

# Entrepreneurial Intention of BUas students

Academic year 2022-2023



DISCOVER YOUR WORLD

# Preface

Entrepreneurship is a key driver of social health and prosperity. It is also a powerful engine for economic growth. It fosters the essential innovation needed not only to seize new opportunities, boost productivity and create jobs, but also to address some of society's biggest challenges, such as the United Nations Sustainable Development Goals or the economic shockwave created by the COVID-19 pandemic. Fostering entrepreneurship will remain a key focus for many governments around the world for the foreseeable future, especially given the significant negative impact of the pandemic on economies. Governments and other stakeholders will increasingly need hard, robust and credible data to make key decisions that stimulate sustainable forms of entrepreneurship and promote healthy entrepreneurial ecosystems worldwide. Current economic developments therefore require employees to adopt an independent and proactive entrepreneurial attitude with responsibility for the organisation, in which education plays an important role (GEM (Global Entrepreneurship Monitor), 2023).

At Breda University of Applied Sciences (BUAs), a lot of attention is paid to entrepreneurship. Both entrepreneurship and entrepreneurial attitude are part of the central educational vision of BUAs and part of our DNA.

Entrepreneurship remains an important pillar of Dutch society and there are government funded initiatives at national and regional level to promote and stimulate entrepreneurship. In higher education, entrepreneurship is also an integral part of the curriculum. This development has stimulated the curiosity of researcher Adriaan van Liempt and coordinator of Entrepreneurship Education Tijs van Es about the status of entrepreneurial intention within the ranks of BUAs.

This research provides the organisation an insight into the entrepreneurial intention of our students within BUAs and can follow this development over the years. This research has provided valuable insights that will be used to continually improve entrepreneurship education and support students with entrepreneurial intention.



Tijs van Es

A handwritten signature in blue ink, appearing to read 'Tijs van Es', with a stylized flourish underneath.

Coordinator Entrepreneurship Education  
Breda University of applied sciences

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# Summary

This study aims to answer two questions related to BUAs students' interest in starting/owning a business and whether this interest changes during their studies. The first question is answered by looking at figures extracted from the BUAs internal database. The second question is mainly answered by following cohorts of students over several years. In this report we have been able to follow two cohorts for four years, and trends and patterns emerge from the data. Students' preferences are stabilising in the sense that they are more certain about the direction in which they are moving. Fewer students have doubts. In general, the propensity to start a business is decreasing for this cohort.

## *Entrepreneurial intention of BUAs students in academic year 2022-2023*

Across BUAs, 16.3% of students say they are interested in starting a business. 4.1 per cent have already started a business during their studies, 2.6 per cent plan to do so during their studies and 9.6 per cent plan to do so after their studies. 48.5 per cent of students are unsure whether they want to become entrepreneurs and 35.3 per cent are sure they do not. Compared to the previous academic year, 2021-2022, these positive entrepreneurial intentions have fallen for the first time since we started recording these figures.

A closer look at the eight fields of study offered by the BUAs shows that there are noticeable differences. In particular, Media, where 26.5% of students think they will start a business at some point, Hotels and Leisure & Events deviate positively from the overall BUAs figures. Furnishings, Logistics, Games, Tourism and Built Environment all deviate negatively from the overall BUAs figures in terms of students' intention to start a business.

Gender also has an important effect on entrepreneurial intention. In all three categories of positive entrepreneurial intention, males are over-represented compared to females. Women are more likely than men to say 'no' to a future as an entrepreneur.

Nationality also influences the results. Students with a non-Dutch nationality are more likely to consider becoming an entrepreneur than students with a Dutch nationality. However, these figures are biased towards those who plan to start a business after their studies. Again, there are differences between the different sectors. It is mainly international students in the fields of media, games and logistics who plan to start a business.

## *Cohort 2019-2020: Developments in entrepreneurial intention of BUAs students*

Looking at a cohort gives more insight into the development of entrepreneurial intentions than looking at the overall figures for all students. In previous years it used to be that the overall figures showed a growth in intention over the years, were this was not the case when looking at cohorts. Within cohorts we see an increase in the relative number of students saying 'no' to a future as an entrepreneur, while the number saying 'yes' remains stable at best. Within cohort 2019-2020 we even see a significant drop, which means that the overall movement is also visible within a cohort.

Looking more closely at the figures by sex, we see that female students are less likely to say 'yes' to a future as an entrepreneur over time, while male students are more likely to do so over time. Both males and females show an increase in the number of students saying 'no' over time, which is in line with the general trend.

Differences can also be seen when we look more closely at the different fields in which students in this cohort are studying. In Games, Media and Hotel, there is an overall decrease in positive entrepreneurial intention. It remains stable in the Facility domain. Growth can be seen in the domains of Logistics, Built Environment, Tourism and Leisure & Events. In all domains, the number of students who say 'no' to a career as an entrepreneur increases during their studies, but this is more pronounced in Games, Facilities and Logistics than in other domains.

Overall, it is interesting to note that, for lack of a reference point, the year-to-year dynamics of entrepreneurial intentions remain 'high'. In a recent survey study we even noticed that a significant proportion of students already switched intention after three months (van Liempt, 2022).

# 1 Entrepreneurial intention among BUAs students

In the 2018-2019 academic year, a project was launched to monitor the interest in entrepreneurship among students of Breda University of Applied Sciences (BUAs for short) (van Liempt & van Es, 2019, 2020, 2021, 2022). Similar studies have already been carried out at Saxion since 2009 and at Avans since 2016 (cf. Rovers, 2016). Currently Fontys and The Hague UAS are also conducting similar studies, and Hogeschool Rotterdam, HAN and Artez are planning to start a similar study.

These studies, like ours, all start with the same basic question: “Do you plan to start your own business?”. A simple question designed to monitor students’ interest and intention in starting their own business. One of the main reasons for monitoring students’ entrepreneurial intention is to get a clearer picture of our students as a whole. As educational institutions, we tend to focus on preparing people for the world of work, to become employees, without assuming that students might want to be employed themselves, or even become employers. Or, as Borbye (2010) suggests, to get out of our own comfort zones and adapt the way we teach more to students’ aspirations, interests and abilities.

This is now the fifth year of data collection. Fortunately, at the time of writing, COVID-19 is at least a year behind us, and perhaps its effects will be felt in the longer term, as there are strong indications that young adults experienced severe psychological stress during the COVID-19 pandemic, which has affected their study progress (Vereniging Nederlandse Gemeenten, 2023). The main findings from the previous years can be summarized as follows: overall, around 16 per cent of students plan to start a business during or after their studies, or have already started a business. This percentage varies between the different BUAs domains. Gender and nationality also influence the results.

The overall aim of these studies is to gather insights in order to support the goals and intention of both students and entrepreneurship education at BUAs. The data used in this publication was collected at three points in time (each time in November) over a period of three years, 2018, 2019, 2020 and, again, in November 2021. The report itself covers the study year 2022-2023, and pays particular attention to two different cohorts of students that started studying in 2018-2019 and 2019-2020. By following cohorts throughout their studies, we hope to get a better look at the dynamics of entrepreneurial intention over the years within specific cohorts compared to the overall trends, which may show a different pattern, as last year’s report showed (van Liempt & van Es, 2022).

The report is therefore limited to an analysis of the quantitative data available at the time of registration. It is a description of the situation at one point in time in November 2022.<sup>1</sup>

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<sup>1</sup> The authors would like to thank Tom Konings from Team Control at BUAs for providing the data and answering many questions.



## 2 Methodology

This study aims to answer the following research questions:

1. To what extent are BUAs students interested in becoming entrepreneurs?

And, based on data of two cohorts of students who started their studies in the academic years 2018-2019 and 2019-2020:

2. How does the interest of students in becoming an entrepreneur develop over the course of their studies at BUAs?

The question asked of students has been used in other studies and was copied from Rovers (2016), which in turn has used the question from a comparable study by Saxion, to which Rovers (2016) refers. Using the same question allows us to compare the results of these different reports. The question used in these studies is worded as follows: "Do you intend to start your own business?". The following response categories were available to students in both Dutch and English:

- > No.
- > Maybe.
- > Yes, after my studies.
- > Yes, during my studies.
- > Yes, I have already started my own business.

### 2.1 Data analysis

Data on all students that were enrolled and active in November 2022 were imported from the BUAs central student management system. The data was cleaned in R (R Core Team, 2021) in the R-studio environment (RStudio Team, 2021). The following packages were used to clean and report the data: 'haven' by Wickham and Miller (2021) to import SPSS datasets, 'readxl' by Wickham and Bryan (2019) to import Excel datasets, and 'writexl' to export Excel datasets (Ooms, 2021), 'psych' for data manipulations (Revelle, 2021); 'lubridate' for date calculations (Grolemund & Wickham, 2011); and, finally, 'summarytools' for descriptive purposes (Comtois, 2021).

The analyses are exclusively descriptive in nature (frequencies and percentages). The techniques used include frequency tables and cross tables. In most cases, these tables were exported to Excel 365, where they were processed into tables and figures that could be used in this report. Sankey diagrams were used to visualize the aggregate changes in entrepreneurial intention of the 2018-2019 student cohort from year-to-year. These were created using SankeyMATIC (SankeyMATIC, 2014) and further edited in Adobe Illustrator (25.1) before being imported into this report.

#### 2.1.1 Data

The 2022 analyses reported on in this study included data from 6,823 students enrolled at BUAs in November 2022. In some cases, such as the cohort analyses, data from different academic years were used: 2018-2019 (N=7,049), 2019-2020 (N=7,060), 2020-2021 (N=7,159), and 2021-2022 (N=6,848). These data only include students who were enrolled in November of the year in question.

#### 2.1.2 Ethical and inclusive considerations

When students register, they are told that their information may be used for study purposes to improve education. The main purpose of this study is to gain a better insight into student development and, for example, some of the results of previous studies have been used to improve understanding of study delay. Ultimately, BUAs wants to provide students with the best study experience and we believe that understanding students' entrepreneurial intention is part of that. None of the results can be traced back to individual students and where this has been possible, information has been removed from both the data and the report.

We would have preferred using the term gender rather than sex in this report. Where gender refers to emotional and relationship-based preferences. Sex refers to a person's primary and secondary sexual

characteristics at birth. As we are confined to identify a person based on what is written in their passport, we cannot do credit to the term gender and hence will use the term 'sex' in this study. This pragmatic choice may influence some of the results. It is for instance possible that in some study programmes the 'gender nonconforming' group is likely to be bigger than the general population's 0.1% - 2.7% range (Goodman et al., 2019).



## 3 Results

The following sections discuss both the overall response and the response to the main research question “Are you planning to start your own business?”. An attempt will be made to make comparisons with previous years and, where possible, to discuss trends. Finally, students’ intention to start their own business will be analysed in relation to their domain (field of study), sex, and nationality.

### 3.1 Response

Almost seven per cent of students are enrolled in more than one programme. However, the figures in the report are limited to a student’s main programme. Figure 1 below gives an overview of our students based on the information in their passports.

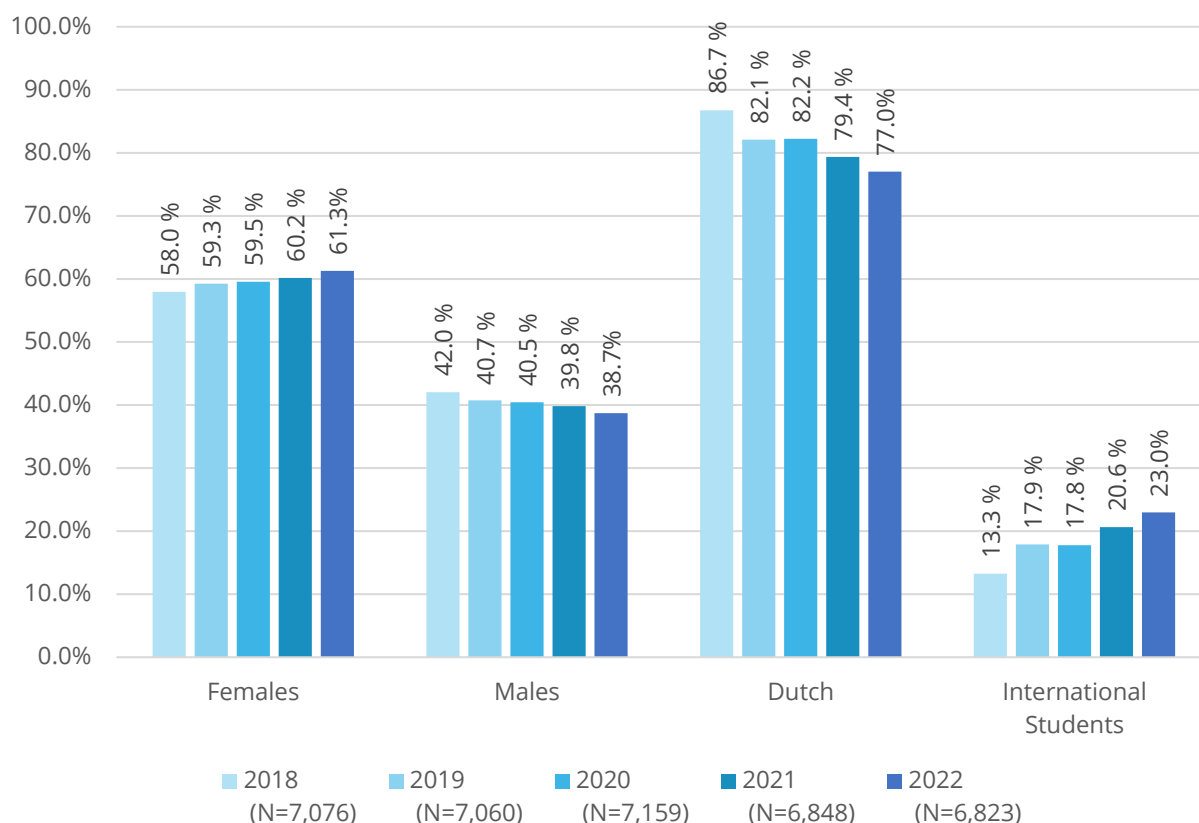


Figure 1 Response study years 2018-2022.

The relative number of women studying at BUAs is almost 61 per cent. While women have been generally over-represented in the Dutch higher education system since 1997 (Centraal Bureau voor de Statistiek, 2023), BUAs offers several large study programmes such as Leisure and Tourism, where women are even more over-represented on average. The relative number of international students (defined as students who do not have a Dutch nationality in their passport) has increased to 23.0 per cent of the total student population.

### 3.2 A BUAs wide look at students' entrepreneurial intention

This central question of this study is: "Are you planning to start your own business?". In Figure 2 and Figure 3 below, this question is answered. Figure 2 shows that 16.3 per cent of the students of the 2022-2023 academic year intent to start a business, or have already started a business. The type or form of business the students have in mind is unknown.

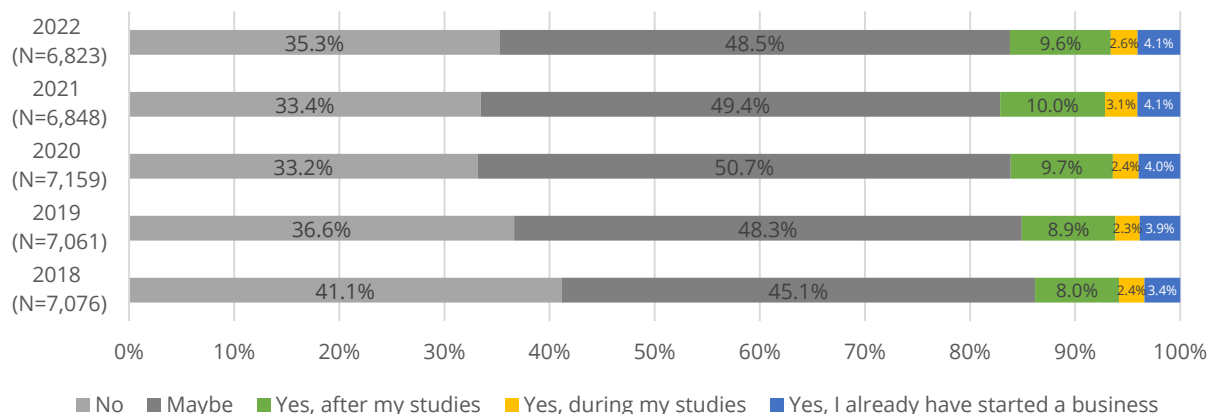


Figure 2 Entrepreneurial intention of BUAs students 2018-2022.

As Figure 2 shows, 1,105 (16.3 per cent) of our 6,823 students are interested in starting a business. 4.1 Per cent have already started a business, 2.6 per cent are thinking about starting a business during their studies and the largest proportion, 9.6 per cent, want to start a business after their studies. Almost 49 per cent of the students said that *might* start a business at some point in the future. More than 35 per cent of the students say *no* to becoming entrepreneurs themselves. This is the first time in years that the percentage of negative entrepreneurial intention has increased and the percentage with positive intention has decreased. The only figure that has remained stable is the relative number of students who have already started a business during their studies.

#### 3.2.1 Comparing entrepreneurial intention of students at BUAs over the years

Figure 3 compares the positive entrepreneurial intention of BUAs students over the years. The relative numbers appear to be fairly stable, but in absolute terms the increase is more pronounced: 1,105 in 2022 compared to 977 in 2018. In relative terms, the growth in absolute numbers compared to the previous year has dropped to 94 per cent. This is the first time that this figure has fallen below the 100 per cent threshold, which means that for the first time since we started measuring and reporting, there has been a decline in absolute numbers compared to the previous year.

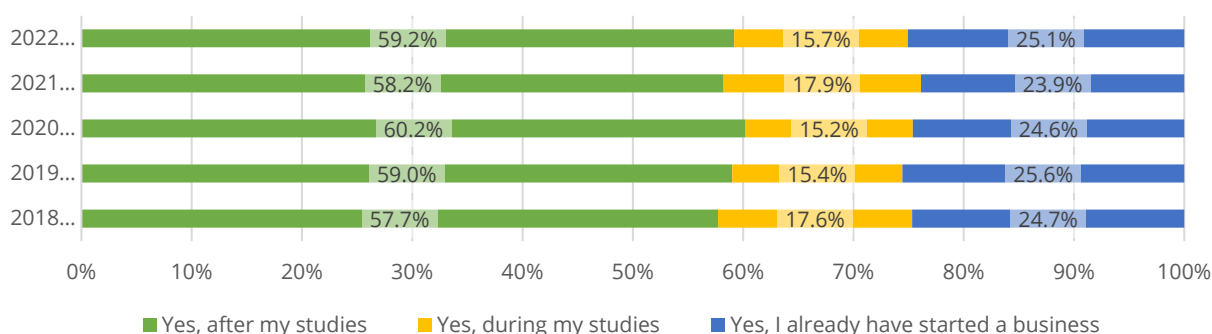


Figure 3 Positive entrepreneurial intention of BUAs students 2018-2022.

### 3.3 A closer look at entrepreneurial intention of BUAs students

The following sections attempt to relate students' choices to some of their characteristics such as the field (domain) in which they are studying, how long they have been studying at BUAs, and the extent to which this affects their study progress measured in study credits (ECTS). Each ECTS represents 28 hours of study. Students are expected to earn 60 ECTS per year. Over the course of four years, students are expected to earn a minimum of 240 ECTS.

#### 3.3.1 Entrepreneurial intention per BUAs domain

BUAs are active in eight different fields of study, or 'domains' as we call them. Figure 4 shows that there are considerable differences in entrepreneurial intention per domain. First of all, it should be noted that the categories 'no' and 'maybe' are not included in this figure. By excluding these two categories we get a better view of the real differences between the domains. The domains in the graph are ordered by the total relative percentage of students within an academy who have positive entrepreneurial intention.

As in previous years, from a BUAs-wide perspective, three domains, Leisure & Events, Hotel and Media, stand out in terms of students with entrepreneurial intention. In the other five domains, students seem to be less interested in becoming entrepreneurs. There is probably a logical explanation for the differences in entrepreneurial intention of students in the different domains. For example, it could be argued that it is harder to run a hotel next to your academic career than, let's say, running a design company. From such a pragmatic point of view, it makes sense that fewer students in the hotel domain seem to be interested in combining study with training. Most of the students say they think they will start their own business after their studies.

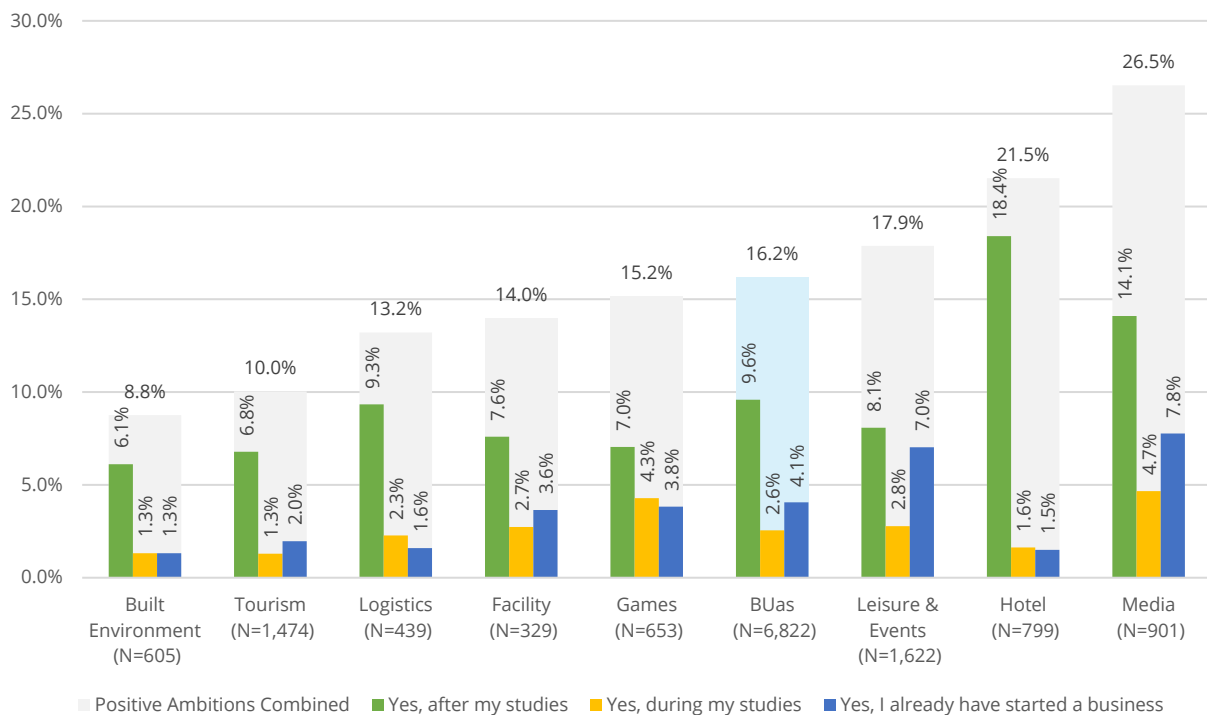


Figure 4 Positive entrepreneurial intention per BUAs domain.

#### 3.3.2 Entrepreneurial intention by year of registration

In order to determine whether there is a relation between year of registration and intention to become an entrepreneur, Figure 5 has been generated. In terms of structure, this figure is the same as the previous figure with the difference that the N mentioned per year indicates the total number of students enrolled as active students since that year. This number drops considerably after the first year but remains relatively steady during the following three years.

When considering the students' intention, the trend is interesting as there appears to be a relation between study delay and having started a business during their studies. The patterns for the other two categories are less pronounced. Students appear to be less inclined to start a business when their study lasts longer, but this may be explained by the fact that they have already started a business. Van Liempt (2022) indicated that students that experience study delay have a myriad of reasons and almost always have some means to provide for their income. Some of them do so by being an entrepreneur. Though there is a relation, the relation is not necessarily causal.

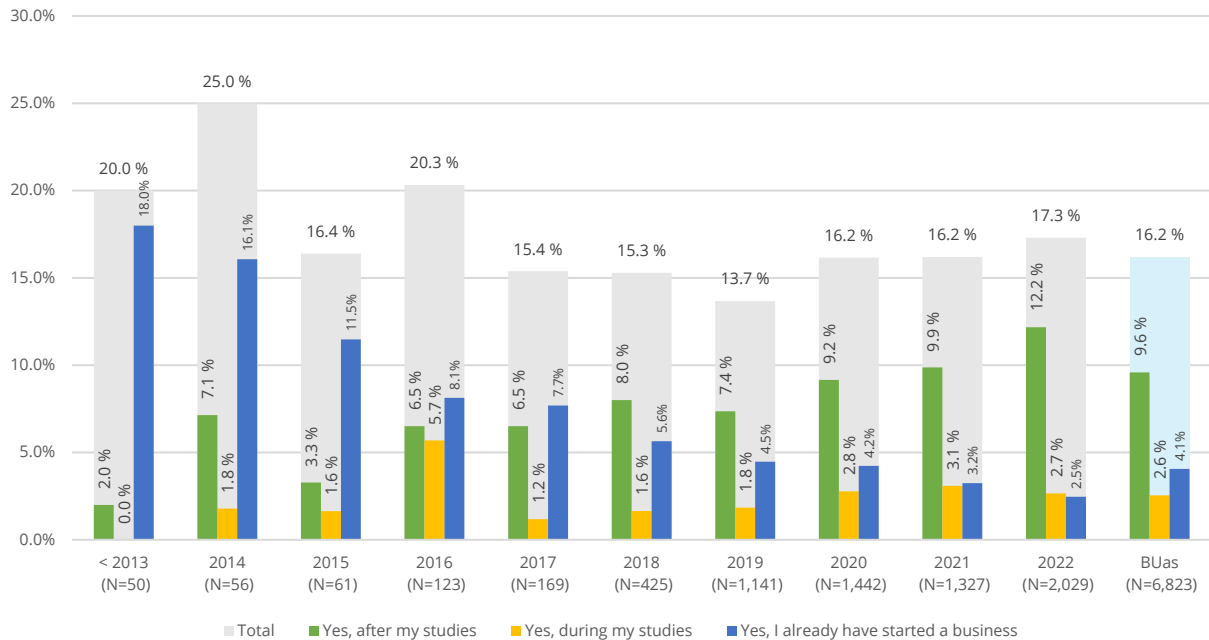


Figure 5 Positive entrepreneurial intention of BUAs students by year of registration

### 3.3.3 Entrepreneurial intention controlled for study delay

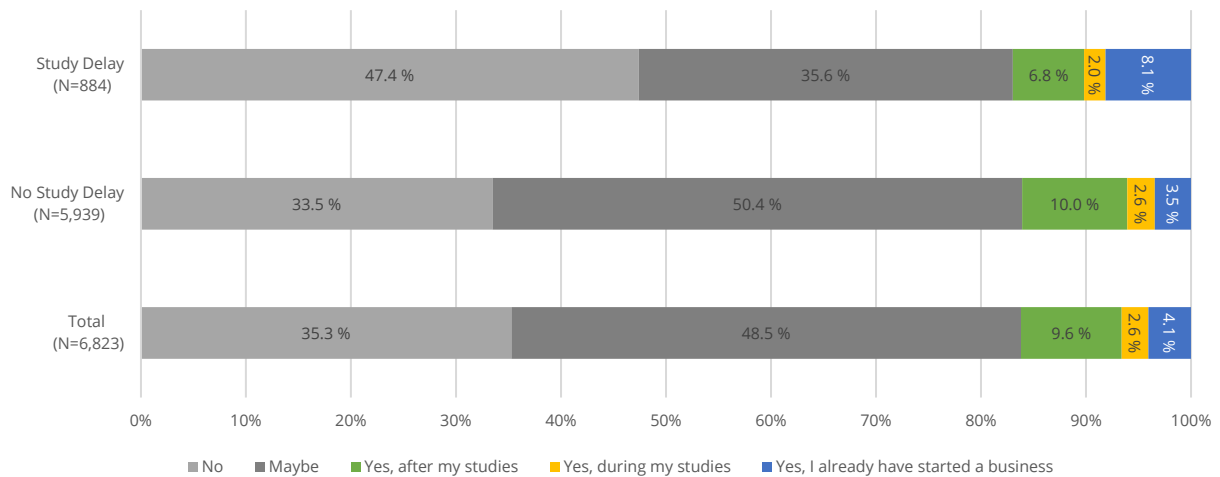


Figure 6 Entrepreneurship at BUAs controlled for study delay

When study delay is taken into account (see Figure 6), the figures do not show a completely different picture, but a moderated one. Study delay has been arbitrarily set to those students who are still registered as students in the 2022-2023 academic year and who enrolled at BUAs before the 2019-2020 academic year. What the figure shows is the effect of students becoming more certain about their future as they progress through their studies (i.e., becoming more certain about a future that includes entrepreneurship).

The differences between the those who experience a delay in their studies and those who do not are highlighted more clearly in Figure 7. 26.0 per cent of all students who started a business during their studies were students with a mild to severe study delay. This figure was 31.1 per cent in the previous academic year 2021-2022. This figure has fallen significantly in recent years. This is because BUAs has been more successful in reducing the number of students with severe study delays.

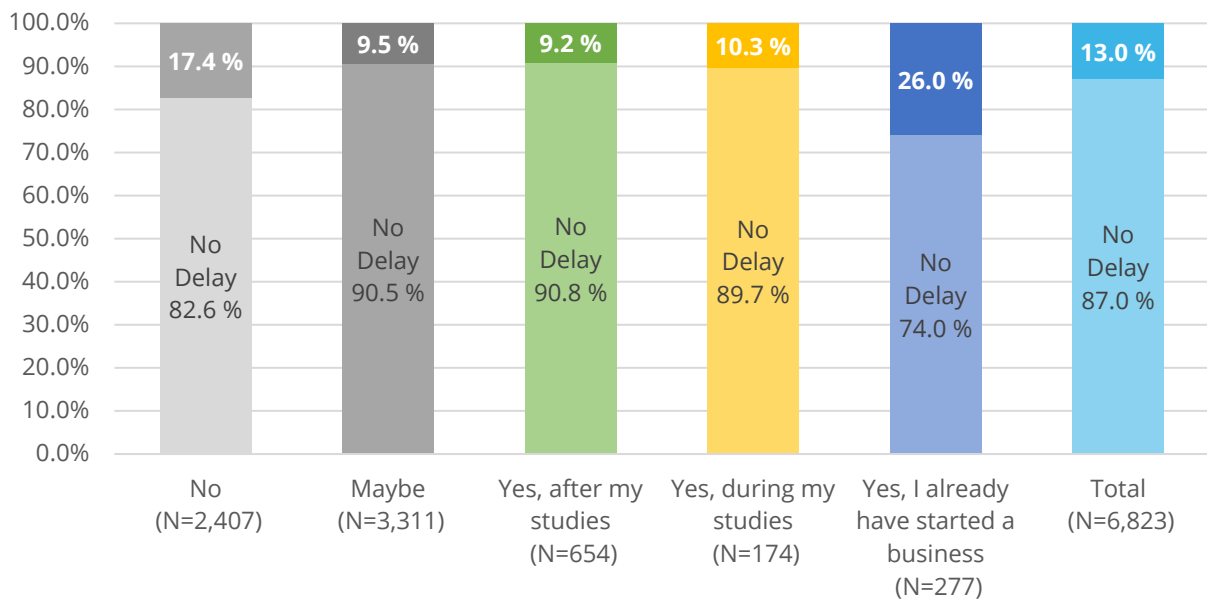


Figure 7 Comparison of students with a study delay to students without a study delay

### 3.4 Demographic outlook of entrepreneurial intention

The following sections explore the influence of certain demographic characteristics such as age, sex, and nationality on interest in entrepreneurship.

#### 3.4.1 The influence of age on entrepreneurial intention

Figure 8 below, essentially a box plot, shows the relationship between age and intention to start a business. The coloured area represents the interquartile range and the black stripe the median. The figure again shows that overall the differences are not that great and only those who have already started a business are on average older. This makes sense, given that they are also the population with the greatest study delay.

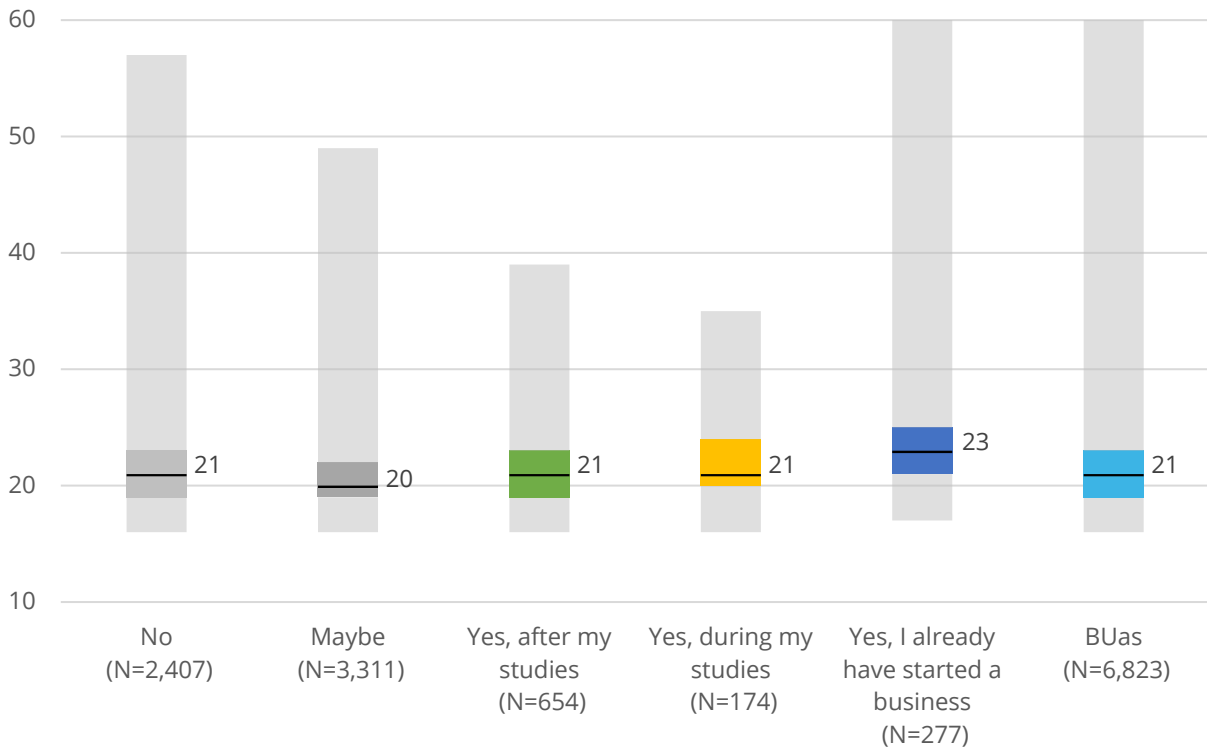


Figure 8 Entrepreneurial intention of BUAs students by age

### 3.4.2 The influence of sex on entrepreneurial intention

Figure 9 below shows the distribution between males and females within the three categories of positive entrepreneurial intention. Overall, more than 60 per cent of students at BUAs are female and almost 40 per cent are male. Looking at the positive intention categories, it is mainly men who have already started a business or intend to do so, showing that men are more likely to have entrepreneurial intention than women. This difference is more pronounced among those who have already started a business than among those who intend to do so after their studies. Students' intentions to start a business after their studies are almost similar to those of the total population, suggesting that the differences in intention between men and women, at least in terms of intention, seem to be limited to having started a business during their studies or having plans to do so during their studies.

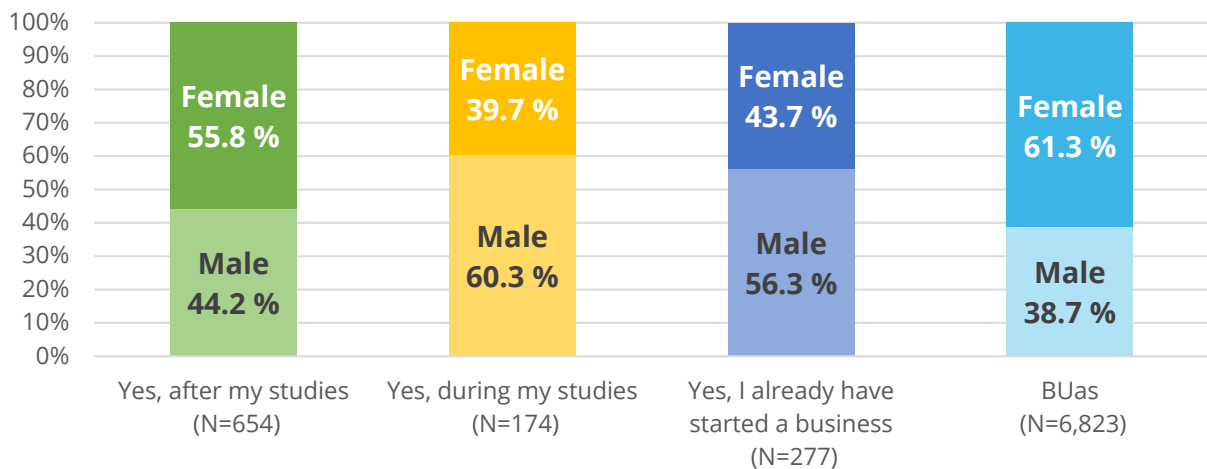


Figure 9 Positive entrepreneurial intention of BUAs students by sex

Figure 10 below tries to give a more detailed impression of the differences between men's and women's entrepreneurial intention.

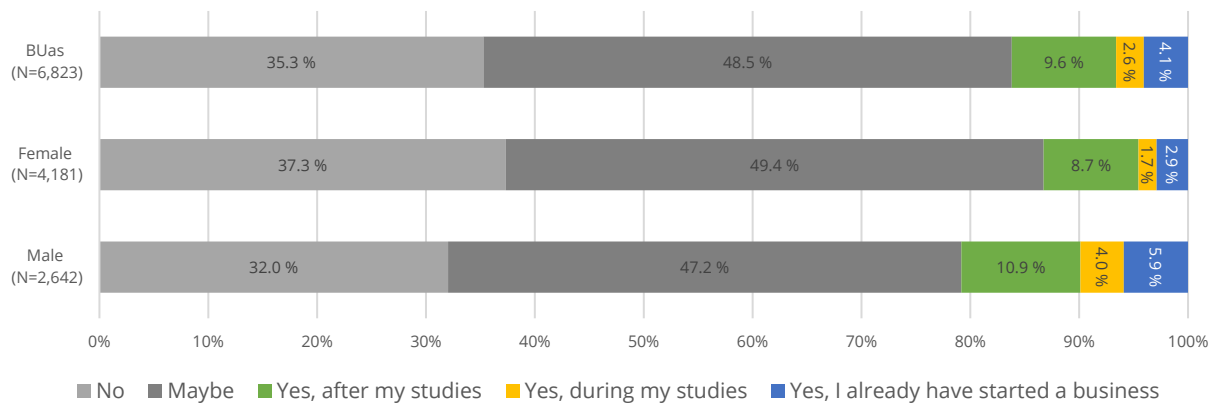


Figure 10 Entrepreneurial intention of BUAs students by sex

In order to visualise the differences between males and females more clearly Figure 11 and Figure 12 have been created. In these figures, the domains have been ordered from low to high by the relative number of male students. The most interesting thing about these figures is that when you look at the order, there is a striking difference in the Games domain. Compared to other domains, females in the Games domain are relatively more interested in starting a business than their male counterparts.

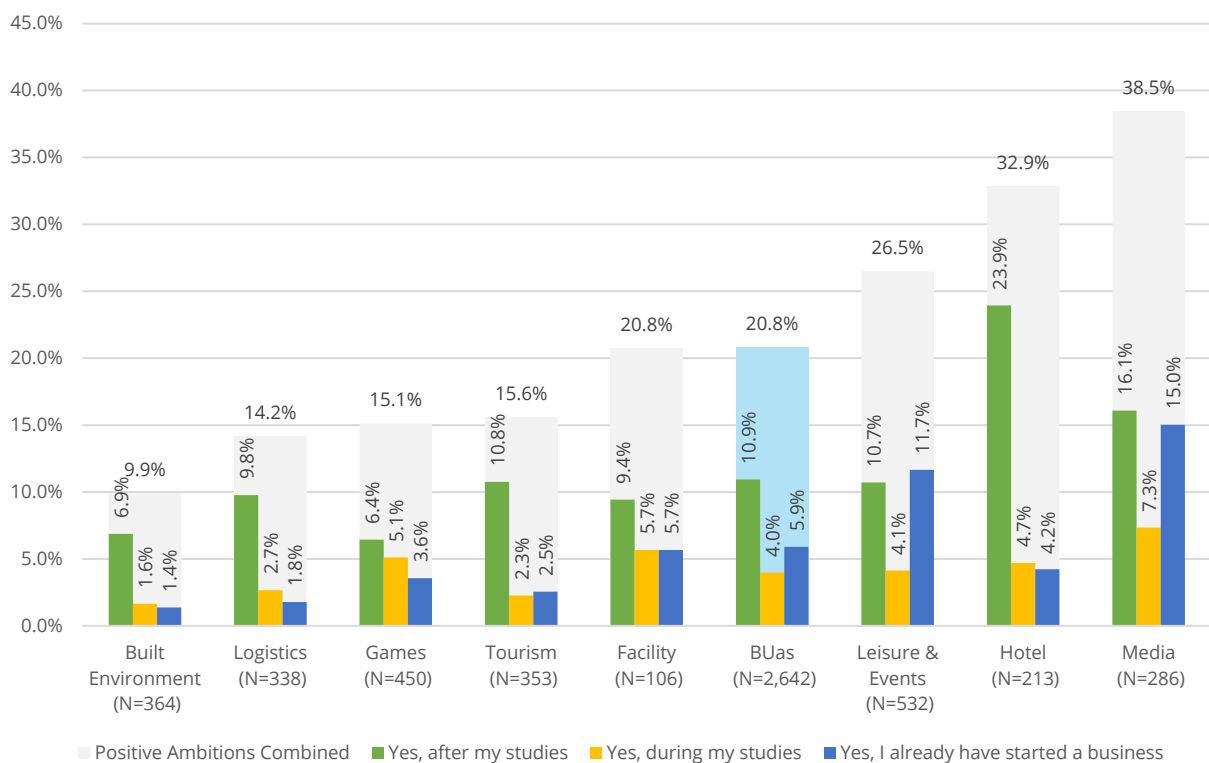


Figure 11 Entrepreneurial intention of male students by domain



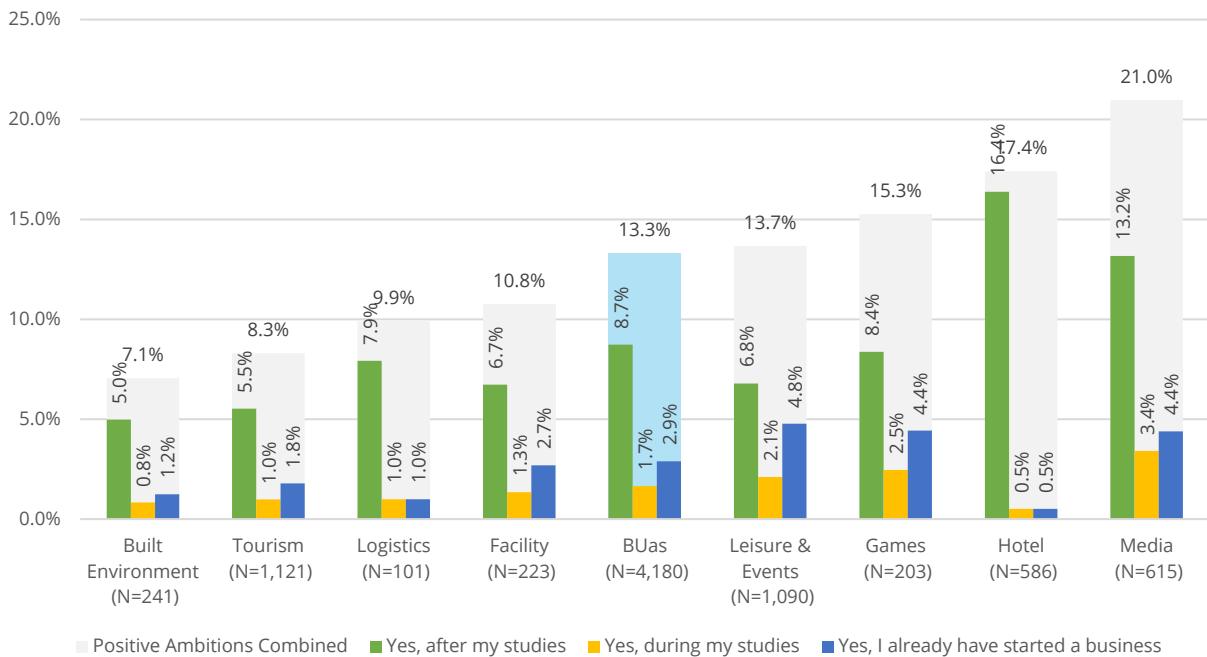


Figure 12 Entrepreneurial intention of female students by domain

### 3.4.3 The influence of nationality on entrepreneurial intention

Finally, it is interesting to examine whether nationality affects the intention to become an entrepreneur. First of all, the student population is divided into those with Dutch nationality and those without. Of course, it would be more interesting to have a more precise definition of nationality, but this would have negatively affected the anonymity of students in this study.

The result is shown in Figure 13. It seems logical that students with non-Dutch nationality are less likely than students with Dutch nationality to have already started a business during their studies. provided that the business is established in the Netherlands, which is less obvious for students who may not stay in the Netherlands after their studies.

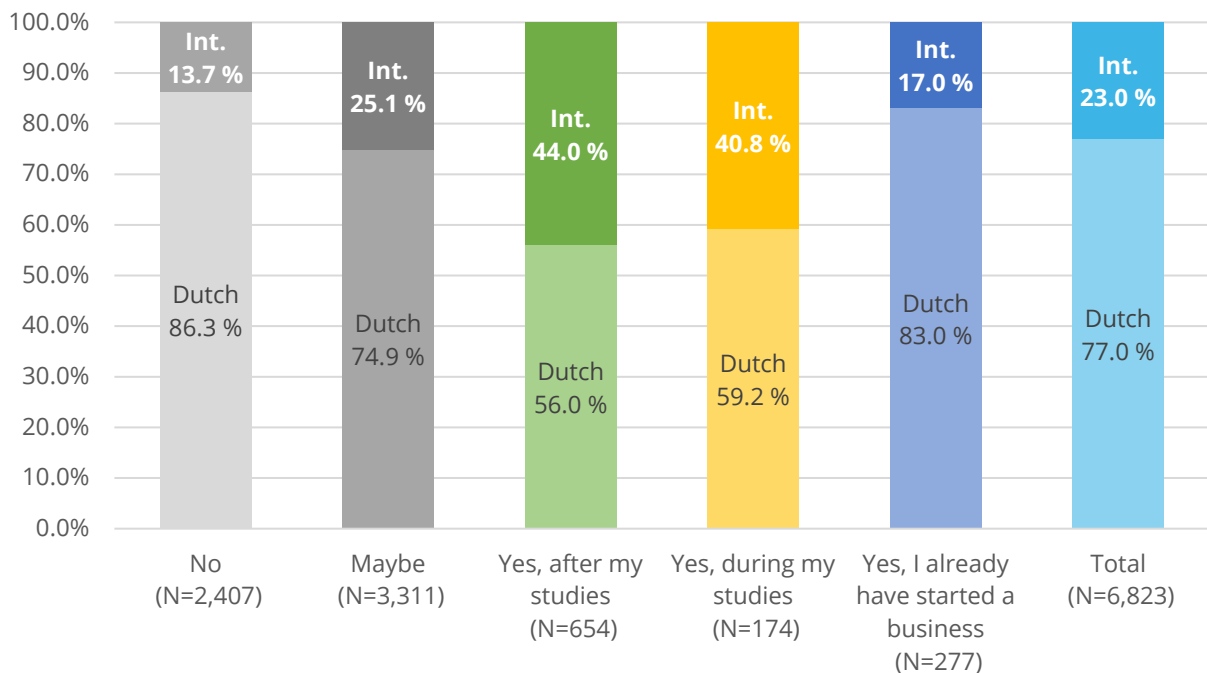


Figure 13 Positive entrepreneurial intention of BUAs students by nationality

However, this does not answer the question of whether students' nationality affects their intention to become entrepreneurs. This is because the comparison was only made within the group of students who indicated that they actually wanted to start a business or had already started one. To illustrate this, Figure 14 below shows that students with a non-Dutch nationality intend to start a business (25.9%) relatively more than students with Dutch nationality (13.4%).

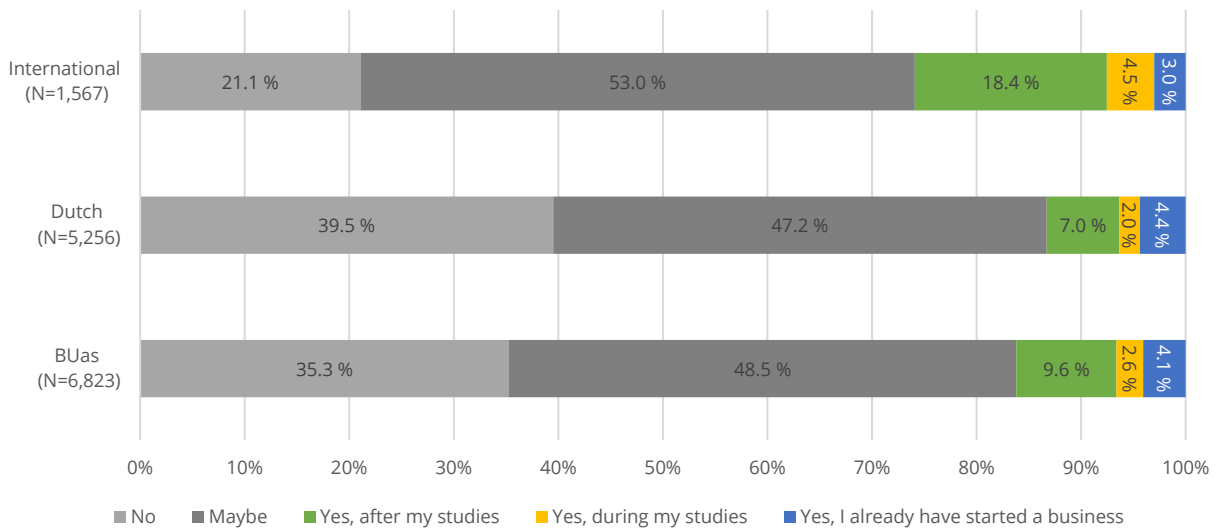


Figure 14 Entrepreneurial intention of BUAs students by nationality

The differences in nationality per domain are considerable as can be seen in Figure 15 and Figure 16. It is important to consider the total number of students when looking at the percentages below. Some fields (Facility and Built Environment) have far fewer international students than other fields. It is interesting to note that Leisure & Events and Media in particular have a relatively high number of international students who have already started a business during their studies.

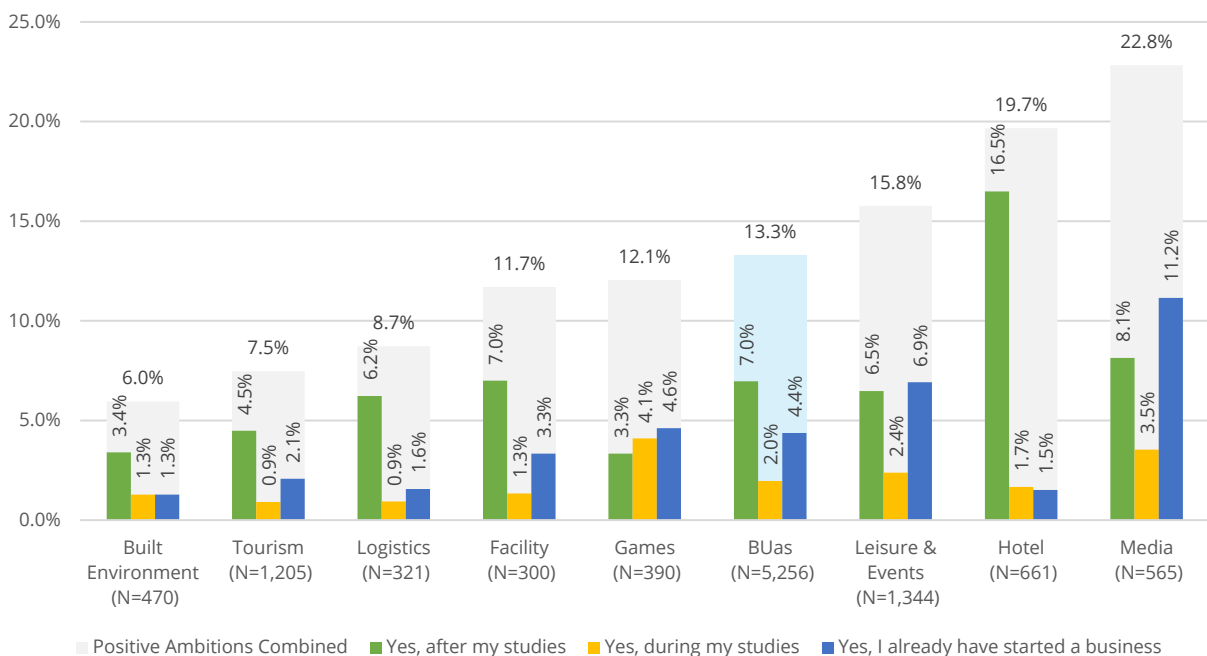


Figure 15 Positive entrepreneurial intention of BUAs students by domain and Dutch nationality

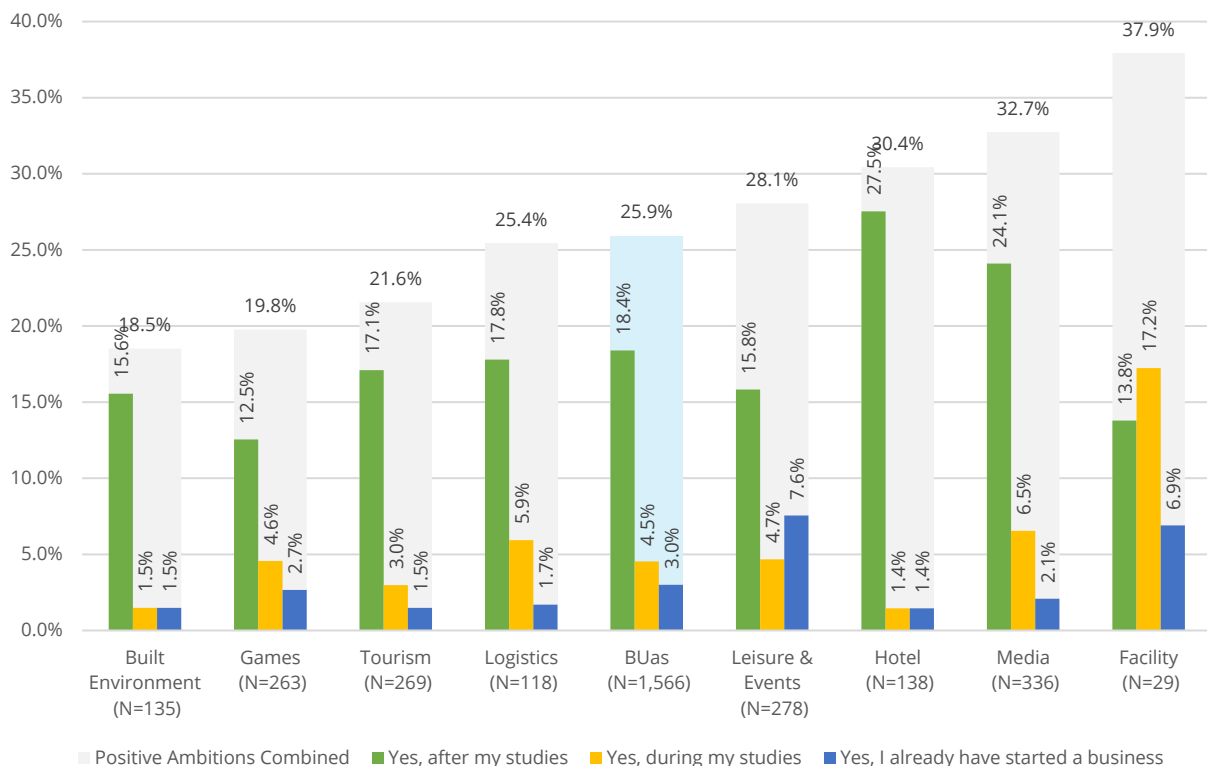


Figure 16 Positive entrepreneurial intention of BUAs students by domain and non-Dutch nationality

### 3.5 Stability and change in entrepreneurial intention within a cohort

In this section we try to show, at an aggregate level, the changes per year in entrepreneurial intention. We do so by following two cohorts:

1. Students that started their academic career at BUAs in academic year 2018-2019; and,
2. Students that started their academic career at BUAs in academic year 2019-2020).

We follow their pattern over the course of different years. The reason we are following more than one cohort is because the first cohort we tracked, followed a different pattern over the general pattern. The pattern within cohorts is different from general trends of all students over all the years. We want to see whether the 2018 cohort follows a unique pattern, or whether this is a more common pattern that is hidden from the general pattern.

This year we have started to control for changes of study. BUAs students who have started a new study at BUAs, for example studying Tourism in 2018 and switching to Leisure and Events in 2019, are now part of the 2019-2020 cohort instead of the original 2018-2019 cohort. This is why the number of students in the 2018-2019 cohort has decreased compared to previous reports.

#### 3.5.1 Change and stability: cohorts 2018-2019 and 2019-2020

We won't be reporting extensively and detailed on the changes from year to year. We have already learned, particularly from van Liempt (2022), that a significant amount of students do not have stable intention and can already shift their intention within the span of three months. Though we can hypothesize about why this is the case, which is tempting as it would likely allow us to understand the students perspectives even more, it currently makes more sense to focus on aggregate changes. Hence there will be no cross tables and Sankey diagrams reported this year.

Figure 17 and Figure 18 below show the absolute totals per category from year to year. It shows a very general trend. Students drop out after the first year and then the numbers stabilise until the end of their studies. As most of our programmes last four years, we see a significant increase in the number of unregistered students after four years. Although the relative distributions of entrepreneurial intention are more revealing, the figures for both graphs show a trend towards preference for either 'yes' or 'no', at the expense of 'maybe'.

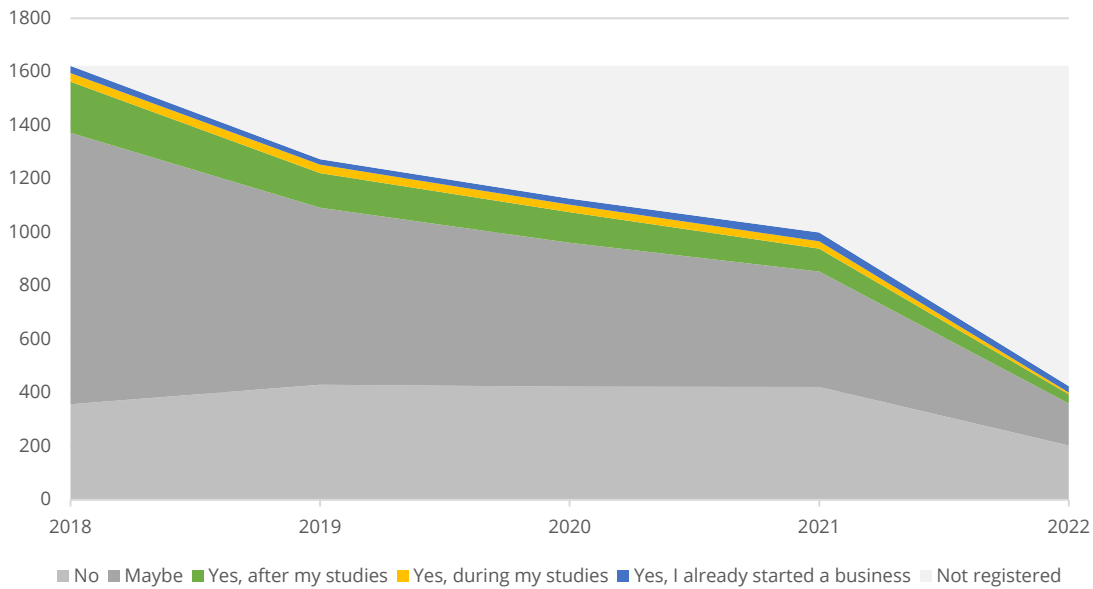


Figure 17 Stacked area plot of changes in entrepreneurial intention within cohort 2018-2019 (N=1,622)

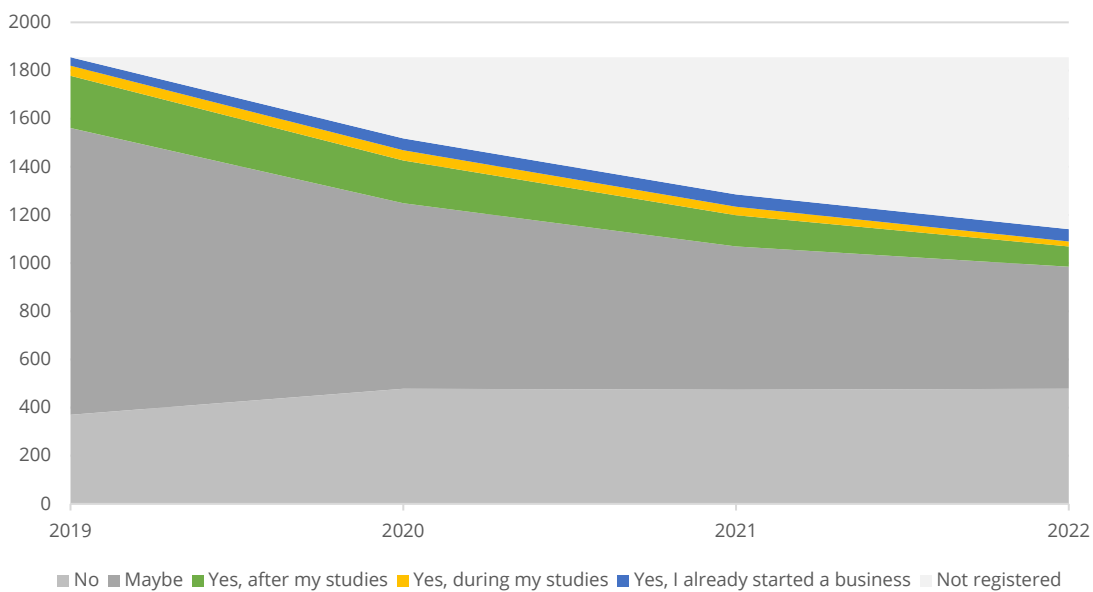


Figure 18 Stacked area plot of changes in entrepreneurial intention within cohort 2019-2020 (N=1,855)

Figure 19 and Figure 20 do not include students that are not registered at BUAs anymore. As such it gives a better portrayal of the distribution within the five intention categories. Here also the picture is one of 'certainty'. Both 'no' and 'yes', though mostly 'no' increases at the cost of 'maybe'. When comparing both cohorts, the 2019-

2020 cohort is less stable in positive intention than the previous cohort. Relatively more students remain doubtful and relatively fewer have a positive intention.

It is interesting to note that when looking at the overall decline in positive entrepreneurial intention in the general student population, it is only visible in the 2019-2020 cohort. It seems that this overall trend is also visible within a cohort. So why is it not visible in the 2018-2019 cohort? A likely explanation is that, in general, those who experience a study delay are also more likely to have already started their own business. The relative over-representation of this population may explain why the relative figures do not show the overall decline in positive intention in 2022 for this cohort.

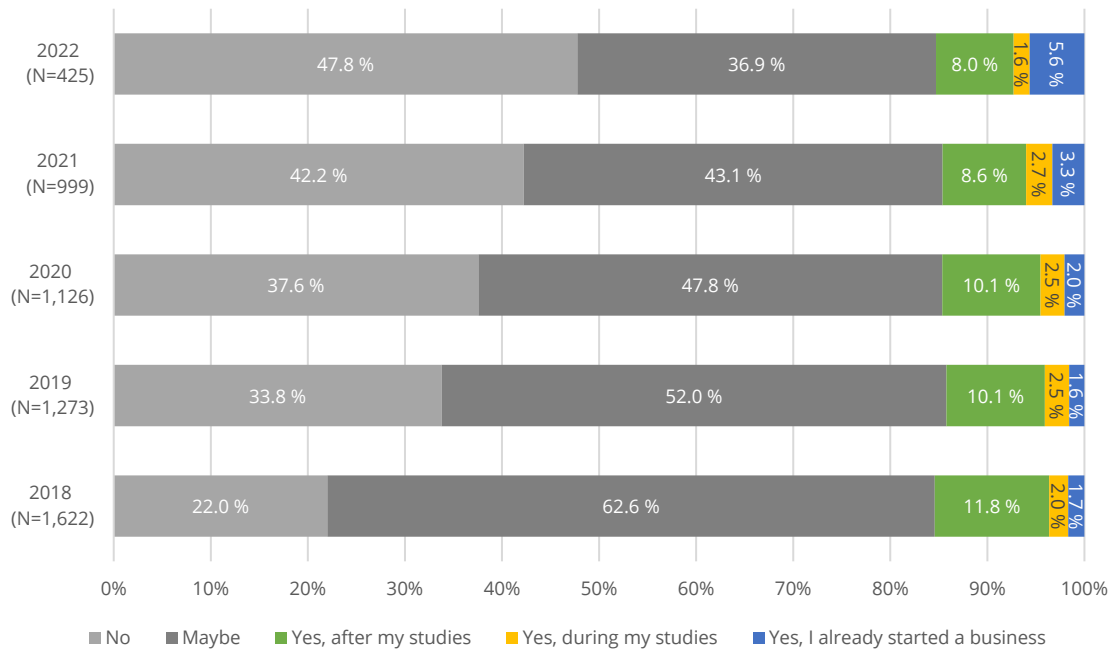


Figure 19 Stability and change in entrepreneurial intention within cohort 2018-2019

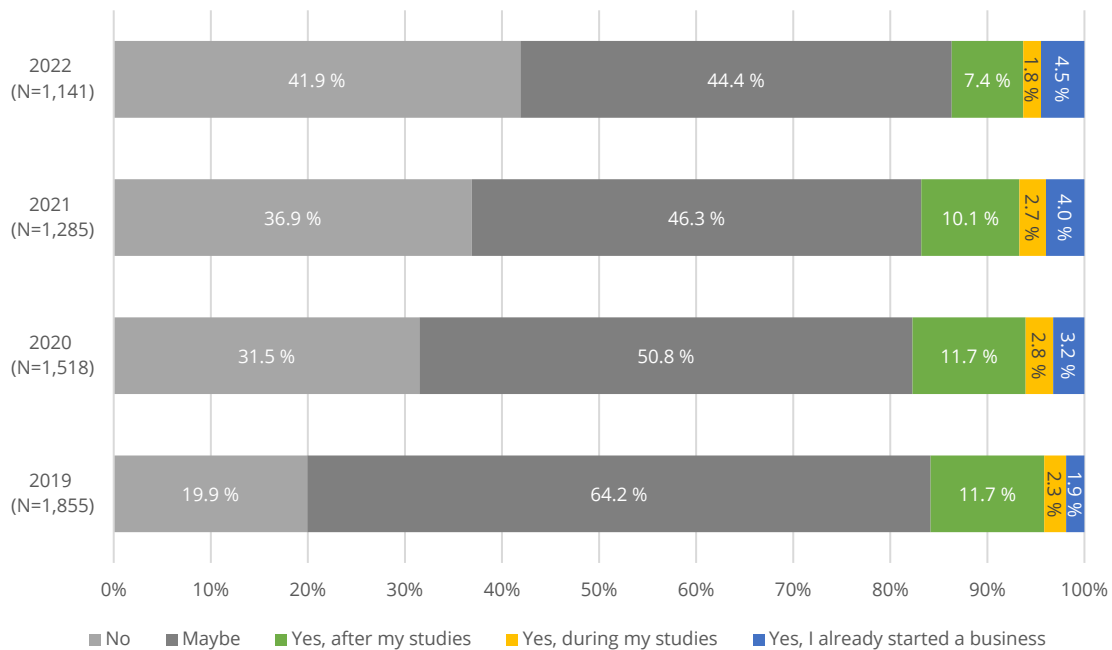


Figure 20 Stability and change in entrepreneurial intention within cohort 2019-2020

### 3.5.2 Cohort 2019-2020 by sex

In this section only cohort 2019-2020 is considered. From the main analysis we have seen that males and females have different preferences on average in terms of entrepreneurial intention. Male students often have more positive entrepreneurial intention. Last year we noticed that males increased their positive intention over the course of their studies, whilst females lowered their positive intention. Figures for this cohort are slightly different. Female students show a similar pattern to those of the previous cohort. Male student however, after three years of increasing positive entrepreneurial intention, show a decline in academic year 2022. We are uncertain what causes this. We see the same pattern overall, 2022 is the first year we see a relative decline in positive entrepreneurial intention. This is an effect we notice overall, but also within a cohort, which could indicate that the source is related to a national trend, or the particular fields of study we cater at BUAs.

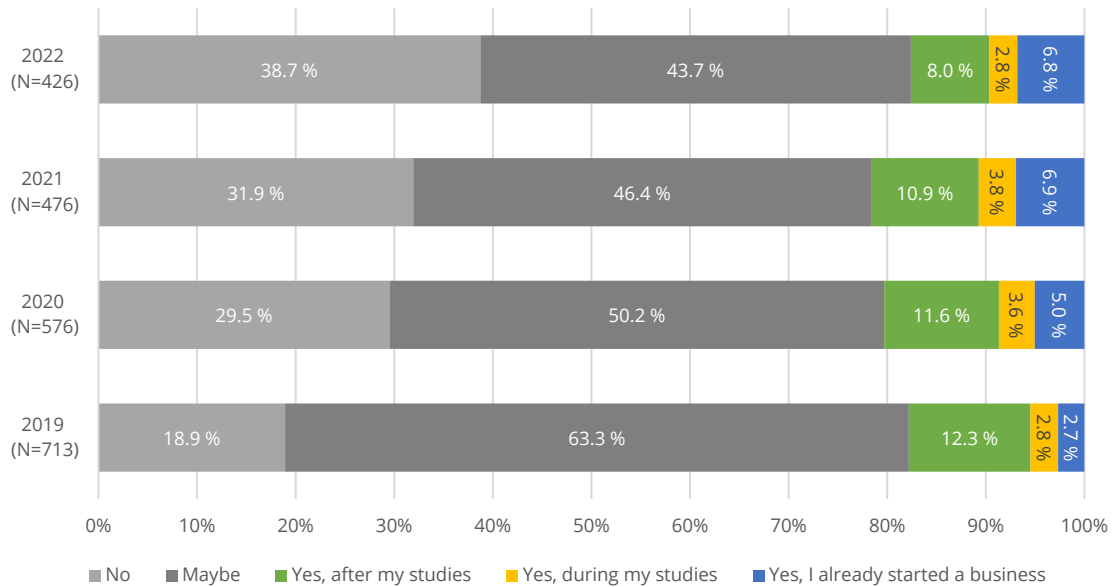


Figure 21 Stability and change in entrepreneurial intention of males within cohort 2019-2020

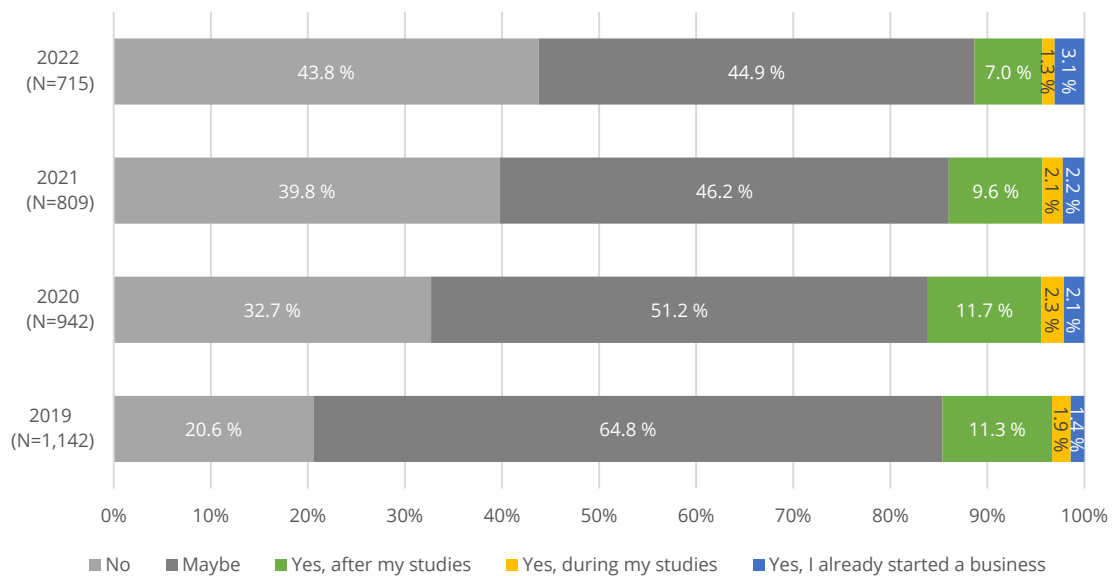


Figure 22 Stability and change in entrepreneurial intention of females within cohort 2019-2020

### 3.5.3 Cohort 2019-2020 by nationality

In this section we look at the cohort by nationality. This is the first year we have done this and the pattern is not radically different. Although we see a relative increase in positive intention among international students over the years, by 2022, as in the general population and within the overall cohort, there is a relative decrease in positive intention. Among Dutch students, positive intention starts to decline after the second year, which is an interesting contrast for which there is currently no simple explanation.

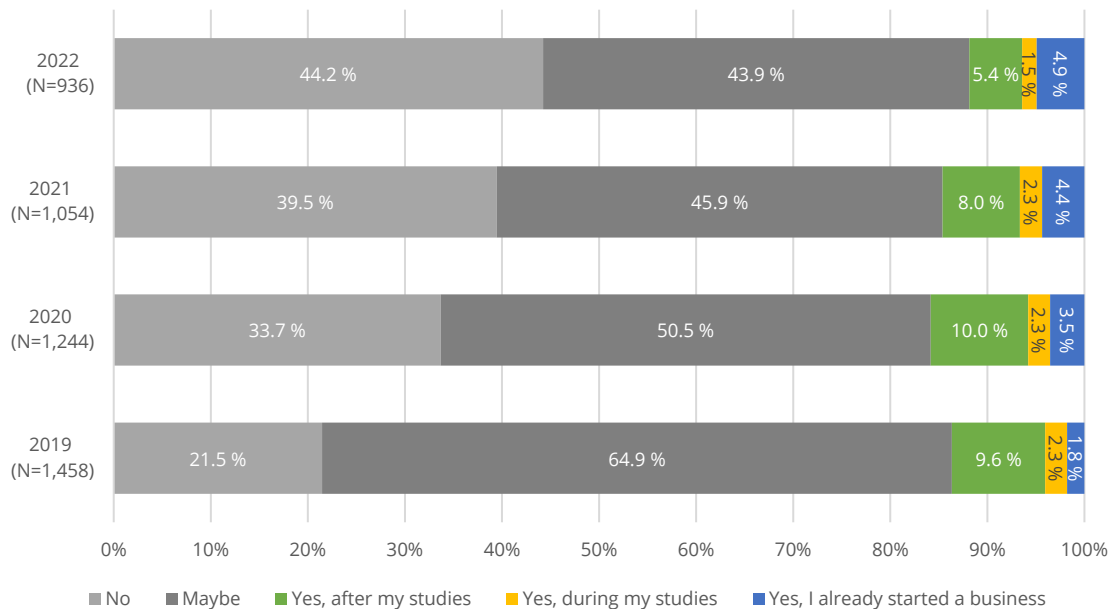


Figure 23 Cohort 2019-2020, students with a Dutch passport

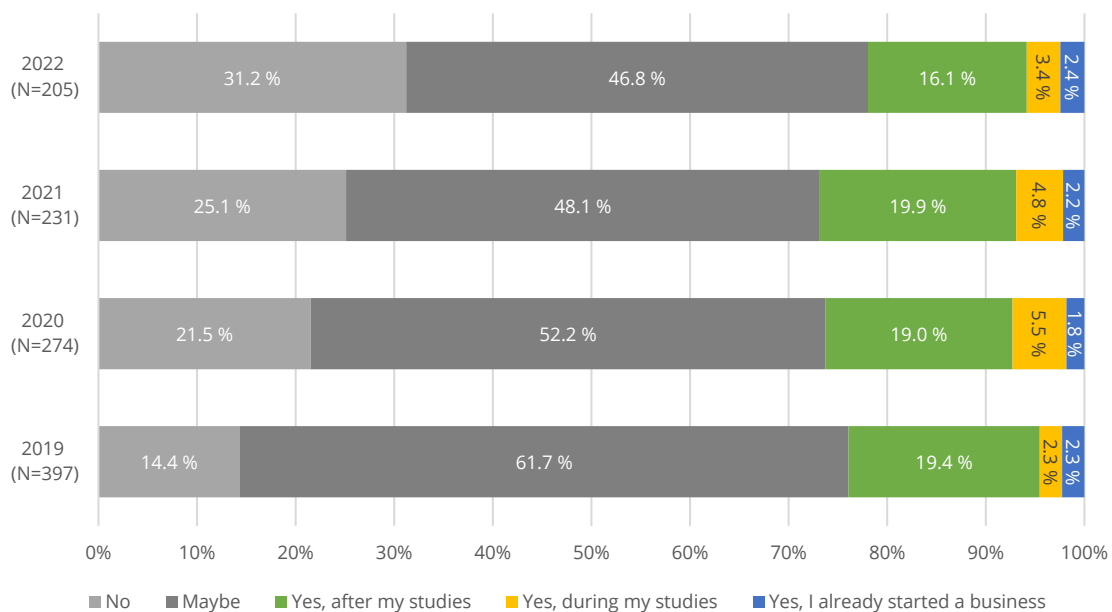


Figure 24 Cohort 2019-2020, students without a Dutch passport

### 3.5.4 Cohort 2019-2020 by study domain

We know that the field of study has an important influence on entrepreneurial intention. Below are the figures for the 2019-2020 cohort per field of study. Overall, we have seen a downward trend in positive entrepreneurial intention and an increase in negative entrepreneurial intention. This trend was similar for both men and



women. Looking at the figures below, it is noticeable that the downward trend in positive intention in 2022-2023 is not similar across the different fields of study. This is interesting as it may indicate a trend related to the field in which students intend to work after their studies. Two fields of study report an increase in positive intention: media and built environment. All other fields, with the exception of the two largest fields of study, leisure and events and tourism, show a strong decrease in positive intention. In tourism there is hardly any decline, in leisure and events the decline in positive entrepreneurial intention is less.

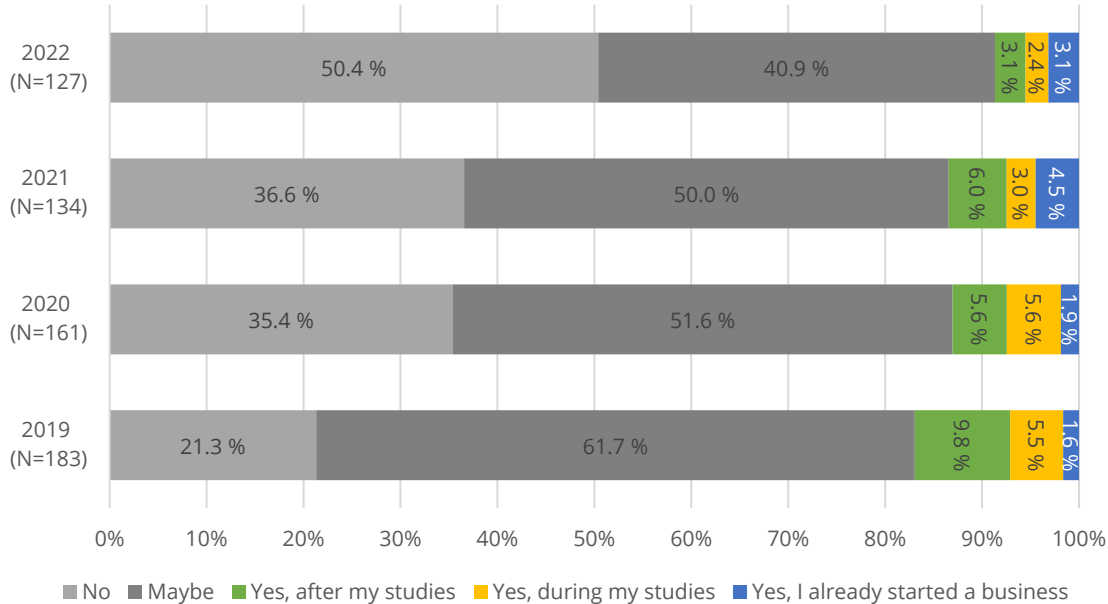


Figure 25 Games

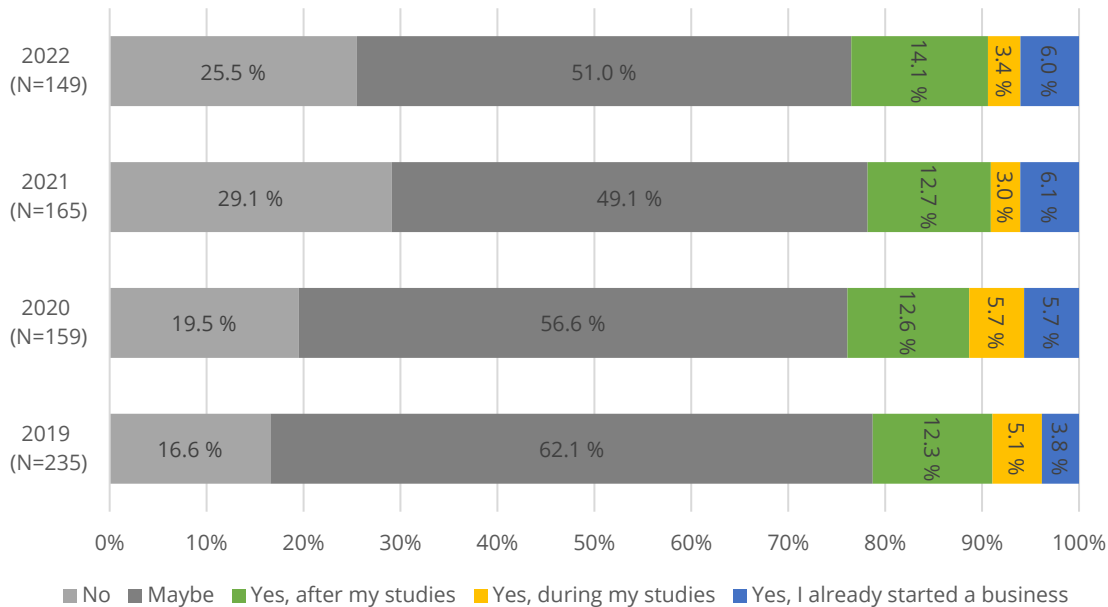


Figure 26 Media

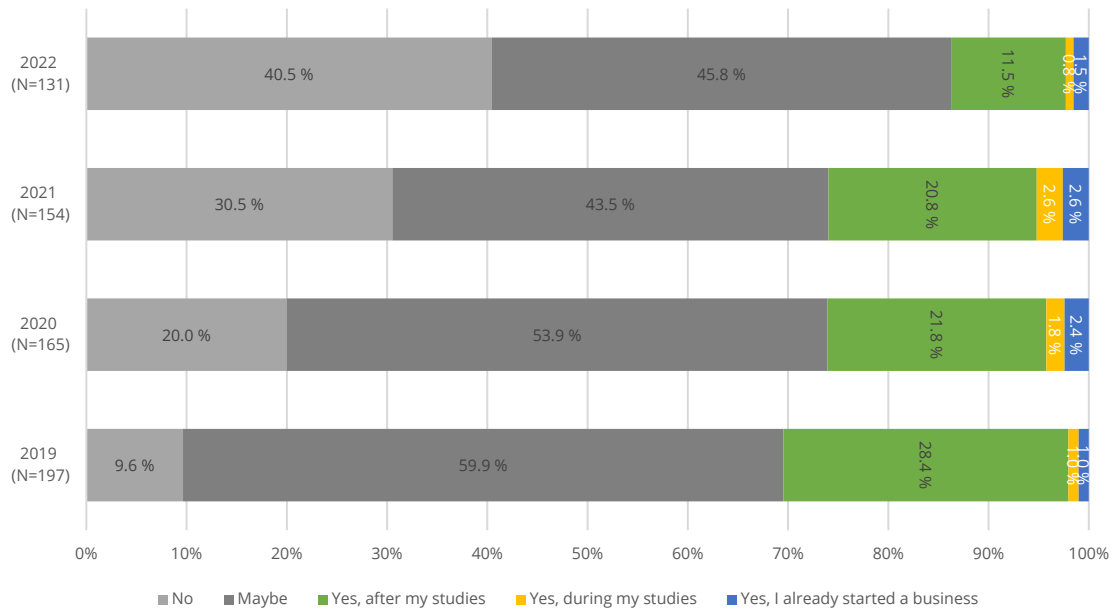


Figure 27 Hotel

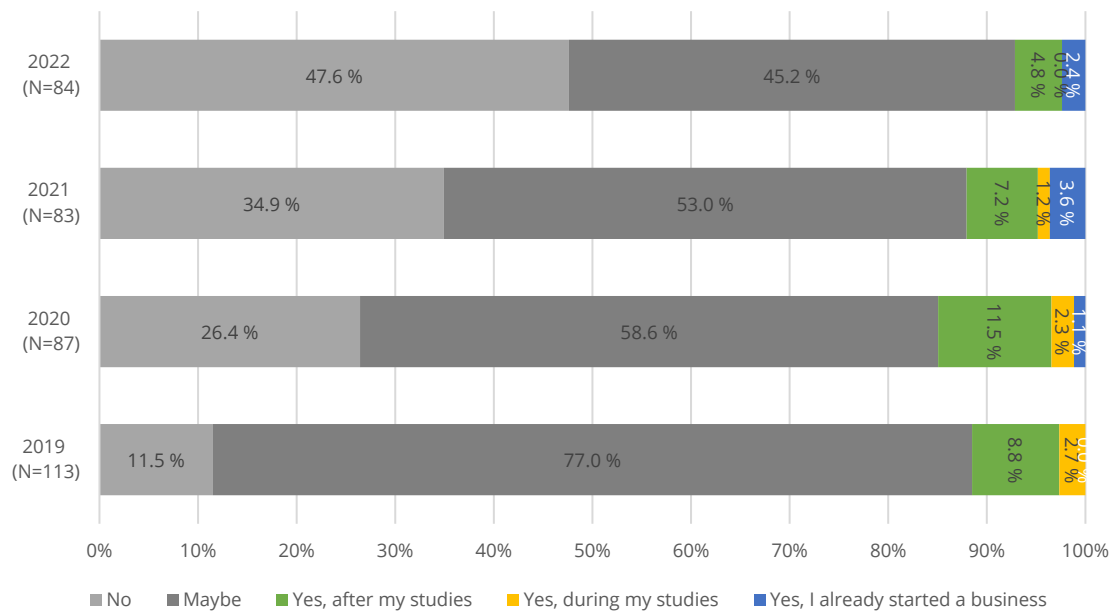


Figure 28 Facility

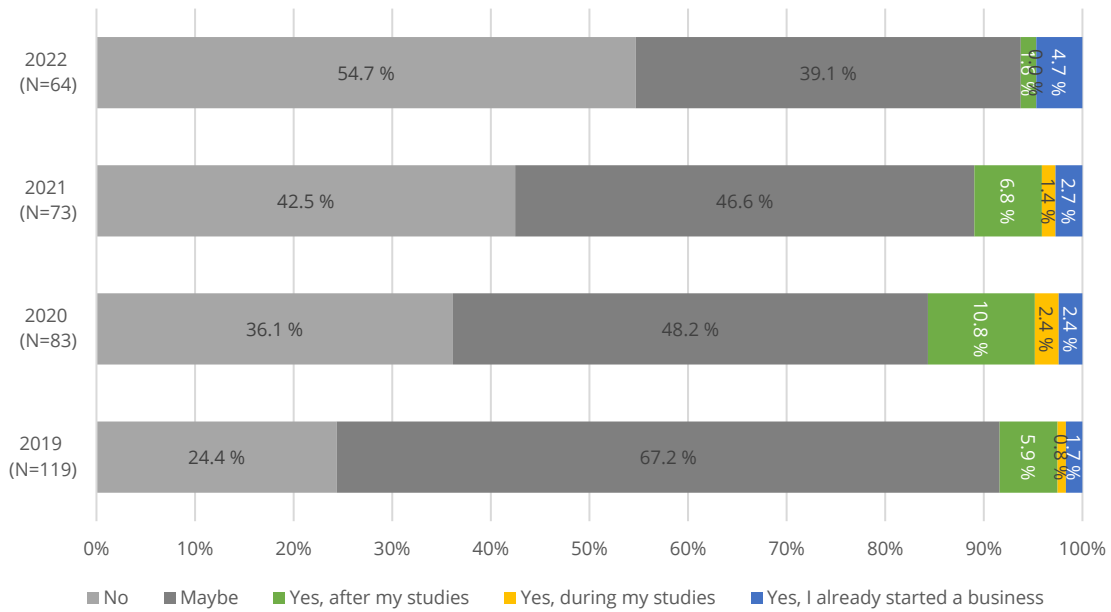


Figure 29 Logistics

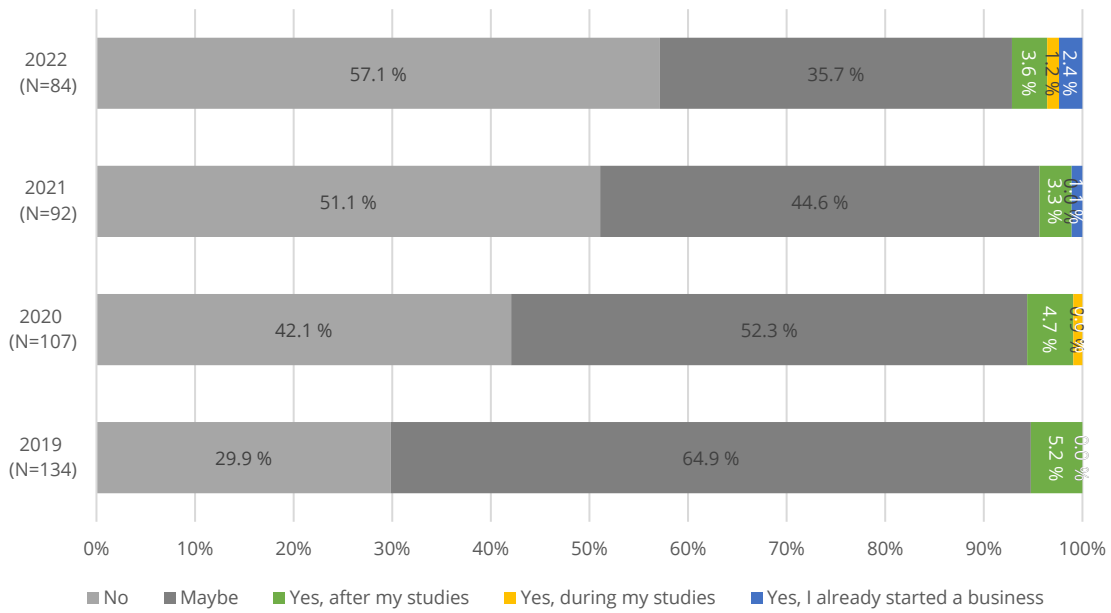


Figure 30 Built Environment

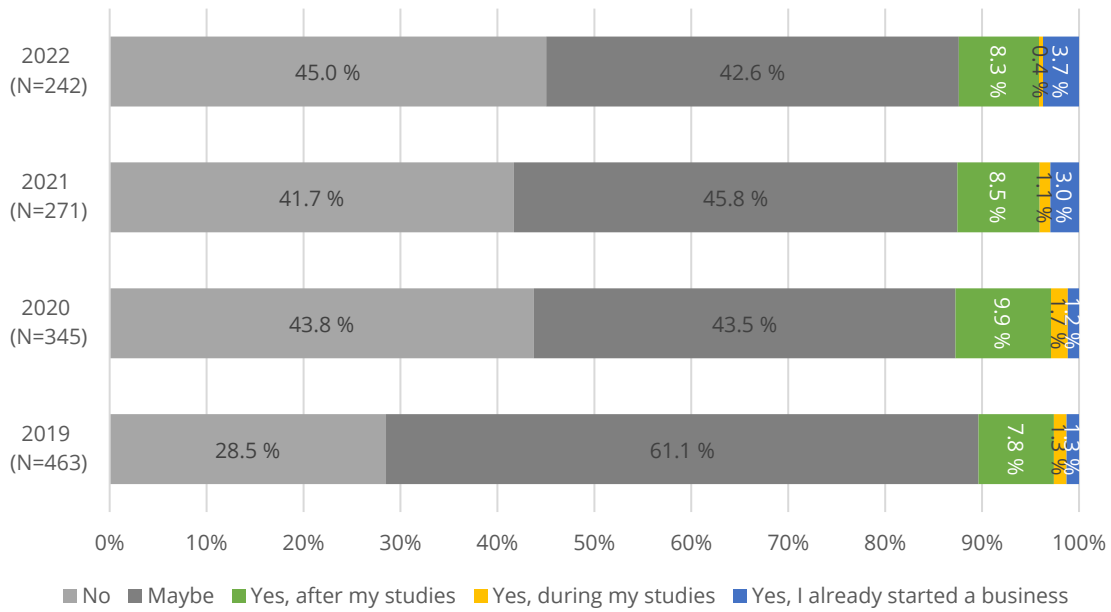


Figure 31 Tourism

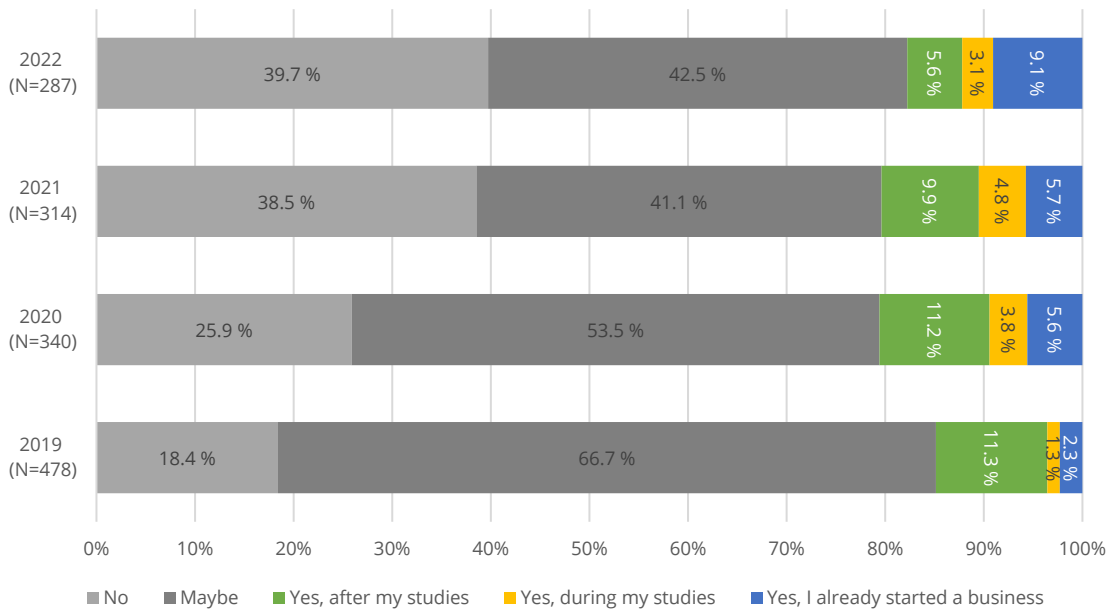


Figure 32 Leisure and Events

## 4 Conclusion

This study aims to answer the following research questions:

1. To what extent are BUAs students interested in becoming entrepreneurs?

And, based on cohort data of students:

2. How does the interest of students in becoming an entrepreneur develop over the course of their study at BUAs?

### 4.1 Conclusion and discussion

This study's central question "To what extent are BUAs students interested in becoming entrepreneurs?" can be concluded that 16.3 per cent of BUAs students answer the main question positively. 4.1 per cent has started a business during their study already. 9.6 per cent intends to start a business after their studies and 2.6 per cent is still thinking of starting a business during their studies. The general conclusion is that this is the first year where we see a decline in positive entrepreneurial intention. This decline is present in both males and females and a closer inspection of the 2019-2020 cohort has shown that this trend is also visible within a cohort and is not just an overall phenomenon. So what could explain this decline? Partly we think it has to do with successful attempt to reduce the number of students with study delay. Study domain does not play a strong role. Within the Media domain the relative number is still increasing, but all other domains show a strong to mild relative decline. It could be that an external reason is present that has not been measured. As most of our entrepreneurial students are self-employed, the reduction in tax benefits since January 2023 may have played a role. Also, the Netherlands is aware of weak position self-employed entrepreneurs find themselves in compared to those that have regular jobs, which are more strongly regulated in terms of social security. What happens to those that have not build up pensions, or get sick before that. Thought provisions exist in the Netherlands, among which the so-called 'broodfondsen' (ZZP Nederland, 2023). At the same time, the economy has been in an upward cycle and there are more vacancies than unemployed (123 per 100 unemployed) (Centraal Bureau voor de Statistiek, 2022). This might make choosing for regular employment more feasible and attractive to students, something for which there is weak empirical support (Chou et al., 2012).

The data show that both the gender of the student and the field of study are important determinants of entrepreneurial intention. The differences in intention vary quite dramatically by field. Media students lead the way in terms of intention, while Built Environment students are relatively least interested in starting a business. Students who run a business during their studies tend to take longer to graduate and are generally a few years older. Students with entrepreneurial intention at BUAs are often men. Even in programmes where women dominate in terms of numbers, men are over-represented when it comes to entrepreneurial intention during their studies. Women tend to postpone their intention until after their studies. This has been the case for two years in a row.

As this is the fifth year we have been collecting data, this is the second time we have been able to follow a cohort through their study career at BUAs. It is fascinating to see what a cohort story can tell compared to the aggregate results of the main story. Looking at gender and the subjects students study already gives a clearer picture of what is going on in students' minds in terms of entrepreneurial intention, but looking at a particular cohort gives a much clearer picture of the process and dynamics of that intention throughout a student's career. These transitions are simply lost in aggregated results, which really hide the internal dynamics by putting all students in the same box.

What the tracking of this cohort shows is that, on average, interest in entrepreneurship is declining, compared to the aggregate results of the main survey, which show a positive trend over the years. It is mainly the two larger domains, Tourism and Leisure & Events, that are driving these trends. Other domains show different patterns.

## 4.2 Two key questions remain

Although we have tried to explain the decline in positive intention, it remains a surprising result that we believe can only be answered by comparing our data with national trends or data from similar institutions such as BUAs.

A second question that remains unanswered despite the supportive study by van Liempt (2022), is whether different student groups have different entrepreneurial drivers. We see differences between men and women, between fields, between nationalities. It is important to have more insight. Most of the recent literature and developments in model testing have taken place in economies other than the Netherlands. It is important to go back to the basics of understanding entrepreneurial intention and the factors that might explain it. Reports such as ours show that there is more to it than individual preferences based on personality and future prospects.

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## 6 Appendix

Table 1 Quick overview of the number of Businesses in the Netherlands operating in the fields of hospitality, leisure and media, 4th quarter 2019.

<i>Standard Dutch Industrial Classification (SBI) 2008</i>	<i>Total number of businesses</i>	<i>Number of businesses employing 1 person</i>	<i>Percentage of businesses employing 1 person</i>
<i>A-U All economic activities</i>	1828160	1421160	77,74%
1814 <i>Graphic finishing</i>	515	365	70,87%
1820 <i>Repro of sound, video and software</i>	460	415	90,22%
<i>Traditional Catering</i>	42770	13645	31,90%
I <i>Catering</i>	60600	26530	43,78%
55 <i>Accommodation</i>	9355	4815	51,47%
551 <i>hotels</i>	4900	2530	51,63%
55101 <i>Hotel-restaurants</i>	1535	260	16,94%
55102 <i>Hotels (not hotel-restaurants)</i>	3365	2270	67,46%
552 <i>Holiday home rentals etc.</i>	1945	1055	54,24%
55201 <i>Rental of holiday homes</i>	1835	1010	55,04%
55202 <i>Youth hostels, group accommodations</i>	110	50	45,45%
553 <i>Campsites</i>	1990	820	41,21%
559 <i>Other accommodation</i>	520	410	78,85%
56 <i>Eating and drinking establishments</i>	51240	21715	42,38%
561 <i>Restaurants, other eateries</i>	28735	7555	26,29%
56101 <i>Restaurants</i>	14310	2585	18,06%
59 <i>Motion picture and TV production; sound recording</i>	19610	17475	89,11%
591 <i>Production, distribution of films, TV</i>	16360	14690	89,79%
5911 <i>Motion picture and television production</i>	11995	10675	89,00%
59111 <i>Film production, not television films</i>	10890	9695	89,03%
592 <i>Making and publishing sound recordings</i>	3255	2790	85,71%
5920 <i>Making and editing sound recordings</i>	3255	2790	85,71%
73-75 <i>Advertising, design, other services</i>	121140	107865	89,04%
74 <i>Design, photography, translation agencies</i>	84150	77765	92,41%
74101 <i>Graphic design</i>	17180	16040	93,36%
81 <i>Cleaning contractors, gardeners, etc.</i>	28555	20465	71,67%
8110 <i>Facility management</i>	930	745	80,11%
R-U <i>Culture, recreation, other services</i>	221025	192645	87,16%
R <i>Culture, sport and recreation</i>	112285	99830	88,91%
93 <i>Sports and recreation</i>	22825	16355	71,65%
932 <i>Other recreation</i>	9415	7165	76,10%
S <i>Other services</i>	108590	92780	85,44%

Source: CBS StatLine (2020)

## 7 About the author



Adriaan van Liempt, PhD ([liempt.a@buas.nl](mailto:liempt.a@buas.nl)) works as a teacher and researcher in sociology and methodology at the Academy Leisure & Events (BUAs). He studied sociology at Tilburg University and obtained his PhD at the University of Amsterdam with a study on the presence and future of collective labour agreements in the Dutch IT industry. Although he ran a software development agency from 1994 to 2010, during and after his studies, he was never a true entrepreneur in the sense of taking risks and responsibilities as an employer. Van Liempt was, above all, someone who was able to combine creativity and analytical skills with something that was in demand at the time.

Today, Van Liempt is interested in a wide range of topics. As a programming, data and modelling nerd, he enjoys developments in the fields of data science and machine learning. As a leisure and tourism researcher, his current focus is on experience and impact. As a labour sociologist, he is interested in the role and position of entrepreneurship in relation to the labour market and its institutions.



Games



Media



Hotel



Facility



Built Environment



Logistics



Tourism



Leisure & Events



Mgr. Hopmansstraat 2  
4817 JS Breda

P.O. Box 3917  
4800 DX Breda  
The Netherlands

**PHONE**

+31 76 533 22 03

**WEBSITE**

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