



Global University Entrepreneurial Spirit Students' Survey



2023 BELGIUM NATIONAL REPORT

STAYING THE COURSE IN UNCERTAIN TIMES

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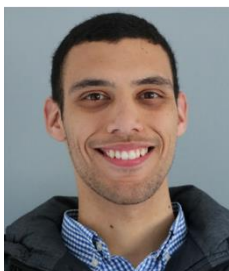
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INTRODUCTION

The GUESSS Project

The Global University Entrepreneurial Spirit Students' Survey (GUESSS) is an international project that examines students' entrepreneurial intentions 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. The project also examines the process of business creation and dives into some more fine-grained information (e.g., motivations, goals, etc.) about students running a business.

In 2023, GUESSS organised its 10th data collection wave, receiving completed responses from more than 226,000 students in 57 countries (Sieger et al., 2024). The current report analyses the data collected by the Belgian national country delegates. The Belgian dataset comprises complete answers collected from 4,757 students from higher educational institutions (HEI) in Belgium (see Appendix A). With this report, we hope to provide valuable insights into various aspects of students' entrepreneurial intentions and activities in the Belgian context. Readers should be aware that the results presented in this report are descriptive, and differences between the results presented should, therefore, not be interpreted as statistically significant.

Structure of this report

The GUESSS questionnaire categorises students as non-entrepreneurs, nascent entrepreneurs, active entrepreneurs, and potential successors. After an initial categorisation question, the questionnaire is branched, and students receive questions tailored to their specific situation. Our report will be divided into seven chapters dealing with the following aspects:

1. The first chapter provides an overview of the method and data-gathering activities followed, including how the data was collected, cleaned and weighted.

2. The second chapter reports the total, uncategorised sample size (n = 4,757 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.
3. The third chapter focuses on students who are in the process of creating a new business (n = 419 nascent entrepreneurs).
4. The fourth chapter focuses on students currently running a business (n = 207 active entrepreneurs).
5. The fifth chapter focuses on students categorised 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 business owner, and (2) not currently running a business themselves. In total, there are 1,387 students in this category.
6. The sixth chapter provides conclusions and implications.

CHAPTER 1: METHOD AND DATA COLLECTION

Data collection

The survey was distributed among students at HEIs in Belgium. To ensure maximum representativeness of the student population, the survey was distributed by the central administrations of the participating HEIs whenever possible. This ensured that the survey would reach all students regardless of their study domain or level of entrepreneurial activity. Additional targeted distribution activities (i.e., through lecturers and/or entrepreneurship centres) were also conducted to help boost the number of responses and ensure that a sufficient number of nascent and active student entrepreneurs filled out the survey. Respondents could consult and answer the survey in Dutch, French or English.

Survey distribution began on 20th October 2023 and closed on 22nd December 2023. Survey performance and representativeness across the different categories of respondents (i.e., gender, study domain, study level, entrepreneurial phase) were monitored weekly. Contact persons at participating HEIs were regularly updated on the survey performance at their institution and asked for their support with the further activation of the survey whenever necessary to guarantee satisfactory response rates across the categories of interest. After the data collection closed on 22nd December 2023, we tallied 5,422 responses from students registered at HEIs in Belgium.

Data cleaning

The data cleaning procedure for our research involved several steps to ensure the quality and reliability of the collected information. We included only finished responses (those that have reached the end of our survey) and those that have taken at least five minutes to complete it. Based on these criteria, we excluded 665 from the 5,422 collected responses, leading to a final number of participants of 4,757 students.

Disclaimer: Use of raw, unweighted data

It is important to note that no data weighting procedures were applied in this report. The results presented are based on raw, unweighted data from survey respondents. This approach has implications for result interpretation. The sample may not accurately reflect the true

proportions of subgroups within the broader student population, potentially leading to over- or under-representation of certain groups. When generalising these findings to the entire student population or other contexts, caution should be exercised. When comparing these results with other studies or population-level statistics, readers should be aware that discrepancies might arise due to the lack of weighting. Additionally, readers should be aware that the results in this report are descriptive, and therefore, differences between the results presented should not be interpreted as statistically significant.

For more information regarding entrepreneurship among students, specifically in Flanders (Belgium), the reader can refer to the Flanders reports for Universities (Vanderstraeten et al., 2024a) and University Colleges (Vanderstraeten et al., 2024b). These reports are only available in Dutch.

CHAPTER 2: ALL STUDENTS

Demographic statistics

Participants in the study were categorised according to several key demographic factors: age, gender, educational level, study domain, and entrepreneurial status. The age distribution of participants spanned from 16 to over 35 years, with a mean age of 22.8 years (Figure 1)¹. The majority of respondents fell within the 19-23 age bracket, aligning with the typical age range for higher education students. Notably, the 20-22 age group showed the highest representation, reflecting the core demographic of university attendees.

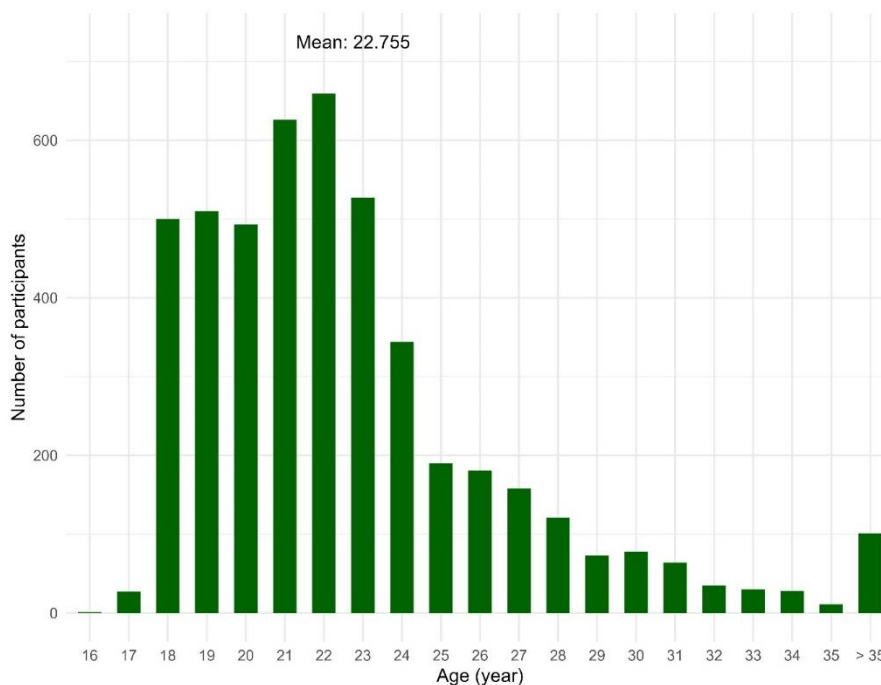


Figure 1. Age distribution of participants

Gender representation (Figure 2) was predominantly female ($n = 2,790$) compared to male ($n = 1,912$) and other gender identities ($n = 55$).

¹ The mean age was 22.2 years in 2021 (see Vanderstraeten et al. 2022).

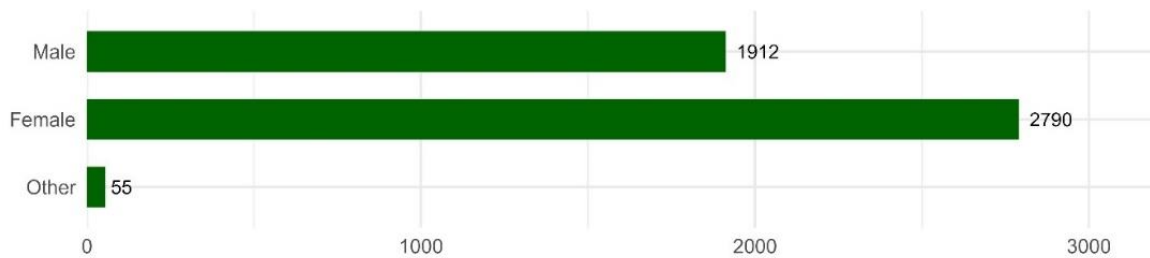


Figure 2. Participating students by gender

Regarding the educational level (Figure 3), undergraduate students (Bachelor level, $n = 2,169$) comprised the largest segment of the sample, followed by graduate students (Master level, $n = 1,747$), PhD candidates ($n = 767$)², and others pursuing additional qualifications such as an MBA ($n = 74$).

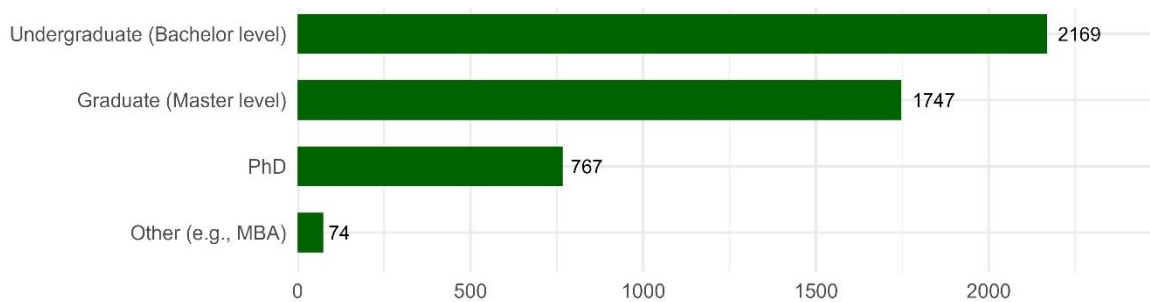


Figure 3. Participating students by study level

The respondents were distributed across various study domains³ (Figure 4). The STEM fields represented the largest group ($n = 1,423$), closely followed by Social Sciences & Humanities ($n = 1,268$) and Business & Economics ($n = 1,055$). Human Medicine & Health Sciences accounted for a large portion ($n = 801$), while other fields comprised a smaller segment ($n = 210$).

² A number that has increased significantly compared to the survey carried out in 2021 (see Vanderstraeten et al. 2022).

³ Study domains were grouped as follows: (1) Business & Economics (Business management & Economics); (2) STEM (Computer sciences/IT, Engineering (incl. architecture), Mathematics & Natural sciences); (3) Social Sciences & Humanities (Arts/humanities (e.g., cultural studies, history, linguistics, philosophy, religion), Law, Science of art (e.g., art, design, dramatics, music) & Social sciences (e.g., psychology, politics, education); and (4) Other (Other)

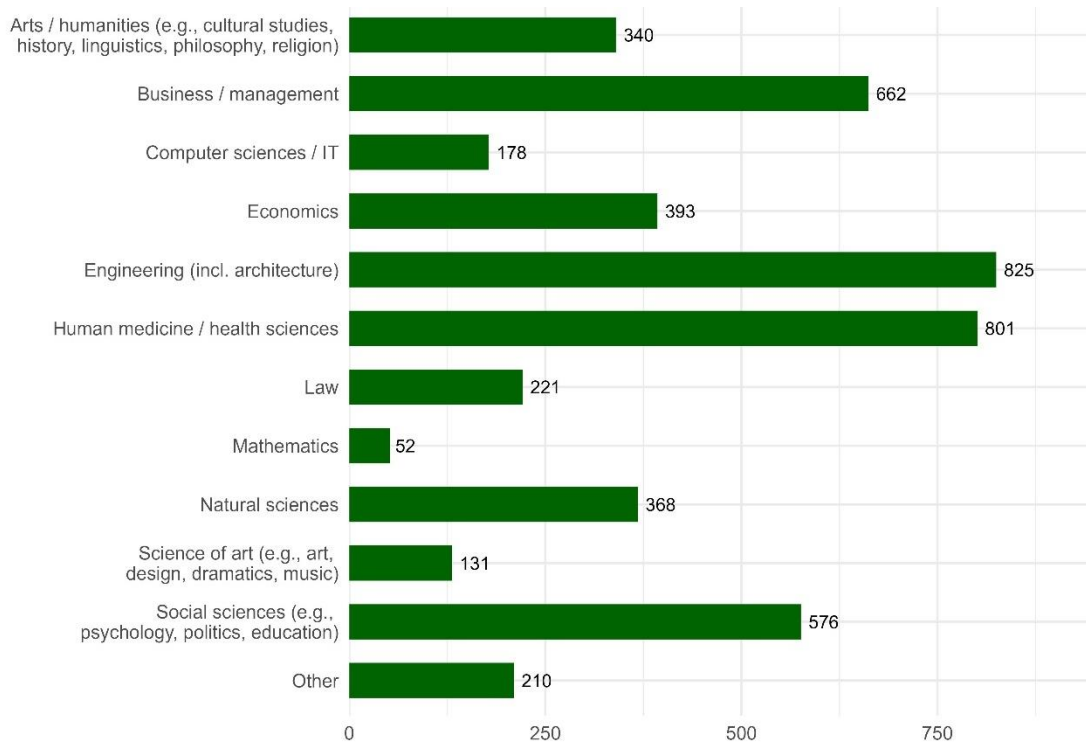


Figure 4. Participating students by study domain

The sample included active entrepreneurs (n = 207), nascent entrepreneurs (n = 419), and non-entrepreneurs (n = 4,131). Of the latter group, approximately one-third are potential successors (n = 1,387) (Figure 5).

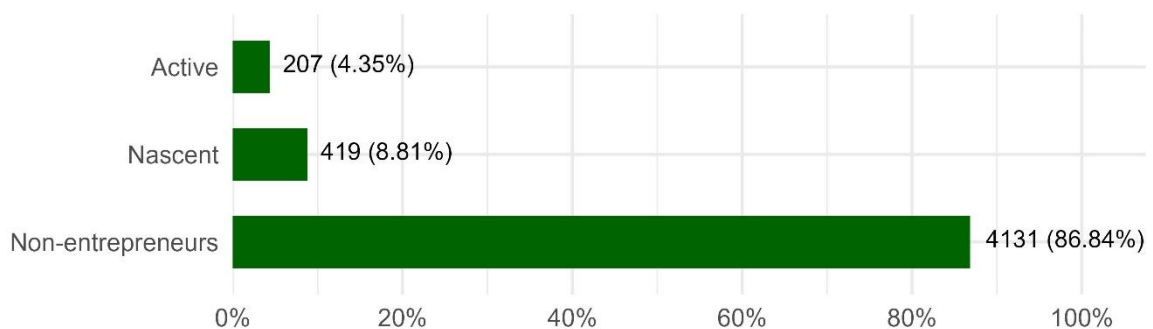


Figure 5. Participating students by entrepreneurial status

Career intentions of students

In exploring student career intentions, a distinct trend emerges when comparing immediate post-graduation goals with those envisioned for five years into the future (Figure 6).

Immediately following graduation, a modest number of students (n = 426) expressed the intention to establish their own businesses. This entrepreneurial ambition markedly increases over time, nearly tripling to 1,218 individuals within a five-year span. This substantial growth suggests a strategic delay in entrepreneurial endeavours, potentially to accumulate relevant experience necessary for venture creation. Stable career preferences in various sizes of businesses are noted, with a very relative catch-up towards large corporations as time progresses. The Belgian results mirror the global data, with an observable inclination towards entrepreneurship that becomes more pronounced over time (see 2023 GUESSS Global Report) (Sieger et al., 2024).

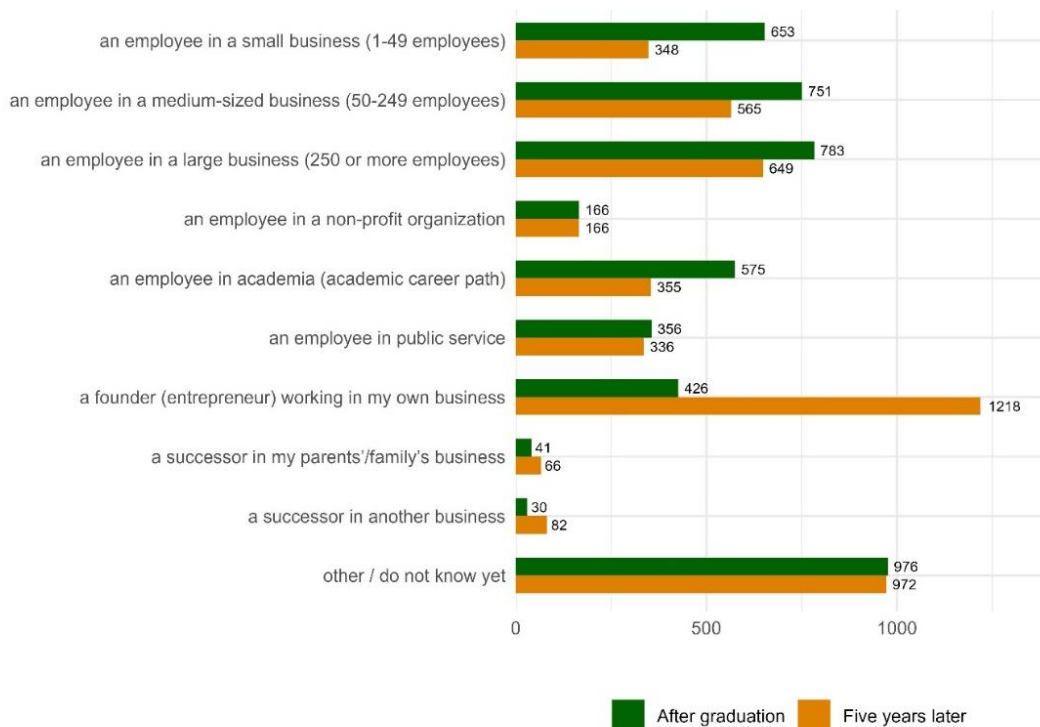


Figure 6. Career choice intentions

Drivers of entrepreneurial intentions

Most students (n = 3,145) have not attended any entrepreneurship courses (Figure 7). A substantial number of students (n = 899) completed at least one mandatory entrepreneurship course as part of their curriculum. Additionally, 763 students demonstrated interest in the field by voluntarily enrolling in at least one entrepreneurship course. A smaller segment, comprising 251 students, was enrolled in a specific program focused on entrepreneurship, and

170 students selected their university or university college based on its strong entrepreneurial reputation⁴. These findings suggest that while a specific subset of the student population is actively pursuing entrepreneurship education, a substantial proportion might benefit from increased opportunities and encouragement to engage in entrepreneurship-related courses, which could catalyse their entrepreneurial intentions.

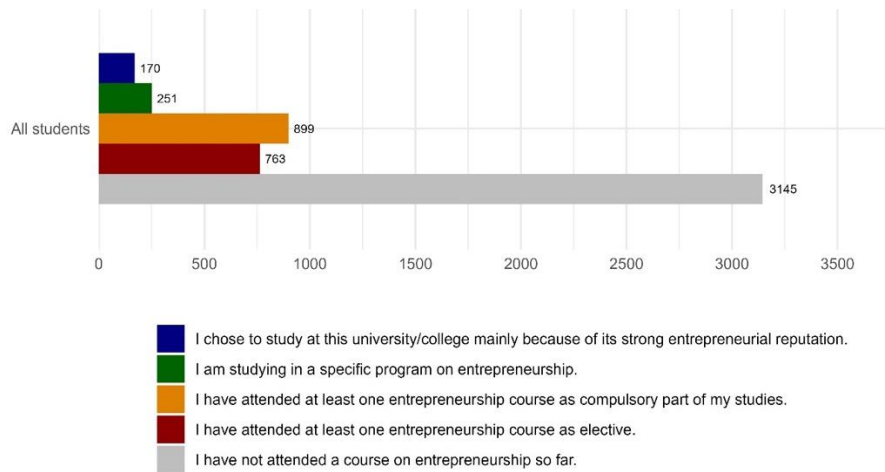


Figure 7. Number of students attending entrepreneurship courses

The majority of students (n = 3,094) reported that neither parent is self-employed or a majority business owner (Figure 8). Fathers are represented as self-employed or majority business owners in 19.05% (n = 906) of cases, while a smaller proportion, 6.03% (n = 287), have self-employed mothers. Notably, 9.88% (n = 470) of students reported that both parents are self-employed or have majority business ownership. This distribution indicates that the entrepreneurship experience within the family could play a role in shaping students' entrepreneurial intentions, with a significant minority having direct exposure to entrepreneurship through both parents.

⁴ The Flanders reports omitted responses about choosing an institution for its strong entrepreneurial reputation, as this factor does not directly measure student participation in entrepreneurship education.

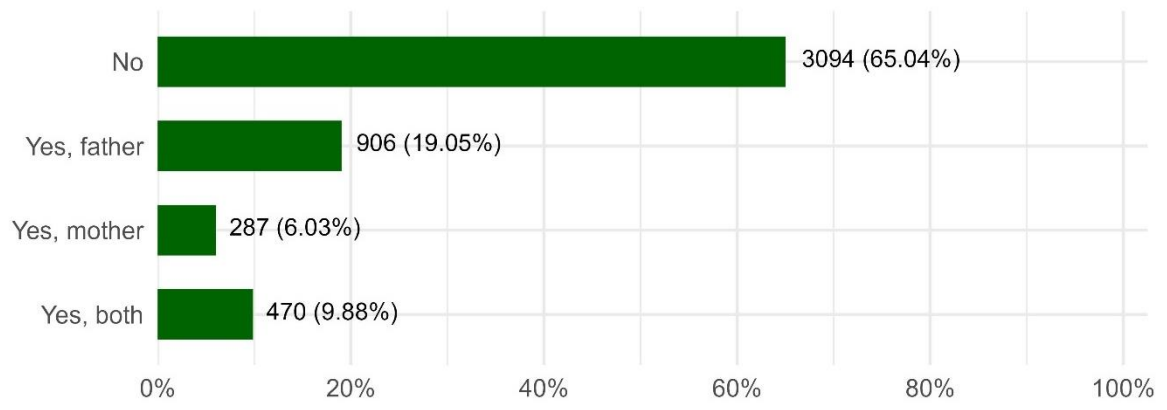


Figure 8. Self-employment status of parents

CHAPTER 3: NASCENT ENTREPRENEURS

The gender distribution (Figure 9) among nascent entrepreneurs comprises a majority of male participants, with 257 males engaging in early-stage entrepreneurial activities. In comparison, female nascent entrepreneurs are represented by 156 individuals.

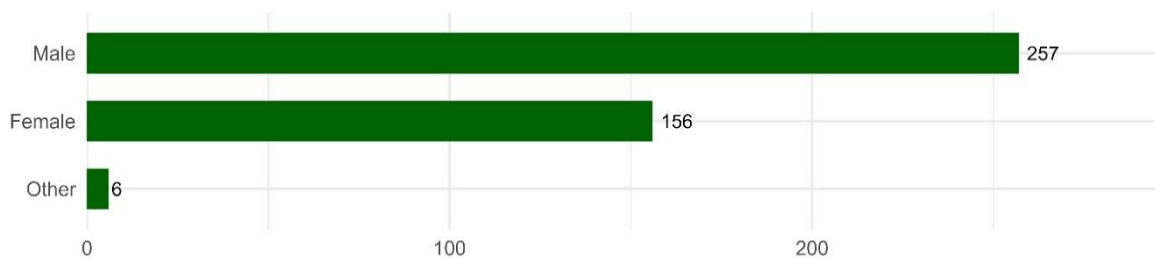


Figure 9. Nascent entrepreneurs by gender

Undergraduate students at the bachelor level form the largest group (Figure 10), with 220 students engaged in entrepreneurial activities in the early stages. This is followed by graduate students at the master level ($n = 142$). Students from the Business & Economics fields emerge as the primary sources of entrepreneurial activity (Figure 11), with STEM students following as the second most represented field. These results align with the international analysis findings (see 2023 GUESSS Global Report) (Sieger et al., 2024).

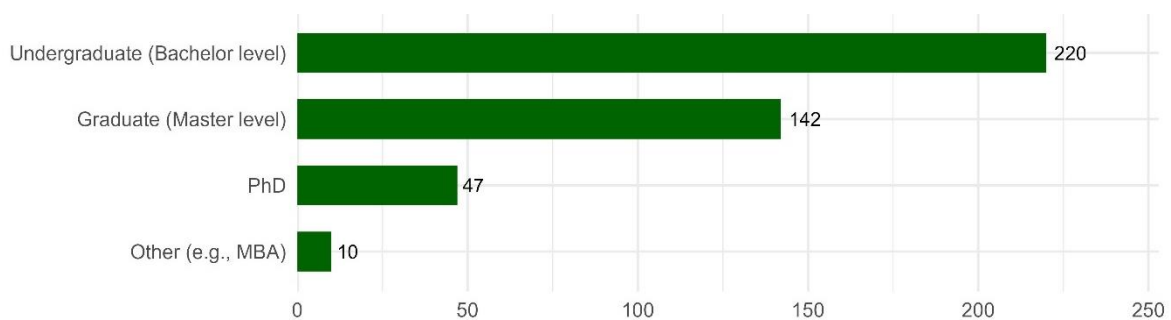


Figure 10. Nascent entrepreneurs by study level

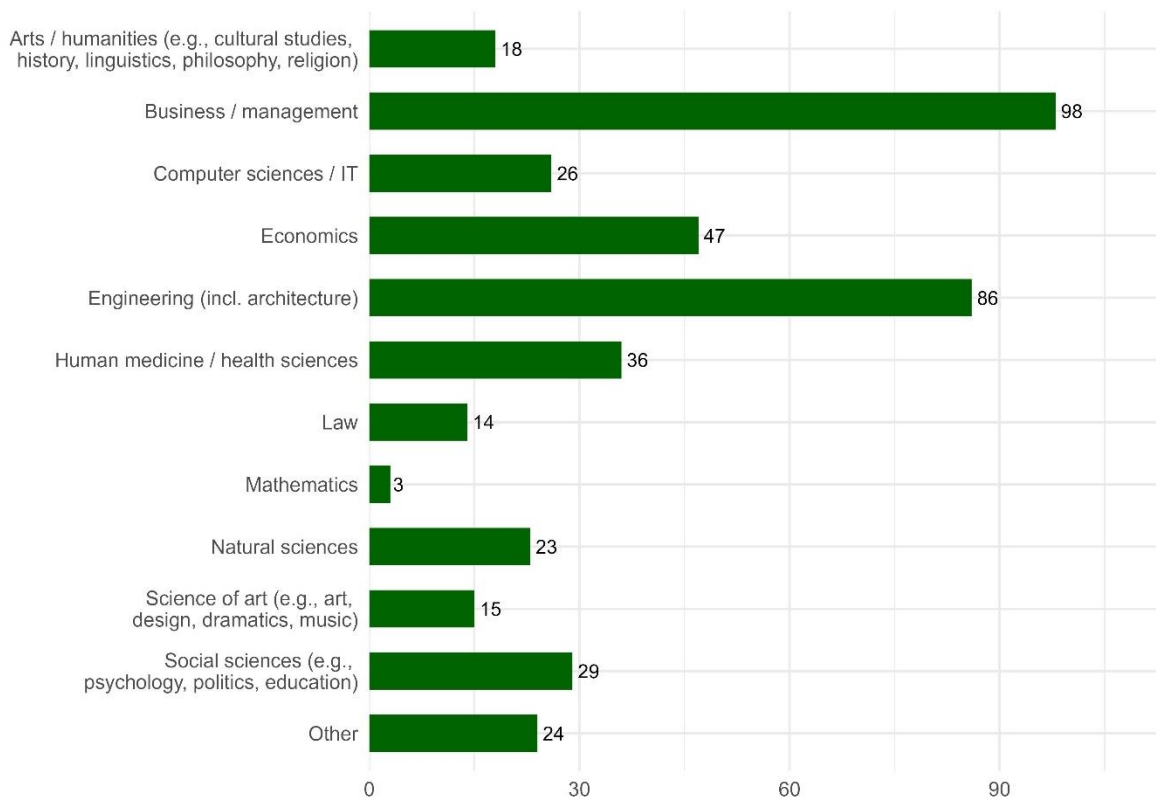


Figure 11. Nascent entrepreneurs by study domain

The study reveals diverse timelines for business launches among nascent student entrepreneurs (Figure 12). The largest cohort (n = 162) displays high entrepreneurial momentum, aiming to complete the founding process concurrent with their academic pursuits. A smaller group (n = 60) plans to launch immediately after graduation. Over a quarter of respondents (n = 119) anticipate finalising their start-up process within two years of completing their studies. Notably, a considerable portion (n = 78) expresses uncertainty about their launch timeline.

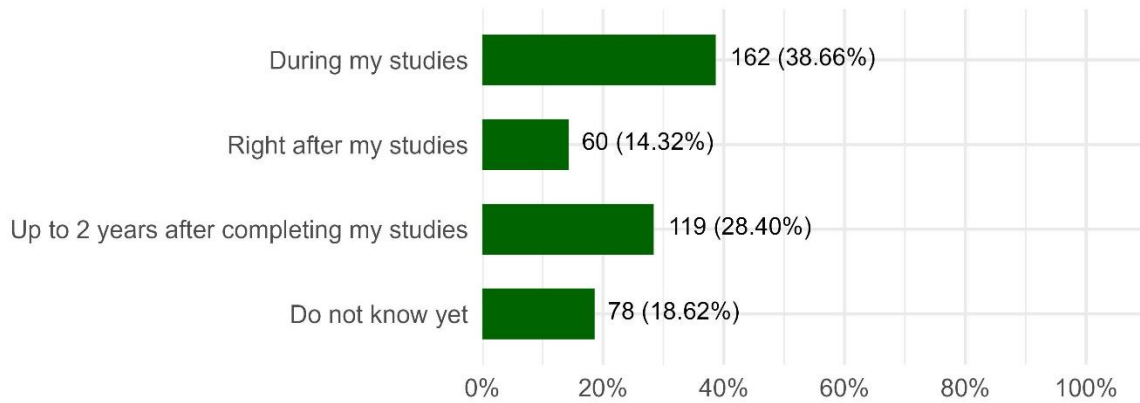


Figure 12. Planned founding process completion

Students are most significantly inspired by new technologies, particularly artificial intelligence (AI) (Figure 13), suggesting a strong orientation towards innovation in the tech sector. The pursuit of solutions to address climate change and enhance sustainability ranks as the second most influential driver, indicating a commitment to environmental stewardship among upcoming entrepreneurs. Lastly, demographic changes, such as an ageing population and migration patterns, are also key areas of focus, pointing towards business ideas aimed at addressing the needs and challenges of a dynamically changing society. These insights reflect the alignment of entrepreneurial intentions with current and future societal and technological trends.

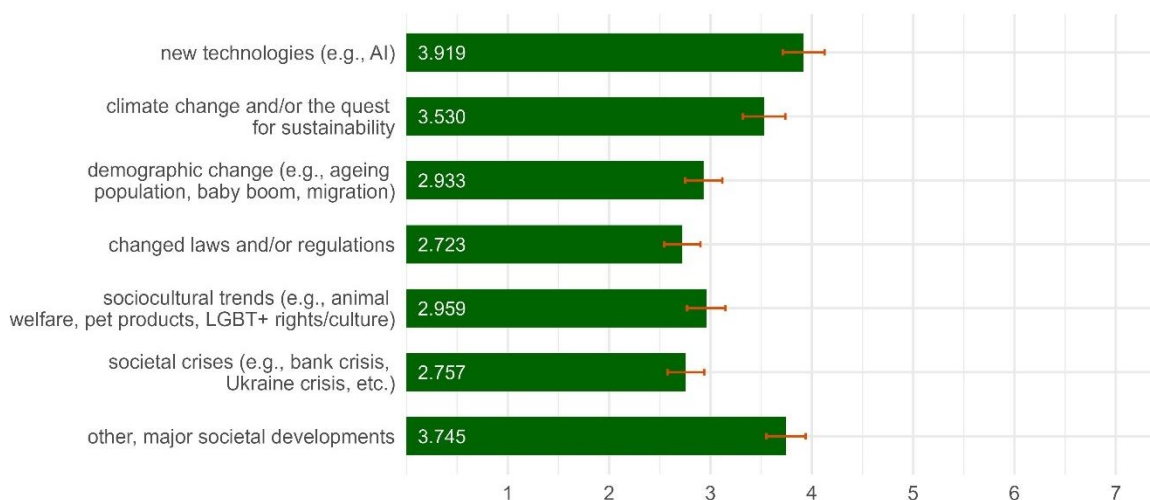


Figure 13. External enablers behind the planned business of nascent entrepreneurs

CHAPTER 4: ACTIVE ENTREPRENEURS

The observed trends within the group of active entrepreneurs parallel those seen among nascent entrepreneurs (see Chapter 3). Based on the results, there were more male student entrepreneurs ($n = 115$) than female student entrepreneurs ($n = 91$) in the sample (Figure 14).

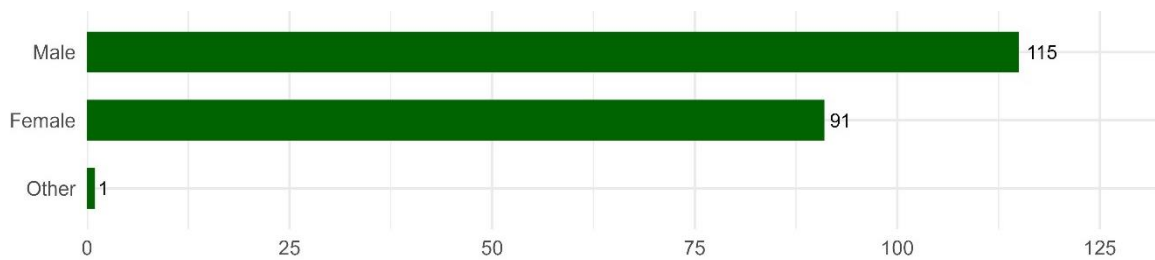


Figure 14. Active entrepreneurs by gender

The Social Sciences & Humanities domain had the highest number of active student entrepreneurs ($n = 69$), closely followed by Business & Economics ($n = 54$) (Figure 15). Most of these active entrepreneurs were undergraduates (Figure 16), with 106 individuals reporting significant engagement in entrepreneurial activities during their bachelor's studies. This suggests that entrepreneurial inclination may be more pronounced in earlier stages of higher education and influenced by the field of study, particularly in business-related areas.

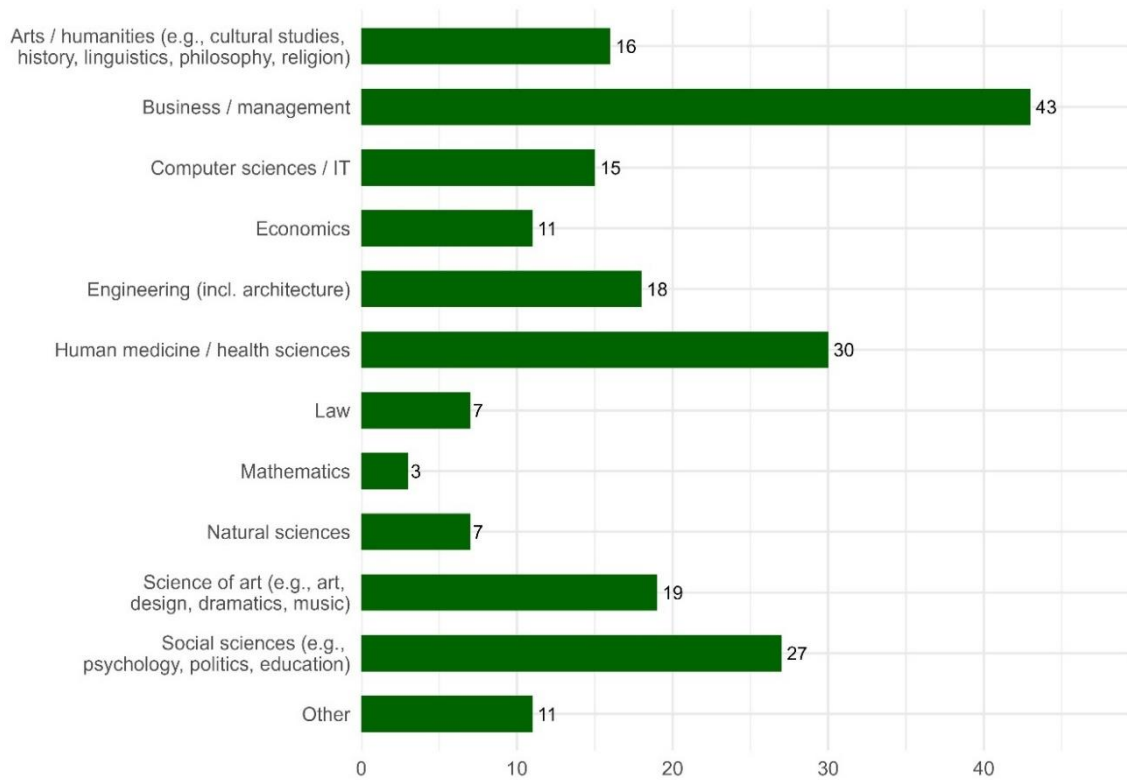


Figure 15. Active entrepreneurs by study domain

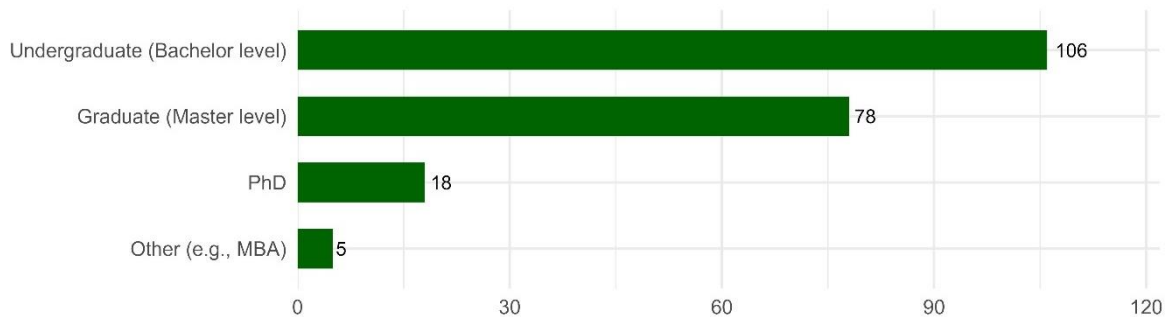


Figure 16. Active entrepreneurs by study level

A notable trend in the group of active entrepreneurs is the predominance of small-scale operations; most businesses are solo ventures or have a workforce of just one employee (Figure 17), with ownership largely retained by the founders themselves (Figure 18). This pattern may reflect a strategic emphasis on maintaining control and minimising initial overhead costs.

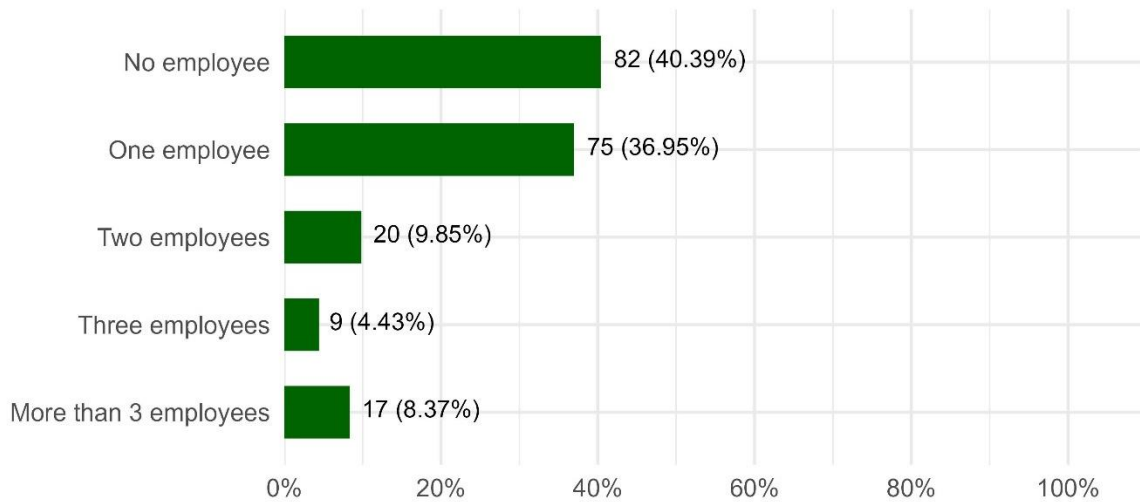


Figure 17. Number of full-time employees

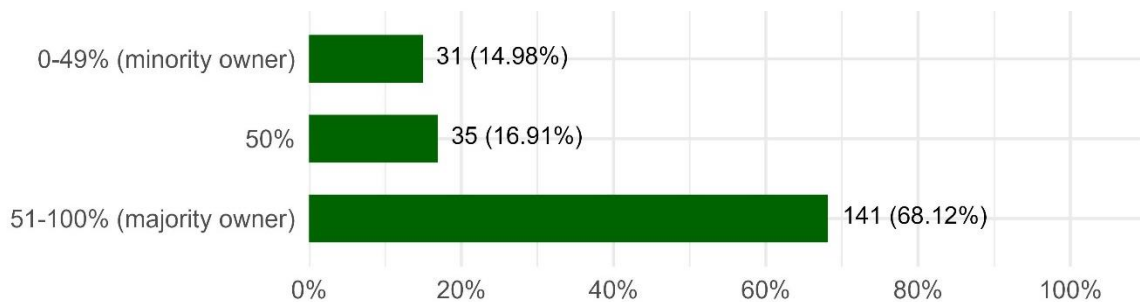


Figure 18. Ownership share

Additionally, only a small fraction, approximately 5%, have secured venture capital funding (Figure 19), which could indicate either a hesitation to dilute equity early on or potential challenges in accessing venture capital markets. The reliance on self-funding or bootstrapping methods may also suggest that these businesses are in their nascent stages, where founders typically seek to establish proof of concept and market viability before pursuing significant external investment.

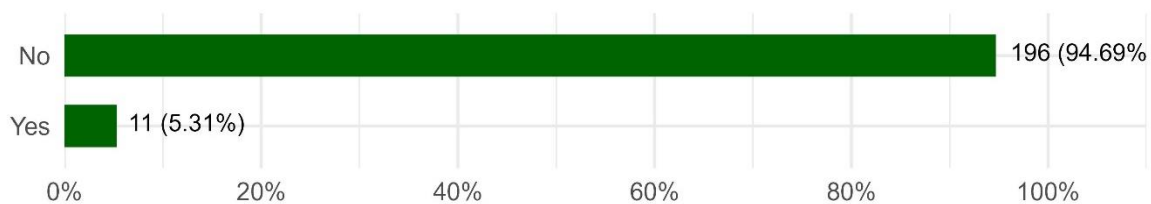


Figure 19. Venture capital

Notably, only about 30% of active entrepreneurs envision their business becoming their primary occupation (Figure 20), which could imply that many of these ventures are still in the early stages of development. This early-stage status could be why entrepreneurs are hesitant to commit full-time, as they may be waiting for the venture to reach a more mature and stable phase before transitioning it into their main professional focus.

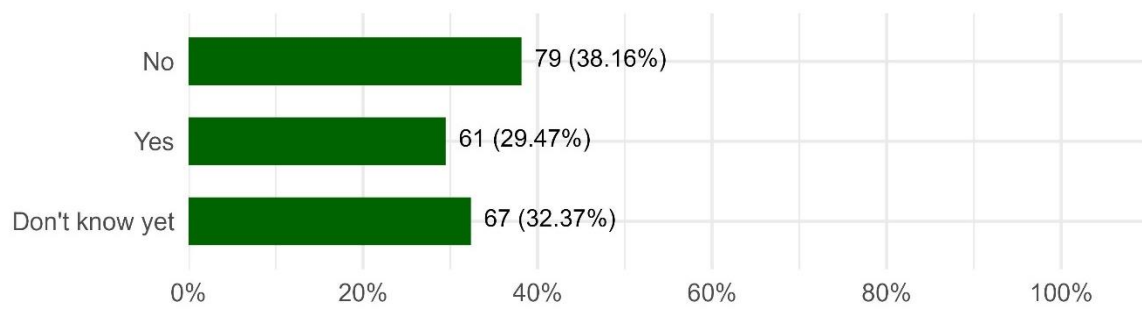


Figure 20. Primary occupation after graduation

CHAPTER 5: POTENTIAL SUCCESSORS

GUESSS defines "potential successors" as students who, while not currently engaged in nascent (in the process of creating a new business) or active (presently operating a business) entrepreneurship, have entrepreneurial parents or parents who hold majority ownership in a business. There are 1,387 students identified within this specific group. About half of these businesses (53.10%) were established before 2004 (Figure 21), showing a significant number of well-established enterprises. The remaining businesses were started more recently, with even distribution across the periods from 2004 to 2023.

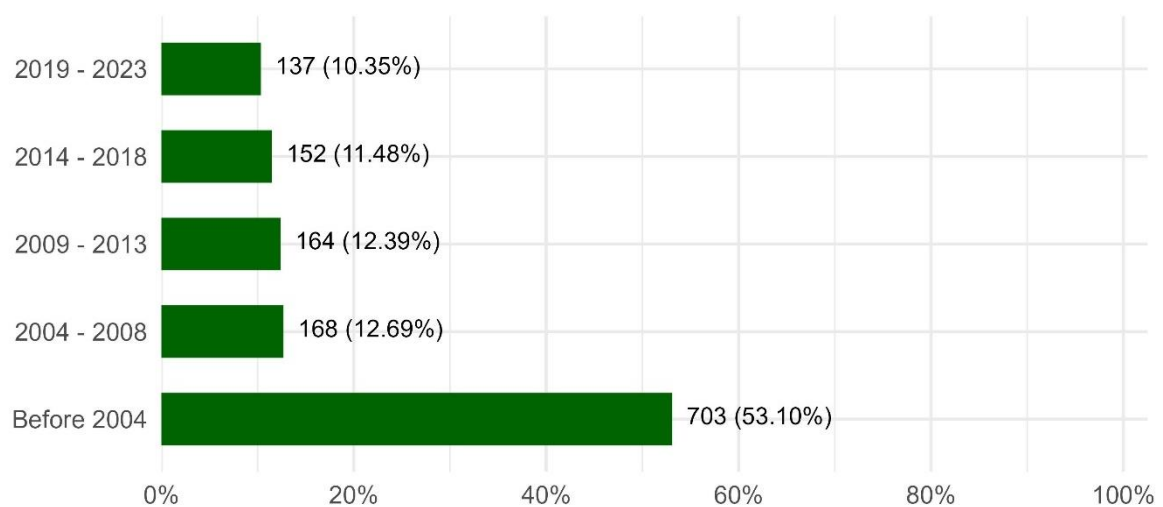


Figure 21. Year potential successors' parents' business was established

Most of these businesses are small-scale operations (Figure 22), with 73.80% having 1-9 employees. Businesses without any employees account for 4.65%, while those employing 10-49 and 50-249 people represent 15.77% and 4.13%, respectively. Only a small fraction, 1.65%, have a workforce of 250 or more employees.

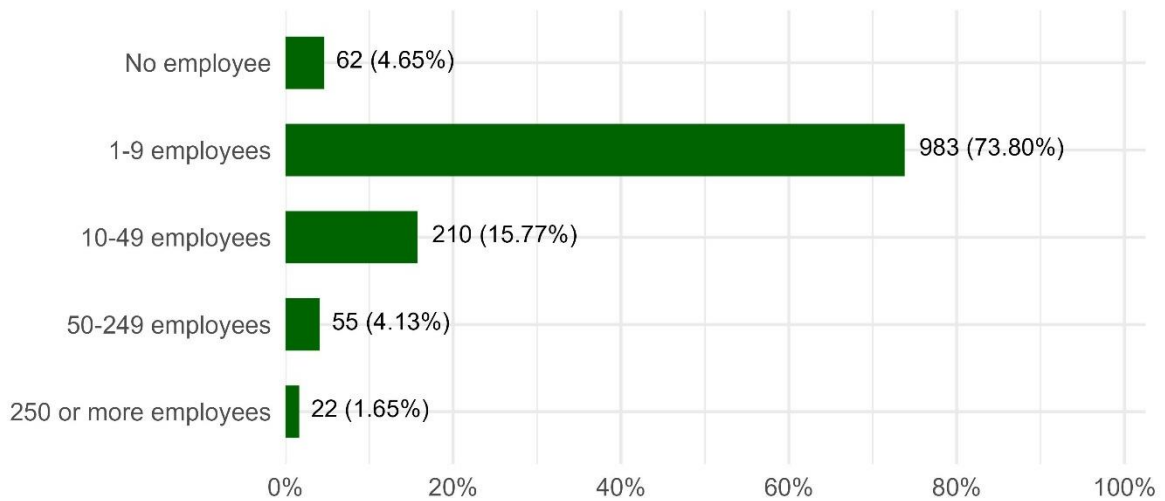


Figure 22. Potential successors' parents' business number of employees

The majority of the students (n = 1,140) indicated that their parents have majority ownership in the business (Figure 23), and most (n = 1,229) reported that their parents are leading the business operationally (Figure 24).

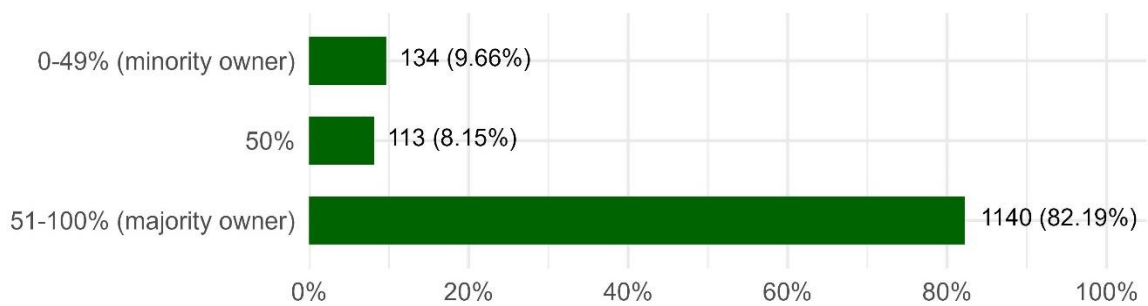


Figure 23. Potential successors' parents' ownership share

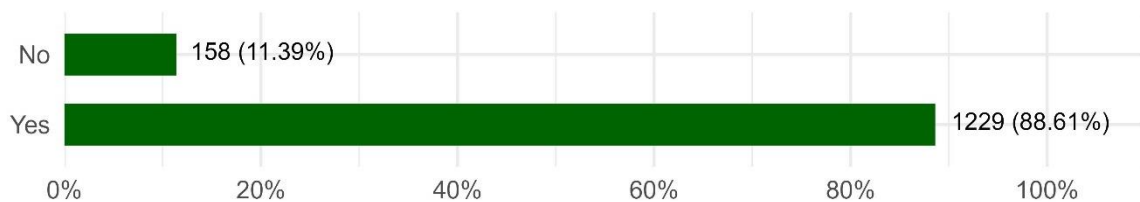


Figure 24. Potential successors' parents leading their business operationally

However, interestingly, only 35.69% (n = 495) of the participating students consider their parents' business a family business, while 64.31% (n = 892) do not (Figure 25).

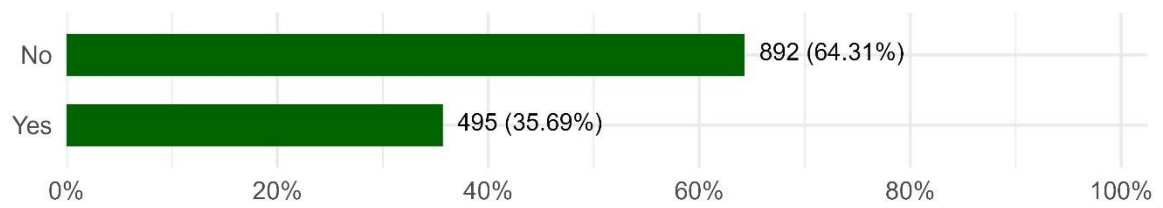


Figure 25. Potential successors' perception of their parents' business as a family business

CHAPTER 6: CONCLUSION AND IMPLICATIONS

The GUESSS for this 2023 edition was conducted among students at higher education institutions in Belgium from the 20th of October to the 22nd of December, 2023. Out of the 5,422 responses collected, a significant number of 4,757 responses were considered valid after data cleaning. It is important to remember that the results reported herein are based on raw data, which may lead to some population groups being over- or under-represented. Caution is thus advised when generalising findings.

After graduation, a relatively small number of students plan to start their own businesses, but this intention significantly increases within five years, suggesting they prefer to gain experience first. Most students have not taken entrepreneurship courses, though many have completed mandatory ones or enrolled voluntarily. Although most students reported that their parents are not self-employed (or business owners), family influence may nevertheless be notable, with a relatively high number of students having self-employed parents. These trends indicate that experience and education may play an essential role in shaping entrepreneurial intentions.

The gender distribution among nascent entrepreneurs shows a majority of males compared to females. Undergraduate students at the bachelor's level form the largest group, followed by graduate students at the master's level. Business & Economics students are the primary sources of entrepreneurial activity, followed by STEM students. The study reveals diverse timelines for business launches, with the largest cohort aiming to complete the founding process during their studies. Students are inspired by new technologies, scientific advancements, and global trends, including artificial intelligence, innovative climate solutions, and evolving demographics. These insights reflect the alignment of entrepreneurial intentions with current societal and technological concerns.

Active entrepreneurs show trends similar to nascent ones, with more males than females. The Social Sciences & Humanities domain is the most represented, followed by students from the Business & Economics domain. Most active student entrepreneurs are at the undergraduate level. Small-scale operations dominate, with most businesses being solo ventures or having just one employee. Only a small percentage secured venture capital funding, suggesting reliance on self-funding. Notably, only a minority envision their business as their primary occupation.

GUESSS defines "potential successors" as students who, while not currently engaged in nascent (in the process of creating a new business) or active (presently operating a business) entrepreneurship, have entrepreneurial parents or parents who hold majority ownership in a business. There are many students in this group. About half of these parents' businesses were established before 2004, indicating many well-established enterprises. Most businesses are small-scale, with the majority of students indicating their parents have majority ownership, and most reported their parents lead the business operationally. Interestingly, only a minority of students consider their parents' business a family business.

Caution should be exercised when making recommendations from the survey. However, the results inspire and suggest: (1) for students, they may consider gaining entrepreneurial experience to build relevant skills and networks before starting a business. There are opportunities, often from the education system or partners, to gain entrepreneurial experience during their studies. If they have entrepreneurial parents or friends, they are invited to seek their guidance and learn from their experiences. They would be welcome to stay informed of new technological and societal trends to identify new business opportunities; (2) for the education system, entrepreneurship appears as a way to equip students with essential skills and knowledge. The education system might consider learning by doing by, among others, facilitating internships and partnerships with businesses to provide students practical opportunities to acquire a better knowledge of the world of work; (3) for the policymaker, consider providing financial incentives, mentorship programs, and resources for young entrepreneurs to bridge the gap between graduation and starting a business; reforming bankruptcy regulation to make it easier for entrepreneurs to recover and try again, thereby reducing the fear of failure; implementing initiatives to encourage female entrepreneurship and address the gender disparity in entrepreneurial activities.

In uncertain times, staying the course could mean further recognising the role that experience and education play in shaping the entrepreneurial intentions of Belgian students.

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APPENDIX A: Higher education institutions (in original language) of students who responded to the survey

