Result 1 (O1, IO1)

Future
(((4)))

Primary research results
Next steps

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Agenda

- ► Summary of research conducted within the project

- ► Selection of professions/positions

- ► Competency profiles for selected professions/positions

- ► Next steps

Summary of research conducted within the project

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Qualitative research

The number of interviews conducted with experts in the area of selected fields of study

Field of study/ country	Poland	Hungary	Greece	Finland	Total
Economic analytics	8 (4/4)	0	0	0	8 (4/4)
Management	3 (3/0)	0	6 (4/2)	0	9 (7/2)
Tourism	3 (1/2)	10 (5/5)	4 (2/2)	5 (2/3)	22 (10/12)
Automotive	0	0	0	6 (1/5)	6 (1/5)
Total	14 (8/6)	10 (5/5)	10 (6/4)	11 (3/8)	45 (22/23)

Table 1 The number of interviews conducted with experts in the area of selected fields of study

Qualitative research

General remarks:

▶ Participation in research - high level experts from the academic environment and practitioners.

▶ Assessment of soft skills - usually poor, some special ...., exams, but nobody really knows exactly what works and how.

▶ Further training - yes, mainly through EU funded projects. Case studies, summer courses, the combination of theory and practice.

▶ Practitioners cooperate with academic institutions - yes, but probably on an ongoing basis, without a change strategy.

▶ Monitoring the demand for professions - yes, but in a very limited manner, if any.

▶ A different approach to the knowledge of technical or technological solutions of graduates presented by experts from various fields. Data analysis methods and modern technologies are rather the domain of economics than management.
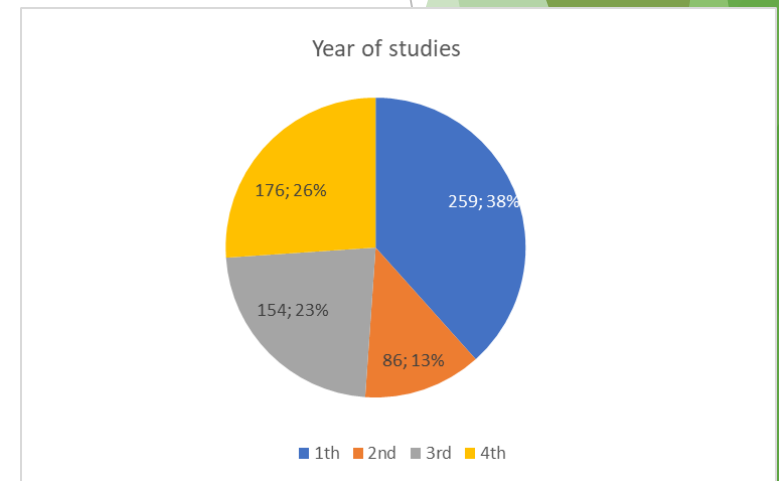
Quantitative research

The number of respondents participating in the survey in the area of selected fields of study

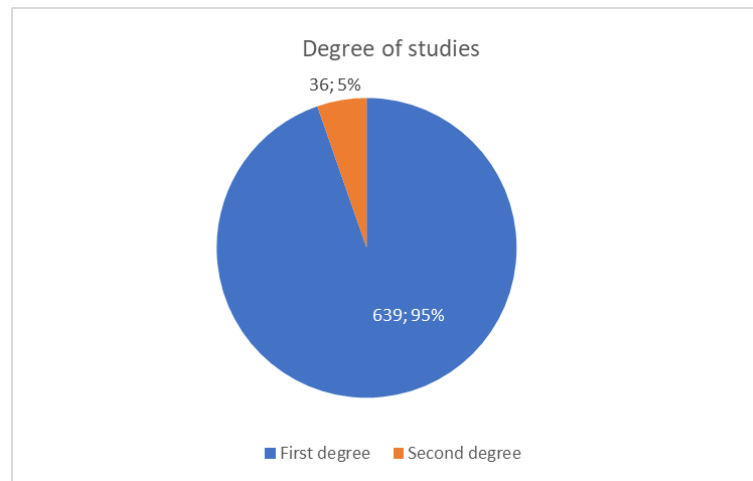| Field of study/ country	Poland	Hungary	Greece	Finland	Total
Economic analytics	58	47	16	1	122
Management	153	39	72	0	264
Tourism	1	81	16	0	98
Automotive	0	0	0	26	26
Other	126	64	2	67	259
Total	338	231	106	94	769

Table 2 Table 2 The number of respondents participating in the survey in the area of selected fields of study

Quantitative research

Country of study

- Poland: 338; 44%
- Hungary: 231; 30%
- Finland: 94; 12%
- Greece: 106; 14%

Legend: Poland, Hungary, Finland, Greece

Field of study

- Economic Analytics: 122; 16%
- Automotive: 26; 3%
- Tourism: 98; 13%
- Management: 264; 34%
- Other: 259; 34%

Legend: Economic Analytics, Automotive, Tourism, Management, Other

Gender

- other: 6; 1%
- female: 307; 40%
- male: 456; 59%

Degree of studies

- First degree: 639; 95%
- Second degree: 36; 5%

Legend: First degree, Second degree

Year of studies

- 1th: 259; 38%
- 2nd: 86; 13%
- 3rd: 154; 23%
- 4th: 176; 26%

Legend: 1th, 2nd, 3rd, 4th
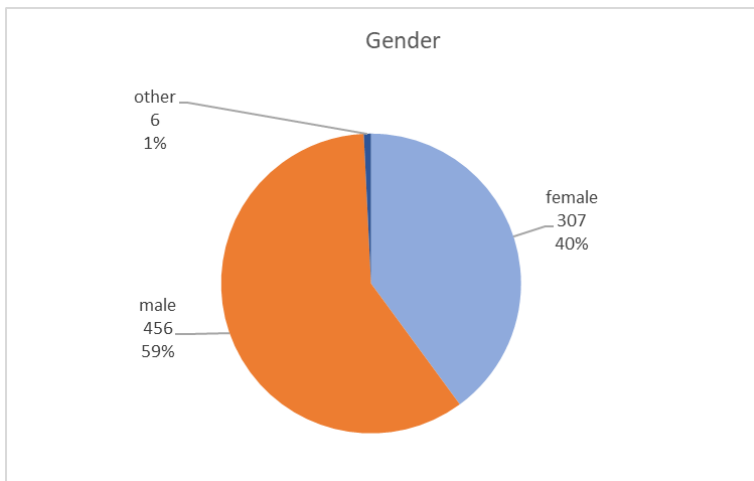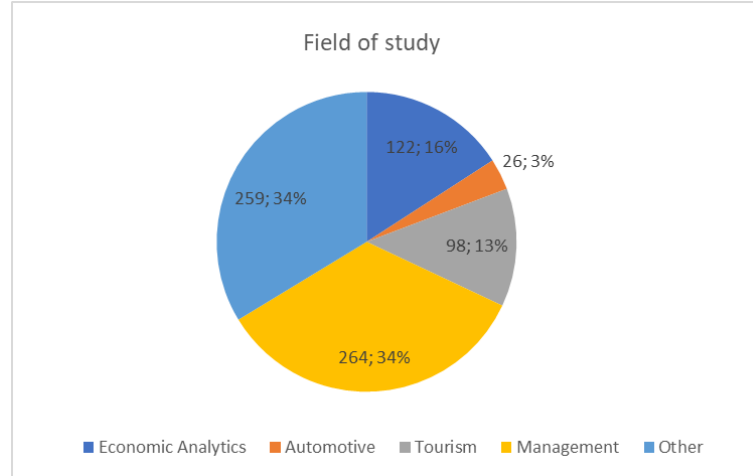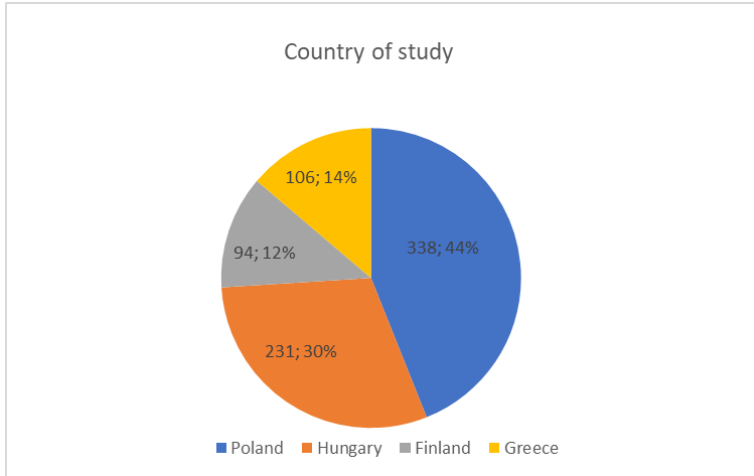
Quantitative research

Question 1. In your opinion, how important are the following competences for the employment of a graduate of your field of study? Grade on a scale from „1" (Not important at all) to „5" (Very important)

The importance of competences for the employment of a graduate

| Competence	Score
professional – theoretical knowledge	3,79
professional – practical skills	4,54
IT – software literacy	3,77
language – knowledge of foreign languages	4,19
analytical– problem-solving skills	4,35
interpersonal – communication, teamwork	4,24
interpersonal – work in diverse teams (e.g. multicultural, multyeserational)	3,80
organisation and self-organisation – time management, self-reliance	4,23
creativity – generating new ideas, creative style of work	3,88
learning – openness to lifelong development	4,22
personal – loyalty, involvement, responsibility	4,15

Quantitative research

Question 2. How do you assess your level of the following competences? Grade on a scale from „1" (Insufficient) to „5" (Fully sufficient)

Assessment of the level of competences

| Competence	Score
professional – theoretical knowledge	3,14
professional – practical skills	3,25
IT – software literacy	3,17
language – knowledge of foreign languages	3,62
analytical– problem-solving skills	3,76
interpersonal – communication, teamwork	4,11
interpersonal – work in diverse teams (e.g. multicultural, multyeserational)	3,90
organisation and self-organisation – time management, self-reliance	3,87
creativity – generating new ideas, creative style of work	3,63
learning – openness to lifelong development	4,04
personal – loyalty, involvement, responsibility	4,20

Quantitative research

Question 3. In addition to your studies, do you learn anything else/develop in order to obtain additional professional qualifications? If yes, in what form/how do you do that?

In addition to your studies, do you learn anything else/develop in order to obtain additional professional qualifications?

Yes
349
45%

No
420
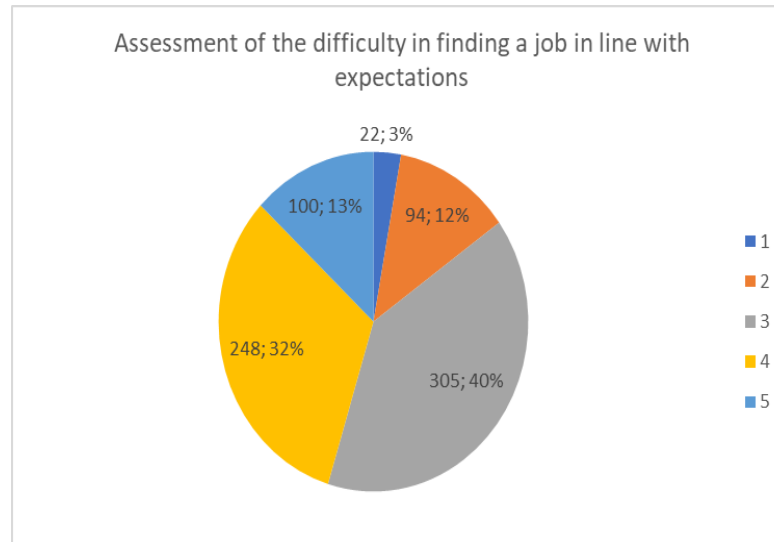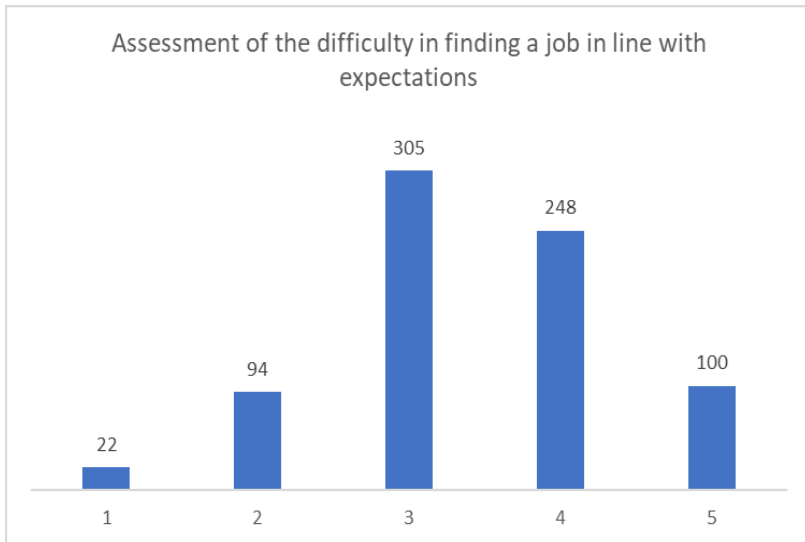55%
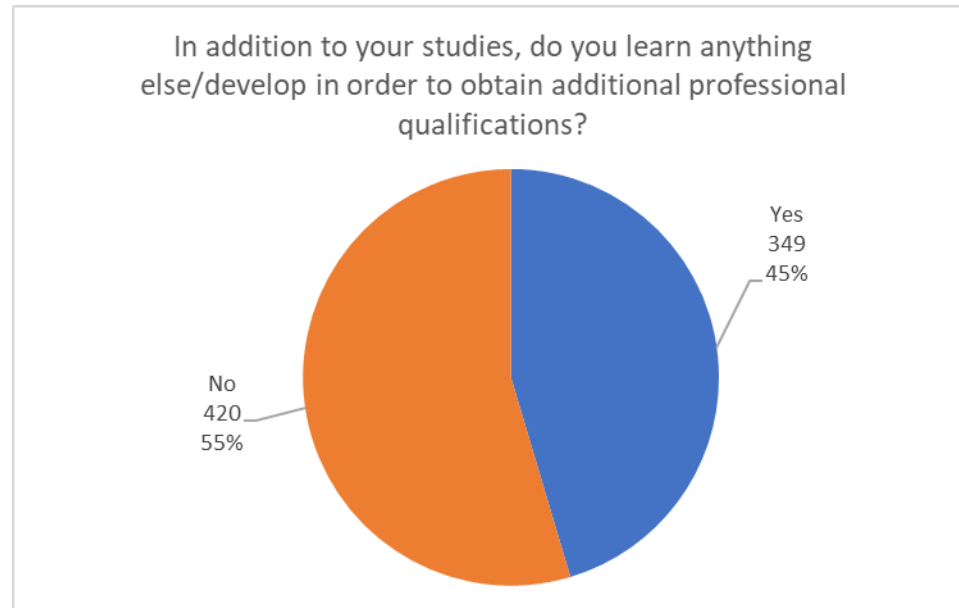
Quantitative research

Question 4. How do you assess your current preparation for work after graduation? Grade on a scale from „1" (Insufficient) to „5" (Fully sufficient)
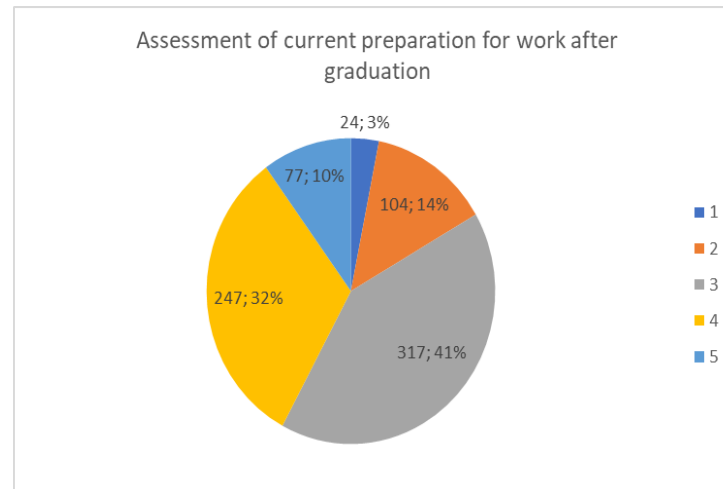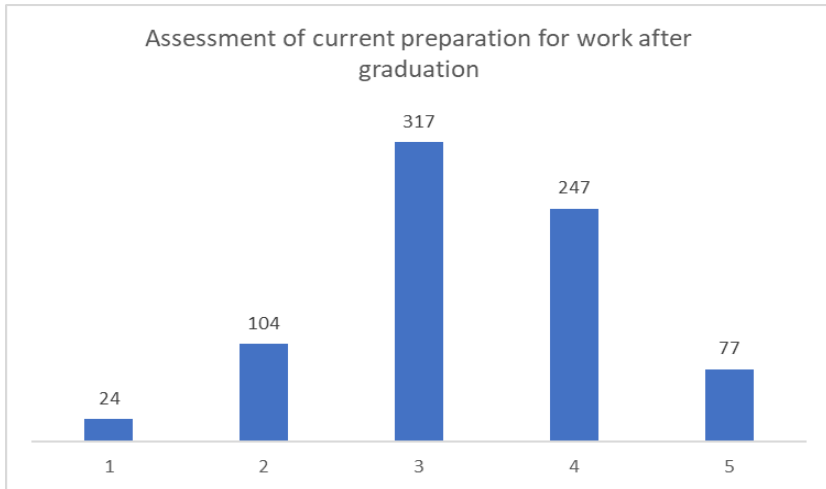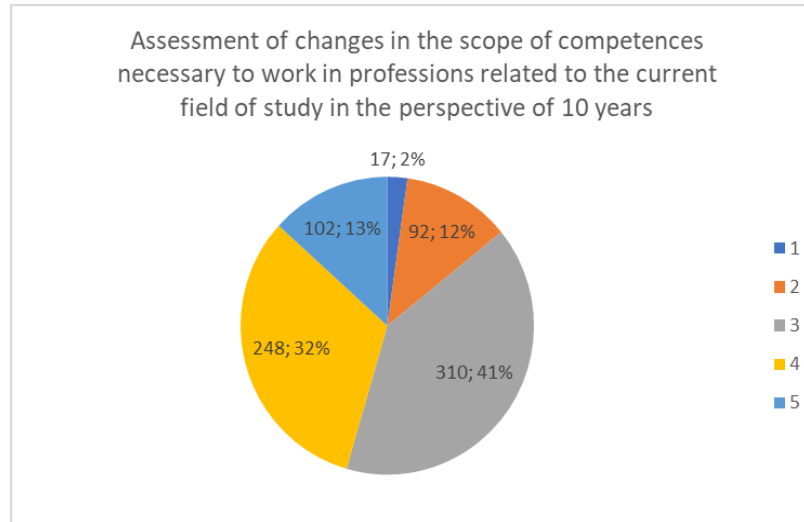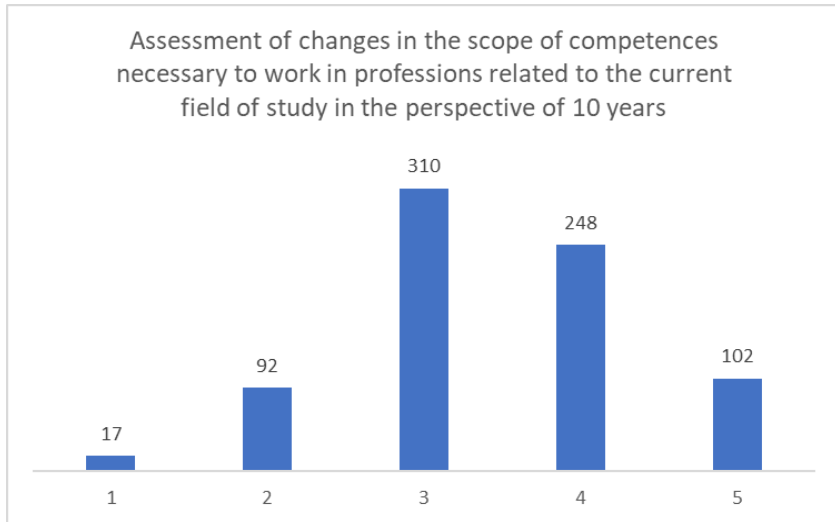
Quantitative research

Question 5. How do you assess the difficulty in finding a job in line with your expectations? Grade on a scale from „1" (Very easy) to „5" (Very difficult)

Quantitative research

**Question 6.** In your opinion, how will the scope of necessary competencies to work in the professions related to the current field of study change in the next 10 years? Grade on a scale from „1" (It won't change a lot) to „5" (It will change a lot)

Assessment of changes in the scope of competences necessary to work in professions related to the current field of study in the perspective of 10 years

Quantitative research

Question 7. What do you think of the development of automation (e.g. new IT systems or applications) and the resulting possible reduction of the demand for employees working in professions related to your field of study? Grade on a scale from „1" (It mainly raises my concerns) to „5" (It mainly inspires my development)

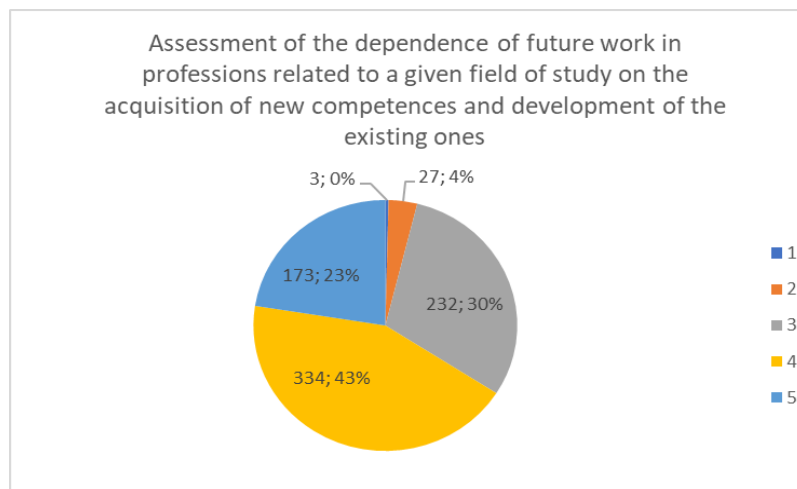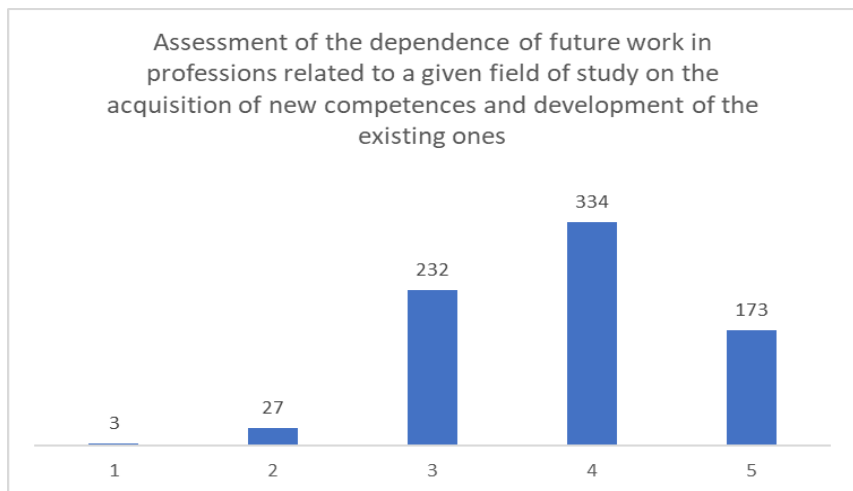Assessment of the impact of the development of automation (e.g. new IT systems or applications) and the resulting possible reduction of the demand for employees working in professions related to field of study
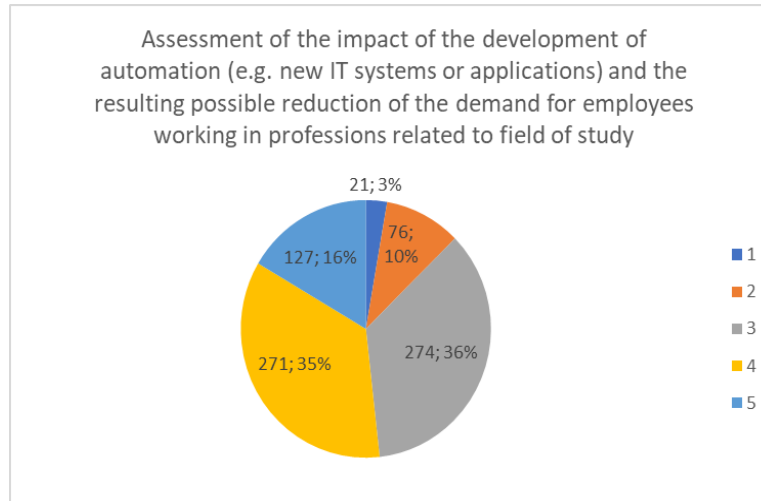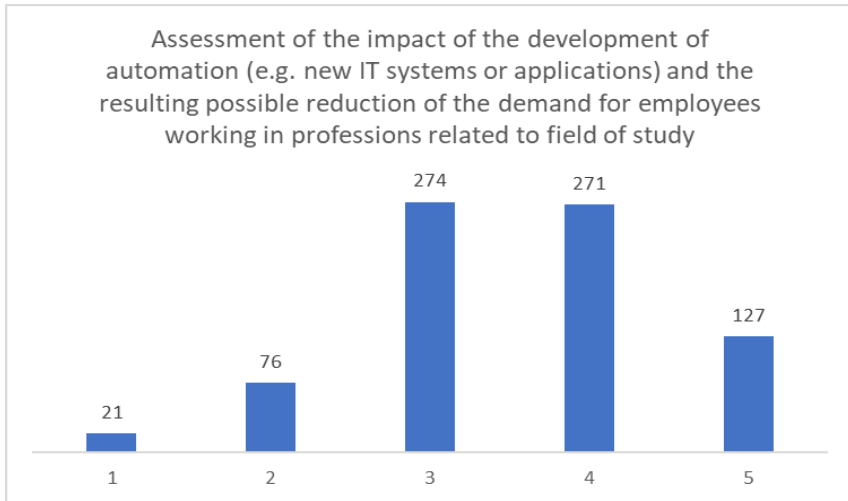
Quantitative research

Question 8. In your opinion, to what extent will future work in professions related to your field of study depend on acquiring new competences and developing the existing ones? Grade on a scale from „1" (To a minor extent) to „5" (To a large extent)

Assessment of the dependence of future work in professions related to a given field of study on the acquisition of new competences and development of the existing ones

Assessment of the dependence of future work in professions related to a given field of study on the acquisition of new competences and development of the existing ones

Quantitative research - evaluation of distance learning

**Question 1.** Please assess your preferred way of learning within the following forms of classes. Grade on a scale from 1 (Definitely a traditional form) to 10 (Definitely a remote form)

Assessment of the preferred way of learning within the following forms of classes

Form of classes	Score
Lectures	6,66
Auditorium classes	5,11
Classes in the computer lab	5,24
Seminars/ tutorials	5,52
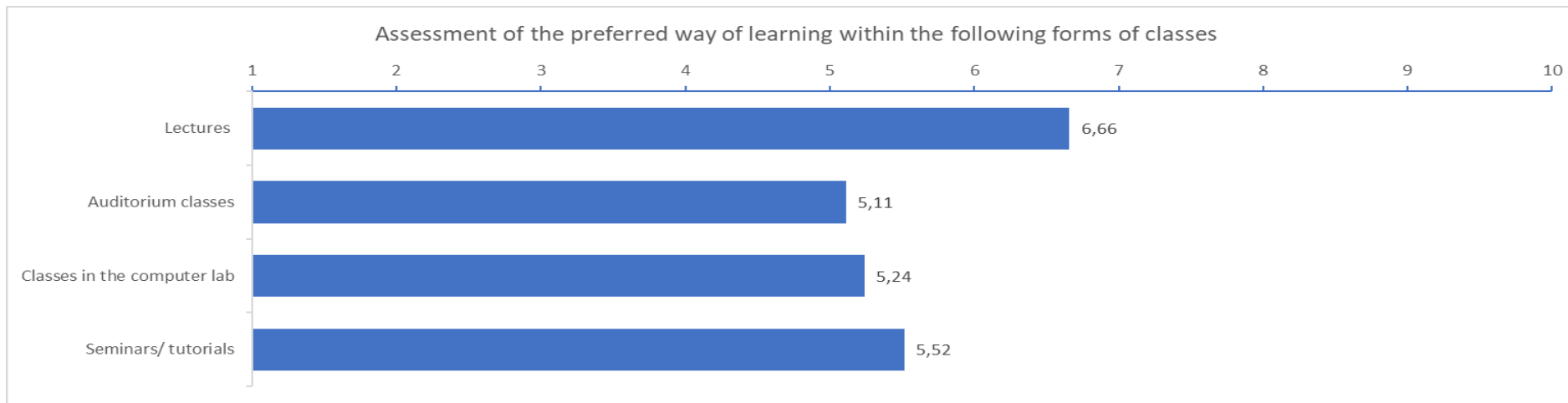
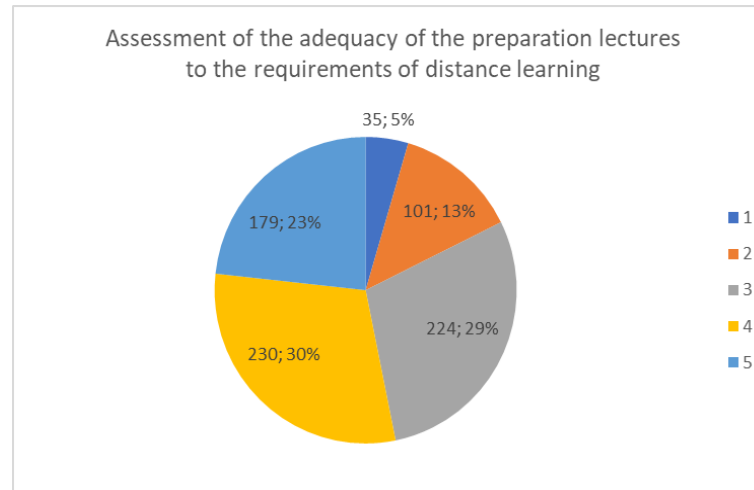# Quantitative research - evaluation of distance learning

Question 3. In general, how would you assess your experiences with distance learning?
Grade on a scale from „1" (Very badly) to „5" (Very well)

Overall assessment of distance learning experiences

Overall assessment of distance learning experiences
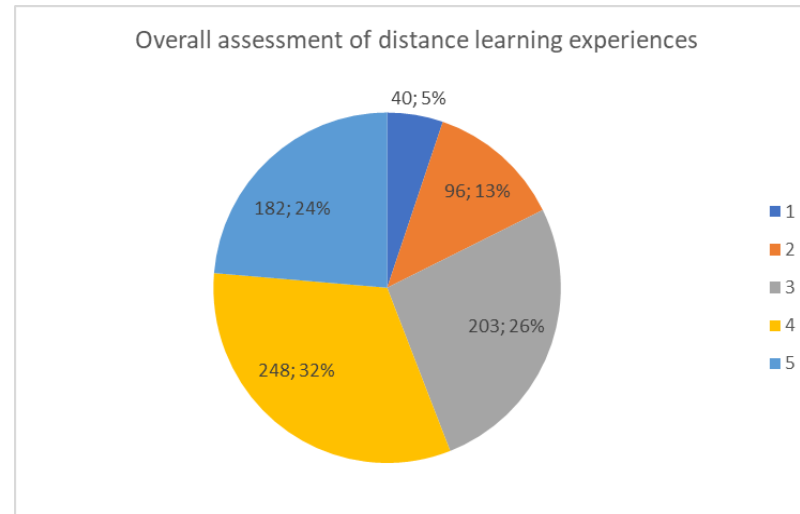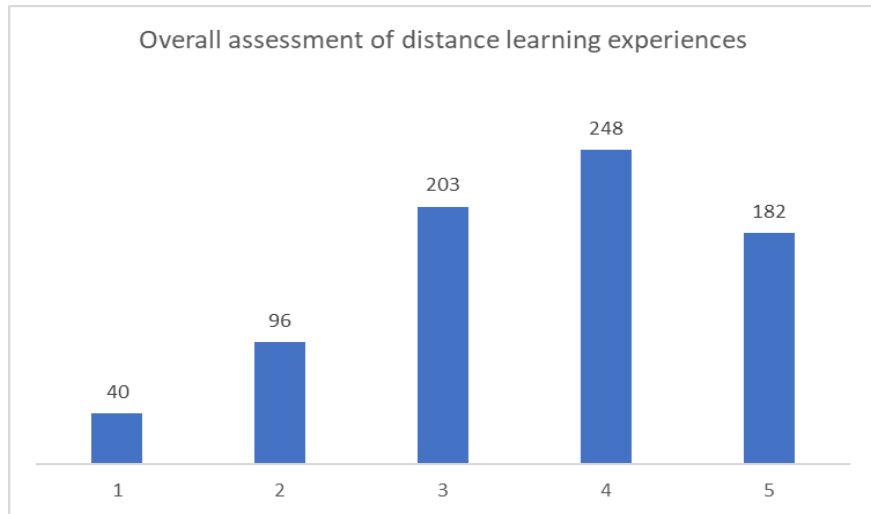
Quantitative research - evaluation of distance learning

Question 4. In your opinion, the preparation of the lecturers was adequate for the requirements of distance learning. Grade on a scale from „1" (Definitely not) to „5" (Definitely yes)

Assessment of the adequacy of the preparation lectures to the requirements of distance learning

Assessment of the adequacy of the preparation lectures to the requirements of distance learning
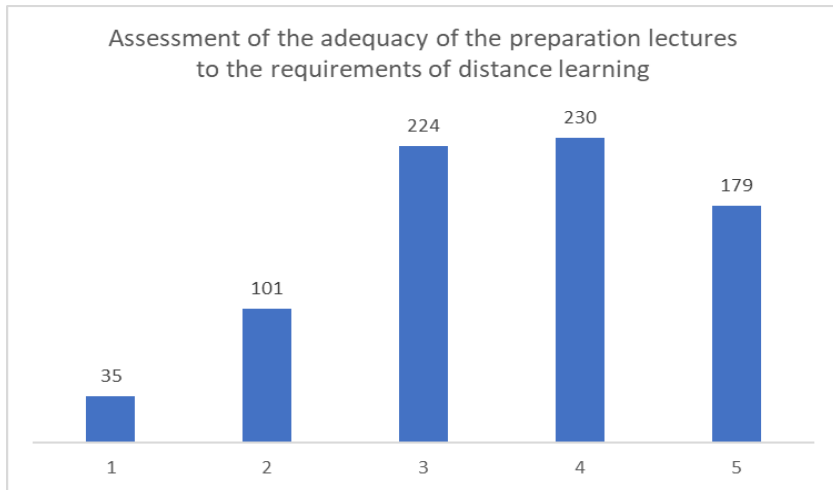
Quantitative research – some conclusions

❑ large differences were observed between the assessment of the importance of a given type of competence and the self-assessment of the level of this competence,

❑ students will evaluate their level of competence much lower than the importance of a given type of competence,

❑ surprisingly high self-assessment of personal competences - there is probably a difference in the declaration of the level of this competency and the actual activities related to it,

❑ large differences to the detriment of self-assessment in flexible competences - such as analytical or linguistic competences,

Quantitative research – some conclusions

❑ large differences between the answers of women and men - often statistically significant,

❑ the greatest differences in the responses of respondents from different countries - practically in most of the questions, statistically significant differences were observed,

❑ in some cases, the results are not very reliable - e.g. for training - 54% of students from Poland, and 31% in Hungary - perhaps the differences result from different perceptions of the concept of additional education - outside the study system,

❑ surprising disproportions in the answers to question 8 about the importance of continuous development for the performance of work related to the field of study - the students of economic analysis see the greatest importance of development, the smallest students of tourism

Quantitative research - some conclusions

❑ **less optimistic** results regarding preparation for entering the labor market - only 42% indicated the answer sufficient or fully sufficient,

❑ **optimistic** - second degree students assessed their competences much higher than first degree students - this means that the work of academic teachers is effective!

❑ **from qualitative research -** large differences in the perception of the same competences by representatives of different areas of education, e.g. economic analysis and management.

Selection of professions/ positions

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Professions/positions selection rules

- Each of the respondents pointed 3 professions

- Rules for grouping professions/positions:

  - based on the frequency (e.g. for Automotive: 7 respondents indicated *Car Mechanic*)

  - based on similarity (e.g. for Tourism: *Hotel Receptionist*, *Receptionist at Accommodations*, *Reservation Oficer)*

  - based on the creation of general groups - in the case of various adjective details (e.g. for Economic Analytics: *Junior Data Analyst, Statistical Data Analyst)*

Professions/positions for Economic Analytics

1. ERP implementer
2. manager (project manager, analytical team manager)
3. expert in the field of data analysis
4. Big Data analyst
5. new product/ new research tools developer
6. specialist in the preparation of CATI / CAWI surveys
7. marketing research analyst
8. data analyst
9. market analyst
10. business analyst

Professions/positions for Management

1. project manager

2. social media / company image specialist

3. business analyst

4. crisis management specialist

5. interpersonal relations trainer

6. owner

7. administration staff

8. manager (business management)

9. consultant

10. salesforce (sales department employee)

Professions/positions for Automotive

1. car mechanic
2. car body repairman
3. car body painter
4. foreman
5. spare parts salesman
6. service adviser

Professions/positions for Tourism

1. receptionist

2. marketing specialist

3. tourinform office manager (information provider at tourinform office)

4. sales specialist (sales department)

5. travel guide / guide

6. tour/event operator/organizer

7. destination manager

8. restaurant manager

9. hotel manager

10. HR assistant/coordinator

Competency profiles for selected professions/positions

Competency profiles

▶ calculation of the average value for each profession/position for each of 11 competency group

▶ averaging values using the rules of mathematics

  ▶ 5 and more – rounding up (e.g. 5,75 → 6)

  ▶ Less than 5 – rounding down (e.g. 2,45 → 2)

Competency profiles for selected professions/positions - Economic Analytics

No	competences/ professions	professional – theoretical knowledge	professional – practical skills	IT – software literacy	language – knowledge of foreign languages	analytical– problem-solving skills	interpersonal – communication, teamwork	interpersonal – work in diverse teams (e.g. multicultural, multyeserational)	organisation and self-organisation – time management, self-reliance	creativity – generating new ideas, creative style of work	learning – openness to lifelong development	personal – loyalty, involvement, responsibility
1	ERP implementer	3	4	3	3	2	3	3	2	2	3	3
2	manager (project manager, analitycal team manager)	3	4	3	3	4	4	4	3	4	4	3
3	expert in the field of data analysis	4	4	4	3	4	3	2	3	4	4	3
4	Big Data analyst	3	3	3	3	2	2	2	3	3	3	3
5	new product / new research tools developer	3	3	3	3	2	2	2	3	3	3	3
6	specialist in the preparation of CATI / CAWI surveys	3	3	4	4	4	2	2	3	3	4	3
7	marketing research analyst	2	2	3	2	3	2	3	2	3	3	2
8	data analyst	2	2	3	2	3	2	1	2	3	3	2
9	market analyst	2	3	2	3	4	3	2	3	2	3	3
10	business analyst	2	2	3	3	3	3	2	3	3	4	3

Competency profiles for selected professions/positions - Management

No	competences/ professions	professional – theoretical knowledge	professional – practical skills	IT – software literacy	language – knowledge of foreign languages	analytical– problem-solving skills	interpersonal – communication, teamwork	interpersonal – work in diverse teams (e.g. multicultural, multyeserational)	organisation and self-organisation – time management, self-reliance	creativity – generating new ideas, creative style of work	learning – openness to lifelong development	personal – loyalty, involvement, responsibility
1	project manager	3	4	3	4	4	4	4	4	3	4	4
2	social media / company image specialist	1	2	2	2	1	1	1	2	4	4	2
3	business analyst	3	3	4	2	4	1	1	4	2	4	3
4	crisis management specialist	1	3	2	2	4	3	3	2	3	3	1
5	interpersonal relations trainer	2	2	1	3	1	4	4	2	2	2	4
6	owner	2	2	2	2	4	4	4	3	4	3	4
7	administration staff	3	4	4	4	3	4	4	4	3	4	4
8	manager (business management)	4	3	4	4	4	4	4	4	4	4	4
9	consultant	4	4	4	4	4	4	4	4	3	4	4
10	salesforce (sales department employee)	3	3	4	3	3	4	4	4	4	4	4

Competency profiles for selected professions/positions - Tourism

No	competences/ professions	professional – theoretical knowledge	professional – practical skills	IT – software literacy	language – knowledge of foreign languages	analytical– problem-solving skills	interpersonal – communication, teamwork	interpersonal – work in diverse teams (e.g. multicultural, multyeserational)	organisation and self-organisation – time management, self-reliance	creativity – generating new ideas, creative style of work	learning – openness to lifelong development	personal – loyalty, involvement, responsibility
1	receptionist	2	3	3	3	3	3	3	3	2	3	3
2	marketing specialist	3	4	4	4	3	4	4	4	4	4	4
3	tourinform office manager (information provider at tourinform office)	3	3	3	3	3	4	2	3	3	3	3
4	sales specialist (sales department)	3	4	4	3	4	3	3	3	3	3	3
5	travel guide / guide	3	3	1	3	4	4	3	3	3	4	3
6	tour/event operator/organiser	3	4	3	3	4	4	3	4	3	3	2
7	destination manager	4	4	4	4	4	4	4	4	4	4	4
8	restaurant manager	4	4	2	4	4	4	4	3	3	3	4
9	hotel manager	4	4	4	4	4	4	4	4	4	4	4
10	HR assistant/coordinator	2	1	1	1	3	3	2	2	1	3	3

Competency profiles for selected professions/positions - Automotive

No	competences/ professions	professional – theoretical knowledge	professional – practical skills	IT – software literacy	language – knowledge of foreign languages	analytical– problem-solving skills	interpersonal – communication, teamwork	interpersonal – work in diverse teams (e.g. multicultural, multyeserational)	organisation and self-organisation – time management, self-reliance	creativity – generating new ideas, creative style of work	learning – openness to lifelong development	personal – loyalty, involvement, responsibility
1	car mechanic	3	3	3	2	3	3	3	3	2	3	3
2	car body repairman	3	4	3	2	4	3	3	3	2	4	4
3	car body painter	3	3	3	3	3	3	3	4	3	3	4
4	foreman	4	3	3	2	4	4	2	4	3	3	3
5	spare parts salesman	3	3	4	3	4	4	4	3	3	4	4
6	service adviser	4	4	4	3	4	4	4	4	4	4	4

Next steps

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Competencies

1. Professional – theoretical knowledge
2. Professional – practical skills
3. ICT – the knowledge of software
4. Linguistic – knowledge of foreign languages
5. Analytical – the ability to solve problems
6. Interpersonal – communication, teamwork
7. Interpersonal – work in diverse teams (e.g. multicultural, multigenerational)
8. In terms of organization and self-organization - time management, independence
9. In terms of creativity - generating new ideas, a creative style of work
10. In terms of learning - openness to continuous development
11. Personal - loyalty, commitment, responsibility

Steps and deadlines

No	Step	Deadline
1	Development of modules concerning specialist professional knowledge and skills for a given field of study - a description of required competencies for 4 levels (competencies 1 – 2)	July 2022
2	A description of required competencies for 4 levels - translation of materials from the *Go4FutureSkills* project (competencies 3 – 11)	July 2022
3	Preparation of a tool for assessing the level of competencies in the vocational area - a set of 20 questions, tasks and problem issues (competencies 1 – 2)	August 2022
4	Preparation of a tool for assessing the level of remaining competencies (3 – 11) - translation of materials from the *Go4FutureSkills* project	August 2022
5	Preparation of a competency matrix (comparing the level of a given person's competencies with competency profiles for selected professions/positions) - guide	September 2022
6	Preparation of a competency matrix - a computer programme	September 2022

Steps and deadlines

No	Step	Deadline
7	Verification of the developed solution on a group of students – the evaluation of correct functioning and results obtained (compliance of the results from the competency matrix with the actual level of competencies of individual people) – minimum 10 students per country / minimum 10 students for field of study	October 2022
8	Summary of the verification results for each country / field of study	October 2022
9	Analysis of testing results and formulation of recommendations for the necessary changes	November 2022
10	Development of the final version of O1	November 2022
11	The evaluation of the output by people not involved in the project	December 2022

1. Development of modules concerning specialist professional knowledge and skills for a given field of study

1. **Professional – theoretical knowledge**

2. **Professional – practical skills**

3 – 4 modules (for discussion)

Level 0	Not required
Level 1	Necessary to perform simple and routine tasks that form the basis for further and more specialized activities
Level 2	Necessary to perform tasks in typical situations
Level 3	Necessary to perform complex tasks, both in typical and problematic conditions
Level 4	Necessary to perform many complex tasks of various nature. *Leadership and managerial skills**

* If applicable to a given skill or competence

An exemplary description of the competence levels

❑ Leadership competences:

Leadershisp competency it is the ability to build authority and trust that allows you to lead the team to achieve its goals. It is the ability to stimulate people to action and focus their activities on tasks. It manifests itself in the ability to assign tasks adequately to the competences of employees, appreciate the work of each team member, motivating the feedback among team members and resolving conflicts in a manner satisfactory to each of the parties

Leadership competencies

❑ **Level 1:**

The employee gains the trust of others through participation in the implementation of tasks. Team members know, that when they ask for his/her help, they will get it. The employee contributes to the team's work primarily through the correct performance of his/her tasks. Consistently, step by step, he/she builds his/her authority by acquiring new skills and systematically acquiring specialist knowledge. The employee shows a positive attitude and faith in overcoming difficulties and achieving set goals, thanks to which he/she positively influences the attitudes of team members. He/she openly shows satisfaction when the team is successful. Avoids communicating criticism. In a conflict situation, he/she does not get involved on either side.

Leadership competencies

❑ ## Level 4:

The employee builds his/her authority primarily on the basis of a specific vision of the work of the team he/she manages. He/she clearly defines the principles of cooperation and her/his expectations. The employee inspires trust thanks to his/her attitude - determination and consistency in action, peace and building friendly relationships. As a supervisor, he/she focuses primarily on achieving goals, while at the same time taking care of a good working atmosphere. The employee takes control of the group's work - sets goals, distributes tasks adequately to the skills of employees, and monitors the level of their performance. Regularly gives positive and critical feedback based on facts. In the event of objections, he/she wants to know the reasons for the situation and, together with the employee, agree on the standards for the implementation of tasks for the future. The employee builds a sense of belonging to a team among employees – he/she reminds them of common goals, encourages them to cooperate and help others, and to share knowledge. The employee is open to suggestions of solutions and improvements presented by subordinates, which fosters their sense of shared responsibility. He/she shows employees an interest in their problems and provides them with real support. Attaches great importance to integrating the team - organizes meetings to increase motivation, exchange experiences and jointly solve and analyze problem situations. Can choose the management style to the type of tasks and the specificity of team members. The employee efficiently makes decisions by taking into account various solutions and selecting the most advantageous ones, which contributes to the good results of the team. In conflict situations, he/she takes the role of a mediator - listens to each of the parties, gives them the opportunity to present their arguments in calm conditions, encourages them to listen to each other and search for solutions together.

Task

- One Partner is responsible for work related to a given field of study:

  - Business analytics – WUEB

  - Management – UNIWA

  - Tourism – UP

  - Automotive - EduKo

2. A description of required competencies for 4 levels - translation of materials from the *Go4FutureSkills* project (competencies 3 – 11)

▶ Translation from Polish into English – WUEB

▶ Translation from English into the national language - other partners:

   ▶ UNIWA - Greek

   ▶ UP - Hungarian

   ▶ EduKo - Finnish

3. Preparation of a tool for assessing the level of competencies in the vocational area - a set of questions, tasks and problem issues

▶ Preparation of modules checking the level of professional knowledge indicated for each of the selected fields of study

▶ One Partner is responsible for work related to a given field of study:

   ▶ Business analytics – WUEB

   ▶ Management – UNIWA

   ▶ Tourism – UP

   ▶ Automotive - EduKo

4. Preparation of a tool for assessing the level of remaining competencies (3 – 11) - translation of materials from the *Go4FutureSkills* project

▶ Translation from Polish into English – WUEB

▶ Translation from English into the national language - other partners:

  ▶ UNIWA - Greek

  ▶ UP - Hungarian

  ▶ EduKo - Finnish

3. Preparation of a tool for assessing the level of competencies in the vocational area - a set of questions, tasks and problem issues

➢ Single-choice questions

➢ Single-choice questions requiring simple calculations

➢ Choosing a solution for a problem issue

➢ Questions requiring a score

➢ 1 module = 20 questions, tasks and problem issues

5. Preparation of a competency matrix (comparing the level of a given person's competencies with competency profiles for selected professions/positions) - guide

▶ Methodological description - WUEB

▶ Consultation - all partners

6. Preparation of a competency matrix - a computer programme

▶ WUEB

▶ Consultation - all partners

Steps 7 - 11

- To be developed and discussed in September

  - WUEB

  - Consultation - all partners