



Global University Entrepreneurial Spirit Students' Survey

# GUESSS

## National Reports



### STUDENT ENTREPRENEURSHIP IN THE CZECH REPUBLIC 2021

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## **Introduction**

- *The aim of the research and the purpose of the report.*
- *About the GUESSS project: essential information*
- *Research methodology.*

The report mainly presents the results of the analysis of national data of the GUESSS survey conducted in 2021. These were a meaningful comparison with the GUESSS 2018 and 2016 surveys when universities in the Czech Republic joined the “Global University Entrepreneurial Spirit Student Survey” (acronym GUESSS) for the first time.

GUESSS research aims to discover unique to unique views on business from the point of view of university students. The research examines several topics, such as business plans, nascent business, growth and performance of new businesses, the sequence of the family business. It is essential to examine the factors that influence the subsequent involvement of students in business at the levels:

- Individuals: motives, preferences, social identity
- Families: family structure, family relationships
- University environment: business education, business climate and learning
- Context: societies, cultures and institutions (GUESSS, 2021).

The survey builds on previous surveys, and essential topics are repeated (e.g. intentions in the profession, variables related to the university, theory of planned behaviour, demography, etc.). At the same time, each survey reflects the current state of social events in a given period. Therefore, in addition to questions related to the choice of employee and business profession, the university's relationship to entrepreneurship or family business experience, the 2021 survey also includes questions about universities and their sustainable development goals, or how respondents perceive career risks and touch on the topic of COVID-19.

As one of the liveliest research topics in business, the survey's main focus in the case of active entrepreneurs in business well-being has been newly added. The team has been dealing with this topic at the TUL Faculty of Economics since the beginning of its involvement in the GUESSS survey. The research was also extended about the social identity of the company's founder.

This report summarizes the preliminary results of the data analysis from the GUESSS 2021 survey conducted at universities in the Czech Republic. The extended data analysis will be published subsequently. Data collection was launched in February 2021, after about a year of preparation, which includes the development of surveys at the international level by the core team and the organization and involvement of national teams, including the translation of the questionnaire into the national language.

The GUESSS survey has been conducted approximately every two years since 2003. The research was launched at the Swiss Institute for Family Business and Entrepreneurship in St. Gallen. The Faculty of Economics of the Technical University in Liberec has been providing analysis at universities in the Czech Republic since 2016.

The last ninth wave of GUESSS data collection occurred in early 2021 with a new record number: 58 countries were involved, and 267,366 completed responses were collected. For comparison, in 2018, 208,636 respondents from 54 countries completed the survey. In 2016 (the first survey involving the Czech Republic), approximately 122,000 responses were received from 50 countries. The involvement of respondents from the Czech Republic since 2016 is in Table 1.

**Table 1: Involvement of respondents in the Czech Republic 2016 - 2021**

	GUESSS 2016	GUESSS 2018	GUESSS 2021
Number of respondents for the Czech Republic with complete answers	1135	1254	1971
Number of universities involved	9	8	11

Source: Own processing

From the GUESSS 2021 survey for the Czech Republic, 1971 fully completed questionnaires were obtained from students from 11 universities, including the guarantor of the study of the Technical University of Liberec (further according to the number of respondents), University of West Bohemia, Brno University of Technology, Tomas Bata University in Zlín, Jan Evangelista Purkyně University, University of Chemistry and Technology, Masaryk University, Technical University of Ostrava, University of Hradec Králové, Prague University of Economics and Business (VSE) – Faculty of, Business Administration, Charles University. The authors addressed all universities in the Czech Republic, but just the universities mentioned above agreed to join the survey.

The Faculty of Economics of the Technical University team would like to thank all the institutions involved in the research.

### **Research methodology**

The international survey is organized by the Center for Family Business at the University of St. Gallen in collaboration with the EY Family Business Center of Excellence. The survey is based on filling in a questionnaire available to respondents online. All university students were able to take part in the survey, and data privacy was ensured. The primary team started the survey development at the beginning of 2020, the input file for collecting ideas was uploaded to the system on 31 May 2020. The national teams turned to 30 June 2020. The preparation of language versions of the questionnaire followed by individual national teams. On January 17, 2021, a link was sent to the final version of the national online surveys. The start of data collection has been made possible (the actual opening is flexible with the study plans of universities in individual countries) from February 2021.

Invitations to the survey are then sent to GUESSS teams (one for each country), who forward them to their students and relevant university partners. They will then deliver it to their students. The average time to complete the questionnaires should be around 10 to 15 minutes. The data is collected, stored and prepared by the primary GUESSS team.

The survey in the Czech Republic was conducted in the Czech language. In the first phase of the evaluation, descriptive statistics for the Czech Republic were compiled, presented in this national GUESSS report. Automated procedures used to find relationships in data using the data mining method were used to process the research outputs. Data analysis was performed in IBM SPSS Modeler and IBM SPSS Statistics.

The research report is divided into eight chapters. The introduction to each chapter defines the key terms (with the question number, e.g. Q1) on which the text of the chapter focuses.

# 1 Theoretical background

- *Student entrepreneurship*
- *Universities and goals of sustainable development*
- *Perception of career-related risks (Career choice and willingness to take the risk)*
- *Family business*

The main topic of GUESSS international research is the entrepreneurial spirit of young university-educated people. Many young college students have some dream ideas or innovative ideas. Still, few have the capacity and ability to turn it into reality or even start their own business (student entrepreneurship). One reason is that they do not have sufficient skills to run a business. Young students need motivation and support, not least financially, from many stakeholders such as the government, universities, family and friends. Motivation, opportunity, resources and entrepreneurial skills or abilities are necessary factors for implementing innovations.

The university environment plays a significant role in innovation, both in knowledge production and its dissemination in society following sustainable development goals. Another critical factor is the background/environment influenced by the government, which is responsible for tax policy and the business climate; the third part of the innovation process belongs to the institutions/companies involved. These three institutional spheres, public, private and academic, are the Triple Helix system. The concept of the triple helix of relations between universities and industry and the government was developed in the 1990s by Etzkowitz (1993) and Etzkowitz and Leydesdorff (1995). The role of universities is inevitable - students bring their ideas, the imagination with which they break down stereotypes, companies have the part of experience and resources, the government influences the scope for synergy. From the point of view of systems theory, this model is defined as a set (Carlsson and Stankiewicz, 1991; Carlsson et al. 2002; Edquist 2005; Bergek et al. 2005) containing:

- Components: institutional spheres of universities, industry and government, each of which includes a wide range of actors;
- Relationships between components: cooperation and conflict moderation, collaborative leadership, substitution and networking;
- Functions: described as a set of activities specific to “Triple Helix Spaces”: Spaces of Knowledge, Innovation and Consensus.

The state of the innovation ecosystem in the regions is essential for developing innovation at the international and national levels. The term ecosystem is used in the field of the environment, where it is defined in the Act of the Czech Republic No. 114/1992 Coll. on nature and landscape protection (see Ministry of Industry and Trade, MPO.cz, 2019): “An ecosystem is a functional system of living and non-living components of the environment, which are interconnected by substance exchange, energy flow and information transfer and interact with each other, and develop in space and time”. The concept has also begun to be used in the context of the knowledge ecosystem. Like the natural ecosystem, it is disappearing and emerging or being replaced and evolving and replacing knowledge, as exemplified by Silicon Valley (Bahrami, 2000). The innovative ecosystem introduced by society can be perceived as a business model that allows diversifying the risks of the innovation process (i.e. the successful commercialization of innovative internal and external incentives). This will spread the innovation risk to an acceptable level among the various components of the business ecosystem, potential investors, and researchers in implementing science or similar research results.

The global Covid pandemic is one example of a rapidly changing business environment and has highlighted the need for an innovative ecosystem to be prepared for crises. This fact directly affects individual economic entities in a given environment. Therefore, its analysis is necessary to define the essential opportunities and threats in business. The business environment can be determined by space and time. Within the decision-making process of entrepreneurs, various factors emphasize the macroeconomic level (confrontation with risk at the state level) and the other at the microeconomic level (conflict with risk at the company level). Decisions are then influenced by the conditions under which they are made, whether under conditions of uncertainty/uncertainty/risk. The observed concept of risk is mainly associated with the issue of decision-making under uncertainty. Rotariu and Ferer define uncertainty as a state in which a decision will bring future problems, but the probabilities and manifestations are unknown (2008).

Defining the concepts of uncertainty and risk is a broad topic. In this research report, the risk is defined according to Douglas (2007) as “a state of uncertainty where some of the options involve a loss, disaster or another adverse outcome”. Focusing on the risks associated with business, two essential areas of processes can be defined in time: the beginning/end of business activities and the pursuit of market success (Rotariu, Feder, 2008). In this context, it

is necessary to draw attention to the findings of Gabriel Linton (2019), who, in his work, demonstrates the diversity of approaches to the evaluation of business orientation through the dimension of process and outcome. Both measurements are then evaluated in terms of innovation, risk and proactivity. GUESSS research is interested in students who are already in business or planning to start a business, are considering a more employee regime, or have decided to get involved in a family business.

Family businesses are often based on continuity across generations, and these young family members could be a source of innovation. They can help companies navigate and adapt in a rapidly changing economic and business environment and be very important in new challenges. This was shown, for example, by the need for digitization, which was accelerated by the COVID virus crisis. Modern technologies, e-commerce and the use of information and communication technologies (ICT) are growing and provide new opportunities to stay in touch with customers. These young family members are a crucial part of these innovative and educational processes. Within the research report of the “GUESSSurvey”, the definition according to Zellweger can be given for the description of the family business: “*A family firm is a firm dominantly controlled by a family with the vision to sustain family control across generations potentially.*” (2017, pg. 22).

## 2 Demographic information about the sample

- *Information about the study respondents (Q1) and*
- *Personal information (Q6) – Year of birth (age), gender, marital status, nationality (average/distribution)*

The chapter summarizes the primary demographic data on the respondent sample of the survey GUESSS 2021 for the Czech Republic. Table 2 shows the frequency of completed university questionnaires.

**Table 2: University by sample GUESSS 2021 – CZE**

University	Frequency	Percent
University of West Bohemia	863	43,8
Technical University of Liberec	602	30,5
Brno University of Technology	203	10,3
Tomas Bata University in Zlin	122	6,2
Jan Evangelista Purkyně University	73	3,7
Masaryk University	29	1,5
University of Chemistry and Technology	29	1,5
Technical University of Ostrava	28	1,4
Other	11	0,6
University of Hradec Králové	8	0,4
VSE – Faculty of Business Administration	2	0,1
Charles University	1	0,1
<b>TOTAL</b>	<b>1971</b>	<b>100,0</b>

Source: Own processing

The most common main fields of study of respondents include economics, informatics / IT and business/management. A comparison of study fields in 2016, 2018 and 2021 are shown in Table 3. In all surveys in the Czech Republic, it is possible to state a similar representation of study fields. In terms of the degree of study at the university, undergraduate (Bachelor level) students prevailed 69%, graduate (Master level) 29% and doctoral (PhD) 2%. In terms of the representation of respondents' nationalities, we can see that 62% of respondents said Czech nationality, 3% Slovak nationality, 33% of respondents stated no nationality, and the "other" most frequently mentioned nationalities (2%) included: German, Ukrainian and Russian. In the case of gender representation, about 60% were female, 39% were male, and about 1% of the respondents did not specify sex. The age of the respondents was mainly in the range of 21 to 24 years (79% of respondents); see Table 4.

**Table 3: Comparison of main study areas of respondents in the survey (2016–2021) CZE**

GUESS survey		2016		2018		2021	
Field of study		Count	Percent	Count	Percent	Count	Percent
Arts / Humanities (e.g. linguistics, cultural studies, religion, philosophy, history)		58	5	82	7	165	8
Engineering (incl. computer sciences and architecture)		227	20	286	23	327	17
Human medicine / health sciences		46	4	67	5	120	6
Law & Economics (incl. business sciences)		528	47	525	42	879	45
Mathematics and natural sciences		54	5	47	4	77	1
Science of art (e.g. art, design, dramatics, music)		40	4	39	3	82	7
Social sciences (e.g. psychology, politics, educational science)		28	2	87	7	194	10
Other (for instance, tourism or nanotechnology...)		153	13	121	10	127	6
TOTAL		1134	100	1254	100	1971	100,0

Source: Own processing

**Table 4: Year of birth of respondents (GUESS 2021)**

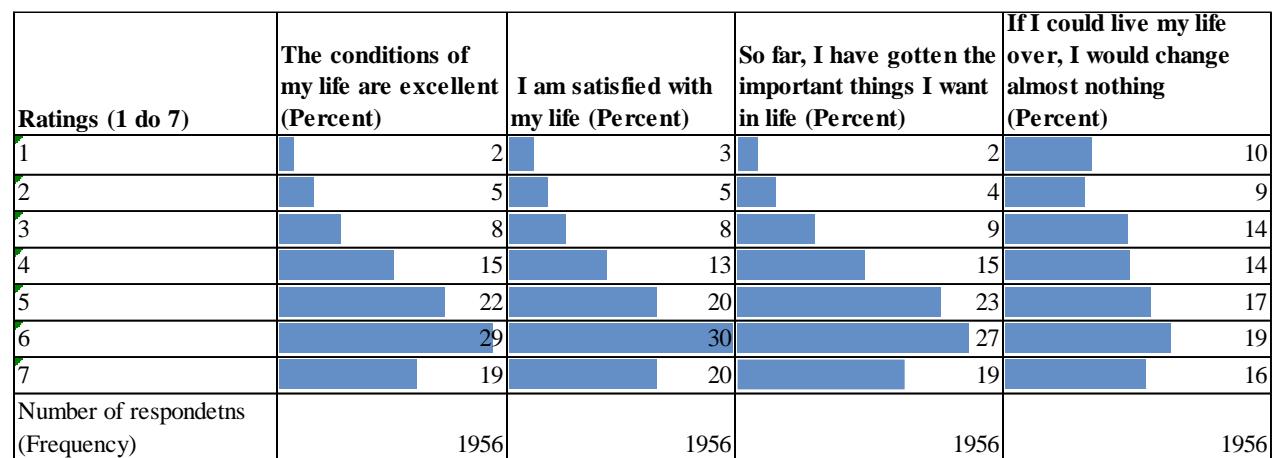
Year of the birth	Frequency	%
2000	403	20,4
1999	325	16,5
1998	245	12,4
2001	219	11,1
1997	210	10,7
1996	150	7,6
1995	87	4,4
1994	45	2,3
1993	19	1,0
1989	14	0,7
1992	12	0,6
1981	10	0,5
1991	10	0,5
1978	7	0,4
1988	7	0,4
Other	67	3,4
Missing	141	7,2
TOTAL	1971	100

Source: Own processing

Personal information about the respondents was further supplemented by an assessment of the so-called subjective well-being.

Five statements were asked to evaluate to determine students' subjective well-being, and students had to express themselves on a Likert scale from 1 to 7 (1 = strongly disagree, 7 = strongly agree). See Table 5.

**Table 5: Personal information (GUESSS 2021)**



Note: The average score for students in the Czech Republic is 5.44; 5.00; 5.10; 4.41

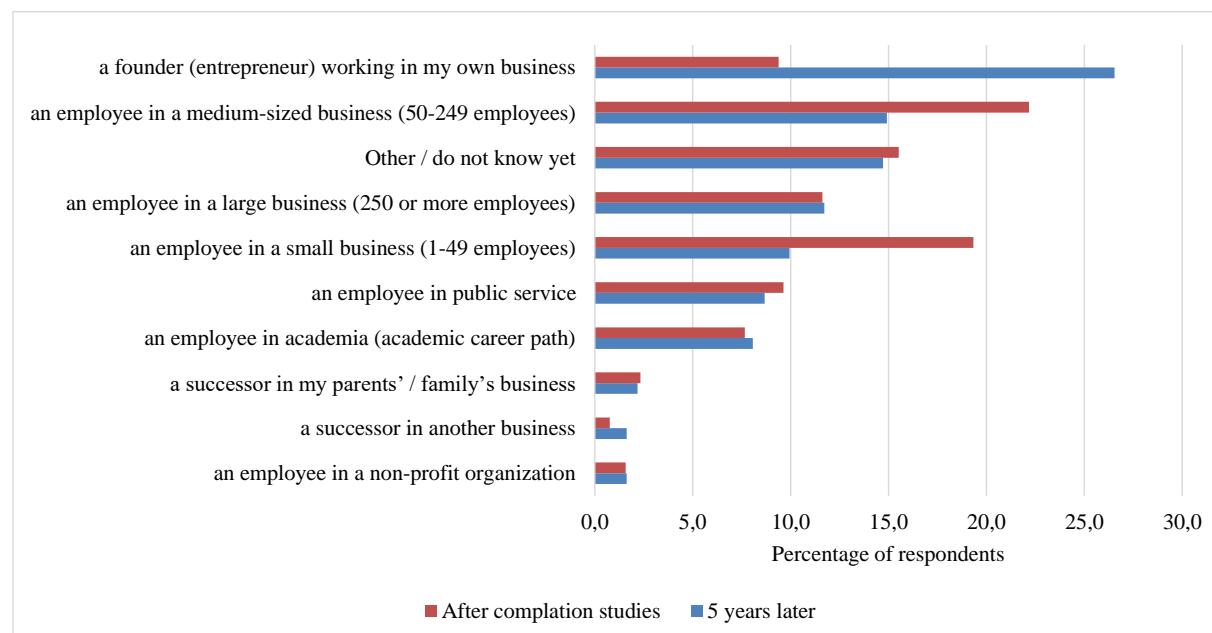
Source: Own processing

### 3 Career choice intentions / entrepreneurial intentions

- General overview (Q2)
- The proportion of nascent and active entrepreneurs
- Willingness to take risks

First, look at the respondents' answers to the question: Which career do you intend to pursue immediately after graduation, and which 5 years later? See data for the Czech Republic in Figure 1.

**Figure 1: Career path of the respondents GUESSS 2021 – CZE**



Source: Own processing

In the case of aggregation of data into four categories, a) employee, b) entrepreneur, c) successor and d) undecided, the same idea of career can be given in categories c) and d).

As can be seen from Table 6, in the Czech Republic, students would choose a career as an employee rather than an entrepreneur in 2021, both after graduation and in the future (5 years after graduation), similar to other countries. Similar results were found in the GUESSS 2016 and 2018 surveys (Antlova et al., 2016, 2018).

Let's compare the countries regarding the so-called intentional founders (respondents from all 58 countries involved in the GUESSS 2021 survey). It is a more frequent choice for university students in developing countries. It is necessary to draw attention to the fact that the data obtained cannot be generalized. The samples of 58 countries vary considerably in size,

number, types of universities involved, students, demographics, etc. Nevertheless, we can see that students in developed countries prefer employment (GUESSS, 2021, Pg. 7).

**Table 6: Career path right after studies and after 5 years later in the CZE and across countries (2021, 2018, and 2016)**

	GUESSS 2016				GUESSS 2018				GUESSS 2021			
	Directly		5 years later		Directly		5 years later		Directly		5 years later	
	Czech Republic	Across countries										
Employee (%)	75	80	52	47	83	79	53	50	72	65	55	53
Founder (%)	6	9	28	38	6	9	31	35	9	18	26	32
Successor (%)	1	3	4	5	2	2	6	4	3	2	4	3
Other/Do not know yet (%)	18	8	16	10	9	10	10	11	16	15	15	13

Source: Own processing

### 3.1 Share of nascent and active entrepreneurs

In addition to choosing a future career, students also commented on the current state of their business experience. In the sample from all countries, 28.4% of students stated that they decided to start a business and be self-employed during their university studies (designation **NASCENT entrepreneur**). In the Czech Republic, 21% of respondents said they were starting a business. Roughly 14% of Czech students (NASCENT) stated that their start-up project arose as part of activities at the university, about 86% said that their business plan was not related to the university environment. In a survey across all countries, up to one-third of students reported their business project-university relationship. 44% of nascent entrepreneurs for respondents in the Czech Republic plan to complete founding a business (i.e. its actual establishment) no later than the end of their studies.

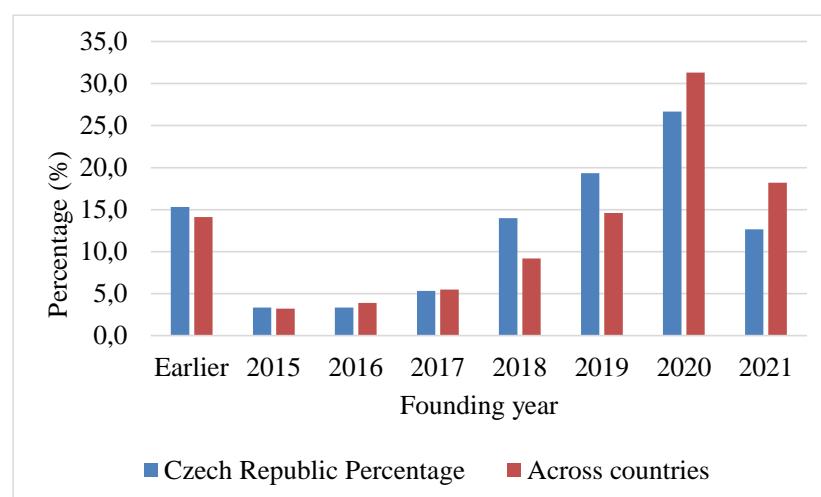
Roughly 50% of them (NASCENT – Czech Republic) also said they wanted this business to become their main job after graduation. I.e. approximately the same proportion as for the whole sample of respondents across all countries. Regarding the number of founders (Czech Republic), 53% of NASCENT respondents plan to start a business without partners, 35% with one co-founder and two or more co-founders mentioned 12%. When asked, “Do you plan to create this business largely because of the implication of the COVID-19 pandemic?” 90% of

the relevant group of NASCENT entrepreneurs said NO. The relevance of the “necessary business” due to the COVID pandemic has not been demonstrated.

For already **ACTIVE entrepreneurship**, i.e. that he already owns and runs his own business, 10.8% of respondents from the entire sample (designation ACTIVE entrepreneur) registered in all countries. In the Czech Republic, 9% of respondents signed up for active entrepreneurship. Respondents’ enterprises in the Czech Republic are relatively young; 13% of respondents stated the year of establishment 2021, 27% indicated the year 2020 (the most common), 19% noted the year of establishment 2019. Compared to the entire international sample, when most active companies were founded in 2020 (more than 30%), these are similar results (see Figure 2. The development of the investigation of the question “Do you want this business to become your main occupation after graduation?” is quite surprising. Approximately 30% of Czech students and the entire international sample stated that entrepreneurship would not be their primary job after graduation.

The number of co-founders is the difference between students in the Czech Republic and the entire international survey. 70% of respondents do business independently in the Czech Republic, 23% of companies with one or two partners. In contrast, internationally, the share is 37%: 49%. To the question “Did you start your business largely due to the consequences of the COVID-19 pandemic?” 87% of the relevant group of respondents answered NO. Even for active entrepreneurs, the need for student entrepreneurship due to the COVID pandemic has not been proven.

**Figure 2: Founding year of active entrepreneurs' firms**



Source: Own processing, GUESSS 2021

Note: N<sub>Czech Republic</sub> = 150; N<sub>across countries</sub>=25'050

### 3.2 Willingness to take risks

Students continued to comment on their willingness to take risks in choosing their future careers. Using the Likert scale (1=note at all, 7=very much), they commented on whether:

- A. They are willing to take risks when choosing the type of job or company as the employer.
- B. They prefer low-risk / high-security work to work that offers high risk but also high wages.
- C. They consider the risk associated with work to be a situation that must be avoided at all costs.

The results for the Czech Republic are in Table 7.

**Table 7: Willingness to take risks when choosing your future career (GUESSS 2021) CZE**

Ratings (1 to 7)	A situation (Percent)	B situation (Percent)	C situation (Percent)
1	4	5	11
2	8	13	20
3	16	16	23
4	25	24	20
5	28	18	14
6	13	16	8
7	7	8	4
Number of respondents (Frequency)	1969	1947	1941
The average score for students in the Czech Republic is	4	4	3

Source: Own processing

## **4 Drivers of entrepreneurial intentions**

- *University context (Q3)*
- *Respondents Environment (Family background) (Q5)*

The research defined factors that formulated the motivation for entrepreneurship among university students (Sieger et al., 2016). In addition to students' abilities and skills, a university and family environment, including social and cultural, influences their decision about the future path of employment. The students have many opportunities for different university programmes, and they are also affected by the labour market. We can also see that the turbulent entrepreneurship environment and information and communication technologies development bring exciting possibilities for starting their new business.

### **4.1 University context**

Universities play a critical role in innovations as knowledge-producing and dissemination in society. They also play a crucial role in increasing the student's motivation in entrepreneurial activities. Therefore, they establish different learning hubs (or innovation centres) supporting innovative ideas and having the entrepreneurship module in their curricula. In the universities, we can find all significant factors from the creativity as mentioned earlier. These factors are:

- Team integrity of students
- Effective teamwork
- Friendly atmosphere
- Personal relationship
- Different background available
- Group-task closeness
- Idea generation
- Team decision making
- Specialization of students
- Coordination understanding and collaboration
- Techniques and Concept development

What is the average business climate of universities across countries? Three aspects were evaluated:

*1) The atmosphere at my university inspires me to develop ideas for new businesses.*

- 2) *There is a favourable climate for becoming an entrepreneur at my university.*  
 3) *At my university, students are encouraged to engage in entrepreneurial activities.*

It is also essential how students at universities perceive the environment and the business climate. Because perception data are influenced by many factors (also related to the sample), it is necessary to interpret the results carefully. It can be said that university students who participated in the survey in the Czech Republic evaluate the university environment in terms of business climate with a score of 3.9. This is slightly below the neutral point of the rating scale 1 to 7 used (1 = not at all, 7 = very much). The global average is 4.4, which is slightly above the neutral point of the Likert scale from 1 to 7. At a general level, therefore, there is considerable room for improvement.

Subsequently, according to four criteria, a survey was carried out on the extent to which students obtained an entrepreneurial education, see Table 8. As Table 7 shows, more than half of the students in the whole sample have not yet taken any business course. In the Czech Republic, it was up to 68%.

**Table 8: Attendance of students in offered business courses (GUESSS 2021)**

	<b>Czech Republic (Percent) N=1'971</b>	<b>Across Countries (Percent) N=267'366</b>
I have not attended a course on entrepreneurship so far.	64	53
I have attended at least one entrepreneurship course as an elective.	18	26
I have attended at least one entrepreneurship course as a compulsory part of my studies.	18	20
I am studying in a specific program on entrepreneurship.	8	7

Source: Own processing

To compare the situation of business education by **field of study** at universities in the Czech Republic with the results of the entire international GUESSS survey, the area with the highest share of ACTIVE and NASCENT entrepreneurs in global terms was chosen. Specifically, this is the field of “Business and Management”, where the most robust entrepreneurial spirit (interest in entrepreneurship) was identified in the international environment, both after graduation and 5 years after graduation (GUESSS 2021, pg. 21).

As shown in Table 3, the most common focus of respondents in the Czech Republic is “Law and Economics”, with a share of 44.7% in the sample of the Czech Republic. The given focus includes the fields:

- Business / Management (11.9%)
- Economics (25.6%)
- Law (7.2%).

Students of “Business / Management” make up 19.6% of all students in the entire international sample. Of these, 26.8% want to do business right after graduation and five years after studies 45.1%. In the Czech Republic, 44.4% of students in “Business / Management” showed interest in entrepreneurship five years after graduation, i.e. a value approaching the value in the given field across countries.

## 4.2 Respondents Environment (Family Background)

In this subchapter, we will focus on the family background of students. Table 9 compares the business background of students in the Czech Republic from the GUESSS 2021, 2018 and 2016 surveys in terms of entrepreneurs’ entrepreneurship as self-employed persons. From this point of view, the year 2018 appears to be a fluctuation of values.

**Table 9: Entrepreneurship of parents as self-employed persons**

<b>Are your parents self-employed?</b>	<b>2021 (Percent)</b>	<b>2018 (Percent)</b>	<b>2016 (Percent)</b>
No	60	37	61
Yes, father	20	14	18
Yes, mother	7	7	6
Yes, both	13	42	15

Source: Own processing

In the case of business of parents of the company type, the question was whether the parents are the company’s majority owners? See answers in Table 10.

**Table 10: Parental participation in the ownership of business companies**

<b>Are your parent’s majority owners of a business?</b>	<b>2021 (Percent)</b>	<b>2018 (Percent)</b>	<b>2016 (Percent)</b>
No	75	73	76
Yes, father	16	17	15
Yes, mother	4	4	4
Yes, both	5	6	5

Source: Own processing

In the survey in 2021 in the Czech Republic, 40% of respondents (787 students) said that at least one of the parents was **self-employed** (yes-father, yes-mother, yes-both). And all respondents (1971) answered this question. Regarding the majority of the **company's owners**, at least one of the parents was mentioned by 481 respondents, i.e. 60% of those who expressed a favourable opinion that at least one of the company's parents.

### **The society as a whole** (Czech Republic, GUESSS 2021):

The Czech Republic is representative of those countries where entrepreneurship was historically a driving force of the economy up to the period before World War II. Examples include many well-known family names: Bata (shoes for all), Popper (luxury shoes), Petrof (grand and upright pianos), and many others. After World War II, the destruction of private enterprise deepened through the systems of managed socialistic economy. Practically, all firms were nationalized in the brief period between 1945 and 1948, and they lost their actual owners. After the year 1989, the tradition of entrepreneurship is restored and has new icons of business success. Next, Table 11 brings answers to the questions about the entrepreneurship perception of the society.

- A. *If you would pursue a career as an entrepreneur, how would people in your environment react (1=very negatively, 7=very positively)? - Your close family.*

Average valuation = 5.2.

- B. *If you would pursue a career as an entrepreneur, how would people in your environment react (1=very negatively, 7=very positively)? - Your friends.* Average valuation = 5.

- C. *If you would pursue a career as an entrepreneur, how would people in your environment react (1=very negatively, 7=very positively)? - Your fellow students.*

Average valuation = 5.1.

**Table 11: How the environment responds to the career of an entrepreneur?**

Ratings (1 to 7)	A. Your close family (Percent)	B. Your friends (Percent)	C. Your fellow students (Percent)
1	2	1	1
2	3	1	2
3	8	3	4
4	20	20	32
5	20	20	19
6	22	27	23
7	25	28	19
Numbers of respondents (Frequency)	1961	1952	1944
The average score for students in the Czech Republic is	5	5	5

Source: Own processing

## 5 Relationship to entrepreneurship

- *Descriptive analysis (Q4.1)*
- *Characteristics of the skills (Q4.2)*

Those who stated that they were not yet nascent or active founders when choosing a profession commented on this part of the survey. Those respondents who said that they are not doing business at the moment (such as NASCENT or ACTIVE founders) were further asked about their approach to business, i.e. whether:

- *Being an entrepreneur means more advantages than disadvantages.*
- *An entrepreneur's career is attractive.*
- *If they had the opportunity and the resources, they would become entrepreneurs.*
- *Being an entrepreneur would mean great satisfaction.*
- *Becoming an entrepreneur would have the highest priority when choosing from several options.*

The majority of answers prevailed, disagreement with the statement, using Likert scale (1= strongly disagree, 7=strongly agree). Two statements recorded a more significant fluctuation in the evaluation:

- 30% of respondents chose that an entrepreneur's career is attractive. 1506 respondents answered, and 30% agreed with the statement (ratings 5 to 7).
- It is also interesting to note that students see resources as the main obstacle. I.e. a more significant number of students stated that if they had the opportunity and the resources, they would become entrepreneurs. 1505 respondents answered, and 37% of them gave a rating of 5 to 7.

Related to this were questions concerning students' experiences in entrepreneurial competencies (entrepreneurial self-efficacy). The results for the Czech Republic are shown in Table 12. Respondents assessed their competencies using the Likert scale (1=very low competence, 7=very high competence).

**Table 12: Evaluation of business competencies**

Level	Identifying new business opportunities (in %)	Creating new products and services (in %)	Managing innovation within a business (in %)	Being a leader and communicator (in %)	Building up a professional network (in %)	Commercializing a new idea or development (in %)	Successfully managing a business (in %)
1	9,4	8,5	12,1	6,0	10,4	10,9	11,7
2	11,2	11,3	12,8	6,6	10,6	11,1	11,3
3	15,8	13,4	13,1	8,2	13,5	13,6	10,7
4	18,2	17,0	15,7	12,4	18,1	17,0	16,7
5	15,0	16,3	13,3	16,6	13,5	13,1	12,9
6	4,7	6,7	6,6	15,9	6,7	7,6	8,6
7	2,1	2,7	2,1	10,1	3,4	2,8	4,1
Total (Frequency)	1506	1497	1495	1498	1500	1500	1498,0

Source: Own processing

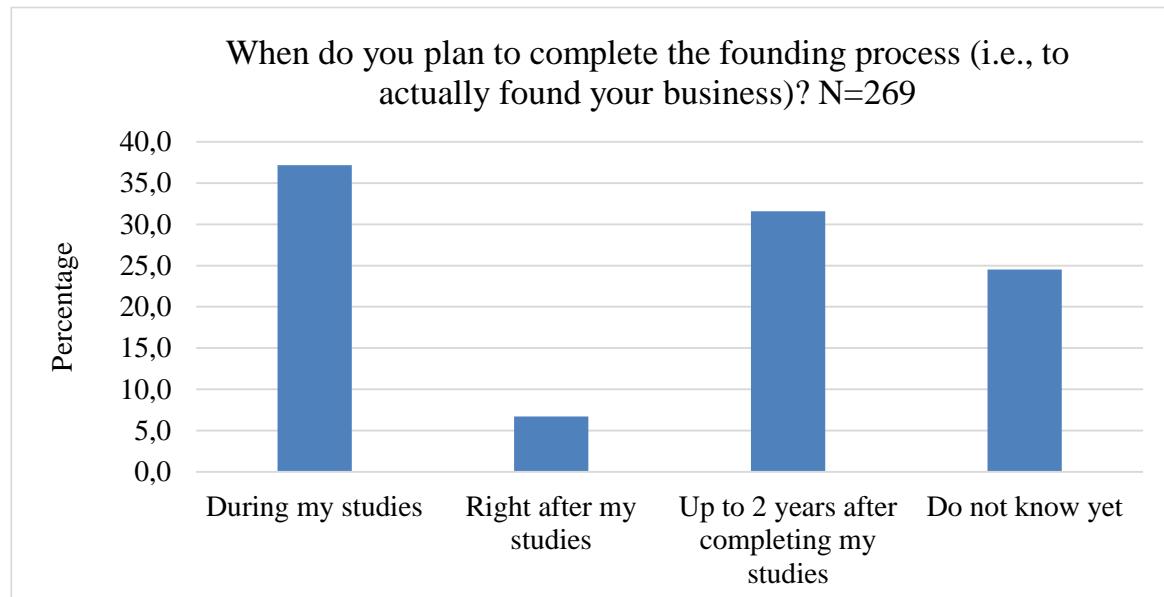
## 6 Nascent entrepreneurs

- *Descriptive analysis (Q8.1)*
- *Characteristics of the activities (Q8.2)*
- *Individual entrepreneurial orientation (Q8.4)*

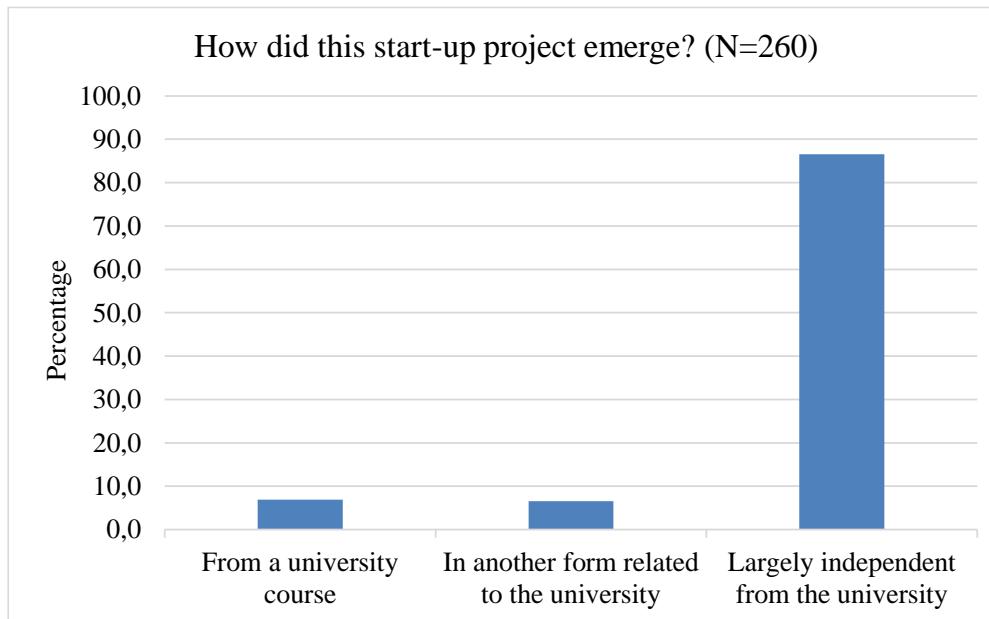
Launching new enterprises is always a big challenge. Today we can see many unique opportunities for new businesses, especially on the internet, but still, it is a long way from strategic intent to successful execution. The student's contribution to entrepreneurship could be seen (Giglio, 2016) in the remarkable ability of creativity, close friendship, team spirit, enthusiasm, courage to risk, high ability to use new information and communication technology, etc. On the other hand, successful entrepreneurs often mentioned that they learned a lot from their failures. The research report published on the web (CB Insights, 2021) noted the following biggest problems of start-ups caused by: Ran out of cash/failed to raise new capital; No market need; Got Outcompeted; Flawed business model; Regulatory/legal challenges; Pricing/cost issues; Not the right team; Product mistimed; Poor product; Disharmony among team/investors; Pivot went bad; Burned out/lacked passion. Rarely is there one reason for a single start-up to fail?

Students who said they had already taken steps to start a business when choosing a career were identified as NASCENT Entrepreneurs. First, basic information is presented, then data on their activities and the formation of entrepreneurial teams are added.

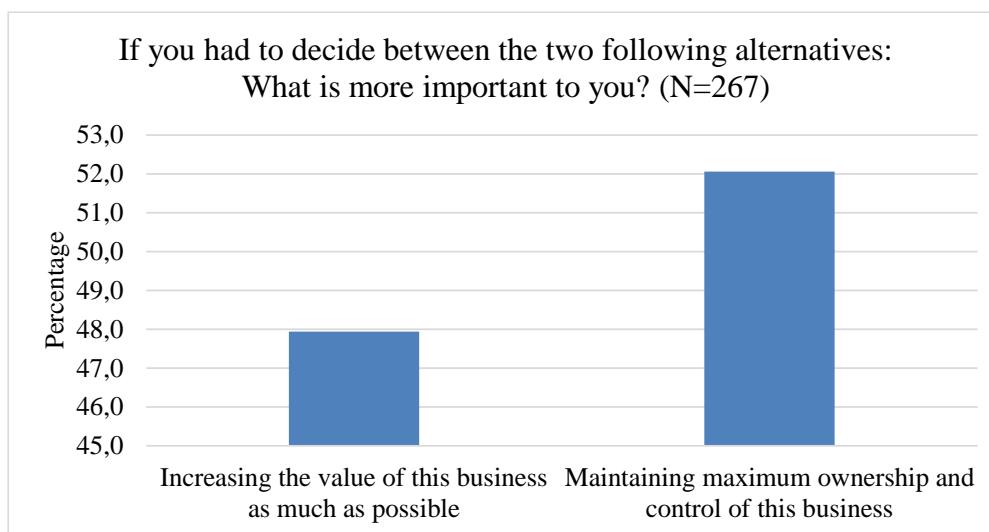
**Figure 3: NASCENT – Descriptive analysis – WHEN (Czech Republic)**



**Figure 4: NASCENT – Descriptive analysis – How (Czech Republic)**



**Figure 5: NASCENT – Descriptive analysis – What (Czech Republic)**

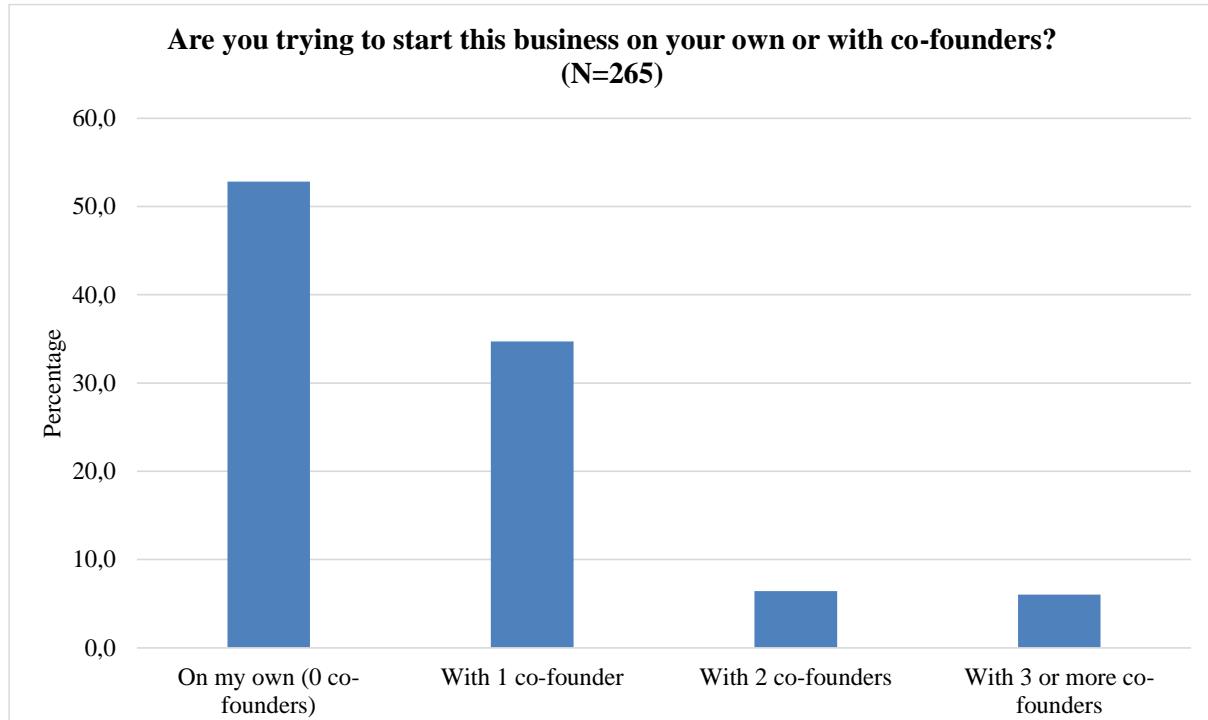


**Table 13: NASCENT – Characteristics of the activities (Czech Republic)**

<b>Which of the following activities have you (or somebody else from the founding team, if existing) already carried out in order to start your own business (multiple answers possible)?</b>	<b>YES (Frequency)</b>
1 Discussed product or business idea with potential customers	123
2 Collected information about markets or competitors	154
3 Written a business plan	76
4 Started product/service development	89
5 Started marketing or promotion efforts	56
6 Purchased material, equipment or machinery for the business	73
7 Attempted to obtain external funding	21
8 Applied for a patent, copyright, or trademark	9
9 Registered the business	16
10 Sold product or service	42
11 Nothing of the above done so far	49

Note: Multiple answers possible, N<sub>Czech Republic</sub>=415

**Figure 6: NASCENT – Co-founders (Czech Republic)**

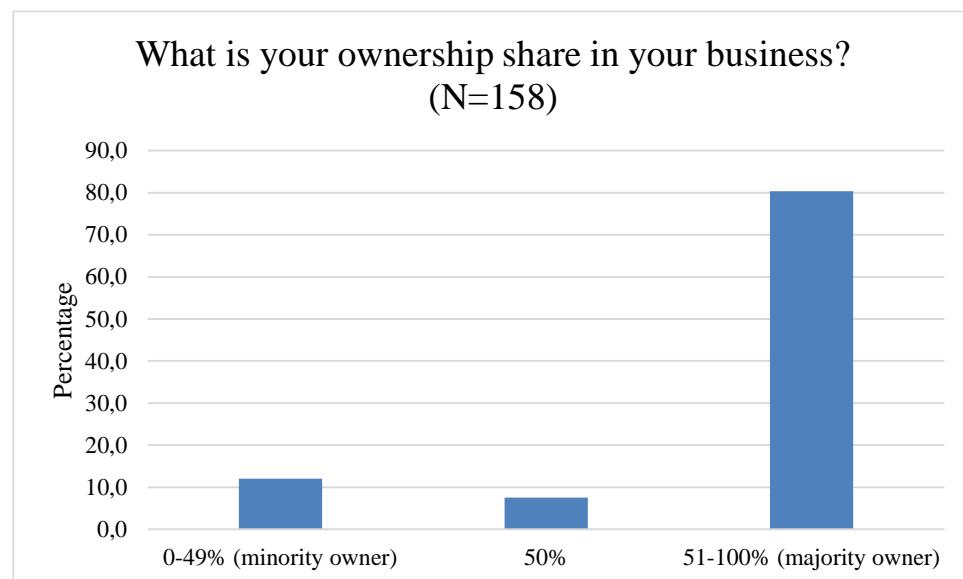


## 7 Active entrepreneurs

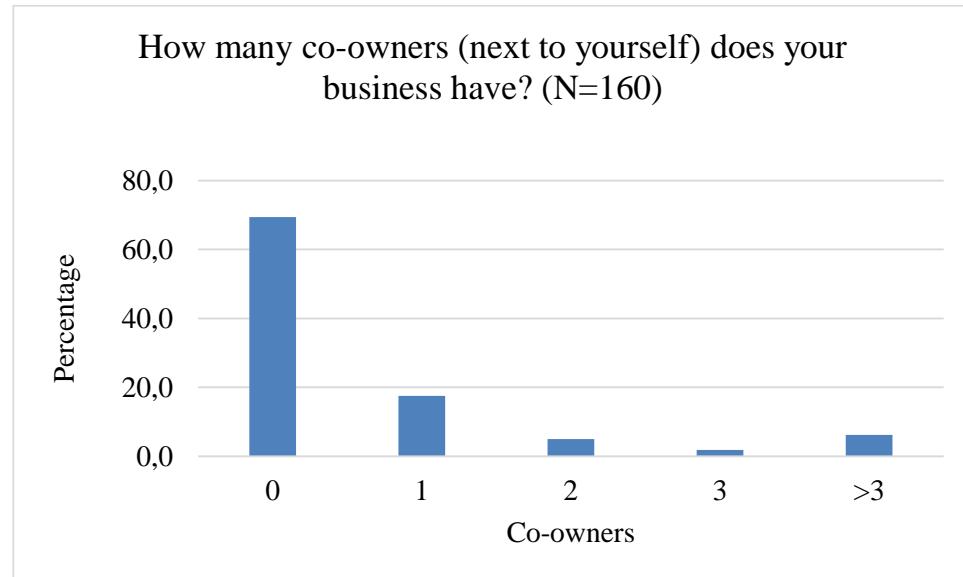
- *Descriptive analysis (Q7.1)*
- *Reasons for founding a firm – motivation (Q7.3)*
- *Experiences and behaviour as an entrepreneur (Q7.4 – 7.5)*
- *Family's support (7.7)*

Students whose answer was that they were already in businesses in their career choice, i.e. started their own business, were identified as ACTIVE entrepreneurs. First, basic information is presented, then data on their activities, motivation, experience and support are added.

**Figure 7: ACTIVE – Descriptive analysis – WHAT (Czech Republic)**



**Figure 8: ACTIVE – Descriptive analysis – HOW MANY co-owners (Czech Republic)**



The question about the **motivation of entrepreneurship**, see Table 14: “*I created my firm in order... (1=strongly disagree, 7=strongly agree)*:

- A. *to make money and become rich (Percent);*
- B. *to advance my career in the business world (Percent);*
- C. *to solve a specific problem for a group of people that I strongly identify with (e.g., friends, colleagues, club, community);*
- D. *to play a proactive role in shaping the activities of a group of people that I strongly identify with (e.g., friends, colleagues, club, community);*
- E. *to solve a societal problem that private businesses usually fail to address (such as social injustice, environmental protection);*
- F. *to play a proactive role in changing how the world operates.”*

**Table 14: I created my firm in order... (GUESSS 2021 – Czech Republic)**

Ratings (1 do 7)	A (Percent)	B (Percent)	C (Percent)	D (Percent)	E (Percent)	F (Percent)
1	4	4	14	15	25	20
2	5	5	7	9	13	14
3	7	7	10	11	18	8
4	17	17	19	22	18	22
5	30	30	21	15	10	8
6	16	16	13	16	9	16
7	21	21	16	12	8	12
Number of respondents (Frequency)	166	166	166	165	165	165
The average score for students in the Czech Republic is	5	5	4	4	3	4

The question about the **Experiences as an entrepreneur** was:

*“Please indicate your level of agreement with the following statements about your work as an entrepreneur (1=strongly disagree, 7=strongly agree).*

- A. *I seem to be in a hurry and racing against the clock.*
- B. *I find myself continuing work after my co-workers have called it quits.*
- C. *I stay busy and keep my irons in the fire.*
- D. *I spend more time working than socializing with friends, on hobbies, or leisure activities.*
- E. *I find myself doing two or three things simultaneously, such as eating lunch and writing a memo while talking on the phone.*
- F *It's important for me to work hard even when I don't enjoy what I'm doing.*
- G. *I often feel that there's something inside me that drives me to work hard.*
- H. *I feel obliged to work hard, even when it's not enjoyable.*
- I. *I feel guilty when I take time off work.*
- J. *It is hard for me to relax when I'm not working.”*

The statements indicate a tendency towards possible workaholism in working excessively (A to E) and compulsively (F to J). According to DUWAS - a study that measured workaholism using two correlated factors: excessive work (WE) and compulsive work (WC) (Schaufeli, 2010). See Tables 15 and 16.

**Table 15: DUWAS – Statements A – E (GUESSS 2021 – Czech Republic)**

Ratings (1 do 7)	A (Percent)	B (Percent)	C (Percent)	D (Percent)	E (Percent)
1	10	15	6	6	7
2	5	6	3	10	9
3	10	12	11	10	6
4	20	19	20	19	14
5	20	22	23	18	19
6	14	14	14	17	20
7	20	14	24	20	25
Number of respondents (Frequency)	<b>162</b>	<b>162</b>	<b>161</b>	<b>162</b>	<b>162</b>
The average score for students in the Czech Republic is	<b>5</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>4</b>

**Table 16: DUWAS – Statements F – J ((GUESSS 2021 – Czech Republic)**

Ratings (1 do 7)	F (Percent)	G (Percent)	H (Percent)	I (Percent)	J (Percent)
1	6	4	7	19	21
2	6	5	6	11	13
3	12	9	9	16	19
4	17	14	15	16	12
5	22	24	22	13	11
6	22	20	23	11	11
7	16	23	17	16	14
Number of respondents (Frequency)	<b>161</b>	<b>162</b>	<b>162</b>	<b>160</b>	<b>160</b>
The average score for students in the Czech Republic is	<b>5</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>

As we mentioned at the beginning of the report about the inspiration of family's support, the authors Eddleston and Powell (2017) also addressed the importance of family inspiration for the performance of start-ups. The results of their survey indicated that family involvement in the company was indirectly related to four business outcomes: business performance, strategic planning, satisfaction with business success, and a commitment to remain self-employed. This is a significant benefit of blending family and business. The GUESSS survey evaluated the family's emotional support (statement A - D) and instrumental support (statement E - I). In the GUESSS-2021 study, the following statements were offered to respondents for evaluation in this context: *"Please indicate your level of agreement with the following statements (1=strongly disagree, 7=strongly agree).*

- A. When I have a problem at work, members of my family express concern.
- B. When I am frustrated by my business, someone in my family tries to understand.
- C. Members of my family are interested in my business.
- D. When I talk with them about my business, family members do not really listen.
- E. Family members often contribute to my business without expecting to be paid.
- F. I can count on my family members to fill in for me and/or my employees if needed.
- G. My family gives me useful feedback about my ideas concerning my business.
- H. Family members often go above and beyond what is normally expected in order to help my business succeed.
- I. Members of my family often help me with my business."

See Tables 17 and 18.

**Table 17: Emotional Support of the Family (GUESSS 2021 – Czech Republic)**

Ratings (1 do 7)	A (Percent)	B (Percent)	C (Percent)	D (Percent)
1	20	10	6	29
2	16	8	6	23
3	12	9	8	17
4	23	22	18	14
5	12	18	20	6
6	9	17	21	6
7	7	17	21	6
Number of respondents (Frequency)	<b>162</b>	<b>160</b>	<b>160</b>	<b>160</b>
The average score for students in the Czech	<b>3.5</b>	<b>4.5</b>	<b>5</b>	<b>3</b>

**Table 18: Instrumental Support of the Family (GUESSS 2021 – Czech Republic)**

Ratings (1 do 7)	E (Percent)	F (Percent)	G (Percent)	H (Percent)	I (Percent)
1	23	37	14	24	18
2	11	14	13	20	18
3	8	8	7	7	16
4	18	13	21	17	17
5	13	6	13	11	12
6	10	12	19	13	7
7	17	10	13	8	12
Number of respondents (Frequency)	<b>159</b>	<b>158</b>	<b>159</b>	<b>158</b>	<b>159</b>
The average score for students in the Czech Republic is	<b>4</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>4</b>

## **8 Parents' Business**

- *Descriptive analysis (Q9)*
- *Characteristics (Q9.1-2)*

Family businesses are often based on continuity across the generations, and these young family members could be a source of innovation. They are persistent and ready to face the challenges ahead and help maintain their family character and keep their values alive. A new generation of young, highly motivated, and mostly well-educated men and women are ready to take over the leadership of their family businesses. They can help to grow the company in a rapidly-changing economic and business environment, and they also could be essential in commercial challenges as digitization. In line with the development of industry and global society, digitization is becoming part of our lives. Its importance has now been practically demonstrated by the COVID virus crisis (Sahni, 2020). In line with the current situation, there is a clear need to change thinking about the organization of the economy towards long-term sustainability for future generations. There is a possibility of “return” to the importance of the local economy, an integral part of which the family businesses are.

As part of the GUESSS 2021 survey evaluation, basic information on parental entrepreneurship is first provided. 683 respondents out of the total number (1971) commented on the given topic, i.e. 35%.

As the most common year of founding a parent company, students mentioned the year 2000 (38 respondents), followed by 1990 (34 respondents) and 1998 (26 respondents), most family companies were established by 2015 (more than 70%). Some students did not know when their parents founded the company; 478 respondents commented on the question.

In terms of the number of employees, these are rather micro-companies with up to 10 employees (inclusive); a total of 388 respondents expressed this. The respondents stated the most 1 employees (142 students marked the value). 484 respondents commented on the question.

To the question “What is the ownership share that is in the hands of your family?” answered more than 70% that 51-100%, see Table 19.

**Table 19: Ownership of the family in the company (GUESSS 2021 – Czech Republic)**

	Frequency	Valid Percent
0-49% (minority owner)	121	19,9
50%	58	9,5
51-100% (majority owner)	429	70,6
Total	608	100,0

The question about the majority owner of the company from the family's point of view was next: What is the ownership share that is in the hands of your family?. In that case, this share is lower than in the case of the question about the ownership of parents (only father, only mother, both) - see chapter 4.2.

## 8.1 Question about succession in parents' business

Furthermore, within this survey in 2021, the interest in succession in a parents' business was ascertained. Respondents commented on the following statements: *Please indicate your level of agreement with the following statements (1=strongly disagree, 7=strongly agree).*

- A. *I am ready to do anything to take over my parents' business.*
- B. *My professional goal is to become a successor in my parents' business.*
- C. *I will make every effort to become a successor in my parents' business.*
- D. *I am determined to become a successor in my parents' business in the future.*
- E. *I have very seriously thought of taking over my parents' business.*
- F. *I have the strong intention to become a successor in my parents' business one day.*

The answers are in Table 20.

**Table 20: About succession in parents' business (GUESSS 2021 – Czech Republic)**

Ratings (1 do 7)	A (Percent)	B (Percent)	C (Percent)	D (Percent)	E (Percent)	F (Percent)
1	51	58	58	56	55	60
2	12	14	14	13	11	13
3	11	7	7	8	7	6
4	9	9	7	8	8	8
5	7	5	6	6	7	5
6	6	3	4	4	5	3
7	4	4	4	5	7	5
Number of respondents (Frequency)	644	642	638	637	637	638
The average score for students in the Czech Republic is	2	2	2	2	2	2

## 8.2 Questions about the performance of parents' business

An important factor in considering students whether to continue with their parents' company is its performance. The survey asked:

*"How do you rate your parents' business performance compared to its competitors over the last three years in the following dimensions (1 = much worse, 7 = much better)?"*

- A. Sales growth
- B. Market share growth
- C. Profit growth
- D. Job creation
- E. Innovativeness"

The answers are in Table 21. Here it can be said that these results are similar to in the GUESSS 2018 survey. The weakest aspect of parents' business regarding students is job creation (D) and innovativeness (E).

**Table 21: About the performance of parents' business (GUESSS 2021 – Czech Republic)**

Ratings (1 do 7)	A (Percent)	B (Percent)	C (Percent)	D (Percent)	E (Percent)
1	5	7	5	28	15
2	5	7	5	9	8
3	9	11	10	12	12
4	32	38	29	30	32
5	20	17	21	11	16
6	19	14	18	6	10
7	11	8	11	4	8
Number of respondents (Frequency)	<b>603</b>	<b>597</b>	<b>598</b>	<b>592</b>	<b>596</b>
The average score for students in the Czech Republic is	<b>4.5</b>	<b>4</b>	<b>4.5</b>	<b>3</b>	<b>4</b>

## **Implications and Recommendations**

### **For students:**

The risk is a part of our life and also a part of entrepreneurship. Students should understand that the business environment in society's development is exposed to many external impacts, such as natural disasters, industrial accidents, terrorist attacks, criminal acts, epidemics or pandemics, etc. Encouraging students to experience and collaborate inside and outside of academia during their university experience will help them develop confidence and improve the future.

### **For universities**

Entrepreneurship is perceived positively to increase employment, growth in living standards, promote common interests and objectives. Innovation and creativity are the key factors of success. To teach entrepreneurship and also innovation is a new mission in all universities. In the Czech Republic, we can say that almost all the universities are trying to increase the student's entrepreneurial activities of students, are establishing different learning hubs (or innovation centres) that support innovative ideas and have the module of entrepreneurship in their curricula. Also, the big companies are starting to support these activities as some competition, for instance, "hackathon days". All these activities are very convenient alternatives to traditional ways of teaching. Here the students can realize their start-up activities and meet the experienced entrepreneurs and business angels.

### **For entrepreneurship**

The cooperation between the universities and companies is more and more fundamental for innovations as knowledge-producing and disseminating in society. Many unprecedented challenges, such as the knowledge economy, globalization, the financial and the environmental crises, tackling epidemics contribute significantly to finding innovative solutions, and the universities are the parts of these solutions.

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