



# Global University Entrepreneurial Spirit Students' Survey

## National Report Russia 2021

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Saint Petersburg  
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## Brief overview

The presented GUESSS-Russia national report is a multifaceted inquiry into entrepreneurial potential of Russian university students. It pays special attention to the coverage of their career preferences, attitudes towards entrepreneurship, assessment of university and national environment, influence of family on the development of entrepreneurial intentions, characteristics of active entrepreneurship.

Based on a survey of more than 5,400 students from universities across Russia, the following trends were identified:

- Right after graduation, 49% of students see the start of their career paths as employees, while almost 23% of students see it as entrepreneurs;
- About 42% of students want to become entrepreneurs five years after the graduation, which is almost 10% more than in the international sample;
- In Russia, the share of potential entrepreneurs (i.e. those who are already trying to start their own business) among students is 42%, which is significantly higher than the share in the international sample - 28%. The share of active entrepreneurs (i.e. those who are already running their own business) reaches 12%, which is slightly higher than in the international sample;
- 54 of students had no entrepreneurship courses at all, which is comparable to the international sample;
- There are gender differences: the percentage of those who want to become entrepreneurs right after the graduation is higher among men (26% vs. 21% women), but 5 years after the graduation this gap is narrowed with the prevailing proportion of women (42% men vs. 43% women);
- About 27% of students come from entrepreneurial families, and the proportion of student entrepreneurs with at least one parent running their own business is 51% compared to 39% of students from non-entrepreneurial families;
- At 4.4 points out of 7 do Russian students rate the attractiveness of a career of an entrepreneur in terms of the balance of advantages and disadvantages, opportunities and the sense of satisfaction they bring;
- In Russia, a career of an entrepreneur is evaluated more positively by students and their environment compared to the international sample.

Russian Report 2021 contains important results on various aspects of student entrepreneurship development and provides a comparison with the international sample, which will be of interest to a wide range of readers.

## Introduction

In 2020, Russia, along with most countries in the world, faced serious socio-economic challenges resulting from the COVID-19 pandemic. In the last decades the population faced unprecedented scope and scale of the changes. Restrictions on travel within and outside countries, the shift to remote working and learning, the need to develop new medicine, diagnostic and protective tools, the transformation of established behavioral patterns – these are just a few of the challenges societies and businesses have had to deal with. Entrepreneurship, creation of new companies in response to threats and opportunities in the external environment plays a particularly important role in such periods of crises. Moreover, it is not only the economic value created by new firms that is important, but also the social value.

This report is devoted to an overview of the characteristics of entrepreneurial intentions and activities among students at Russian universities, identified in 2021 as a part of the international project Global University Entrepreneurial Spirit Students' Survey. The project focuses not only on the process of creating new businesses by students, but also on the broader entrepreneurial context and other career plans of students. As the data collection took place in 2021 and touched off the next wave of the COVID-19 pandemic, the report also reflects the specifics of the crisis context.

Young population, on the one hand, is very vulnerable to crisis situations and systemic changes, but on the other hand, it is an important holder of innovation potential, creativity, and acts as a powerful

driver of innovation and change in the social life of the society. Their entrepreneurial activity solves the problem of bringing the most active group of population into the labor market and engaging it in activities with high potential for the development of the economy and society as a whole [Kvedaraite, 2014]. It also contributes to the acquisition of practical knowledge and skills by young people, which contribute to their personal and professional development. In addition, entrepreneurial activity of students develops their proactive life attitude and independence, which play an important role in the sustainability of their life positions in a highly dynamic and unpredictable external environment.

The development of entrepreneurship among the youth requires multifaceted initiatives at different levels, including education, industry and social development. The development of such initiatives, and consequently the creation of a highly developed entrepreneurial infrastructure, cannot be accomplished without an understanding of the current state of entrepreneurship among young people. The purpose of this report is to present the project results for Russia and to compare national data with an international sample of over 260,000 respondents from 54 countries.

The report will be useful both for researchers in the field of entrepreneurship and representatives of universities as well as public authorities when making decisions related to education and modernization of university infrastructure.

## 1. CHARACTERISTICS OF THE STUDY

### 1.1. The main research objectives of the study

The Global University Entrepreneurial Spirit Students' Survey (GUESSS) has been conducted every two years since 2003. The survey was originally called ISCE - International Survey on Collegiate Entrepreneurship - but was renamed in 2008. To date, nine international surveys have been conducted: in 2003, 2004, 2006, 2008, 2011, 2013/2014, 2016, 2018, and 2021.

Russia joined GUESSS for the first time in 2011, when it succeeded in engaging 2,882 students

from 23 Russian universities. In 2021, the Russian GUESSS team took part in the project for the fifth time. The data collection took place between February and June 2021. The total of 5,407 students from 21 higher education institutions took part in the study. In addition, Russia ranked 46th out of 58 countries in terms of the number of students who responded (Table 1).

*Table 1*

## List of countries participating in GUESSS in 2021

№	Country	Number of responses	№	Country	Number of responses
1	Australia	442	30	Nepal	137
2	Austria	3236	31	Nigeria	2093
3	Albania	434	32	Netherlands	713
4	England	7	33	New Zealand	1902
5	Belgium	2296	34	Norway	8
6	Bulgaria	717	35	United Arab Emirates	1345
7	Bolivia	2133	36	Pakistan	896
8	Brazil	7738	37	Panama	5297
9	Hungary	10104	38	Peru	14948
10	Germany	8199	39	Poland	6012
11	Greece	1594	40	Portugal	3596
12	Dominican Republic	594	41	Republic of Northern Macedonia	175
13	Indonesia	2545	42	Russia	5407
14	Jordan	3237	43	Saudi Arabia	2921
15	Iraq	613	44	Slovakia	5754
16	Iran	867	45	United States of America	1843
17	Ireland	103	46	Tunisia	342
18	Spain	98226	47	Ukraine	43
19	Italy	3294	48	Uruguay	60
20	Kazakhstan	2791	49	Finland	1094
21	Qatar	121	50	Croatia	1660
22	Colombia	12401	51	Czech Republic	1971
23	Korea	1220	52	Chile	10509
24	Costa Rica	5469	53	Switzerland	6919
25	Lebanon	3224	54	Sweden	388
26	Lithuania	2154	55	Ecuador	5085
27	Liechtenstein	107	56	El Salvador	768
28	Mexico	6449	57	Estonia	406
29	Morocco	1265	58	Japan	3494
				<b>Total</b>	<b>267366</b>

The main objectives of the GUESSS international research project are:

- systematic and long-term observation of students' entrepreneurial intentions and entrepreneurial activity in different countries;
- identifying the basic prerequisites and conditions for starting new businesses and choosing an entrepreneurial career;

- exploring the role of university infrastructure in fostering the entrepreneurial spirit of students.

Thus, the project is of interest to different stakeholders: to countries, because it allows them to understand the conditions for entrepreneurship development and the attitudes towards entrepreneurship among students; to universities, because it allows them to assess the extent to which their curricula and the university environment itself



encourage entrepreneurial aspirations; to government and society, because it draws their attention to the issue of entrepreneurship and starting new businesses, revealing the need for proactive action; to students, because it makes them think about what career they are aiming for and outline their strategic plan for the long term.

## 1.2. Theoretical model

The theoretical underpinning of GUESSS research is *the Theory of planned behavior* [Ajzen, 2002; Fishbein, Ajzen, 1975], according to which any behavior is influenced by three groups of factors: attitudes towards that behavior, subjective norms and perceived behavioral control.

The Theory of planned behavior employs some key concepts from social and behavioral sciences and defines these concepts in a way that opens up a possibility of predicting and understanding specific behavior in a particular context.

GUESSS — is one of the largest entrepreneurship research projects, attracting an increasing number of students from a growing number of countries and universities, enabling it to play an important role in entrepreneurship research and practice.

The theoretical conceptualisation of GUESSS project has been slightly extended, as it assumes that in line with the outlined above three groups of factors, the formation of entrepreneurial intentions of students is also influenced by such factors as personal motives, university environment, family and socio-cultural context [Sieger, Fueglistaller, Zellweger, 2014; 2016]. A scheme of the theoretical model is presented in Figure 1.

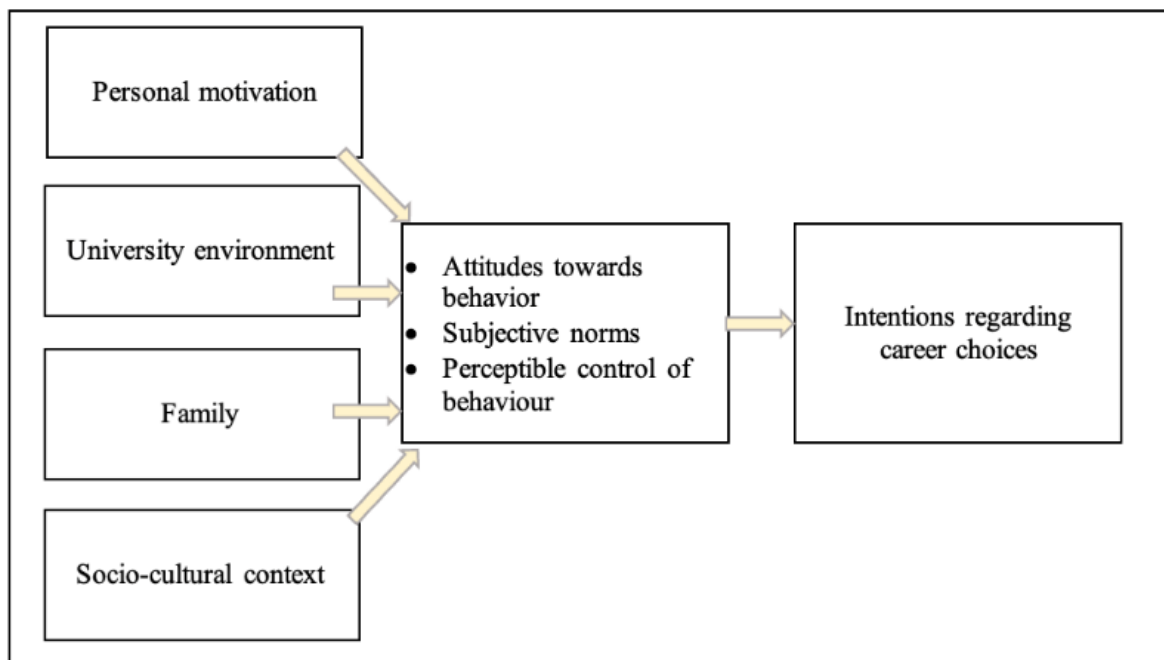


Fig. 1. GUESSS theoretical research model

The GUESSS project focuses on three dimensions relevant to students and entrepreneurship: 1) the individual level (student); 2) the university level; 3) the family and the socio-cultural context of entrepreneurship development in general. Thus, three main objectives can be distinguished:

1) study *individual characteristics of students* and their influence on students' entrepreneurial intentions. Age, gender and education can influence the development of entrepreneurial intentions and the desire to create their own business. The characteristics of student-established firms and

planned businesses are analyzed, which can serve as a basis for the formation of new research models to study entrepreneurship;

2) analyse *universities* in terms of the provision of infrastructure that supports the development of entrepreneurial attitudes among students: the availability of entrepreneurship courses, the general entrepreneurial climate in the university;

3) examine the role of *family and socio-cultural context* in the formation of entrepreneurial intentions. The focus is the relationship between the desire to pursue a career as an entrepreneur and the

attitudes in the family and community towards this prospect.

In addition to the above tasks, the project also helps to explore the general entrepreneurial spirit of the country's students, identify conditions which facilitate students to become entrepreneurs, and put

### 1.3. Project coordination

The GUESSS project was founded by the Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen in 2003. Since 2016, the project is coordinated internationally by the University of St. Gallen (KMU-HSG/CFB-HSG) and the University of Bern (IMU). The project coordinators are responsible for finding national representatives in the participating countries, organizing the data collection procedure through an online survey, and writing an international report on the results of the study, which contains a comparative analysis of the data from all countries.

The coordination and management of the project involves three levels: *level one* – international project manager and key team; *level two* – national country representative (team); *level three* – partner universities.

The national representatives search for and attract higher education institutions in the country to participate in the project, communicate with university representatives, send out information on the interim results of the study, and are responsible for creating a national report on entrepreneurial intentions of students.

forward a number of recommendations for the development of entrepreneurial education infrastructure.

National reports provide an opportunity to see and analyze the national context as well as the individual characteristics of the students of a country. In addition, the analysis of the national context provides a better understanding of the factors which foster entrepreneurial spirit of students and which limit its formation.

It is worth mentioning that partner universities receive a number of clear advantages by taking part in this project:

- universities can obtain a database of student responses from the participating university for further analysis;
- data analysis allows university representatives to gain an in-depth understanding of the entrepreneurial attitudes, intentions, actions and desires of their students, as well as their vision of the university's role in this context; they also have an opportunity to assess the effectiveness and quality of the university's programs in an entrepreneurial context;
- universities as a whole can raise students' awareness of entrepreneurship.

## 2. THE NATIONAL CONTEXT OF THE STUDY

### 2.1. Entrepreneurship in Russia

Entrepreneurship development is an important challenge for the Russian economy to improve competitiveness, ensure sustainable economic growth and development of the country. According to the latest Global Entrepreneurship Monitor 2020-2021, in 2020 the number of early-stage entrepreneurs in Russia was 8.5% of the country's working age adult population, a decrease of 0.8% compared to 2019, but an increase of 3.81% compared to the crisis year of 2014. In addition, the proportion of forced entrepreneurs in Russia remains high: 71.4% of respondents started their own business because they could not find alternative sources of income. 33.5% of the respondents see entrepreneurial opportunities

in the external environment to set up their own business, which indicates a slight increase as of 2019 (29.6%). At the same time, 46.5% of the respondents say that the fear of failure stops them from starting their own business.

The domestic environment may be one reason for the low contribution of entrepreneurial activity to the country's national competitiveness and economic growth. The Russian environment is characterized by a lower level of development of institutions related to the organization of business processes and protection of property rights, which is particularly important for entrepreneurial firms. According to the Doing Business 2020 report, Russia ranks 28th (out of 190

countries) in terms of the ease of doing business, jumping 3 positions up if compared to 2019. In terms of institutional development, Russia ranks 74th (out of 140 countries) in the Global Competitiveness Report 2019, showing a slight decline compared to the previous year (down 2 positions). The year 2020 saw reforms related to obtaining electricity, protecting minority investors, and paying taxes, making it easier to do business in Russia [Doing Business 2020]. Investor protection is crucial for young entrepreneurial firms, as it is directly linked to their ability to raise the capital needed to grow, innovate, diversify business lines, and develop competitive advantages.

The development of innovative firms is a priority for the Russian economy. The Global Competitiveness Report 2019 notes that Russia is 32nd in terms of innovation capabilities and is improving its rank compared to the previous year by 4 positions. Investment in infrastructure for innovation, university-enterprise collaboration in research and development, legal protection of intellectual property, and firms' willingness to bear research costs are all receiving increasing attention, and such work needs to be actively developed further.

A number of positive trends in the development of Russian entrepreneurship should be highlighted. One of them is the presence of a large and actively growing consumer market. According to the Global Competitiveness Report 2019, Russia ranks 6th by market size, which may contribute to the development of entrepreneurship in the country. In addition, it is worth mentioning the entrepreneurial potential of the Russian population. According to the latest Global Entrepreneurship Monitor 2020-2021, 68.7% of Russians surveyed consider starting a

business to be a desirable career opportunity. The majority of Russians highly regard the status and attractiveness of an entrepreneurial career [Global Entrepreneurship Monitor 2020-2021]. In general, society is friendly towards entrepreneurial activity, which is reflected in the media and the opinions of the ordinary people. Business incubators, theme parks, entrepreneurial communities, mentoring programs, and other forms of entrepreneurial support are developing in Russia, which is certainly beneficial for business development.

Among the main trends for improving the conditions for entrepreneurship development is a simplification of the procedures for setting up and running a business, as well as interaction with regulatory bodies. Studying the conditions for entrepreneurship development in Russia, we should not forget that there are significant differences between regions, which suggests the need to design and implement policies aimed at developing entrepreneurship with respect to the local specifics.

In addition, entrepreneurial education has an important role in the development of entrepreneurship. The development and introduction of special programs in the field of entrepreneurship and business skills training is one of the important factors in the development of entrepreneurial activity in Russia. Entrepreneurship education in the Russian context is often structured around seminars, roundtables, discussion clubs and professional development courses. Many Russian universities are currently designing and introducing courses on entrepreneurship as well as educational programs related to entrepreneurship. Despite the positive trend, this area requires further development in the Russian education system.

## 2.2. Entrepreneurship education in Russia

Entrepreneurship education is one of the newest areas of higher education in Russia. The official authorization of commercial activities in the late 1980s triggered the launch of entrepreneurship education in the country. The Higher School of Economics and Synergy University were the first institutions of higher education to develop entrepreneurial education programs. Thus, entrepreneurship education in Russia does not have as rich a history as it does abroad. This provides a broad field for research on the subsequent improvement of education in this field.

Entrepreneurial education in Russia can currently be divided into several categories: higher education, additional education programs (e.g., MBA), different courses for entrepreneurs and managers at various levels, and corporate

universities. According to the results of the GUESSS survey in 2021, 8.9% of Russian university students receive education attending special educational programs on entrepreneurship, which is higher than the global figure by a few percentage points (6.8%) and higher than the 2018 figure (about 6%). Indeed, the number of entrepreneurship education programs in Russia has significantly expanded in recent years. Since 2018, the number of students who have not had an entrepreneurship course during their studies has fallen significantly, from 63% to 54.4%. Students pay attention to universities' reputation for teaching entrepreneurship. Thus, 15.2% of surveyed students based their choice of the place of study on this indicator.

However, the percentage of students who had at least one course in entrepreneurship within the

ongoing study programs as a compulsory (17.4% vs. 19.6% in the international sample) or optional subject (18.2% vs. 26.1% in the international sample) remains low. In this regard it is necessary to pay attention to the existing obstacles that are to be overcome to improve the competitiveness of Russian entrepreneurship education. These include: 1) not all university professors have entrepreneurial experience; 2) universities do not have an established mechanism for cooperation with entrepreneurship stakeholders; and 3) universities lack the desire and interest to develop regional entrepreneurial ecosystems.

Nevertheless, despite the shortcomings, positive trends can also be noted, which are largely explained by the government interest in the growth of business education at the national level: 1) cooperation of universities with foreign business schools, exchange programs; 2) blended learning format (online and offline classes); 3) decrease in the

number of long-term training programs and increase in short-term programs without losing quality and mostly in online format; 4) growing requirements for educators in the field of entrepreneurship, e.g. in the form of mandatory practical experience in business; 5) an increase in accredited higher education institutions with an educational license; 6) the image of the entrepreneur is changing in a more positive direction in the eyes of the society; 7) growing support for start-ups through training and assistance in attracting investment.

The experience of other countries in entrepreneurship education shows that choosing a specialization and gaining practical experience is as important part of learning as theoretical training. Some of the key skills and competencies to be nurtured in students are: strategic thinking, mastery of modern technologies and software in management area, communication skills.

### 3. SURVEY METHODOLOGY AND SAMPLE

#### 3.1. Data collection

As already mentioned, the GUESSS project 2021 collected data in 58 countries. For this purpose, an online questionnaire was developed, and each participating country had the right to translate it into its own language. In Russia, the questionnaire was available to participants in Russian. It took about 10-15 minutes to complete the questionnaire.

The St. Petersburg Campus of the National Research University Higher School of Economics acted as a national partner of the project. The research team of HSE University in St. Petersburg was responsible for searching and recruiting Russian universities, translating the questionnaire and

disseminating the link to the online questionnaire among the national participants of the project. Data collection in Russia was conducted from February to June 2021.

Official contacts of the HSE University in St. Petersburg as well as personal contacts of the researchers were used both in data collection and in the involvement of the participating universities. During this period, the interim results of the data collection were sent to the representatives of the universities with the intention to intensify the efforts of attracting students.

#### 3.2. Project partner universities in Russia

A total of 5,407 students from 20 higher education institutions in Russia took part in the 2021 survey, which almost doubled the number of respondents

attracted in 2018. The distribution of respondents by higher education institutions in Russia is shown in Table 2.

*Table 2*

Distribution of respondents by higher education institutions in Russia

№	List of partner universities	City	Number of students responding to the questionnaire	% of the respondents from the total Russian sample
1	Bashkir State University	Ufa	757	14,0
2	Vladivostok State University of Economics and Service	Vladivostok	54	1,0

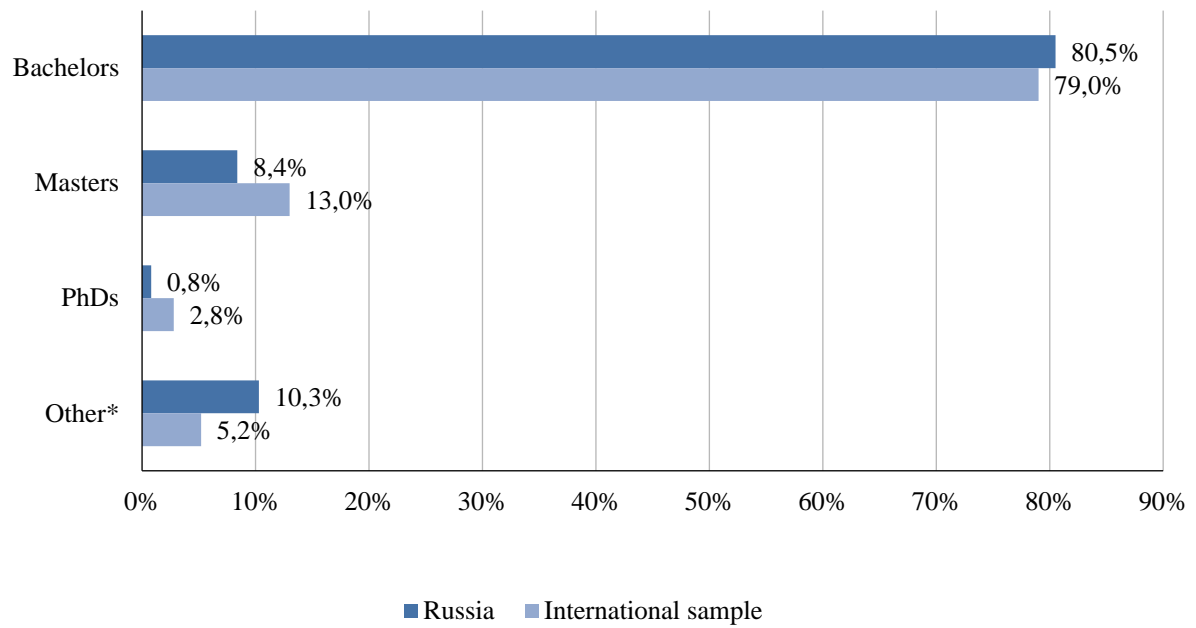
№	List of partner universities	City	Number of students responding to the questionnaire	% of the respondents from the total Russian sample
3	Voronezh State University	Voronezh	105	1,9
4	Far Eastern Federal University	Vladivostok	504	9,3
5	National Research University Higher School of Economics, Moscow Campus	Moscow	323	6,0
6	National Research University Higher School of Economics, Nizhny Novgorod Campus	Nizhny Novgorod	118	2,2
7	National Research University Higher School of Economics, Perm Campus	Perm	153	2,8
8	National Research University Higher School of Economics, St. Petersburg Campus	Saint Petersburg	387	7,2
9	Novosibirsk State University	Novosibirsk	41	0,8
10	Perm National Research Polytechnic University	Perm	113	2,1
11	Primorskaya State Agricultural Academy	Ussuriysk	191	3,5
12	Pyatigorsk State University	Pyatigorsk	940	17,4
13	Rostov State University of Economics	Rostov-on-Don	698	12,9
14	Saint Petersburg State University	Saint Petersburg	177	3,3
15	St. Petersburg State University of Information Technologies, Mechanics and Optics (ITMO University)	Saint Petersburg	117	2,2
16	Peter the Great St. Petersburg Polytechnic University	Saint Petersburg	7	0,1
17	Saint-Petersburg University of Management Technologies and Economics	Saint Petersburg	266	4,9
18	Stavropol State Agrarian University	Stavropol	222	4,1
19	Ural Federal University named after the first President of Russia B. N. Yeltsin	Yekaterinburg	103	1,9
20	Ufa State Petroleum Technological University	Ufa	49	0,9
21	Other*		82	1,5
	Total		5407	100

Note: \*University not specified.

### 3.3. Sample description

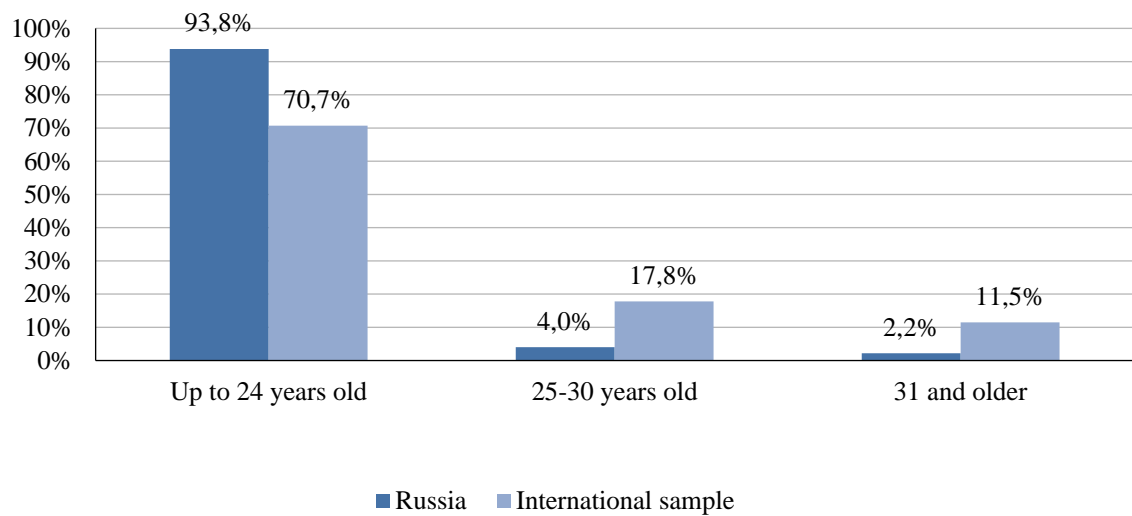
The majority of respondents in Russia are Bachelor students (80.5%), 8.4% of participants are enrolled in Master programs, and 11.1% are students of other study programs. In the international sample, the share of Master's students is slightly higher, almost the same share of Bachelor's students and a lower share of students in other programs, as illustrated in Figure 2.

The average age of the Russian respondents is 21, which is three years lower than the average age of the students in the international sample. It should be noted that the proportion of the respondents younger than 24 in the international sample is around 71%, while in Russia it is almost 94%, i.e. the vast majority (Figure 3).



**Fig. 2.** Level of student education

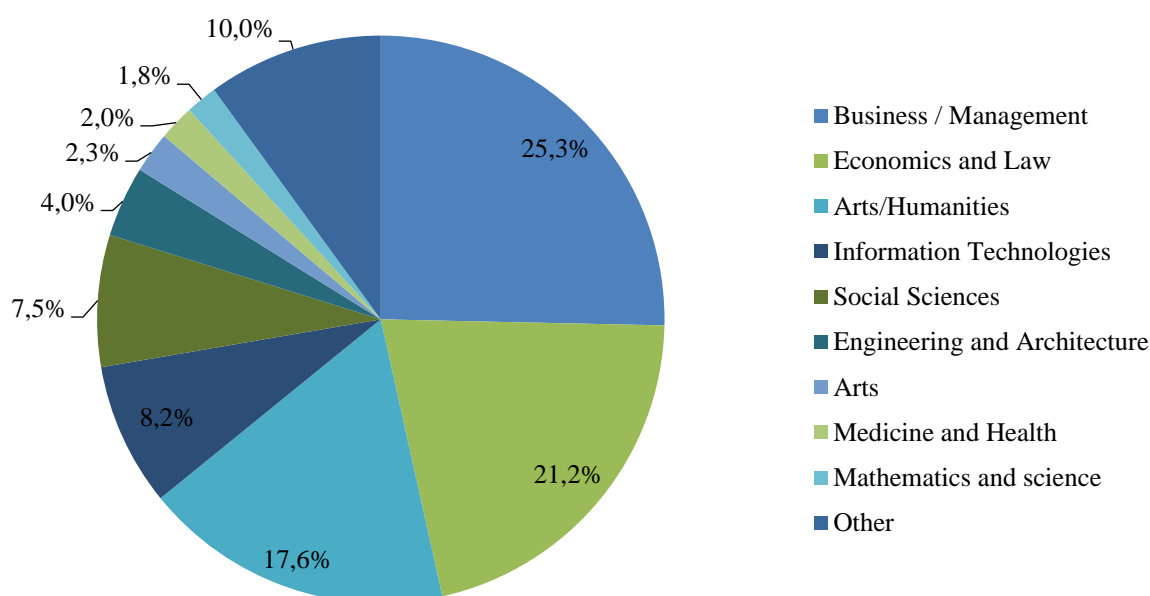
Note: \* The "other" category includes MBA, postgraduate, etc. students.



**Fig. 3.** Age of students

The gender composition among Russian students comprises 69.85% women and 30.15% men. In the international sample, the proportion of women prevails as well, reaching 60.1%.

Among other questions, the students were asked to indicate their major field of knowledge (specialization) they were studying in. Fig. 4 shows the detailed distribution of Russian respondents among various specializations.



**Fig. 4.** Areas of specialization of Russian students

All the areas of specialization were conventionally divided into 4 groups: Economics and Management, Natural Sciences, Social Sciences, and other sciences (Table 3). Among the Russian students, who participated in the survey, the majority (46.5%) studied Economics and Management, 16% studied Natural Sciences, 20.5% studied Social Sciences, and 12.3% chose the answer “Other Sciences”.

By comparison, in the international sample, 31.4% of students study Economics and

Management, 39.2% Natural Sciences, 20.5% Social Sciences, and 8.9% of respondents chose the 'Other Sciences' category. It is worth noting that in 2016, 2018 and 2021, the number of students in Economics and Management in the Russian sample was almost twice as high as in all countries. This is primarily because educators in Economics and Management have shown more interest in this project at Russian universities.

**Table 3**

Distribution of Russian and international sample respondents by specialization: 2018 and 2021

Specialization	Disciplines included	2018		2021	
		Russia, %	International sample, %	Russia, %	International sample, %
<b>Economics and management</b>	Law, Economics, Business, and Management	60,8	34,0	46,5	31,4
<b>Natural sciences</b>	Technical Sciences (including Computer Science and Architecture), Medicine and Health, Mathematics, and Natural Sciences	14,8	39,3	16,0	39,2
<b>Social sciences</b>	Culture, Humanities (Linguistics, Cultural Studies, Philosophy, etc.), Social Sciences (Psychology, Political Science)	12,6	19,0	25,1	20,5
<b>Other sciences</b>	Arts and Other Sciences	11,7	7,7	12,3	8,9

Figure 5 shows the ratio of men to women in each specialization. As it might be expected, the majority of male students study in the Natural

Sciences, while the bulk of female students choose Economics and Management or Social Sciences.

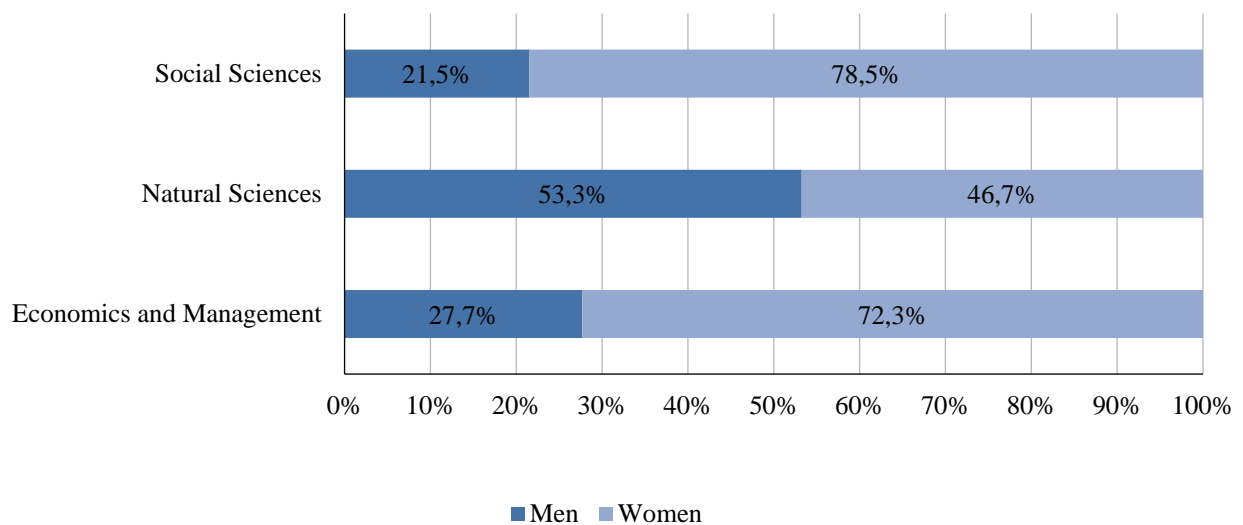


Fig. 5. Gender profile and specialization of Russian students

## 4. KEY FINDINGS

### 4.1. Career choices

Choosing a career path is one of the most responsible steps in anyone's life, which is especially true for students who are just beginning their professional development. Everyone has their own plans. Some want to join a major international company as soon as they graduate to gain experience and prove themselves as good professionals. But many students may have different ideas about their career development in 5 years. That's why the participants were asked two questions: where they see themselves immediately after the graduation and five years later. Answers to the questions were conditionally classified into four groups depending on the chosen career path: employee (working as an employee in an existing company), company founder/entrepreneur (being an entrepreneur and creating a new business), successor (inheriting and taking over management of the family business) and other (those who are still undecided, or who have other career preferences).

The detailed description in Table 4 shows that almost half of the students in Russia expect to get a job immediately after graduation (49.3%), which is 15.6% lower than in the international sample (64.9%).

Many would prefer to work in large or medium-sized companies. Only about 6.3% of Russian respondents would be willing to work in

small firms with fewer than 50 employees. 22.6% of the students would like to start their own business from scratch after the graduation, which is 4.8% higher than the global average. A career successor path to an existing family business was chosen by 3.4% of the respondents in Russia, while the international sample provides even a lower value of 2.0%. There are 24.7% who are undecided about their career plans in Russia, which is slightly higher than in the international sample.

It can be seen that the distribution across the Russian sample in terms of the students' career aspirations immediately after graduation varies quite insignificantly from the international sample. However, the situation changes when it comes to career preferences five years after graduation. Almost twice as many Russian students (42.2%) want to open their own firm, i.e. to become entrepreneurs, while in the international sample this figure is 32.3%. The number of those who want to work for hire in Russia drops to 32.7 per cent, while globally this figure drops to 52.6 per cent only. The percentage of students wishing to take over a family business five years after the graduation increases to 4.2% in Russia and to 2.5% globally. The number of undecideds is higher in Russia (about 20%) in comparison with the international sample (12.5%) (Figure 6).



Table 4

Career choice: comparing the Russian and the international samples

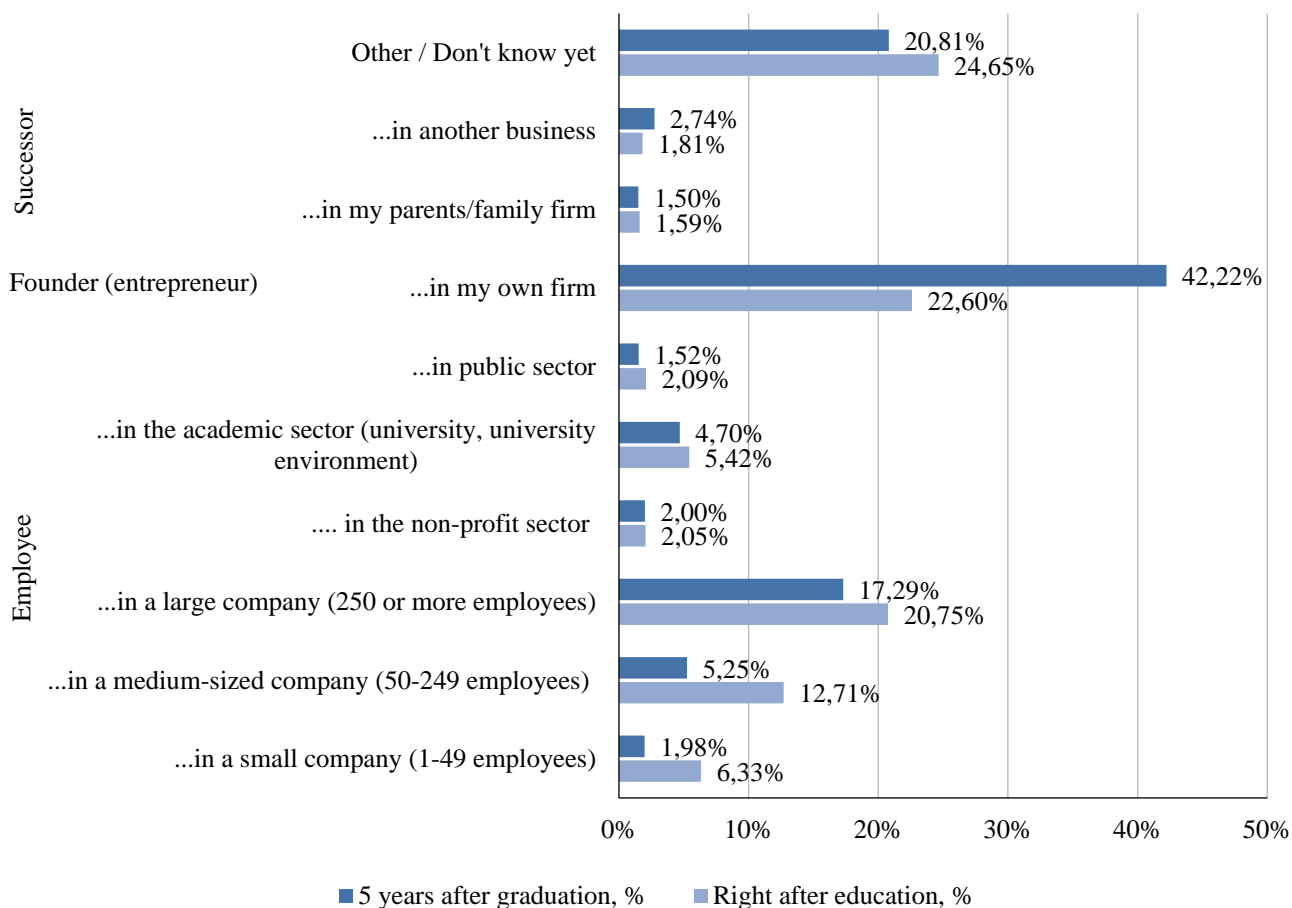
What career will you choose right after graduation and 5 years after graduation?		Russia		International sample	
		Right after graduation, %	5 years after graduation, %	Right after graduation, %	5 years after graduation, %
<b>Employed worker</b>		<b>49,3%</b>	<b>32,7%</b>	<b>64,9%</b>	<b>52,6%</b>
<b>1</b>	...in a small company (1-49 employees)	6,3%	2,0%	7,1%	3,4%
<b>2</b>	...in a medium-sized company (50-249 employees)	12,7%	5,3%	12,0%	6,9%
<b>3</b>	...in a large company (250 or more employees)	20,8%	17,3%	20,6%	17,7%
<b>4</b>	...in the non-profit sector	2,1%	2,0%	2,4%	2,3%
<b>5</b>	... in the academic sector (university, university environment)	5,4%	4,7%	9,5%	8,8%
<b>6</b>	...in the public sector	2,1%	1,5%	13,3%	13,5%
<b>Founder (entrepreneur)</b>		<b>22,6%</b>	<b>42,2%</b>	<b>17,8%</b>	<b>32,3%</b>
<b>7</b>	...in my own firm	22,6%	42,2%	17,8%	32,3%
<b>Successor</b>		<b>3,4%</b>	<b>4,2%</b>	<b>2,0%</b>	<b>2,5%</b>
<b>8</b>	...in my parents/family firm	1,6%	1,5%	1,4%	1,4%
<b>9</b>	...in another business	1,8%	2,7%	0,6%	1,1%
<b>Other / Don't know yet</b>		<b>24,7%</b>	<b>20,8%</b>	<b>15,3%</b>	<b>12,5%</b>

Fig. 7 shows a clear comparison across the four career groups. The percentage of those wishing to work for hire in small and medium size enterprises drops almost threefold 5 years after graduation, while the share of potential entrepreneurs increases from 22.6% to 42.22%, which may indicate a positive attitude of Russian students towards entrepreneurial careers.

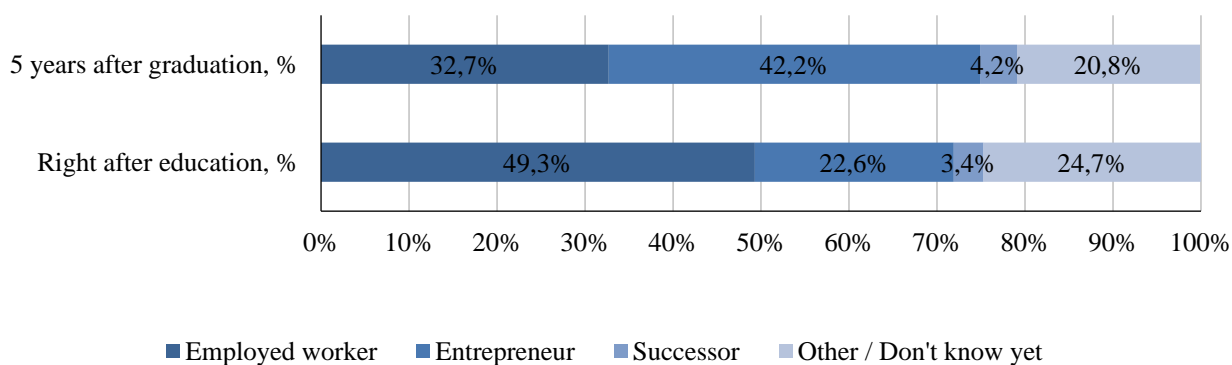
GUESSS data allows us to give a more detailed description of the differences between students choosing one or another career after graduation. Right after their studies, the ratio of students' career preferences in the Economic, Natural Sciences and Social Sciences groups is approximately the same: almost half of the students (over 36%) see themselves as employed, which is up to 54% in the Natural Sciences (Figure 8).

The largest share of those wishing to work for hire five years after graduation is among the students studying Natural and Social Sciences (39% and 38%), and much smaller among Economics and Management (30%), as this is the environment where 50% of the students surveyed see themselves as entrepreneurs (Figure 9).

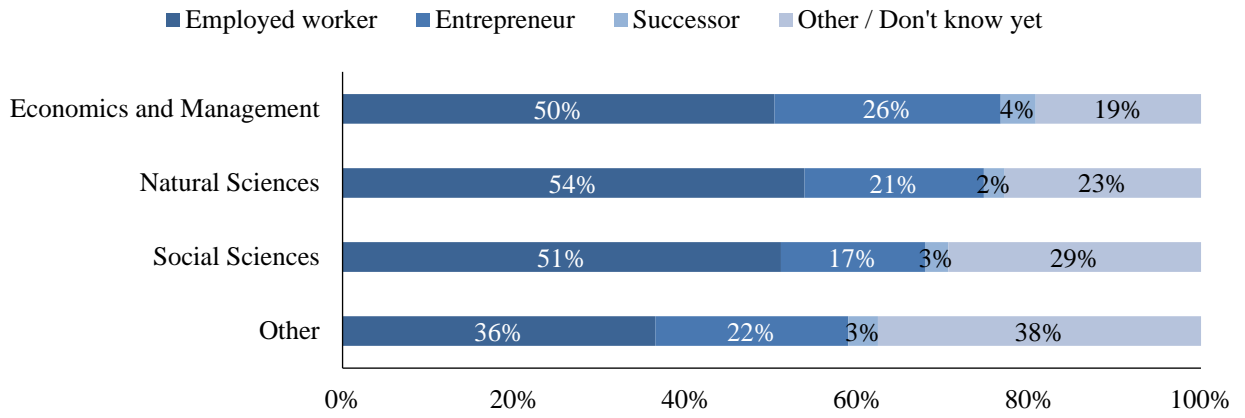
In recent years, there has been a growing interest in gender issues among the researchers in entrepreneurship area. Figure 10 shows that with almost the same ratio of those who are undecided and want to become successors right after graduation, the percentage of those who want to become entrepreneurs is higher among men (26% vs. 21%), while among women the number of those who are inclined towards a career as an employee is higher (50% vs. 48%).



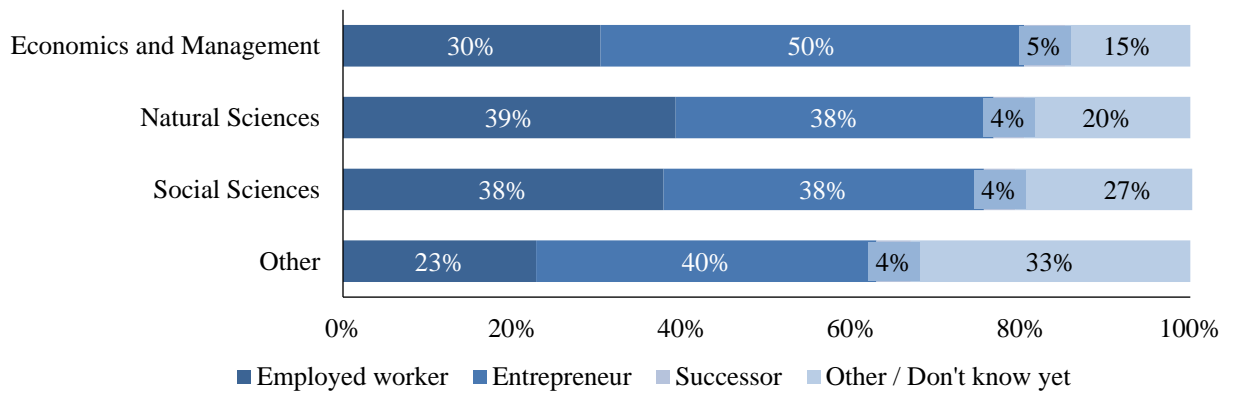
**Fig. 6.** Changes in the career preferences of Russian students



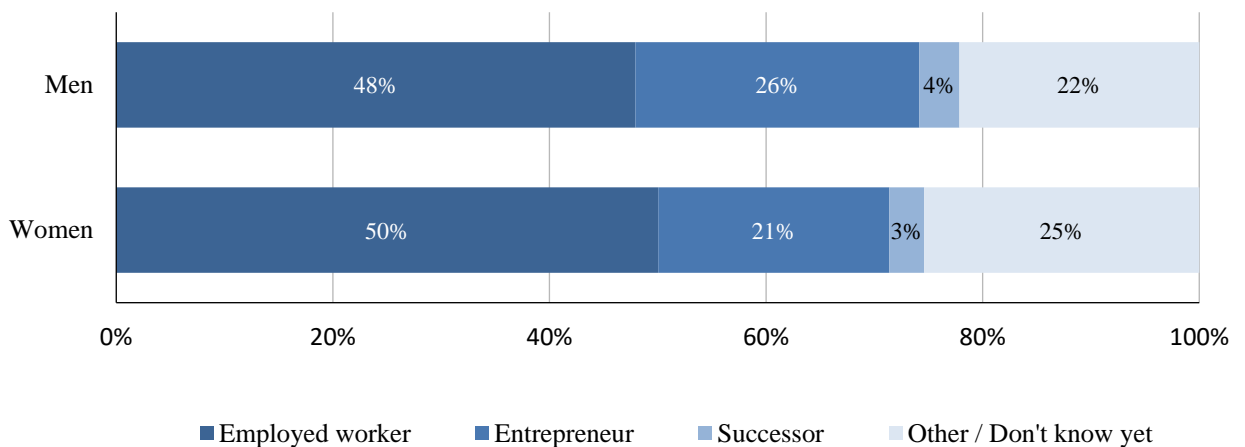
**Fig. 7.** Career choice by group among Russian students



**Fig. 8.** Career plans of Russian students right after graduation and their specialization



**Fig. 9.** Career plans of Russian students 5 years after graduation and their specialization

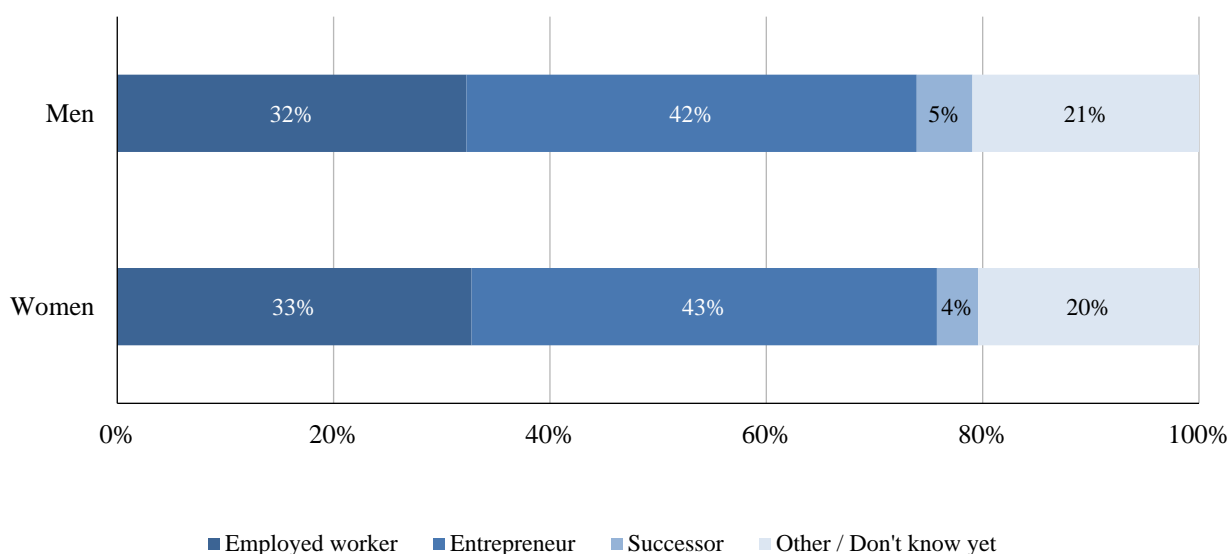


**Fig. 10.** Career plans of Russian students right after graduation and gender profile

Five years after graduation, students' career plans change (Figure 11). Only about 27% of men and 33% of women see themselves as employees, while the percentage of potential entrepreneurs among both gender groups rises to 54% and 49% respectively.

Due to the fact that Russia has participated in the previous GUESSS projects, it is important to understand the extent to which students' aspirations

have changed since the last survey. Table 5 presents comparative data for 2018 and 2021, which allows us to trace the dynamics of career preferences among the students. It is important to note that the proportion of students considering a career as an entrepreneur 5 years after graduation decreased significantly in Russia (by 9.1%) and slightly less in the international sample (by 5.5%).



**Fig. 11.** Career plans of Russian students 5 years after graduation and gender profile

**Table 5**

Students' career plans: a comparison of the Russian and the international samples for 2018 and 2021

Career plans	Russia				International sample			
	2018	2021	2018	2021	2018	2021	2018	2021
	Right after graduation, %		5 years after graduation, %		Right after graduation, %		5 years after graduation, %	
Employed worker	74	49,3	30,2	50,4	79	64,9	50,4	52,6
Entrepreneur	9	22,6	50,4	34,7	9	17,8	34,7	32,3
Successor	4,6	3,4	6,1	4,3	2,5	2	4,3	2,5
Other / Don't know yet	12,4	24,7	13,3	10,6	9,5	15,3	10,6	12,5

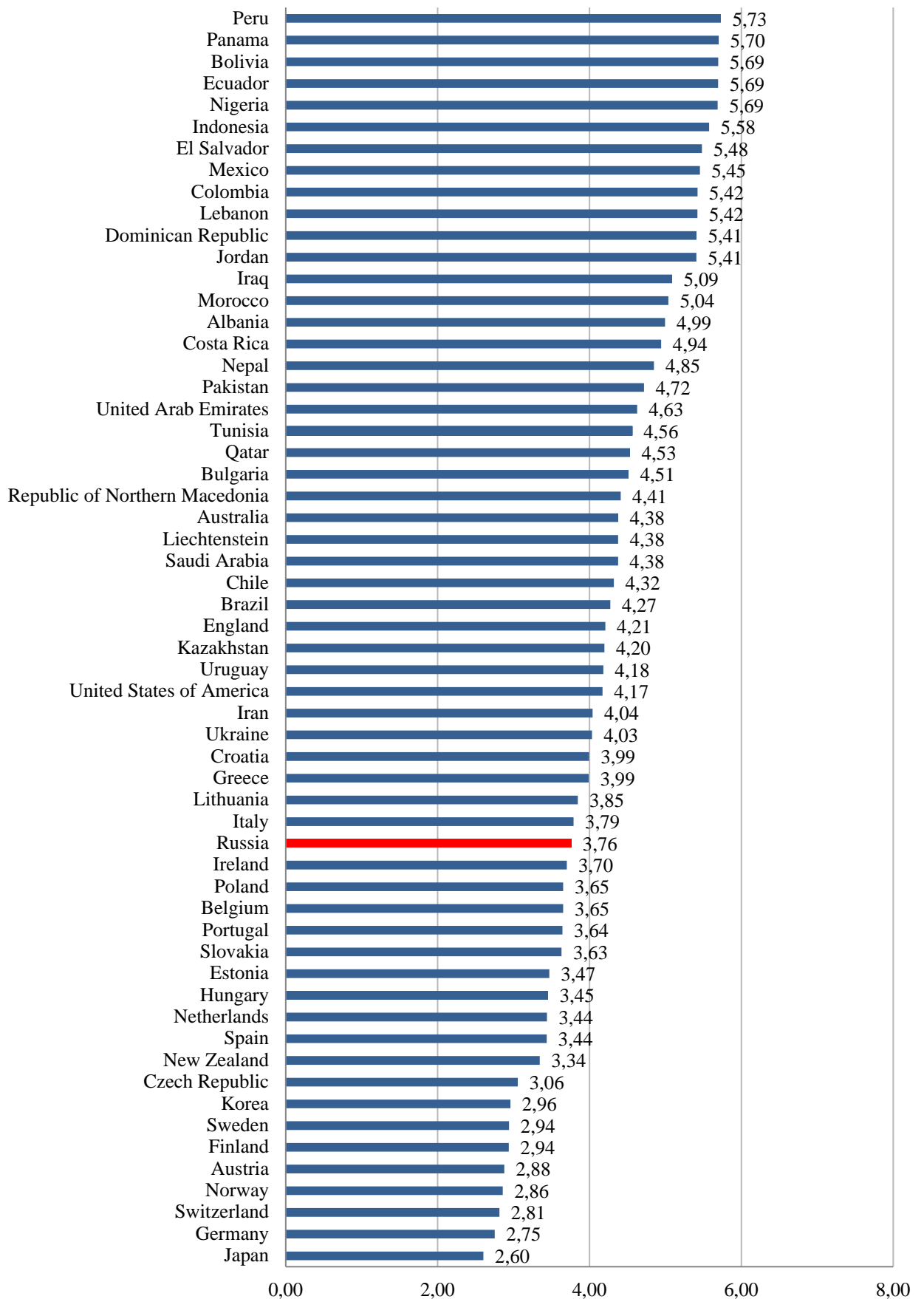
## 4.2. Determinants of entrepreneurial intentions

### 4.2.1. Entrepreneurial intentions

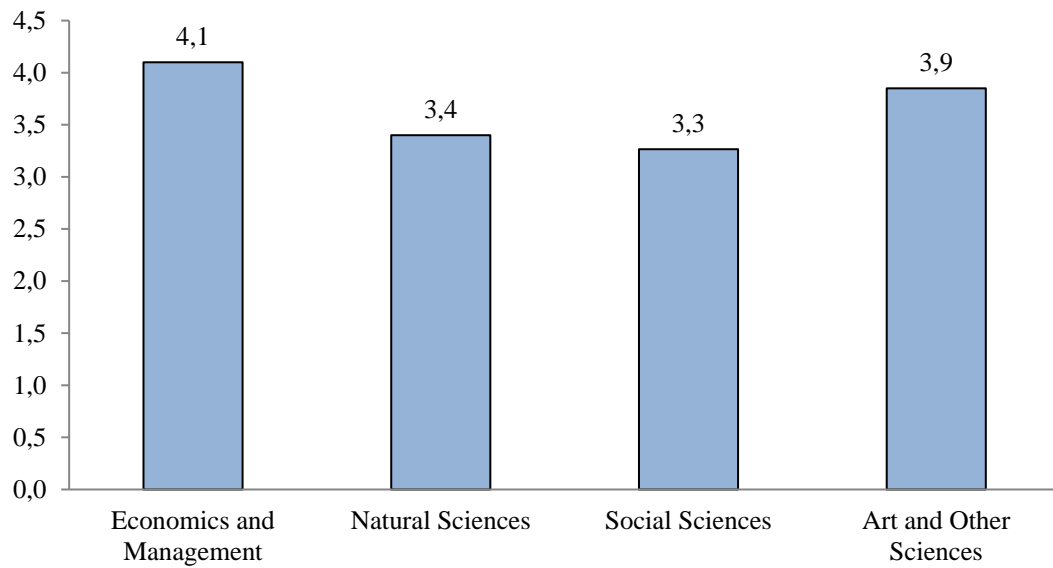
Since entrepreneurial intentions are a key component in the entrepreneurial process and stimulate the involvement of individuals in business creation and development activities [Shirokova et al., 2016; Bogatyreva et al., 2019], the GUESSS project pays attention to the assessment of entrepreneurial intentions of students, as well as their determinants. Intentions are a cognitive state that forms a person's desire to achieve a certain goal [Bird, 1988]. Assessment of the level of entrepreneurial intentions allows to characterize the "entrepreneurial spirit" of students and their potential readiness to start their own business. Entrepreneurial intentions were measured using six statements: "I am willing to do anything to become an entrepreneur", "My professional goal is to become an entrepreneur", "I am willing to make all necessary efforts to start my own business and run my own firm", "I am determined to establish my firm in the future", "I am seriously considering starting my business", "I have a strong intention to start my own business one day". [Linan, Chen, 2009]. Students were asked to rate the degree of agreement with these statements on a 7-point scale: from 1 - completely disagree, to 7 -

completely agree. This approach is reasonable [Zellweger et al., 2011], because otherwise it is difficult to identify those who are thinking about an entrepreneurial career but see it as a "plan B". Based on the responses, we calculated the indices of entrepreneurial intentions as an arithmetic average of all the responses. As shown in Figure 12, the highest index is typical for developing countries (Nigeria, Ecuador, Bolivia, Panama, Peru) and the lowest – of the developed economies (Japan, Germany, Switzerland). Russia ranks 20th (out of 58 countries) in the index of entrepreneurial intentions of students. This index for Russia is 3.76, which almost corresponds to the average value in the sample, but slightly lower than the index in 2018 (4.1). The highest index of entrepreneurial intentions is characteristic of students studying Economics and Management – 4.1, and the lowest (3.3) corresponds to Social Sciences (Figure 13).

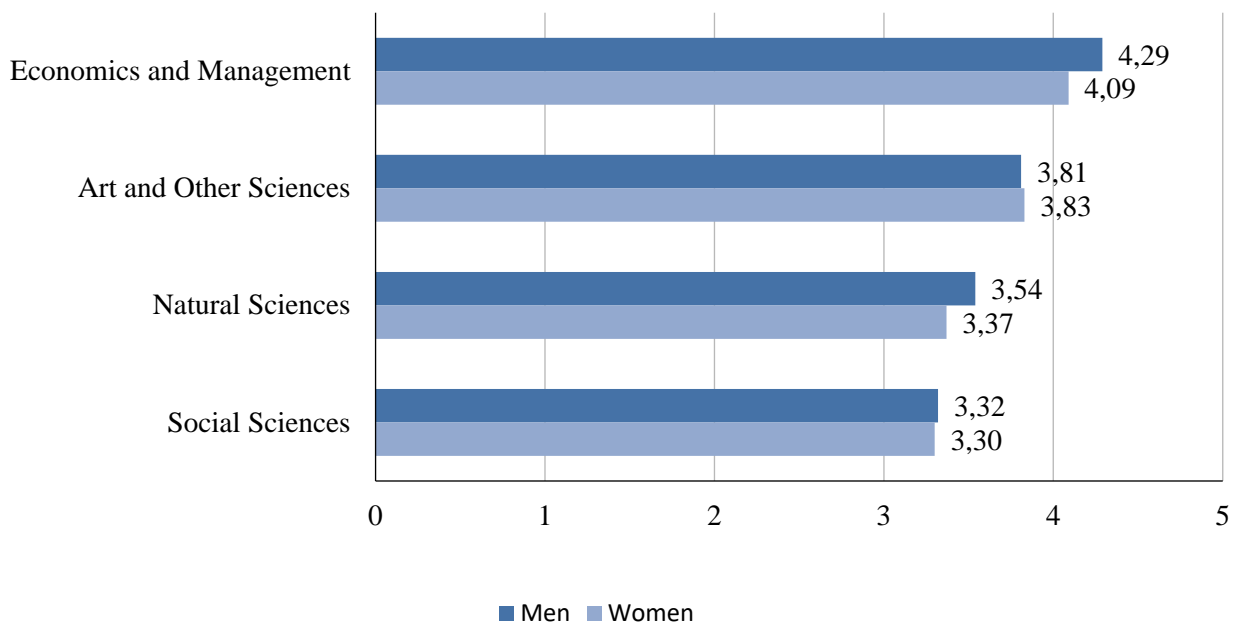
Looking at gender differences, there is observed a general trend: the entrepreneurial intentions index is about the same among male and female students (Figure 14).



**Fig. 12.** Entrepreneurial intentions index of students from different countries



**Fig. 13.** Entrepreneurial intentions and specializations of Russian students



**Fig. 14.** Entrepreneurial intentions and gender profile of Russian students

#### 4.2.2. University environment

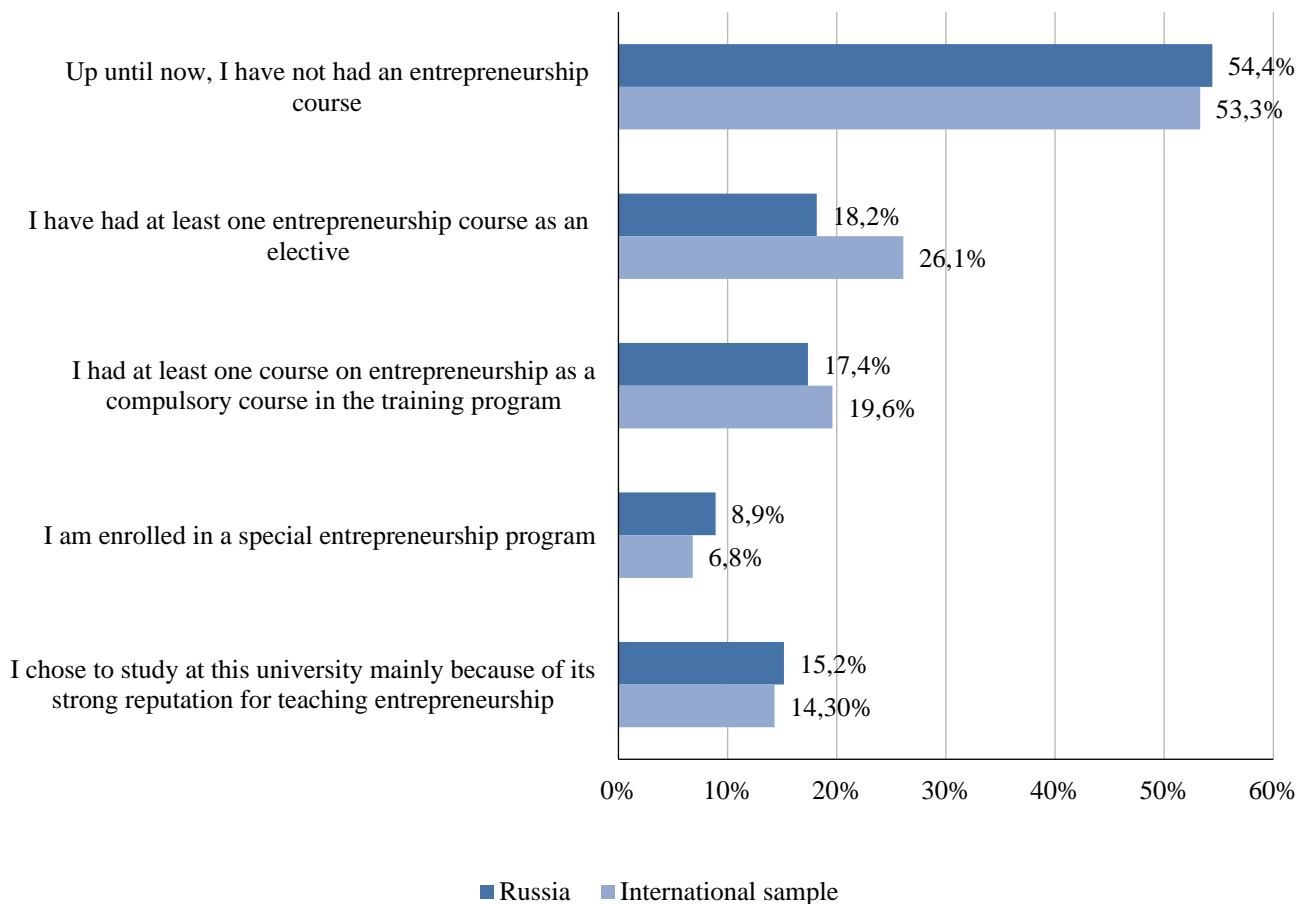
Students are traditionally the most dynamic part of society with high entrepreneurial potential. In Russia, almost every second student who took part in the GUESSSS survey in 2021 intends to become an

entrepreneur 5 years after graduation, but only half as many (22.6%) are ready to start their own business immediately after graduation. This may indicate that students deem necessary gaining work experience as

salaried employees before moving on to setting up their own businesses. Thus, students' entrepreneurial potential is temporarily 'shelved', which may lead to a certain 'disconnect' between intentions and actions. There may be two reasons for this decision. Firstly, young people lack skills and knowledge on how to set up their own business and are not ready to take the risks associated with entrepreneurship. Secondly, the educational institutions where students study do not always consider the need to develop entrepreneurial skills. Therefore, the GUESSS project focuses on the role of higher education institutions, as the learning environment can partly condition entrepreneurial intentions and contribute to the formation of entrepreneurial inclinations.

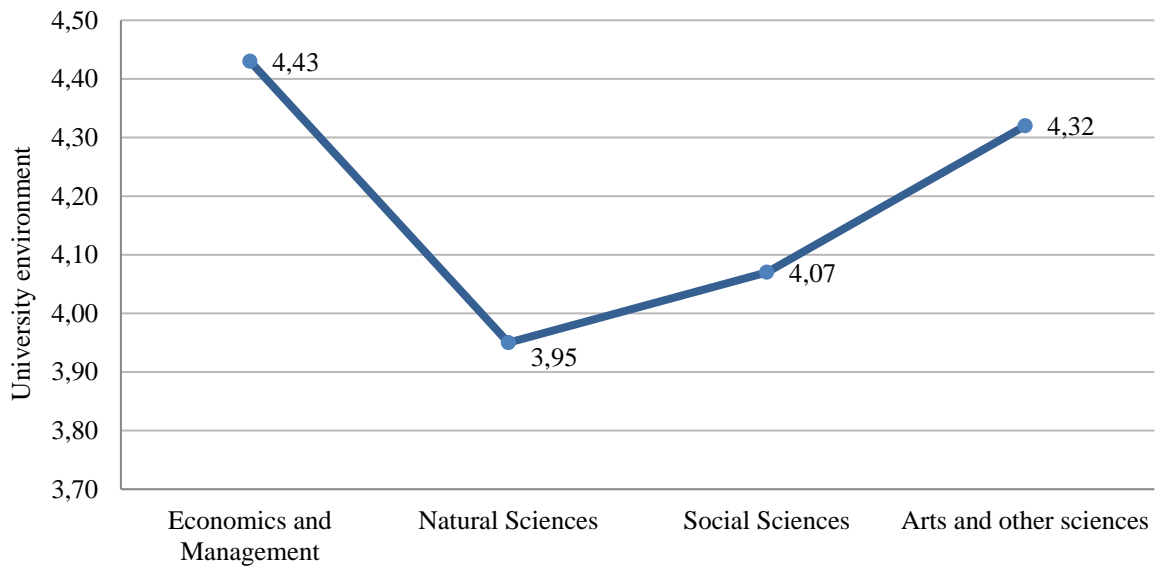
Entrepreneurship education is one of the most important elements in building an entrepreneurial ecosystem, yet it is often overlooked in the existing education programs. As it can be seen in Figure 15, 54.4% of students had no entrepreneurship courses at all, although the rest had at least one elective course. Approximately 8.9% of students are enrolled in a specific entrepreneurship program. It is worth noting that the data obtained for Russia demonstrate lower involvement of universities in the process of creation and implementation of disciplines and programs on entrepreneurship compared to the international

sample. During the GUESSS survey, the students were also asked to assess the extent to which the university environment as a whole supports and fosters the entrepreneurial spirit of students. We all know the outstanding examples of Stanford University, Harvard University and Massachusetts Institute of Technology which have managed to develop a sustainable entrepreneurial environment. University environment can contribute to the development of entrepreneurial potential of students, but this is true only for the universities taking into account this direction in the organization of the educational process. Students were asked to rate on a 7-point scale (1 - completely disagree, 7 - completely agree) the extent to which they agree with the following statements: "The atmosphere at my university inspires me to develop ideas for new businesses", "The university has a favorable climate for becoming an entrepreneur", "My university encourages students to get involved in entrepreneurial activities". Based on these three indicators, an average value was calculated which characterizes the entrepreneurial environment of the university. The lowest indicator was found among students studying Natural Sciences, and the highest for Economics and Management students (Figure 16).





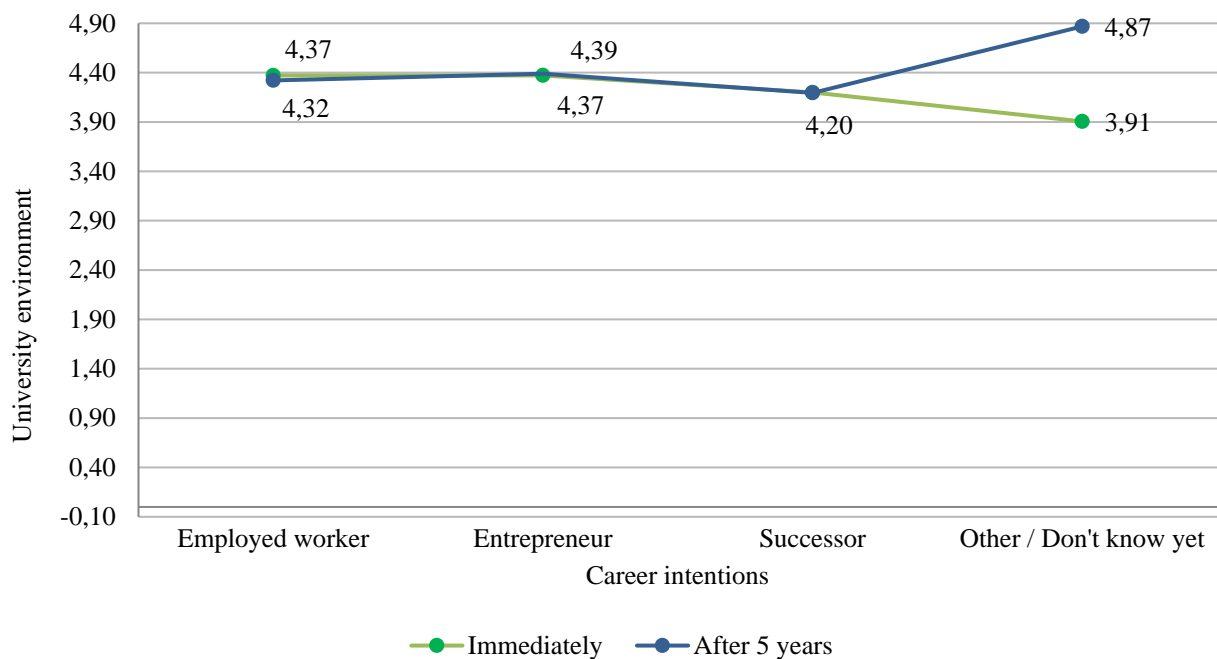
**Fig. 15.** Presence of entrepreneurship courses in universities



**Fig. 16.** Entrepreneurial environment in universities and Russian students' specialization

Figure 17 shows the university entrepreneurial environment index for Russian students across four groups of career preferences. It can be seen that the university's entrepreneurial environment index is

rated almost equally by potential entrepreneurs who intend to start their own business immediately after graduation, and by those who plan to work for hire. Overall, the graph shows quite similar trends.



**Fig. 17.** Entrepreneurial environment in universities and career preferences of Russian students

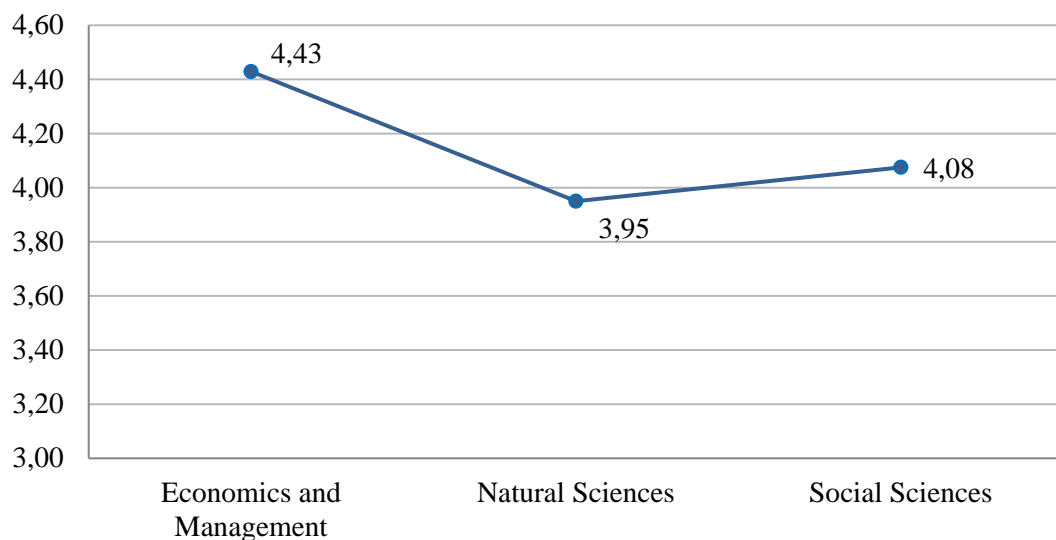
The GUESSS project is not only interested in the availability of courses in entrepreneurship and an assessment of the entrepreneurial climate in the

university, but also in the extent to which the courses and classes attended contribute to the development of an entrepreneurial component. Similar to the

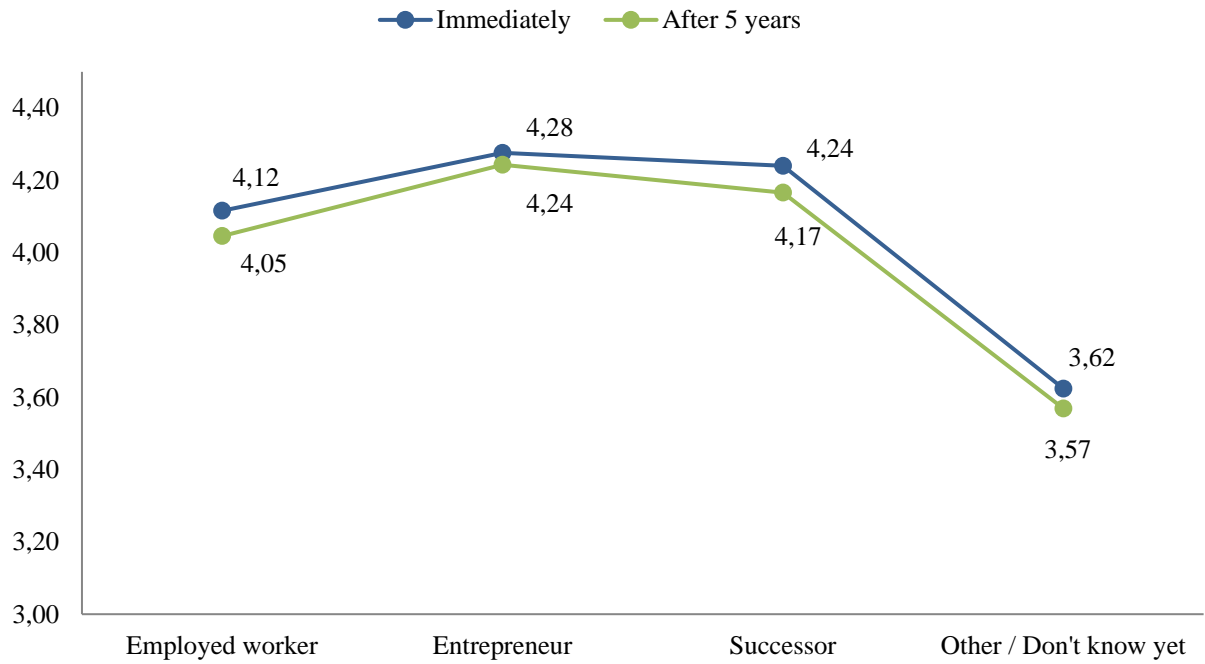
university environment indicator, an aggregate measure was created to assess the role of learning experience corresponding to the degree students agree with the statements: "The courses and classes I attended (1) deepened my understanding of attitudes, values and motivation of entrepreneurs; (2) deepened my understanding regarding the actions to be taken to start my business; (3) improved my practical management skills needed to start my business; (4) developed my ability to make personal contacts; (5) improved my ability to identify business opportunities." [Souitaris et al., 2007]. The index takes values from 1 to 7. The average for the international sample was 4.29 and for Russia it was 4.25. The highest rate was among students studying Economics and Management, while the lowest was among those studying the Natural Sciences (Figure 18).

When comparing indicators and career plans, it can be noted that students who plan to become

entrepreneurs five years after graduation rate the role of learning experience higher. This may be due to their established vision of their future careers and understanding of what knowledge they need to acquire in order to do so in higher education (Figure 19). However, in general, this indicator for all categories is in the range from 3.57 to 4.28, which indicates a rather restrained assessment of the learning component in the development of important entrepreneurial skills. It should also be noted that among Russian students who see themselves as employees immediately after graduation, many agree that training courses have helped them develop their ability to establish personal contacts and deepened their understanding of entrepreneurial motivation and values. The students who intended to start their own businesses also said that the classes they have received have improved their ability to identify business opportunities.



**Fig. 18.** The role of higher education and the specialization of Russian students



**Fig. 19.** The role of higher education and the career preferences of Russian students

#### 4.2.3. Family

There is an ongoing debate in the academic literature about the extent to which parents' career orientation influences the formation of their children's career intentions. In general, academic research tends to support the fact that if parents are entrepreneurs, the likelihood that children will follow their path is increased [Laspita et al., 2012].

In the GUESSS questionnaire, students were asked whether their parents or at least one of them are currently entrepreneurs (Figure 20). Most of them (72.9%) have parents whose work activities are not related to entrepreneurship.

Figure 21 shows a comparison of career preferences of students five years after graduation for two parts of the sample: those whose parents are entrepreneurs and those whose parents are not entrepreneurs. As it would be expected, the percentage of students who intend to become entrepreneurs is higher if their parents are also entrepreneurs (51%) as compared to non-entrepreneurs (39%). A similar situation can be observed in the case of a successor career.

Parent entrepreneurs

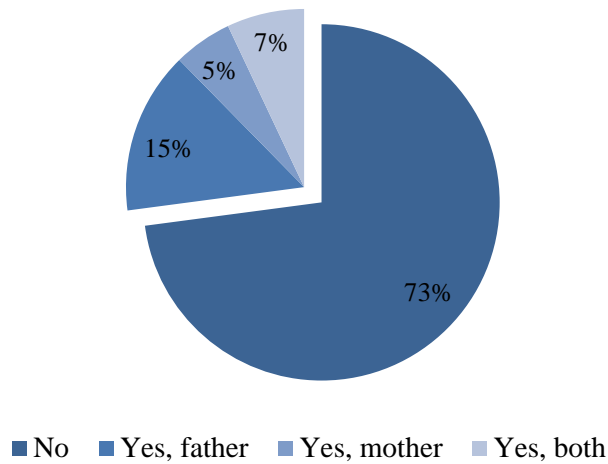


Fig. 20. Presence of entrepreneurial parents in the families of Russian students

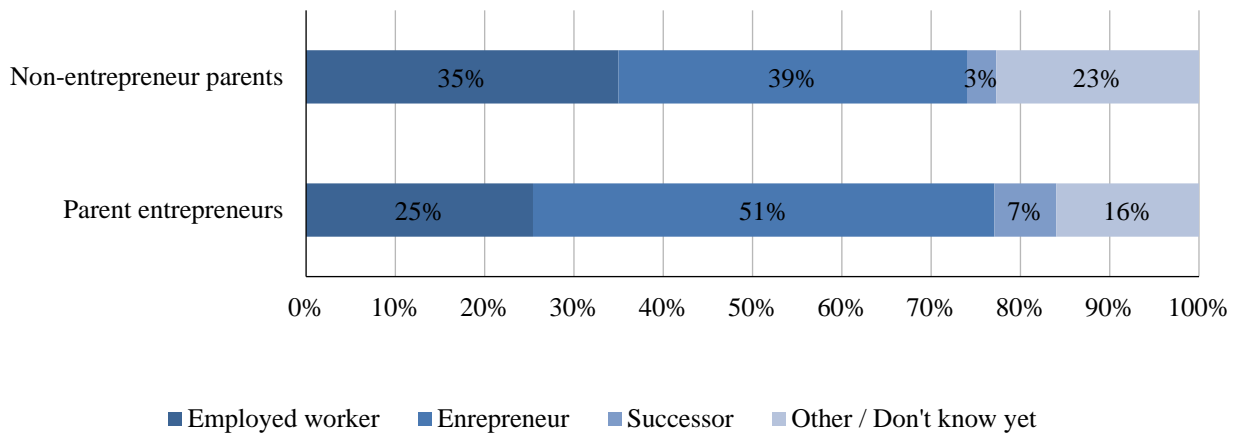


Fig. 21. Parent-entrepreneurs and career preferences of Russian students 5 years after graduation

#### 4.2.4. Socio-cultural context

Most scholars agree that decision-making process is closely related to the social and cultural context of the individual. Consequently, socio-cultural factors may have some influence on the formation of students' entrepreneurial intentions. The GUESSS project focuses separately on two aspects: the role of the nearest social environment and national culture. Using the assessment of "subjective norms" according to the theory of planned behavior [Ajzen, 1991], it is possible to estimate the expected reaction of relatives to the chosen career path. The theory holds that the more positive are the expectations about the reaction of one's environment to certain

actions, the more likely it is that the planned steps will be carried out.

In the questionnaire students were asked how people in their environment (family, friends and fellow students) would react if they chose a career as an entrepreneur. They were asked to rate their reactions on a scale from 1 (very negative) to 7 (very positive) [Linan, Chen, 2009]. The results show that students expect a positive reaction of their environment in case of choosing an entrepreneurial career, and the average score on all three questions is slightly higher among Russian students (5.8) compared to 5.7 in the international sample (Table 6).

**Table 6**

Entrepreneurial career choices and reactions of the environment

Environment's attitudes towards entrepreneurial careers	Russia	International sample
Family	5,8	5,7
Friends	6,0	5,8
Fellow students	5,6	5,6
<i>Index*</i>	5,8	5,7

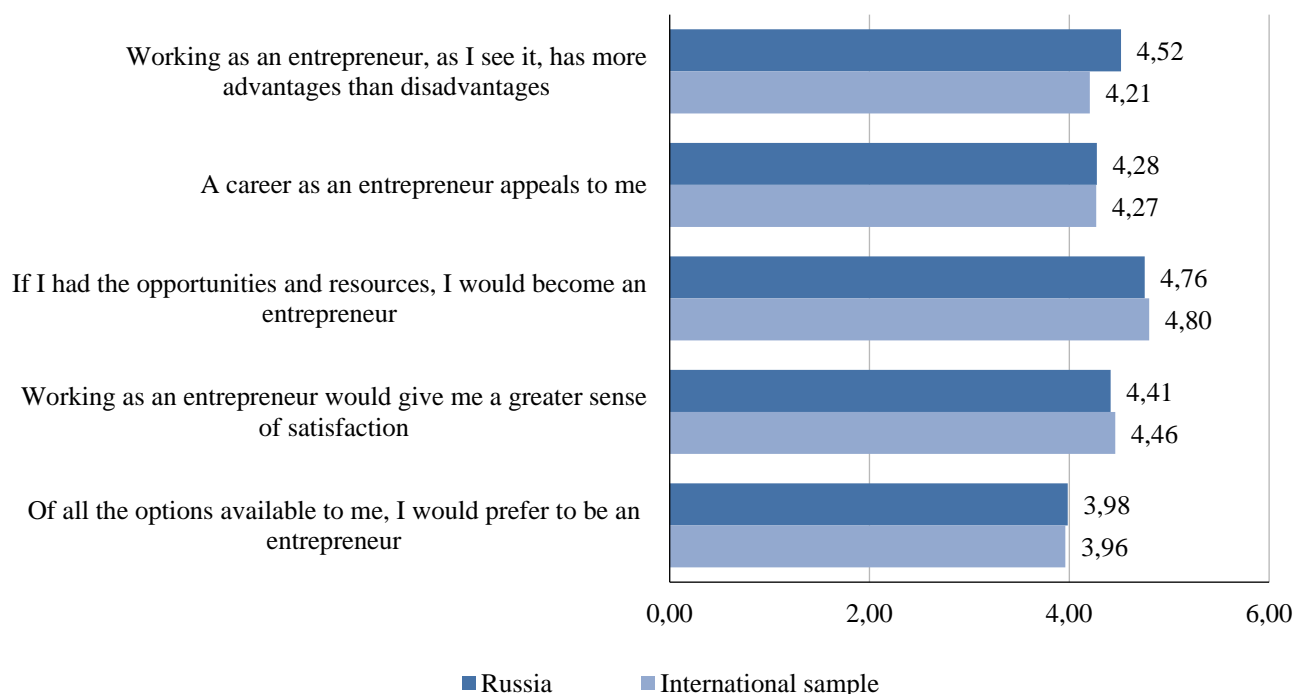
Note: averages are presented; the scale from 1 to 7: 1 is extremely negative, 7 is extremely positive; \* the index is calculated as an arithmetic mean based on the reactions of the three categories presented: family, friends and fellow students.

**4.2.5. Attitude towards entrepreneurship**

According to the theoretical research model (Figure 1), among the main factors that can influence the formation of entrepreneurial intentions of students and strengthen their "entrepreneurial spirit" are the attitude towards behavior [Linan, Chen, 2009].

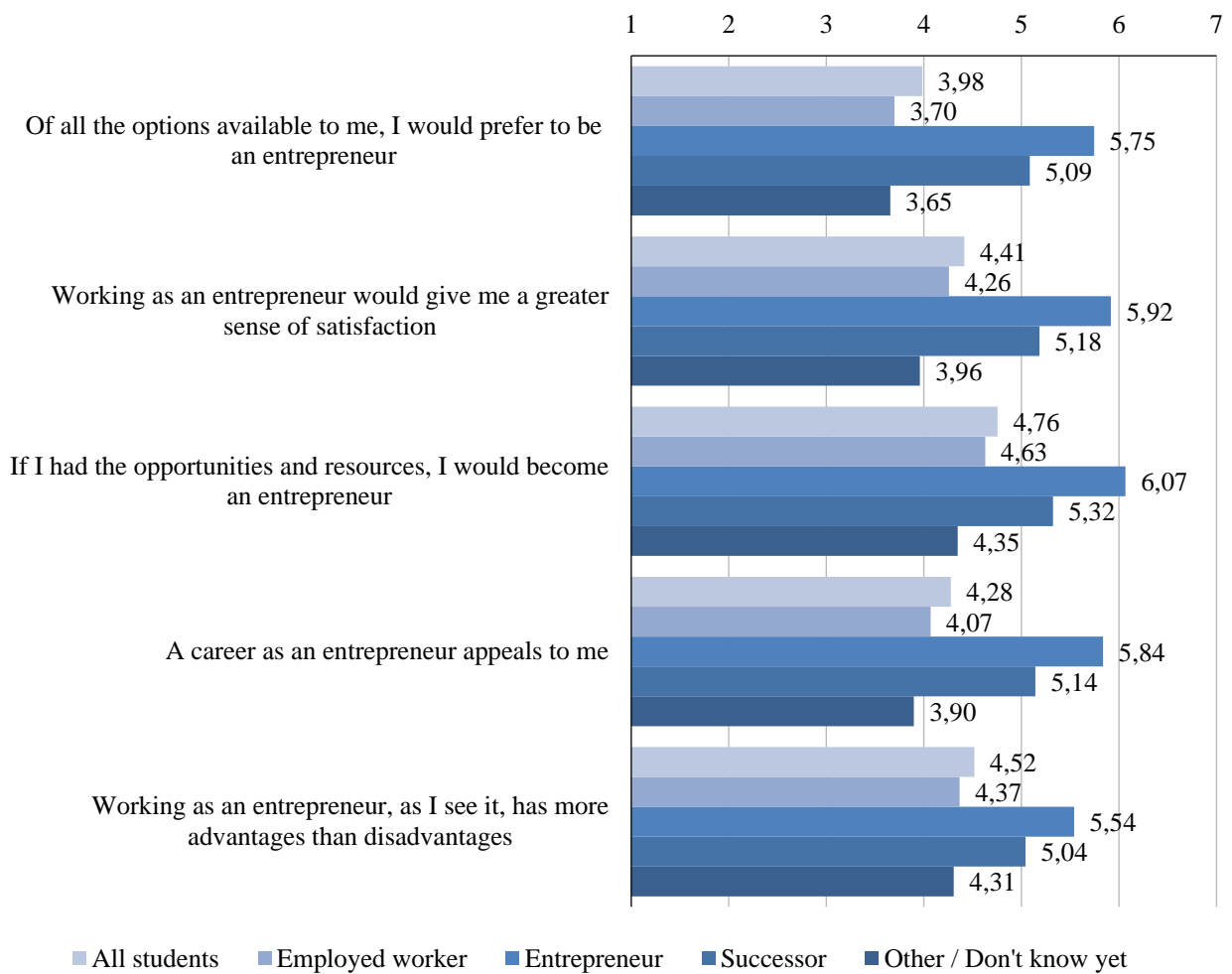
Working as an entrepreneur means constantly moving forward, improving, developing, making plans, setting ambitious goals, organizing work, finding the necessary resources and reaching new

heights. Not everyone is ready for such responsibility and independent decision-making, some people feel more comfortable as employees, which is confirmed by the GUESSS survey results. As can be seen in Figure 22, there is a stronger positive attitude towards entrepreneurship in general among Russian students. Note that many respondents in Russia were more likely to agree that they lack resources to realize their entrepreneurial potential (Figure 23).



**Fig. 22.** Attitude towards entrepreneurship

Note: averages are presented; the scale from 1 to 7: 1 - strongly disagree, 7 - strongly agree.



**Fig. 23.** Attitudes towards entrepreneurship and career preferences of Russian students right after graduation

*Note: averages are presented; the scale from 1 to 7: 1 - strongly disagree, 7 - strongly agree*

Future entrepreneurs and successors agree to a greater extent that working as an entrepreneur brings more advantages than disadvantages and consider entrepreneurial career attractive. It is worth adding that Russian students agree that starting their own

business would bring them a greater sense of satisfaction, which indicates not only a positive attitude towards entrepreneurship, but also the presence of latent entrepreneurial potential among students.

#### 4.2.6. Entrepreneurial self-efficacy

The formation of entrepreneurial intentions is largely dependent on the existence of certain competencies which are required to create and run a business. The concept of entrepreneurial self-efficacy describes people's perceptions of their ability to perform entrepreneurial tasks and achieve desired results. When planning a career, students assess and relate their abilities to the requirements of different professions. Thus, a high level of self-efficacy in relation to tasks important for entrepreneurship can increase the chances of a student choosing an entrepreneurial career.

To assess the level of entrepreneurial self-efficacy students were asked to indicate their level of competence in various entrepreneurial tasks (1-competence poorly developed, 7 - competence well developed). Figure 24 shows the distribution of the average assessment of the level of competence development among Russian students based on their career preferences. According to our expectations, future entrepreneurs and successors have a higher level of development of all the competencies when performing tasks important for entrepreneurial activities compared to employees.

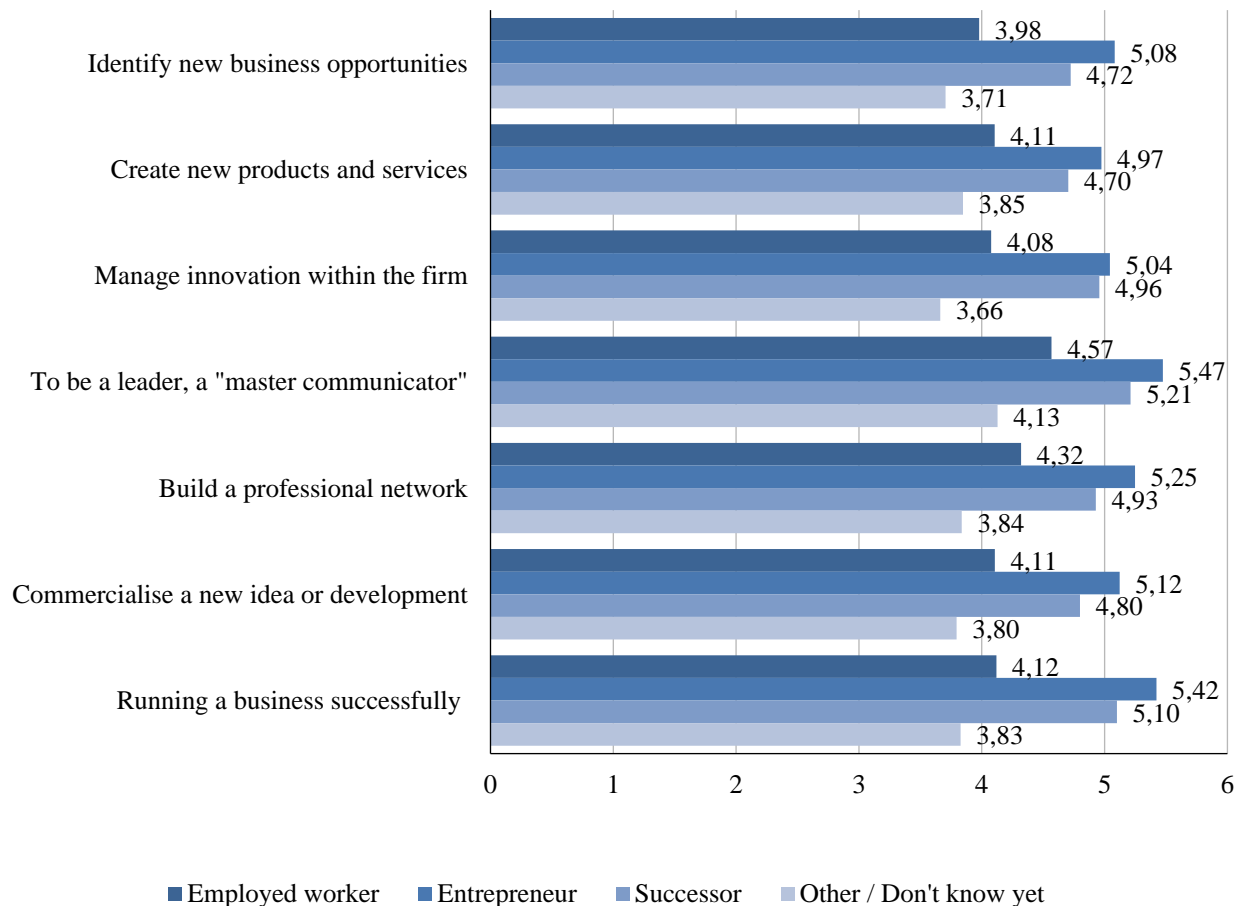


Fig. 24. Competencies and career preferences of Russian students right after graduation

### 4.3. Entrepreneurship among students

Based on the questionnaire, we can identify active and potential entrepreneurs among all the respondents. Active entrepreneurs include students who are already running their own business, and potential entrepreneurs are those who were trying to start their own business at the time of the survey. It is worth noting that the percentage of potential entrepreneurs among students in Russia is higher compared to the international sample (Figure 25) and is about 42%. However, the percentage of active entrepreneurs is quite low both in Russia and in the international sample: only about 12.2% of students in

Russia started their own business during their studies at university (10.8% - in the international sample).

In order to explore students' entrepreneurial intentions in more detail, the GUESSS survey focuses not only on the individual characteristics of potential and active entrepreneurs and their environment, but also on the environment in which businesses are created. Since the survey was conducted in the context of the next wave of the COVID-19 pandemic, the issue of the impact of the crisis context on entrepreneurial activity has a significant place in the study. In addition, different approaches to starting a new firm are described below.

#### 4.3.1. Potential entrepreneurs

In this part of the report, the analysis includes responses from students who are about to start their own business – potential entrepreneurs or are already running their own business – active entrepreneurs.

In the total sample, the number of potential entrepreneurs reaches 75838, which is equivalent to 28.4% of the total sample, while in the Russian

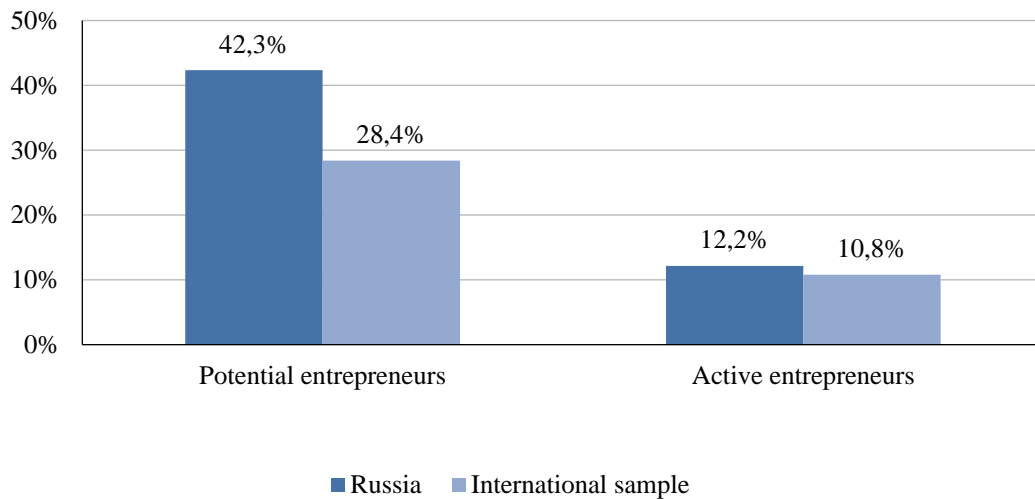
sample it is 2289, or 42.3%. The majority of the potential entrepreneurs are trained in Economics and Management - this is 46.5% of those surveyed (Figure 26).

To examine this category of students in more detail, we turn to gender differences (Figure 27). Among those studying Economics and Management

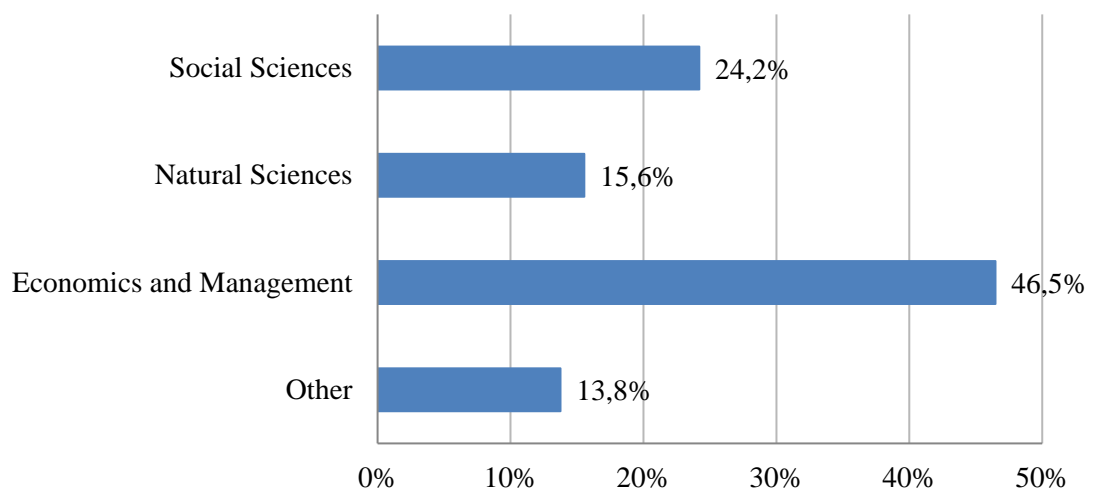
and Social Sciences, the majority are women (70% and 78%), while in Natural Sciences, men are more interested in entrepreneurship (58%). In all the selected areas, the proportion of women has increased compared to the 2018 survey.

In Russia, 33% do not yet know when they will start their own company, which is the most frequent answer. Almost 29% assume that they will start their

own business within two years after graduation. Slightly less – 26.4% of students think they will open their own firm during their studies. Only 10% of students plan to start their own business immediately after graduation. On average, in the total sample the respondents plan to open their own business not earlier than in 1 year (Figure 28).

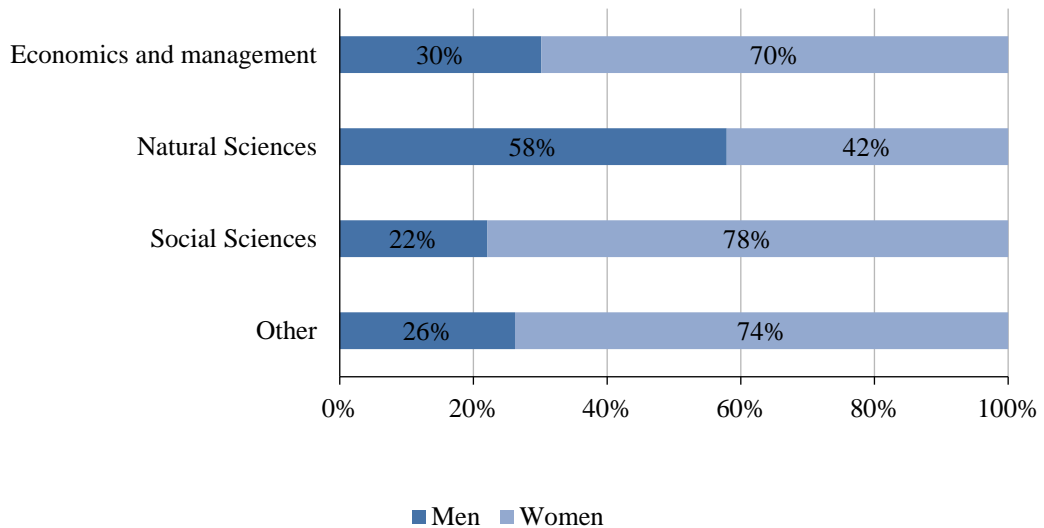


**Fig. 25.** Starting your own business while studying at university

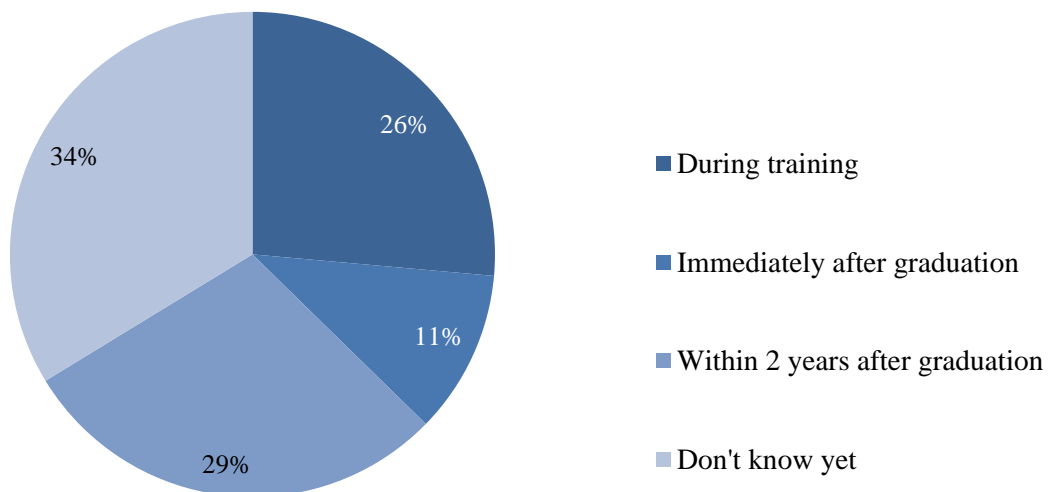


**Fig. 26.** Potential entrepreneurs among Russian students and their specializations





**Fig. 27.** Potential entrepreneurs among Russian students, their gender composition and specialization



**Fig. 28.** Plans to start a firm among Russian students who are potential entrepreneurs

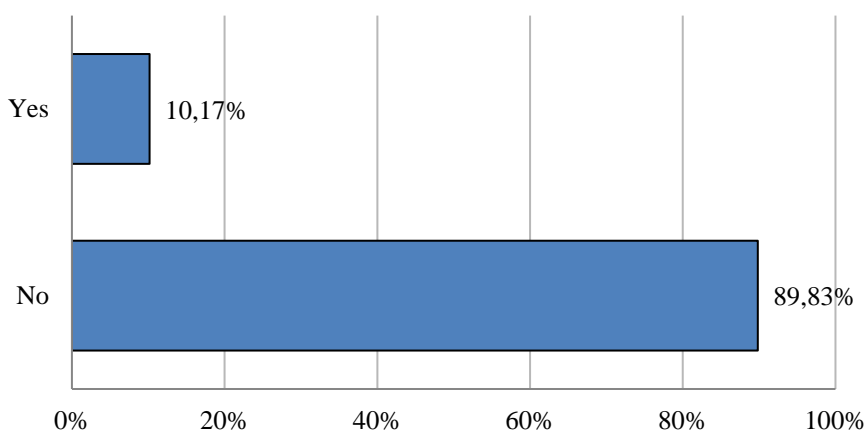
The vast majority of Russian potential entrepreneurs among students have no previous experience of starting a business (Figure 29). Figure 30 shows the classification of future firms in Russia by sector. 16.51% of potential entrepreneurs aim to start a business in advertising/marketing/design (which exceeds the figure for the international sample - 12.31%). The second most popular sector is wholesale or retail trade, with education and training in third place. Since starting your own firm entails a high degree of risk and many would like to reduce it, one solution is to share risks with a partner (or partners). In Russia, 28% of potential entrepreneurs

believe that they should start their own firm with at least one partner (Table 7). Fifty-seven percent of Russian respondents are ready to be completely independent in their entrepreneurial activities. At the same time, the majority of students (65%) note that they came up with the idea for their business independently of university (Figure 31). 30% of the respondents noted that they had not looked for any business partners, as this type of self-employment does not involve partners (Table 8), while 20% of students have not yet looked for partners, but plan to do so in the future.

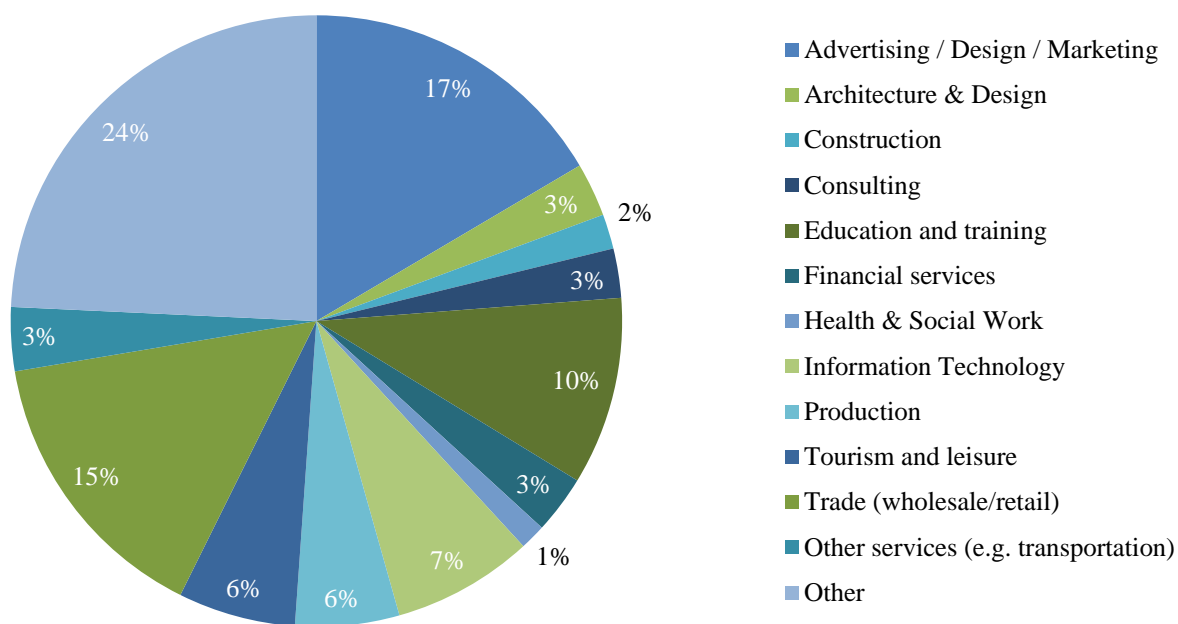
**Table 7**

Partners for future business

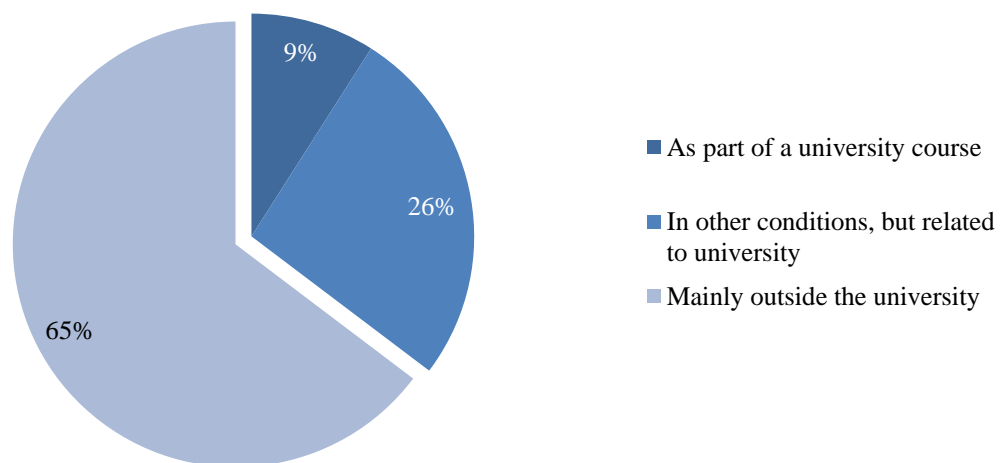
Business partners	Russia, %	International sample, %
No	57%	53%
One partner	28%	28%
Two partners	10,4%	11%
Three partners or more	5%	7%



**Fig. 29.** Russian students - potential entrepreneurs - who have experience of starting a business



**Fig. 30.** Sectors of activity of the future firms of Russian students – potential entrepreneurs



**Fig. 31.** Linking the business idea and the university

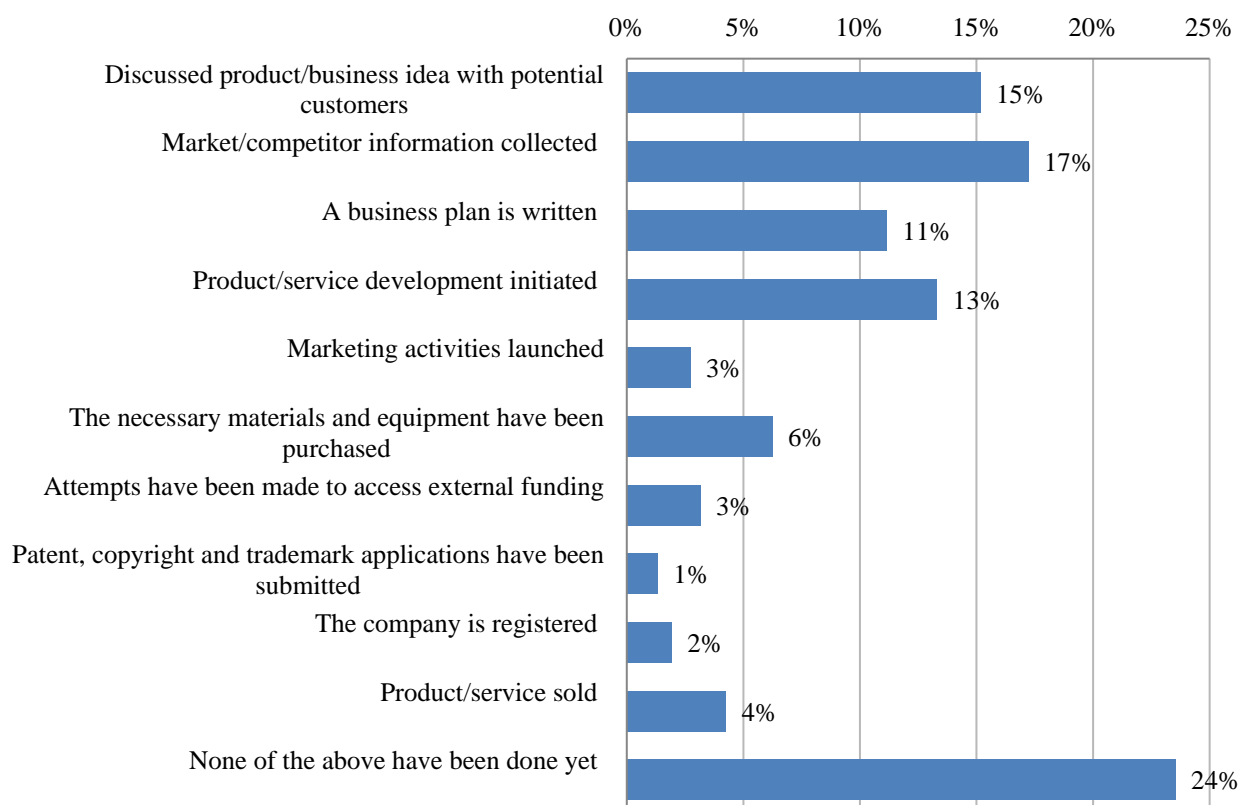
**Table 8**

How the co-founding team (business partners) was created

Team building	Russia, %	International sample, %
This is a type of self-employment, so a business partner is not needed	30%	27%
I don't want to have a partner, I want to start business on my own	27%	23%
I was looking for a business partner but couldn't find the right one	5%	8%
I have not yet looked for a business partner, I plan to do so in the future	20%	29%
None of the above	18%	14%

Since students in the category of potential entrepreneurs noted the fact that they are already trying to start a business, natural questions arise: what stage are they at, what steps have they already taken? Approximately 24% of potential entrepreneurs among Russian students have not yet taken active steps (Figure 32). 15% of students have discussed their business idea with potential clients. 17% have collected information about the market and competitors, and about 11% have written a business plan or have started product/service development – 13%.

The number of steps taken to start a business creates another index that reflects the degree of entrepreneurial activity among those students who aim to start their own firm. The index is calculated as the sum of the steps taken from 0 ("none of the above") to 10, where 10 is the maximum possible number of steps taken, Figure 38. Based on the calculations, the following results were obtained: the highest index of entrepreneurial activity is characteristic of Brazil, Sweden and Colombia, while the lowest is characteristic of Nigeria, Qatar and Tunisia. For Russia, the index is 2.36 (Table 9).



**Fig. 32.** Steps that Russian students have taken to start their own businesses

**Table 9**

Index of business activity

№	Country	Index	№	Country	Index
1	Brazil	3,8	17	Belgium	2,4
2	Sweden	3,14	18	Kazakhstan	2,37
3	Colombia	2,94	19	Russia	2,36
4	Germany	2,64	20	Bolivia	2,34
5	Switzerland	2,62	21	Pakistan	2,28
6	Hungary	2,61	22	Austria	2,27
7	Chile	2,59	23	New Zealand	2,25
8	Costa Rica	2,48	24	Saudi Arabia	2,22
9	Italy	2,47	25	Estonia	2,21
10	Mexico	2,47	26	Indonesia	2,16
11	Slovakia	2,44	27	Spain	<b>2,15</b>
12	Jordan	2,43	28	Czech Republic	2,11
13	Portugal	2,43	29	Greece	2,06
14	Japan	2,43	30	Bulgaria	2,06
15	Ecuador	2,42	31	Croatia	2,05
16	Panama	2,42	32	United Arab Emirates	2,02

№	Country	Index	№	Country	Index
33	Lithuania	2	44	Liechtenstein	1,72
34	Korea	1,97	45	Poland	1,7
35	Ukraine	1,91	46	Nepal	1,69
36	Dominican Republic	1,89	47	Netherlands	1,39
37	Iran	1,84	48	Finland	1,36
38	El Salvador	1,8	49	Peru	1,33
39	Iraq	1,76	50	Australia	1,32
40	Albania	1,75	51	Lebanon	1,11
41	Uruguay	1,75	52	Nigeria	1,08
42	Morocco	1,73	53	Qatar	0,91
43	Republic of Northern Macedonia	1,72	54	Tunisia	0,85

*Note: No index has been calculated for England, Ireland and the USA due to a small number of the observations (less than 15)*

#### 4.3.2. Active entrepreneurs

Only 12.2% of students in the Russian sample and 10.8% in the international sample already run their own business (in absolute numbers, 657 and 28,877 respectively).

The majority of students in the Russian sample started their firms recently: 35.2% in 2020 and around 20% in 2021. About 30% of the respondents started their business earlier in 2019-2018 (Table 10). In the international sample, about 31% of students set up a firm in 2020 making up the majority of the sample, 18% in 2021, and the rest in 2019 or even earlier. An average of 3 people work in a firm in Russia and an average of 9 people in the entire international sample. A large share of ownership is concentrated in the hands of entrepreneurs themselves. Among active entrepreneurs, almost a third of the respondents do business together with their partners.

According to the results of the 2021 survey, the majority of active entrepreneurs are motivated by their own financial well-being. According to the typology of entrepreneurs proposed in the study [Fauchart & Gruber, 2011], such entrepreneurs are characterized by a Darwinian social identity. In Russia, about 60% of active entrepreneurs have this type of identity as the dominant one. In countries such as Saudi Arabia and Brazil, this figure is even higher – 82% and 76% respectively.

In addition to the Darwinian social identity, researchers also distinguish entrepreneurs with Communitarian and Missionary social identity (Fauchart & Gruber, 2011). Communitarian entrepreneurs are driven by both the interests of the local community they belong to and the creation of value for the members of that community. In European countries such as Finland and Germany this type is dominant among active entrepreneurs surveyed – 52% and 46% respectively. Missionary

entrepreneurs differ from Darwinian and Communitarian entrepreneurs in that their primary motive for starting a business is to solve global human problems. They are concerned about sustainable development, preserving favorable living conditions for future generations, creating value not just for the local community, but for all of humanity. This type of identity is least pronounced among the entrepreneurs in Russia. In countries such as Brazil and Saudi Arabia, a comparable percentage of active entrepreneurs have Communitarian and Missionary identities as dominant.

When looking at gender differences among active entrepreneurs of different types, it was found that women have a more pronounced entrepreneurial identity, regardless of the meaning they put into the existence of their business (Figure 33).

Active entrepreneurs were asked to evaluate the performance of their business. The evaluations were quite moderate. Looking at the data presented in Figure 34, it is worth noting that among Russian students the assessment of business success, including sales growth, increase in market share, profit, job creation and innovativeness, is slightly lower than in the international sample. Nevertheless, the overall level of satisfaction with their own business is above average among Russian students (4.26 out of 7 points).

When considering the relationship between firm performance and the type of social identity of entrepreneurs, it can be observed that Darwinian entrepreneurs succeed in business in terms of growth as well as innovativeness. The Communitarian and Missionary entrepreneurs are characterized by the increasing importance of firm innovativeness and job creation (Figure 35).

Table 10

Characteristics of existing business

	Russia	International sample
<b>What year did you set up the company?</b>		
2021	20,0%	18,4%
2020	35,2%	31,6%
2019	17,4%	14,8%
2018	12,1%	9,3%
2017	3,2%	5,6%
2016 and earlier	12,1%	20,3%
<b>Number of employees</b>	3	10
<b>What is your ownership share?</b>		
0-49%	16,2%	21,7%
50%	17,9%	20,8%
51-100%	65,9%	57,6%
<b>Number of co-owners</b>		
0	62,7%	37,3%
1	23,2%	29,7%
2	7,9%	18,8%
3	2,7%	7,6%
More than 3	3,4%	6,6%

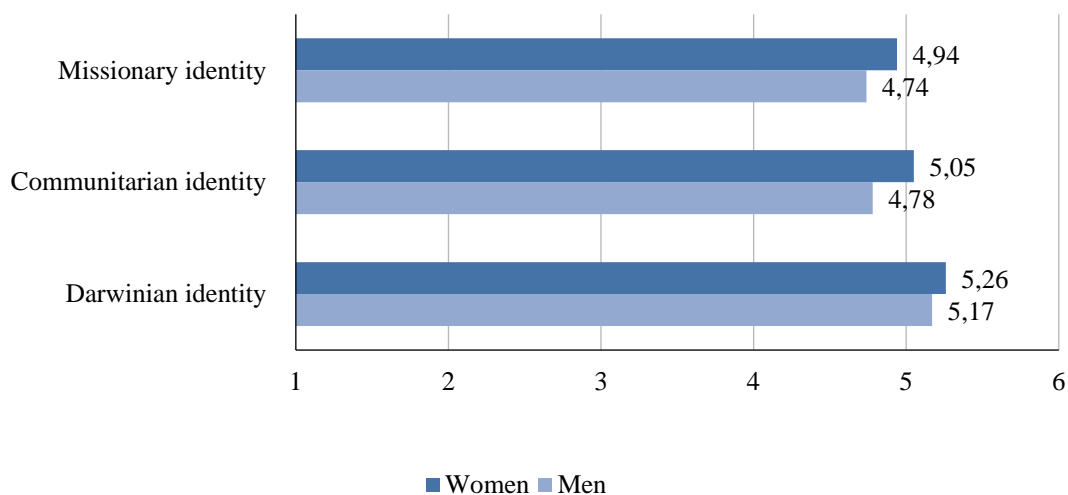
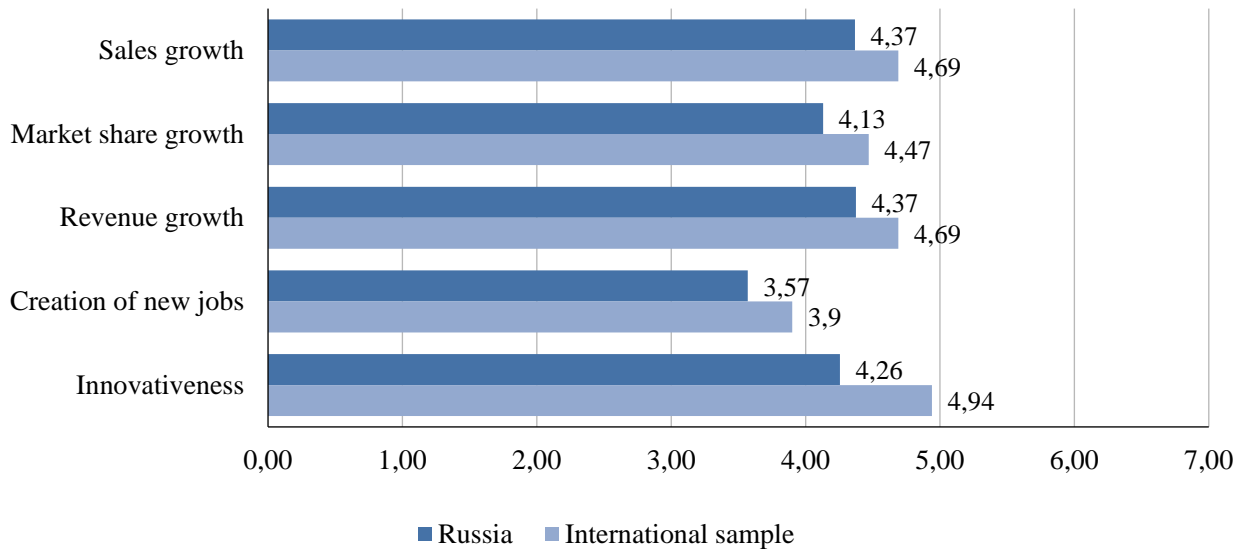
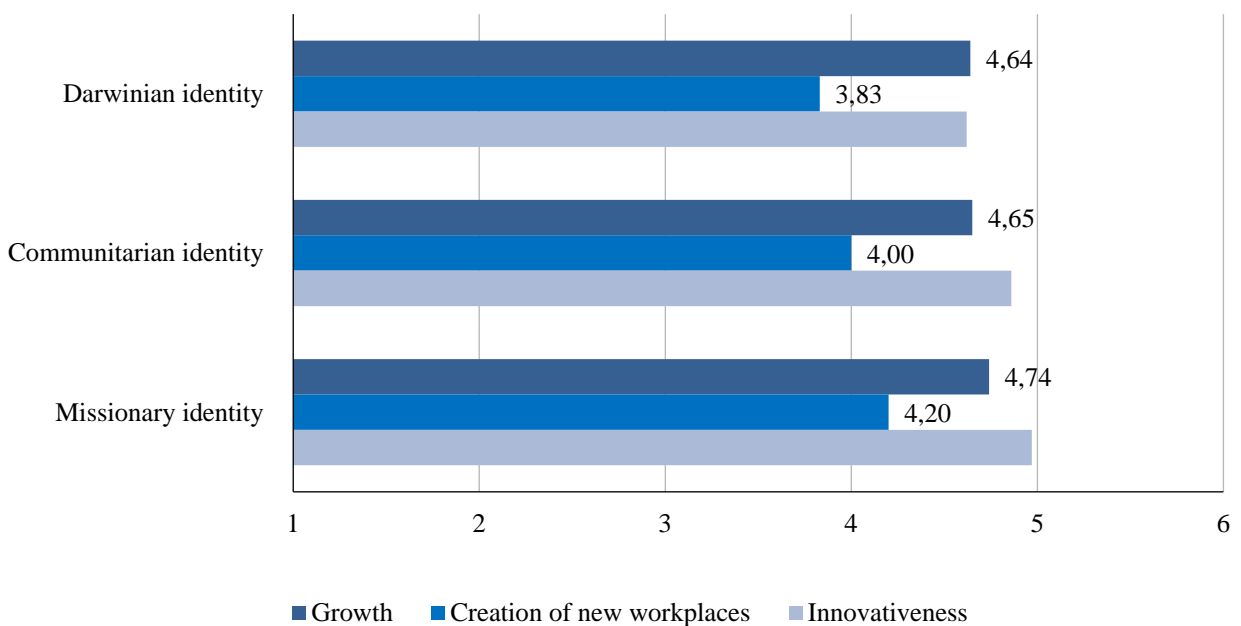


Fig. 33. Social identity of active entrepreneurs – the gender aspect



**Fig. 34.** Business performance among active entrepreneurs



**Fig. 35.** Business performance among active entrepreneurs with different types of identity

As mentioned earlier, the 2021 survey was conducted during the next wave of the COVID-19 pandemic, which drew particular attention to the context of the crisis and its role in terms of entrepreneurial activity. For many young people the pandemic was a source of business opportunities. In Russia, in response to the pandemic, many new firms were established in one of the following three sectors: advertising/design/marketing (22.5%), trade (16.7%), and education and training (14.7%). Within the international sample, the same industries led the way,

but with a different ratio, namely, trade accounted nearly for 29% of new firms, advertising/design/marketing for nearly 13%, and education for 7.2% (see Table 11).

It is interesting that among active entrepreneurs who started a business in response to the crisis, women prevail in the international sample (59% of women versus 41% of men). In Russia, roughly equal percentages of men and women took advantage of the opportunities opened in this period.

**Table 11**

Industries where a new business was created in response to the COVID-19 pandemic

Sector	Russia	International sample
Advertising / Design / Marketing	<b>22,55%</b>	<b>12,90%</b>
Architecture & Design	0,98%	2,24%
Construction	5,88%	1,62%
Consulting	0,98%	2,40%
Education and training	<b>14,71%</b>	<b>7,22%</b>
Financial services	1,96%	2,63%
Health & Social Work	0,98%	2,83%
Information Technology	5,88%	3,99%
Production	5,88%	2,32%
Tourism and leisure	2,94%	2,05%
Trade (wholesale/retail)	<b>16,67%</b>	<b>28,88%</b>
Other services (e.g. transportation)	0	3,60%
Other	20,59%	27,32%

### 4.3.3. Potential successors

Students' career plans may be shaped by the entrepreneurial environment in their family, because when parents have their own business, children have an earlier idea of how to set up their own business. About 27.9% of the survey participants in Russia said that at least one of their parents is an entrepreneur (the figure for the international sample was about 41%), and 23% indicated themselves as the main business owners. The main characteristics of family businesses in the Russian and international samples are similar: in about 70% of firms, the respondents' parents own more than 51% of the business. In the international sample, in 73% of cases parents are actively involved in the operational management of the organization, while in the Russian sample this figure is 82%. If we look at the proportion of respondents who do not own a personal stake in a family business, this figure is comparable in Russia and globally: 89% in Russia versus 87% globally. Both in Russia and globally, around 40% of survey respondents have experience of working in a family business. The main differences between the Russian and international samples are the duration of firm ownership and the number of employees. In Russia, parents tend to have been in business for around 16 years, while the average for the whole sample is 22 years. An average Russian firm has around 42 employees, while the international sample has a significantly higher average of 52 employees.

The sectoral distribution of Russian students' family businesses is shown in Figure 36. It should be noted that 30% of students in Russia attribute family businesses to the trade sector, with other sectors (not targeted by the survey) and construction (17% and

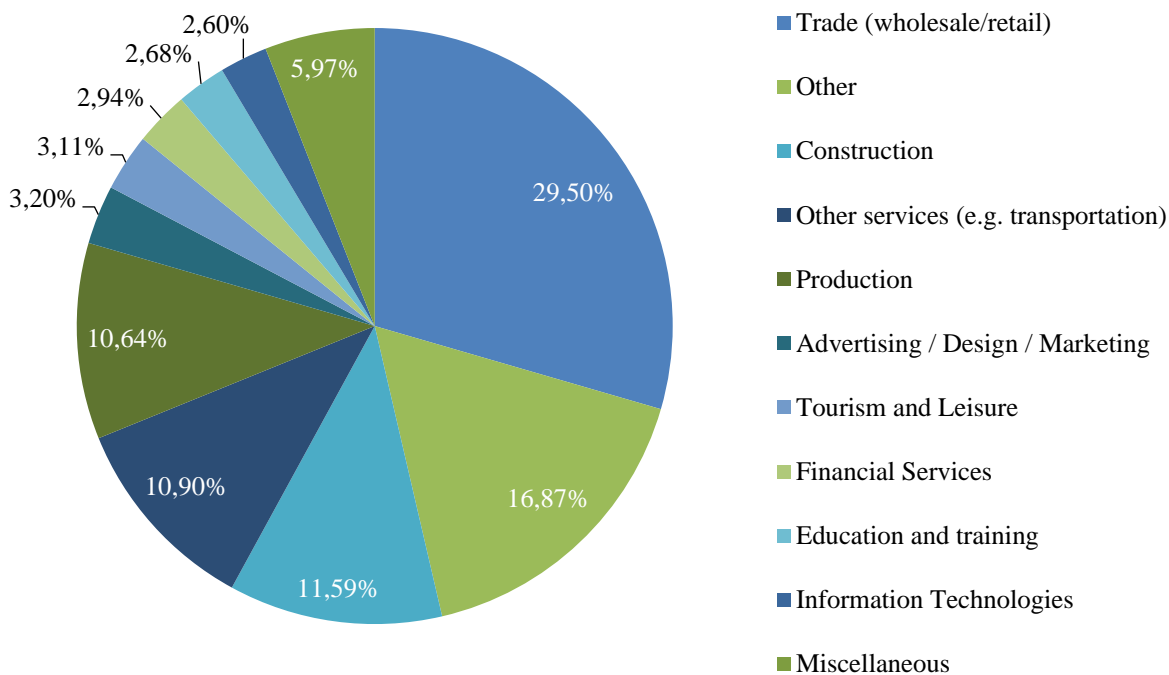
12%, respectively) in second and third place. In the international sample, the set of the dominant sectors is the same, but the proportions are different. Other industries account for 26%, trade for 19%, and construction for 11%.

Assessments of family business success are generally comparable, although a slightly lower level can be noted for a number of indicators among Russian students (Figure 37). The closest indicator between the two groups is job creation, rated slightly above average.

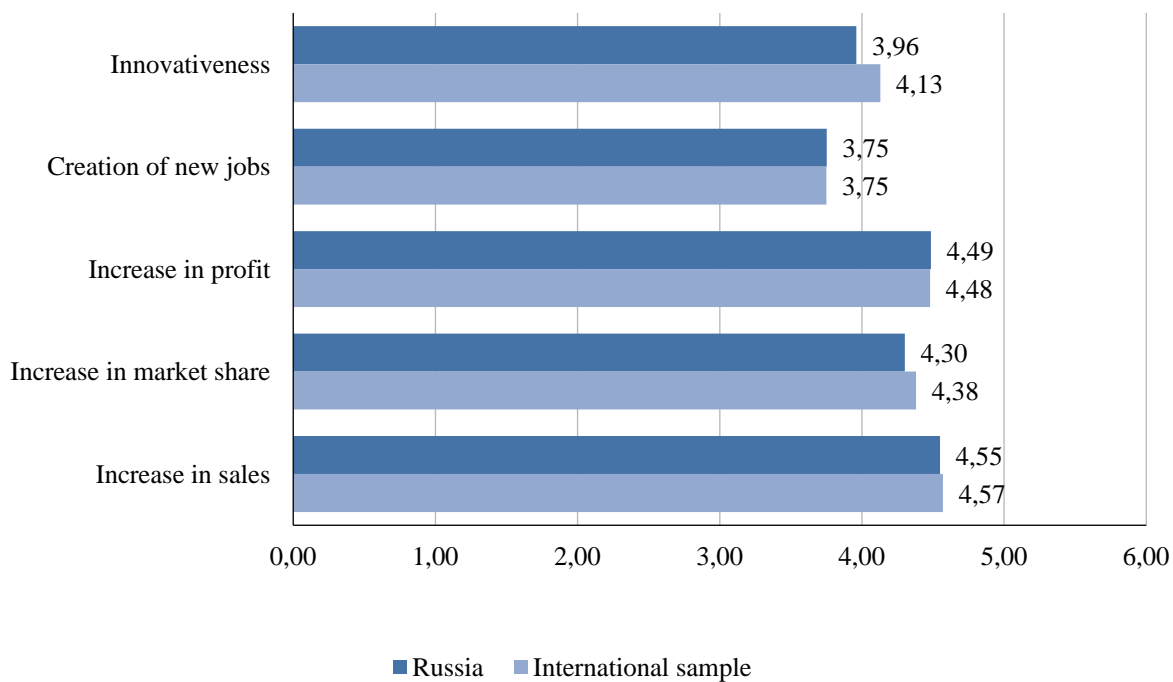
But how willing are students themselves to become successors to the family business? In the Russian sample, only about 7.6% of the respondents said that running a family business was their professional goal (immediately after graduation and five years after graduation). This figure is at a comparable level (about 4.5%) in the other countries as well. Students in Russia assessed the attractiveness of a career as a successor to the family business quite neutrally which is similar to the international sample. On average, the figures were comparable, with the overall index of intentions to succeed ("readiness") in the international sample being at 2.5 (with a maximum of 7) and 2.6 in the Russian sample (see Table 12).

About 21% of the respondents who run their own business indicated that they work in the same field as their parents' business. At the same time, 20% of respondents said that their parents own part of their business. About 17% of the respondents indicated that their company cooperates with their parents' business.





**Fig. 36.** Family firm business sector



**Fig. 37.** The success of the family business

*Note: averages are presented; the scale from 1 to 7: 1 - much lower than competitors, 7 - much higher than competitors*

**Table 12**

## Attitudes towards a successor career in the family business

	<b>Russia</b>	<b>International sample</b>
I am willing to do whatever it takes to succeed my parents' firm	2,9	2,8
My professional goal is to succeed my parents and continue the family business	2,5	2,5
I am willing to commit any and all efforts necessary to succeed my parents' firm	2,7	2,5
I am determined to succeed my parents' firm in the future	2,5	2,4
I am seriously considering becoming the successor to my parents' business	2,6	2,5
I have the serious intention of one day succeeding to my parents' firm	2,5	2,4

*Note: averages are presented; the scale from 1 to 7: 1 - strongly disagree, 7 - strongly agree.*

## FINDINGS

As part of the national report, the main results of the GUESSS 2021 survey were reviewed and the Russian and international samples were compared along several characteristics. Many trends were found to be similar, but a few features can also be highlighted which distinguish the Russian context. The following are the main observations and identified differences.

- Almost half of the students in Russia expect to be employed immediately after graduation (49%) that is much lower than in the international sample (almost 65%). In 2018, the numbers were much higher at 74% and 79%, respectively. The redistribution was also in favor of a career as an entrepreneur. The share of students who are ready to start their own business from scratch right after university is over 22% in Russia (compared to 9% in 2018), while in the international sample it is around 18%. With a perspective of 5 years, the share of those who want to become entrepreneurs among Russian students increases to 42%, in the international sample – up to 32%. This trend is in line with the results of GUESSS research since 2011. One explanation is the desire of students to gain the necessary experience in an existing company before moving on to start their own business. At the same time, the proportion of students considering a career as an entrepreneur immediately after graduation has increased significantly compared to the previous survey results.
- However, students' career plans say nothing about students' entrepreneurial readiness. In this regard, an index of entrepreneurial intentions was calculated for all 58 countries that participated in the study. The index in Russia is 3.76, which is lower than in 2018 (4.1) and 2016 (4.45). The highest index of entrepreneurial intentions is characteristic of students studying Economics and Management – 4.4, and the lowest (3.3) – for Natural Sciences. Russia ranks 39th out of 58 countries in the index of entrepreneurial intentions, having lost 10 positions in 3 years. Peru, Panama and Bolivia are at the top of the ranking. At the end of the list are Japan, Germany and Switzerland. These numbers indicate a definite difference in the formation of entrepreneurial aspirations of students from developed and developing economies.
- The study focused on those factors that can explain the formation of students' career intentions. The university environment is one of the key elements in shaping the entrepreneurial ecosystem. Compared to 2018, there has been an increase in the degree of implementation of the entrepreneurial component of the curriculum in Russia. In 2021, about 54% of the students said that they had no entrepreneurship courses at all, which is comparable to the international sample (53%). In 2018, this figure in Russia was 63%. In addition, the role of the learning environment and relevant courses in the development of entrepreneurship among students was assessed by them at a rather low level, especially among Natural Science students.
- Having entrepreneurial parents in the family is often seen as a contributing factor for their children to become future entrepreneurs. In Russia, it was found that the percentage of students who intend to become entrepreneurs is higher if their parents are also entrepreneurs (51%), as opposed to non-entrepreneurs (39%).
- As the theoretical GUESSS model emphasizes the socio-cultural aspect, it was also analyzed in detail. It turned out that Russian students are somewhat more confident in the positive reaction of their close environment to their intended decision to become an entrepreneur. Also, potential entrepreneurs in Russia tend to evaluate their ability to control the situation higher than those who plan to choose a career as an employee. It is important to note that, in general, the assessments of the ability to control the situation are lower in Russia than in the international sample.
- There are more positive attitudes towards entrepreneurship among Russian students than in the international sample. A career as an entrepreneur is attractive to students, they note that such activity would bring them a greater sense of satisfaction. In addition, the situation with the assessment of the availability of the resources has improved. This indicator is comparable to the international sample. However, Russian students note a lower level of entrepreneurial self-efficacy, which emphasizes the need to develop their entrepreneurial competencies and skills.
- Respondents were also divided into categories of potential and active entrepreneurs; each of these groups was analyzed separately. In Russia, the percentage of potential entrepreneurs is significantly higher than in the international sample (43% vs. 28%). This figure has improved compared to 2018, when it was around 30%. The majority (about 46%) are studying Economics and Management and plan to start a firm during their studies or within two years after graduation. Potential entrepreneurs among Russian students aim to start a business in advertising, design and

marketing (16.5% vs. 12% in the international sample), the second most popular area is wholesale or retail trade (15% vs. about 16% in the international sample), and the third is education and training (10% vs. almost 8% in the international sample). Analyzing the actions taken to establish their firm, it was found that many have already analyzed the market (17%), discussed the business idea with potential buyers (15%) or started product/service development (13%). Compared to 2018, the share of those who have started proactively has decreased. This may be due to an increased degree of uncertainty in the environment. About 24% of potential entrepreneurs have not initiated any action. In 2018, this figure was 15%. Based on the aggregate number of steps taken, an index of entrepreneurial activity was calculated. Russia ranked 19th compared to 36th in 2018 with an index of 2.36 (the size of the index is unchanged from 2018).

- The share of active entrepreneurs in Russia was about 12% compared to 7% in 2018. This is

slightly higher than in the international sample (almost 11%). Russian respondents rate their success slightly lower than students in all countries as a whole.

- An important characteristic of active entrepreneurs is their social identity, their understanding of the meaning they attach to entrepreneurial activity, and their motivations for doing so. In Russia, a Darwinian type of identity is dominant, with the entrepreneur's own financial well-being as a priority. Given the fact that society's expectations regarding the social role of entrepreneurship are currently growing, an important task is to develop entrepreneurial potential among people who incline to Communitarian or Missionary identification of themselves as entrepreneurs, where creating value for the local or global community comes to the fore. It is then expected that the firms created by such entrepreneurs will be able to achieve greater results in terms of innovation and job creation.

## CONCLUSION

In conclusion, we would like to note that there has been a gradual improvement in the environment for entrepreneurship among young people in Russia, characterized by improved access to resources and infrastructure, the development of educational opportunities in entrepreneurship, positive public attitudes towards entrepreneurial careers, and the desire of young people to build their professional development towards starting their own businesses. However, transforming this potential into real entrepreneurial activity requires comprehensive support from the institutional environment, as was evident in the 2021 survey organized at a challenging time of the COVID-19 pandemic. The increased uncertainty and hostility of the external environment has had a negative impact on young people's entrepreneurial activity in terms of the actions they take to set up a business, while their desire to become entrepreneurs is also high. The appreciation of the possibility to control the situation around has decreased, which has led to a freezing of the process of transforming young people's intentions to set up their own business into active entrepreneurial action. Initiatives that can be implemented at the university level are particularly important for young people. The development of entrepreneurial infrastructure in universities can serve as an important factor that can influence the realization of entrepreneurial intentions in the launch and development of a new enterprise. Thus, introduction of courses on entrepreneurship into curricula or development of separate educational programs in this area allows to provide students with access to such entrepreneurial resource as human capital, namely a set of knowledge, skills, and abilities required in the process of creating and

developing a business, as well as to strengthen confidence in their own strength and capabilities to overcome the fear of starting their own business. The introduction of entrepreneurship courses in science education programs where young people have a high potential for innovation is seen as an important objective.

In addition, it is important to continue to develop the overall institutional environment in universities in terms of entrepreneurship support. The development of mentoring and mentoring programs that can be implemented by invited entrepreneurs in the form of meetings, seminars, "practitioners club" will not only create a positive image of an entrepreneur in the eyes of students, but will also help to build social capital, which is especially important in times of crisis. Conducting educational courses, round tables, business games, organizing seminars with entrepreneurs and venture investors helps to boost the entrepreneurial spirit of students in general. It in turn makes an important contribution to the formation of a proactive life attitude and independence in young people, which play an essential role in the sustainability of their life positions in a highly dynamic and unpredictable external environment.

We are convinced that the Global Student Entrepreneurial Spirit Survey (GUESSS) is extremely important for the study and the development of entrepreneurship, both globally and at the country level. The results reflected in the report provide an opportunity to assess the situation and take steps towards creating a more conducive learning environment for the development and implementation of entrepreneurial intentions of students.

## REFERENCES

1. *Doing business*. 2020. World Bank Group. <https://archive.doingbusiness.org/ru/reports/global-reports/doing-business-2020>
2. Ajzen I. 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50 (2), 179–211.
3. Ajzen, I. 2002. Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32, 665–683.
4. Bogatyreva, K., Edelman, L., Manolova, T., Osiyevskyy, O., Shirokova, G. 2019. When do entrepreneurial intentions lead to actions? The role of national culture. *Journal of Business Research*, 96, 309–321.
5. Fauchart, E., Gruber, M. 2011. Darwinians, communitarians, and missionaries: The role of founder identity in entrepreneurship. *Academy of Management Journal*, 54(5), 935-957.
6. Fishbein M., Ajzen I. 1975. *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.
7. *Global Competitiveness Report*. 2019. World Economic Forum. <https://www.weforum.org/reports/global-competitiveness-report-2019>
8. *Global Entrepreneurship Monitor*. 2020-2021. <http://www.gemconsortium.org/report>
9. Kvedaraite N. 2014. Reasons and obstacles to starting a business: Experience of students of Lithuanian higher education institutions. *Management*, 19 (1), 1-16
10. Laspita, S., Breugst, N., Heblich, S., Patzelt, H. 2012. Intergenerational transmission of entrepreneurial intentions. *Journal of Business Venturing*, 27 (4), 414-435.
11. Linan, F., Chen, Y. W. 2009. Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 33 (3), 593-617.
12. Sieger P., Fueglistaller U., Zellweger T. 2014. Student Entrepreneurship Across the Globe: A Look at Intentions and Activities. St.Gallen: Swiss Research Institute of Small Business and Entrepreneurship at the University of St.Gallen (KMU-HSG).
13. Sieger P., Fueglistaller U., Zellweger T. 2016. Student Entrepreneurship 2016: Insights From 50 Countries. St.Gallen/Bern: KMU-HSG/IMU.
14. Souitaris V., S. Zerbinati and A. Al-Laham. 2007. Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing*, 22 (4), 566-591.
15. Shirokova G., Osiyevskyy O., Bogatyreva K. 2016. Exploring the intention-behavior link in student entrepreneurship: Moderating effects of individual and environmental characteristics. *European Management Journal*, 34, 386-399.
16. Zellweger T., P. Sieger and F. Halter. 2011. Should I stay or should I go? Career choice intentions of students with family business background. *Journal of Business Venturing*, 26 (5), 521-536