GLOBAL UNIVERSITY ENTREPRENEURIAL SPIRIT STUDENTS' SURVEY

National Report 2021 FINLAND

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Preface

Student entrepreneurship is booming and along with the boom, also interest for student entrepreneurship has awakened. The Global University Entrepreneurship Student Spirit Survey GUESSS focuses on student entrepreneurship. This is now the sixth time when Finland is participating the GUESSS survey. The first one took place year 2006, and later on studies were carried out in 2008, 2011, 2016 and 2018. This GUESSS report highlights the state of the art of student entrepreneurship in Finland in 2021.

We express our gratitude to all those students that spent their time answering the questions. The Global team of GUESSS has operated as the core for the survey design, data purification and project management. Finally, Ernst & Young (EY) has been the international project partner for GUESSS. Our sincere thanks!

National and international GUESSS reports can be found at: http://www.guesssurvey.org/publications

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1 INTRODUCTION

Entrepreneurship continues to grow in popularity among higher education students. It has become a serious choice for students that consider their career options and who make choices about their study directions and subjects. This trend has been dominant for more than ten years and is growing stronger and influential. In the Finnish context, this development could be explained in many ways:

1) change in common attitudes towards entrepreneurship. The supporting climate and culture for entrepreneurship are influential for the growth of entrepreneurial intentions.
2) entrepreneurship education. Entrepreneurship education has been included in the curriculum of Finnish general education since 1994. From that perspective, practically all present Finnish HEI students have been affected by entrepreneurship education.
3) the visibility of entrepreneurial role models. The new forms of media have strongly supported the visibility of entrepreneurial success stories. That is, the prominent self-made people are living proofs that it can be done.
4) changing work and career prospects. Changing professions and changing careers many times during one's working life has become normal at the same time the possibilities for having a 'traditional career' have grown weaker.
5) digitalization. Along with the digitalization and new ICT-tools, the initial capital requirements for establishing a business have dropped dramatically. As a result from this, students have engaged into entrepreneurial projects.

At present in Finland, student entrepreneurship has already important implications on the national entrepreneurship policy. It has also been recognized in the indicators measuring the impact of higher education, as well as it has become one of the most important tools for renewing regional competitiveness.

1.1 Aim and purpose of the report

This report highlights the overall picture of the current student entrepreneurship in Finland. Doing this, it

- provides a systematic and long-term analysis of the development of entrepreneurial intentions among Finnish students;
- analyses some of the background factors determining the level of intention; and
- evaluates the role of the entrepreneurial education and climate offered by the HEI on the level of entrepreneurial activities.

1.2 The GUESSS project: key information

GUESSS is a global project. The 2021 data collection broke all records with 58 countries participating and more than 267 000 completed responses worldwide. The project started in 2002, the second survey took place in 2004. Later on, data gathering was organized in 2006, 2008, 2011, 2013-2014, 2016, 2018 and now globally as eight time in 2021.

So far, Finland has taken part in the GUESSS study six times: 2006, 2008, 2011, 2016, 2018 and now in 2021. In this report we highlight the results of the GUESSS survey in Finland. The survey was undertaken during the spring 2021. GUESSS 2021 survey measured the entrepreneurial intentions of Finnish university students. This time the number of respondents was 1094 in total.

In Finland, LUT University has been responsible for the collection of the data and the country report. This time, the invitation letter was sent to all Finnish HEIs in October 2020 and the survey was open between January – June 2021.

The Finnish GUESSS team includes Postdoctoral researcher Katja Lahikainen and Professor Timo Pihkala from LUT University.

2 DEMOGRAPHIC INFORMATION ABOUT THE SAMPLE

For the survey, all Finnish HEIs were contacted. Altogether, there are 13 universities and 22 universities of applied sciences in Finland. The results suggest that only some of the HEIs succeeded to participate in the survey and in each of them with only some respondents. The data contains respondents from 18 (16 in 2018 survey) different universities or universities of applied sciences. The biggest number of participants came from Häme University of Applied Sciences, LUT University and University of Jyväskylä.

In total, the Finnish survey received 1094 full responses. Majority of the respondents were students from the universities of applied sciences (66 %). Table 1 presents the distribution of respondents according to their study place.

Table **1**: Universities and universities of applied sciences represented in the data.

Name of the HEI	N	%
Häme University of Applied Sciences	309	28,2
LUT University	148	13,5
University of Jyväskylä	115	10,5
University of Turku	99	9,0
Centria University of Applied Sciences	98	9,0
Oulu University of Applied Sciences	83	7,6
JAMK University of Applied Sciences	75	6,9
Karelia University of Applied Sciences	47	4,3
LAB University of Applied Sciences	42	3,8
Vaasa University of Applied Sciences	29	2,7
Haaga-Helia University of Applied Sciences	24	2,2
Turku University of Applied Sciences	6	,5
Humak University of Applied Sciences	5	,5
Metropolia University of Applied Sciences	5	,5
Åbo Akademi	4	,4
University of Oulu	2	,2
Lapland University of Applied Sciences	1	,1
University of Vaasa	1	,1
Other	1	,1
Total	1094	100

Even if the response from some HEIs was very low, respondent profile matches quite nicely with the Finnish student population. Table 2 shows that women were more active in responding

than men, with 51,5 % and 45,7 % shares, respectively. According to the recent statistics, 57% of Finnish graduates from HEIs are women (Official Statistics of Finland, 2021). Also, in terms of respondents' age, the data matches very well with the student population; the majority (61,5%) of respondents were 19-29 years old. Table 2 further shows that nearly three-quarters of the respondents were undergraduate (Bachelor level) students. Respondents studying business (34,2) represented the largest respondent group by the study field, followed by engineering students (29,3 %).

The distribution of different nationalities follows the Finnish university students' profile. The vast majority of 71,8 % had a Finnish nationality while 13,3 % come from abroad and 14,9 % did not respond.

Table **2**: Descriptive statistics of the respondents (n 1094).

Respondents		N	%
Gender	Male	500	45,7
	Female	563	51,5
	Other	20	1,8
	no response	11	1,0
Age	19- 21	146	13,3
	22-24	283	25,9
	25-29	244	22,3
	30-35	163	14,9
	36 or more	219	20,0
	No response	39	3,6
Level of study	Undergraduate (Bachelor level)	793	72,5
	Graduate (Master level)	198	18,1
	PhD	82	7,5
	Other	17	1,6
	No response	4	0,4
Field of study	Arts / Humanities / Science of art	79	7,2
	Business / Management /Economics	374	34,2
	Computer sciences / IT	77	7,0
	Engineering	320	29,3
	Human medicine / health sciences	67	6,1
	Natural sciences / Mathematics	31	2,9
	Social sciences	106	9,7
	Other / No response	40	3,7
		1094	100%

The high interest for entrepreneurship among students has stayed rather steady. One tenth of the students reported being already an entrepreneur (10,3%) or being currently preparing their own businesses (14,4%). In 2018 the respective figures were 10,5 % and 13,3%. While the share of entrepreneurs stays at the same 10% level, interestingly the share of nascent entrepreneurs, those preparing for starting up, is rising.

Table **3.** Student entrepreneurs and preparation phase.

Are you already running your own business / are you already self-employed?

	N	%
No	981	89,7
Yes	113	10,3
	1094	100,0

Are you currently trying to start your own business / to become self-employed?

No	936	85,6
Yes	158	14,4
	1094	100,0

3 CAREER CHOICE INTENTIONS AND ENTREPRENEURIAL INTENTIONS

3.1 General overview

Students' occupational preferences guide their educational choices and they also play a major role as the motivators for the studies. Traditionally, Finnish university studies have prepared students for their careers in public service or employees in the private sector. On the other hand, an entrepreneurial career has not been the students' primary choice. From this perspective the occupational preferences in the Finnish survey are as expected – the majority of the respondents prefer a traditional career as an employee. As table 4 shows, immediately after studies 67% of the students prefer to become employees, while about 10,8% prefer entrepreneurship, and roughly 20 % do not know yet.

Working as an employee in a medium-sized (20,3%) or large (18,6) business is the most attractive career choice for students' immediately after studies. Working in a non-profit organization or choosing of an academic career did not gain much interest among students. When comparing the current results with previous studies, we can see that the attractiveness of working in a small business has decreased whereas working in medium or large business is remained rather stable. Further, in 2018 and 2021 around 10% of the respondents consider working as an entrepreneur as a potential career choice. In years 2008, 2011 and 2018 interest towards entrepreneurship was much lower.

Table **4**: Students' occupational preferences immediately after studies (%).

	2008	2011	2016	2018	2021
an employee in a small business (1-49 employees)			15,0	26,0	10,9
an employee in a medium-sized business (50-249 employees)	52,3*	39,1*	19,0	18,8	20,3
an employee in a large business (250 or more employees)	17,3	23,9	15,2	16,6	18,6
an employee in a non-profit organization**			4,5	3,3	2,0
an employee in Academia (academic career path)	1,0	3,7	11,5	5,5	6,5
an employee in public service	4,3	6,4	16,0	11,6	8,7
a founder (entrepreneur) working in my own business	5,1	3,0	9,8	6,1	10,8
a successor in my parents' / family's business	2,0	1,3	0,4	1,1	1,2
a successor in a business currently not controlled by my family	2,9	3,1	0,4	1,1	0,9
Other / do not know yet	6,0	11,2	8,3	9,9	20,1

* small and medium sized businesses together
** The non-profit organization were not included in earlier surveys

The students' career expectations seem to develop considerably during the first five years after studies (see table 5). It seems that the students' aspirations to stay as employees drop from 67% to 54,6%. The shift is directed from private sector (private service included) employee positions to entrepreneurship. The interest to become an entrepreneur increases by 10% after five years of graduation. However, the share of students interested in entrepreneurship is decreased to 22% from around 30% (years 2016 and 2018). The attractiveness of small medium and large companies seems to be rather stable compared to year 2018. When making comparisons to all previous studies the attractiveness of public service is shows almost as high figure as in 2016. The share of students, who "do not know yet" is increased to almost 20%.

Table 5: Students' occupational preferences 5 years after graduation.

	2008	2011	2016	2018	2021
an employee in a small business (1-49 employees)			6,0	8,8	7,5
an employee in a medium-sized business (50-249 employees)	29,5*	15,2*	10,2	12,7	12,5
an employee in a large business (250 or more employees)	16,8	21,4	13,2	16,6	17,9
an employee in a non-profit organization**			4,5	5,5	2,4
an employee in Academia (academic career path)	1,7	3,4	8,1	3,9	6,2
an employee in public service	3,6	4,0	10,5	4,4	8,1
a founder (entrepreneur) working in my own business	20,1	20,1	30,8	31,5	22,0
a successor in my parents' / family's business	2,7	2,4	0,4	0,6	1,2
a successor in a business currently not controlled by my family	6,3	2,2	1,7	2,2	2,6
Other / do not know yet	6,5	15,8	14,7	13,8	19,6

* The Small and medium sized businesses together
** The non-profit organization were not included in earlier surveys

The results about students' career preferences indicate that roughly 50% of the students wish to work as an employee in the private sector, roughly 20% as an entrepreneur, 10% in the public sector and 20% of the students don't know yet. While these shares variate somewhat in each measurement, the overall picture seems rather stable. However, the share of the students that don't know about their future career wishes seems to grow alarmingly.

3.2 Factors explaining entrepreneurial intentions

The career choices were analyzed based on the students' nationality, gender, family, field of education and influence of entrepreneurship education.

Table 6 shows the comparison between Finnish students and students with foreign nationality. Foreign students consider entrepreneurship to be a more attractive career option than their Finnish fellow students, whereas in other career choice preferences the differences are not remarkable. Foreign students rate entrepreneurship immediately and after five years of studies to be twice as attractive career option as Finnish students. This result may reflect the cultural differences in foreign students' home countries. The Global GUESSS study shows that entrepreneurial intentions among Finnish students are below the average, and the foreign respondents may come from countries that score higher in than Finland (Sieger et al., 2021). Another influencing factor might be students´ entrepreneurship societies. In Finnish HEIs students' entrepreneurship societies plays an important role in fostering student entrepreneurship among students and activities arranged by entrepreneurship societies attract foreign students, since they offer one important mean for networking with other students.

Table **6**: Students' occupational preferences depending their nationality %.

	Finnish		Foreign	
	Directly	5 years	Directly	5 Years
Employee	68,3	51,4	64,1	54,4
Founder	8,5	18,9	16,5	30,1
Successor	2,2	4,1	1,6	2,9
Other	21,0	22,3	17,8	12,6

Second, the career options were analyzed according to the students' gender. Table 7 shows the comparison between male and female students. The survey results are aligned with the Global GUESSS survey 2021 showing that the share of intentional entrepreneurs is smaller among females than among males (Sieger et al., 2021). Also, in Finland female students rate entrepreneurship immediately after studies and after 5 years less attractive than male students. However, compared to year 2018 GUESSS study in Finland the difference between male and female students has decreased. In year 2018 only 3,4% of female students reported entrepreneurial intention immediately after studies, while almost 11 % of men intended to become entrepreneurs. In 2021 respective figures are 12,6% and 9.2%, so the share of female students interested in entrepreneurship is almost three times higher than in 2018. For both male and female students, the share of intending entrepreneurs doubles after five years, to 34,4% and 20,2% respectively. However, this figure is lower than in 2018 that showed remarkably high figures of 35,9 % for male students and 29,3% for females after five years of graduation. These figures are closer to the Global GUESSS survey 2021 that reported 38% of male and 30% of female students' entrepreneurial intentions after five years (Sieger et al., 2021).

Table **7**: Intentional founders by gender %.

	Directly	After 5 years
Men	12,6	24,4
Women	9,2	20,2

It is interesting to see in the future, whether the decreased gender gap will be a stable trend in Finland. Research has documented several structural reasons for gender differences such as gendered educational and occupational choices that are related to attractiveness of entrepreneurship for women and men (Ahl and Nelson, 2010) and it would be interesting to find out, what are the factors that have led to increased entrepreneurial intentions of female students right after the graduation.

Traditionally, having entrepreneurial parents has been one of the best indicators to predict the entrepreneurial career. Table 8 presents the levels of entrepreneurship intention for those students whose parents are entrepreneurs. For comparison, we added the level of intention of all respondents in the table. It seems that both parents' entrepreneurship is associated with student's entrepreneurial intentions. The association is strongest, when both parents are entrepreneurs. Father being an entrepreneur has a stronger influence on entrepreneurial intentions than mother, who is an entrepreneur.

Table 8 further shows the comparison about the level of intention 5 years after graduation. Again, the association is strongest when both parents are entrepreneurs. However, the students' intentions do not differ dramatically whether their parents are or are not entrepreneurs.

Table **8:** Share of intentional founders depending on parents' entrepreneurship % (n=1094).

	Directly	After 5 years
All respondents	10,8	22,0
Father is an entrepreneur	15,7	27,8
Mother is an entrepreneur	10,3	20,7
Both parents are entrepreneurs	21,2	37,6

Entrepreneurial intentions of students strongly differ by field of study (Table 9). "Business, management and economics" students have the strongest entrepreneurial intentions directly after studies (50%) and five years after graduation (46,7%). "Engineering students" (including architecture), have also relatively strong entrepreneurial intentions, since they represent around one-fourth of students, who have expressed their interest to become a founder or work in own company.

Table **9**: Share of intentional founders depending on field of education % (n=1094).

	Directly	After 5 years
Business / Management / Economics	50,0	46,7
Engineering	18,6	22,9
Arts / Humanities / Science of art	11,0	8,3
Human medicine / health sciences	7,6	3,3
Computer sciences / IT	4,2	7,9
Natural sciences / Mathematics	3,4	2,8
Social sciences	2,5	5,8
Other / No response	1,7	2,9

Lastly, the influence of entrepreneurship education on career intentions were analyzed. Table 10 shows almost half of the respondents had not attended any entrepreneurship course so far. 34% of the students had attended at least one compulsory entrepreneurship course and 21% of the students had attended at least one elective entrepreneurship course (multiple answers were possible.

Table 10 further shows that relative share of students, who have taken entrepreneurship courses and who have expressed entrepreneurial intentions either directly or five years after graduation, is higher than those students, who have not taken entrepreneurship courses. Therefore, it seems that entrepreneurship education has positive effect on entrepreneurial intentions. However, we cannot exclude the possibility of reverse causality, as students interested in entrepreneurship already before the studies, might have selected entrepreneurship courses because of entrepreneurial intentions.

Table **10**: Influence of entrepreneurship education on career intentions.

	Have not attended a course on entrepreneurship		Have attended at least one elective entrepreneurship course		Have attended at least one compulsory entrepreneurship course		Studying in a specific program on entrepreneurship	
	Directly	5 years	Directly	5 years	Directly	5 years	Directly	5 years
Employee	354	300	134	104	246	191	48	30
Founder	31	76	45	78	51	102	19	33
Successor	4	11	11	15	9	17	5	5
Other	109	111	38	31	69	65	10	14
Total	498	498	228	228	375	375	82	82

4 DRIVERS OF ENTREPRENEURIAL INTENTIONS

In this section we analyze some of the possible drivers for students' entrepreneurial intentions. These aspects are related to the university context and the student's psychological characteristics.

4.1 University context

To understand the relationship between entrepreneurship education in the universities and the students' entrepreneurship intentions, we analyze the students' attendance to different entrepreneurship offerings. The availability of entrepreneurship education within universities has risen fast in Finland, and this development can be identified in the results. According to a study by Finnish Ministry of Education and Culture (Opetus- ja kulttuuriministeriö, 2016), Finnish HEIs provide entrepreneurship-related training and courses widely. That is, almost all Finnish HEIs organize at least some individual courses about entrepreneurship. For students, there may be both elective and compulsory courses about entrepreneurship, and some students may have chosen a specific program on entrepreneurship. Table 11 shows that almost half of the respondents have not taken any entrepreneurship education in the university. On the other hand, 20,8% of respondents have taken an elective entrepreneurship course, 34,3% report that they have participated a compulsory course and 7,5% are participating a specific program on entrepreneurship.

To better understand the current situation and the change from 2016, we included the results from 2016 and 2018 in the Table 11. The current data shows, the number of students who have not studied entrepreneurship at all has diminished whereas the attendance at compulsory or elective entrepreneurship courses have come down from the exceptionally high figures of 2018.

Table **11**: Attendance of entrepreneurship offerings %.

	2016	2018	2021
I have not attended a course on entrepreneurship so far	52,1	37,6	45,5
I have attended at least one entrepreneurship course as elective	21,4	26,0	20,8
I have attended at least one entrepreneurship course as compulsory	25,4	42,5	34,3
I am studying in a specific program on entrepreneurship	11,7	5,5	7,5

Table 12 shows that influence of entrepreneurship education on students' entrepreneurial intentions is not self-evident, since almost every third of them, who intend to become

entrepreneurs after five years of graduation, have not attended any course on entrepreneurship so far. In addition, the entrepreneurial intentions increase after five years of study whereas intentions of those students, who have taken either compulsory or elective entrepreneurship courses decrease a bit after five years of graduation. On the other hand, of the students that have taken either an elective or a compulsory course on entrepreneurship roughly 40% report entrepreneurial intentions immediately after studies. Finally, students that have elected a specific program on entrepreneurship seem to form an interesting group. Only 16,1% of the students of this group seek to become entrepreneurs right after studies and 13,7 % intend to be entrepreneurs after five years. Based on our results, the influence of entrepreneurship education on entrepreneurial intentions is not straightforward, therefore studying the impact of entrepreneurship education could be interesting to study further.

Table **12**: Entrepreneurship education of intentional founders % (n=1094).

	Immediately	5 years
I have not attended a course on entrepreneurship so far	26,3	31,5
I have attended at least one entrepreneurship course as elective	38,1	32,4
I have attended at least one entrepreneurship course as compulsory	43,2	42,3
I am studying in a specific program on entrepreneurship	16,1	13,7

Next, we were keen on knowing how the students perceived their studies, especially how the courses enhanced their entrepreneurial skills, competences, attitudes and knowledge. The results, presented in Table 13, show that the students perceived the entrepreneurial elements positively. It seems that the studies support students' entrepreneurial potential in terms of relationships, knowledge and attitudes rather than providing them with direct skills for start-up. Highest results (4,44 of the score from 1 to 7) got the statement concerning courses' ability to develop students' networks. Also courses ability identify an opportunity and increase students understanding of attitudes, values and motivations of entrepreneurs scored high.

Table **13**. Students' perceptions on entrepreneurship related studies.

Please indicate the extent to which you agree with the following statements about your studies (1=not at all, 7=very much). *The courses and offerings I attended…*	
…enhanced my ability to develop networks.	4,44
…enhanced my ability to identify an opportunity.	4,37
…increased my understanding of the attitudes, values and motivations of entrepreneurs.	4,31
…increased my understanding of the actions someone has to take to start a business	4,14
…enhanced my practical management skills to start a business.	3,99

Also, students find the university environment positively, as presented in Table 14. They experienced, from the scale from 1 to 7, that they are encouraged to engage in entrepreneurial activities (mean, 4,59). They also find that university climate is favorable for becoming an entrepreneur (4,44) and atmosphere inspire to develop ideas for new businesses (4,24).

Table **14.** Students' perceptions on university's entrepreneurial environment.

Please indicate the extent to which you agree with the following statements about the university environment (1=not at all, 7=very much).	
At my university, students are encouraged to engage in entrepreneurial activities.	4,59
There is a favorable climate for becoming an entrepreneur at my university.	4,44
The atmosphere at my university inspires me to develop ideas for new businesses.	4,24

In addition to university environment, the students' perceptions regarding university's facilitation and support were considered very positively (Table 15). All the statements scored very high. The development of research, technology, innovation and entrepreneurship scored highest (mean, 5.30), followed by the development of actions to mitigate climate change (mean, 5,04) and collaboration with local stakeholders (mean, 4,89).

Table **15.** Students' perceptions on university's facilitation and support.

Please indicate the extent to which you agree with the following statements *My university facilitates and support* (1=not at all, 7=very much)	
…the development of research, technology, innovation, and entrepreneurship.	5,30
…the development of sustainable and green practices to mitigate climate change.	5,04
…the collaboration with local authorities / firms to provide employment for all students.	4,98

4.2 Locus of control, attitude, and entrepreneurial self-efficacy

Attitudes, locus of control and self-efficacy reflect the person's psychological stance towards his/her own abilities to guide his/her own life. Based on the theory of planned behavior (Ajzen, 2002), the person's behavioral control, norms and attitudes affect the person's level of intentions towards certain types of behavior. Earlier studies suggest that respondents that operate as entrepreneurs score high on various entrepreneurial dimensions. For example, they score higher on locus of control and being able to influence their own life and future. Not surprisingly, they also score high on entrepreneurial returns: they view entrepreneurship in a positive light and source of satisfaction and prefer it as a career option. This fits well with the profile of academic entrepreneurship and entrepreneurship among the HEI graduates in Finland. Becoming an entrepreneur is mainly influenced by the opportunities available and necessity-driven entrepreneurship driven by lack of other alternatives remains rare (Suomalainen et al., 2016).

In this survey, we analyzed the role of locus of control, attitude and self-efficacy on the entrepreneurial intention (see Table 16). It seems that in terms of psychological stance towards entrepreneurship, all respondents' scores are rather neutral. Statement of "If I had the opportunity and resources, I would become an entrepreneur" scored highest and the mean was 3,93 (scale from 1 to 7), whereas "I will make every effort to start and run my own business" (2,70) scored lowest. As can be seen on Table 16, the softer and more general expressions scored highest – e.g. "Being an entrepreneur would entail great satisfactions for me", 3,57 – whereas more definite and aggressive in nature kind of statements – e.g. "I am ready to do anything to be an entrepreneur", 2,77 – scored lower.

Moreover, the students were asked about the perception of their personal skills and competences related to creating and running a business. In table 16 below, the results suggest that students find themselves positively with their competences. Statement "If I had the opportunity and recourses, I would become an entrepreneur" reached the highest scores (3,39) and "I will make

every effort to start and run my own business" the lowest (2,70). The results indicate that students do not consider entrepreneurship especially attractive, especially they are not ready make extra efforts to become entrepreneurs.

Table **16.** Students' perceptions on entrepreneur.

Please indicate your level of agreement with the following statements (1=strongly disagree, 7=strongly agree). Entrepreneur refers to someone who creates a new business.	
If I had the opportunity and resources, I would become an entrepreneur.	3,93
Being an entrepreneur would entail great satisfactions for me.	3,57
Being an entrepreneur implies more advantages than disadvantages to me.	3,54
A career as entrepreneur is attractive for me.	3,48
Among various options, I would rather become an entrepreneur.	3,16
I have very seriously thought of starting a business.	3,15
I have the strong intention to start a business someday.	3,05
I am determined to create a business in the future.	3,03
My professional goal is to become an entrepreneur.	2,95
I am ready to do anything to be an entrepreneur.	2,77
I will make every effort to start and run my own business.	2,70

Regarding students' perceptions on their competences the scores were higher than of becoming entrepreneur (Table 17). Students rate their competences highest in being a leader and communication (mean, 4,49). Competences related to commercialization of a new idea or development scored lowest (mean, 3,48)

Table **17**. Students' perceptions on their competences.

Please indicate your level of competence in performing the following tasks (1=very low competence, 7=very high competence).	
Being a leader and communicator	4,49
Building up a professional network	3,81
Creating new products and services	3,59
Managing innovation within a business	3,58
Successfully managing a business	3,58
Identifying new business opportunities	3,53
Commercializing a new idea or development	3,48

5 IMPLICATIONS AND SUMMARY

GUESSS 2021 survey brings new information about the student entrepreneurship in Finland. The student entrepreneurship trend seems to continue – the results show that students' entrepreneurial activities and entrepreneurial career aspirations remain high. The main figures are as follows:

10,3% of students are currently running a business or are self-employed
14,4% of students are currently preparing a start-up
10,8% of students are intending to start directly after graduation
22% of students are intending to start 5 years after graduation

On the basis of our results, entrepreneurship has become an important part of the HEI student profile and the Finnish universities and universities of applied sciences need to respond to this strengthening profile. The share of practicing and nascent entrepreneurs is rather big and that has implications on the organization and contents of the education offered to students. That is, roughly one of four HEI students is seriously involved in entrepreneurial activities during their studies. It is likely that these students' expectations are likely to be different than with those not running businesses or starting up.

Students have positive entrepreneurial intentions. The share of students aiming to start as an entrepreneur immediately after studies reached all time high with 10,8%. As we suggested in the introduction of this report, the big trends such as digitalization supports the rise of entrepreneurship in the HEIs. Especially, they support students' immediate start-ups after studies, without the need to collect industry experience first. Yet, the industry specific experience is still valid. A large share of the students anticipates an entrepreneurial career later. That is, more than every fifth student intends to be an entrepreneur five years after graduation.

For HEIs' entrepreneurship offerings, our study shows confusing results. First, entrepreneurship education offered in HEIs has a positive effect on the students' entrepreneurial intentions. Students take either elective or compulsory entrepreneurship courses and report high levels of entrepreneurial networks, opportunities identifications skills and entrepreneurial attitudes. Yet, almost half of the students, who intend to establish their own company after five years of graduation have not studied entrepreneurship at HEI. Furthermore, this group shows growing entrepreneurial intentions whereas the students, who have taken either compulsory or elective courses have higher entrepreneurial intentions directly after the graduation than five

years later. It seems that these students have an entrepreneurial intention already before starting their studies at HEI. Why should these students choose not to take entrepreneurship courses during their studies? Further analyses are needed to clarify, if this pattern arises from the lack of knowledge about entrepreneurship courses, lack of entrepreneurship course offerings, lack of more advanced courses on entrepreneurship or something else. Anyhow, for some reason this large group of students miss the entrepreneurship education offered at HEIs and they would be likely to benefit from the studies.

Based on the data of the GUESSS 2021, Finnish and foreign students show very different levels of entrepreneurial intentions. That is, foreign students are more likely to become entrepreneurs than Finnish students. This finding is consistent with earlier GUESSS-surveys and has important implications for Finnish HEIs. Practically all HEIs in Finland are looking for ways to increase their share of foreign students. The present survey suggests that a large share of these students arrive to Finland with entrepreneurial career aspirations and these expectations are likely to affect their decision making about the study place.

Entrepreneurship has grown to become a sincere and legitimate career option for students at Finnish HEIs. For the HEI organizations, this sets high expectations to them in terms of entrepreneurship courses, relevant contents and support for the students with high entrepreneurial intentions.

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