



Global University Entrepreneurial Spirit Students' Survey



2021 BELGIUM NATIONAL REPORT

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INTRODUCTION

The GUESSS project

The Global University Entrepreneurial Spirit Students' Survey (GUESSS) is an international project that examines students' entrepreneurial intention and activities in various countries. The Swiss Research Institute of Small Business and Entrepreneurship, at the University of St. Gallen, launched this project in 2003 which is now managed in cooperation with the University of Bern (Switzerland).

GUESSS focuses on the current state of student entrepreneurial intention and activities and the antecedents of such phenomena, including entrepreneurial education, supportive environments, and social attitudes. Additionally, the project also examines the process of business creation and dives into some more fine-grained information (e.g., motivations, goals) about students running a business.

In 2021, GUESSS partnered with Ernst & Young (EY) and organized its 9th data collection wave, receiving completed responses from 267,366 students across 58 countries¹. The current report analyzes the data collected by the Belgian national country delegates (i.e., the University of Antwerp, Ghent University, and HEC Management School at the University of Liège). The Belgian dataset comprises answers collected from 2,296 students from large higher educational institutions (HEI) in Flanders and Wallonia. With this report, we hope to provide useful insights into various aspects of students' entrepreneurial intention and activities in the Belgian context².

Theoretical Framework

The underlying theoretical foundation behind GUESSS comes from the Theory of Planned Behavior (TPB)³, one of the most widely used models of entrepreneurial intention. According to TPB, the probability that an individual will perform a behavior depends on the prior intention to engage in that behavior. Intentions have several antecedents:

1. The attitude of individuals regarding the appropriateness of initiating the behavior;
2. The acceptance of the results of performing the behavior in accordance with the social norms of their reference groups (friends, peers, and family); and
3. The perception that the behavior will lead to the desired outcomes

All these aspects come back in the survey and will be discussed in the current report, albeit not in this order.

Data collection

Data was collected using an online questionnaire (Qualtrics) sent to the Belgian representatives' professional networks at the Belgian higher educational institutions (see Appendix). The questionnaire was initially developed in English, then translated into French and Dutch, using back-translation. Although 2,296 responses were collected in Belgium, only the fully completed questionnaires were considered for this report (N=2,115 responses). When relevant, the results were compared with the 2016 Belgian GUESSS edition and the GUESSS 2021 international report (please note that Belgium did not participate in the 2018 data collection wave).

1 Sieger, P., Raemy, L., Zellweger, T., Fueglistaller, U. & Hatak, I. (2021). Global Student Entrepreneurship 2021: Insights From 58 Countries. St. Gallen/Bern: KMU-HSG/IMU-U.

(https://www.guesssurvey.org/resources/PDF_InterReports/GUESSS_2021_Global_Report.pdf)

2 Belgium most recently participated in the GUESSS project during the 6th edition in 2016.

3 Ajzen, Ick. 1991. "The Theory of Planned Behavior." *Organizational Behavior and Human Decision Processes* 50 (2): 179–221.

Structure of this report

The GUESSS questionnaire categorizes students as nascent entrepreneurs, active entrepreneurs, non-entrepreneurs, and potential successors. After an initial categorization question, the questionnaire is branched, and students receive questions tailored to their specific situation.

Our report will be divided into five chapters to stay coherent with the GUESSS study design. After an overarching chapter comprising information about all student groups, we provide four chapters, each focusing on the most important takeaways for each specific student group. The sample size of each of the chapters is as follows:

1. The first chapter reports the total, uncategorized sample size (N=2,115 students). In this chapter, we will already zoom in on the choices students make (being an entrepreneur or not), using questions that have been asked to all students.
2. The second chapter reports the answers provided by the non-entrepreneur students (N=1,765 students).
3. The third chapter focuses on students who are currently running a business (N=94 active entrepreneurs).
4. The fourth chapter focuses on students who are in the process of creating a new business (N=256 nascent entrepreneurs).
5. The fifth chapter focuses on students categorized as potential successors of their parents' businesses. To be classified as such, they must satisfy two conditions: (1) having parents working as entrepreneurs or being a majority owner of a business, and (2) not currently running a business themselves. In total, there are 730 students in this category.

In the last part of this report, we summarize some key results.

CHAPTER 1: ALL STUDENTS

Demographic statistics

Age

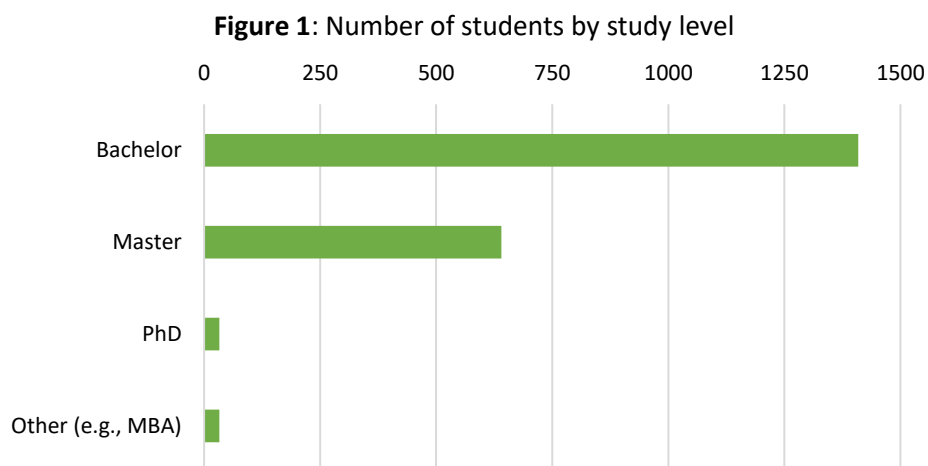
The age of the participants ranged from 18 to 57, with an average age of 22.22 years old (N=2,115 students). Approximately 95 percent of the participants were between 19 and 27 years old. This age average is lower than the international average of 24.30 years old.

Gender

A total of 1,085 respondents were male (51.30%), 1,019 female (48.18%), and 11 students (0.52%) chose “other” for their gender. These proportions are much more balanced than the 2021 international data, in which only 39.06 percent of respondents are male, and 60.17 percent are female.

Level of study

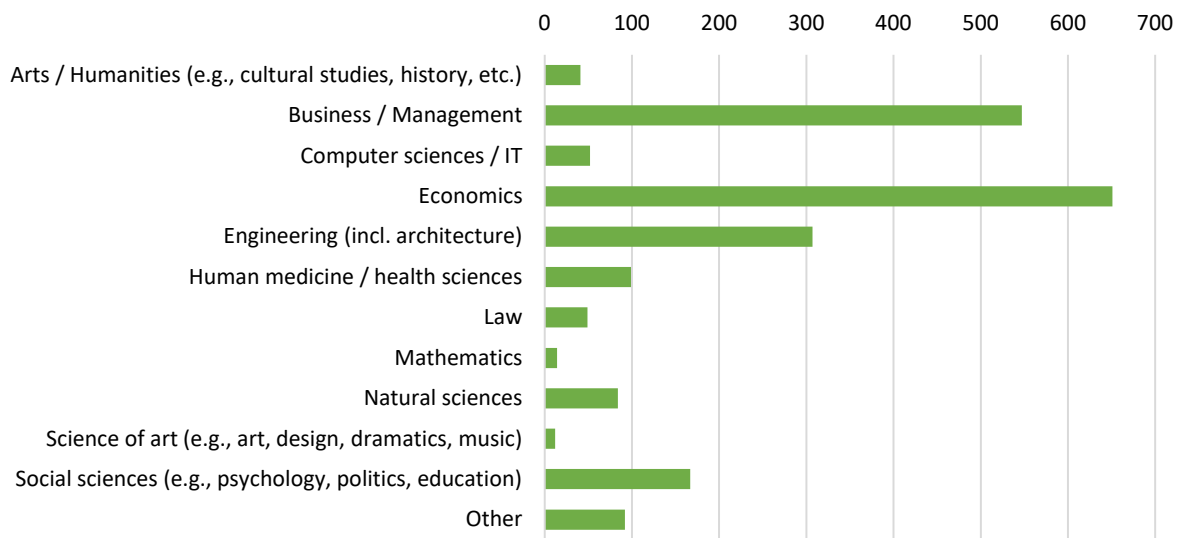
As illustrated in Figure 1, 1,409 students are in a Bachelor’s (66.62%), and 640 are in a Master’s program (30.26%). Students in a Ph.D. program or another program are a small minority: only 33 students in each of these two categories (1.56%). Therefore, the results from the Belgian GUESSS report 2021 can only confidently represent students’ entrepreneurial intentions and activities at the Bachelors and Masters levels.



Field of study

Most of the participants are from economics (30.78%), followed by business/management (25.86%), engineering (14.52%), social sciences (7.90%), human medicine (4.68%), natural sciences (3.97%), computer sciences (2.6%), law (2.32%), arts/humanities (1.94%), mathematics (0.66 and science of art (0.57%) (Figure 2). This distribution reflects the bias in the distribution of the questionnaire and/or possible differences in the interest toward an entrepreneurship-themed questionnaire between students of different study fields.

Figure 2: Number of students by field of study



Career Choice Intentions

Career Choice Intentions Overview

The primary purpose of the GUESSS survey is to identify entrepreneurial intentions and career choices among enrolled students.⁴ Only 10.35 percent of students said they wanted to start their own business after graduation. Most students prefer working as employees (56.60%). In contrast, 5.15 percent prefer to work in public organizations, 3.88 percent in academia, 2.55 percent in a non-profit organization, and 1.89 percent intend to be a successor of an existing business; either their parents'/family's business or another business. The remaining 19.58 percent of students have not yet decided on a career path. Compared to the data collected in 2016, the intention of having an entrepreneurial career after graduation doubled in 2021.⁵

One plausible explanation for this trend may be the increased support of governmental and HEI policies to foster entrepreneurship in young adults. The COVID-19 pandemic, as will be analyzed later, could be another factor of explanation for this trend.

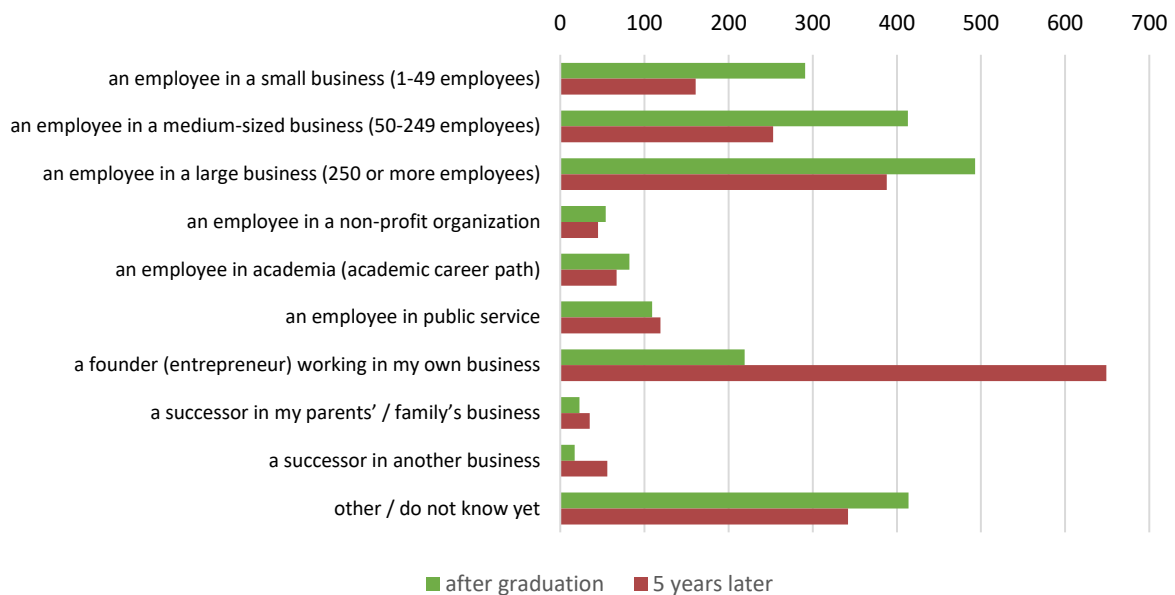
As illustrated in Figure 3, we observe a drastic change when asking about the career intention of the students five years after graduation. 30.69 percent of the students intend to become entrepreneurs five years after graduation, compared to 10.35 percent of students who plan to become entrepreneurs immediately after graduation. The percentage of students who intend to become entrepreneurs five years after graduation is quite similar to the numbers described in the Belgium 2016 report⁶.

4 Students are asked which career path they would want to choose at two milestones: immediately after graduation and 5 years after graduation.

5 As indicated in the 2016 report, "4% want to found their own business. About 1% aims to take over an already existing company 0.9% as successor in their parents' / family's firm and 0.3% as successor in a firm currently not controlled by the family). Especially the figure of 4% of intentional founders among Belgian students is considerably lower than the 9% of intentional founders in the international sample." (page 8)

6 As indicated in the 2016 report, "30% of the respondents intend to found their own company 5 years after studies..."

Figure 3: Belgian students' detailed career choice intentions – I want to be...



Career choice intention changes after five years

To further understand students' career path stability, we analyzed students' career intentions between the two-time points (i.e., immediately after graduation and five years after graduation). As presented in Table 1, we can observe the following trends.

First, most students (83.56%) who initially chose an entrepreneurial career immediately after graduation keep their choice five years after graduation.

Second, the "employee career path" preference decreases across time. Many students plan to switch to the entrepreneurial career path five years after graduation. The same trend (i.e., "first employee, then entrepreneur") is observed across previous GUESSS national and global reports. Interestingly, students who intend to work in small businesses after graduation are more likely to become entrepreneurs after five years than those working in larger firms.

Still, a substantial percentage of students intend to keep working in a business environment after five years – either staying in the same sector or moving to a smaller or larger business (with a significantly higher preference for a larger company). Only a few students swing to other sectors like academia, public organizations, or NGOs.

Third, the career path is relatively stable for public service and academia, with 66.97 percent and 50.00 percent of students who do not intend to change their initial career choice after five years. Conversely, after graduation, students who choose to work for NGOs have the most dispersed changes after five years. While 33.33 percent of these students still plan to work in NGOs, 22.22 percent plan to launch their own business after five years, 14.82 percent want to work in a business environment, and 12.96 percent want to move to the public sector.

Career choice intention by study field

Figures 4 and 5 show the differences in career choice between study fields. Study fields with relatively few observations are indicated with an asterisk (*). In these cases, the reported career choices are not representative and should be interpreted with caution.

Figure 4: Career choice by study field - immediately after graduation

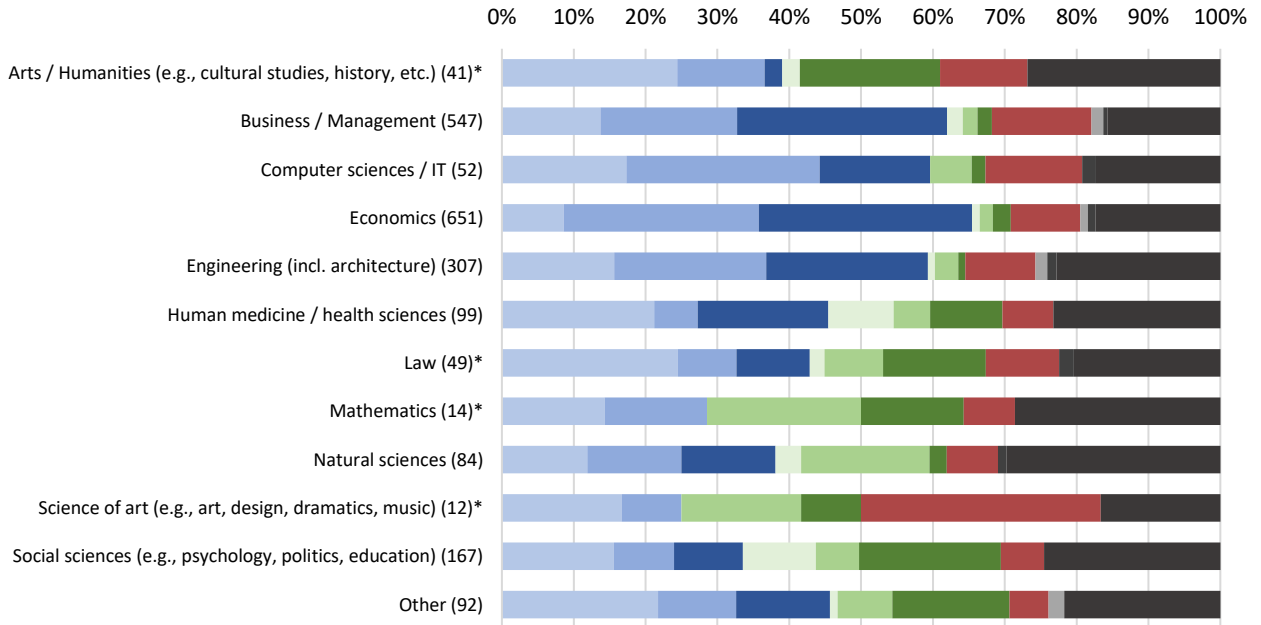
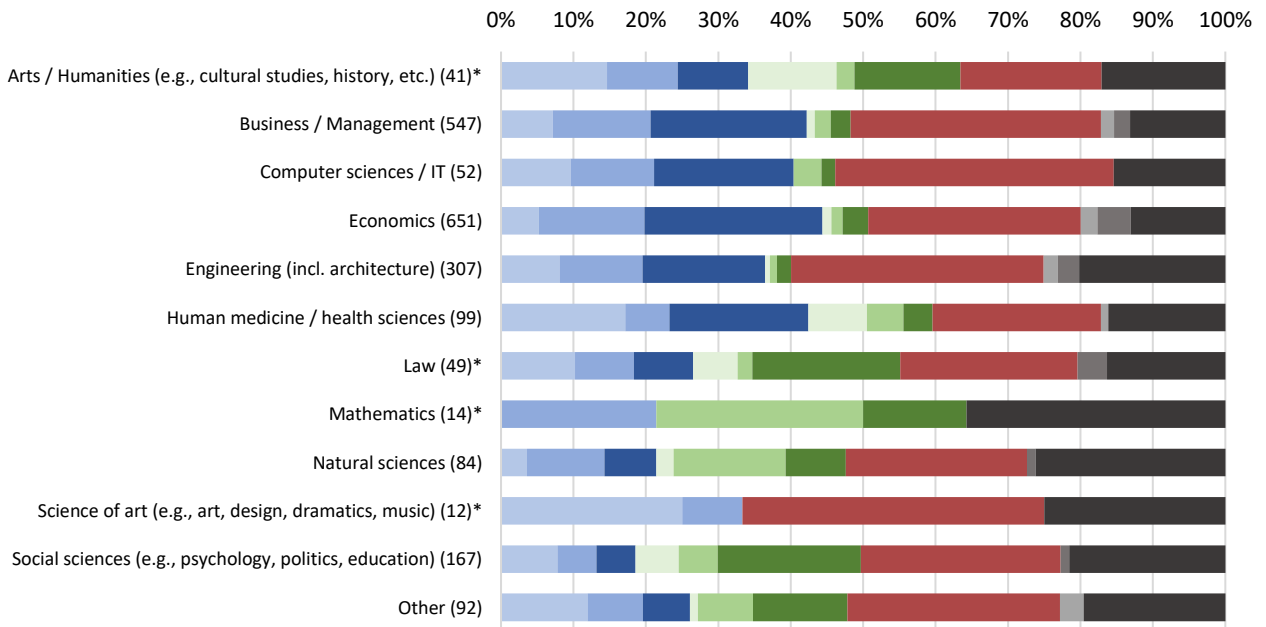


Figure 5: Career choice by study field - 5 years after graduation



- an employee in a small business (1-49 employees)
- an employee in a medium-sized business (50-249 employees)
- an employee in a large business (250 or more employees)
- an employee in academia (academic career path)
- an employee in public service
- a founder (entrepreneur) working in my own business
- a successor in my parents' / family's business
- a successor in another business
- other / do not know yet

We can see that immediately after graduation, the career choice of students is relatively consistent with their study field: while most students in business and management, IT, and economics are interested in working in companies, students in health/medicine and social sciences have a relatively more significant interest in the public service and non-profit sector. Students in natural sciences and mathematics seem to have the highest interest in an academic career among all study domains. Overall, the interest in entrepreneurship is relatively low in all fields of study immediately after graduation.

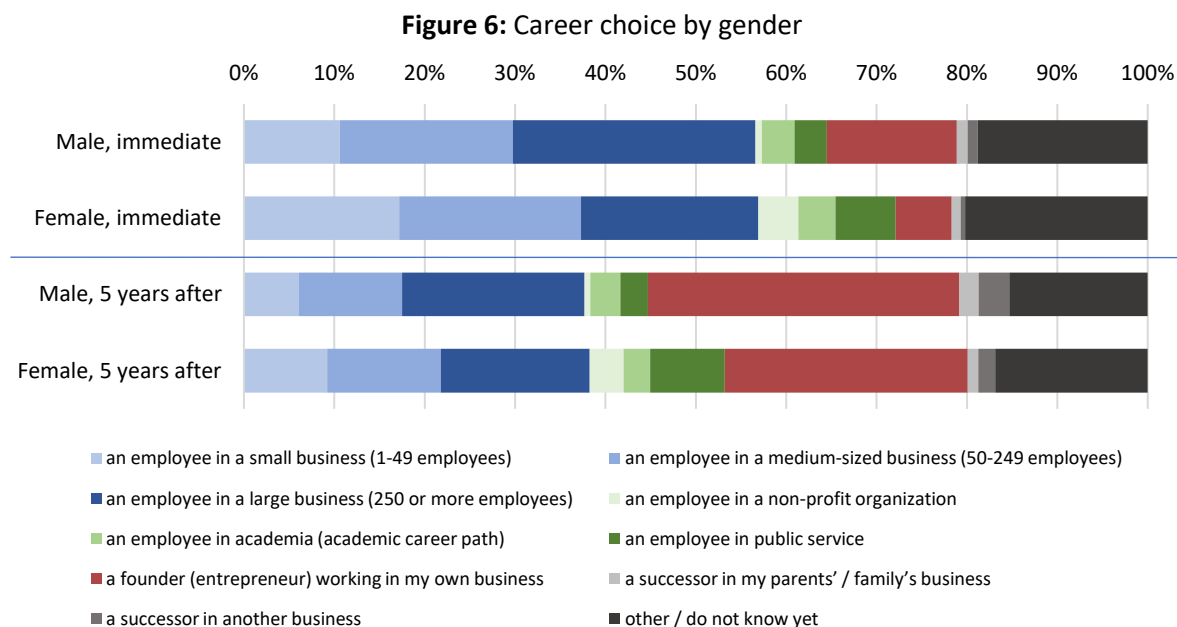
Following the overall trend, the interest in entrepreneurship rises significantly five years after graduation. This trend is apparent in all study fields, except mathematics, with no students who intend to be entrepreneurs five years after graduation.

Career choice intention by gender

We observe a gender gap immediately and five years after graduation (Figure 6). After graduation, 14.38 percent of the male students choose to become entrepreneurs compared to 6.18 percent of the female students. The gender gap persists for intended career choices five years after graduation. 34.47 percent of the male students want to take an entrepreneurial career path five years after their studies, compared to 26.89 percent of the female students.

Inversely, more female students choose a career-path in NGOs, academia, and the public sector (15.21% immediately after graduation, 14.92% after five years) compared to males (7.93% immediately after graduation, 7.00% after five years).

The choice to work as an employee in a company after graduation is relatively similar between male and female students, both immediately after graduation (56.92% and 56.59%, respectively) and five years after graduation (38.27% and 37.70%, respectively).



Entrepreneurial activities

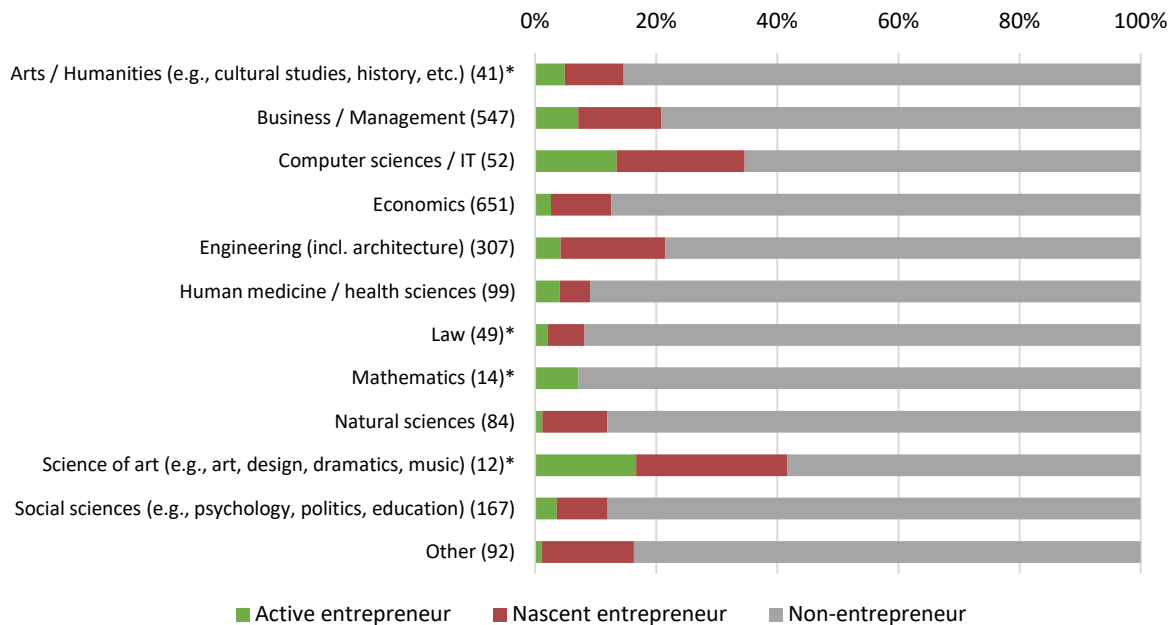
In this subsection, we analyze the answers according to the students' entrepreneurial activities (i.e., non-entrepreneur, nascent, and active).

When the survey was administered, 94 students were currently running a business (4.44% of the dataset), and 256 students were engaged in the process of founding a business (12.10 percent of the

dataset)⁷. These percentages are significantly lower than the international average for active and nascent entrepreneurs, which are 10.80 and 19.67 percent, respectively.

The main fields of study of nascent or active entrepreneurs are IT, business/management, and engineering (Figure 7). Note that there are various study fields for which we only received a small number of responses (marked by an asterisk *). These results should be taken with caution.

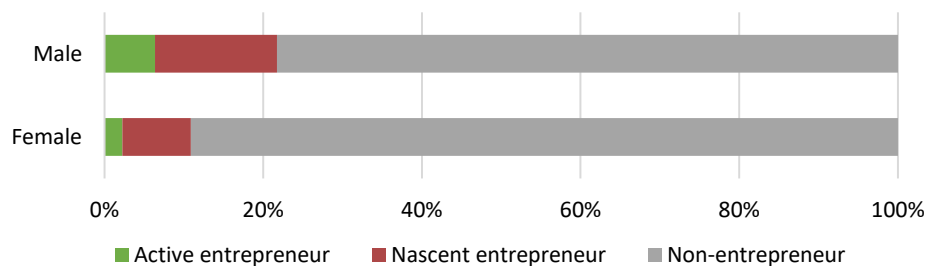
Figure 7: Entrepreneurial activities - by study field



* indicates the study field has a low number of responses.

We observe among the respondents an important gender gap (Figure 8). Entrepreneurial activities are much more prominent among male students than female students. In particular, while only 2.26 and 8.64 percent of female students are active entrepreneurs and nascent entrepreneurs, respectively, the numbers for male students are 6.36 and 15.39 percent.

Figure 8: Entrepreneurial activities - by gender



7 In the GUESSS 2021 questionnaire, students can identify themselves as both “active entrepreneur” and “nascent entrepreneur”. In such cases, only the status of “active entrepreneur” was effective, and students would answer items that are designated for “active entrepreneur” and would not answer items for “nascent entrepreneur”.

In this report, we want to follow the same logic as the questionnaire. Therefore, if a student identifies her/himself as both “active entrepreneur” and “nascent entrepreneur”, we will only categorize them as “active entrepreneur”. In the Belgian dataset, 65 students identify themselves as belonging to both categories.

Drivers/factors Influencing Entrepreneurship

In this subsection, we examine different aspects of the external context and their connections with entrepreneurial intention and activities. To do so, we analyze the extent to which students follow an entrepreneurial curriculum.

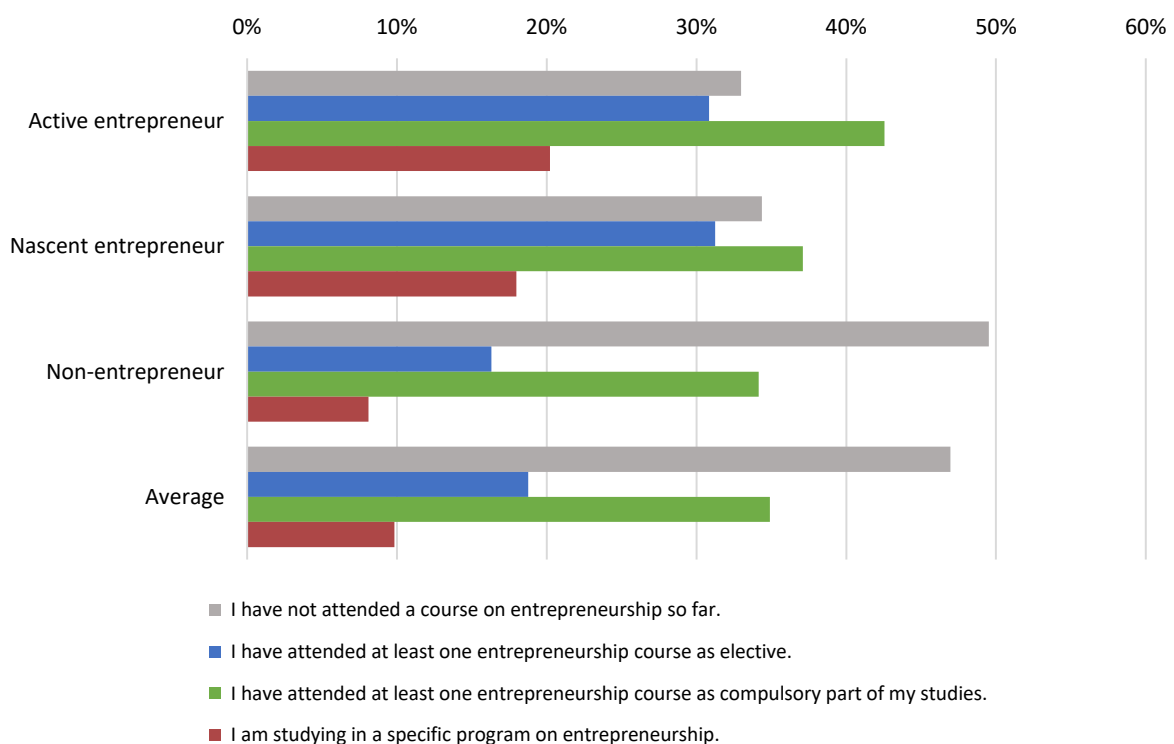
First, we look at their entrepreneurial education at HEI and their supportive environment. Then, family, and societal factors are also considered.

Participation to entrepreneurial education

On average, 9.83 percent of students are studying in an entrepreneurship program, while 34.89 percent have attended at least one entrepreneurial course as a compulsory part of their program. Further, 18.77 percent of the students attended at least one entrepreneurial course as an elective, and 46.95 percent of the students have not participated at in any entrepreneurship-related course. Since choices such as compulsory courses and elective courses are not mutually exclusive (students may have taken both), the total percentage in this section is larger than 100 percent.

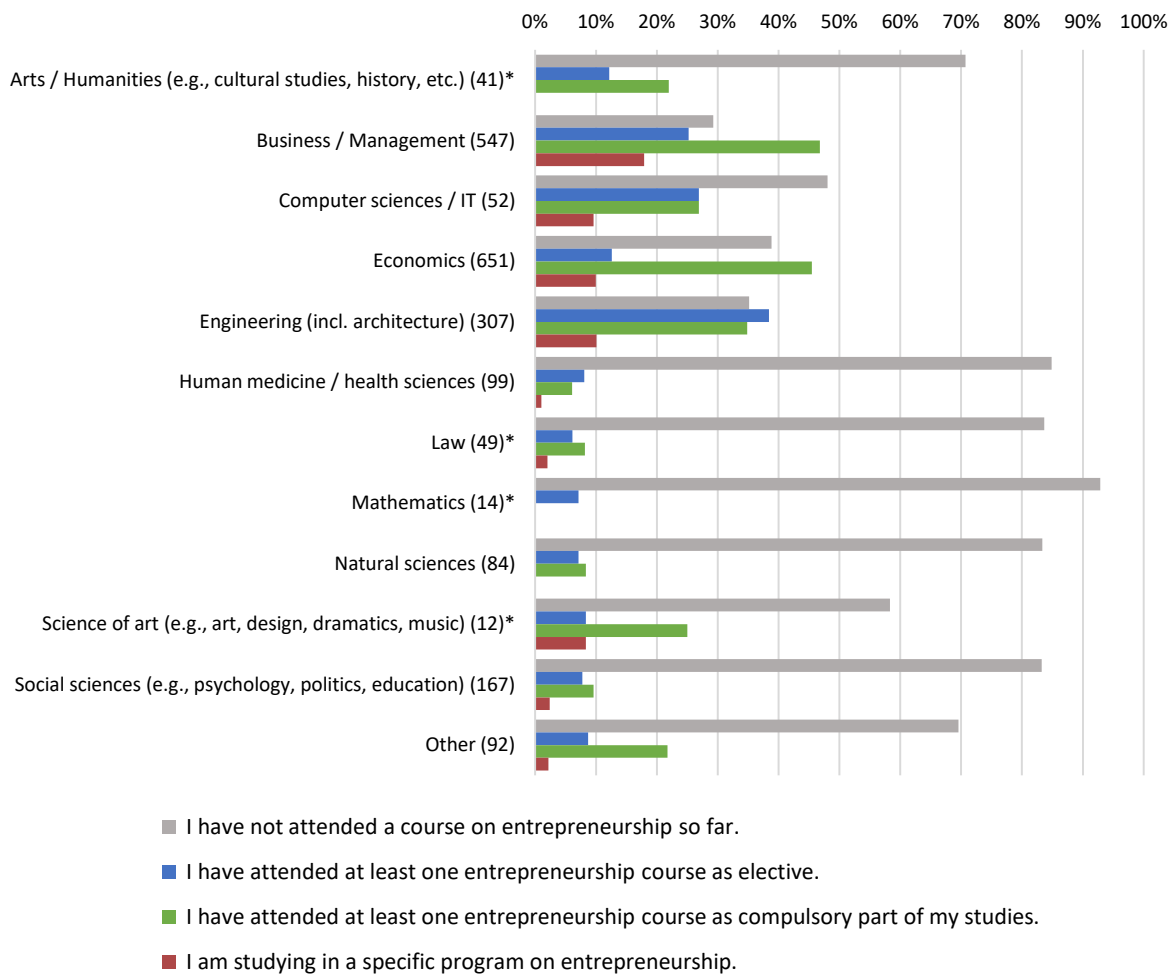
To see how these choices relate to entrepreneurial intention and activities, we compared the results between active entrepreneurs, nascent entrepreneurs, and students who are not engaged in entrepreneurial activities. Figure 9 illustrates that active and nascent student entrepreneurs attend more entrepreneurship-related courses or specifically study entrepreneurship programs. Differences among the students who attended a course as a compulsory part of their program are relatively small. This result is easily explained since attending a compulsory course does not reflect students' proactive choice.

Figure 9: Participation in entrepreneurial courses, by student entrepreneurial status



Most of the studies who are enrolled in entrepreneurial course (elective or mandatory) are studying in the field of business / management, computer science, economics, and engineering. In these domains, the percentages of students not attending entrepreneurship courses are significantly lower. The results are illustrated in Figure 10.

Figure 10: Participation in entrepreneurial courses, by study domain



* indicates the study field has a low number of responses.

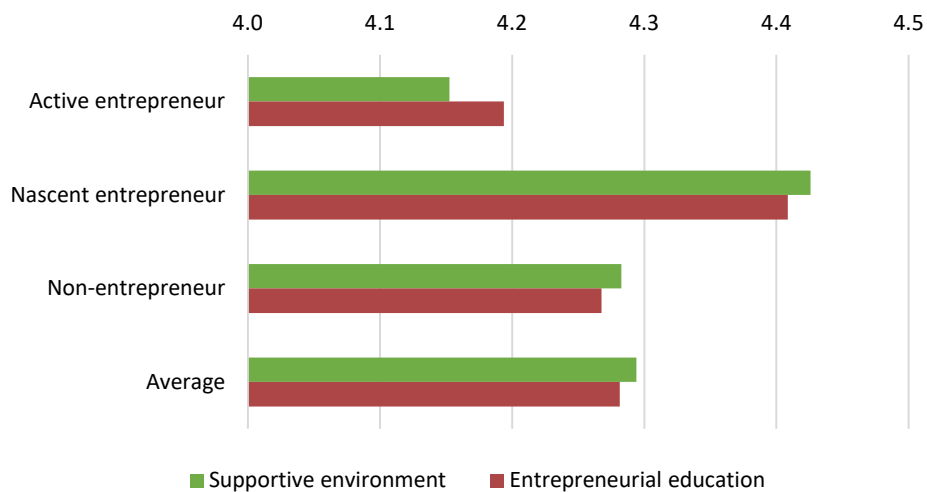
Supportive environment and entrepreneurial education at HEI

Students rated how much they perceive that their university environment supports, inspires, and promotes entrepreneurship and how the courses at their HEI prepared them to recognize opportunities, start a business, or provide them with motivations to become entrepreneurs.

For Belgium, the average score of offering a supportive environment is 4.29 (on a 7-point Likert scale). This result is slightly lower than the international average of 4.36. The average score for entrepreneurial education in Belgium is 4.28 (again, on a 7-point Likert scale). This score is marginally higher than the international average of 4.25.

On an individual level, we compare the perceived supportive environment and quality of entrepreneurial education between the three students' categories (i.e., active entrepreneurs, nascent entrepreneurs, and non-entrepreneurs). On average, nascent entrepreneurs rate their HEI's entrepreneurial education and supportive environment higher than the average (Figure 11). Interestingly, students who are already running a business rate these aspects lower than all other groups – even non-entrepreneur students.

Figure 11: Supportive environment and Entrepreneurial education



Parents as entrepreneurs

Having (an) entrepreneurial parent(s) is an antecedent of entrepreneurial intention and activities. Parents working as entrepreneurs act as a source of knowledge, financial, and social capital, as well as providing approval and encouragement.

On average, 38.53 percent of students have at least one parent working as an entrepreneur, and 29.93 percent of students have at least one parent who is a major owner of a business. Figures 12 and 13 show the connection between parents' occupation and entrepreneurial activities. Active or nascent entrepreneurs are more likely to have at least one parent working as an entrepreneur. The percentage of students having parents as a majority owner of a business follows the same pattern.

Figure 12: Entrepreneurial parents and students' entrepreneurial activities

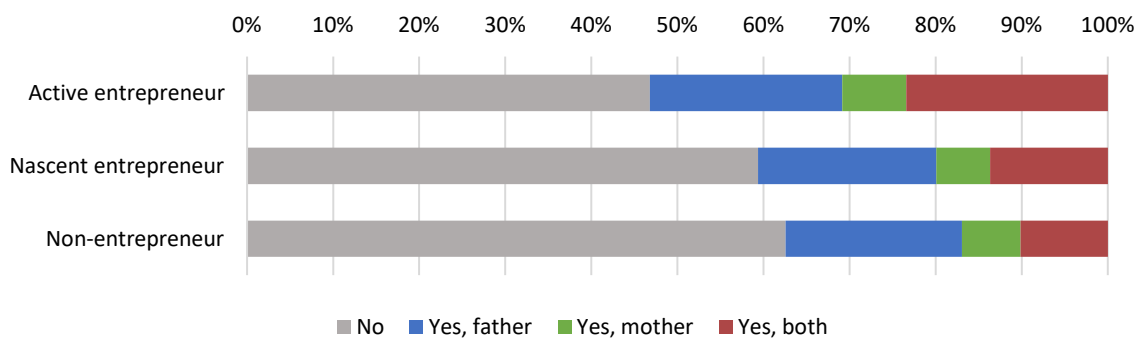
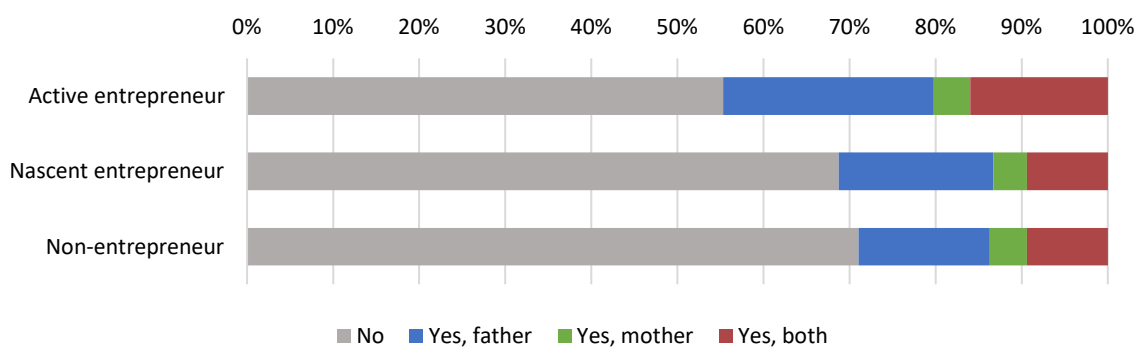


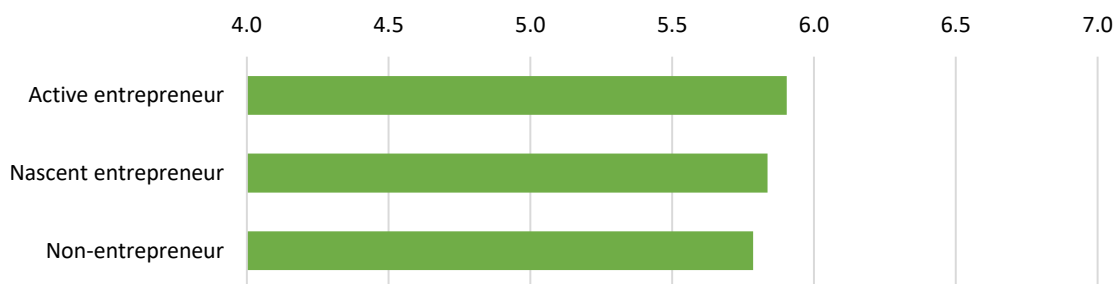
Figure 13: Parents as majority owner of a business and students' entrepreneurial activities



Subjective Norm

'Subjective Norm of Entrepreneurship' (i.e., the approval of the surrounding people – including family, friends, and fellow students) is another factor that influences the decision to pursue an entrepreneurial career. Overall, the subjective norm of an entrepreneurial career in Belgium is positive. As seen in Figure 14, even the group with the lowest subjective norm (non-entrepreneur) perceives pursuing an entrepreneurial career as something positive (average score of 5.79 on a 7-point Likert scale). This result implies that most Belgian students have a favorable view of entrepreneurship as a career choice. Finally, the subjective norm is higher in active entrepreneurs, followed by nascent entrepreneurs. This implies a positive connection between perceiving a positive attitude toward entrepreneurship and the decision to (attempt to) found a business.

Figure 14: Subjective norm and students' entrepreneurial activities

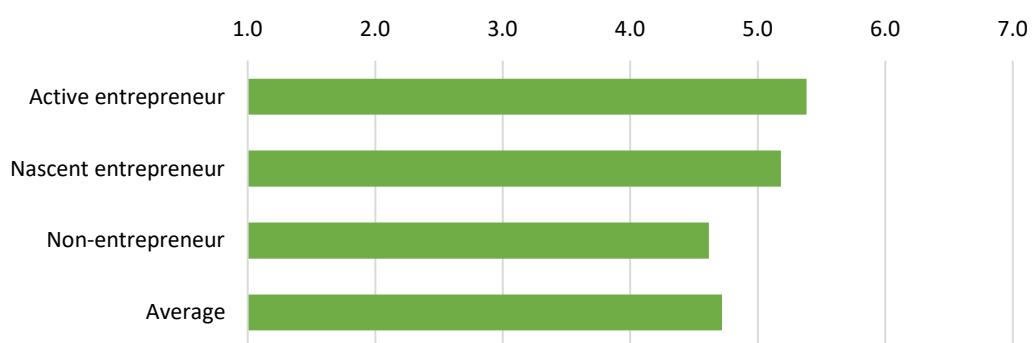


Willingness to take risks

Entrepreneurship is often associated with uncertainty and, more specifically, risk and was therefore assessed using a validated 7-point Likert scale. The national average for this scale is 4.72, which is slightly higher than the international average of 4.45. Belgian students are somewhat more willing to take risks and accept uncertainty than the global average.

We see that, following conventional wisdom, students who are in the active and nascent entrepreneur groups have a higher willingness to take risks, scoring 5.38 and 5.18 on average, respectively. These results are illustrated in Figure 15.

Figure 15: Willingness to take risks



CHAPTER 2: STUDENTS THAT ARE NOT ENTREPRENEURS

Student entrepreneurial intention and attitude toward entrepreneurship

Entrepreneurial intention

In the GUESSS 2021 questionnaire, students who are neither “active” nor “nascent entrepreneurs” were asked to report their entrepreneurial intention (i.e., their willingness to create a new business) using the validated 6-questions scale of Liñán and Chen (2009)⁸.

On a scale ranging from 1 (low intention to found a business) to 7 (high intention to found a business), the average entrepreneurial intention of Belgian students is 3.65. This score is lower than the international average of 3.82. Overall, Belgium ranks 42nd on entrepreneurial intention, according to the GUESSS 2021 dataset. It is important to note that intention does not necessarily lead to business creation, but it is an antecedent.

Looking at entrepreneurial intention from a gender perspective, male students report higher entrepreneurial intentions (3.93) than female counterparts (3.40). When comparing entrepreneurial intention between the level of study, we observe that Bachelor students (3.78) report higher entrepreneurial intention than Master students (3.39)⁹.

The reported entrepreneurial intention also reflects the career choice intention (immediately after graduation or five years later). In Figure 16, we see how entrepreneurial intention is connected to career choices. Students who plan to create a business immediately after graduation, or five years after graduation, have much higher entrepreneurial intention than students with other career-path choices. All other choices (except the choice to succeed in another business) score below the scale average of entrepreneurial intention (i.e., 4 on a 7-point Likert scale), which implies a neutral or a less-than-favorable entrepreneurial intention.

Figure 16: Entrepreneurial intention and career choice intention



⁸ Liñán, 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.

⁹ Here we do not report on PhD students and other study programs (e.g., MBA) because of the low number of responses.

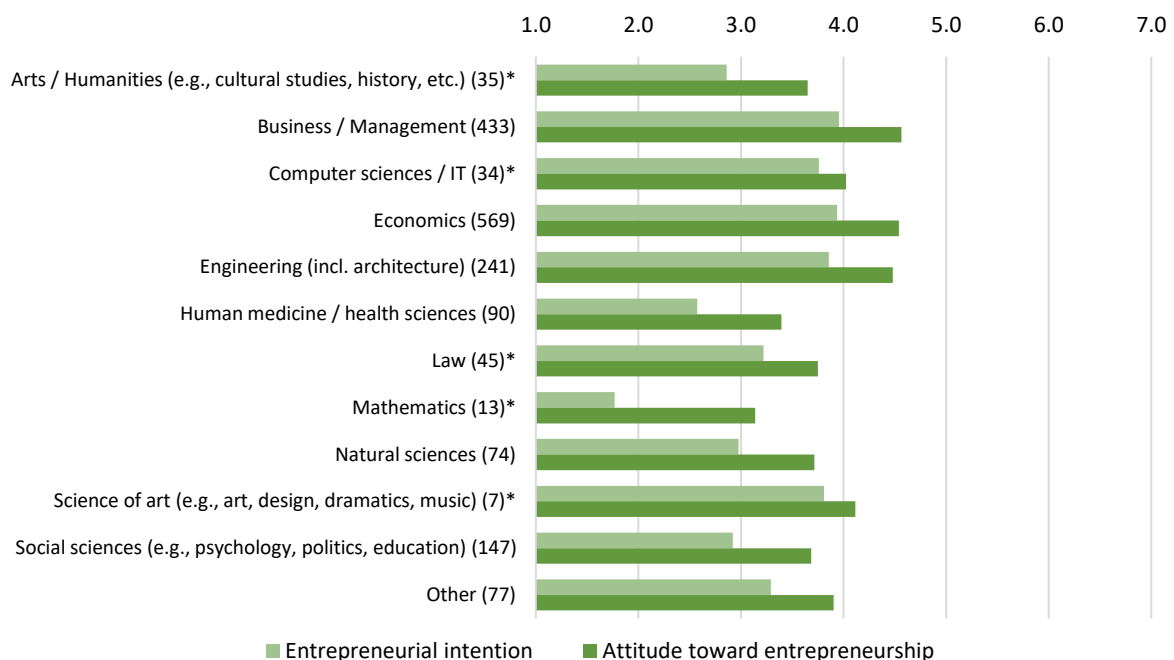
Attitude toward entrepreneurship

A positive attitude toward entrepreneurship is also an important antecedent of entrepreneurship. Measured on a 7-point Likert scale, the average score for attitude toward entrepreneurship in Belgium is 4.29. This is slightly lower than the international average of 4.34. Belgium ranks 39th out of the 58 countries that participated in GUESS 2021.

Comparing the attitude toward entrepreneurship between genders, we observe a similar trend for entrepreneurial intention. Male students in Belgium have a more positive attitude toward entrepreneurship than female students (average scores of 4.56 and 4.05, respectively).

Across study fields, students have vastly different attitudes and intentions toward entrepreneurship. Figure 17 shows that, besides study fields with a low number of responses, the entrepreneurial intention is higher in business/management, economics, and engineering, while the entrepreneurial intention is significantly lower in medicine, social sciences, and natural sciences.

Figure 17: Entrepreneurial intention and attitude toward entrepreneurship – by study field



* indicates the study field has a low number of responses.

On average, attitude toward entrepreneurship scores higher than the entrepreneurial intention in all study fields. This result is congruent with the result of the Subjective norm (see above). Following the same pattern of entrepreneurial intention, the fields with the most positive attitude toward entrepreneurship are business/management, economics, and engineering, while the fields with the least positive attitude are natural science and medicine.

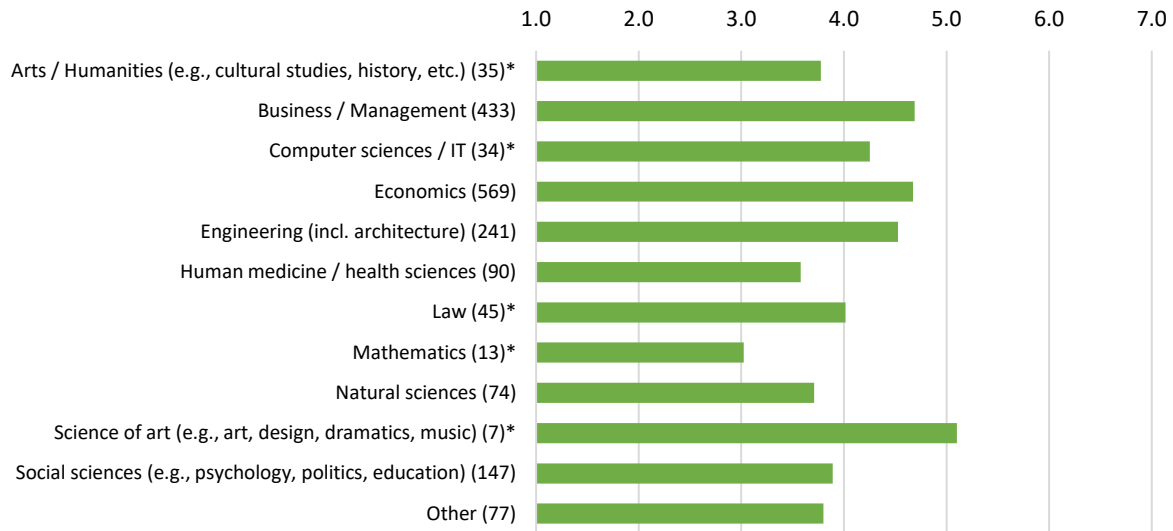
Entrepreneurial self-efficacy

Students reported their entrepreneurial self-efficacy (such as identifying opportunities, creating new products or services, managing a business, etc.) on a 7-point Likert scale. The average score of Belgium is 4.41. This result is lower than the international average, which is 4.49. Belgium’s average perceived entrepreneurial self-efficacy ranked 42nd internationally, based on the 2021 GUESS dataset.

Comparing genders, male students in Belgium have higher perceived entrepreneurial self-efficacy than female students, with an average score of 4.55 and 4.28, respectively.

Students in different study fields have very dissimilar perceived entrepreneurial self-efficacy. Students in business/management, economics, engineering, and law have significantly higher perceived entrepreneurial self-efficacy than other fields. Students in medicine, natural sciences, and social sciences have the lowest perceived self-efficacy (Figure 18).

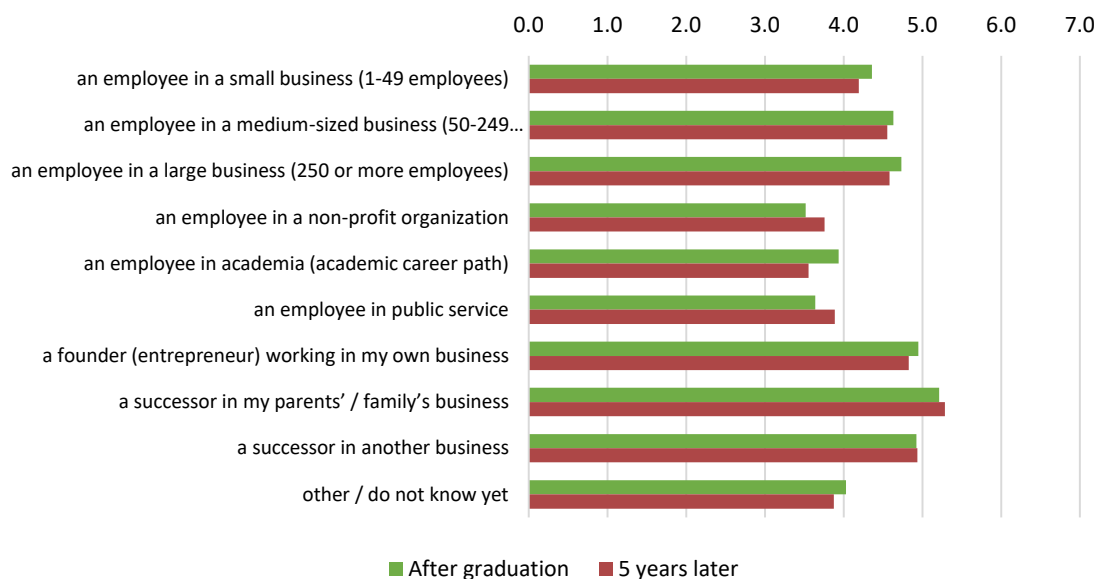
Figure 18: Perceived entrepreneurial self-efficacy – by study field



* indicates the study field has a low number of responses.

Entrepreneurial self-efficacy is also related to career intention. As shown in Figure 19, students who intend to pursue a career in an NGO, the public sector, or academia have significantly lower perceived entrepreneurial self-efficacy. Quite logically, students considering entrepreneurship (or want to take over a business) have significantly higher reported entrepreneurial self-efficacy. For students who aim for a career in a company, whether a small, medium, or large enterprise, the average reported entrepreneurial self-efficacy is higher immediately after graduation than five years after graduation. This implies that the students with the highest entrepreneurial self-efficacy in those groups have moved to other career choices (most likely creating their businesses, as pointed out in Table 1), lowering the average score of the “working as an employee in a business” categories.

Figure 19: Perceived entrepreneurial self-efficacy – by career choice



CHAPTER 3: ACTIVE ENTREPRENEURS

Basic information of the business

This section focuses on the 94 active entrepreneurs (i.e., students who are running a business). Among them, only 23 (24.47 %) are female.

Only 17 students (18.09%) have already created a business before, and 77 students (81.91%) report that this is the first time they have created a business.

Most active entrepreneur respondents founded their businesses within the last three years (78.72%). Among the 94 businesses, 24 (25.53%) were founded in 2021, 38 (40.43%) in 2020, 12 (12.76%) in 2019, and 20 (21.28%) were founded before 2019.

Unsurprisingly, most of these businesses are small in scale. 41 businesses (43.62%) have no employees (completely run by the entrepreneur), 28 businesses have one employee, and only 25 businesses (26.60%) report having at least two employees.

Regarding ownership, 56 of the entrepreneurs (59.57%) are majority (or single) owner of the business. Further, 18 respondents (19.15%) report that they own 50 percent of the business, and 20 respondents (21.28%) identify themselves as a minority owner (less than 50% ownership).

Interestingly, 39 students (41.49%) plan to make their business their main occupation after graduation. However, 23 students (24.47%) do not plan to do so, and 32 (34.04%) students are still unsure about this decision.

Covid-19 pandemic

Students were asked whether the COVID-19 impacted their intention to launch their business. There are 25 students (26.60%) who reported that the pandemic was the main reason they established their business. We found that among the 38 businesses founded in 2020, 17 (44.74%) were mainly because of the COVID-19 pandemic. This number is 29.17 percent (7 out of 24 businesses) for 2021. This result implies that the COVID-19 pandemic is an important incentive for student business creation.¹⁰

Business by economic sectors

As illustrated in Figure 20, we see that advertising/designing/marketing, consulting, and trade (wholesale/retail) are the most represented business sectors in the group of active entrepreneurs. Thanks to the development of the internet and logistics, these sectors have much lower entrance costs than others, probably explaining why they are popular choices among students.

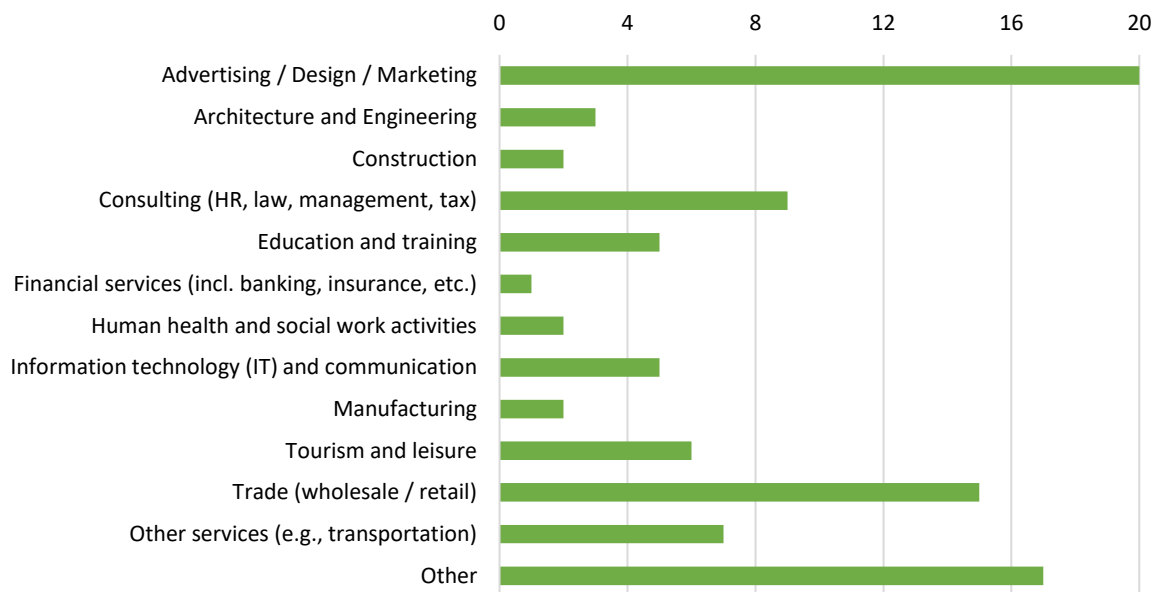
The entrepreneurial team

Consistent with the descriptions above, a large proportion of the student entrepreneurial businesses are owned by one (47.87%) or two (25.53%) people. Only 26.60 percent of businesses are owned by three or more people.

Among businesses with at least two owners (the respondent and at least one more person), 42.86 percent have at least one female co-owner. The gender preference of the co-owner can be further broken down by the gender of the respondents. In particular, if the respondent is male, the majority (70.27%) does not have a female co-owner. Meanwhile, among female respondents, 80 percent of their businesses have at least one female co-owner. This result shows the tendency to co-found an entrepreneurial business with people of the same gender.

¹⁰ Note that this result was obtained for the first 6 months of 2021 (data collection was ended in June 2021)

Figure 20: Active entrepreneurial businesses – by economic sector



Business owners also seem to prefer working with people outside their families, as only in 30.61 percent of the cases are the co-owners relatives. This tendency, however, is different between families with and families without entrepreneurial parents. When the respondent has parents working as entrepreneurs or business owners, 48.28 percent of them have relatives as co-founders. Meanwhile, this percentage is 4.00 percent for respondents with no entrepreneurial parents. Finally, 46.94 percent of businesses with two or more owners are a collaboration between fellow students.

Motivations and goals

As described by Sieger et al. (2016)¹¹, business founders can invest a lot of “themselves” in their entrepreneurial endeavors, and “entrepreneurship can be regarded as an important manifestation of the human self and new firms become important reflections of the meanings that founders associate with entrepreneurship” (p.569). In this section, we examine the motivations of business creation, as well as the goals of entrepreneurs when they found and manage their businesses. Students answer questions on their motivations and goals on a 7-point Likert scale.

Figure 21 shows the average scores of entrepreneurial motivations. From these results, the personal motivation of advancing career is the most popular among students in Belgium. The motivation for solving societal problems is the least popular.

Regarding the priority of entrepreneurs when they found their businesses (Figure 22), we observe a strong priority to solve problems of the community or people that the entrepreneurs strongly identify with. The second highest priority is solidifying the management and financial status of the business. The lowest priority of this group is for social problems at large.

Finally, in firm management (Figure 23), students in the active entrepreneurs group strongly focus on outperforming competitors and staying relevant in their domain. The goal to connect to and develop the community comes second. This group does not have a strong incentive to convince people of their roles in addressing social problems.

¹¹ Sieger, P., Gruber, M., Fauchart, E., & Zellweger, T. (2016). Measuring the social identity of entrepreneurs: Scale development and international validation. *Journal of Business Venturing*, 31(5), 542-572.

Figure 21: Motivation – I create my firm in order...

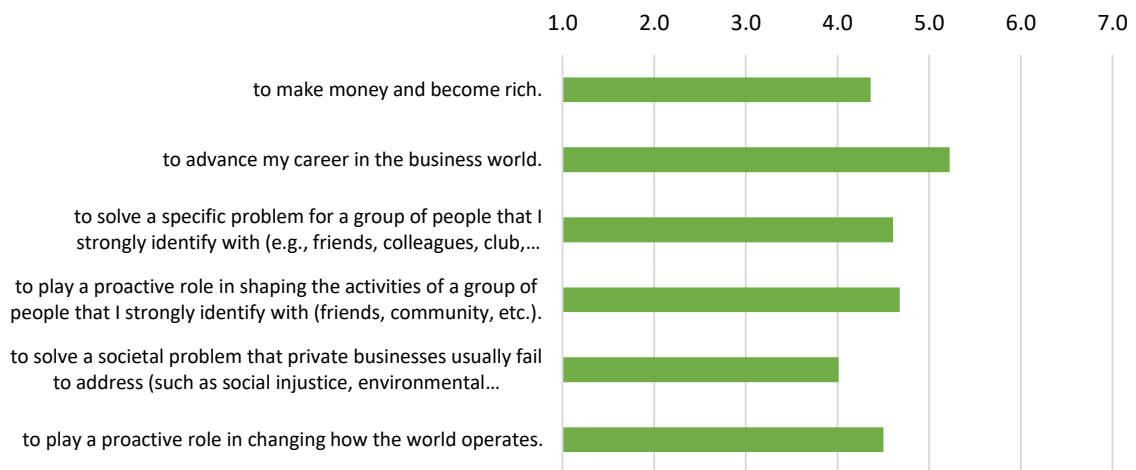


Figure 22: Goals – As a firm founder, it is important to me...

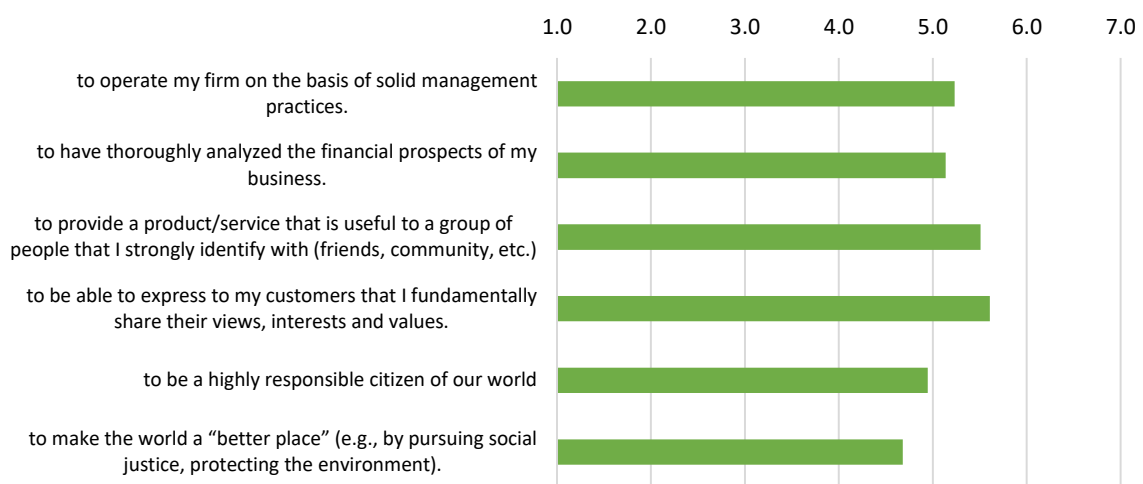
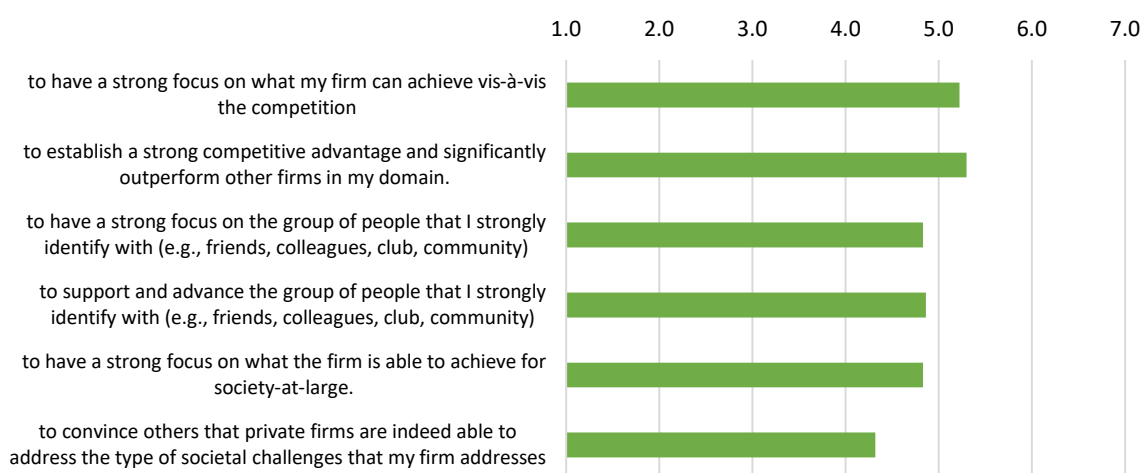
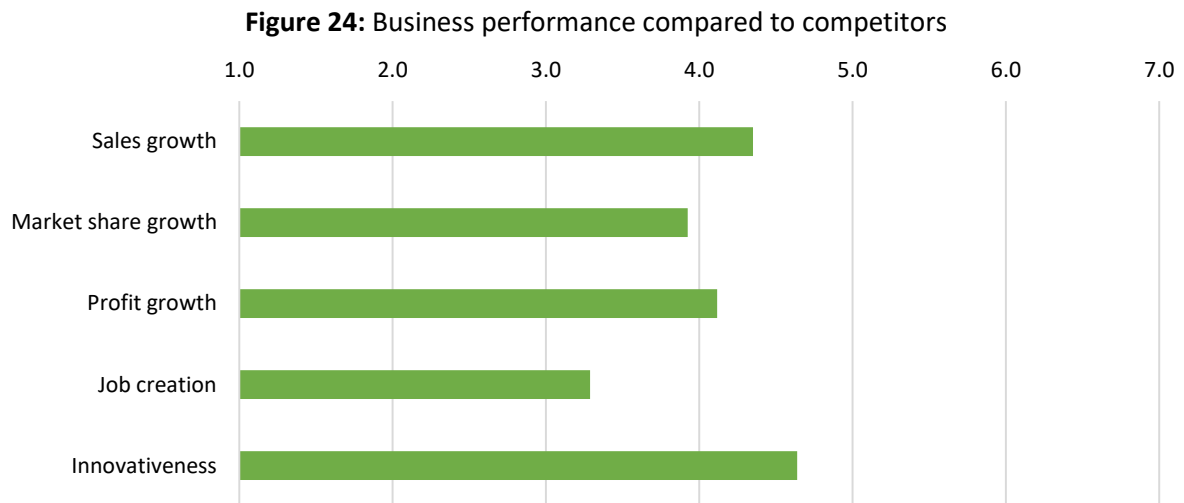


Figure 23: Goals – When managing my firm, it is important to me...



Entrepreneurial business performance and competitiveness

This section analyzes how the active student entrepreneurs rated their businesses' performance compared to their competitors on a 7-point Likert scale. As illustrated in Figure 24, the aspect on which active student entrepreneurs are the most optimistic is the innovativeness of their company, which is a key factor of young, entrepreneurial businesses. Job creation is the aspect that entrepreneurs are the least confident about.



CHAPTER 4: NASCENT ENTREPRENEURS

Basic information

Among 256 nascent entrepreneurs, 167 students (65.23%) are male, and 88 (34.38%) are female. This distribution follows the pattern that male students have, on average, higher intentions to establish a company (see above). Some 40.63 percent of the nascent entrepreneurs indicate that they want their business to become their main occupation after graduation. Most nascent entrepreneurs (165, 64.45%) are studying at the Bachelor's level. Only 15.23 percent of nascent entrepreneurs have already created a business before which is a percentage similar to that observed in the international dataset.

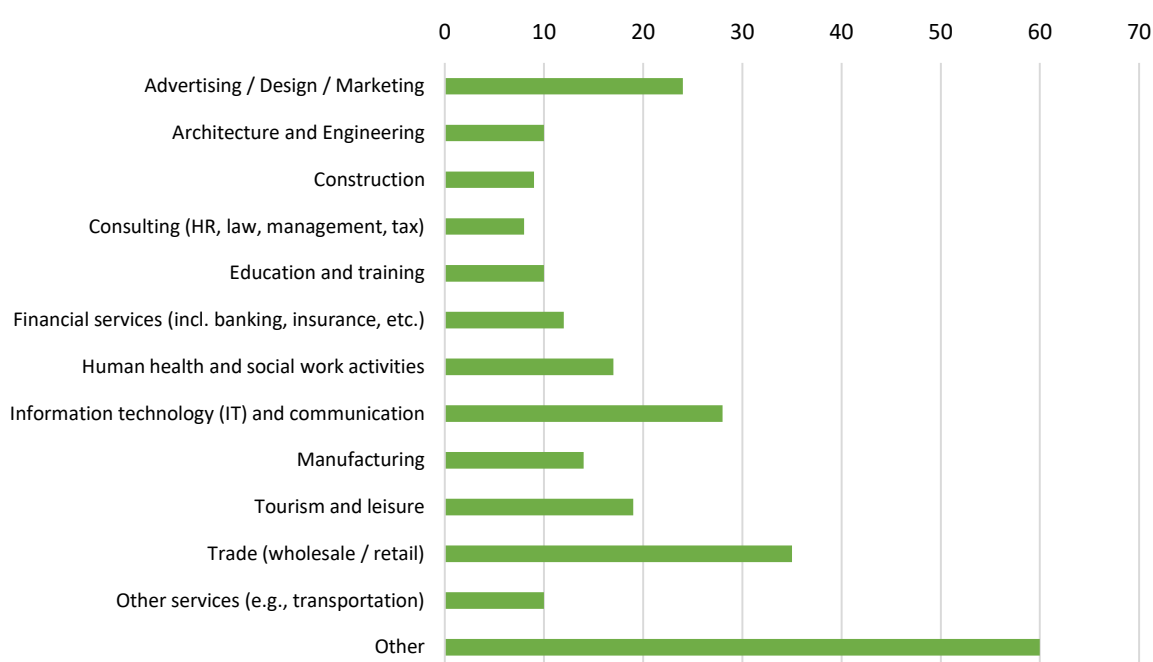
Among the students who plan to found their business, 92 students (35.94%) want to complete the process and start operating their business while still at school. 35 students (13.67%) want to complete the founding process right after finishing their studies and 59 students (23.05%) plan to do this during the two years following graduation. The remaining 70 students (27.34%) are still unsure when they will create their venture.

Regarding the Covid-19 pandemic, the proportion of nascent entrepreneurs who want to create a business because of the pandemic is only 12.11%. Finally, the majority of the entrepreneurial ideas (67.97%) originate from sources independent from their HEI.

Business sectors

Examining the student businesses by economic sectors (Figure 25), apart from the proportion of students who selected "others" (which could imply the students are not yet sure which sector their business will be in), we see a concentration of businesses in advertising/designing/marketing, IT and trade (wholesale/retail). We observe a similarity between nascent entrepreneurs and active entrepreneurs in terms of economic sectors, as advertising/designing/marketing and trade are most popular in both groups of students (Figure 25).

Figure 25: Nascent businesses – by economic sector



Entrepreneurial founding team and business ownership

Among the nascent entrepreneurs, 40.63 percent plan to create their business completely on their own; 33.98 percent with one co-founder, 13.67 percent with two co-founders, and 11.72 percent with three or more.

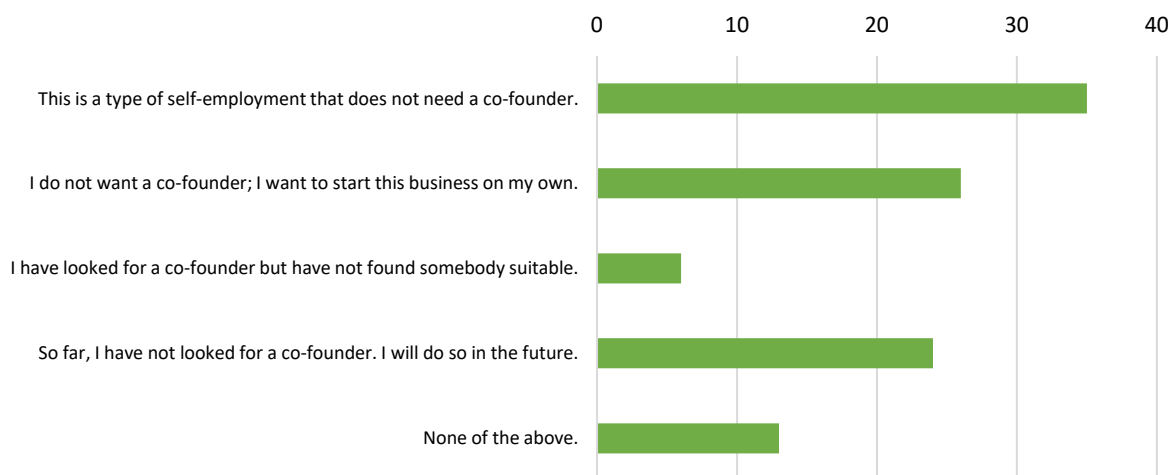
Additionally, we recognize that when the student plans to be the only person on the founding team, 88.46 percent of them plan to be the majority owner. Meanwhile, if the business has two founders (the respondent and one co-founder), 58.62 percent want to split the ownership in half, and 35.63 percent still want to be the majority owner of the business. In cases with two co-owners or more, 60.00 percent of the respondents plan to be only a minority owner.

Table 2: Founding team and ownership percentage

% ownership	No co-founder	1 co-founder	2 co-founders	3 or more co-founders
0-49%	3	5	18	21
50%	9	51	7	4
51-100%	92	31	10	5

As depicted in Figure 26, we observe that the most popular reason for not having a co-founder is that the business does not need a co-founder or that the choice of not having a co-founder is an active, well-considered choice of the entrepreneurs.

Figure 26: Reasons for not having a co-founder



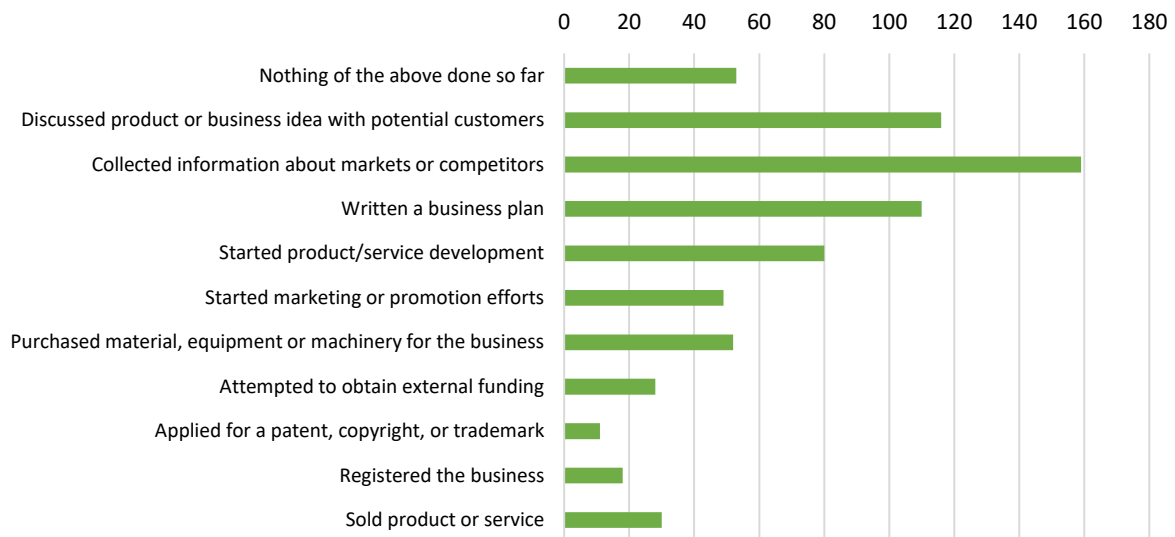
Similar to the group of active entrepreneurs, we observe a tendency to co-found entrepreneurial businesses with people of the same gender. In particular, if the respondent is male and the business has at least two owners, only the minority (24.07%) have at least one female co-founder. Meanwhile, if the respondent is female and the business has at least two owners, 83.72 percent have at least one female co-founder.

Finally, nascent entrepreneurs also seem to prefer working with people outside their families, as only in 26.32 percent of the cases are the co-founders' relatives. This proportion is not very different between families with entrepreneurial parents (32.5%) and families with no parents working as entrepreneurs (21.43%).

Steps taken to create a business

Among nascent entrepreneurs, it is crucial to identify the business creation stage the students are in; since “being a nascent entrepreneur” can imply anything, from having a business idea to selling products. Figure 27 shows the distribution of steps taken by nascent entrepreneurs.¹² We can see that only a small proportion of nascent entrepreneurs have started product/service development or committed actual monetary investment in their businesses. Most nascent entrepreneurs are still in the “planning” stage, such as discussing ideas, collecting information about the market, and writing a business plan.

Figure 27: Steps taken in creating a business

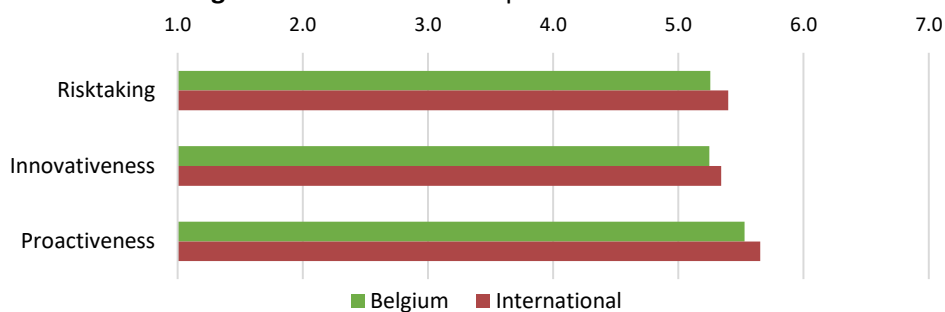


These results could explain why students are not very confident about making the entrepreneurial business their main occupation after graduation. Only 104 students (40.63%) want their businesses to become their main occupation, while 65 students (25.39%) do not want to do so, and 87 students (33.98%) are still unsure.

Individual entrepreneurial orientation

Nascent student entrepreneurs reported how they approach the journey of creating and managing a business, following three main aspects: risk-taking, innovativeness, and proactiveness. On average, nascent entrepreneurs in Belgium rate the three aspects 5.26, 5.25, and 5.53, respectively, on a 7-point Likert scale. Compared to the international averages, nascent student entrepreneurs in Belgium have slightly lower scores on all aspects, as shown in figure 28.

Figure 28: Individual entrepreneurial orientation



¹² Note: for this question, students could choose more than one choice.

CHAPTER 5: POTENTIAL SUCCESSORS

GUESS 2021 defines “potential successors” as students who are currently not active as entrepreneurs (i.e., not currently running a business) but have parents working as entrepreneurs or parents who are majority owners of a business. In total, there are 730 students in this category.

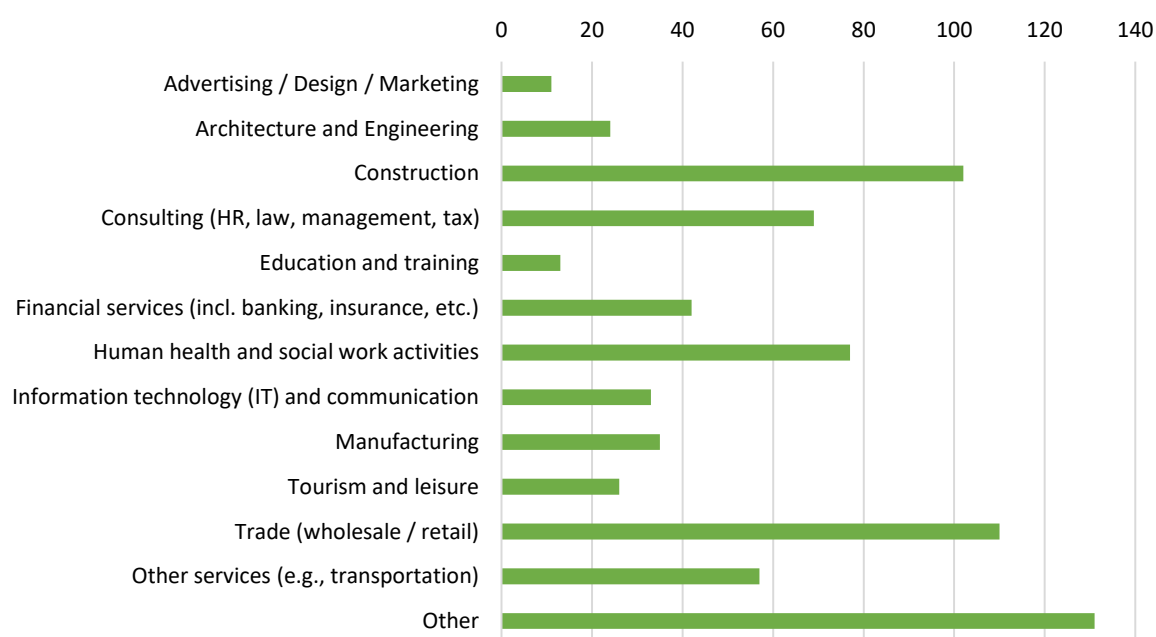
Basic information

The year these businesses were established vary widely, ranging from the 1850s to 2021. The majority of businesses are small and medium-sized companies, with 90 percent having fewer than 25 employees. The students’ parent(s) personally operate 93.29 percent of the businesses, and in 81.78 percent of the cases, the parent(s) are the majority owners of the businesses.

The majority of the students in this category (92.88%) do not have a personal stake in the business operation. 41.92 percent of the students have worked for their parents’ business. Interestingly, 54.52 percent of students do not consider their parents’ businesses a “family business.”

Figure 29 shows the number of firms in each economic sector. We can see how the distribution is different from nascent or active student entrepreneurs: for established firms run by parents, large proportions are in construction, human health/social activities, and trade.

Figure 29: Parents’ businesses – by economic sector



Parents’ business performance and competitiveness

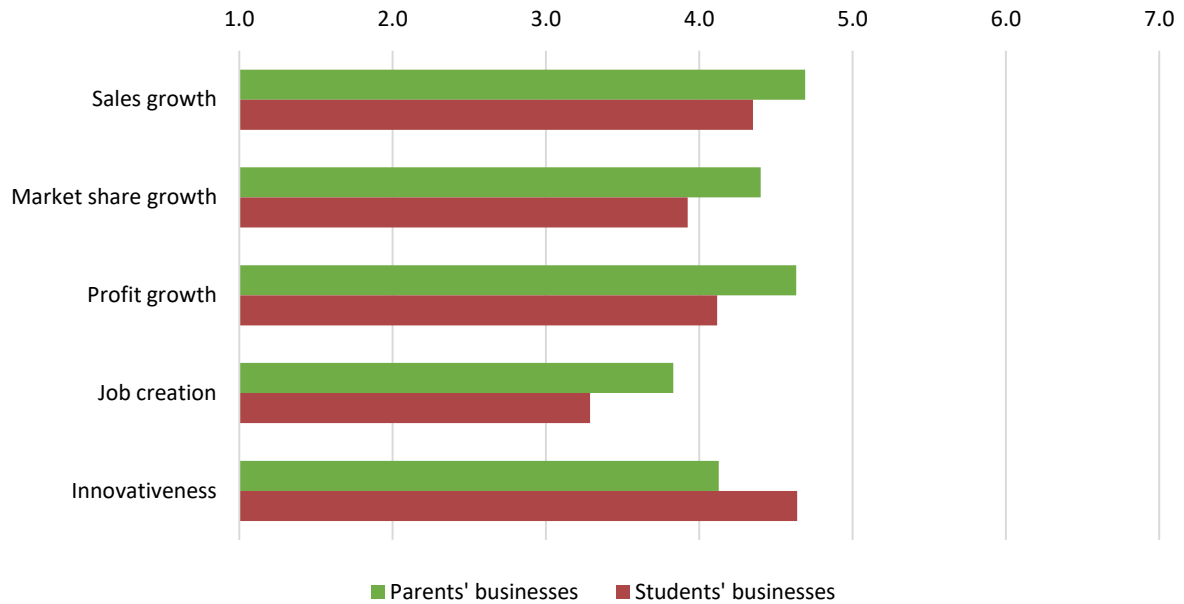
The performance of the parents’ businesses, rated by the students, is slightly different from the ratings that active student entrepreneurs give to their own business. Overall, the parents’ businesses’ ratings are more optimistic in terms of growth, profit, and job creation. However, the ratings on innovativeness and competitiveness of the parents’ businesses are lower than the ratings that active student entrepreneurs give to their businesses (see Figure 30 for more details).

Succession intention

Last but not least, we examine the students’ willingness to succeed in their parents’ businesses. On a 7-point Likert scale, the average score of willingness to succeed is relatively low, at 2.32.

Although the total average is low, we observe that students who have a personal stake in the business have a higher succession intention (3.37) than students who have no stake (2.24). Students who have worked in their parents' businesses also report a higher intention (2.71) than students who have not worked in their parents' businesses (2.04).

Figure 30: Business performance and competition – parents' businesses and students' businesses



CHAPTER 6: KEY RESULTS AND CONCLUSION

The GUESS project 2021 provides interesting and useful insights about the entrepreneurial spirit of students in Belgium. In total, 2,215 Belgian students completed the survey, of which 51.30 percent are male and 48.18 percent are female. The participants' average age is 22.22. Many of the respondents are studying in the fields of business/management, economics, and engineering. Most respondents are studying in Bachelor or Master programs. The low number of respondents in the Ph.D. or MBA group is mostly coming from the survey distribution strategy and doesn't reflect a lack of interest for entrepreneurship in this group.

Overall, in Belgium, the intention to follow an entrepreneurial career after graduation and students' reported entrepreneurial activities (both nascent and active entrepreneurship) are lower than the international average. Belgium only has 94 active entrepreneurs (4.44%) and 256 nascent entrepreneurs (12.10%), compared to the international average of 10.80 percent and 19.67 percent, respectively. Important to note is that not all nascent student entrepreneurs have made identical commitments. Only a few students have made serious investments toward establishing their business, such as financial investment, registering patents, etc. Most students in the group of nascent entrepreneurs are still in the idea and information gathering steps.

Interestingly, students who are active entrepreneurs rate their HEI's entrepreneurial education and supportive environment for entrepreneurship rather low compared to the non-entrepreneur and nascent group. These ratings are, however, very high among nascent entrepreneurs. This may imply that HEI focuses more on incubation and less on the acceleration of business development.

Besides the supportive environment of HEI, having entrepreneurial self-efficacy (the self-perceived ability to found and operate a business) and having parents who are either working as entrepreneurs or are majority owners of businesses, also act as important stimulants for entrepreneurs.

Regarding career choice intention, compared to choosing an entrepreneurial career immediately after graduation, the career choice of entrepreneurship is much more prevalent five years after graduation. This finding is in line with the international trend. This increase comes mostly from those students who choose to join the business environment immediately after graduation. This trend reinforces the "first employees, then entrepreneurs" pattern reported in the 2016 Belgium report.

Conversely, most students who choose to be entrepreneurs immediately after graduation keep this choice five years later. Other choices, like public service, academia, or non-profit organizations (NGOs), also do not witness large changes in the suggested five-year period.

There are large gaps between the entrepreneurial spirit of female and male students. Male students have significantly higher entrepreneurial activities, intention, and other aspects of entrepreneurship, like entrepreneurial self-efficacy and entrepreneurial attitude.

Most students in the nascent and active entrepreneurs group develop their business activities in advertising/design/marketing and trade (wholesale/retail) business sectors. We speculate that this is because of the low barrier of entry for these sectors, allowing students who have yet to accumulate resources to join in larger number.

From the data collected in Belgium, the COVID-19 pandemic seems to have impacted the students' decision to launch their activities in 2021.

For both active and nascent entrepreneurs, the analyses of the entrepreneurial teams show that the co-founding teams are small (with only one person or two people). This result is not associated to

difficulties identifying co-founder(s). It reflects the willingness to launch the venture solo. Interestingly, there is a tendency to found businesses or entrepreneurial teams with people of the same gender.

For active entrepreneurs, the main motivations and goals to found and manage a business are: personal gains (advance in the business world, gaining strong competitive advantage) or connecting with/developing their communities. The goals of tackling social problems and society are much less prioritized.

Finally, many respondents have parents working as entrepreneurs or owning a business. Interestingly, most of these students do not have a personal connection with their parents' businesses and generally do not intend to take over their parents' businesses in the future.

Appendix

Table 3: Number of participants from each educational institution

Higher educational institutions (in original language)	Number of participant
Universiteit Antwerpen	590
Universiteit Gent	533
Université de Mons	165
Katholieke Universiteit Leuven	156
Université de Namur	117
Haute École de Namur-Liège-Luxembourg	103
Université de Liège	92
Karel de Grote Hogeschool	64
Hogeschool Gent	46
Haute École Charlemagne	44
AP Hogeschool	43
Thomas More	34
Université catholique de Louvain	22
Hogeschool PXL	22
Vrije Universiteit Brussel	18
Antwerp Management School	12
Haute École libre Mosane	11
UC Leuven-Limburg	6
Vlerick Business School	3
Haute École de la Province de Namur	2
Arteveldehogeschool	2
VIVES	2
Haute École de la Ville de Liège	2
Hogere Zeevaartschool Antwerpen	2
Hogeschool Sint-Lukas Brussel	2
Erasmushogeschool Brussel	1
Instituut voor Tropische Geneeskunde	1
Haute École Galilée	1
Other	19
Grand Total	2,115