

Entrepreneurial Spirit Among Students in Lithuania 2023

National Report on the Global University Entrepreneurial Spirit Students' Survey (GUESSS) 2023 in Lithuania

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1 Executive summary

Online data collection for the Global University Entrepreneurial Spirit Students' Survey (GUESSSS) 2023 in Lithuania ran from October to December 2023 and yielded responses from 2,448 students at 29 universities and colleges in Lithuania. The GUESSSS Survey tracks changes in students' entrepreneurial intentions and activities, including family business succession. This research initiative aims to generate distinctive insights into student entrepreneurship for academic and practitioner audiences.

Based on our analysis of Lithuanian students' career intentions, current entrepreneurial activities, self-assessed skills and knowledge, future plans, and environmental drivers, we reached five main conclusions:

1. Lithuanian students have favourable attitudes toward a career as a business owner and strong motivation to create their own businesses, both of which can foster entrepreneurship in Lithuania. Family is a potentially significant source of these attitudes. Compared with students in other GUESSSS countries, there are more Lithuanian students who are currently active entrepreneurs, as well as more of them who choose to delay entrepreneurial intentions rather than be in the creation process (nascent entrepreneur).
2. Lithuanian students perceive their universities and colleges as providing more theoretical knowledge about entrepreneurship but fewer practical skills and less of the knowledge needed to become successful business owners. They consider themselves least well equipped with the practical management skills required to start a business, although they report strong knowledge of network development and an understanding of entrepreneurs' attitudes, values, and motivations.
3. In Lithuania, students of business and management and applied arts are the most entrepreneurship-oriented. By contrast, students of engineering, social sciences, arts and humanities, and computer science are the least entrepreneurship-oriented and, based on their own assessments, the least well equipped with entrepreneurship-related knowledge and skills.

4. Similar to 2021, Lithuanian students largely view their university and college environments as encouraging them to engage in entrepreneurial activities. Yet, more active entrepreneurs were found among students who attended entrepreneurship courses.
5. Female students in Lithuania represent substantial entrepreneurial potential, which is important to the country's entrepreneurial ecosystem; however, stronger support is needed for this potential to be realised.

2 Introduction

Entrepreneurship and innovation are central to Lithuania's economic growth, and higher education institutions (HEIs) contribute significantly to this process (OECD, 2021). The Ministry of Economy and Innovation of the Republic of Lithuania regularly maintains an action plan as part of its entrepreneurship promotion policy. One of the plan's main pillars is establishing a consistent and continuous system of entrepreneurship education (Ministry of Economy of the Republic of Lithuania, 2014).

The GUESSSS Project (Global University Entrepreneurial Spirit Students' Survey) is an international research initiative that connects researchers worldwide who monitor changes in entrepreneurial ecosystems at HEIs and develop theory- and practice-oriented insights into the characteristics and drivers of student entrepreneurship. The initiative began in 2003 at the University of St. Gallen in Switzerland. Since then, it has expanded substantially, with more than 50 countries now collecting data every two to three years. In 2021, GUESSSS collected responses from 267,366 students in 58 countries (Sieger et al., 2021), and in 2023, more than 226'000 students in 57 countries (Sieger et al., 2024).

Data collection initiatives such as GUESSSS are important tools for measuring and tracking the development and patterns of entrepreneurship education in Lithuania and comparing them with developments in other countries. The results complement other data sources used to monitor the consistency and continuity of entrepreneurship education at Lithuanian higher education institutions.

The present report is based on the tenth wave of global data collection and the third wave of data collection in Lithuania. Lithuania previously participated in the GUESSSS project in 2018, when scholars from Vytautas Magnus University, Kaunas, led the data collection efforts in Lithuania, and in 2021, when data collection efforts were led by ISM University of Management and Economics.

This report provides insights into students' future career intentions in Lithuania; the prevalence of active, nascent, and intentional entrepreneurship among students; how students see and evaluate their university environments; and what drives their entrepreneurial activities.

3 Distribution of the GUESSS Survey in Lithuania

ISM University of Management and Economics followed the guidelines provided by the Global GUESSS Team when distributing the survey in Lithuania. We first compiled a list of all HEIs in Lithuania (for simplicity, we refer to HEIs as “universities” for the remainder of this report). The Lithuanian higher education system distinguishes between two types of institutions: universities, which offer academic and research-oriented programs, and colleges, which offer practice-oriented programs and are also known as universities of applied sciences. Both types award higher education qualifications (bachelor’s, master’s, or doctoral degrees), unlike vocational training schools, which award vocational qualifications and were not included in this survey (OECD, 2021; Republic of Lithuania Law on Higher Education and Research, 2015; Statistics Lithuania, n.d.).

At the beginning of 2023, Lithuania had 17 universities and 18 colleges (AIKOS, 2023), and the GUESSS 2023 Lithuania Team contacted all of them and invited them to participate in GUESSS. The universities that accepted the invitation forwarded the invitations and survey links to their students using their internal mailing lists or newsletters.

In total, 2,448 students participated in the survey: 1,403 university students and 1,038 college students (7 students chose “other” as their university and, thus, HEI type cannot be determined). Participants came from 29 HEIs (16 universities and 13 colleges), representing about 80% of Lithuanian HEIs. We collected data from October to December 2023. Of the questionnaires, 87% were completed in Lithuanian and the remainder in English.

4 Demographic information

Age and gender of participants. At the time of the survey, most participants were 20–24 years old (60.2%; see Figure 1), which is consistent with the general demographics of Lithuania's student population (Statistics Lithuania, n.d.). The sample included a higher proportion of women (62.7%), as shown in Figure 2.

Figure 1. Age of research participants

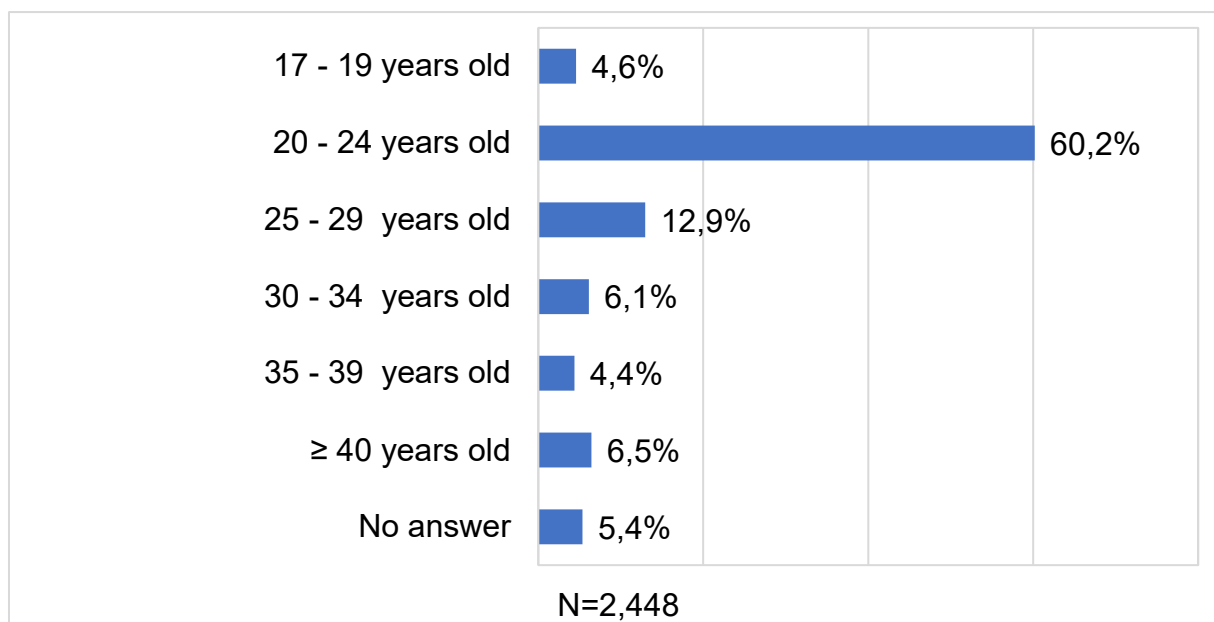
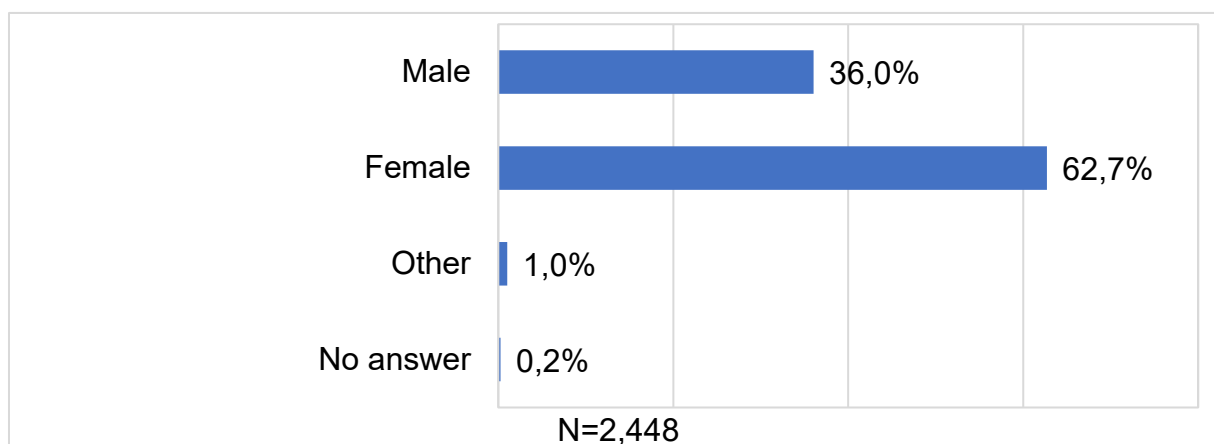
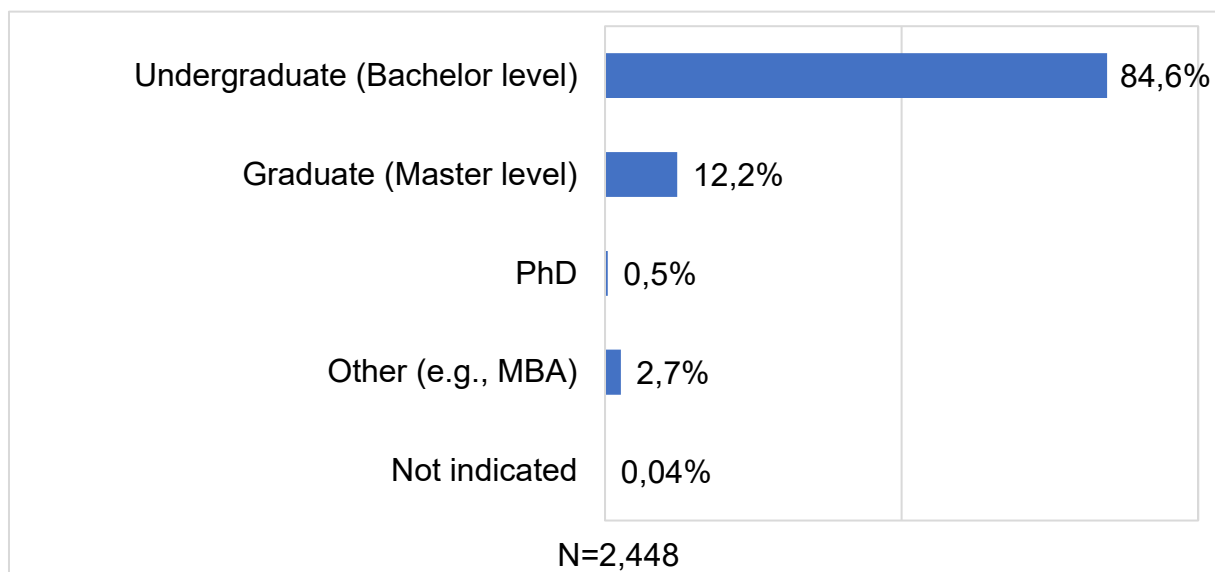


Figure 2. Gender of research participants



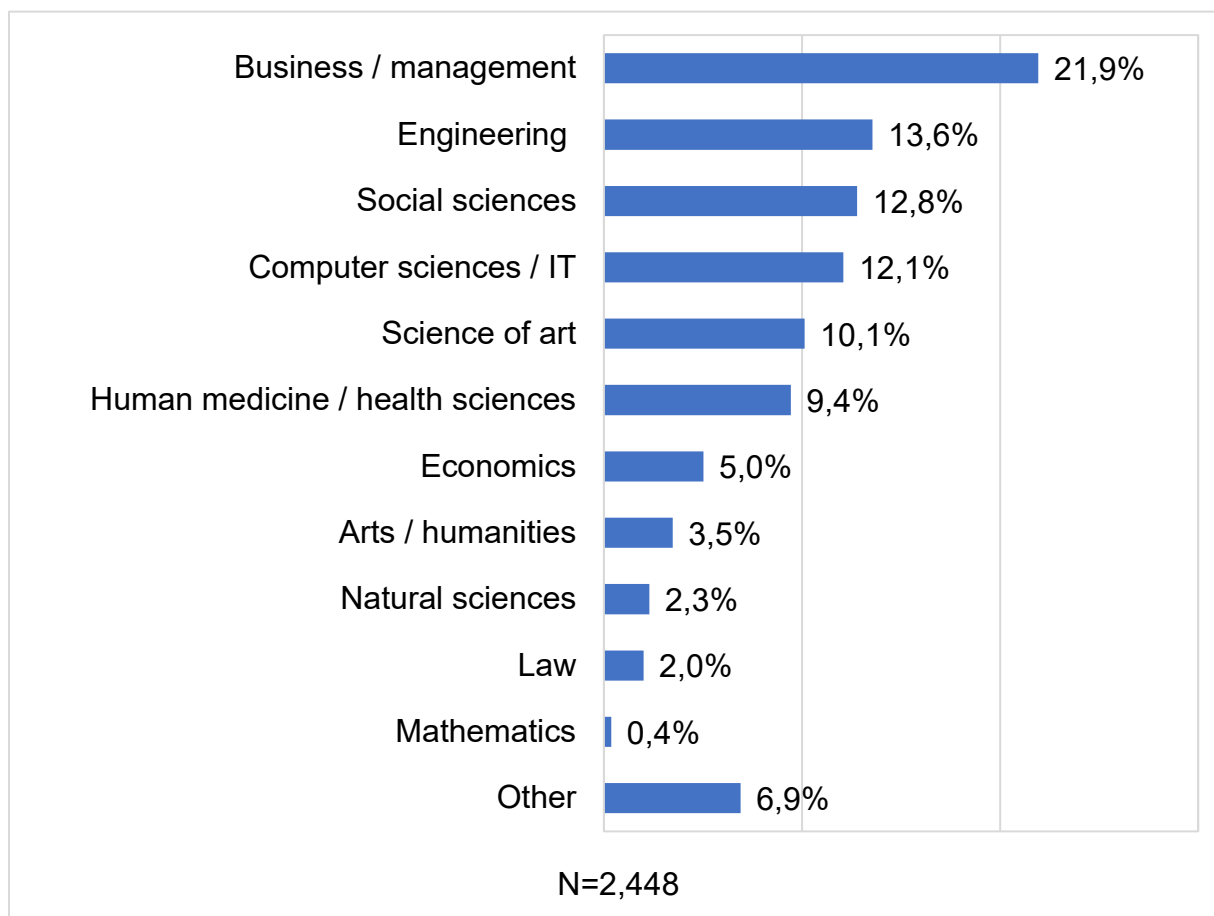
Level of education. Consistent with general education trends in Lithuania (Statistics Lithuania, n.d.), most participants were enrolled in bachelor's programs (84.6%), while substantially smaller proportions were enrolled in master's (12.2%) and doctoral (0.5%) programs (see Figure 3).

Figure 3. Level of education of research participants



Field of study. The largest proportion (21.9%) of research participants studied business and management, and considerable proportions (5.0% to 13.6%) studied engineering, social sciences, computer science, the arts, medicine/health sciences, and economics (see Figure 4 on the next page).

Figure 4. Field of study of research participants

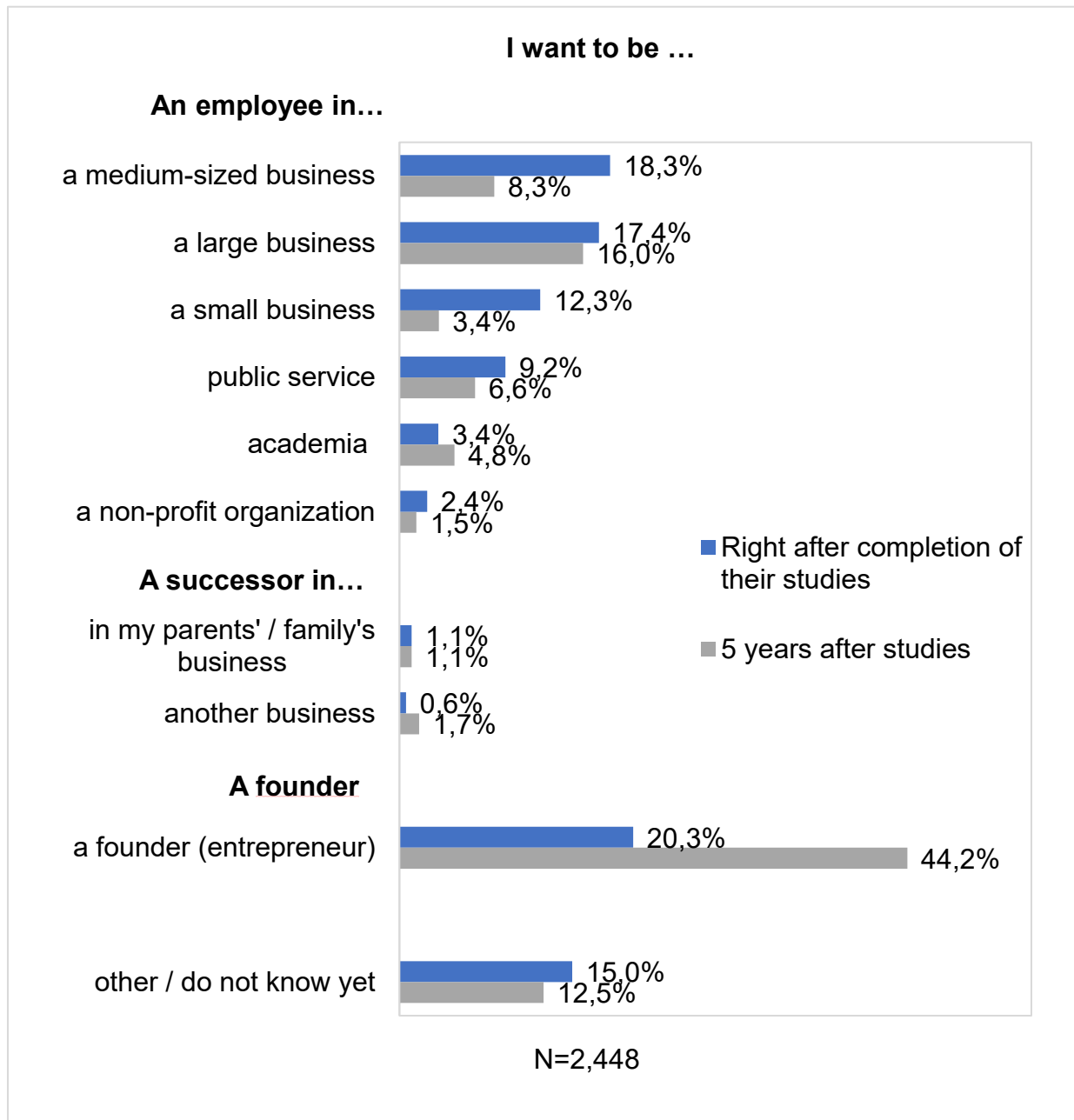


5 Entrepreneurship and future careers

Future career intentions. We asked participants what type of career they intended to pursue (1) immediately after completing their studies and (2) five years after completing their studies. As Figure 5 shows, the largest shares intended to work in a medium-sized business (18.3%) or a large business (17.4%), while a smaller proportion intended to work in a small business (12.3%). Fewer students intended to work in public service (9.2%), academia (3.4%), or non-profit organisations (2.4%). Very few intended to succeed a family-owned or other business. In addition, 20.3% planned to establish their own businesses, while 15.0% intended to do something else or had not yet decided.

Students' priorities five years after completing their studies differed slightly: they were more inclined to work in large businesses (16.0%) and less inclined to work in medium-sized (8.3%) or small (3.4%) businesses. Although employment remained preferable to business ownership overall, the proportion intending to find their own businesses more than doubled, reaching 44.2%.

Figure 5. Future career intentions



Active, nascent, and intentional entrepreneurship. After asking about their intentions, we further asked participants whether they currently run a business or are in the process of creating a new one. Out of the 2448 research participants, 13.0% (in 2021 - 10.6%) reported that they are currently running their own business (are active entrepreneurs), and 15.3% (in 2021 - 19.5%) replied that they are currently trying to start their own business (nascent entrepreneurs). For comparison, we saw in Figure 5 above that 20.3% of students intend to start or continue their careers as founders of their own businesses right after they have completed their studies (intentional entrepreneurs right after their studies), and 44.2% of students envisioned themselves starting or continuing their careers as entrepreneurs five years after the completion of their studies (intentional entrepreneurs 5 years after), which is significantly more than we see for active or nascent entrepreneurs. The same trend was observed in 2021: the share of intentional entrepreneurs right after studies in the 2021 wave was 16%, and the share of intentional entrepreneurs 5 years after – was 40.4%.

Please note that the responses in the analysis above may total more than 100% because participants could select more than one answer (for example, indicating that they already run a business and would also like to create a new one). In the analyses that follow, we compare groups with different levels of entrepreneurial experience as well as participants with none. We therefore removed overlaps by assigning each participant to the more active entrepreneurship category, ensuring that every participant was counted only once. The subsequent comparisons of active, nascent, and intentional entrepreneurs use this categorisation.

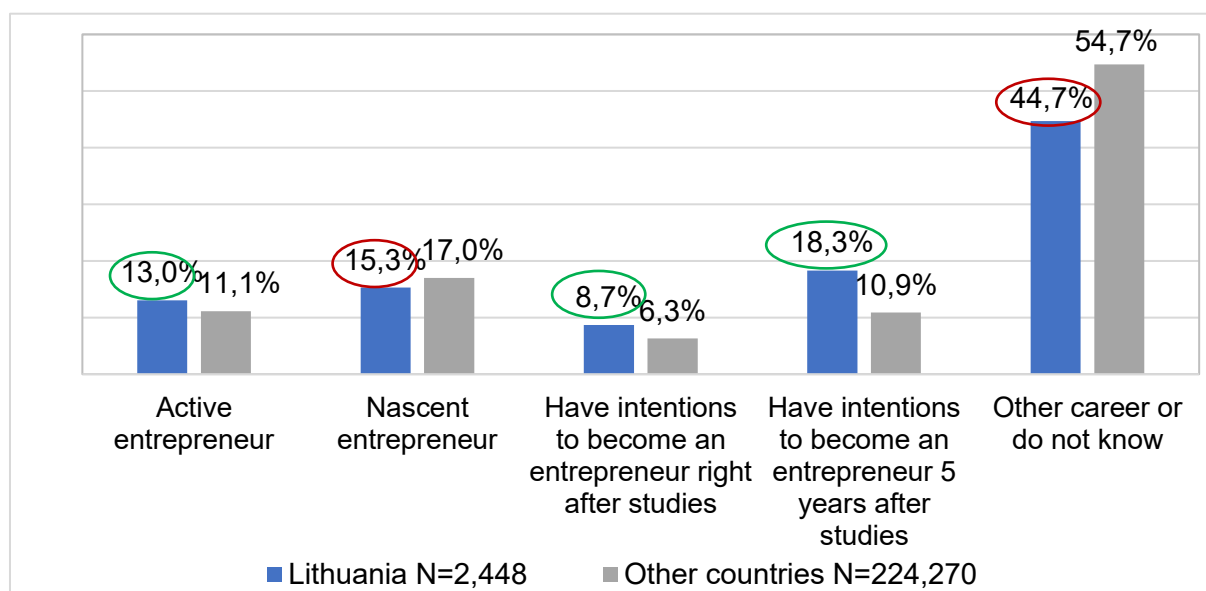
Entrepreneurship and other careers. Figure 6 shows the proportion in each category after removing overlaps and compares Lithuania with the other countries in the global GUESSS dataset (hereafter “the other countries”). The proportions of active entrepreneurs, students intending to become entrepreneurs immediately after their studies, and students intending to become entrepreneurs five years after their studies were significantly higher in Lithuania than in the other countries (13.0% vs 11.1%, 8.7% vs 6.3%, and 18.3% vs 10.9%, respectively). The proportion of nascent entrepreneurs was lower in Lithuania (15.3% vs 17.0%).

This situation differs from 2021, when Lithuanians and students from other countries had similar shares of active entrepreneurs; as well, the proportion of those who chose other careers

in 2021 survey was similar in Lithuania and the other countries' average, whereas in 2023 survey Lithuanian proportion became significantly lower.

In 2023 in Lithuania, there are more students who (1) are either currently active as an entrepreneur or intend to become one (the sum of the first four categories 55.3% vs 45.3%) and fewer who (2) either have no intention to become entrepreneurs or are still undecided (44.7% vs 54.7%). In 2021, the situation in Lithuania did not differ from other countries – the share of active or intend-to-be entrepreneurs was 48.8% in Lithuania vs 47.8% in other countries, and the share of those who have no intentions to become entrepreneurs or are still undecided was 51.2% vs 52.2%.

Figure 6. Entrepreneurship and other career choices—Lithuania vs the other countries



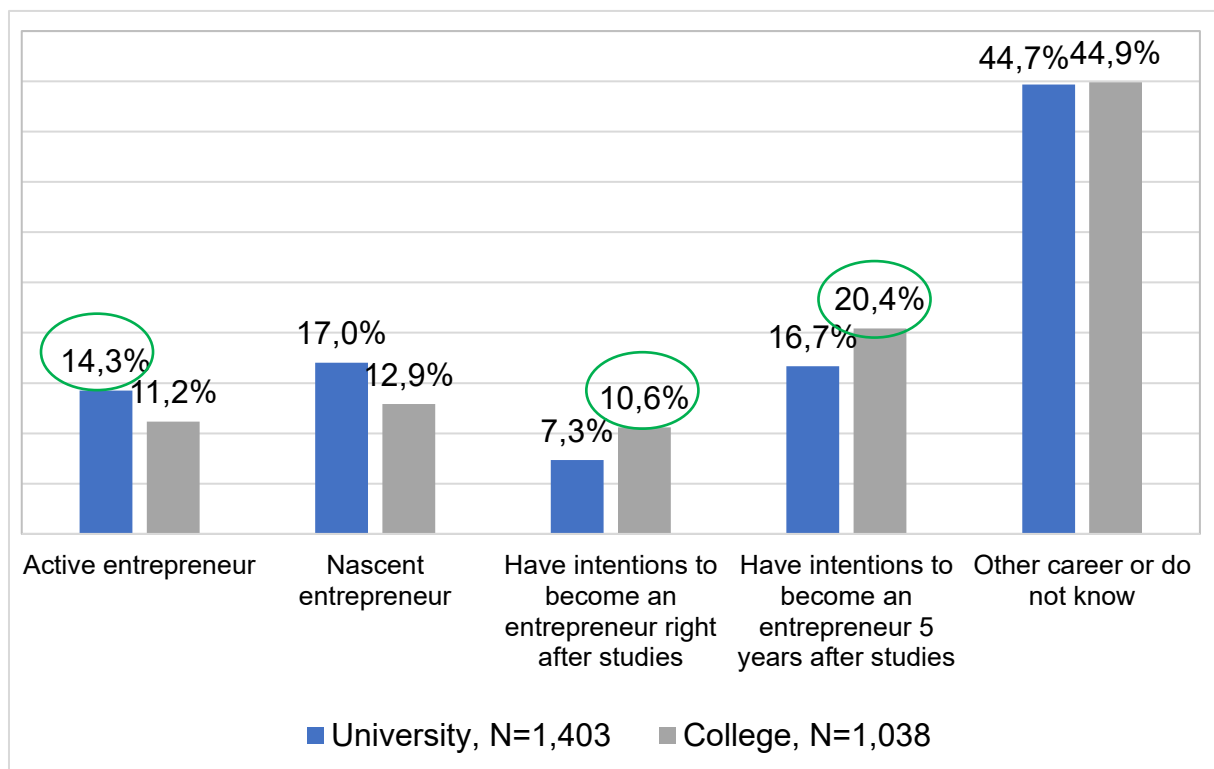
Here and throughout the report, green circles indicate statistically significant differences (significantly higher), and red circles indicate statistically significant differences (significantly lower). When comparing two groups, a circle appears only beside the value for the first group. For example, in Figure 6, the green circle beside 13.0% indicates that the proportion of active entrepreneurs is significantly higher in Lithuania (13.0%) than in the other countries (11.1%).

Statistical significance was assessed using the chi-square test for percentages, analysis of variance (ANOVA) and t-tests for means ($p < 0.05$).

In summary, students in Lithuania are more often already active entrepreneurs or plan to start a business right after their studies than students in the other GUESSS countries. On the other hand, Lithuanian students also tend to delay their plans to start a business rather than work on potential business in the meantime, more than students in other countries.

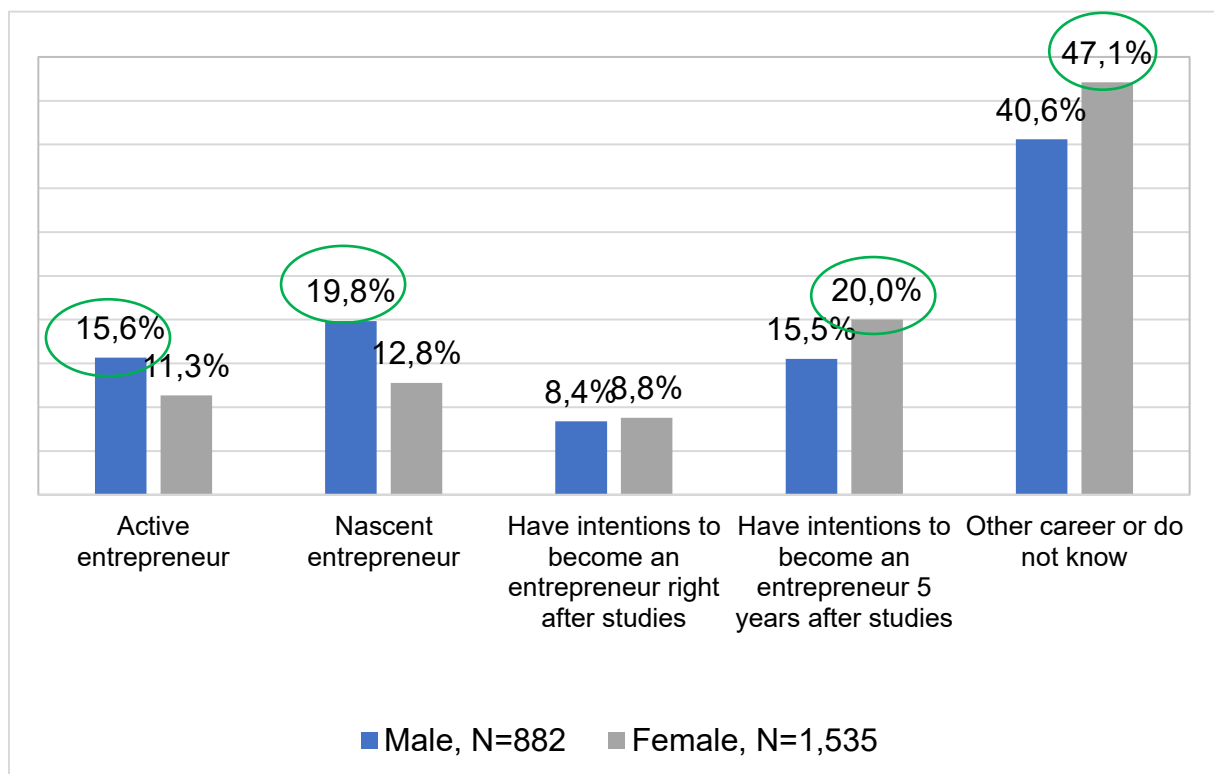
Entrepreneurship by university type. As in 2021, in 2023 the proportions of intentional entrepreneurs (both right after studies and 5 years after studies) are significantly higher in colleges than in universities (the more academically oriented institutions in Lithuania). On the other hand, the share of active entrepreneurs is higher among university students (see Figure 7 below), while in 2021 this share was higher among college students.

Figure 7. Active, nascent, and intentional entrepreneurship by university type



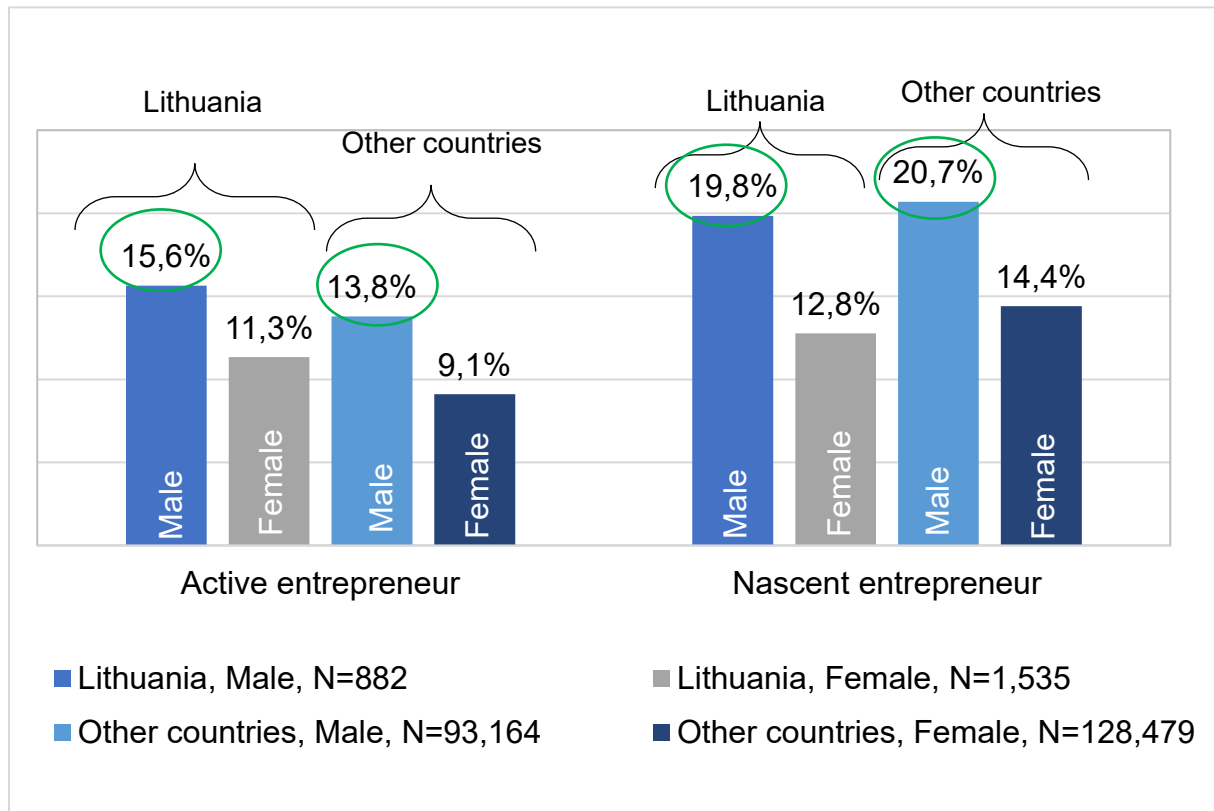
Entrepreneurship and other careers by gender. By gender, the proportion of currently active and nascent entrepreneurs in Lithuania is higher among male participants (see Figure 8), while the proportion with delayed entrepreneurial intentions (intentional entrepreneurship 5 years after studies) or a choice of other career is higher among female participants.

Figure 8. Active, nascent, intentional entrepreneurship and other careers by gender



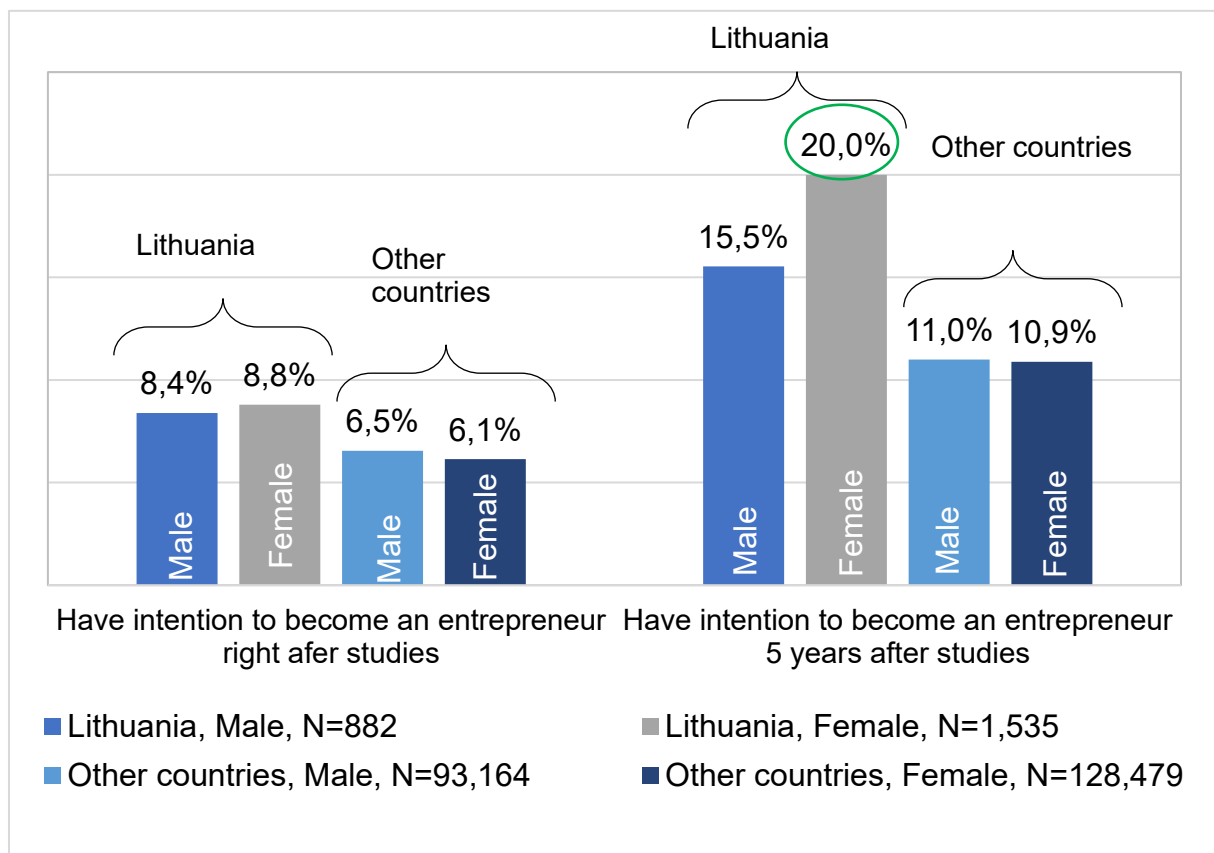
The pattern identified in Lithuania is consistent with the general pattern observed in many GUESSSS countries: the proportions of women among active and nascent entrepreneurs are consistently lower than the corresponding proportions of men.

Figure 9. Active and nascent entrepreneurship by gender—Lithuania vs the other countries



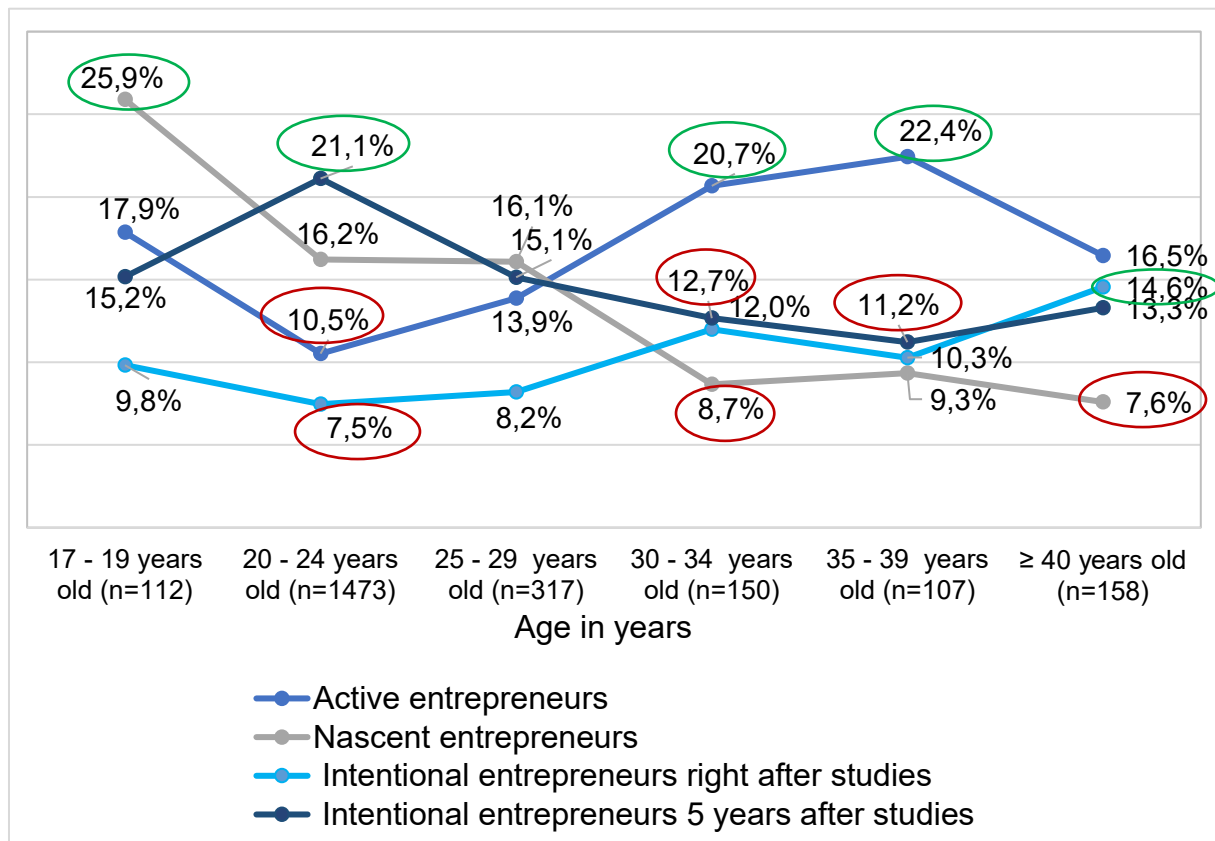
However, as discussed above, the trend of students postponing their entrepreneurial intentions to a more distant future (5 years after studies) is unique to Lithuania and has not changed since 2021. It is even more prevalent among female participants (see Figure 10 below), and the trend is consistent with the 2021 survey.

Figure 10. Intentional entrepreneurship 5 years after studies and other careers by gender—Lithuania vs the other countries



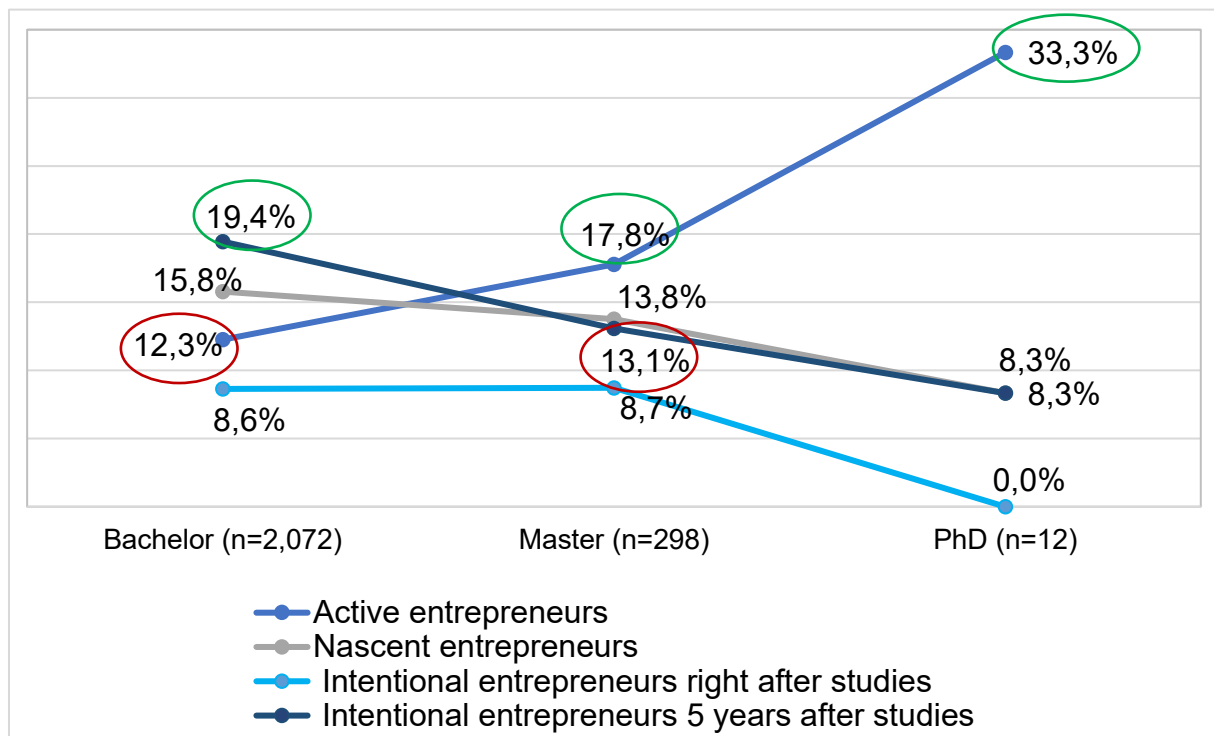
Entrepreneurship by age. Comparing entrepreneurial activities and intentions by participants' age (see Figure 11) reveals several patterns. The proportion of active entrepreneurs differs across age groups, and is the lowest among 20-24 year-old students, reaching a peak of 22.4% among participants aged 35–39 and again falling to 16.5% among those aged 40 and over. The proportions of nascent entrepreneurs and students postponing entrepreneurship for five years appear to decline with age, whereas the proportion intending to create a business immediately after their studies appears to increase. The mean age of active entrepreneurs and those intending to start a business immediately after their studies was significantly higher than that of nascent entrepreneurs and those postponing entrepreneurship.

Figure 11. Active, nascent, and intentional entrepreneurship by age



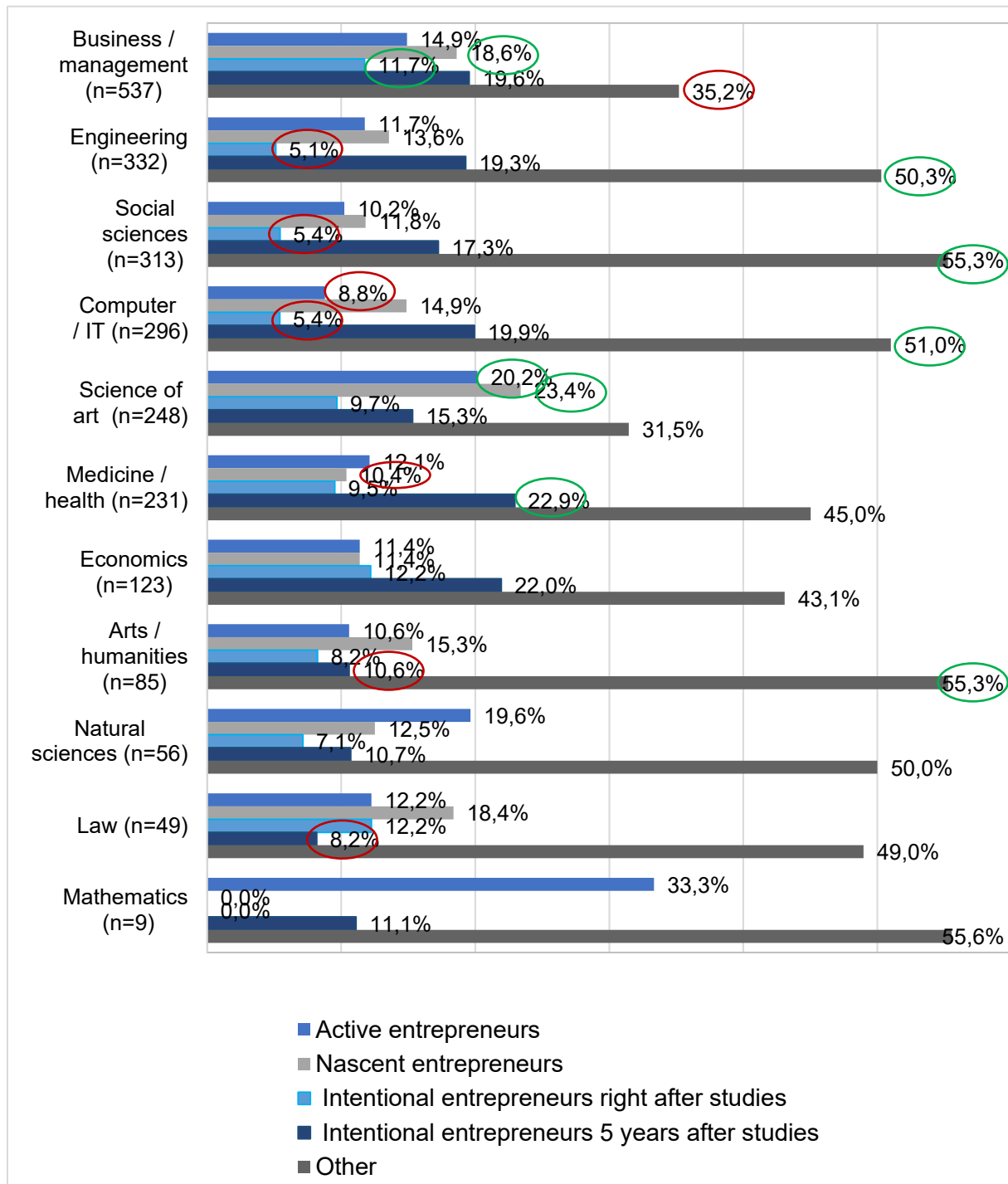
Entrepreneurship and level of education. We also analysed entrepreneurial patterns across education levels and found a significant ($p < 0.05$) increase in active entrepreneurship among participants enrolled in master's and doctoral programs, while more bachelor's students intended to postpone entrepreneurship (see Figure 12).

Figure 12. Active, nascent, and intentional entrepreneurship by level of education



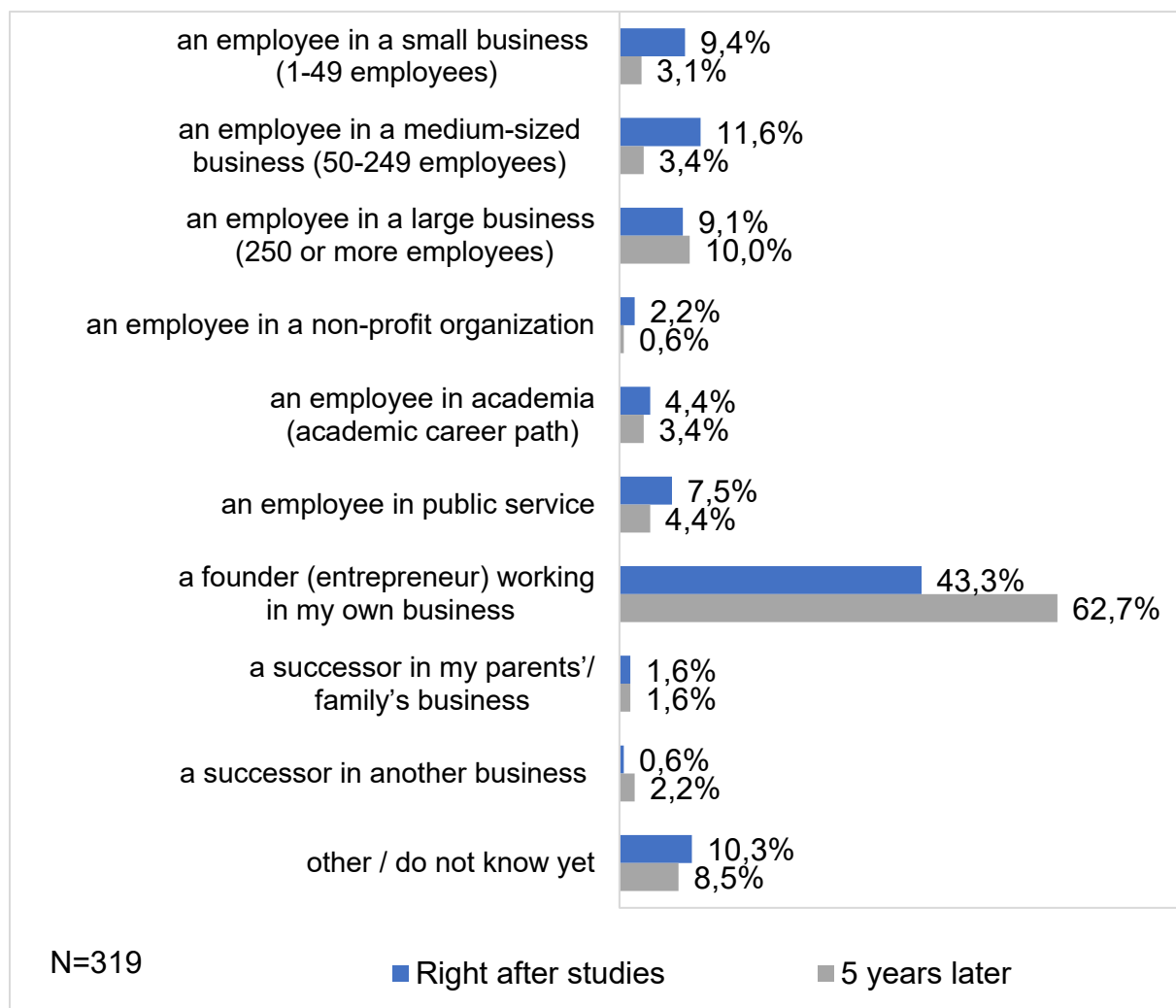
Entrepreneurship and other career choices by field of study. Career choice by field of study remained consistent with the trends in 2021. We found that the research participants studying engineering, social sciences, arts/humanities and computer sciences have the lowest rate of intentional entrepreneurship right after the completion of studies (~5%), as well as the highest percentage of choosing a career other than entrepreneur or being undecided about their choice of career (~50%) (see Figure 13 below). As expected, a career other than entrepreneur is the least popular option among business and management students, and among those studying the science of arts or applied arts (e.g., art, design, drama, music). Those in medicine and health sciences show higher intent to become founders (or to continue running) their own businesses five years after completing their studies.

Figure 13. Intentional entrepreneurship and other career choices by field of study



Future career intentions of current entrepreneurs. As discussed earlier, 13.0% (N=319) of the research participants in Lithuania reported being active entrepreneurs at the time of the survey (Figure 5 above). Yet only 43.3% of active entrepreneurs plan to remain business owners immediately after completing their studies, and slightly more (62.7%) intend to be business owners five years after completing their studies. This suggests some expect to step back from entrepreneurship after their studies but may return to running their own businesses later. The same trend was observed in 2021: the shares were 41.9% and 60% (plan to continue being business owners after studies / after 5 years). Similar to the 2021 survey results, most other current business owners plan to continue their careers as employees at small-, medium-, or large-sized businesses (see Figure 14 below for more details).

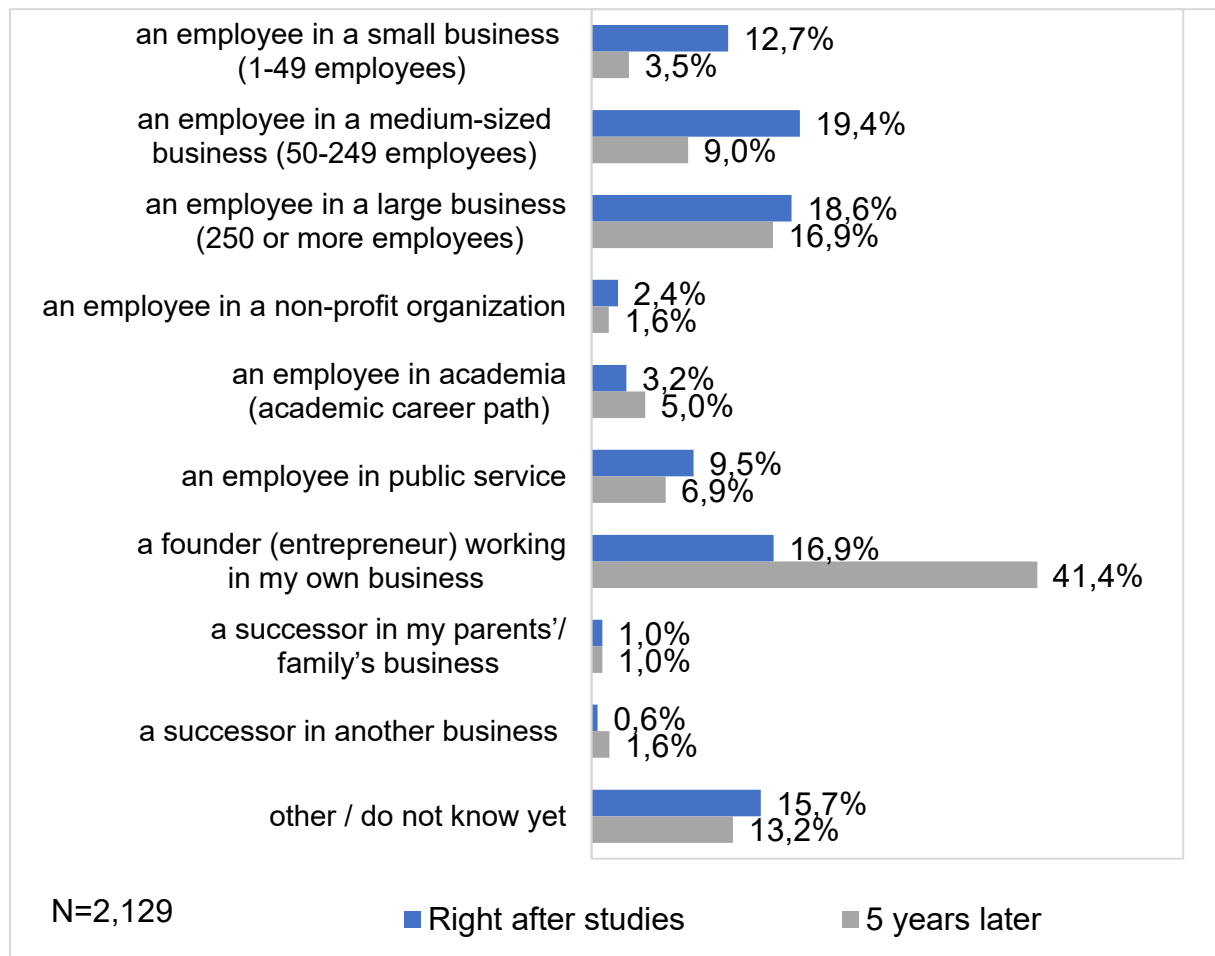
Figure 14. Future career intentions of current entrepreneurs (active entrepreneurs)



Future career intentions of non-entrepreneurs. The remaining 87.0% (N = 2,129) of participants, who were not actively running a business at the time of the survey, primarily expected to work in medium-sized or large companies immediately after their studies (18.6% and 19.4%, respectively; see Figure 15). A slightly smaller proportion (16.9%) planned to establish a business immediately after their studies. Their intentions differed substantially when considering their careers five years after graduation: far fewer expected to remain employees in someone else's business, while 41.4% intended to become entrepreneurs.

The same trend was also observed in 2021 – similar shares of current entrepreneurs expressed intentions to work in someone else's business and start their own business right after studies, while when talking about 5-year plans there is a far larger share of students willing to become entrepreneurs.

Figure 15. Future career intentions of non-entrepreneurs

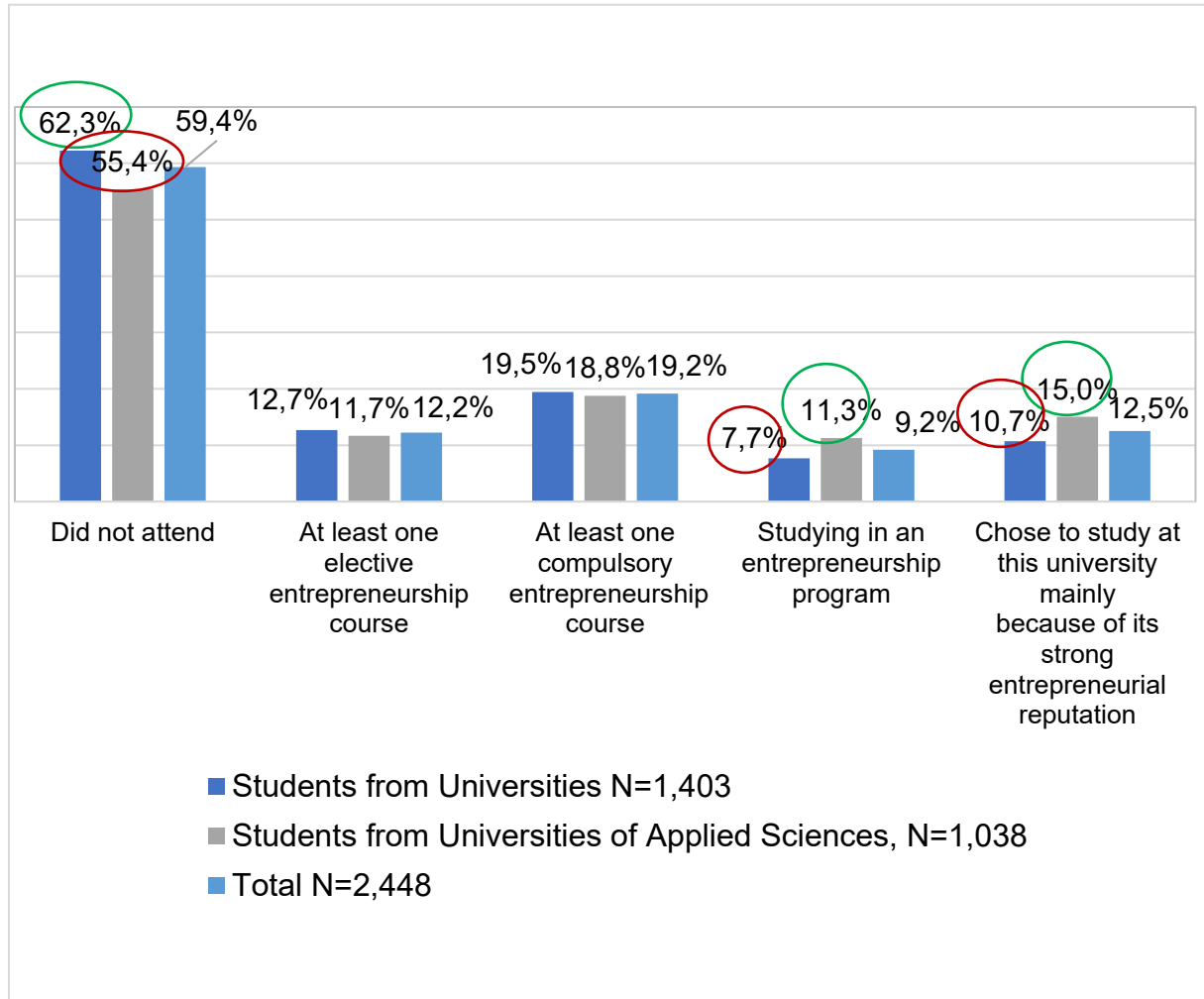


6 Entrepreneurial environment and the drivers of entrepreneurial intentions at Lithuanian universities

In this section, we examine the entrepreneurial environment at Lithuanian universities: what universities offer students to promote entrepreneurial intentions and develop competencies, and how students evaluate their universities' entrepreneurial reputation and atmosphere.

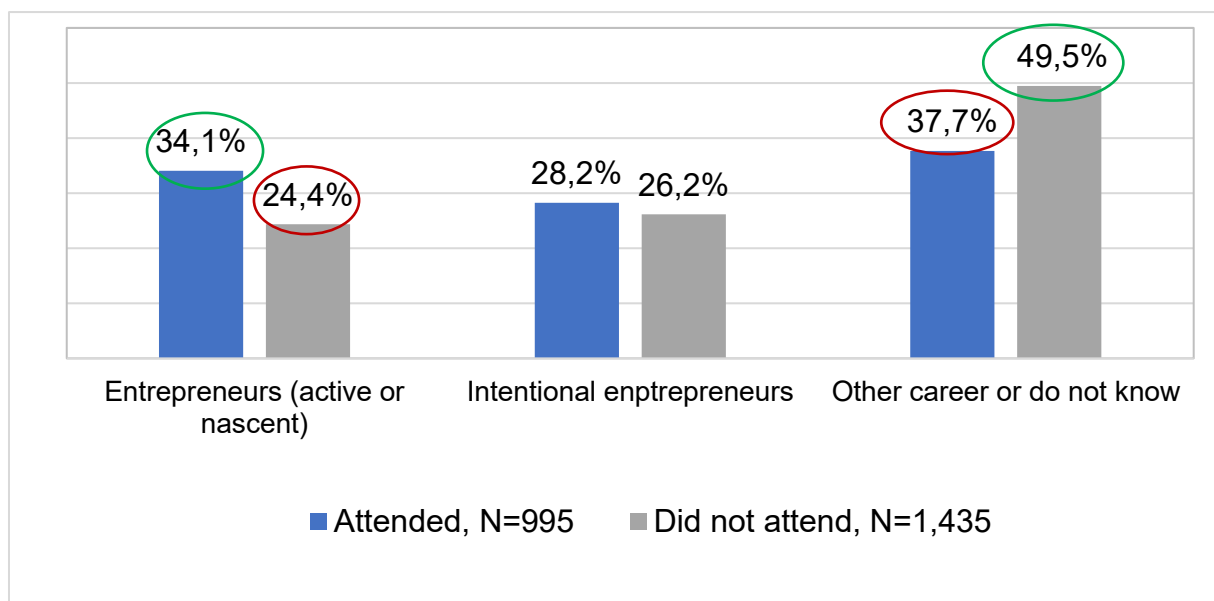
Entrepreneurship course attendance. In Lithuania, 59.4% of participants reported not having attended an entrepreneurship course. A total of 12.2% had attended at least one elective course and 19.2% at least one compulsory course; 9.2% were enrolled in an entrepreneurship program, while 12.5% reported choosing a university because of its entrepreneurial reputation. College students were significantly less likely than university students to report having attended no entrepreneurship courses (see Figure 16). The proportion who had attended no entrepreneurship courses was higher in 2023 than in 2021 (59.4% vs 49.5%).

Figure 16. Comparison of entrepreneurship course attendance at universities and colleges



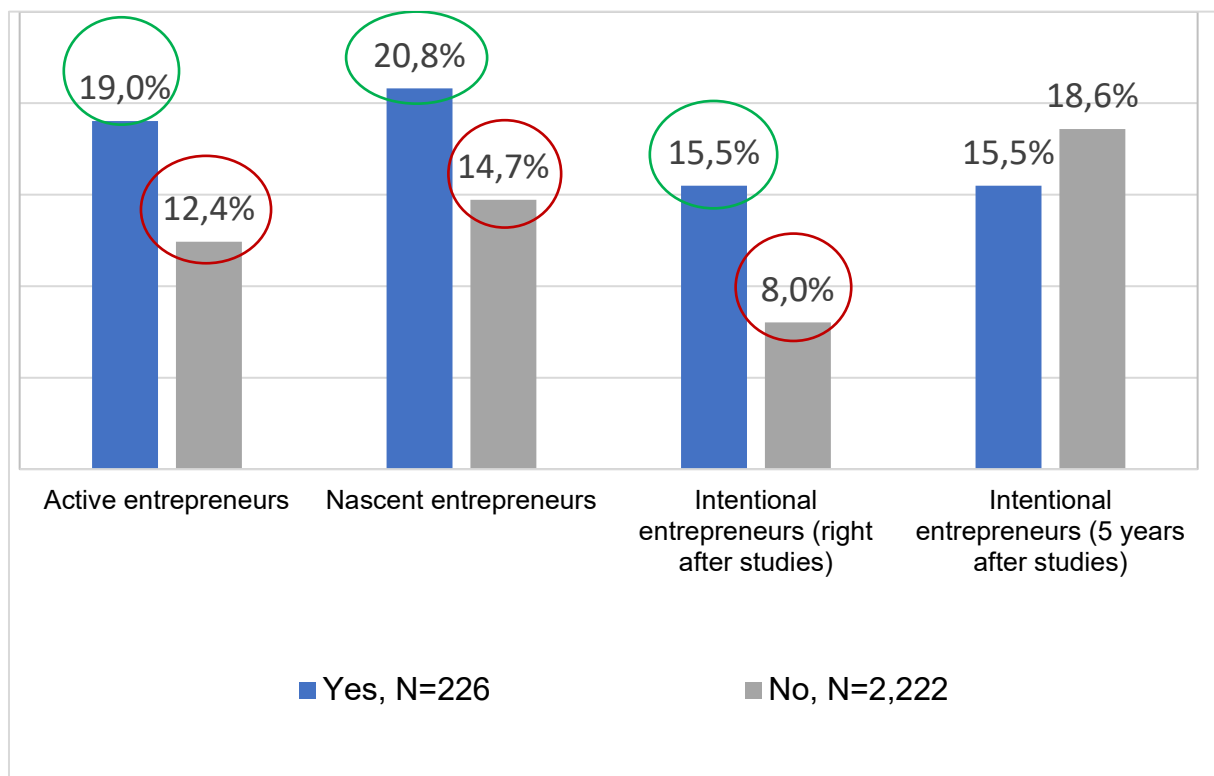
Compared with other countries, a similar share of Lithuanian students attended at least one entrepreneurship course (40.6% vs 41.3%). Among Lithuanian students who attended the course(s), we also found more active entrepreneurs; fewer students who attended the course(s) chose another career path (mostly as an employee at an organisation) or did not yet know what career to choose (see Figure 17 below).

Figure 17. Relationship between entrepreneurship course attendance and entrepreneurship categories



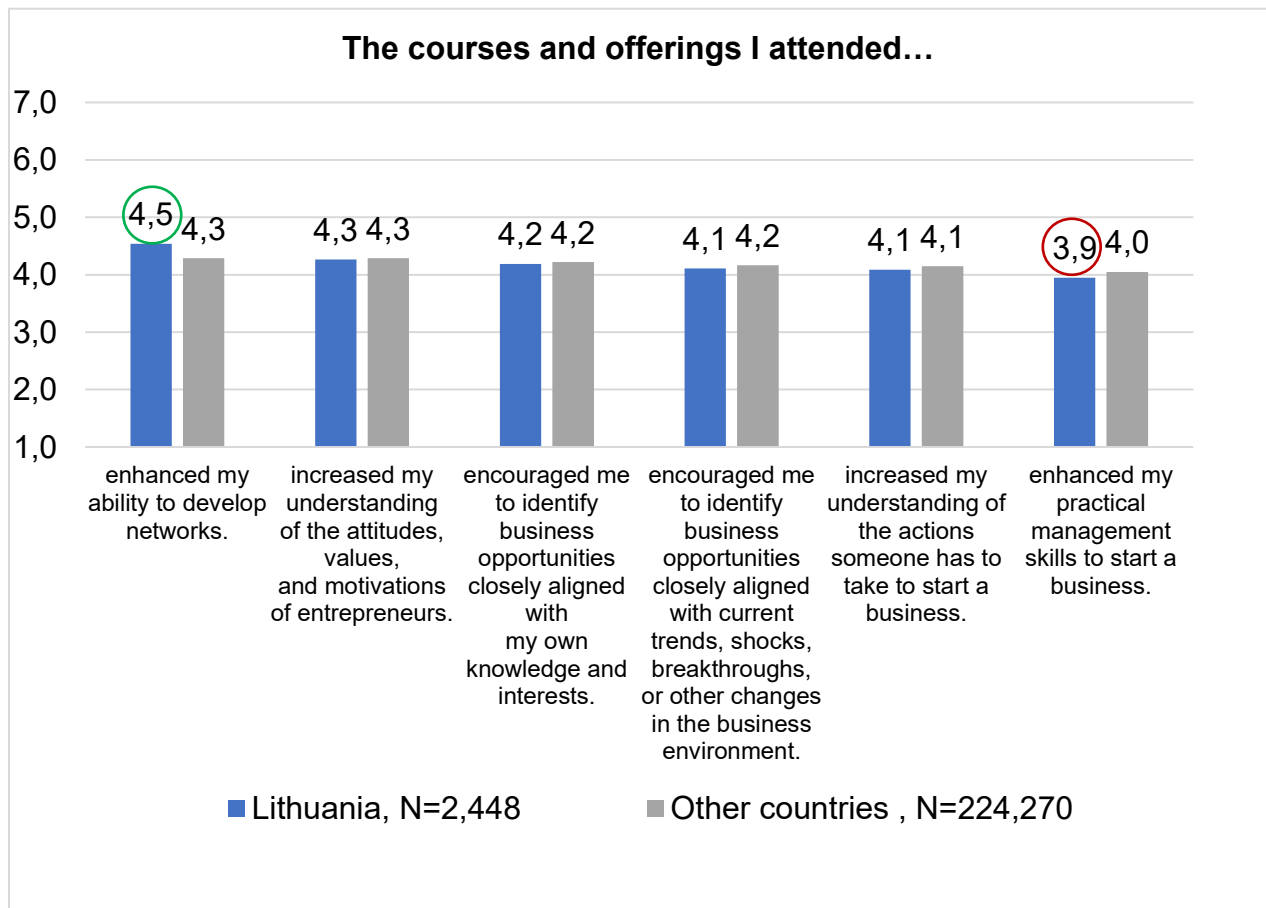
We also observed a significantly larger proportion of active, nascent, and intentional entrepreneurs (right after studies) among students studying a specific entrepreneurship program (see Figure 18 below).

Figure 18. Relationship between attending a specific entrepreneurship program and entrepreneurship categories



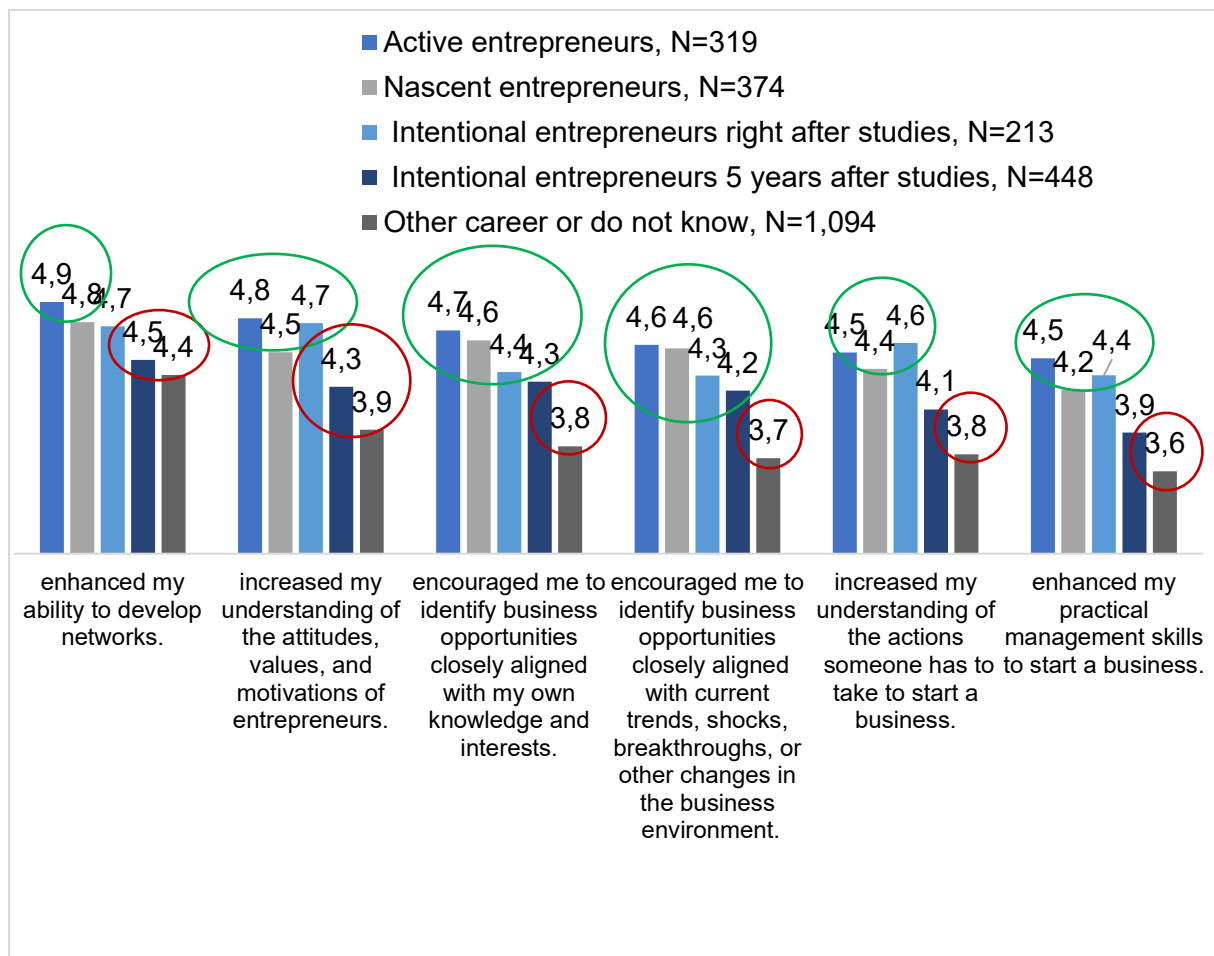
Courses and offerings. Unlike in 2021, Lithuanian students rated most aspects of their universities' courses and offerings similarly to students in other countries; in 2021, they tended to rate them less favourably. Understanding the change requires careful consideration of sample size and demographic differences between the two waves. Yet, there are two significant differences in 2023 as well: Lithuanian students perceived more positively than their international counterparts the level at which courses enhanced their ability to develop networks; and less favourably perceived the level at which courses and offerings gave opportunity to enhance practical management skills needed to start a business (see Figure 19).

Figure 19. Evaluation of courses and offerings at universities—Lithuania vs the other countries



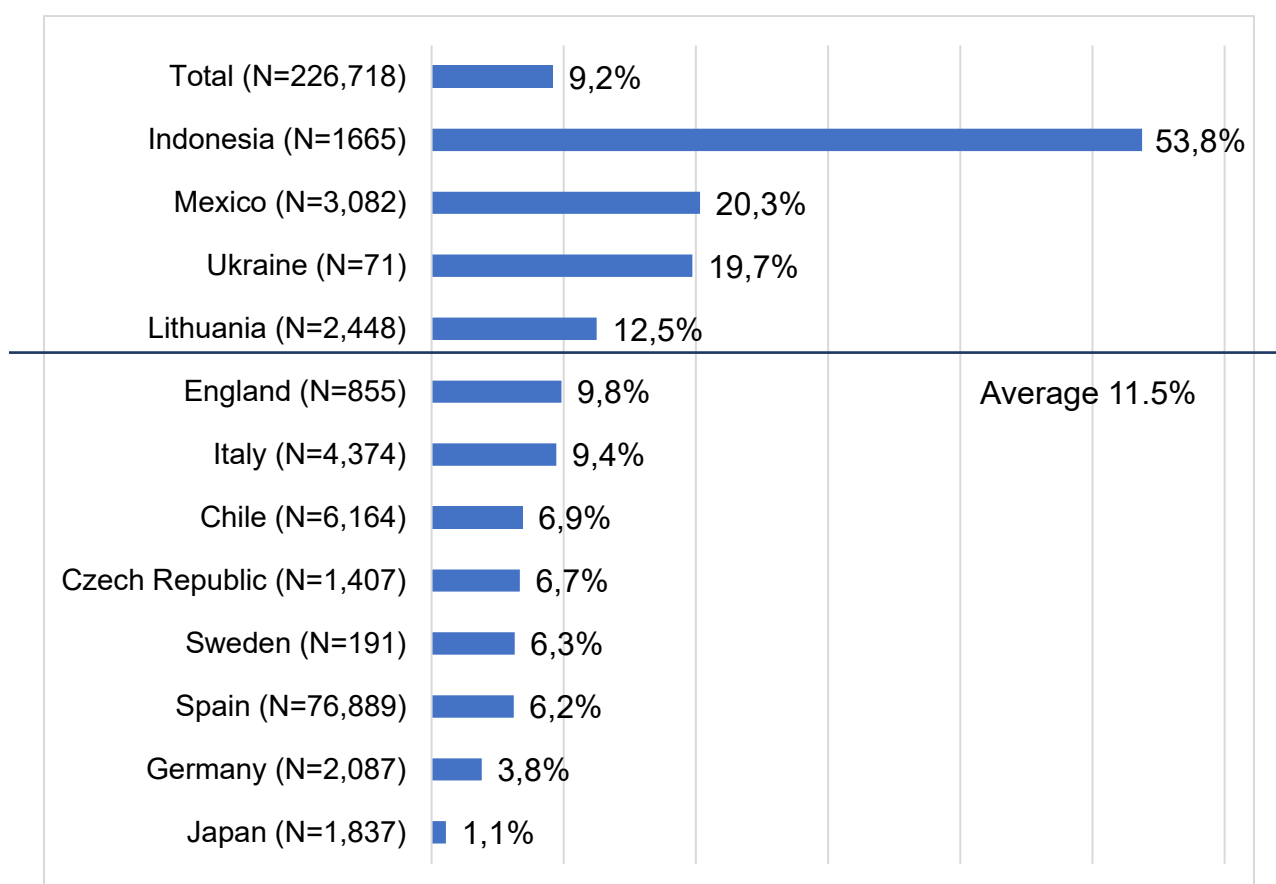
There is a trend that students who are engaged in entrepreneurship also rated their universities as providing more practical management skills for starting a business and enhancing their ability to identify a good business opportunity, which suggests that these skills may be those that add important value in educating both current and future entrepreneurs, as well as what differentiates a more successful entrepreneurship education (see Figure 20 below).

Figure 20. Relationship between the evaluation of university courses and offerings and entrepreneurship categories



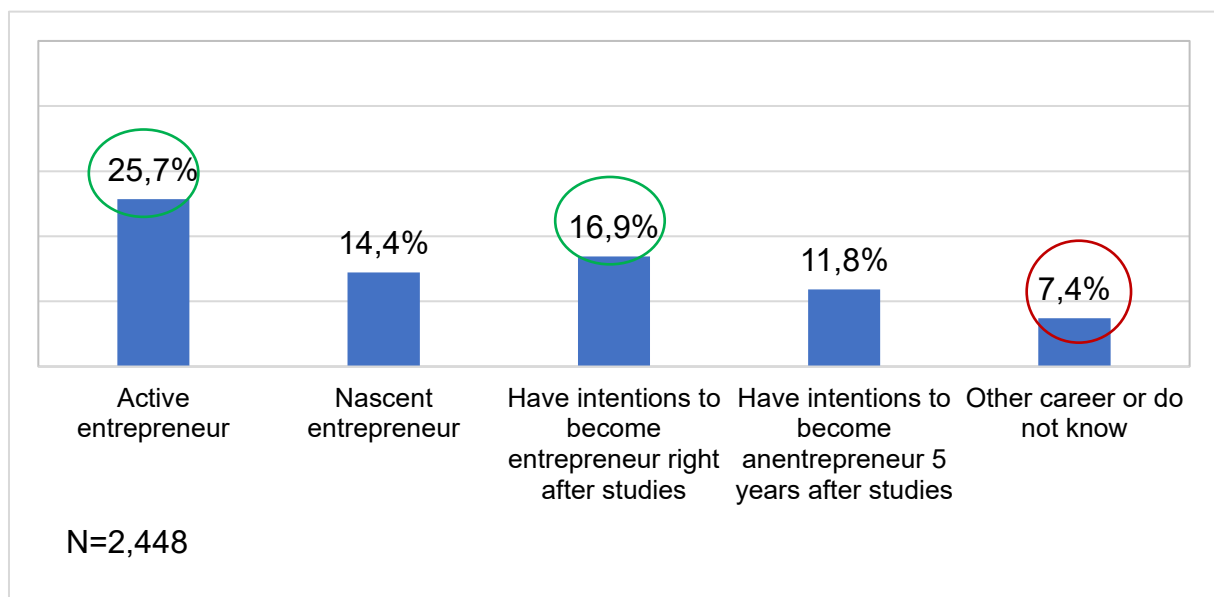
Entrepreneurial reputation of the university. Overall, 12.5% of Lithuanian participants reported choosing their university because of its entrepreneurial reputation, similar to 11.5% in the other countries. In 2021, the corresponding figures were 11.0% in Lithuania and 14.4% in the other countries, which may potentially reflect fluctuations due to different sample sizes and country involvement and should be interpreted with caution. Across individual countries, the percentages ranged from 1% to 54% (see Figure 21).

Figure 21. Entrepreneurial reputation of the university—selected countries, comparison



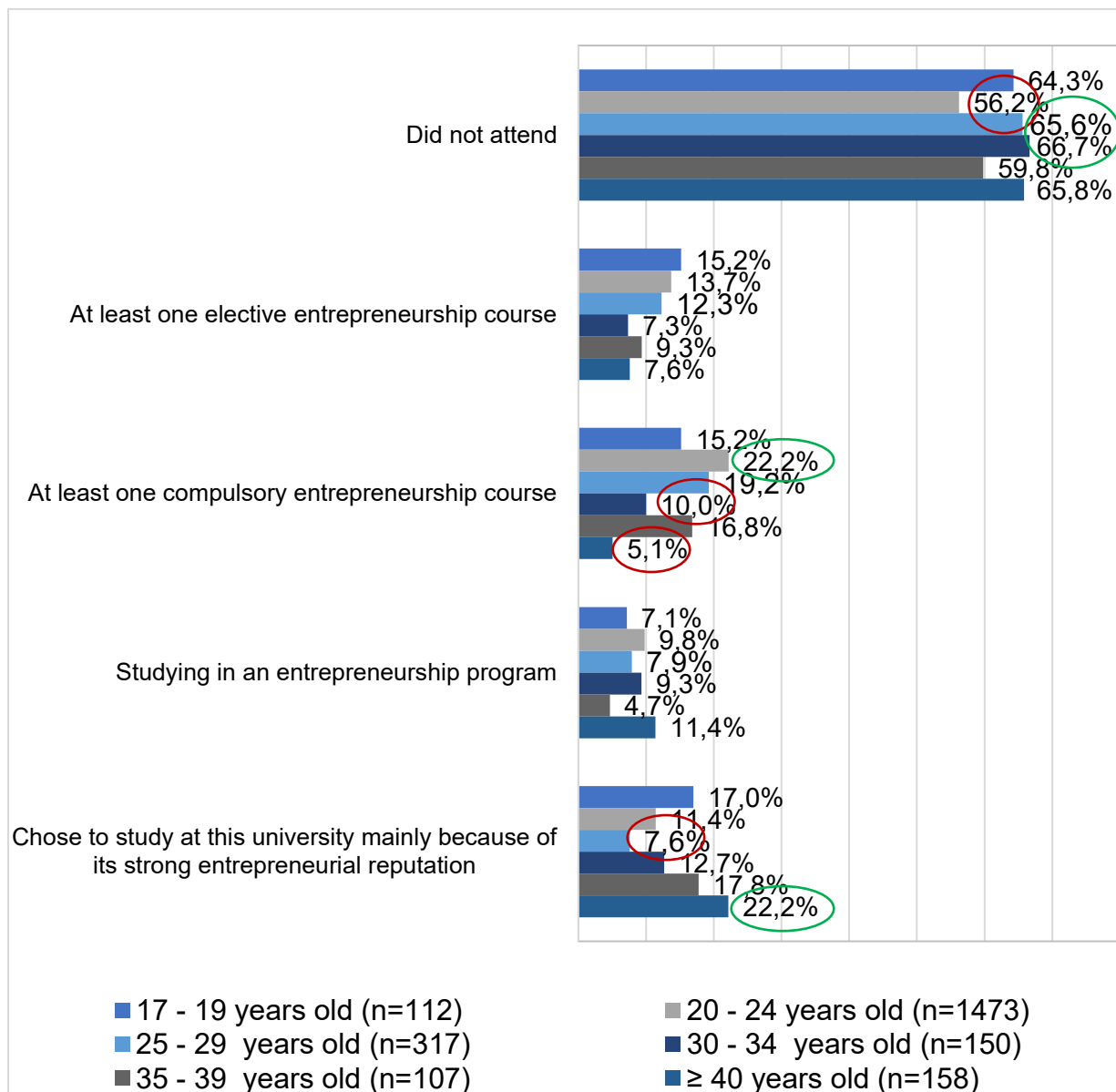
Additionally, a significantly higher proportion of active entrepreneurs and intentional entrepreneurs planning to start a business immediately after their studies chose their universities because of their entrepreneurial reputation. The proportion was lower among those intending to pursue other careers or who had not yet decided on a career (see Figure 22).

Figure 22. Entrepreneurial reputation by future career categories



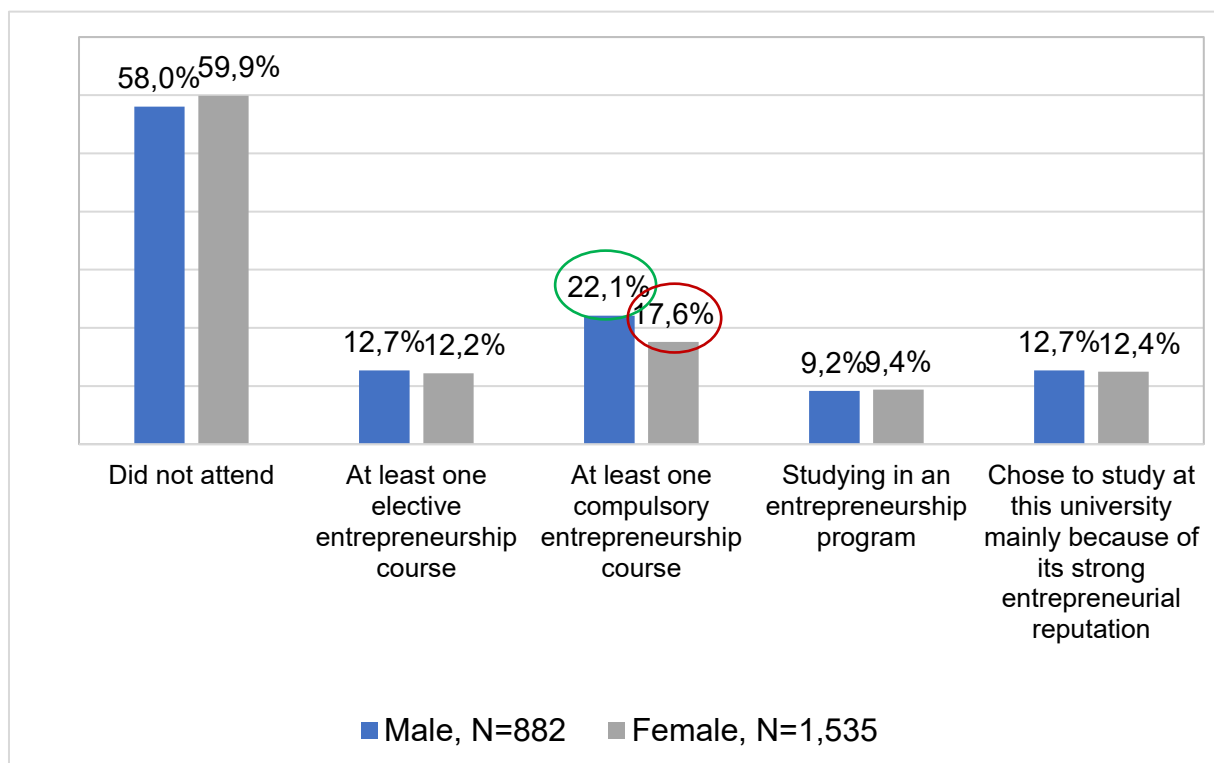
Course attendance and reputation by age. Students aged 25–29 and 30–34 were more likely to report having attended no entrepreneurship courses (65.6% and 66.7%, respectively), while the corresponding proportion among students aged 20–24 was 56.2% (see Figure 23). Students aged 20–24 were more likely than other age groups to have attended at least one compulsory entrepreneurship course (22.2%), while participants aged 40 and over were more likely to have chosen a university because of its entrepreneurial reputation (22.2%).

Figure 23. Entrepreneurship education by age



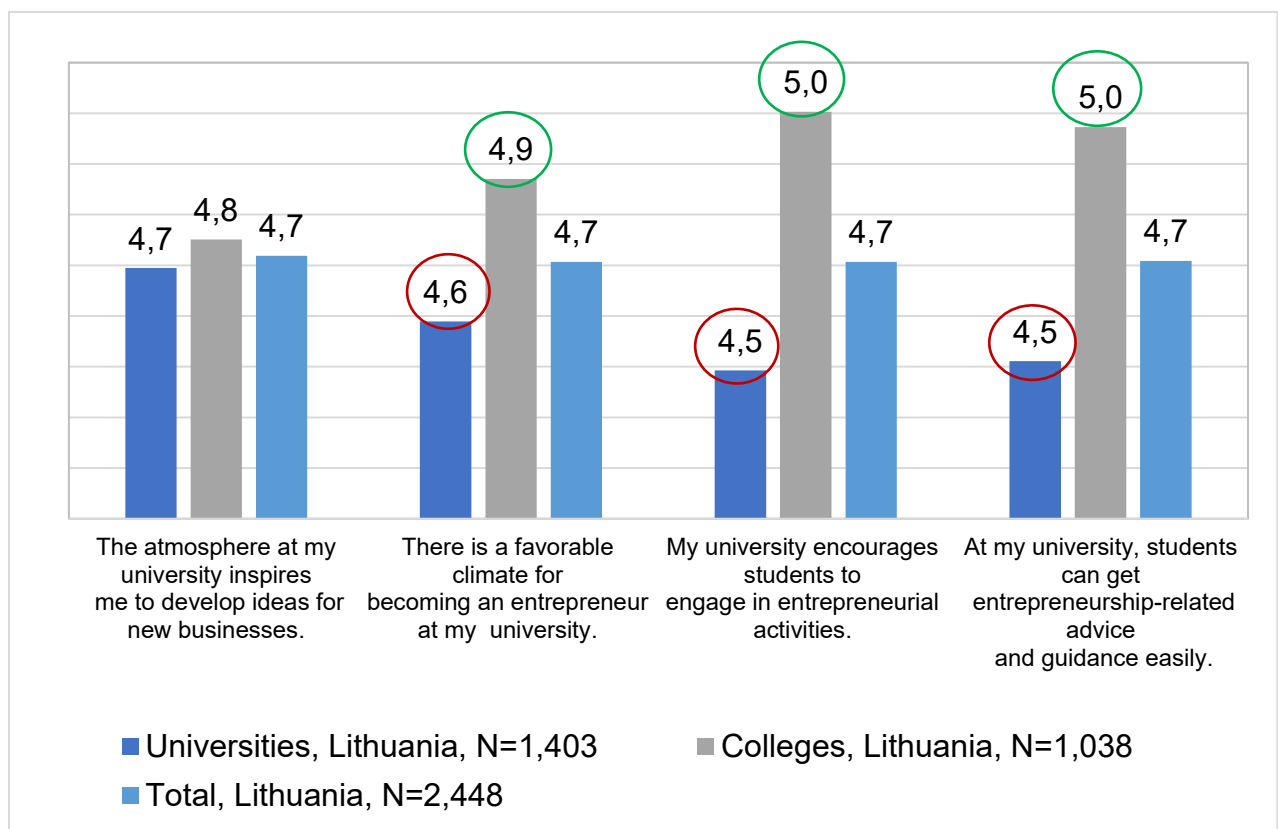
Course attendance and reputation by gender. There were few differences between male and female students' responses regarding entrepreneurship education. The only statistically significant difference was that female students were less likely to have attended at least one compulsory entrepreneurship course (see Figure 24).

Figure 24. Entrepreneurship education by gender



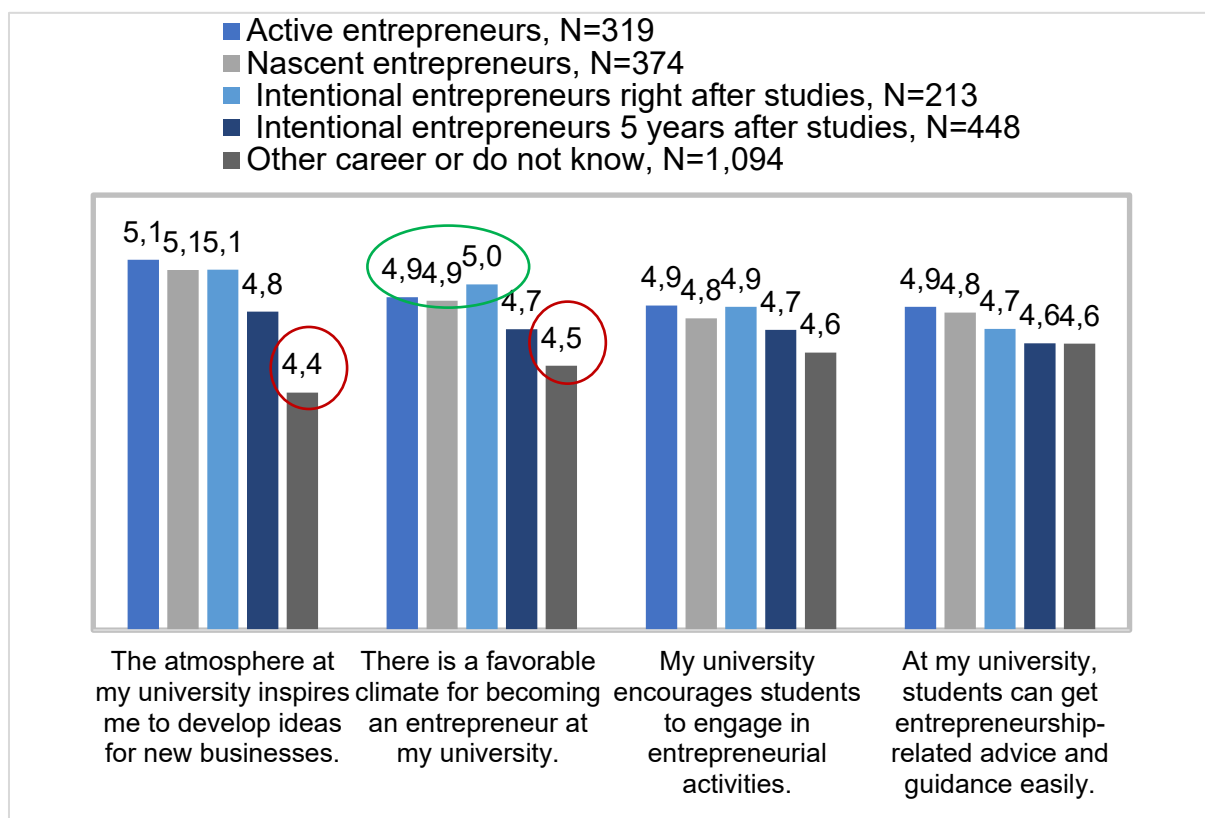
Entrepreneurial atmosphere at universities. We also asked participants to evaluate how the university environment supports entrepreneurial activity. They rated how strongly their university atmosphere inspired them to develop new business ideas, how favourable the university climate was for becoming an entrepreneur, and how strongly they were encouraged to engage in entrepreneurial activities. As Figure 25 shows, all mean ratings were above the midpoint of the seven-point scale, ranging from 4.5 to 5.0. University students rated their institution's entrepreneurship-promoting climate, encouragement to engage in entrepreneurship, and access to advice and guidance less positively than college students. By comparison, in 2021 university students rated their institution's entrepreneurship-promoting climate more positively than college students.

Figure 25. Entrepreneurial atmosphere by university type



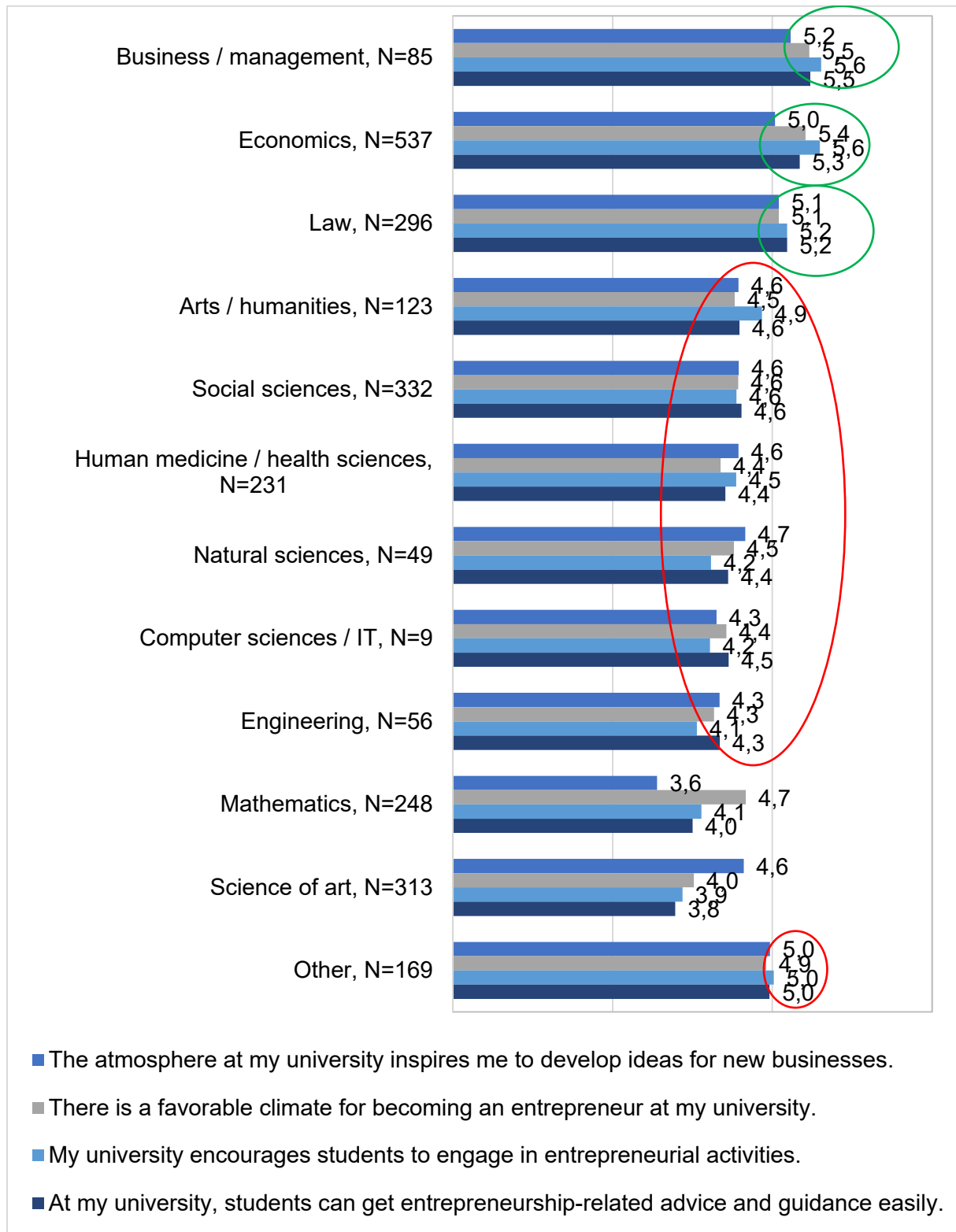
Evaluations of the university atmosphere were significantly higher among active, nascent, and intentional entrepreneurs. Therefore, a university atmosphere that inspires students to develop new business ideas may be a significant factor in encouraging entrepreneurship activities at universities, either by attracting entrepreneurially minded students, encouraging the spirit, or both.

Figure 26. Entrepreneurial atmosphere by entrepreneurship category



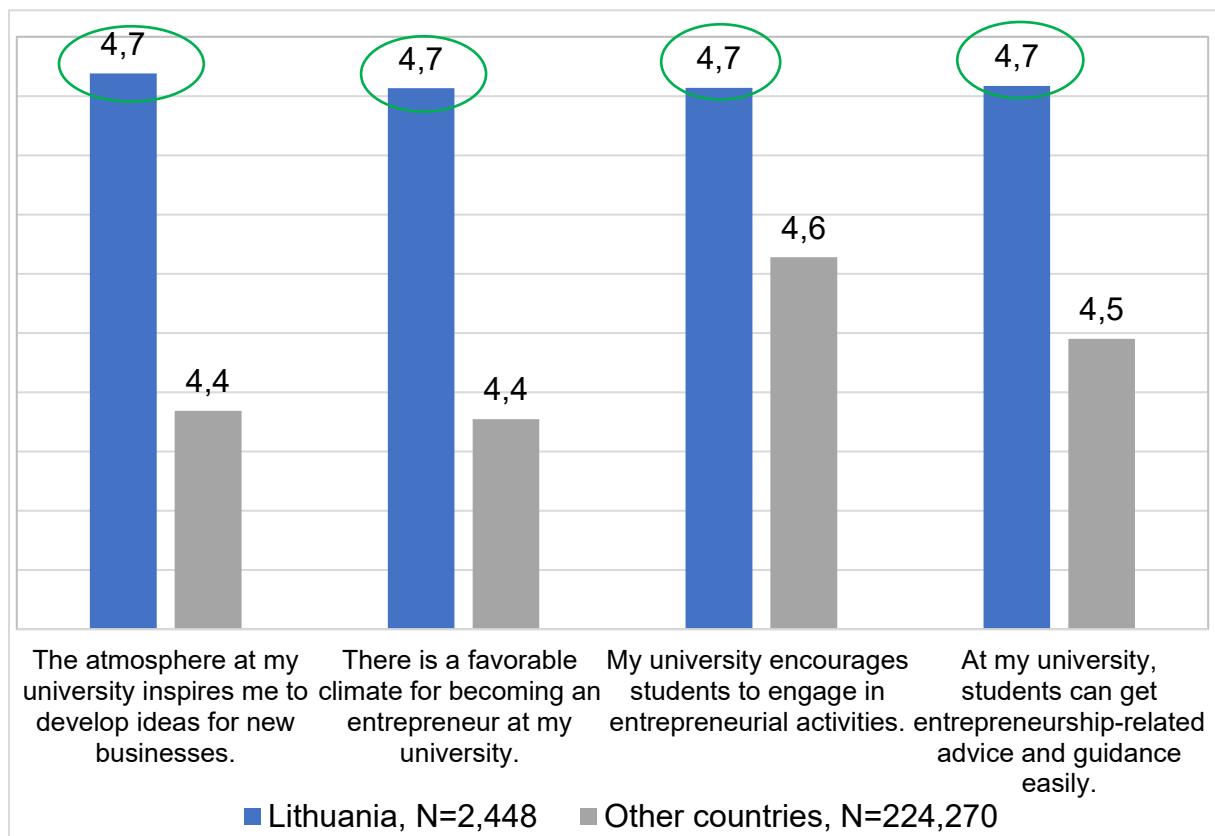
When we compare university atmosphere ratings by field of study, Lithuanian students in business management, economics, and law tend to give the highest ratings, whereas students in applied art, social sciences, medicine, natural sciences, engineering, and computer science tend to give the lowest ratings (see Figure 27 below). This trend is again consistent with the results in the 2021 survey.

Figure 27. Entrepreneurial atmosphere by field of study



Lastly, compared with the survey results from other countries, Lithuania's results are much higher for each aspect of the university atmosphere (see Figure 28 below). In 2021, evaluations were very similar across aspects, except for one—how the university atmosphere inspires students to develop ideas for new businesses—where Lithuanian students rated their universities significantly lower than those in the other countries, on average. As mentioned in previous paragraphs, this difference suggests other demographic variables may be at play and affecting the trend.

Figure 28. Entrepreneurial atmosphere—Lithuania vs the other countries



7 Entrepreneurial activities

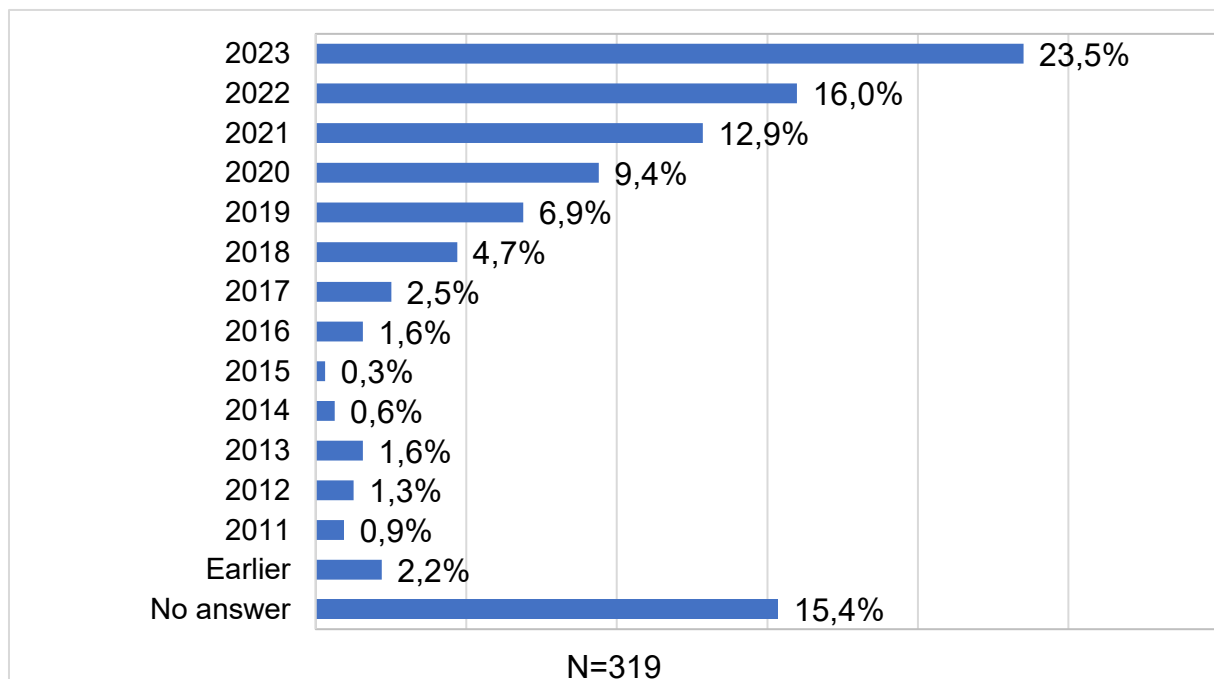
In this section, we will discuss our findings in three groups. We will start by reporting the characteristics of active entrepreneurs in Lithuania, then describe nascent and intentional entrepreneurs.

7.1 Active entrepreneurs

To understand the characteristics of students who are business founders and currently run their own businesses, the survey included questions about their businesses' demographic details, previous experience, a subjective performance evaluation, and the reasons and motives behind creating their business.

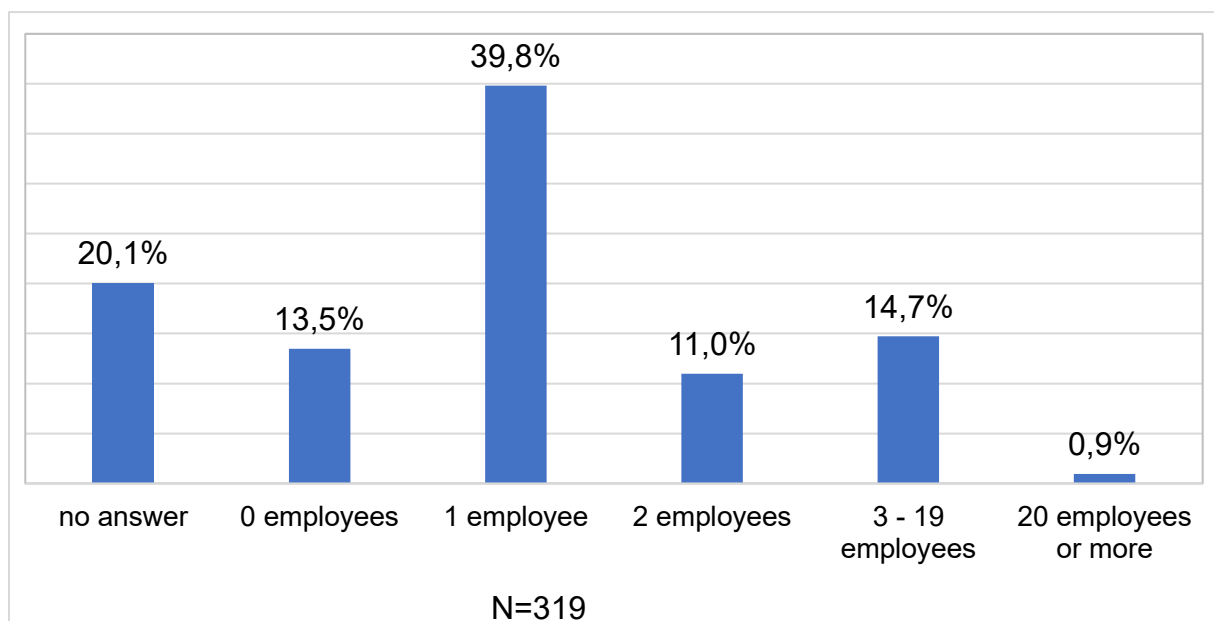
Founding year. Among the 319 participants who reported currently running a business, most businesses were very new: 23.5% were established in 2023, 16.0% in 2022, and 12.9% in 2021 (see Figure 29). Together, businesses founded from 2021 to 2023 accounted for a similar proportion in Lithuania and the other countries (52.4% vs 52.8%).

Figure 29. The founding year of active entrepreneurs' businesses



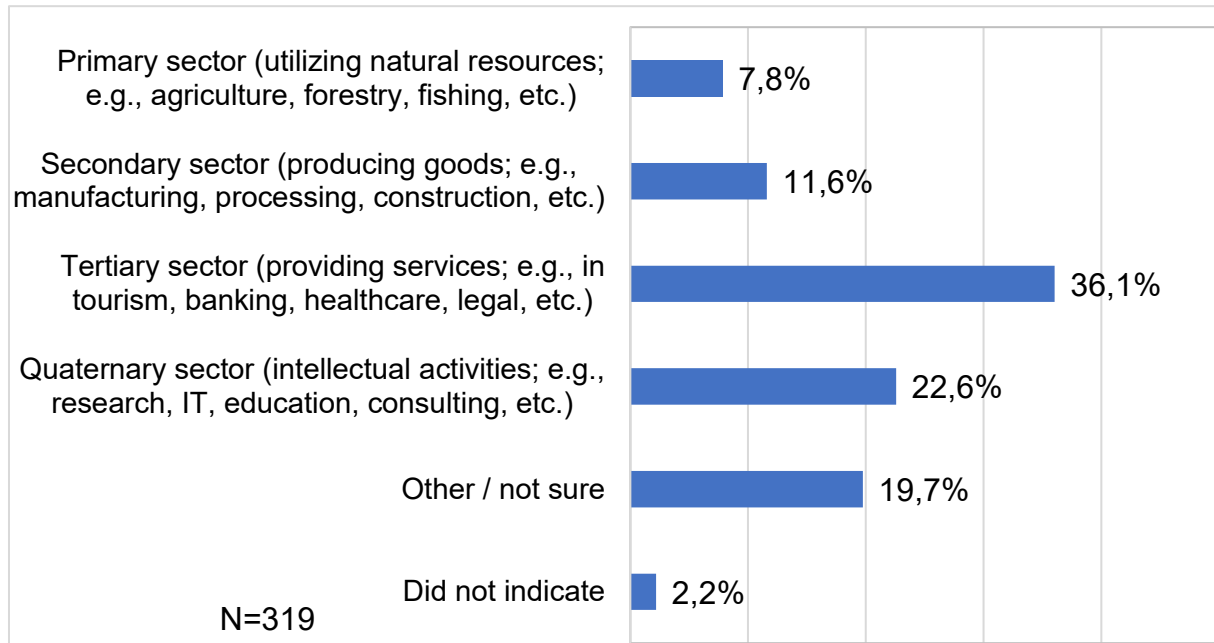
Number of employees. Most students' companies (39.8%) had one employee at the time of the survey, and the rest had zero or very few employees, except for 0.9% (3 companies), which had more than 20 employees (see Figure 30 below). Again, the proportions are slightly different from what we can see in the total of all countries, where more companies were reported as having zero employees (13.5% in Lithuania vs 23.8% at the global level), but in general Lithuanian new businesses on average have fewer employees – 2.02 vs 21.12.

Figure 30. Number of employees (FTE)



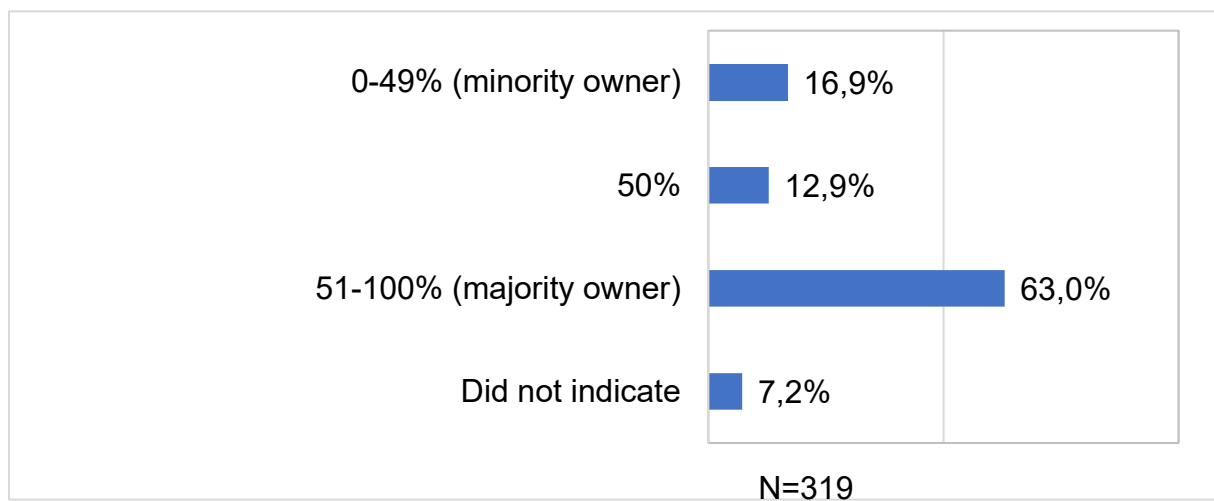
Economic sector. The largest proportion of students' companies operated in service sectors (36.1%; see Figure 31).

Figure 31. Economic sectors (active entrepreneurs)



Co-ownership. More than half of active entrepreneurs (63.0%) reported owning 51–100% (see Figure 32).

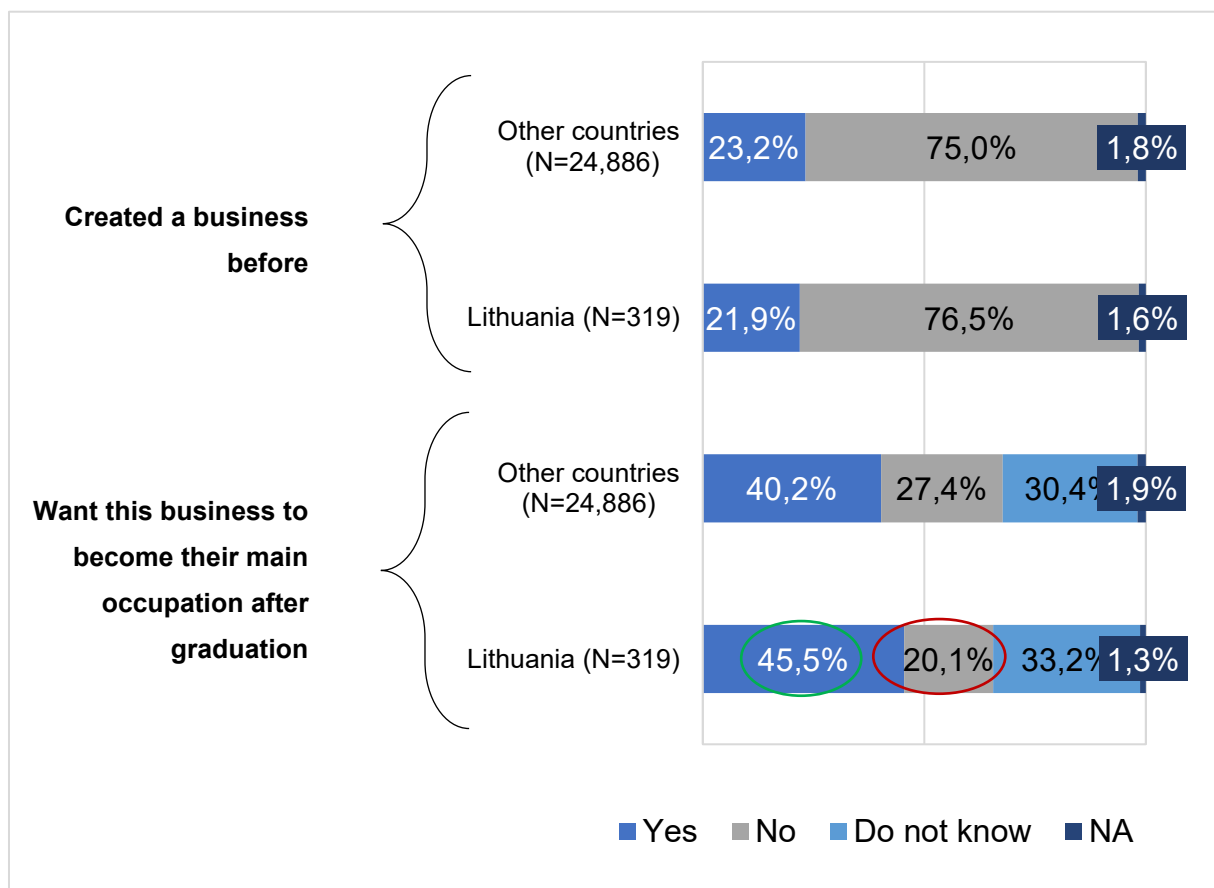
Figure 32. Co-owner structure



Previous experience and motives. 21.9% of active entrepreneurs have created businesses before, which does not differ significantly from the 23.2% reported in the other countries (see Figure 33 below). However, significantly more students in Lithuania would like to continue as entrepreneurs and make it their main occupation after graduating from university (45.5%) than in the other countries (40.2%).

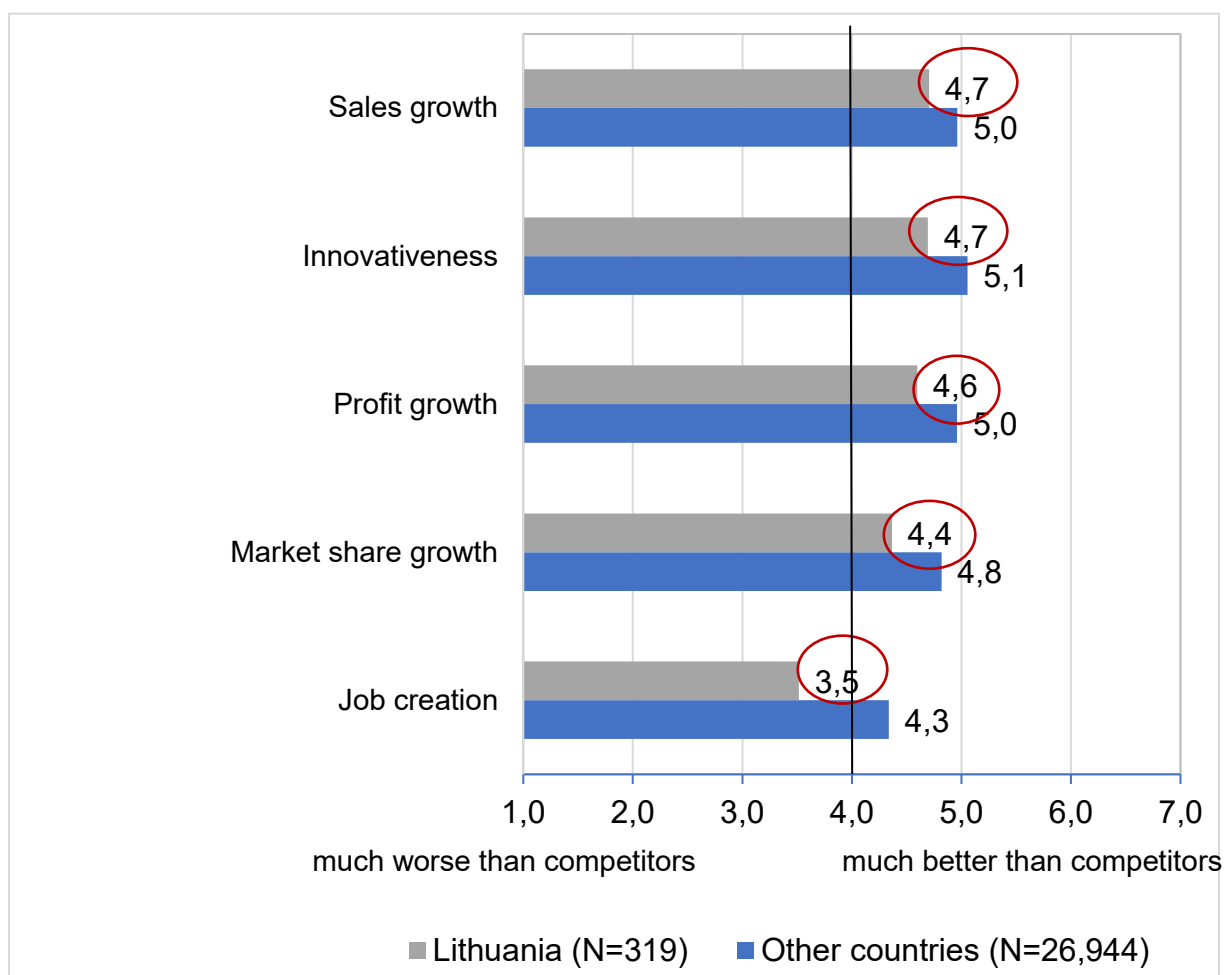
These trends were also observed in 2021 – the share of active Lithuanian entrepreneurs who had created a business before did not differ from other countries while there were more wishing to continue being entrepreneurs and to make it their main occupation in Lithuania.

Figure 33. Experience and motivation for business creation—active entrepreneurs in Lithuania vs the other countries



Subjective performance. Active entrepreneurs also rated their ventures' performance on a scale from one (much worse than the competition) to seven (much better than the competition). Most performance criteria—sales growth, innovativeness, profit growth, and market share growth—were rated better than the competition on average, and only job creation was rated worse (see Figure 34 below). However, the research participants from Lithuania tended to report lower scores on all performance aspects, and the scores were statistically significantly lower (in 2021, similarly, almost all aspects except job creation were rated better than the competition on average, but the scores were statistically significantly lower only when rating market share growth and job creation).

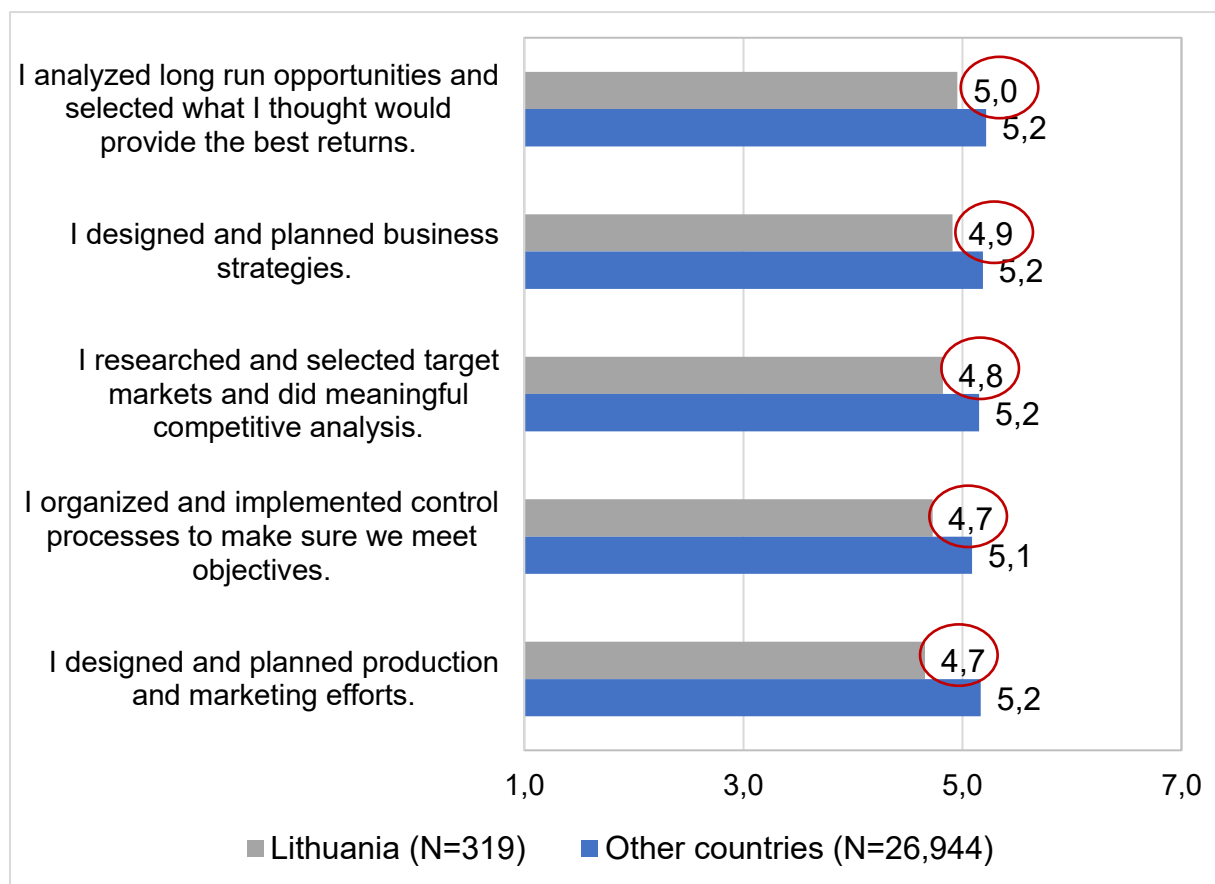
Figure 34. Performance ratings—Lithuania vs the other countries



The business creation process. Finally, we asked founders which activities they had undertaken while establishing their businesses. Analysing long-term opportunities was reported most often, while designing and planning production and marketing activities was reported least often. Nevertheless, ratings for all activities were similar, ranging from 4.7 to 5.0.

Lithuanian ratings are lower than the total average of the other countries, and the results are statistically significant for all aspects (see Figure 35 below).

Figure 35. The process of creation of a firm

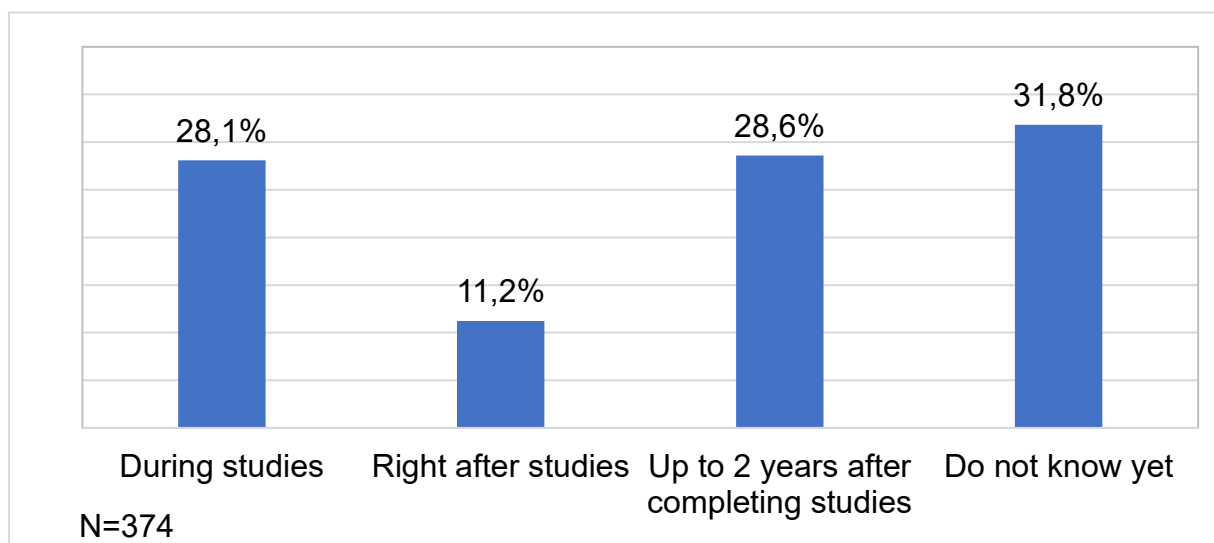


7.2 Nascent entrepreneurs

In the survey, a section of questions focused on understanding the characteristics of nascent entrepreneurs: students who are not currently business founders but are actively planning to create their own businesses. The questions included asking for information about their plans, the motivation behind creating their businesses, the role of the university in their emergence, and the firm-creation activities they are currently engaged.

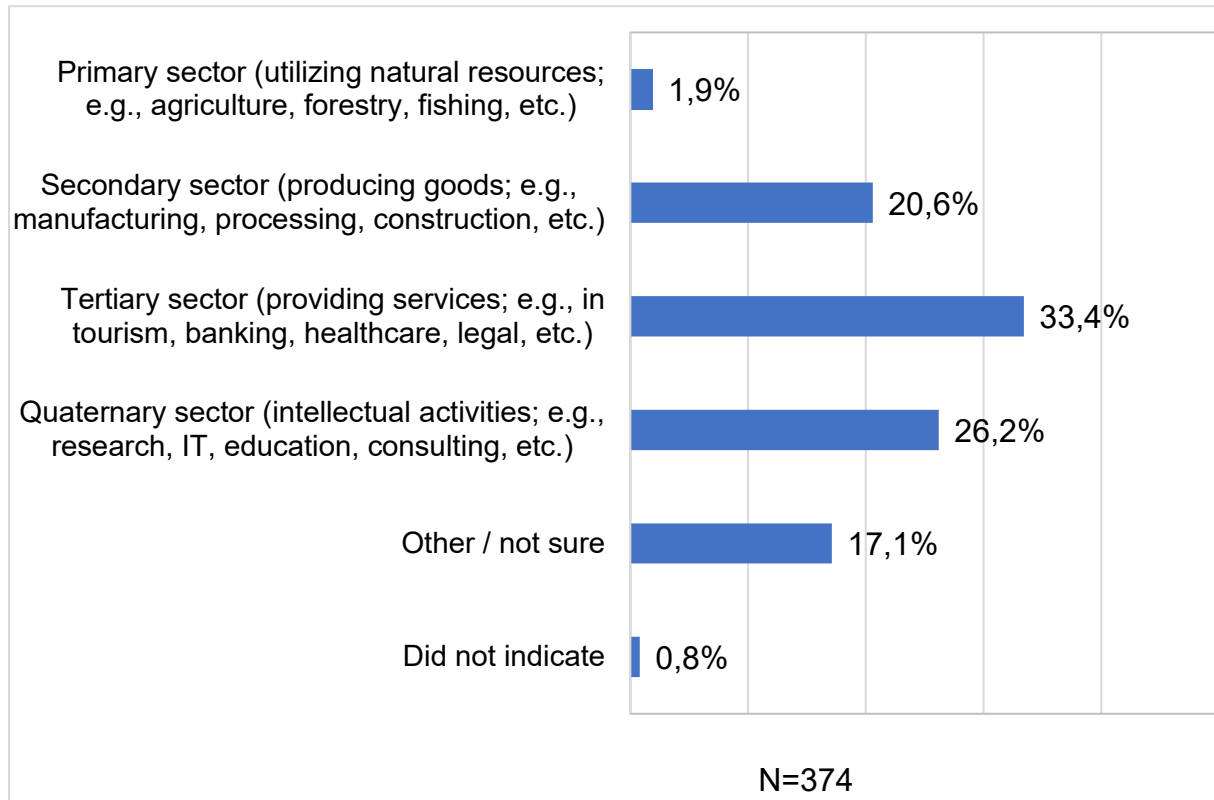
Expected founding time. We asked nascent entrepreneurs (N = 374) when they expected to complete the process of founding their firms. The largest group did not know (31.8%). Nearly one-third expected to complete it during their studies (28.1%), while a similar proportion expected to do so within two years of graduation (28.6%; see Figure 36). The proportion planning to establish a business during their studies was higher in 2023 than in 2021 (28.1% vs 23.2%).

Figure 36. Completion of the founding process



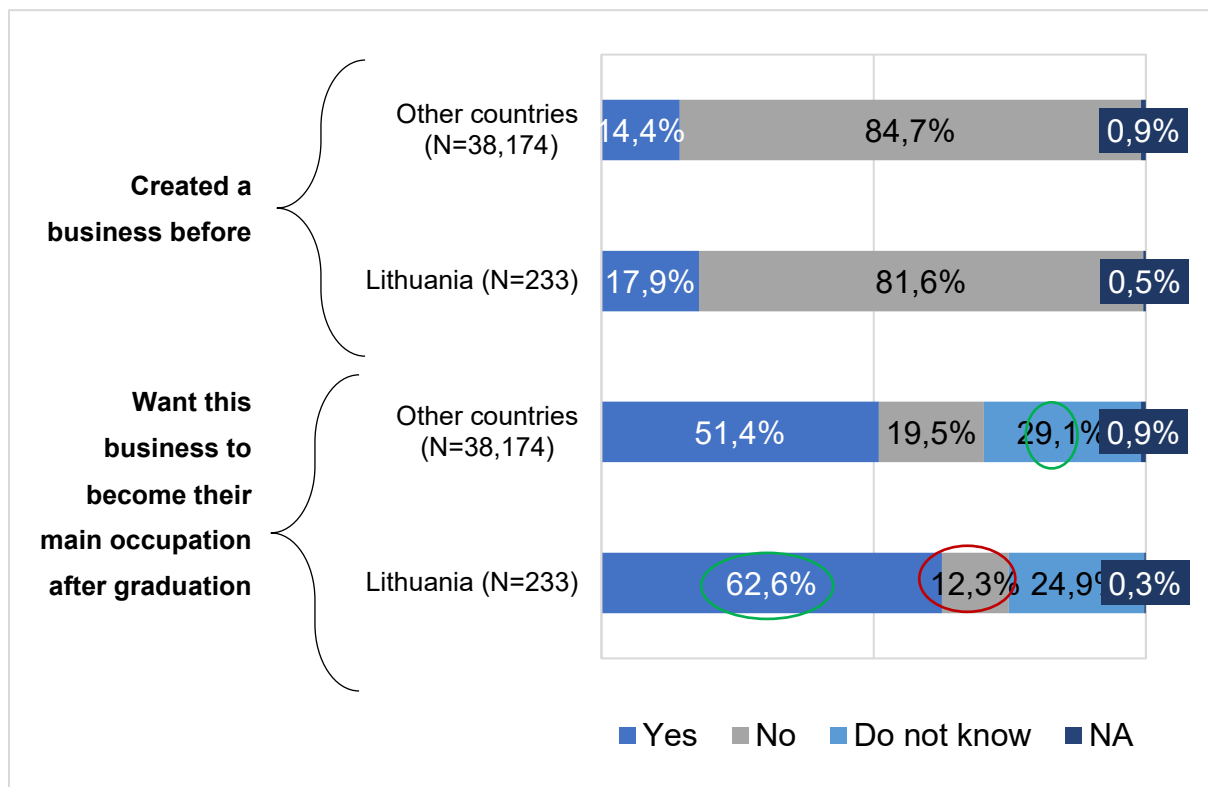
Economic sector. Similar to active entrepreneurs, most companies created by nascent entrepreneurs were expected to operate in service sectors (33.4%; see Figure 37 below).

Figure 37. Economic sectors (nascent entrepreneurs)



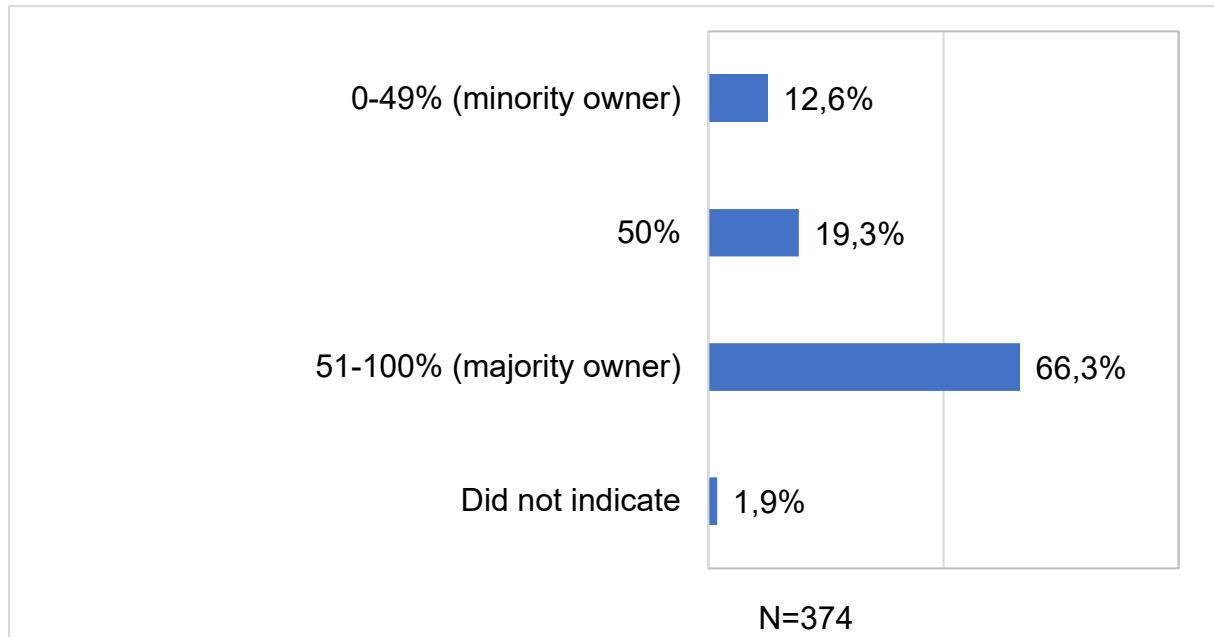
Previous experience and motives. A similar proportion of nascent entrepreneurs in Lithuania reported prior business-creation experience compared with the other countries (17.9% vs 14.4%). However, nascent entrepreneurs in Lithuania were more likely to plan to continue as entrepreneurs and make entrepreneurship their main occupation after graduation (62.6% vs 51.4%; see Figure 38).

Figure 38. Experience and motivation for business creation—nascent entrepreneurs in Lithuania vs the other countries



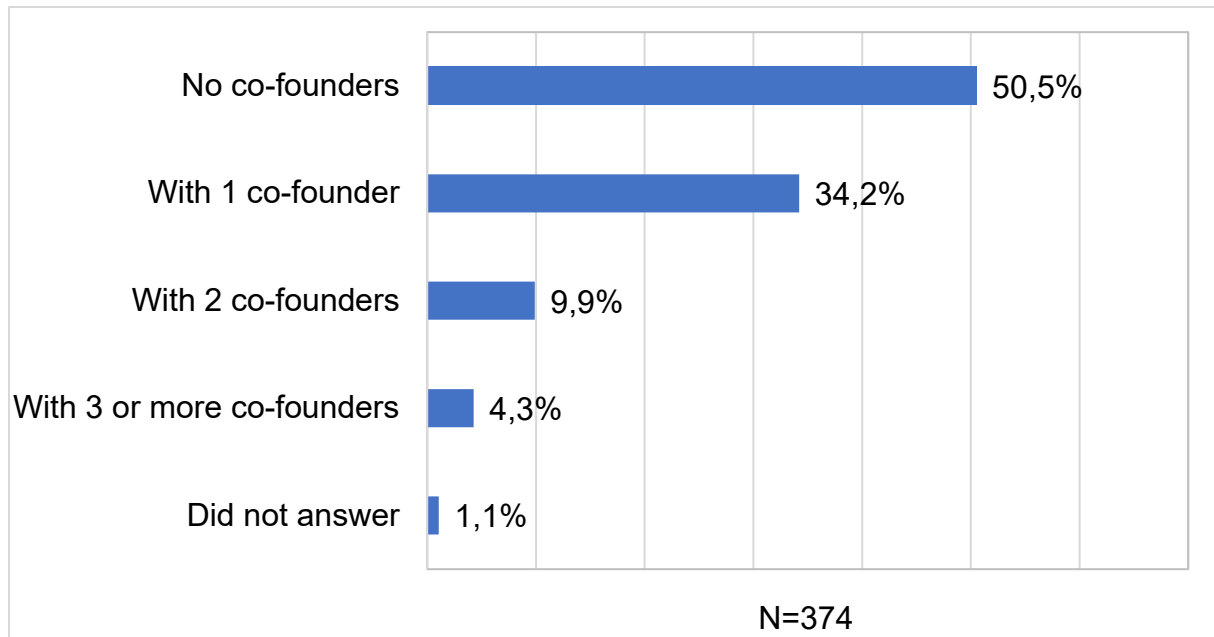
Co-ownership. More than half of nascent entrepreneurs (66.3%) planned to hold an ownership share of 51–100% (see Figure 39).

Figure 39. Co-owner structure



Number of co-founders. Finally, we asked the nascent entrepreneurs if they would try to start this business with co-founders. Most plan to have no (50.5%) or only one (34.2%) co-founder. This trend does not differ from other countries: 48.4% plan to have no co-founders, and 33.5% plan to have 1 co-founder.

Figure 40. Number of co-founders



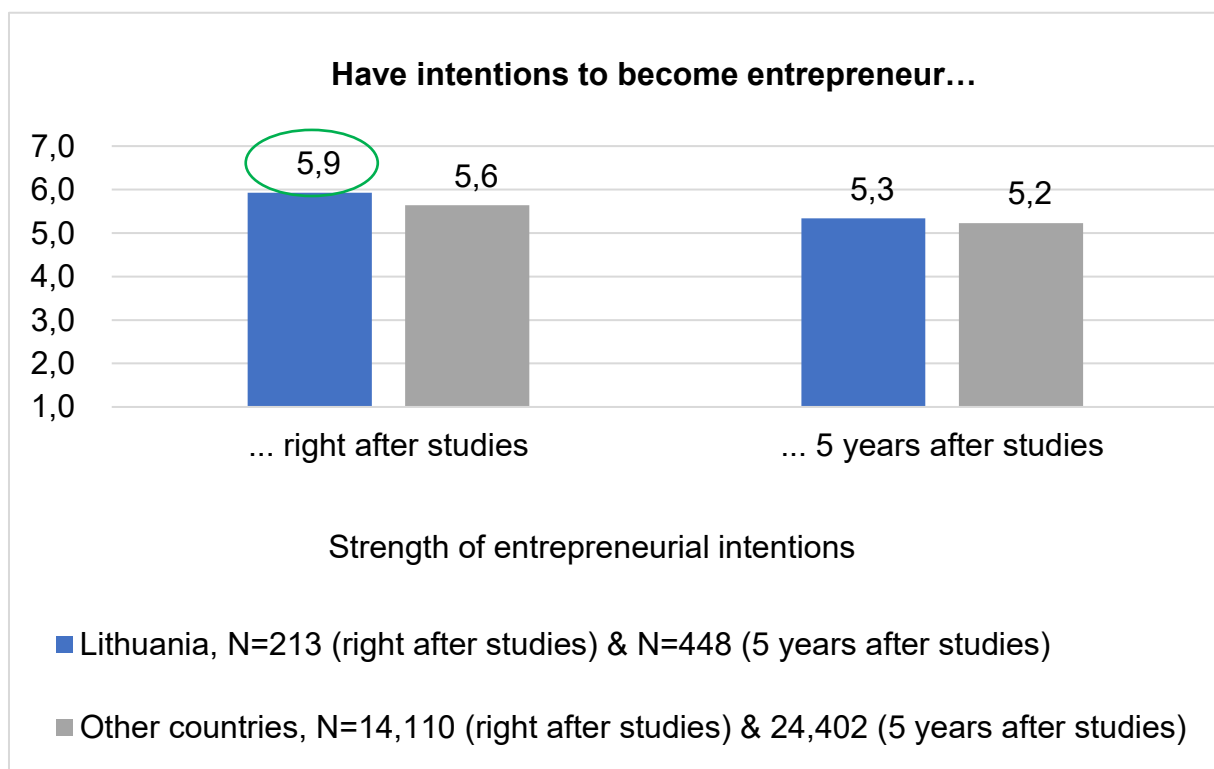
7.3 Intentional entrepreneurship

For the research participants who indicated that they do not currently run a business but plan to do so after their studies (intentional entrepreneurs), we asked several questions about the strength of their entrepreneurial intentions.

Entrepreneurial intentions and attitudes. On a scale from one to seven, entrepreneurial intentions are significantly higher among students who plan their career right after studies than among students who plan to create a business after 5 years – both in Lithuania and in other GUESSS countries.

Compared with other countries, Lithuanian students who planned to become business owners immediately after their studies reported stronger intentions than students in other countries with the same plans (mean scores of 5.9 and 5.6, respectively). Entrepreneurial attitudes did not differ significantly among students postponing an entrepreneurial career for five years (see Figure 41).

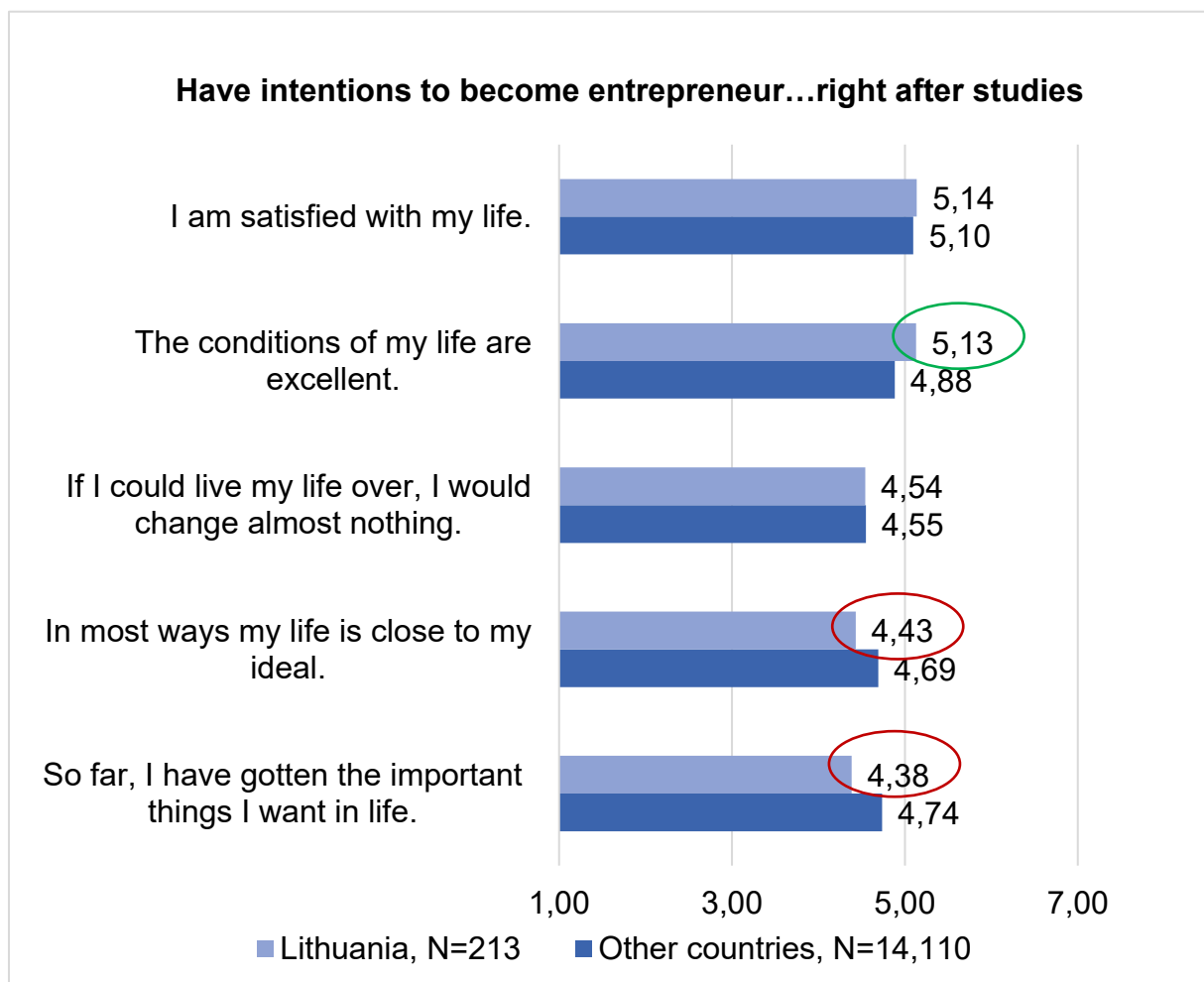
Figure 41. Entrepreneurial intentions - Lithuania vs the other countries



Self-evaluation. Subjective well-being, self-efficacy and resilience. We also asked the research participants who do not currently run businesses but plan to do so after their studies to evaluate various aspects of their life.

Participants in Lithuania rated their subjective well-being - satisfaction with life and their living conditions highly; the latter was rated significantly higher than by students in other countries (see Figure 42). However, Lithuanian students were significantly less likely than their counterparts to state that their life was close to ideal or that they had obtained the important things they wanted in life.

Figure 42. Subjective well-being among intentional entrepreneurs right after studies—Lithuania vs the other countries



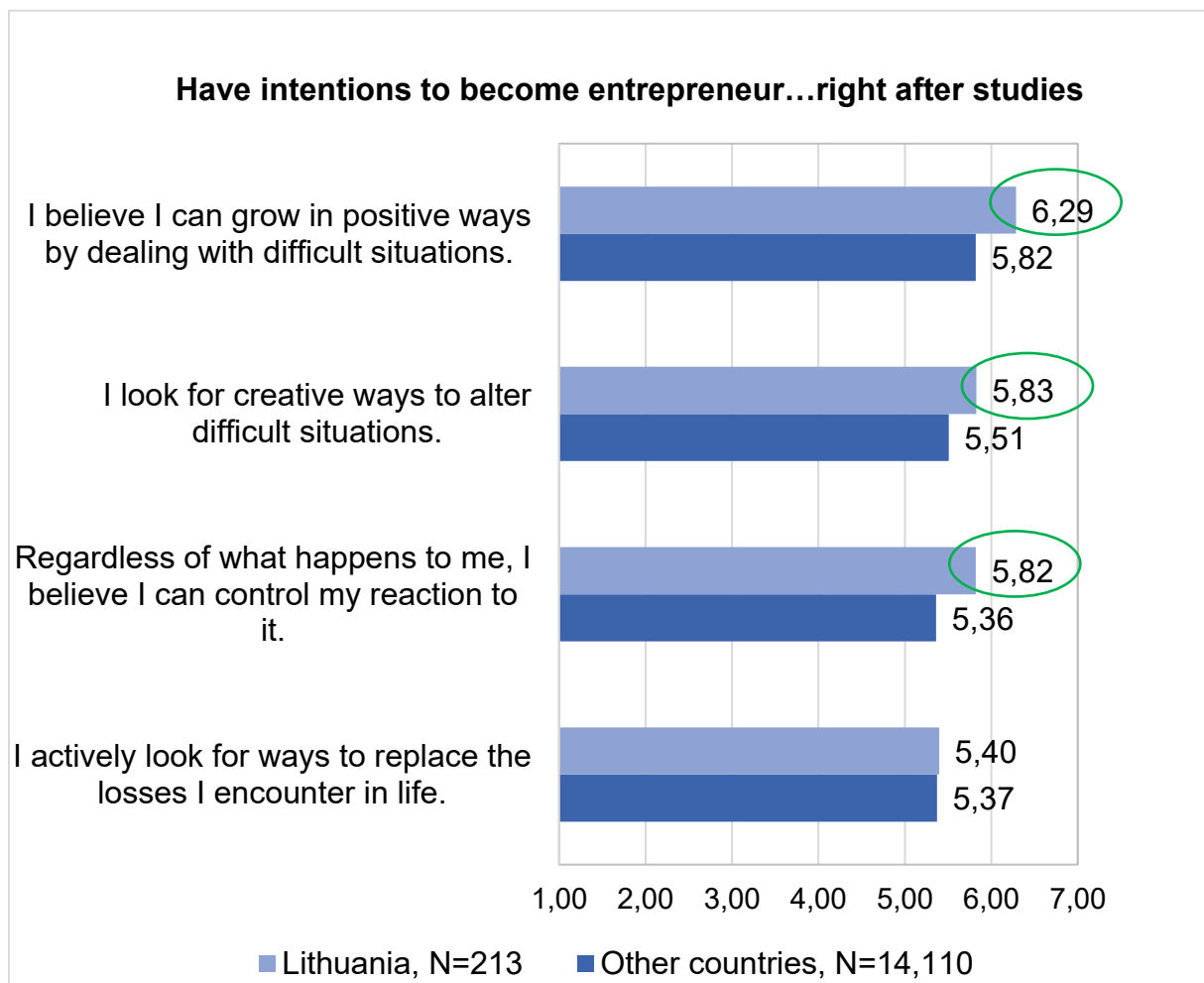
When it comes to self-efficacy, creative thinking was the highest-rated ability among students in Lithuania and the other countries, while commercialising ideas and creating new products were rated lowest (see Figure 43). Ratings did not differ significantly between Lithuania and the other countries.

Figure 43. Entrepreneurial self-efficacy among intentional entrepreneurs right after studies—Lithuania vs the other countries



Finally, resilience was rated highly, with mean scores ranging from 5.36 to 6.29 on a seven-point scale. Learning from one's mistakes when dealing with difficult situations appeared to be the characteristic most often attributed to participants' own personalities (6.29 for Lithuanian students and 5.82 for students in the other countries; see Figure 44). Compared with students in other countries, Lithuanian students reported greater confidence in their resilience: they were more likely to believe that they could grow when facing difficult situations, find creative ways to change complex situations, and control their reactions regardless of what happened.

Figure 44. Entrepreneurial resilience among intentional entrepreneurs right after studies—Lithuania vs the other countries

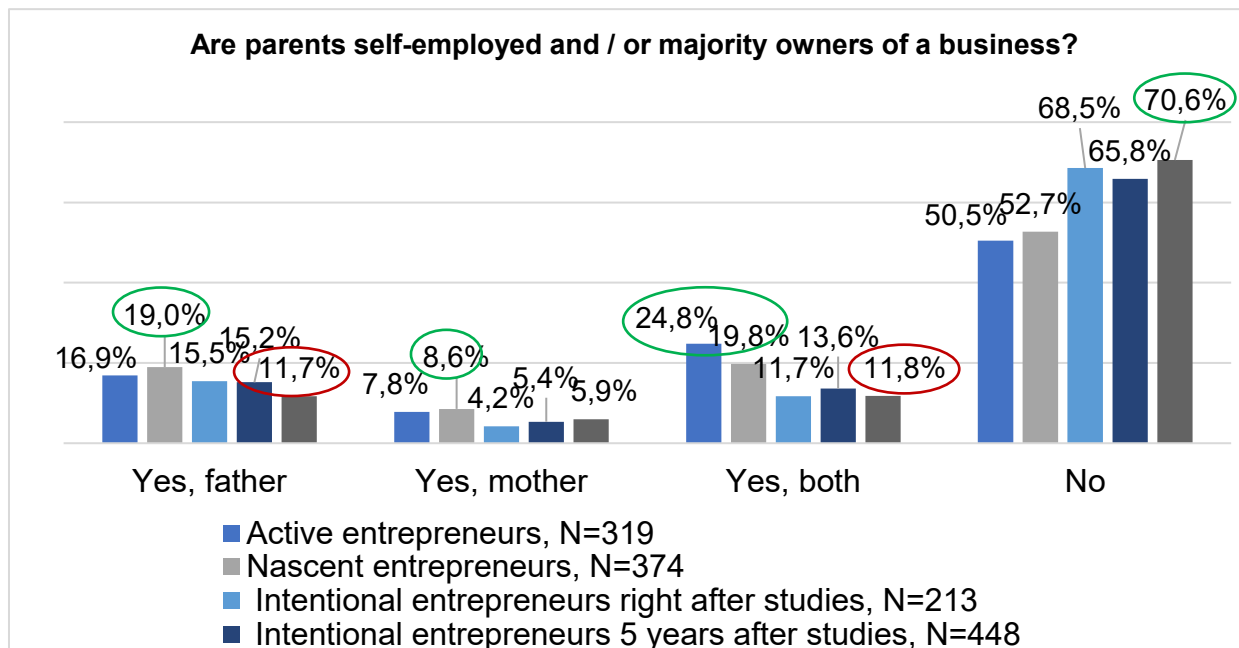


8 The role of the family in entrepreneurship

Finally, the GUESSS survey also examined the family's role in entrepreneurship. Participants were asked whether their parents were self-employed or majority owners of a business and how positively their family would react if they pursued a career as an entrepreneur.

Self-employed parents. The trends stayed consistent with those in 2021. As shown in Figure 45 below, research participants who currently own or are setting up their businesses were more likely to report that their parents are self-employed and/or majority owners of a business (either one parent or both). Conversely, the intentional entrepreneurs and those who plan to follow other career paths or are yet undecided about their careers were more likely to report having no self-employed parents.

Figure 45. The role of self-employed parents in student entrepreneurship



9 Conclusions and implications

As a conclusion, we suggest there are five major areas of students' entrepreneurial capacity and opportunities to learn in Lithuania, which are beneficial to acknowledge and incorporate in the decision-making at universities and for policymakers:

First, both in 2021 and 2023, Lithuanian students had favourable attitudes toward careers as business owners and strong motivation to create their own businesses, which can help foster entrepreneurship in Lithuania. Regardless of whether students currently managed their own businesses, many were willing to pursue an entrepreneurial path at some point in their careers. Notably, the study found significantly higher proportions of active and nascent entrepreneurs than in 2021. Unlike in 2021, university students were more active in running businesses in 2023: active entrepreneurs accounted for 14% of university students and 11% of college students, compared with 8% and 12%, respectively, in 2021. As in 2021, college students were more active than university students in planning entrepreneurial careers. Female students also represented substantial entrepreneurial potential, which is important to Lithuania's entrepreneurial ecosystem; stronger support at both institutional and national levels is needed to realise this potential.

Second, family remained a significant source of positive attitudes toward entrepreneurship in 2023. Active and nascent entrepreneurs are more likely to have self-employed parents than intentional entrepreneurs or students who prefer other career choices.

Third, Lithuanian students were more likely than students in the other GUESS countries either to be active entrepreneurs. This pattern emerged in 2023 and was not visible in 2021, when Lithuanian students were less confident in their ability to run a business during or immediately after their studies. The sample differences may have affected this (e.g., more university students participated in Lithuania in 2023). Nevertheless, in both 2021 and 2023, the trend remained: more Lithuanian students tended to postpone their entrepreneurial intentions than students in other countries.

Fourth, unlike in 2021, in 2023 Lithuanian students rated more aspects of their universities' courses and offerings similarly to their international counterparts. Two aspects differed:

Lithuanian students perceived that they gained more knowledge about developing networks but fewer practical skills and less of the knowledge needed to start a business successfully. In 2021, all ratings had been significantly lower. Universities could address this through more experiential classroom activities, while national programs could provide practice-oriented learning opportunities outside universities.

Lastly, similarly to 2021, in 2023 Lithuanian students largely viewed their university environment as encouraging them to engage in entrepreneurial activities (worth mentioning that university students are less positive about their universities than college students); however, not all of those who feel encouraged to engage in entrepreneurial activities attended entrepreneurship courses as part of their curriculum; the share of those not attending any course is still very high, and even higher than in 2021 (59.4% vs 49.5%). For example, students studying business and management and science of arts are the most entrepreneurship-oriented; on the other hand, students studying engineering, social sciences, arts/humanities, and computer sciences are the least entrepreneurship-oriented, as well as the least equipped (based on their own subjective evaluation) with entrepreneurship-related knowledge and skills (besides, though science of arts students are entrepreneurship-oriented, they have one of the highest percentages of those not attending the courses and value their practical knowledge poorly). Therefore, the curriculum still seems to lack (elective) courses that provide core business-related knowledge in non-business programs and interdisciplinary collaboration overall.

10 References

- AIKOS. (2023). *Atvira informavimo konsultavimo orientavimo sistema. Švietimo ir mokslo institucijos*. <https://www.aikos.smm.lt/Registrai/Svietimo-ir-mokslo-institucijos/>
- Ministry of Economy of the Republic of Lithuania. (2014). *The Entrepreneurship Action Plan of Lithuania for 2014–2020*. [Order of the Minister of Economy on approval of the Action Plan].
- OECD. (2021). *Supporting Entrepreneurship and Innovation in Higher Education in Lithuania*. https://heinnovate.eu/sites/default/files/shared_file/Final%20HEInnovate-Lithuania_12.11.21.pdf
- Republic of Lithuania Law on Higher Education and Research, (2015). <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/548a2a30ead611e59b76f36d7fa634f8?jfwid=-d20r3o6bo>
- Sieger, P., Zellweger, T., Fueglistaller, U., & Hatak, I. (2021). *Global Student Entrepreneurship 2021: Insights From 58 Countries (2021 GUESSSS Global Report)*.
- Sieger, P., Raemy, L., Zellweger, T., Fueglistaller, U. & Hatak, I. (2024). *Student Entrepreneurship 2023: Insights From 57 Countries*. St.Gallen/Bern: KMU-HSG/IMU-U.
- Statistics Lithuania. Official Statistics Portal. (n.d.). <https://osp.stat.gov.lt/>