

P6 - MCSU

Survey report of Thematic Map – support for Innovative Toolkit with Intercultural Student–Centered Learning Resources part of O2/A2 activities

Project Objective PO2

Capacitate and elevate the students' innovative knowledge, entrepreneurship & digital skills through the toolkit with intercultural knowledge resources embedded in Innovative Student-Centered Learning Practices, by capitalizing on the values brought by the involvement of 74 stakeholders from different industries

Intellectual Output - O2

Innovative Toolkit with Intercultural Student–Centered Learning Resources (Ino -Toolkit with intercultural SCL resources)

O2/A2 activity description:

Design and develop Student – Centered **intercultural knowledge resources** for business, engineering & entrepreneurship education fields, mapped on entrepreneurial phases and built on different cultural contexts and industries

Activity A2

-organize quarterly focus group sessions with practitioners and professionals from industry chosen to identify, define, and draw up **thematic maps**

Participants – target group

the involvement of enterprises, civil society organizations, and public entities from different industries within RO, BG, SK, and PO.

Objectives of thematic maps:

The research objectives consist in:

1. To identify and defining important elements for design the content of structure of thematic map built on the entrepreneurial process, support for develop Intercultural Knowledge Resource with intercultural views deeply embedded in entrepreneurial learning concept, customized on each of the fields Business Education and Engineering and Entrepreneurship Education
2. To collect advisable opinions, analyze and statistically compute the situations from employer view for:
 - Real-Life Problems of The Business/industry sector as a **base for study case development**
 - Relevant Achievements in the sector – as a **base for best practices/case examples**
 - Challenges and Opportunities –as a **base for scenarios and project-based applications.**

3. To deliver a common approach from employers' view related to the Opportunity recognition and idea feasibility, Business model concepts and Enterprise development

Participants at statistical research:

Teachers/researchers and technical from each P1 to P6:

1. Methodology for primary research on the target group sample

The process of collecting relevant employers view was performed during the interval of M9 to M10 months. The method for collecting data was electronic based through the on-line Google Forms at the following address:

- For Romanian industry stakeholders: <https://is.gd/ahuLx8>
- For Bulgarian industry stakeholders: <https://is.gd/7X8ZGu>
- For Slovakian industry stakeholders: <https://is.gd/qY89V9>
- For Polish industry stakeholders: <https://is.gd/QjPGKY>

The process of collecting practitioners and professionals from industry views targets at least 74 respondents from 0 businesses from: Banking, ITC, FMCG, Communication /Public relations, Client services and ITC, Business Process Outsourcing (BPO) and Shared Service Center especially in IT/ITC (SSC), Machine-building; Automotive, Oil & Gas, energy, distributions & logistics, R&D, including 13 public administrations and/or governmental entities and 13 from civil society organizations: from RO, from BG, from SK, from PL.

As primary data sources (data obtained directly from the Romanian economic environment), it has been used information collected during the interval M9 to M10 months.

The questionnaire and results analysis, as well as their adaptation, were achieved through the participation of all project partners. They were involved in creating and implementing the questionnaire to ensure quality based on their expertise and experience. The activity manager was P1, who coordinated and assured the creation and implementation of the questionnaire according to the quality manual. At partner level for adapting to local specifics, decisions were taken by each partner's Local Project Meetings partner (LPM) partner. Each project partner used local utility to implement communication with practitioners and professionals.

The following steps for creating the questionnaire are described below:

1.1 Specifying desired information and research objectives

The identification of the information and objectives was performed by extracting them from the general purpose of the project and from PO2, based on

- to design the content of digital teaching modules with intercultural views deeply embedded in entrepreneurial learning concept, customized on each of the fields in BEE education
- to define, articulate and harmonize the personalized knowledge resources based on capturing the needs and learning expectations of local businesses, labour market, and civil society sectors from RO, BG, SK, and PO cultures.

1.2 Establish the method of data collection and elaboration of questions: content, type, quality, order, pre-modification.

It has been decided that the best way to collect valuable information is through the questionnaire. Other options included, face-to-face interviews and e-mail. Each method has advantages and disadvantages and has been analyzed against the level of quality, the number of respondents to reach, the degree of complexity, the availability of the participation of the respondents and the available staff.

1.3 Design the physical characteristics of the questionnaire

We have analyzed the variants of questions: structured, unstructured, or a combination of the two. The difficulty with unstructured ones lies in the weight of the analysis of the answers and their structuring in a worksheet. For precision of results and ease of completing the questionnaire, it was proposed and decided to use the partially structured questions in order to alleviate the disadvantages of both variants.

1.4 Approval of the questionnaire

At the end of the structure of the questionnaire, the quality team analyzed and concluded that it responds to the objectives originally proposed.

1.5 Preparing the final version and translating the questionnaire

At this stage each leader from the partner and his team adapted to local needs and translated the questions.

The research unit was a company/association/public institution or a foundation/small enterprise unit. The survey unit was the employed that provided the information. The information obtained is relevant and gives an image of real-life problems of the business/ sector, relevant achievements in the sector and challenges and opportunities in order to create base for **study case development, best practices/case examples, scenarios and project-based applications.**

2. Research Variables

The research variables were built on target group profile to coherently embrace the characteristics, perceptions and expectations for practitioners and/ or professionals from company, as follow:

Practitioners and/ or professionals from company

The research variables aim at analyzing the views of employees on the real needs of the sector, the relevant challenges in the sector, the opportunities offered by the domain and the collection of practical proposals feasible for the implementation of these concepts in reality, which have been divided into four categories:

2.1 Profile of company

Company profile aims to analyze certain demographic characterizes such as: type of company (private and/or public), the operating industry sector, size (in number of employees) and the level of the job for those who responded. The basic variables in this case it was:

- *Type of company*
- *The domain of the activity*
- *Number of employee in organization*
- *The level of the job*

2.2. Real-Life Problems of the business/ industry sector

Research on real-life problems aims to capturing the real needs, enrich teaching, improve learning experience to contribute at students' skills in a competitive market and support learning expectation of local business, labour market and civil society from RO, BG, SK, PL cultures.

- *Business failure perceptions* – aims to identify the principal elements that contribute to business failure
- *Barriers for starting new business* - which are the main barriers that can prevent future graduates from starting a business
- *Factors with negatively impact* - which are the main factors that can prevent future graduates from starting a business
- *Reliable solutions for overcome the development problems* - which are and how they can find viable solutions to overcome development problems

2.3 Relevant Achievements in the sector

Research on relevant industry achievements aims to gather from industry practitioners where more business-related investment has been made by companies, focusing on them reinforces students' ability to make appropriate decisions for their professional careers.

- *Investment level in company in last two year* - the level of agreement is identified for more proposals for sectors where investments can be made
- *Introducing and using innovation* - identify the agreement or disagreement for more proposals of types of areas where innovation can be brought

2.4 Challenges and Opportunities

Research on challenges and opportunities aims to identify future development drivers and levels for applying them. In this way HE institutions are accountable for equipping graduates with smart digital skills, creative thinking, problem solving through innovate and use new technologies, because 50% of European population has lacking basis in this domains.

- *Important development drivers for company* – base on important identified development drivers is being watched level of importance
- *Relevance of factors for possible barriers* – base on important identified possible barriers is being watched level of importance
- *Main actions for development* - base on important identified actions for development the three most important are noted
- *Young HE graduates attitudes related to the job* - by selecting the most important attitudes it is intended to mark their level of importance
- *Satisfaction level related to the young HE graduates attitudes at work* - by selecting the most important attitudes of young He graduates it is intended to mark their satisfaction level of importance
- *Satisfaction level related to the young HE graduates skills at work* - by selecting the most important skills of young He graduates it is intended to mark their satisfaction level of importance
- *Importance of criteria's for hiring a young HE* - by selecting the most important criteria on hiring graduates it is intended to mark their level of importance

3. Target group/ Sample Description - Practitioners and/ or professionals from company

The research was conducted on a sample of 96 de respondents, industry involved in developing, testing and validating knowledge resources for e-learning experiences: Banking, ITC, FMCG, Communication /Public relations, Client services and ITC; Business Process Outsourcing (BPO) and Shared Service Center especially in IT/ITC (SSC), Machine-building; Automotive ; Oil & Gas, energy, distributions & logistics, R&D, association/ public institution or a foundation varying in size from less than 10 to more than 250 employees.

The minimum sample size respects the value established in the application of the InnoLearn4BEEs project (**minimum 74 respondents: 48 businesses, 13 civil society organizations, 13 public administrations**). We would have wanted to have a much larger sample. It was difficult to convince a large number of practitioners to participate. Possible reasons for this attitude might be:

- fear to make public their position (although we guaranteed anonymity).

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 Grant Agreement: **2017-1-RO01-KA203-037145**

- hesitation to admit they ignore this field, although we included in the questionnaire clarifying definitions/explanations of the concepts used.
- lack of time, although the questionnaire may be completed in under 15 minutes.
- lack of interest.

Information gathering was done in online questionnaire define as a Google Form, accessed through the site <https://www.inolearn4bees.org>.

The results from the first panel defining profile of respondents show the profile of Romanian Practitioners from the company/ association/ public institution or a foundation/small enterprise unit participating in the project survey.

These were for each partner country respondents.

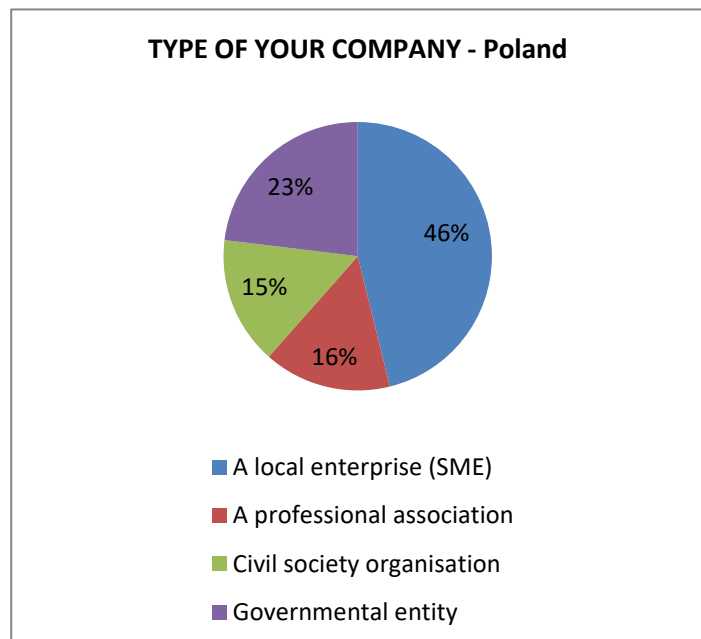
Practitioners / Professionals from **Poland** company

The study targeted Polish Practitioners with **13** respondents filling in the questionnaires.

3.1 The questionnaire respondents are classified in **type of company**

- A local enterprise (SME) = 6 (46%),
- A professional association = 2 (15%),
- Civil society organization = 2 (15%) and
- Governmental entity = 3 (23%).

Fig.1 The type of Poland company whose employees were involved in the responses
 Source: Author's own realization based on the surveyed data



3.2 The questionnaire respondents are classified in **company activity area/ domain**:

- ITC sector = 3 (22%),
- Distribution and logistics sector = 5 (38%)
- Machine building = 1 (8%)
- Local government = 1 (8%)

- e) Taxes and control = 1 (8%)
- f) Foundation for regional development (supporting startups and SMEs) = 1 (8%)
- g) Communication and/or public relations = 1 (8%)

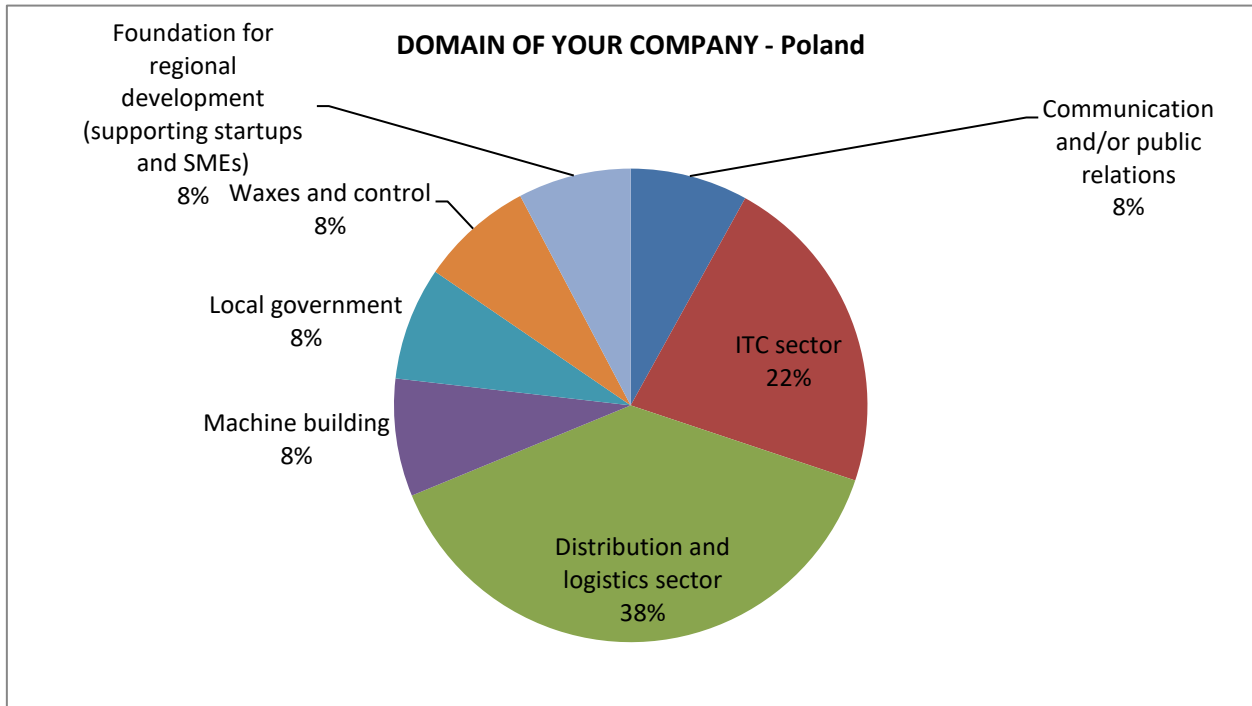


Fig.2 The domain activity of Poland company whose employees were involved in the responses
 Source: Author's own realization based on the surveyed data

3.3 The questionnaire respondents are classified in the number of employees/ company

- Less than 10 employees = 4 (31%)
- Between 11-50 employees = 1 (8%)
- Between 51-250 employees = 3 (23%)
- Greater than 250 employees = 5 (38%)



Fig.3 The percent of organizations responses split by numbers of employees
 Source: Author's own realization based on the surveyed data

3.4 The questionnaire respondents are classified in importance of their **job level in the company**

- Execution with technical responsibilities = 8 (62%)
- Management with decision making responsibilities = 5 (38%)

The dominate group of respondents were execution with technical responsibilities (62%).

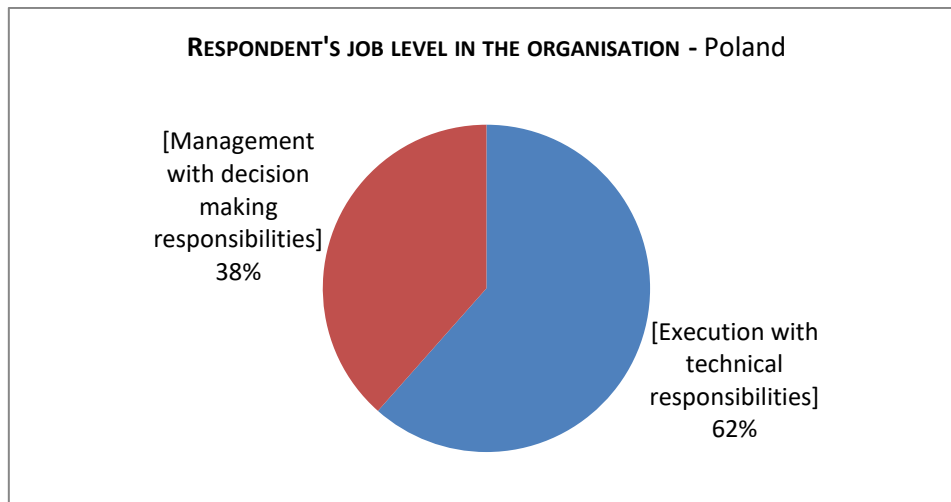


Fig.4 Balance between execution and managerial level of jobs for respondents
 Source: Author's own realization based on the surveyed data

4. Results of data analysis

(A). REAL-LIFE PROBLEMS OF THE BUSINESS / SECTOR linked to phase:

i) Opportunity, Recognition and Idea Feasibility

4.1.A How do you think that business failure is perceived in your country? (one choice)

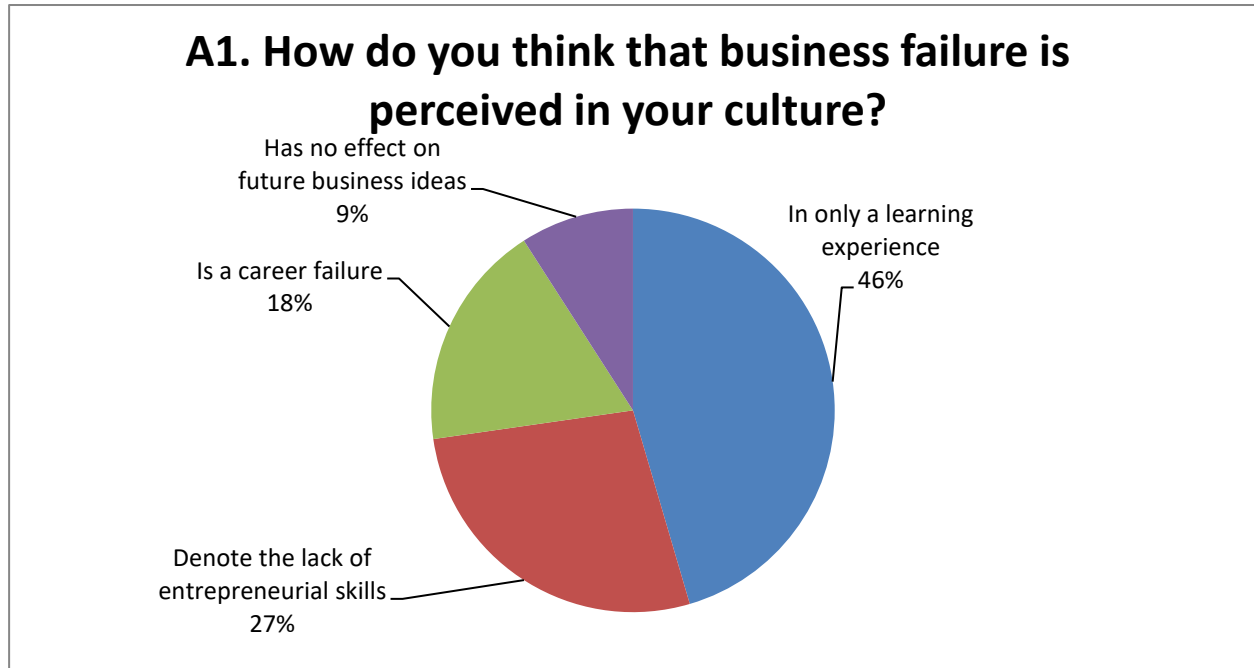


Fig.5 Respondents' answers to the question about the business failure perceiving in their country

Source: Author's own realization based on the surveyed data

As regards the opinion on the business failure perceiving in Poland, the biggest group of respondents claim the failure is only a learning experience (46%). The next group suggested the failure denote the lack of the entrepreneurial skills (27%). In the opinion of 9% of respondents the failure has no effect on future business ideas (fig. 5).

4.2.A Please mention the top three barriers for starting a new business, that are linked with your domain (notate 1,2,3)

The respondents were asked to assess the barriers for starting a new business in their domain, in Poland (fig. 6). The biggest group of respondents (38%) placed "fear of failure" on the first position in this ranking. The next group suggested that the significant barriers for new entrepreneurs in Poland may be "lack of own experience" as well as "lack of business ideas" (31% of respondents placed one of this factors on the second place in the ranking of barriers). In addition, 31% of respondents placed "the bureaucracy" on the third position in the ranking (fig. 7).

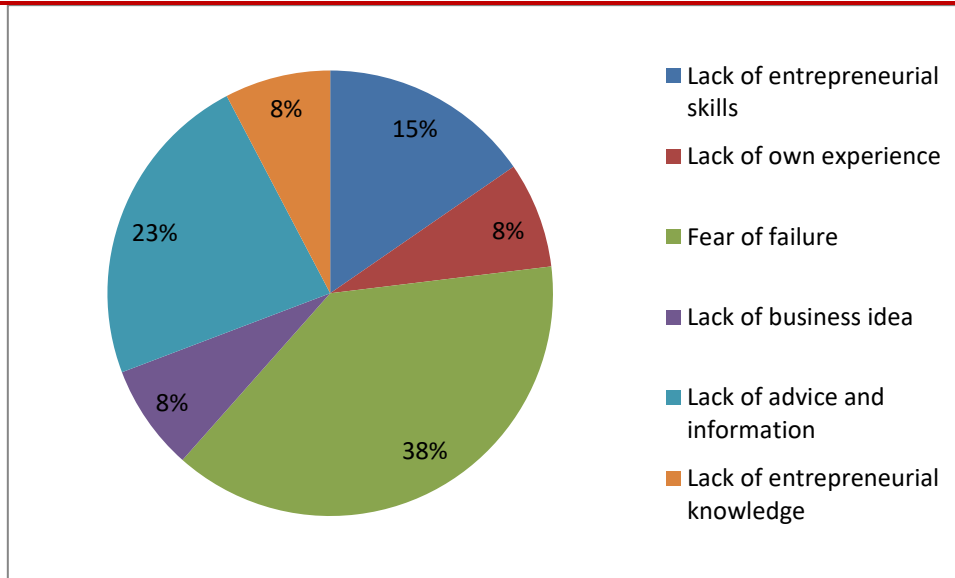


Fig. 6 The respondents' opinion on the barriers for starting a new business in Poland – barrier on the first place in order of importance

Source: Author's own realization based on the surveyed data

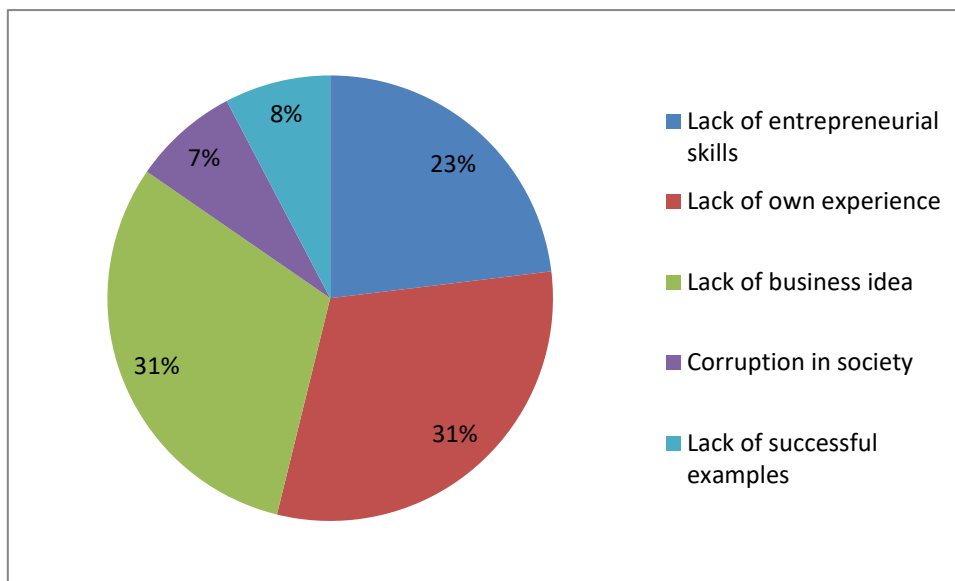


Fig. 7 The respondents' opinion on the barriers for starting a new business in Poland – barrier on the second place in order of importance

Source: Author's own realization based on the surveyed data

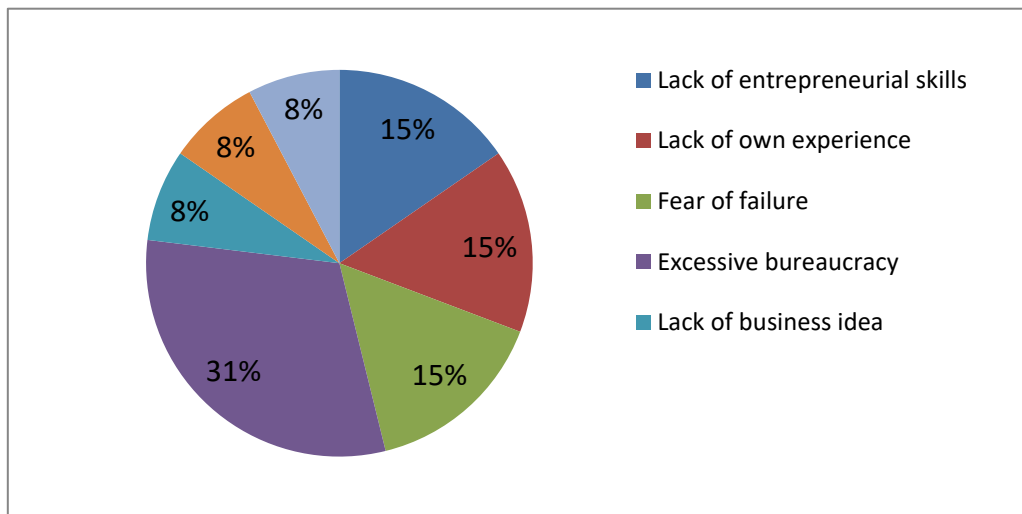


Fig. 8 The respondents' opinion on the barriers for starting a new business in Poland – barrier on the third place in order of importance

Source: Author's own realization based on the surveyed data

Those results may be also sum-up and analyzed in a joint ranking. By assigning a score to each item according to the scheme: the first barrier in order of importance. – 3 points, the second barrier in order of importance – 2 points, the third barrier in order of importance – 1 point, the average position of each of the analyzed factors was determined (fig. 9). The barriers with the highest positions in the joint ranking are listed below:

1. Lack of advice and information
2. Lack of entrepreneurial knowledge
3. Fear of failure



Fig. 9 The respondents' opinion on the barriers for starting a new business in Poland (weighted average)

Source: Author's own realization based on the surveyed data

4.3.A Which of the following factors has negatively affected the development of your company and at what level?

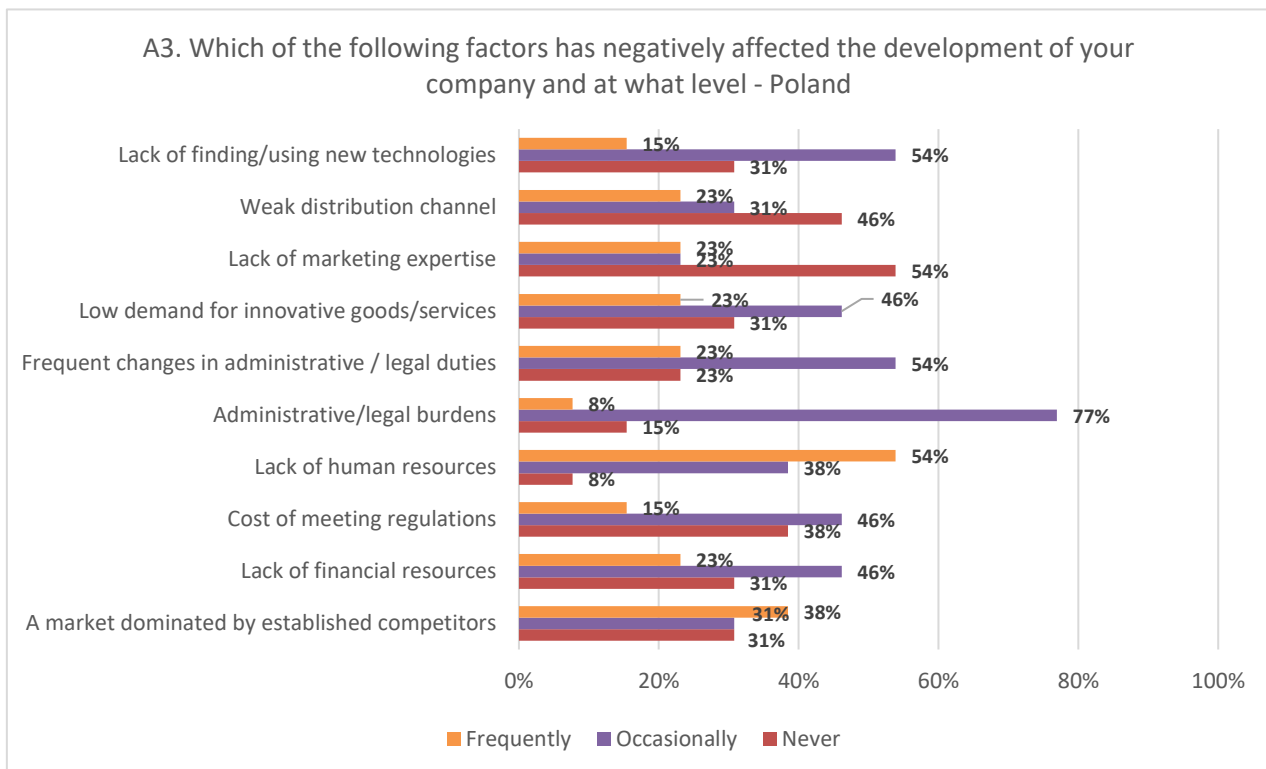


Fig. 10 The factors which negatively affected the development of the analyzed organizations in Poland

Source: Author's own realization based on the surveyed data

In the next part of the respondents were asked to assess factors which, in their opinion, had negatively affected the development of their company. Respondents were asked to choose from the answers: frequently, occasionally and never (fig. 10). The biggest group of respondents (54%) claim that the development barrier of their company is lack of human resources. Other barrier is also high competition on the market (38%). Other barriers occur occasionally in opinion of the respondents and the most significant are: administrative/legal burdens (77%), lack of new technologies (54%), legal duties (54%), cost of meeting regulations (46%) and lack of financial resources (46%).

4.4.A Which of the following can be reliable solutions to overcome obstacles/problems related to the development of your organization/ business/ unit?

Looking for the answers the above development problems of organizations, respondents were asked to assess some solutions for them (fig. 11).

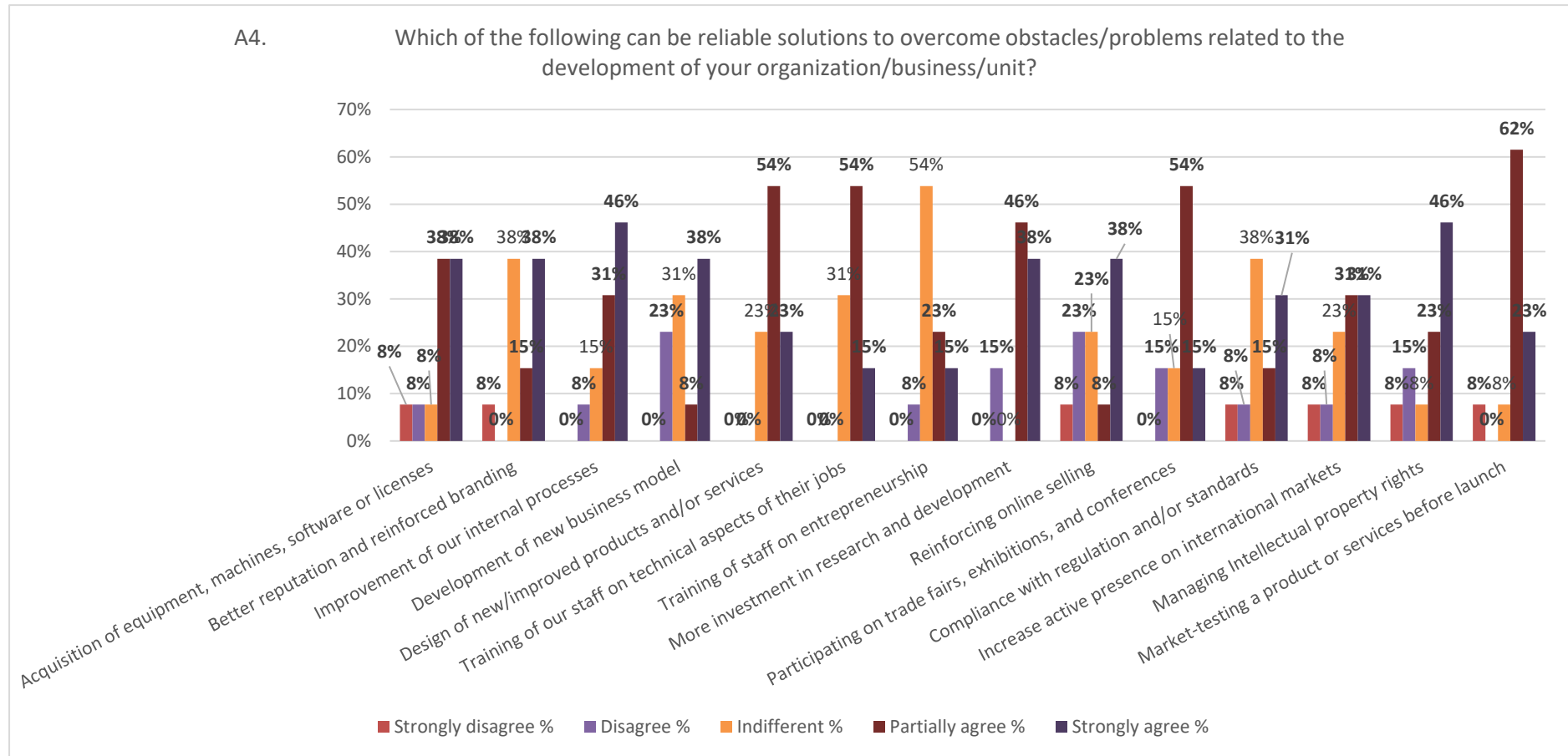


Fig. 11 The respondents' opinion on the business problems' solutions in Poland
 Source: Author's own realization based on the surveyed data

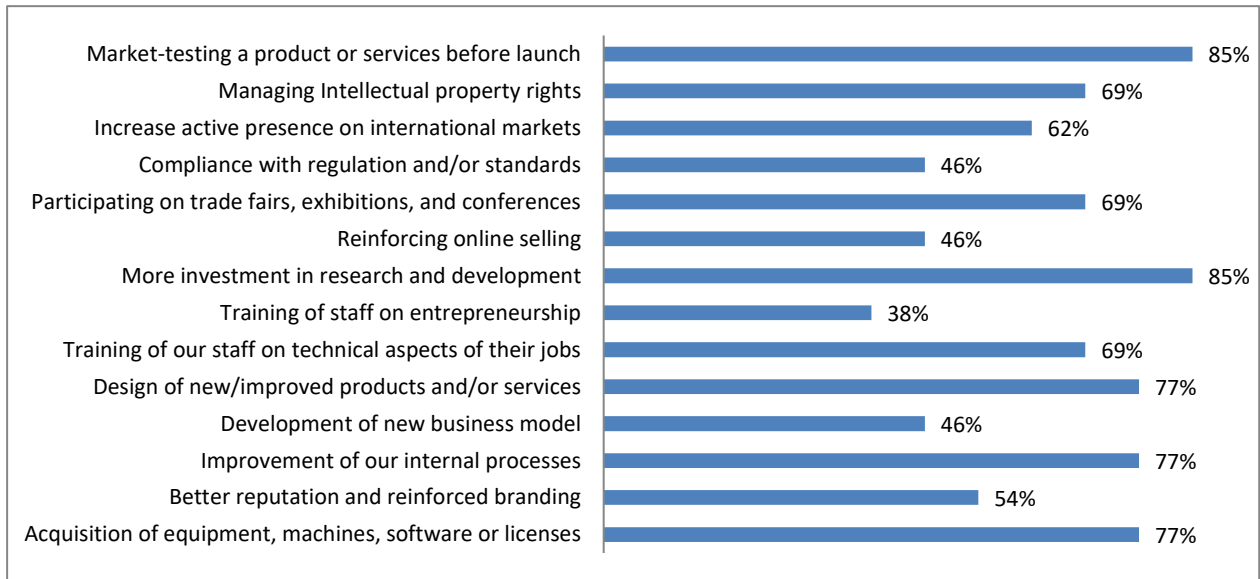


Fig.12 The best solutions to the business' problems in the opinion of respondents (joint ranking of answers: "Partially agree" and "Strongly agree")

Source: Author's own realization based on the surveyed data

The best solutions in the respondents' opinion are more visible while focusing only the positive answers ("Partially agree" and "Strongly agree"). Figure 12. presents the joint ranking of answers to the questions of the best solutions to the business' problems. The biggest group of respondents (85%) claim that reliable solutions to overcome obstacles/problems related to the development of their organization could be both "market-testing a product or services before launch" or "more investment in research and development". High positions in the ranking of solutions (77%) occupy also "design of new product/services", "improvement of company's internal processes" and "acquisition of equipment, machines, software or licenses". Other answers frequently pointed by respondents (69%) are "managing intellectual property rights", participation in events and "training the staff in technical aspects of their job".

(B). RELEVANT ACHIEVEMENTS IN THE SECTOR linked to phase:

ii) Business Model Concepts

4.1.B Mark your agreement related to the investment level your company made during the last two years:

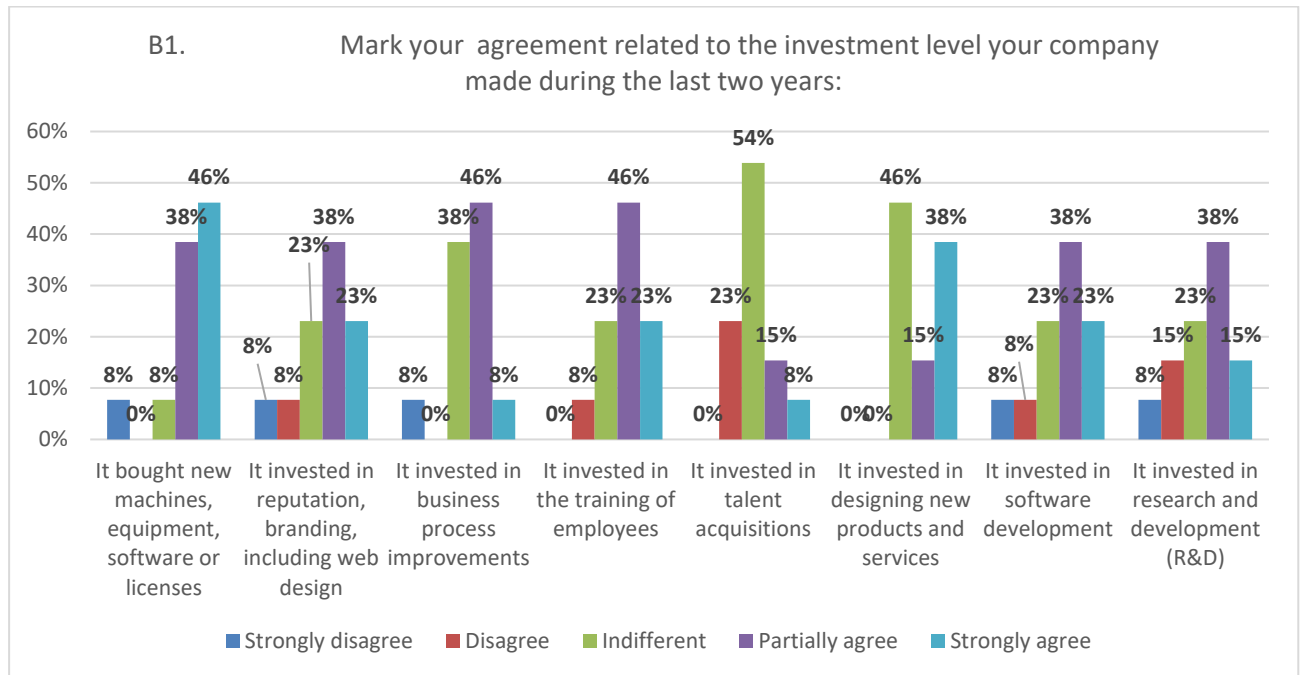


Fig. 13 The agreement related to the investment level of respondents' company

Source: Author's own realization based on the surveyed data

Respondents were also asked to mark their company's agreement related to the investment level during the last two years (fig. 13). The agreements may be analyzed easily if we focus only on the positive answers ("Partially agree" and "Strongly agree"). Figure 14. presents the joint positive answers to the question about the agreements made during the last two years.

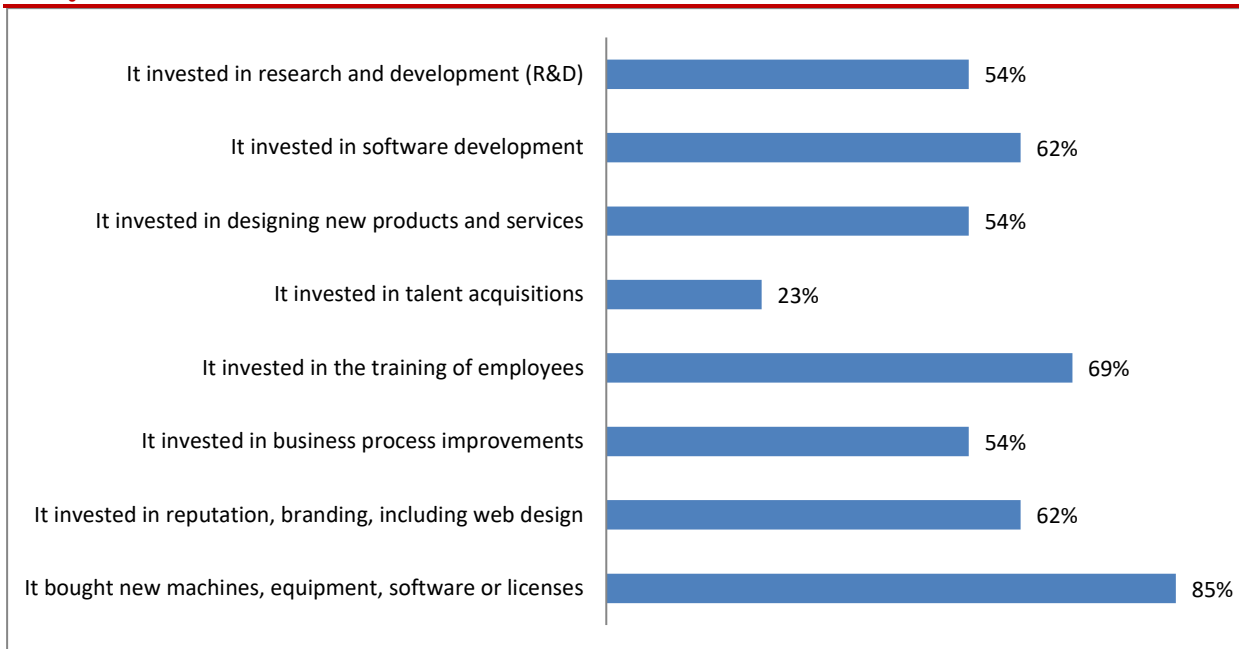


Fig.14 The agreement related to the investment level of respondents' company (joint ranking of answers: "Partially agree" and "Strongly agree")

Source: Author's own realization based on the surveyed data

While analyzing the respondents answers we can see that the most popular types of agreements made by the companies of respondents were investment in (fig. 14):

- new machines, equipment, software or licenses (85%),
- the training of employees (69%),
- the software development and/or in reputation, branding, etc. (62%),
- business process improvements, R&D, and/or in designing new products and services (54%).

4.2.B Has your company introduced any of the following types of innovations in the last two years?

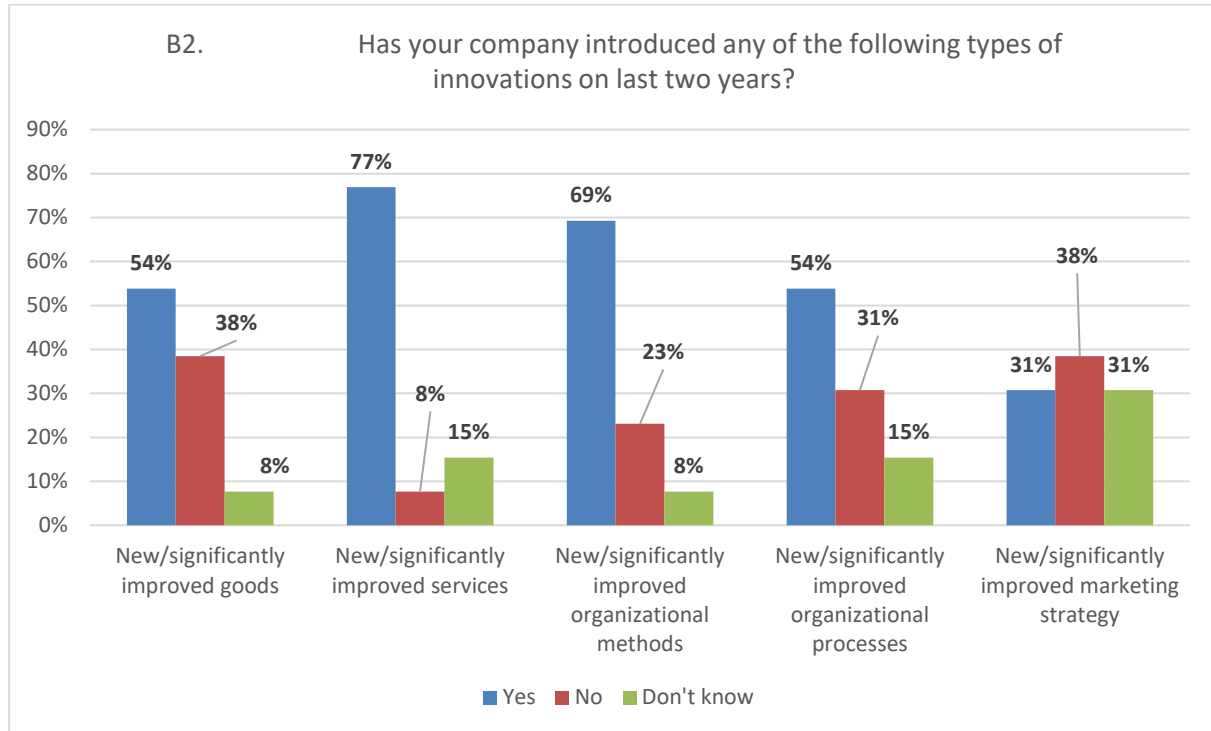


Fig.15 The information about the innovation introduced by the analyzed company in Poland
 Source: Author's own realization based on the surveyed data

It was also interested for the authors, if the respondents' company introduced any types of innovations in the last two years. Figure 15 presents answers to this questions. The largest group of respondents (77%) admits that they introduced new services. The next type of innovation popular in analyzed companies in Poland were new organizational methods (69%). More than 50% of respondents claim their company introduced new goods or improved organizational processes. Only one out of three respondents admits the company improved marketing strategy in last two years.

(C). CHALLENGES AND OPPORTUNITIES linked to phase:
 iii) Enterprise Development

4.1.C Considering your experience, which is the IMPORTANCE/ RELEVANCE of future development DRIVERS for your company/ organization/ business?

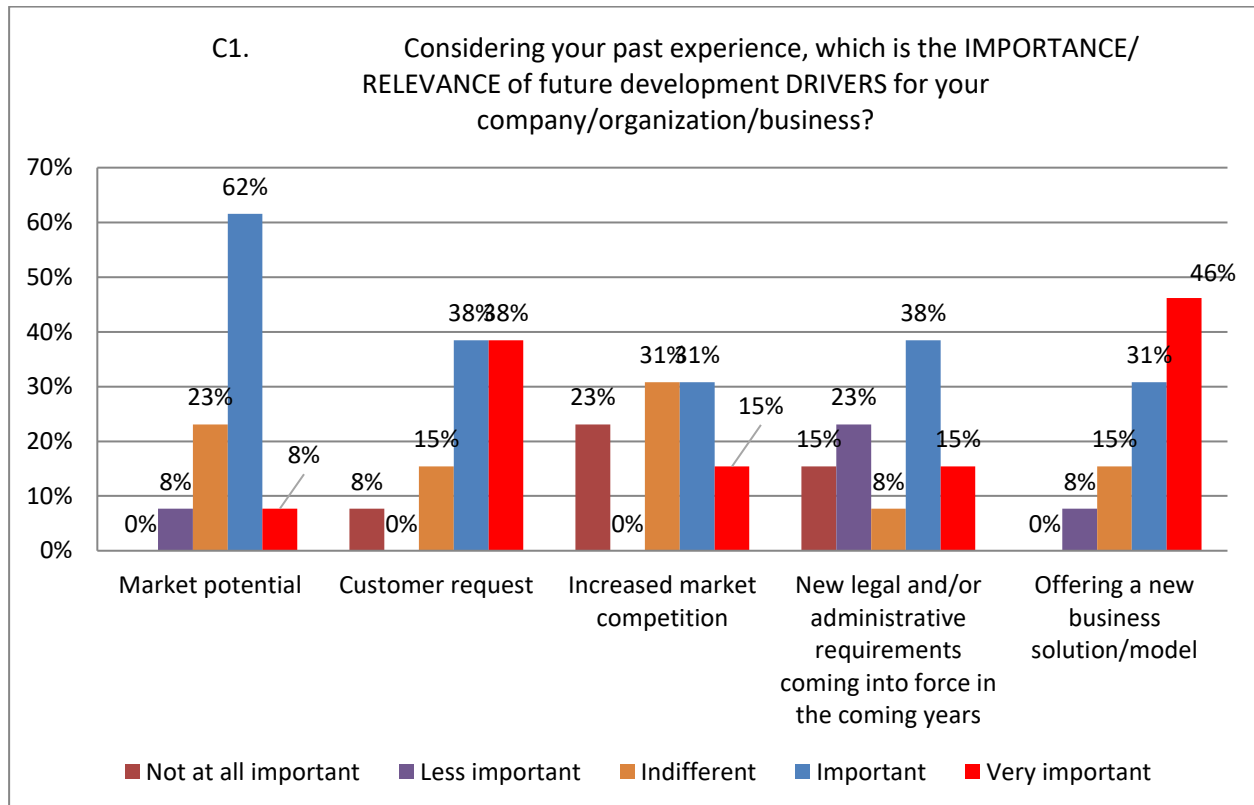


Fig.16 The respondents' opinion on the future development drivers of their company
 Source: Author's own realization based on the surveyed data

Respondents were also asked to mark the possible drivers for their company in the future (fig. 16). Also in this case we present another figure, focusing only on the positive answers ("Important" and "Very important") (fig. 17). We can see, that in respondents opinion, the best drivers for their company are "customer request" and "offering a new business solution/mode" (77%). The next potential factor is the potential of market (69%).

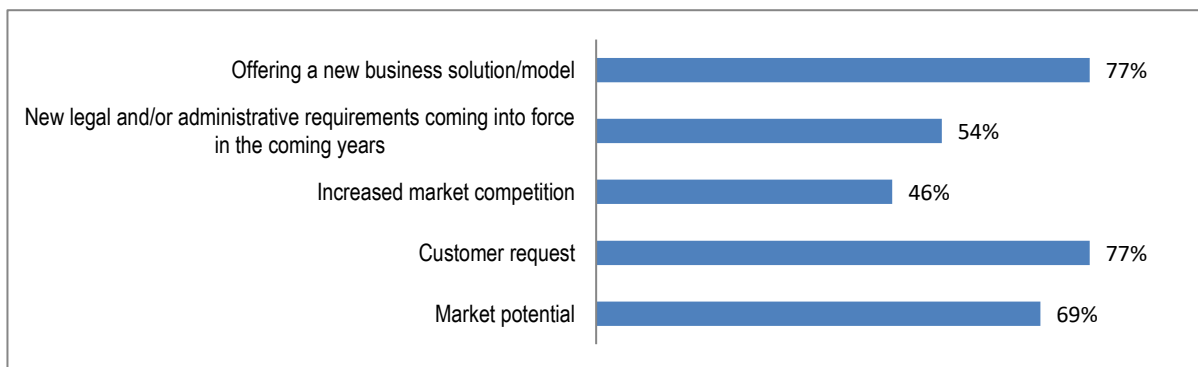


Fig.17 The respondents' opinion on the future development drivers of their company (only positive answers: "Important" and "Very important")

Source: Author's own realization based on the surveyed data

4.2.C Considering your experience, which is the IMPORTANCE/ RELEVANCE of future development BARRIERS for your company/ organization/ business?

As regards the barriers for the respondents' company future development, the respondents' opinion can be found on the figure 18.

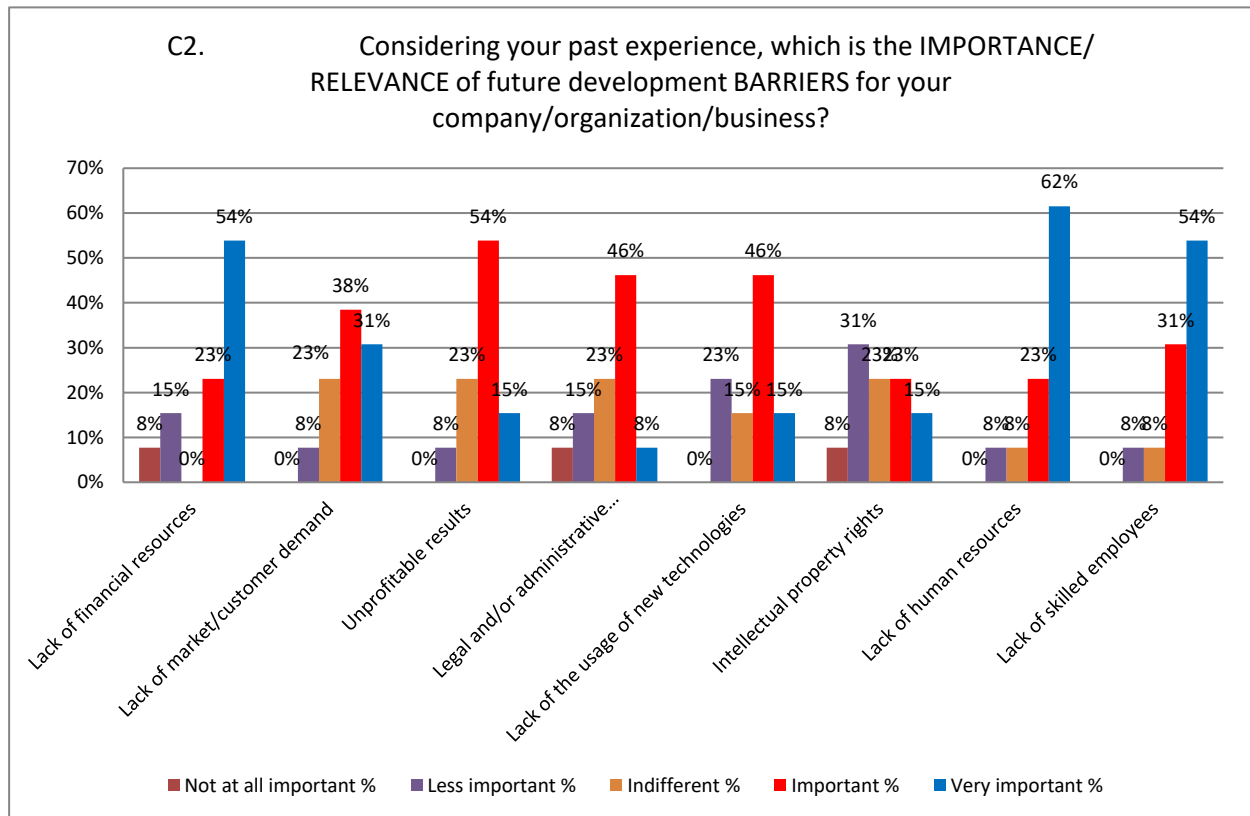


Fig.18 The respondents' opinion on the future development barriers of their company
 Source: Author's own realization based on the surveyed data

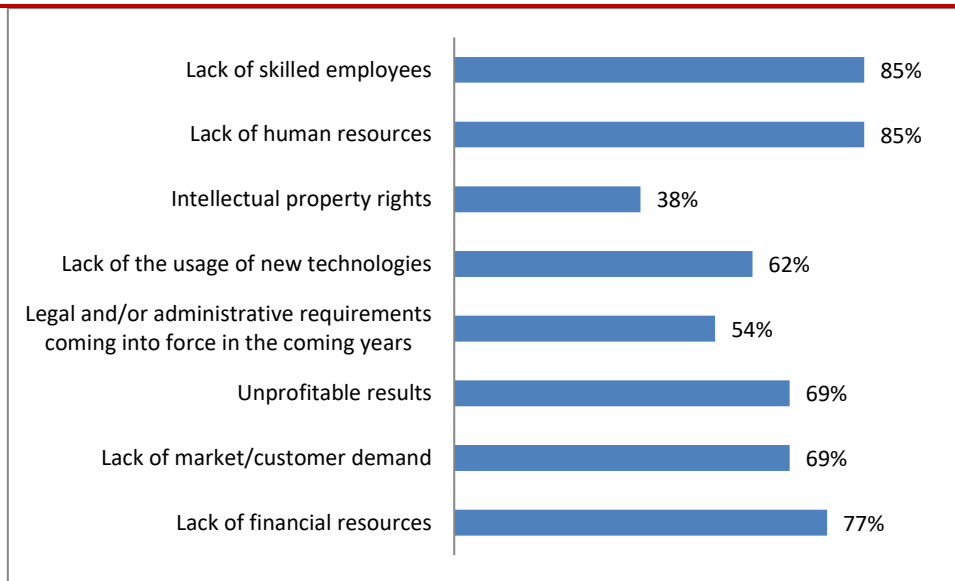


Fig.19 The respondents' opinion on the future development barriers of their company (only important answers: "Important" and "Very important")

Source: Author's own realization based on the surveyed data

When we look only for the ranking of important factors (fig. 19), we can see that in the respondents' opinion the most threatening barriers are:

- lack of skilled employees and/or lack of human resources (85%),
- lack of financial resources (77%),
- unprofitable results and/or lack of market demand (69%).

4.3.C What will be the main actions for the development of your organization in the next period? (max three options)

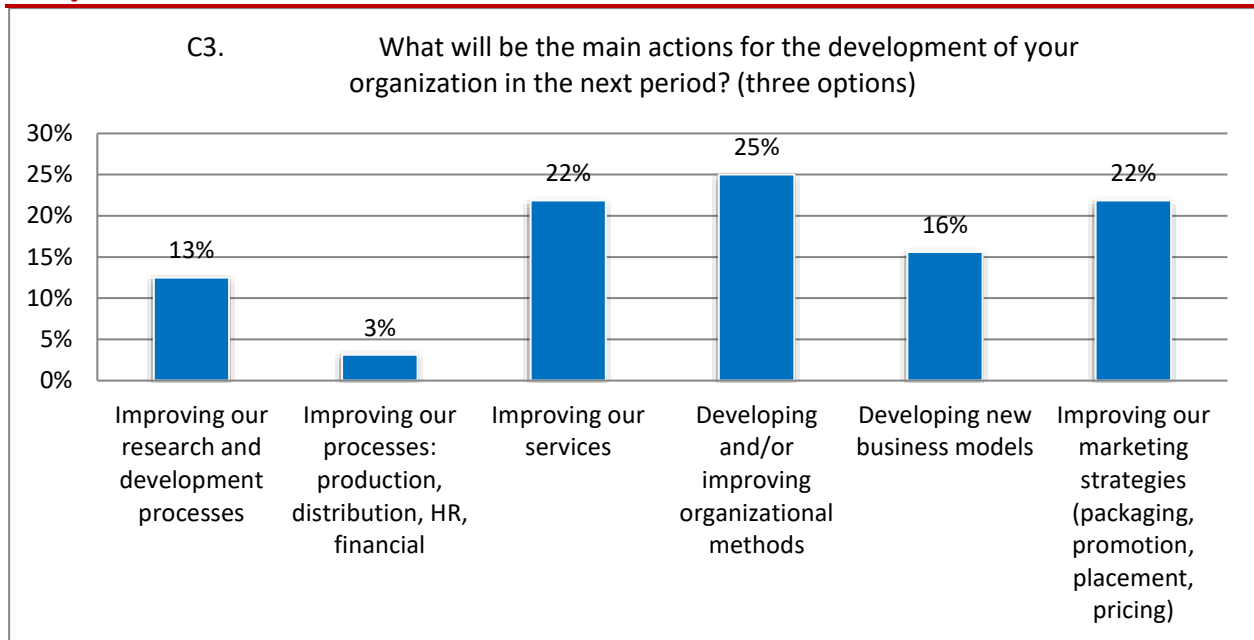


Fig. 20 The respondents' opinion on the future actions for the development their organization
 Source: Author's own realization based on the surveyed data

Ask about the main actions for the company's development one out of four respondent indicated developing or improving organizational methods (fig. 20). Other mentioned actions were improving the services or marketing strategies (22%) as well as developing new business models (16%). Only 3% of respondents indicated they are going to improve the company's processes.

4.4.C In your opinion, which is the **IMPORTANCE** of the young HE graduates' **ATTITUDES** related to the job?

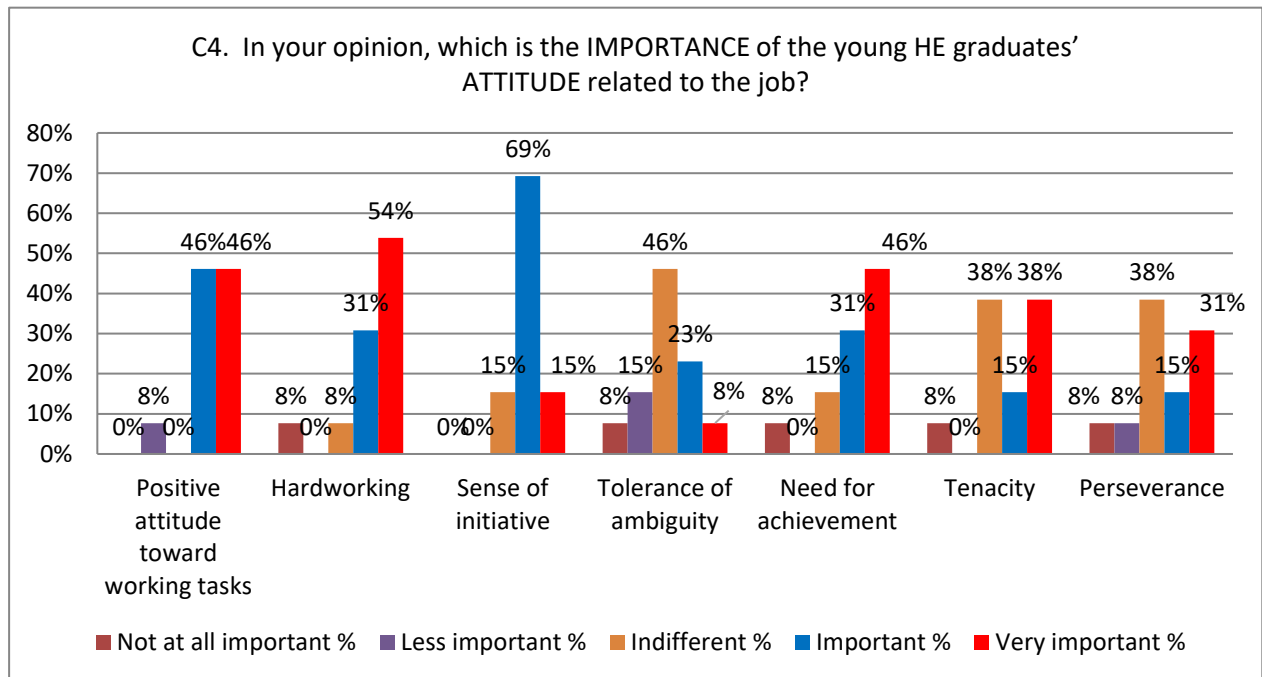


Fig. 21 The respondents' opinion on the young HE graduates' attitude related to the job

Source: Author's own realization based on the surveyed data

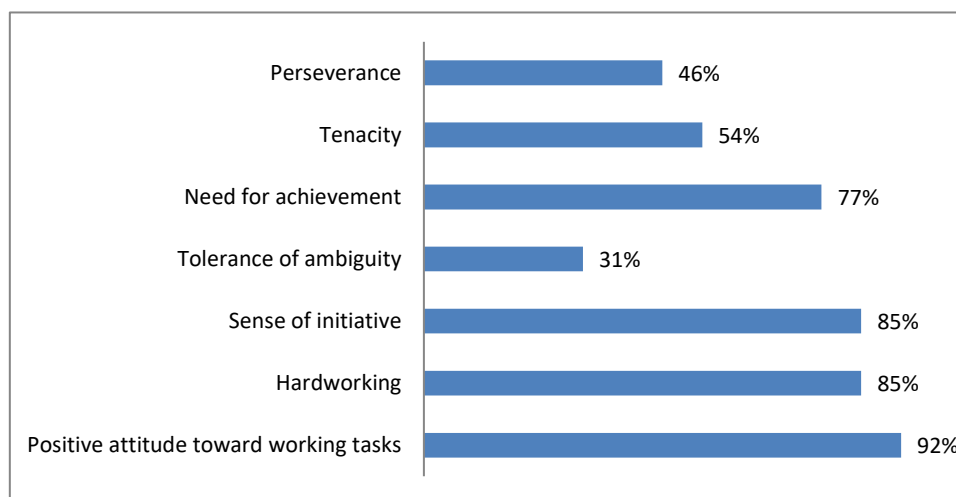


Fig. 22 The respondents' opinion on the young HE graduates' attitude related to the job (only answers: "Important" and "Very important")

Source: Author's own realization based on the surveyed data

Respondents were also asked to assess the importance of the young HE graduates' attitudes related to the job (fig. 21). While analyzing only the important answers (fig. 22) we can see that the most important HE graduates' attitudes to the job in the respondents opinion are positive attitudes towards working tasks (92%). Other important factors are sense of initiative and hardworking (85%). Respondents also indicated need for achievement (77%).

4.5.C Considering your experience as an employer, mark your SATISFACTION LEVEL related to the young HE graduates' ATTITUDES at work.

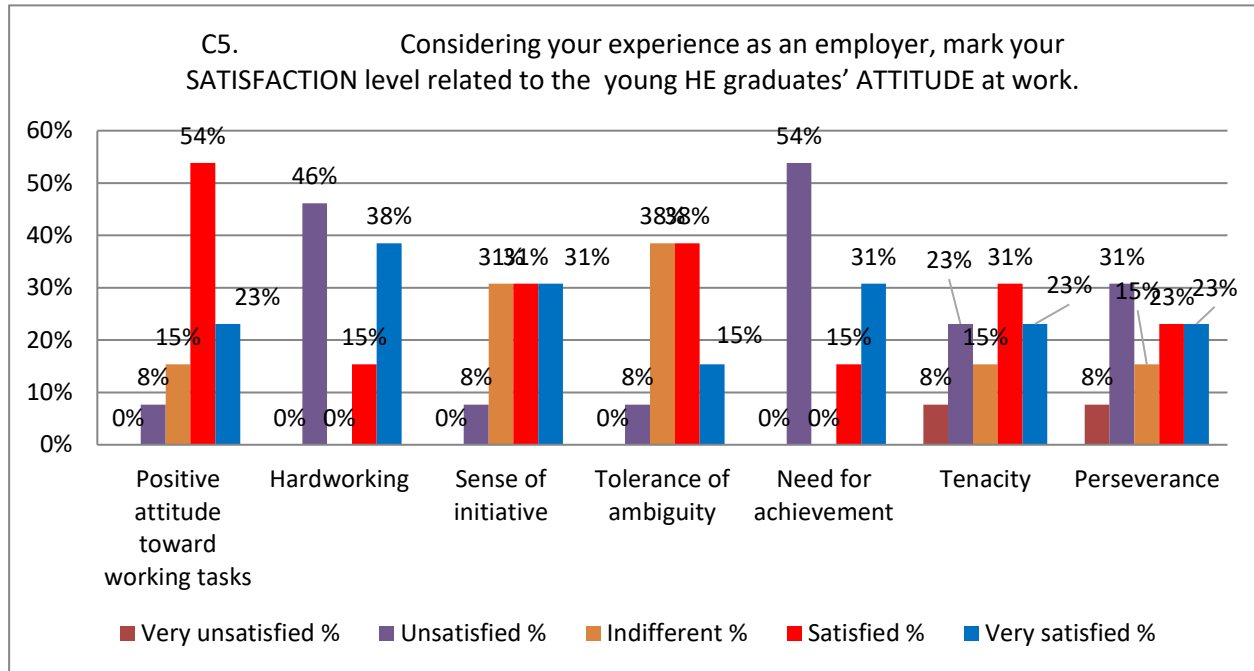


Fig. 23 The respondents' opinion on the satisfaction of young HE graduates' attitude level related to the job

Source: Author's own realization based on the surveyed data

Respondents were also asked to assess the possessing of analyzed attitudes of the young HE graduates' (fig. 23). While analyzing only the positive answers (fig. 24) we can see that the most satisfying HE graduates' attitudes to the job in the respondents opinion are positive attitudes towards working tasks (77%). Other important factor are sense of initiative (62%). More than a half of the group of respondents also indicated hardworking, tenacity and the tolerance of ambiguity (54%).

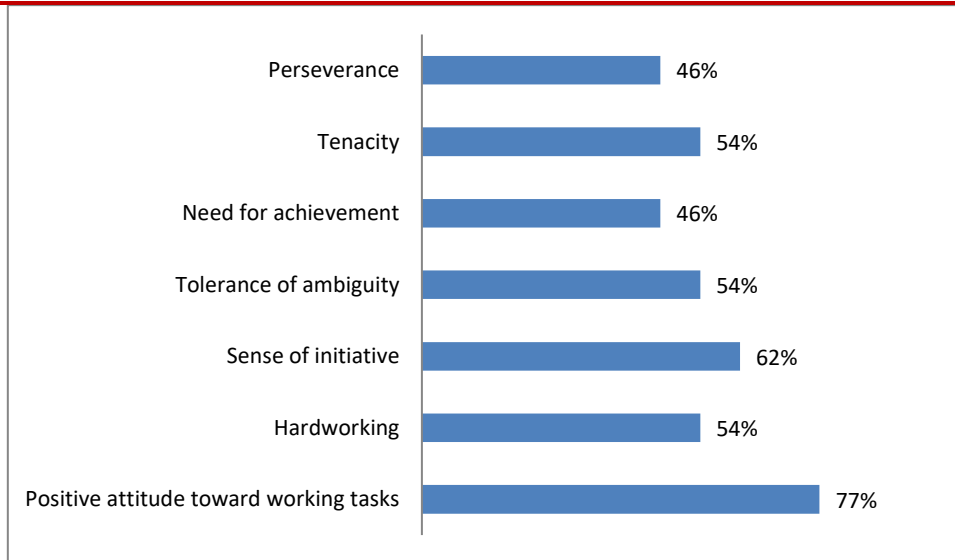


Fig. 24 The respondents' opinion on the young HE graduates' satisfaction level related to the job (only positive answers: "Satisfied" and "Very satisfied")

Source: Author's own realization based on the surveyed data

4.6.C Considering your past experience as an employer, please mark your SATISFACTION LEVEL related to the young HE graduates' SKILLS at work

Figure 25 presents the respondents answers to the question about their satisfaction level related to the HE graduates' skills at work. Also in this case there is a possibility to analyze only the positive answers ("Satisfied" and "Very satisfied").

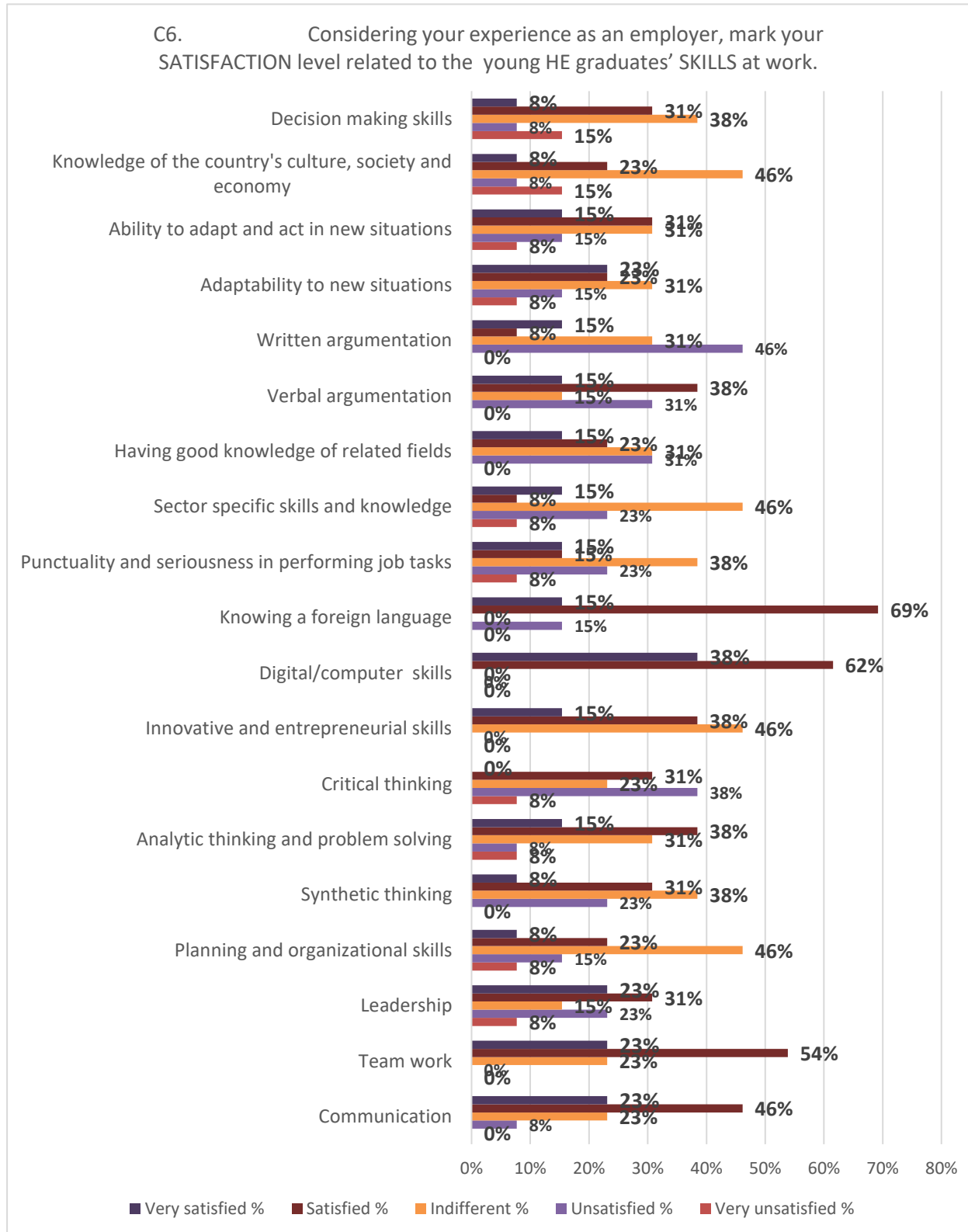


Fig. 25 The respondents' opinion on the young HE graduates' skills related to work

Source: Author's own realization based on the surveyed data

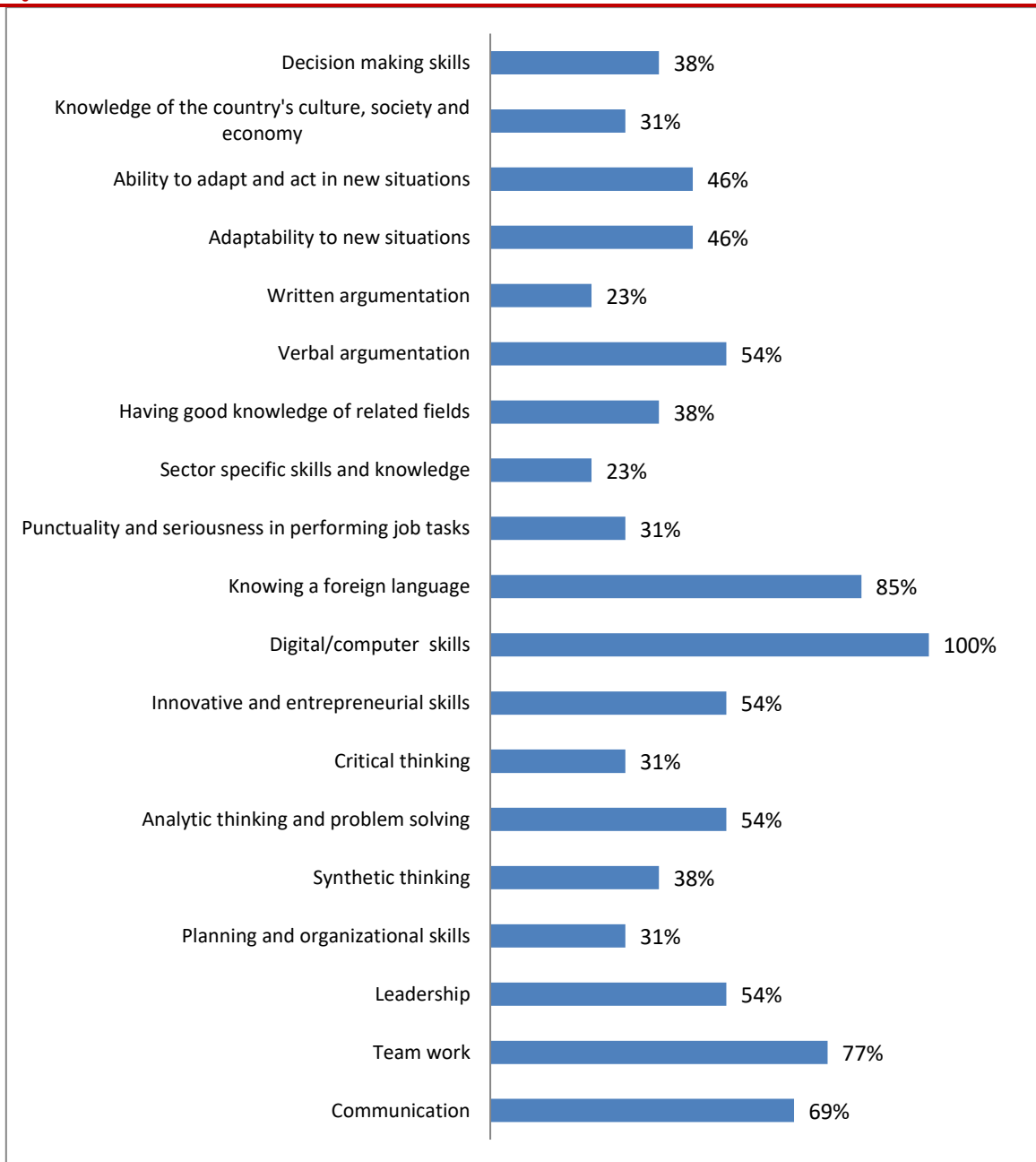


Fig. 26 The respondents' opinion on the young HE graduates' skills related to work (only positive answers: "Satisfied" and "Very satisfied")

Source: Author's own realization based on the surveyed data

As regards the respondents opinion on the HE graduates' skills related to work, all respondents (100%) indicated that the young people possess the computer/digital skills. They also indicated knowledge of foreign languages (85%), team work (77%) and communication skills (69%). More than a half of respondents' group (54%) claimed that young HE graduates possess the skills such as leadership, analytic thinking and problem solving, innovative and entrepreneurial skills and verbal argumentation.

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4.7.C In your opinion, which is the *IMPORTANCE* of the following *CRITERIA* when you are hiring a young, HE graduates.

The next part of the questionnaire contains the questions on the recruiting criteria when young HE graduates are hiring (fig. 27).

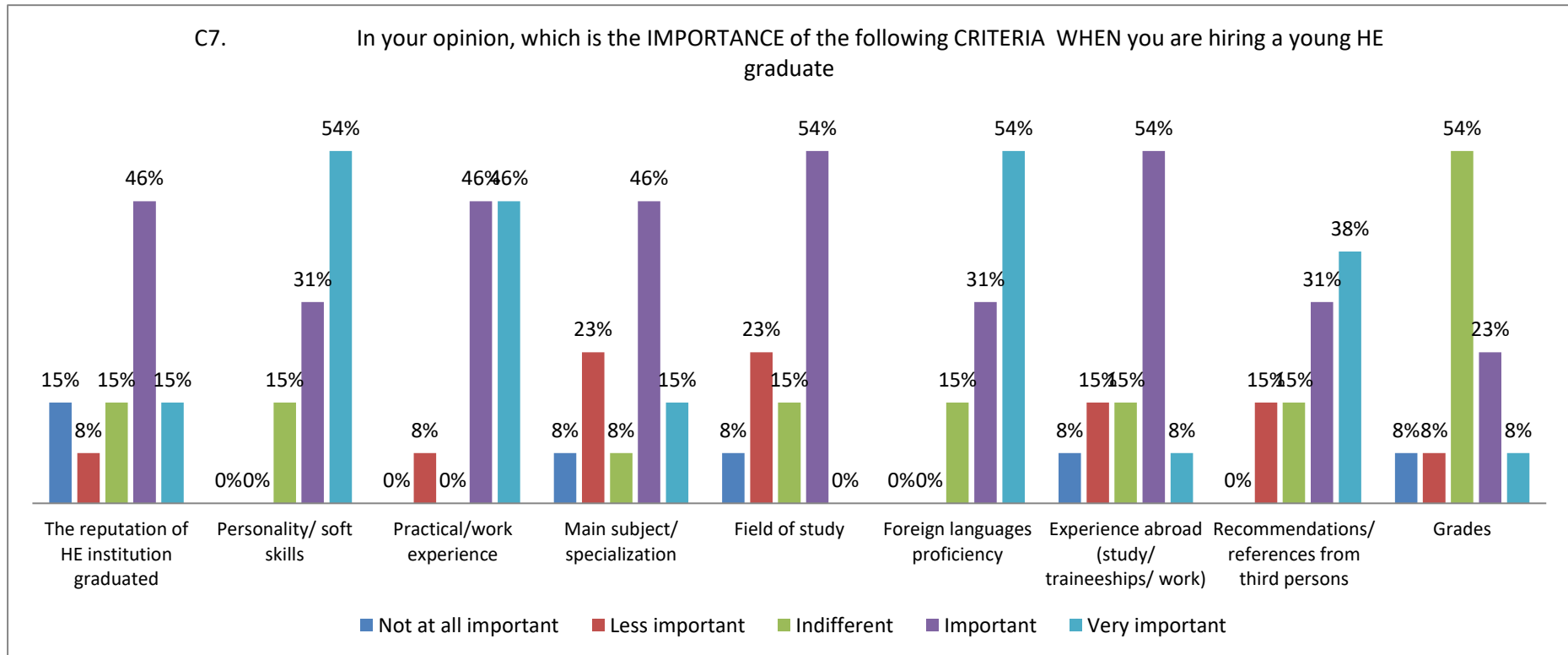


Fig. 27 The respondents' opinion on the importance of the recruiting criteria of HE graduates

Source: Author's own realization based on the surveyed data

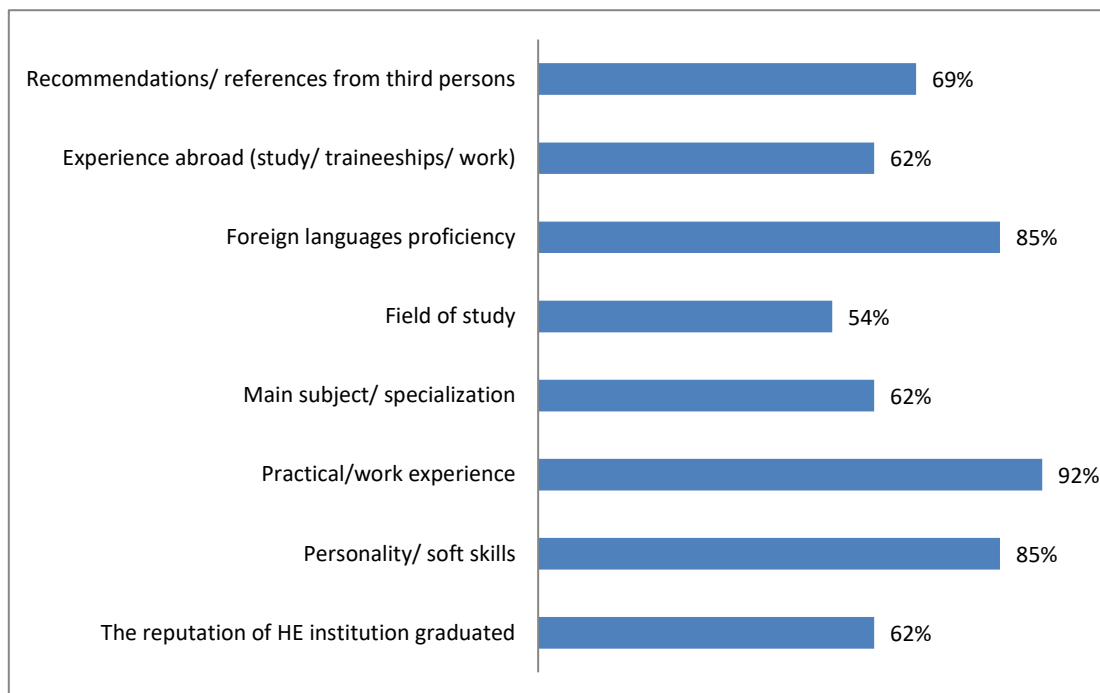


Fig. 28 The respondents' opinion on the importance of the recruiting criteria of HE graduates (only positive answers: "Important" and "Very important")

Source: Author's own realization based on the surveyed data

In the opinion of respondents the most important criteria when young HE graduates are hiring are (fig. 28): practical/work experience (92%), personality/soft skills (85%) and foreign languages proficiency (85%). Important are also recommendations (69%), experience gained abroad, main specialization and the reputation of HE institution (62%).

5. Conclusion from thematic map:

- **one document** with the conclusion from practitioners and professionals, part of the thematic map.

- Overall positive view of business failure is visible, with nearly half of respondents pointing to business failure as only a learning experience that may be beneficial for future endeavors and only 18% pointing that it is perceived as failure that may break career
- Over a quarter of respondents pointed to the answer that in Polish culture business failure is perceived as denotation of lack of entrepreneurial skills – an answer that can be both interpreted as objective approach of role of failure as verification method of one's entrepreneurial abilities, but can be also interpreted as perception of failure as a learning experience that rises awareness of skills needed for future entrepreneurial activities.
- Despite relatively positive cultural perception of business failure fear of failure is the most significant barrier pointed to by respondents, both among first barriers in order of importance and in joint ranking. Even if failure is culturally perceived as learning experience and therefore even positive step in developing entrepreneurial endeavor it's still one feared of and strongly preferred to be avoided. As fear of failure is perceived as the most significant barrier to entrepreneurship it should be reflected in entrepreneurial education curriculum.

- Among most important barriers the dominant ones are those of internal character: fear, lack of skills, experience or business idea. The external and objective factors are of secondary importance. Provided answers reflect respondent's high self-awareness regarding need for knowledge, skills and information. That stresses the need of proper entrepreneurial education that would allow for development of necessary abilities, skills and attitudes.
- Relatively high perception of lack of business idea as an important barrier for entrepreneurship may reflect high market maturity and awareness of respondents regarding need for business innovation. It stresses importance of including design thinking in entrepreneurial education curriculum.
- The most common negative factor pointed by respondents is lack of human resources with 92% of overall occurrence. This indicator can reflect both the low level of unemployment, as well as general lack of availability of high quality human resources. Confirmation can be found in steadily rising wages, especially among specialist in IT sector, whose knowledge and services could be crucial for many new innovation-driven enterprises. It is possible that inclusion of HR practices may be a valuable addition to entrepreneurial curricula that would benefit future growth of established enterprises.
- High perceived market competition requires to include in entrepreneurial education variety of tools for developing innovative business ideas, models, and innovative products.
- The common perception of occasional administrative/legal burdens as negative factor call for inclusion of basic legal preparation in entrepreneurial education curricula.
- High perception of investment in research and development and product/services market testing as reliable solutions for business development obstacles may represent the need for innovation development as the way of dealing with competitive markets. It could be confirmed be also strong belief put into design of new product/services and improvement of company's internal processes as possible solutions.
- Relatively low perception of training of staff on entrepreneurship contrasts with above and may be result of perception of entrepreneurial activity as limited only to activities related with establishing the company or ones done only by higher management, therefore limiting entrepreneurial potential available in existing companies. Rising awareness of potential benefits of intrapreneurship may be necessary component of entrepreneurial education to free this hindered potential.
- Highest level of investment is connected with "hard" investments – buying new machines, equipment and software, followed by necessary employee training. Investments in R&D and new products or services that can be innovative are secondary to those aforementioned.
- Despite common problems with human resources talent acquisition is rarely pointed among investments. Probably companies prefer to invest in own current employees through necessary training that is pointed as second most common investment.
- Overall strong trend for introducing innovation is visible, with especially in the area of new services and organizational methods. The smallest number of respondents introduced innovation during last two years in area of marketing strategy, but it may be caused by long-term strategical approach. In general it is possible to observe than majority of respondents decided to introduce innovation that would both affect products or services or have internal nature.

- It is possible to observe that respondents are more than aware of potential of new business models and customer requests as future drivers of company growth. Design thinking may be crucial to provide skills to develop such models and ability to provide for future customer needs.
- High number of responses related with market potential may reflect positive predictions regarding future market growth and therefore should have negative impact on perceived probability of failure and fear of failure.
- The main perceived barriers for future company development are ones related with availability and quality of human resources followed by availability of financial resources – that's reflect general positive perception of future market and company's development
- Despite common perception of availability of human resources as both existing and potential future barrier for company development only 3% of respondents pointed to improvement of internal processes including HR processes as development action undertaken in next period.
- In general respondents pointed to positive attitude toward working tasks as much more important attitude related with job than tenacity or perseverance. It seems that the positive attitude, sense of initiative and hardworking are most demanded attitudes. Such attitudes are more connected with undertaking new tasks and endeavors with possible different results. In contrast tenacity and perseverance are connected with finishing or supporting existing tasks.
- Respondents pointed the highest satisfaction levels regarding young HE graduates attitudes at work at positive attitude toward working tasks, sense of initiative and hardworking – the same three attitudes they found as most important.
- Apart from the written argumentations skills, sector specific skills and knowledge, critical thinking and punctuality and seriousness in performing job tasks respondents show satisfaction with HE graduates skills level at work. Except for sector specific skills and knowledge those skills require special attention when considering construction of HE curricula.
- Additionally, future HE graduates should be equipped with better skills in the areas of planning and organizational skills, decision making skills and synthetic thinking to meet market expectations.
- It is possible to observe general satisfaction of employers with computer and foreign language skills, interpersonal skills as communication and teamwork, although satisfactory are second to those.
- Main area of potential improvement of HE graduates skills is mostly in the area of critical and synthetic thinking and decision making skills – a set of skills that may be increasingly required by the future market and more responsible and independent work tasks.
- Surprisingly respondents pointed to areas directly connected with HE (grades, reputation of HE institution, field of study, specialization) as least important recruitment criteria, while the most important being practical experience, foreign language proficiency and personality and soft skills. As foreign language proficiency of HE graduates is highly rated by employers the additional care in construction of future curricula should be put on inclusion of practical experience and soft skills development.

Project Title: **Innovative Student-Centred Learning (SCL) Practices fueled with ITC-tools and university – industry cooperation towards reinforcement of Business & Engineering Entrepreneurships education – "InoLearn 4 BEEs"**
Grant Agreement: 2017-1-RO01-KA203-037145

Progress:

- All intermediate versions are analyzed and checked by the Quality Team of the consortium
- The final quality check is assessed against the planned values of the quantitative and qualitative indicators associated, by the Quality Team.