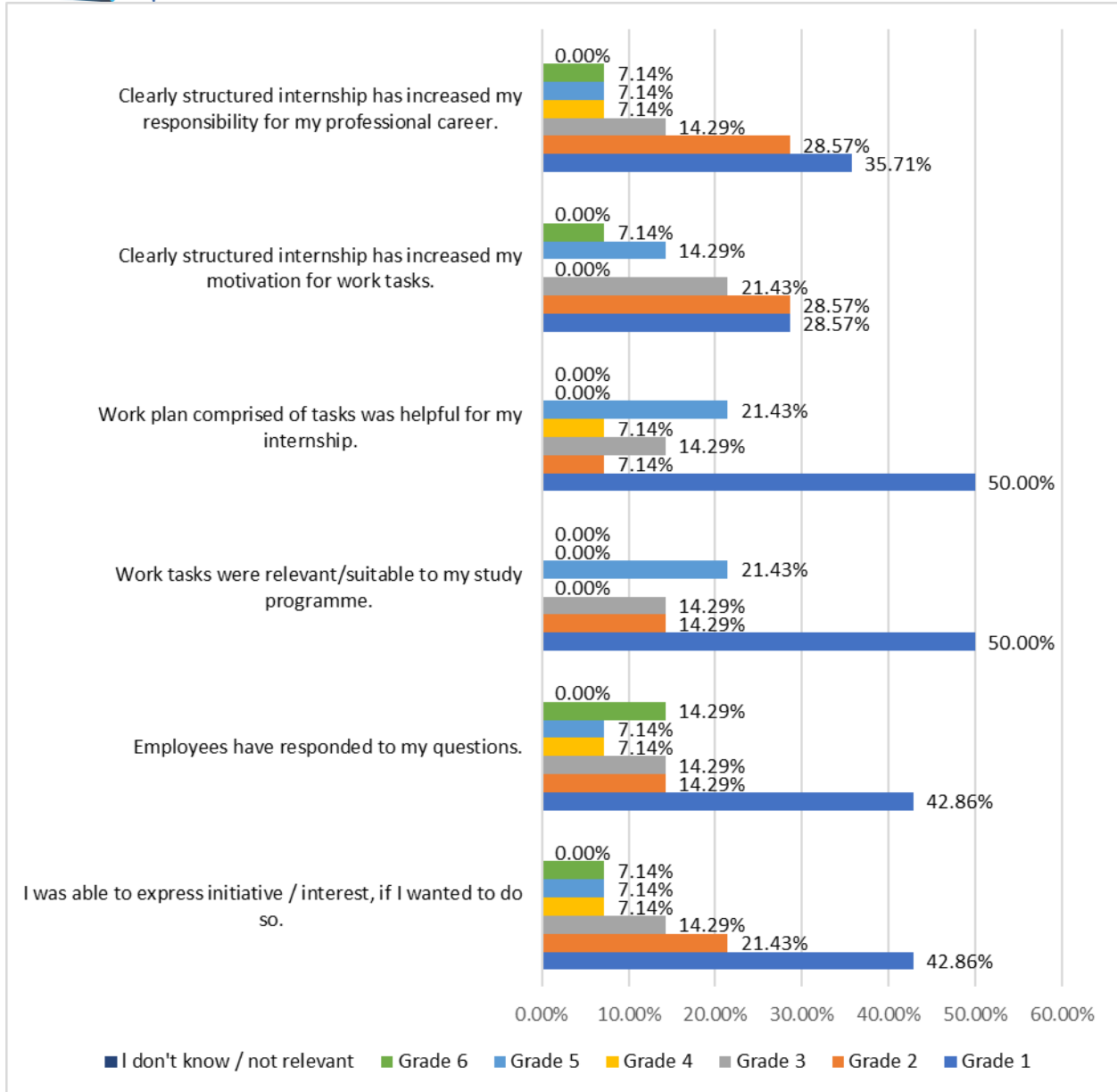
Figure 6: Students' satisfaction with their communication with company mentors during the internship



As shown in the Figure 6, the students were particularly satisfied with the way the mentor introduced them to the company and the working environment, as well as the mentor's willingness to answer their questions. A slightly lower level of satisfaction is noticeable only in terms of the degree to which the company mentor introduced them to the jobs and tasks they will perform at the beginning of the internship. However, it is important to point out that more than half of the students (57.14%) were also very satisfied with this aspect of communication too.

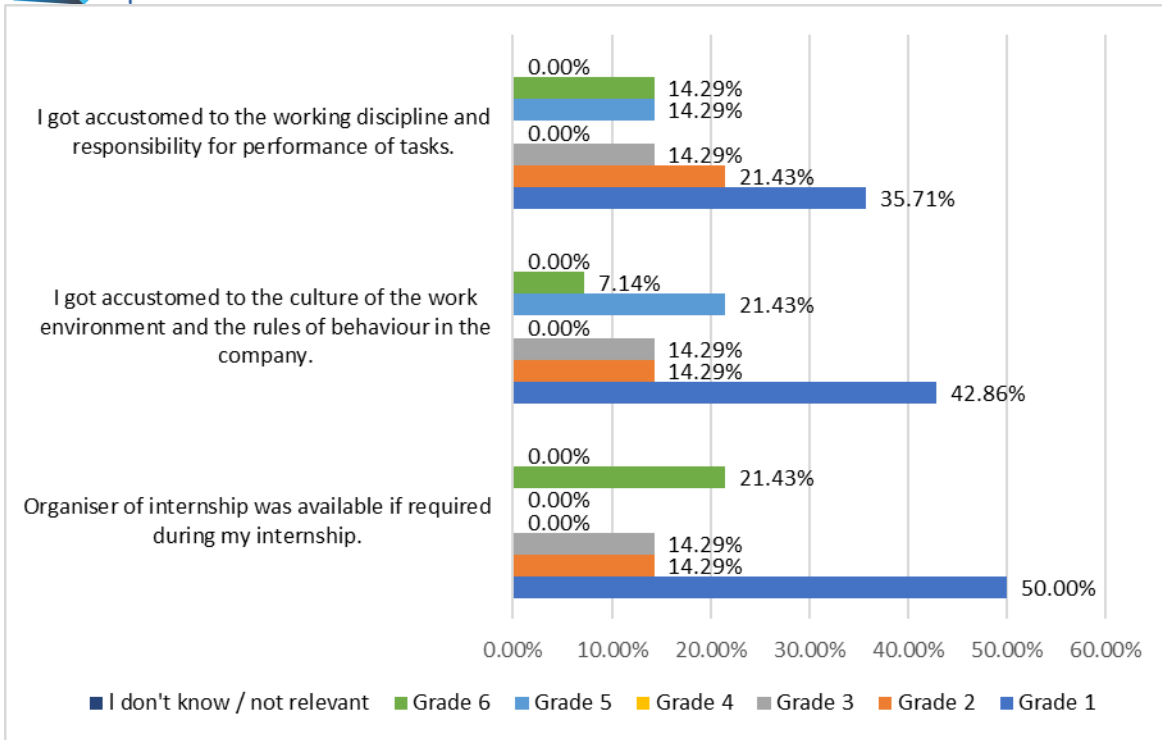
Apart from the mentor, the students were mostly satisfied with the communication with the other employees, as well as with the opportunity to express their initiative. The majority of students shared the opinion that the jobs and tasks they performed at the employer were aligned with the outcomes of the study program they were attending, and that most of the jobs they performed were already foreseen by the work plan created before the start of the internship. Students satisfaction with the mentioned aspects of dual practice is presented in Figure 7.

Figure 7: Students' satisfaction with working plan and the structure of the internship



In addition to mastering real business tasks and challenges foreseen by the learning outcomes, the dual students recognized adaptation to the work environment, the acquisition of work discipline, as well as the willingness to take responsibility for the performed tasks as important benefits of practice (Figure 8).

Figure 8: Students' perception of benefits of dual internship



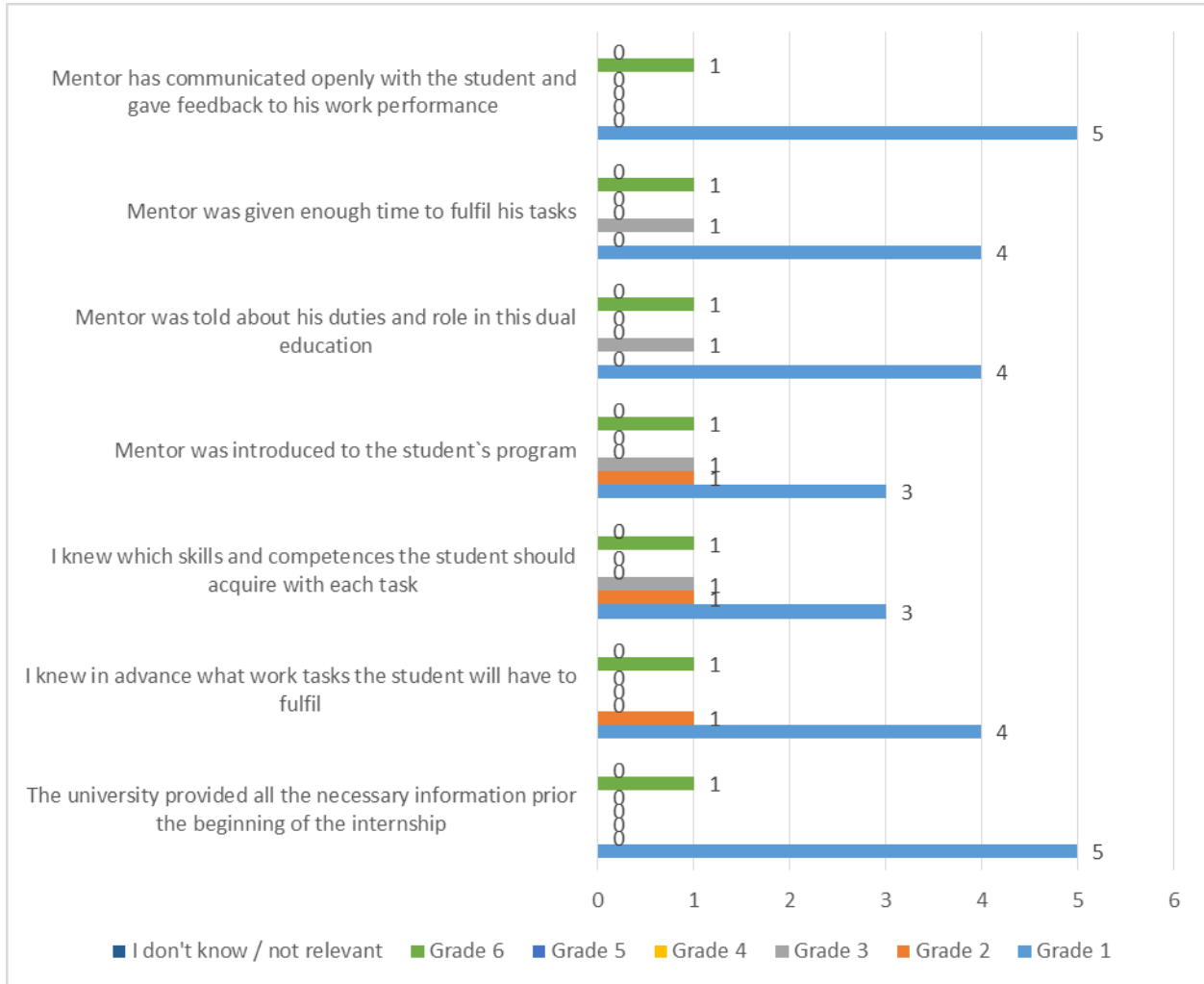
Taking into account all stated above, it can be concluded that the students were satisfied with all aspects of piloting the DUALMON project. In this context, they particularly emphasized their satisfaction with their cooperation with company mentors and with the fact that performing a dual internship before completing their studies helped them to gain a clearer picture of the professional engagements they want to perform and the direction of their future career development. On the other hand, when it comes to the aspects of practice with which they were not satisfied, students share the opinion that the practice should last longer, but that the working hours during the day should be shorter than 6h, so that they have enough time to devote to preparation of final exams for their studies. Besides of that, some students were not satisfied with the willingness of other employees (except company mentors) to include them in their work tasks. They also pointed out that certain tasks they occasionally performed in companies did not fully correspond with the learning outcomes defined by the subject in which they performed their internship in a company. Therefore, the recommendations they gave, in order to improve the dual education program in the future, primarily refer to the involvement of students in performing more complex tasks, and their involvement in the decision-making process in the company. Nevertheless, each of the surveyed students stated that the dual education program provided them with numerous benefits, which allow them to better see the desired path of their future career development.

When it comes to satisfaction of company mentors, it should be noted that mentors from 6 out of 10 companies included in the project participated in this survey. The results of the research show that the mentors in the companies were generally adequately prepared for piloting the project and familiar with the activities they need to undertake during students' internship, as part of the project piloting. Figure 9



(given below) shows that the university provided company mentors with all the necessary information prior to the beginning of the internship. Measured by a 6-point Likert scale (1 – I fully agree to 6 – I fully disagree; x – I don't know / not relevant), 5 out of 6 mentors fully agreed with this statement.

Figure 9. Company mentors' familiarity with the dual education program



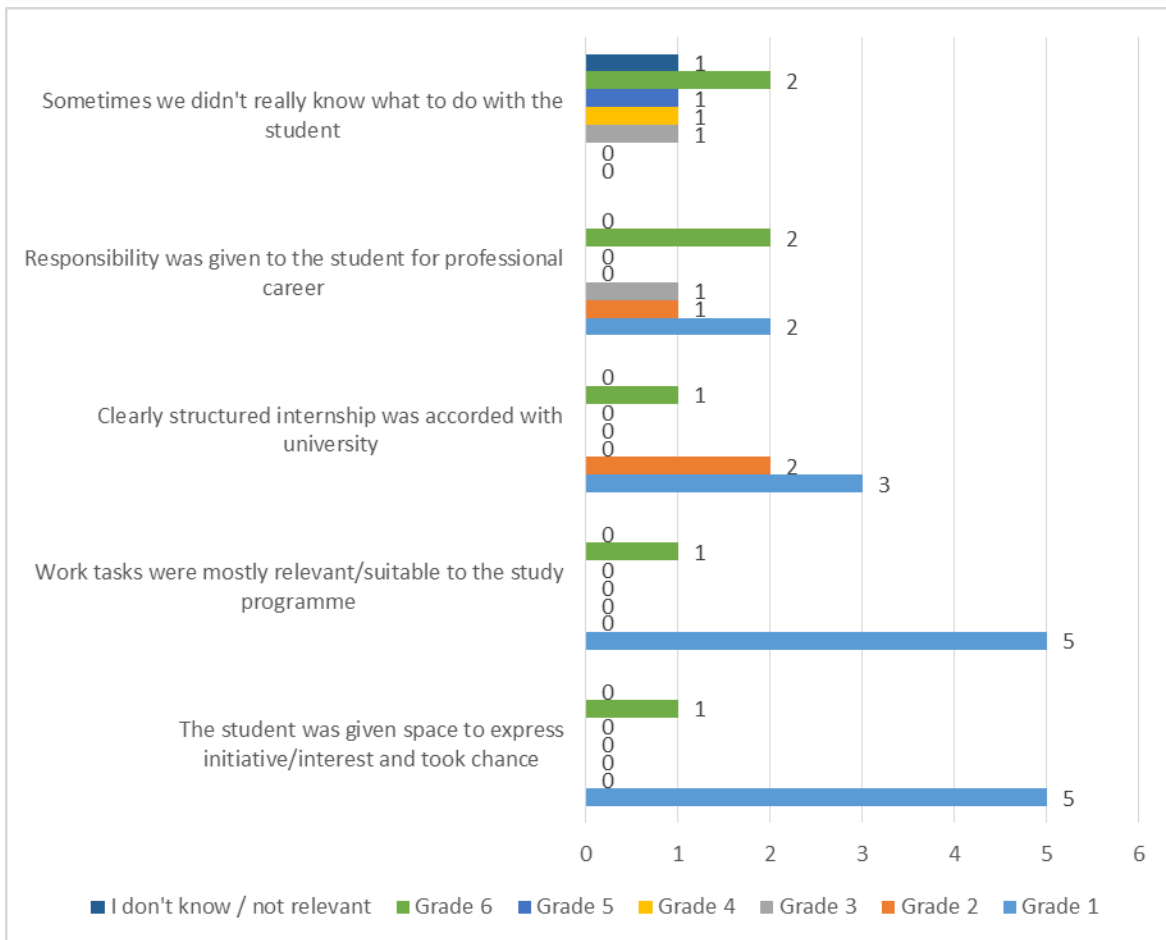
The previous graph shows that the company mentors were mostly very familiar with the tasks that the students should master during the internship (5 mentors gave grades 1 and 2 for this statement), that they understood their role as a mentor in that process (4 mentors gave grade 1), that they had enough time available to fulfill their work tasks (5 company mentors gave grades 1 and 2 for this statement), and that the university provided all the necessary information prior to the beginning of the internship (5 mentors gave grade 1). The graph also reveals that one mentor fully disagreed with all the statements (grade 6). However, further analysis of his comments and suggestions revealed high level of his satisfaction (as he stated in the comments section of the questionnaire that he is completely satisfied with the internship, cooperation with the student and cooperation with the university), so we believe



that he rated all the statements presented in the Figure 9 with grade 6 by mistake, believing that this grade represents the highest level of satisfaction, not grade 1.

When it comes to the students' duties during the internship, company mentors believe that the students were given enough space to express their initiative/interest and that the tasks that they were performing were suitable to the study program. Figure 10 reveals that 5 of 6 company mentors share these attitudes (by choosing grade 1 – fully agreement with the statements). The Figure 6 also shows that the company mentors were mostly satisfied with the coordination with the university in the field of structuring internship and with the level of responsibility that students were given for their professional career during their stay in the company. On the other hand, mentors mostly disagreed with the statement that sometimes they didn't really know what to do with the students.

Figure 10: Mentors' perception of students' activities during the dual internship



Just like in the case of Figure 9, one mentor (the same one) rated all the statements on Figure 10 with grade 6 (except the first one), thus revealing his full disagreement. However, as already mentioned, we believe that for him grade 6 means full agreement, as all his comments about the project and the





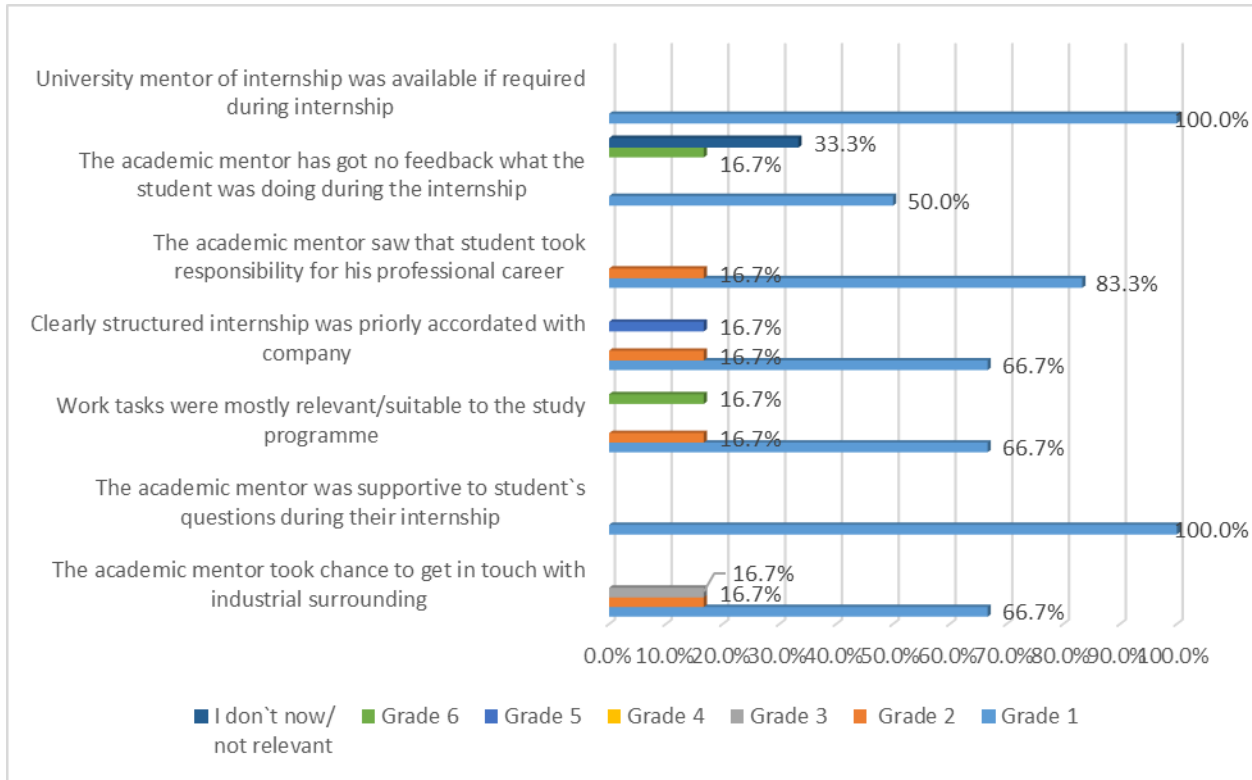
internship indicate his full satisfaction. The high level of the overall satisfaction with the internship was also confirmed by all other company mentors who participated in the survey, as all of them rated these statements with grades 1 and 2. Their comments also confirm previous statement. When it comes to the issues they were least pleased with, they thought that it would be good if the internship lasted longer, and they said that sometimes they had difficulties in harmonizing their daily work duties with mentoring students. No other suggestions or comments were given in this section of the questionnaire.

In the official part of the evaluation process 6 academic mentors (of 6 in total) of Faculty of Economics participated in the survey. The results of the research showed that all academic mentors estimated 7 statements with the grade 1 "I fully agree", which means that they were informed on the highest level about all the necessary information of their tasks before the start of piloting the project. Also, all academic mentors were informed about student's tasks in company, as well as what work tasks the student will have to fulfil. Beside of that, all academic mentors have known which skills and competences the student should acquire with each task. The results also showed that most of academic mentors were introduced to company structure. Moreover, all of them were informed about their duties and role in this project of dual education. All academic mentors were very satisfied with time frame to fulfil their tasks. Furthermore, all mentors had openly communications with dual students and gave feedback to its work performance.

The most of academic mentors, took chance to get in touch with industrial surrounding, while all of them were supportive to student's questions during their internship. Also, the results showed that 66% of academic mentors agreed that work tasks were mostly relevant or suitable to the study program, while 17% (one of academic mentors) slightly disagreed with previous statement, and 17% (one of academic mentors) completely disagreed. These results are showed in Figure 11.



Figure 11: Academic mentors' satisfaction with working plan and the structure of the internship



As shown in the Figure 11, the most of academic mentors fully agree that internship was priory accordated with company, while one of them strongly disagree. Almost all of mentors saw that students took responsibility for its professional career. Half of academic mentors were not satisfied with feedback what students were doing during the internship, while one of them are very satisfied. Also, results showed that all academic mentors were 100% available during internship.

With overall satisfaction with feedback from internship 2/3 academic mentor were satisfied, while one of them wasn't satisfied at all. As one of result from this research was that 50% of academic mentors would strongly recommended students for internship to a befriended academics.

Taking into account all stated above, it can be concluded that the academic mentors were satisfied with all aspects of piloting the DUALMON project. In this context, they underline their satisfaction with all elements of the internship, and all activities during that period of time. A special benefit from this internship was updating a course curriculum, regarding modernization of teaching process. When it comes to the aspects of practice, with which they were not completely satisfied, mentors highlighted that there are gap between academic curriculum and practice in local companies, so effort should be made toward harmonization between them in the future.

Therefore, the recommendations they gave, in order to improve the dual education program in the future, primarily refer to better communication between two mentors (in company and academic one), prior and during internship, concerning detailed and precisely defined project task. Also, it would be good to provide internship as a part of the study program, with the objective to implement the knowledge from all the courses in the study program and not only from the specific one course. They also recommended extending the duration of the internship.

## **1.2. The overall satisfaction of stakeholders with piloting DUALMON project at Faculty of Economics – concluding remarks**

Taking into account the results of both surveys (2023 and 2024), as well as the comments of dual students, mentors in companies and academic mentors, the final conclusion is that the piloting of the DUALMON project at Faculty of Economics was completely successful, with a high degree of satisfaction of all three key stakeholder groups. Participants' satisfaction with the way the project was implemented, apart from the results of the internal and official satisfaction evaluation, is also evidenced by the fact that out of 17 dual students, 8 of them received a job offer from the employer at whom they did their internship. At the same time, the results of the surveys indicated the need to continue implementing dual higher education in the future, taking into account several positive recommendations:

- consider the possibility that the internship lasts longer than a month and a half, with working hours per day shorter than 6h;
- consider the possibility that students themselves choose the company in which they will do their internship;
- improve i.e. ensure full alignment of all working tasks of dual students with learning outcomes during the internship;
- provide the opportunity of dual education to all students in their final year of study, taking into account the benefits of this type of education for their future professional career.

In this context, it is important to point out that the importance of internship was recognized in a timely manner by the management team of the Faculty of Economics, which for two years in a row has been offering all students in their final year of studies the opportunity to do a professional internship for a period of one month. This opportunity was created precisely as a result of the DUALMON project and in this way, the long-term sustainability of the project at the Faculty of Economics was ensured.



## 2. Faculty of Electrical Engineering

### 2.1. Concept of specific model of dual education

The specific dual education model of the Faculty of Electrical Engineering (FEE) is implemented in the sixth semester, at the Electronic, Telecommunication, and Computer engineering study program, Computer Engineering module.

During the accreditation in 2017. at the University of Montenegro, a 3+2+3 study model was adopted. The main idea of this accreditation was to change the higher education system in Montenegro to be complementary with the European educational space and to educate students ready to start their professional careers after the third year of study. At that time, the FEE made significant changes to the curricula of all its academic study programs, ensuring that most of the subjects of great practical importance are now taught in the sixth semester. What is more, through a high level of cooperation with industry partners, considering the needs of the partners in the Project, and the availability of respectable partners ready to offer mentorship, it is decided to pilot dual education in the sixth semester of the academic study program, Computer Engineering module. The FEE shares the opinion with its industrial partners that students in academic studies should also gain practical experience during their studies. On the other hand, the field of electrical engineering requires students to have a high level of theoretical knowledge to understand the essence of a wide range of physical processes of interest and to be able to develop and apply modern technologies. This is the primary reason for offering dual education in second part of the sixth semester rather than earlier.

For the pilot program of dual education, a sequential dual education model is chosen. In this model, the period spent in companies is clearly separated from the period spent at the higher education institution. The piloting of the project was conducted during May and the first half of June 2023, in cooperation with 4 carefully selected companies in Montenegro. A total of 12 students of the FEE performed a dual internship. Students were jointly monitored by professors from the FEE and mentors from a company.

Immediately after the internship finished, an internal survey of the satisfaction of students and company mentors with their participation in the project was conducted. The research was implemented on the basis of a survey questionnaire, compiled by members of the project team of the Faculty of Economics. Additionally, for the purposes of the official evaluation of the satisfaction of all stakeholders (professors, students and employers) with the participation in the DUALMON project, in April 2024, an official survey was also conducted, for the purposes of preparing the final report planned within the work package 4 - Pilot testing of the generic DUALMON model.



### 2.1.1. Internal evaluation of students' and company mentors' satisfaction with piloting DUALMON project at the Faculty of Electrical Engineering

Four companies and 12 students participated in the pilot of dual education conducted by the Faculty of Electrical Engineering. Students worked on six projects. Internal evaluation is conducted in June 2023. Although there were six projects, seven mentors responded to this survey due to fact that students on some projects had more than one mentor. When it comes to students, the response rate was lower, with 7 survey respondent out of 12 students who participated in the pilot program. The reason for this could be the fact that the end of the pilot program and the survey coincided with the end of the academic year when students had already completed their university obligations, and some had started the Work & Travel program. Even though the total number of participants and respondents is too small for any serious statistical analysis, conclusions about the general opinion and trends regarding attitudes towards dual education and the quality of the implemented pilot program can still be drawn.

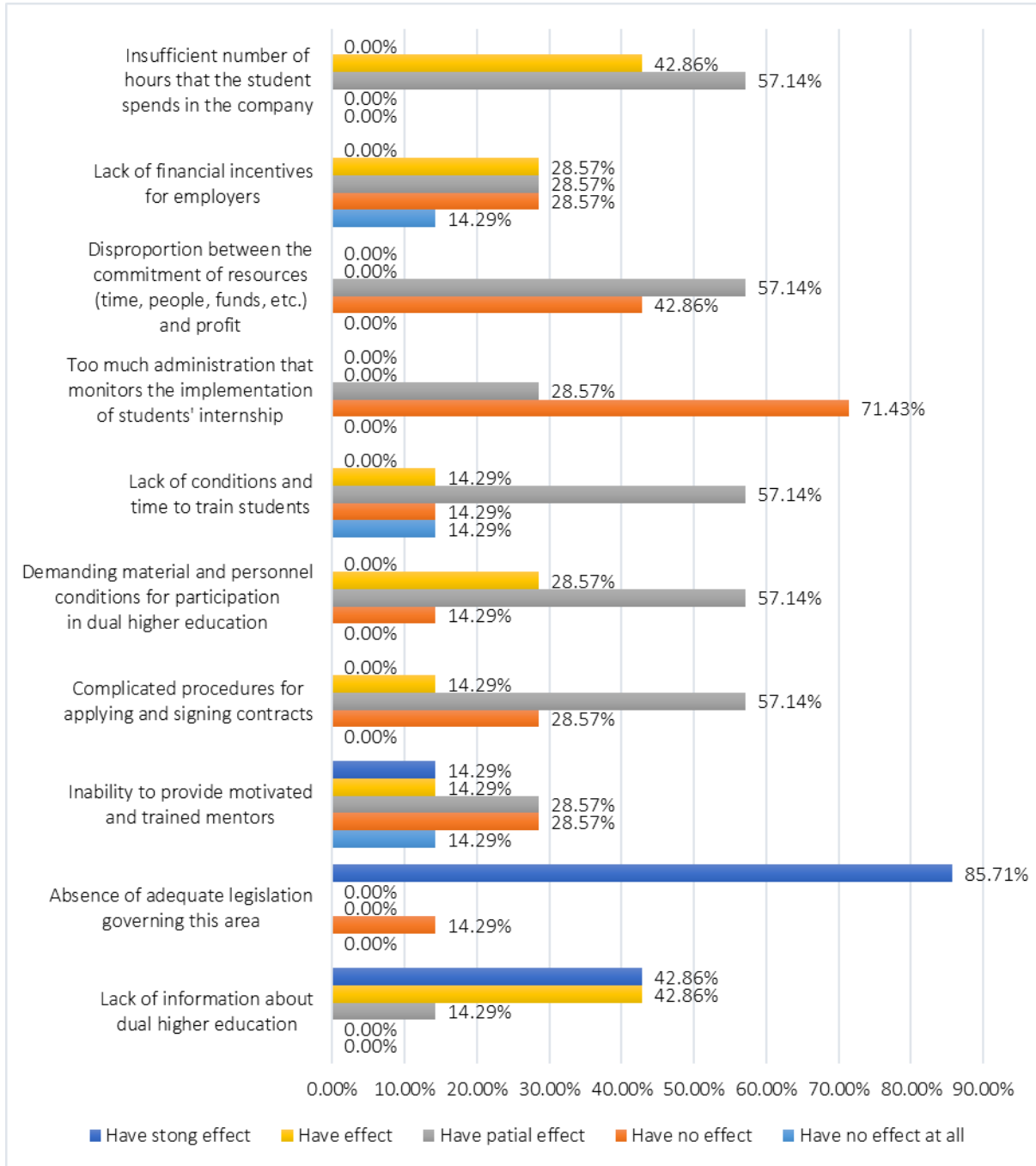
The internal evaluation resulted in excellent results regarding students' and employers' satisfaction with participation in the dual higher education project – DUALMON.

Each interviewed company mentor is satisfied with the way in which the DUALMON project was piloted by the Faculty of Electrical Engineering (six ratings 5, and one rating 4).

Ratings of motives for participating in the project from the companies' side are given in Figure 12. In terms of motivations, *the possibility of networking with educational institutions and the future workforce*, as well as *the enhancement of social reputation and social responsibility*, received the highest rating, with 85.71% (all participants except one) answers *had strong effect*. Most of the respondents (42.86% *had strong effect* and 28.57% *had effect*) recognize the dual model of studies as an opportunity to participate in the education of future workforce for specific jobs in their companies, which can long-term contribute to solving the problem that they face in the process of recruiting. However, it was of significantly smaller influence in comparison to the two previously mentioned motives. On the other side, the profitability of engaging students instead of full-time employees has the lowest influence, with 42.86% of ratings indicating *no effect at all*. Employers have different opinions regarding the possibility to gain experience in training of young people as a motive to participate in dual education. The possibility to compensate lack of employees by dual students however had a partial effect for participating for 57.14% respondents. However, it didn't have effect at all for 14.29 % respondents. The initiative from the Faculty of Electrical Engineering had a significant influence on the companies to take part on dual education (57.14% answers *Had strong effect*).



Figure 12: Reasons that influenced employers to participate in the DUALMON project (FEE)

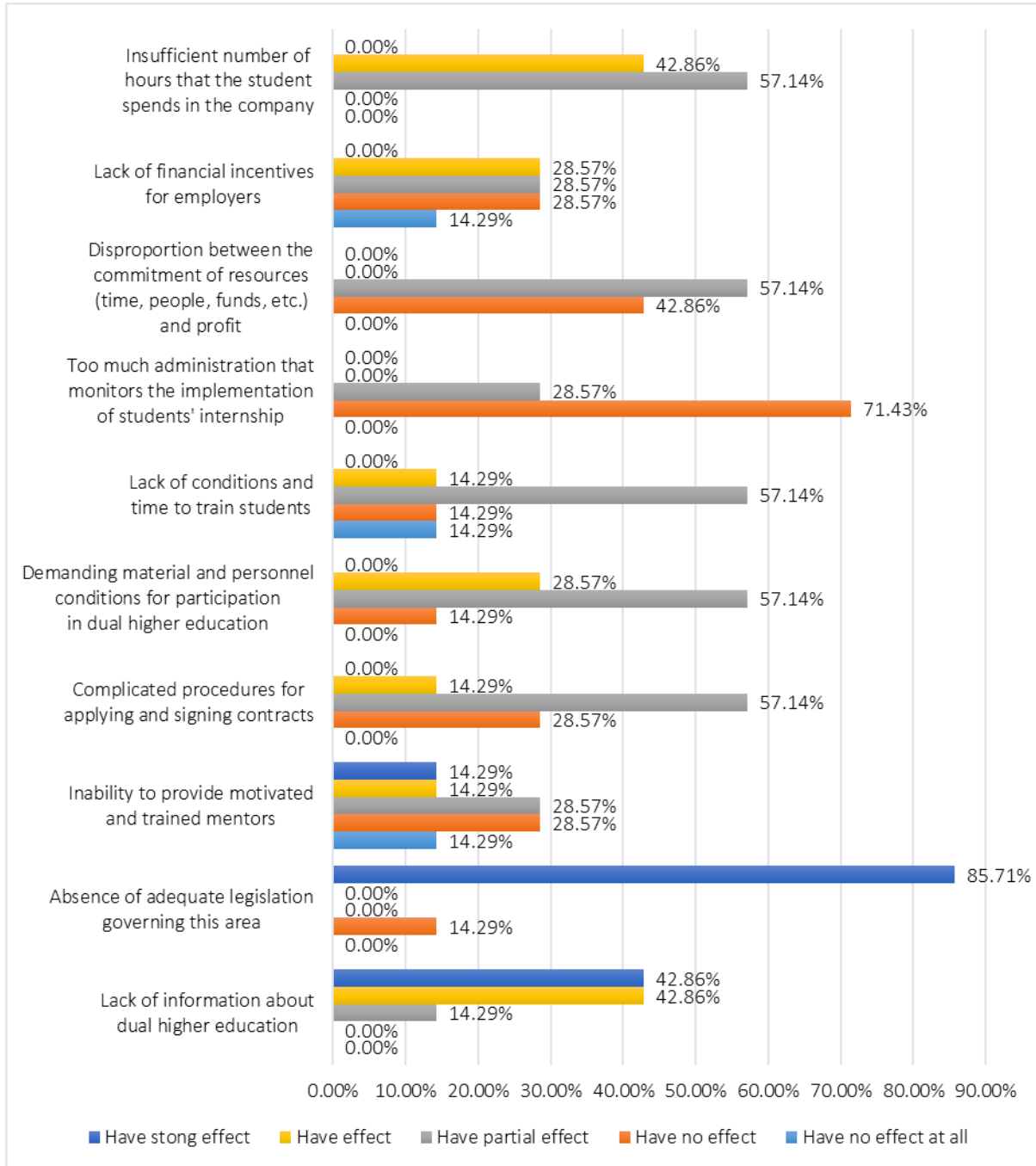


When it comes to the main barriers that prevent employers from participating in a dual higher education program, respondents believe that the most important is the absence of adequate legislation governing this area (85.71% - *has strong effect*). Lack of information about dual higher education is also recognized as a barrier (42.86% - *has strong effect* and 42.86% - *has effect*). Insufficient number of hours that the student spends in the company is also recognized as an obstacle for dual education (57.14% -



has partial effect, and 42.86% has effect). Inability to provide motivated and trained mentors is an obstacle for some companies, while it is not for the others. Detail overview of the importance of barriers is presented in the Figure 13.

Figure 13: Barriers that prevent employers from participating in a dual higher education program (FEE)





All respondents believed that the time the students spent interning in the company within the project was sufficient for the implementation of the task and the acquisition of knowledge defined by the learning outcomes. Additionally, it is encouraging that 100% of respondents point out that the students expressed their willingness to learn not only the tasks given in the project assignment, but also to learn what the mentor from the company pointed out to them as relevant. Accordingly, 57.14% of the respondents stated that their company expressed the willingness to hire a student who was performing “learning by doing”, while 42.86% stated that their company was still considering this option. When it comes to the question of whether students, who attended practical education in a given company, acquired the knowledge and skills to be able to work effectively at another employer 57.14% believes they did, while 42.86% it is difficult to judge such a thing. Regarding quality of established communication between educational institutions and companies all respondents are unique in the opinion that it was at a high level (100%). The same states to the communication with the project team from the Faculty of Electrical engineering. On the other side, while 42.86% of mentors from companies rates that the learning outcomes at the Faculty of Electrical Engineering are in accordance with the real business tasks performed by companies, the same number of mentors rate it as partially in accordance with the real business tasks performed by companies. One mentor state that they are not in accordance with the real business tasks performed by companies.

The mentors are also asked to give recommendations for improving dual education program. Beside obvious recommendation for providing laws by which such a program is mandatory, and spreading news about such a program, they believe that the internship period should last longer so that the students would have more time to master more complex working tasks. The common opinion of the majority of respondents is that it is necessary to work on the promotion of dual higher education programs in the coming period so that a greater number of employers, students and professors become aware of all the benefits that such programs would provide them in the long term. One interesting and important recommendation is that faculties must take into consideration the 'employer profile' and prevent students from going to companies where they will be dissatisfied - which will surely negate all the purposes for which such projects are implemented.

When it comes to the internal evaluation of students' satisfaction (conducted in June 2023), the survey included 7 dual students (out of total 12). The overall results indicate high level of success in piloting DUALMON project. There is a high level of satisfaction with both communication and relationships with mentors in companies, as well as with mentors at the university and the valorization of acquired knowledge. All students would choose to participate in the dual higher education program again if they were to enroll in university again. There is one main reason why dual students decided to participate in the project, i.e. an internship allows them to deeply learn the job they are studying for (85.71%). 24.39% of students thought that doing an internship provides them with greater employment opportunities after completing their studies.

Majority of the students were informed about the project and the possibility of participating in it thanks to the presentation held at the Faculty of Electrical Engineering, which was dedicated to inform



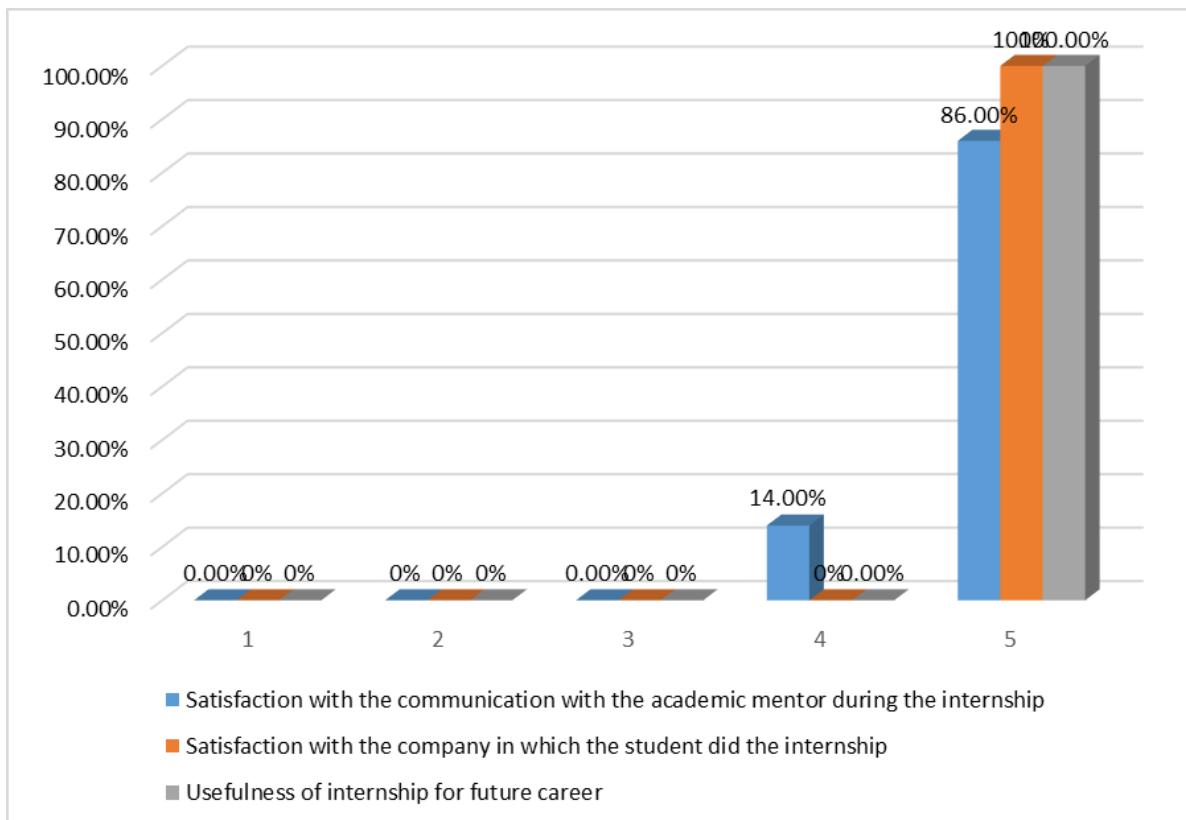


students about the DUALMON project, particularly to procedure of pilot of dual education. All students (100%) were informed in a timely and appropriate manner about the procedure of selecting the employers within whom they will do their internship.

The majority of respondents would not change anything in the procedure of familiarizing themselves with projects and selecting companies. One suggestion is that it would be good if representatives of the companies that were selected to be part of the pilot came to the faculty and gave in person a mini-presentation about the projects students would be working on in addition to descriptions of the projects that were available. This would help students to choose even more precisely a company.

The survey showed that all students were highly satisfied with the company where they conducted their internship (100% of highest grade 5), and that they believe that the internship will be of great importance for their future career (100% of highest grade 5). The above mentioned is presented in the Figure 14.

Figure 14: Students' satisfaction with the academic and company mentor during the internship (FEE)



The Figure 14 also reveals that the students are satisfied with communication with their academic mentor during the internship (100% rated their level of satisfaction with grades 4 and 5).

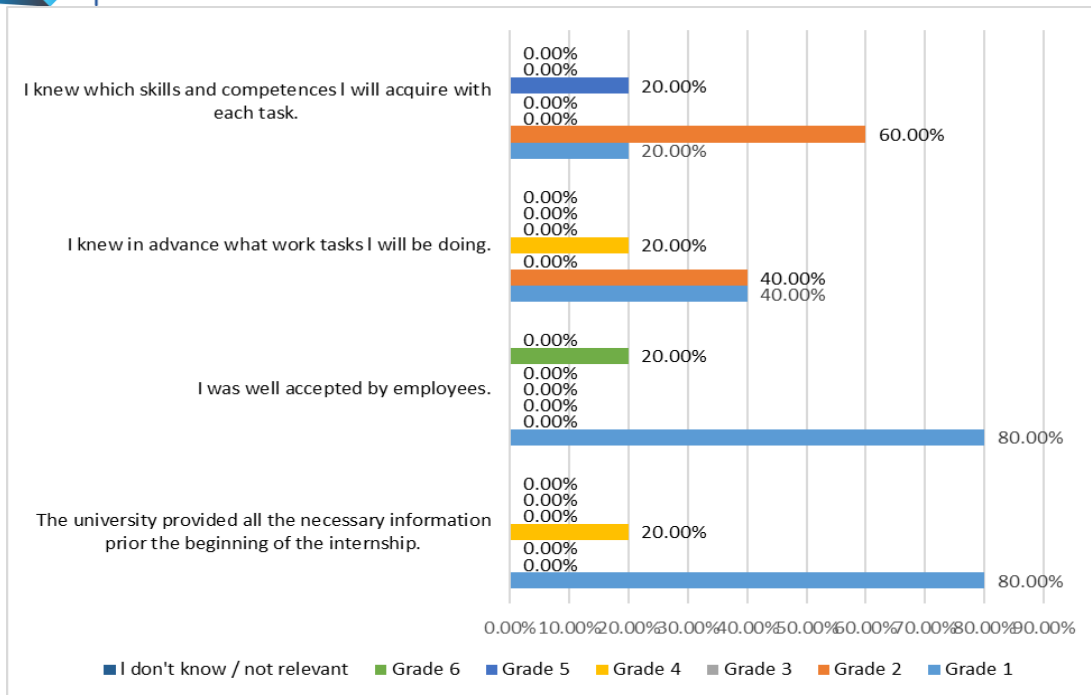


As the main advantages of dual education compared to traditional one, during last year's survey, students cited the possible to find out what is expected of them when it comes to a specific job; to ensure themselves that they have acquired a good theoretical foundation at the university, which in this way is ideally supplemented and upgraded; to realize in which direction they should improve their skills, not only in terms of the knowledge that needs to be acquired in order to be of high quality in the work they do, but also in terms of social skills. The surveyed students believe that it would be useful in the future to work intensively on the promotion of this type of education, to extend duration of the internship, to increase the number included students and professors.

### 2.1.2. External (official) evaluation of students', company and academic mentors' satisfaction with piloting DUALMON project at Faculty of Electrical Engineering

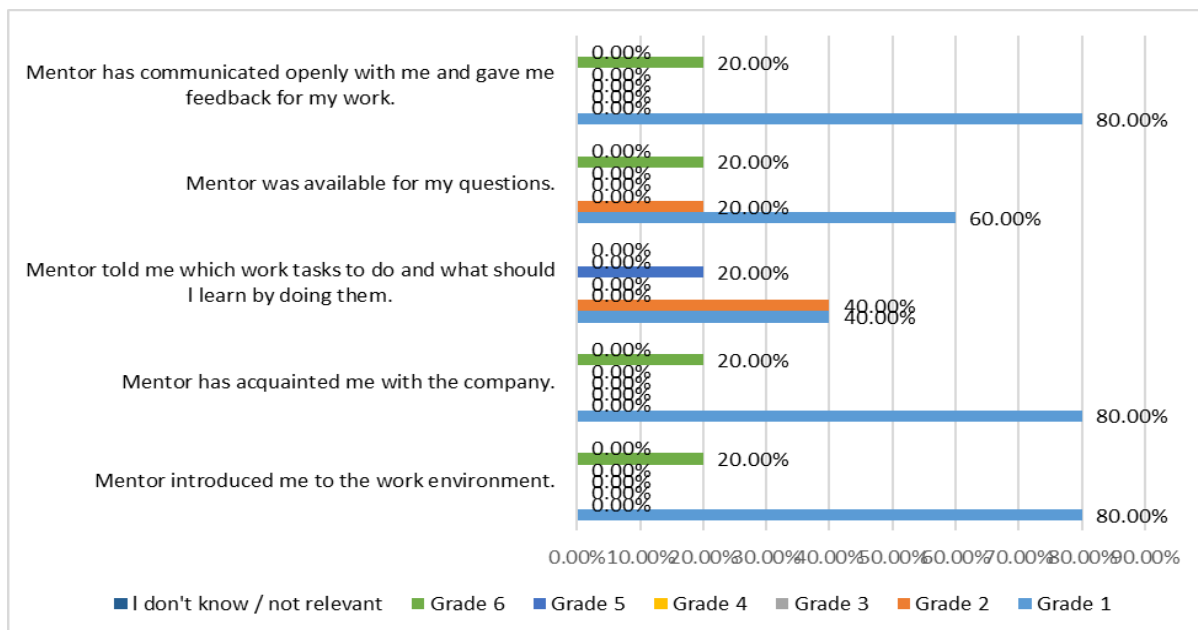
The official evaluation of stakeholders' satisfaction (students, company and academic mentors) with piloting DUALMON project was conducted in April 2024, as the part of the working package 4. In the official part of the evaluation process 6 dual students (of 12 in total) of the Faculty of Electrical Engineering participated in the survey. The results of the research showed that the majority of students were well informed about all the important details of dual internship by the Faculty before the start of piloting the project. Also, most of the students (80 %) were satisfied with the way in which they were accepted by the employer, and stated that they knew in advance what skills they would master during the internship. The above is shown in Figure 15.

Figure 15: Students' familiarity with the internship within dual education program (FEE)



The results also showed that 80% of the students were highly satisfied with the communication they had with the company mentor during the internship, the way the mentor introduced them to the company and the working environment, as well as the way the mentor acquainted them with the company.

Figure 16: Students' satisfaction with their communication with company mentors during the internship (FEE)

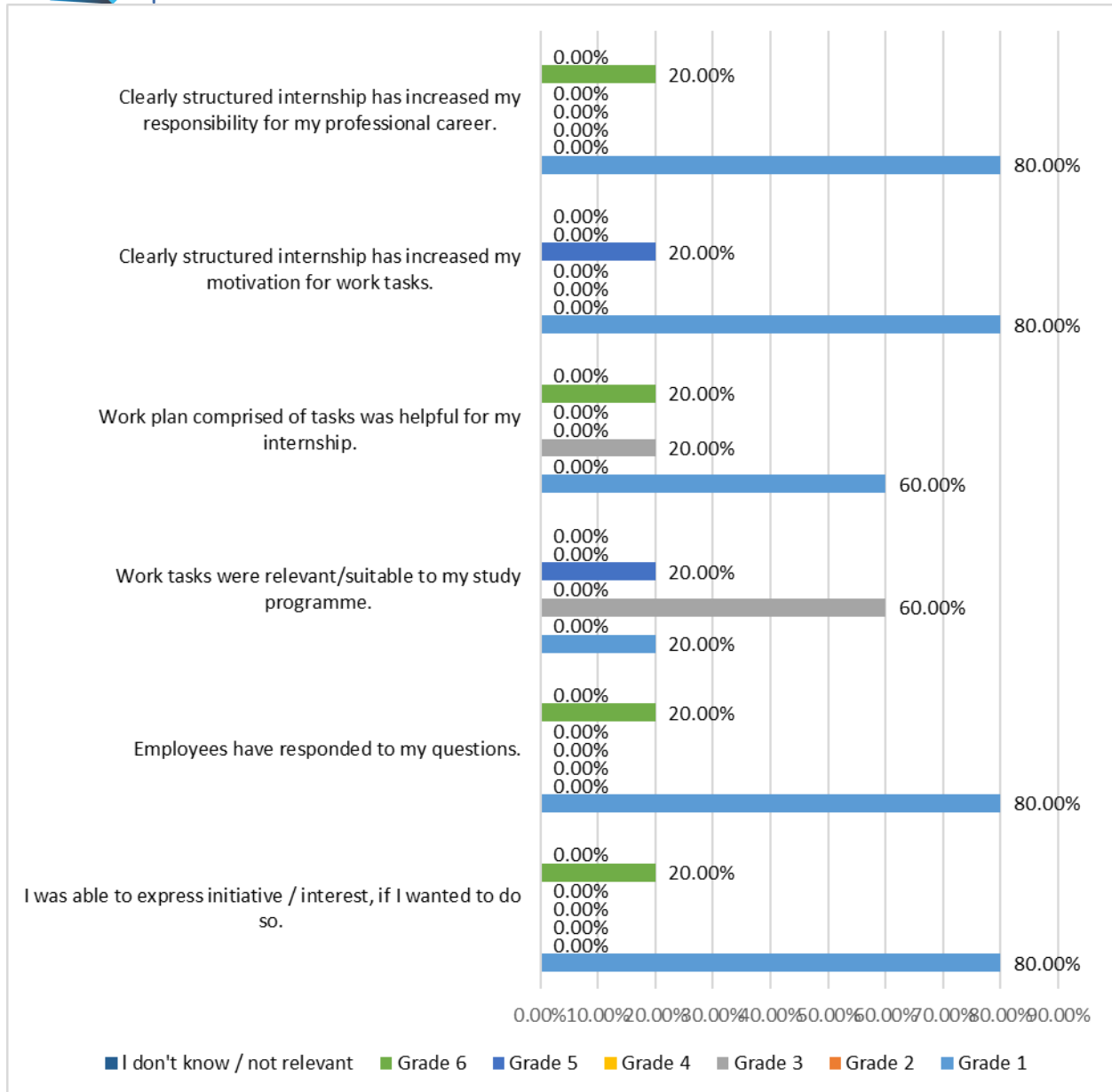




As shown in the Figure 16, the students were somewhat less satisfied with the degree to which the mentor was available for their questions (20% of 4, and 60% of grade 5), as well as the degree to which company mentor introduced them to the jobs and tasks they will perform at the beginning of the internship (40% of 4, and 40% of grade 5). However, high grades (small level of satisfaction) in Figure 16 are from the same student, which leads to the conclusion that he/she may misunderstand the meaning of the grades or potentially have an issue with one particular company. However, the comments of this respondent are highly positive, so that the first option is more realistic.

The students were highly satisfied with the communication with the other employees, as well as with the opportunity to express their initiative (80% of highly satisfied). In addition, 80% of students share opinion that clearly structured internship has highly increased their motivation for work tasks, as well as they responsibility for their professional career. When it comes to the extent to which work plan comprised of tasks was helpful for their internship students' satisfaction is still high, but a bit lower (20% of grade 6, 20% of grade 3, and 60 % of grade 1 – highly satisfied). The lowest satisfaction was with the suitability of work tasks students performed at the employer to their study program (20% of grades 5, 60% of grades 3, and 20% of grades 5), see Figure 17.

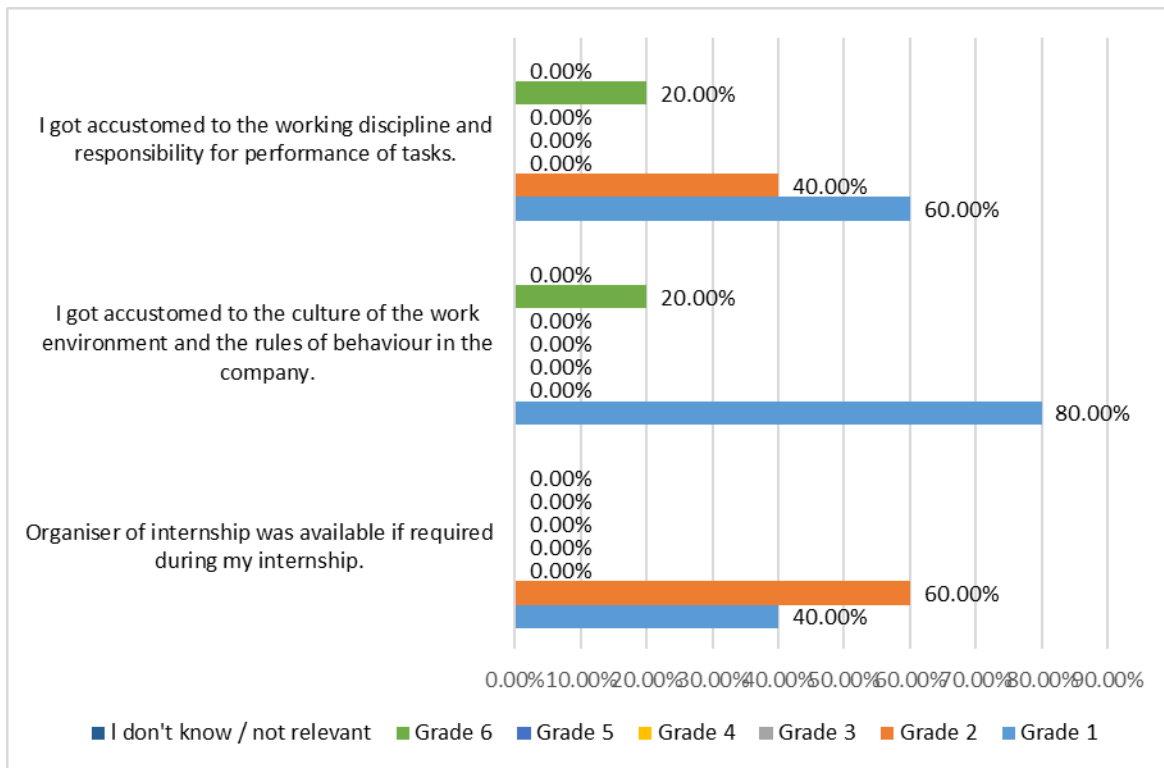
Figure 17: Students' satisfaction with working plan and the structure of the internship (FEE)



The dual students recognized adaptation to the work environment, the acquisition of work discipline, as well as the willingness to take responsibility for the performed tasks as important benefits of practice (Figure 18). All participants answered that organizers of internship were available if required during the internship.



Figure 18: Students' perception of benefits of dual internship (FEE)



Taking into account all stated above, it can be concluded that the students were highly satisfied with all aspects of piloting the DUALMON project (80%) and that they would recommend the given company for internship to a friend.

Students were asked to describe with what they were most pleased during the internship. Some of the answers were:

- *Willingness of employees to answer all of my questions and to guide me in thinking about problems I need to resolve in the task. They gave me the opportunity to feel free to make contributions to our project by proposing my own ideas and creativity. They were always open to all of my questions and doubts.*
- *I gained significant experience and embraced teamwork spirit, all in all excellent experience.*
- *I was most pleased with the atmosphere and the motivation we got from our colleagues who were very open to our questions and they were willing to answer all of our questions which would even go beyond the topics we worked on.*
- *Things I learned.*



- *This internship helped me a lot to develop my skills in practice, which is really important for me. It made me understand how real companies work and the atmosphere in them as well. I have only good words about the organization of it and would recommend it to every student.*

On the other hand, when it comes to the aspects of practice with which they were not satisfied, students didn't have many comments. One comment is that the student is least pleased with the time they had for their tasks, and that one-month and a half is not enough time for a more serious project, so that they could just tackle the surface.

At the end, the suggestions for improvement of the quality of internship are: to include more companies; to increase duration of the dual work at a company (to 3 or 4 months) and to provide more lasting preparation based on a crash course before starting the company project.

When considering the satisfaction of company mentors, it's important to highlight that only two mentors from the project took part in this official survey. This is a small number in comparison to the six mentors who responded to the internal survey conducted at the end of the 2023 pilot program. The notably low response rate may stem from several factors. Firstly, nearly a year had passed since the end of the pilot program, potentially leading to decreased engagement. Moreover, these mentors are professionals involved in numerous projects, often juggling demanding schedules. Additionally, the survey coincided with a selection process for new students to enroll in dual education programs. These circumstances likely contributed to the limited participation observed.

Both mentors graded with the highest grade 1 (I fully agree) following:

- The university provided all the necessary information prior the beginning of the internship;
- The student was well accepted by employees in the enterprise.
- I knew in advance what work tasks the student will have to fulfil.
- Mentor was introduced to the student's program.
- Mentor has communicated openly with the student and gave feedback to his work performance.
- Employees have responded openly and supportive to student's questions.
- Work tasks were mostly relevant/suitable to the study program.
- University mentor of internship was available if required during internship.
- Overall satisfaction with the internship.
- I would recommend students for internship to a befriended company.



When it comes to the questions: *I knew which skills and competences the student should acquire with each task; Mentor was told about his duties and role in this dual education; Mentor was given enough time to fulfil his tasks; The student was given space to express initiative/interest and took chance; Clearly structured internship was accorded with university;* one mentor gave grade 1 - I fully agree to, while the other one gave grade 2. One mentor was undecided whether responsibility given to the student were enough for professional career (gave grade 3), while the other one gave 1 – I fully agree to.

Mentors from companies agree that internship period should be extended and that an additional week that would be focused only on the presentation part should be planned as part of an internship. They state that presentation is a crucial part of being a software engineer now and should be covered during the internship. At the end, one comment is the best description of satisfaction with the dual program from companies' side:

***We were very satisfied, enough that this year we proactively asked to be involved in the internship program. Cooperation will be even better this year because we have a clear channel of communication and can alter our project a little bit to what is important for the professors.***

***I think it is enough to say that one student that was with us last year is now our colleague.***

In the official part of the evaluation 4 academic mentors (of 4 in total) of the Faculty of Electrical Engineering participated in the survey. The results of the research showed that all academic mentors estimated 11 statements with the grade 1 "I fully agree":

- The academic mentor got all the necessary information of his tasks prior the beginning of the internship.
- The academic mentor knew about the student`s tasks in company.
- The academic mentor was told about his duties and role in this dual education.
- The academic mentor was given enough time to fulfil his tasks.
- The academic mentor has communicated openly with the student and gave feedback to his work performance
- The academic mentor was supportive to student`s questions during their internship.
- Clearly structured internship was priorly accordated with company.
- The academic mentor saw that student took responsibility for his professional career.
- University mentor of internship was available if required during internship.



- Overall satisfaction with the feedback from internship.
- I would recommend students for internship to a befriended academics.

When it comes to the question weather the academic mentor knew in advance what work tasks the student will have to fulfil there is one grade 1 (fully agree), two grades 2, and one grade 3, where grades are 1 to 6 (fully disagree). The level of knowledge related to the specification of skills and competences the student should acquire with each task is graded with 2 by three academic mentors, and bz 1 with one academic mentor. The results also showed that most of academic mentors were introduced to company structure (one grade 1, two grades 2, and one grade 4). The most of academic mentors, took chance to get in touch with industrial surrounding (two grades 1, one grade 2, and one grade 3). Fro the most of the academic mentors work tasks were mostly relevant/suitable to the study program three grades 1, one grade 2).

Taking into account all stated above, it can be concluded that the academic mentors were satisfied with all aspects of piloting the DUALMON project. In this context, they underline their satisfaction with all elements of the internship, and all activities during that period of time. They were least pleased with: the fact that some students did not get a chance to experience this internship and Duration of the internship (it would be nice that it lasted longer).

The suggestions for improvement of the quality of internship are:

- To choose companies' mentors who are not burdened with daily tasks. The engagement of academics' mentors should be valued as an additional engagement in teaching process.
- To involve more students and to extend time spent in companies.
- To provide regular feedback sessions to help interns track their progress and address any challenges promptly.

The mentors state that the internship facilitated the deepening of existing collaborations and the establishment of new ones, as well as involving a greater number of professors in these collaborations. It was also a great opportunity to revise the ECTS catalogues. Students realized that they don't need much time to apply what they've learned at university in a real-life environment. They gained invaluable experience in adapting to all aspects of the work environment. The internship is extremely beneficial for students, providing not only a sense of what it's like to work in a company but also the opportunity to apply all the knowledge acquired at university. Additionally, realizing that everything learned at university is significant and will be used in their future careers encourages their interest and commitment to their studies. In future internships, certain advanced topics covered in the curriculum will be offered for implementation in companies, allowing students not only to master these areas but also to offer and implement something new for the companies, showcasing their knowledge and abilities.



Based on the interest from the company and the enthusiastic response triggered by the phenomenal performance and collaboration between students and companies last two years, it is expected that future internships will be highly productive and beneficial for all parties involved.

## **2.2. The overall satisfaction of stakeholders with piloting DUALMON project at the Faculty of Electrical Engineering – concluding remarks**

Taking into account the results of both surveys (2023 and 2024), as well as the comments of dual students, mentors in companies and academic mentors, the final conclusion is that the piloting of the DUALMON project at Faculty of Electrical Engineering was highly successful, with a high degree of satisfaction of all three key stakeholder groups. The results of the surveys indicated the need to continue implementing dual higher education in the future, taking into account several positive recommendations from students and mentors.

The importance of internship was recognized in a timely manner by the professors of the Faculty of Electrical Engineering, which for three years in a row has been offering to selected students in the sixth semester the opportunity to do a professional internship for a period of 45 days. This is result of the DUALMON project and ensures the long-term sustainability of the project at the Faculty of Electrical Engineering.

## **3. Faculty of Maritime Studies Kotor report**

### **3.1. Concept of specific model of dual education**

A specific model of Faculty of Maritime Studies Kotor comes from the accreditation of study programs, and knowledge and skills that are the focus of individual modules. According to the last accreditation from 2017, basic studies of Marine Engineering and Maritime Sciences at the Faculty of Maritime Studies Kotor are organized according to the 3 + 2 + 3 model, in order to harmonize studies with the way of studying at universities in the European Union, and to enable the implementation of the Bologna Declaration. In this way, compatibility with other universities in Europe has been achieved, and preconditions have been created for a better flow of students to European universities. At the same

time, this contributed to leverage the international recognition of the Faculty of Maritime Studies Kotor, and the University of Montenegro at the same time.

Starting from the goals of the project and the way of organizing the studies, in cooperation with the partners, it is decided to implement dual education in the final year of basic academic studies in Marine Engineering. Specifically, the pilot project was implemented in the Inspection of Marine Engineering System module within the last (VI) semester of study. The reasons for making such a decision are multiple. First of all, the Marine Engineering System module is predominantly focused on the maritime and Shipping sector, incorporating theoretical knowledge from all crucial functional units of the company (such as safety, risk assessment, organization, maintenance, economy, management, etc.). In other words, this model covers a wide range of areas in the field of Marine Engineering, which is in line with the needs of ship management partners. In this way, students are directed to acquire specific knowledge and skills through dual education, which are especially valued by potential employers, and which are important for their competitiveness in the labour market. In addition, the Marine Engineering System module is represented in the last semester of basic academic studies, which ensures that the project includes those students who have already acquired theoretical knowledge, necessary to successfully adapt to the work environment within the company and solve real problems and challenges in shipping Company. In this way, students can apply the acquired theoretical knowledge and upgrade it with practical skills gained through the process of dual education. Finally, this opens the possibility for companies, after completing the dual program (education) and academic studies, to offer employment to students, which opens the possibility to develop professional staff that is tailored to the specific needs of the company.

The piloting of the project was carried out during May and the first half of June 2023, in cooperation with a one of two credible shipping company in Montenegro, with different maritime shipping management activities. A total of 5 students of the Faculty of Maritime Studies Kotor performed a dual internship, under the joint mentoring of professors from the Faculty and mentors from the company. Immediately after the internship finished, an internal survey of the satisfaction of students and company mentors with their participation in the project was conducted. The research was implemented on the basis of a survey questionnaire, compiled by members of the project team of the Faculty of Maritime Studies Kotor. Additionally, for the purposes of the official evaluation of the satisfaction of all stakeholders (professors, students and employers) with the participation in the DUALMON project, in April 2024, an official survey was also conducted, for the purposes of preparing the final report planned within the work package 4 - Pilot testing of the generic DUALMON model.

### 3.1.1. Internal evaluation of company mentors' and students' satisfaction with piloting DUALMON project at the Faculty of Maritime Studies Kotor

An internal evaluation conducted in June 2023 included mentors from the partner company Crnogorska plovidba AD Kotor, which participated in the project pilot. A total of 2 out of 4 mentors from this

company participated in the survey. The internal evaluation resulted in positive outcomes regarding employer satisfaction with participation in the dual higher education project – DUALMON. Overall, the company mentors were satisfied with the way the Faculty of Maritime Studies Kotor piloted the DUALMON project (ratings of 4 and 5). They were significantly satisfied with the communication with academic staff and the project team.

Among the most important motivations for participating in the project, respondents highlighted the opportunity to network with educational institutions and future workforce, gain experience in training young people, the faculty's initiative, as well as increasing the company's social reputation and social responsibility. Mentors felt that participation in the project was not significantly motivated (ratings of 1-3) by filling employment gaps or the cost-effectiveness of engaging students compared to full-time employees. Additionally, mentors expressed satisfaction with a rating of 4 on a five-point scale regarding the students who participated in the dual education program. One mentor noted that the students showed a willingness to learn not only the tasks specified by the project but also additional ones, while the other could not specifically assess their readiness for this.

Furthermore, the respondents could not assess whether the students who attended practical training at the given company acquired the knowledge and skills to work efficiently for another employer. Moreover, the company mentors believe that the time spent in the company was sufficient for the realization of project tasks. Regarding the prospect of employing students in the specific company, mentors stated that they are still in the process of considering this issue. They also had mixed opinions on the need for additional training of company employees to work with students.

Respondents believe that learning outcomes at the Faculty are partially aligned with the real business activities in the company. This clearly highlights a need to establish more intensive cooperation between educational institutions and the economy, not only during the implementation of study programs, but also in terms of the creation of curricula that will be included in given study programs, in order to successfully respond to the challenges imposed by a dynamic business environment.

Regarding the main obstacles preventing employers from participating in the dual higher education program, respondents rated highly the lack of adequate legal regulations governing this area. Then, among the more significant barriers, they highlighted employers' lack of information about dual education, lack of conditions and time for student training, as well as the insufficient number of hours students spend in practical education. Respondents provided additional recommendations towards informing and motivating employers and students about the benefits of the mentioned program and establishing adequate legal regulations to improve the way the dual education program is implemented. It is encouraging that the mentors indicated they would likely participate in such programs again in the future.

Regarding the internal evaluation of student satisfaction (conducted in June 2023), the research included 5 dual students from the Faculty of Maritime Studies Kotor (out of a total of 5). The overall results indicate a high level of success in piloting the DUALMON project. All surveyed students chose to



participate in this project because they believe that the practical experience allows them to truly learn the job for which they are being trained. Most students reported that no presentation of the project was held at the faculty; only one student learned about the project and participation opportunities thanks to a presentation held at the Faculty of Maritime Studies Kotor. Furthermore, 100% of the students felt they were timely and appropriately informed about the procedure for selecting the employers where they would undertake their practice, and that the selection process was clear and transparent. Additionally, the students indicated that they would not change the existing procedure.

The majority of surveyed students confirmed that the work project they were involved in with their employer matched the description defined by their academic mentor, with only one student considering it to be partially matching. Moreover, 100% of the students felt that their assigned mentor at the employer dedicated enough time to them, and that the time spent at the employer was sufficient for the completion of the project tasks and the acquisition of knowledge defined by the learning outcomes. All students were completely satisfied with the company where they realized their "learning through work" based on the DUALMON project.

Most of the surveyed students felt that what they learned during their internship was adequately recognized at the Faculty, while one student felt it was partially recognized. Students believe that participating in the dual education pilot significantly provided them with useful information for their future careers. Respondents mentioned that the employer where they conducted their "learning through work" offered them employment upon completion of the program, and they are ready to accept the offer.

Students of the Faculty of Maritime Studies Kotor noted the following advantages of dual education compared to the traditional approach to teaching: enhancement of knowledge through practice, more comprehensive explanations of the material, and learning through concrete business examples. To further improve dual education in Montenegro, the surveyed students believe it would be useful in the future to extend the duration of this program, include practical work on ships, and formally introduce the practical component into higher education programs in the maritime field.

In conclusion, the students were completely satisfied with the overall communication with the project team at the Faculty of Maritime Studies Kotor, and all completed their "learning through work" with their employer. The success of this program is also reflected in the fact that all surveyed students would choose to participate in the dual higher education program again.



### 3.1.2. External (official) evaluation of students', company and academic mentors' satisfaction with piloting DUALMON project at the Faculty of Maritime Studies Kotor

The official evaluation of stakeholders' satisfaction (students, company and academic mentors) with piloting DUALMON project was conducted in April 2024, as the part of the working package 4. For the survey purposes, the project team used official questionnaires made by partners from Austria, which was distributed online to all three main groups of stakeholders (mentioned above) that participated in piloting the project.

In the official part of the evaluation process 2 dual students (of 5 in total) of Faculty of Maritime Studies Kotor participated in the survey. The results of the research showed that the students were well informed about all the important details of dual internship by the Faculty, before the start of piloting the project. Also, students were satisfied with the way in which they were accepted by the employer, and stated that they knew in advance what skills they would master during the internship. The results also showed that the students were satisfied with all aspects of communicating with the company mentor during the internship. They were fully satisfied with the way the mentor introduced them to the company and the working environment. They also appreciated the mentor's willingness to answer their questions and introduce them to the jobs and tasks they would perform at the beginning of the internship. Apart from the mentor, the students were satisfied with the communication with the other employees, as well as with the opportunity to express their initiative. They shared the opinion that the jobs and tasks they performed at the employer were aligned with the outcomes of the study program they were attending, and that most of the jobs they performed were already foreseen by the work plan created before the start of the internship. The students unanimously agree that their participation in the dual education internship program has increased their responsibility towards their professional careers. They have become accustomed to the corporate culture, and discipline, and developed responsibility for performing their jobs. Taking into account all stated above, it can be concluded that the students were satisfied with all aspects of piloting the DUALMON project. During internship students were most pleased with the kindness and helpfulness of the mentors and employees at the company, as they provided maximum support in helping them understand the essence of the business processes. They highlighted that they were introduced to numerous aspects of operations, including the problems encountered and the methods for solving them. Additionally, they had contact with important documentation and administrative procedures that accompany the company's operations. On the other hand, the students were least satisfied with the fact that they only worked in the office on land. They emphasized that it would have been extremely beneficial to visit the company's ships and receive training in that regard. It was also suggestions for improvement of the quality of internship. We emphasize that the students still stated that the internship program had a positive impact on their knowledge of the maritime and shipping business. They noted that the work plan was well designed and that they had plenty of time to acquire new practical knowledge and skills.



When it comes to the satisfaction of company mentors, it should be noted that 2 mentors from the company Crnogorska plovidba AD Kotor, which collaborated with the Faculty, participated in this survey. The results of the research show that the company's mentors were generally fully aware of the tasks that students needed to master during the internship and understood their role as mentors in this process. Furthermore, they had sufficient time available to perform their work duties. The faculty provided them with all the necessary information before the start of the internship and ensured they were familiar with the study program. The mentors had divided opinions regarding the statement that they sometimes do not know what to do with the students. One mentor completely disagreed with this statement, while another expressed agreement. The company mentors fully agreed that they maintained open communication with students, providing feedback on their work performance, and that students were given the opportunity to show initiative. Additionally, they believed that the company's employees had a supportive attitude towards the students. The mentors considered that the work tasks were mostly relevant to the study program and that university mentors were fully available during the internship. These results indicate compatibility with the students' attitudes, reflected in the high overall satisfaction with the internship. The mentors were generally willing to recommend the students to a befriended company. Regarding the issues with which they were least satisfied, they believed that the students' final projects should have been more comprehensive, and that the students' attention and interest should have been at a higher level during the internship. The mentors in the company suggested that it would be beneficial if the internship and preparation phase lasted longer. They also felt that internships on ships were necessary. On the other side, the mentors positively described their experience in this project. They emphasized that the collaboration with the university, as always, was at a high level. They believe that they will continue project collaboration in the future through new projects. They highlight that this is their first experience of this kind and they look forward to new opportunities where they will enhance their mentoring skills.

In the official part of the evaluation process 4 academic mentors (of 5 in total) of the Faculty of Maritime Studies Kotor participated in the survey. The research results indicated that the majority of academic mentors agreed with the statements except for one mentor who showed disagreement with almost all parameters. We believe that he mistakenly rated all the statements with a grade 6 (I fully disagree), thinking that this grade represents the highest level of satisfaction, not grade 1 (I fully agree). Thus, most academic mentors were informed about all the necessary information regarding their tasks before the start of the project pilot. Additionally, they were informed about the tasks of the students in the company, as well as the specific work tasks the students would need to fulfill. Furthermore, academic mentors mostly knew which skills and competencies the students should acquire with each task. The majority of academic mentors were familiar with the company's structure and their duties and roles in this dual education project. They were very satisfied with the timeframe for task completion. Moreover, mentors maintained open communication with the students, providing feedback on their work and being fully available during the internship. Most of the academic mentors used the opportunity to get in touch with the industrial environment and had feedback from the company, and generally agree that the work assignments are relevant or fit the study program. They rated overall satisfaction with the



feedback from internship by the highest rating except in one case. During the internship, academic mentors were least pleased with different aspects: company mentors, the level of student interest, the combination of theory and practice, and the duration of engagement in the company. The suggestions from academic mentors for improving the quality of the internship are as follows: encouraging students' intentions to pursue internships, better informing students about practical training, implementing dual education as a specific program for all students, and extending the duration of students' engagement in the company. The academic mentors also had a couple of comments related to their experience in the internship program. On one hand, there were positive comments regarding the improvement of knowledge and the benefits of collaboration between the university and industry in preparing students for the maritime industry market. On the other hand, one mentor stated that it is necessary to improve the program, commenting that for the professors this was a volunteer and not a paid engagement.

### **3.2. The overall satisfaction of stakeholders with piloting DUALMON project at the Faculty of Maritime Studies Kotor – concluding remarks**

Taking into account the results of both surveys (2023 and 2024), as well as the comments of dual students, mentors in companies and academic mentors, the conclusion is that the piloting of the DUALMON project at the Faculty of Maritime Studies Kotor was completely successful, with a high degree of satisfaction of all three key stakeholder groups. The results showed that the involved stakeholders were ready to cooperate, communicate openly, and improve their professional knowledge and skills, as well as their mentoring abilities. The possibility of employing the students involved in the project in the future is encouraging.

Specifically, the research results indicated the need to continue implementing dual higher education in the future, taking into account several positive recommendations:

- Consider the possibility of extending the company internship period longer than a month and a half;
- Allow students to perform internships on ships in addition to office work;
- Increase the promotion of the benefits of dual education;
- Achieve complete alignment of all students' dual work tasks with learning outcomes during the internship;
- Provide the opportunity for dual education to students in their final year of all study programs, taking into account the benefits of this type of education for their future professional careers.





## **DUALMON**

Strengthening capacities for the  
implementation of dual education  
in Montenegro Higher Education

Co-funded by the  
Erasmus+ Programme  
of the European Union



Finally, given that this was a pilot project and that the Faculty of Maritime Studies Kotor organized this type of education for the first time, we believe that this concept will take root in the future and be formally implemented at an enhanced level within the educational process.