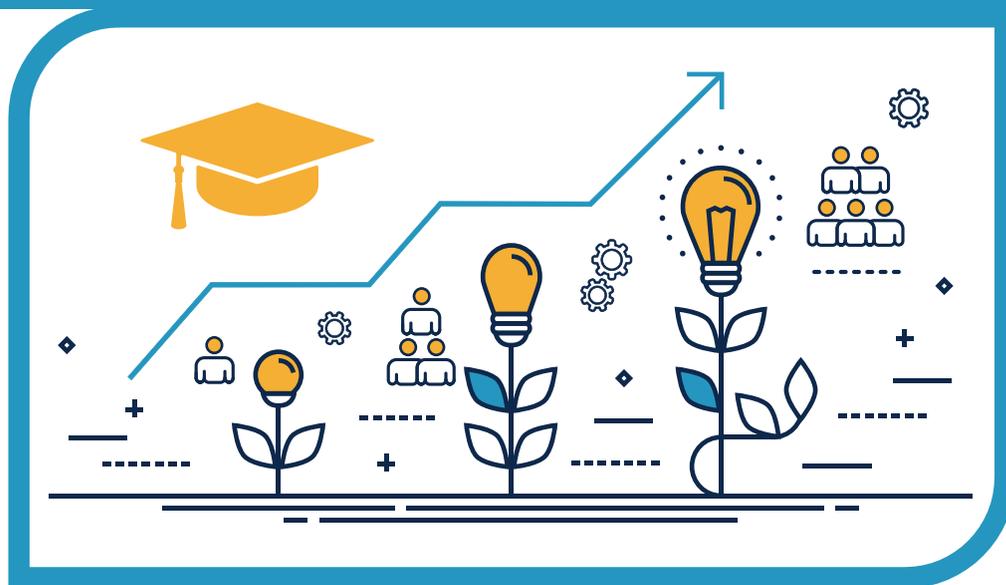


# STUDENT AND GRADUATE ENTREPRENEURSHIP IN ITALY



## REPORT 2020

IN COLLABORATION WITH:



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA  
DIPARTIMENTO DI SCIENZE AZIENDALI



UNIONCAMERE

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\* AlmaLaurea Interuniversity Consortium

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## EXECUTIVE SUMMARY





**OBJECTIVE OF THE STUDY**

Mapping the state of the art of entrepreneurial behaviour in Italy among graduates over the last twenty years.

**SOURCE OF DATA**

Graduates who obtained a degree from an Italian university during the 2004-2018 period and who are in the AlmaLaurea Database, and companies founded or invested in by graduates, which are in the Unioncamere database and in that of AIDA Bureau van Dijk.



**FOUNDERS**

**7.1%**  
**(205,137)**

A founder is a person who owns an equity share and holds a position as administrator or owner in a company when it is founded.



**JOINERS**

**2.3%**  
**(66,098)**

A joiner is a graduate who acquires an equity share in a company equal to at least 10%, after that company was already founded.



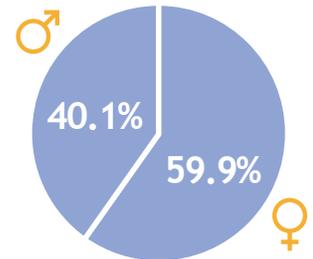
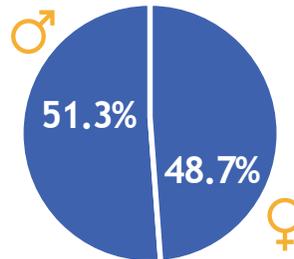
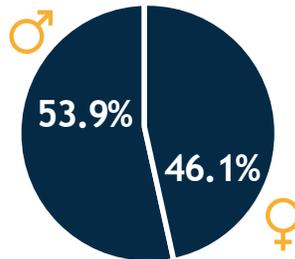
**POPULATION**

**2,891,980**

Graduates who obtained a degree from an Italian university from 2004 to 2018 (AlmaLaurea Database)

**GENDER**

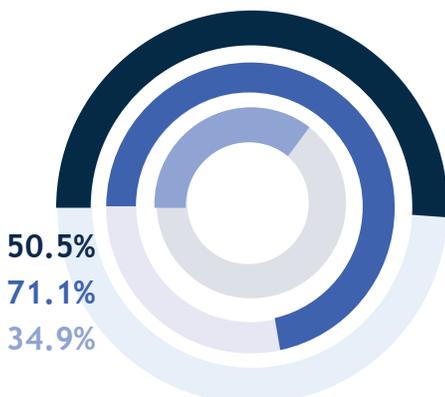
Men represent 53.9% of founders while women are 46.1%. As for joiners, men represent 51.3% while women are 48.7%. Overall gender percentages among graduates are 40.1% and 59.9%, respectively.



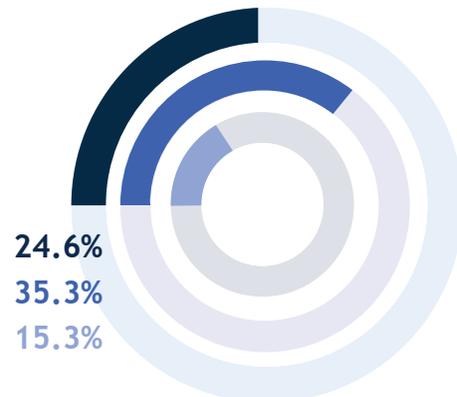
**FAMILY BACKGROUND**

50.5% of founders and 71.7% of joiners have a father who is an entrepreneur or self-employed (a considerably higher percentage than that of all graduates, which is 34.9%). 24.6% of founders and 35.3% of joiners have a mother who is an entrepreneur or self-employed (a considerably higher percentage than that of all graduates, which is 15.3%). Among the founders and joiners, the children of managers, office and factory workers are less represented than the population.

**FATHER WHO IS AN ENTREPRENEUR OR SELF-EMPLOYED**



**MOTHER WHO IS AN ENTREPRENEUR OR SELF-EMPLOYED**





## FOUNDERS



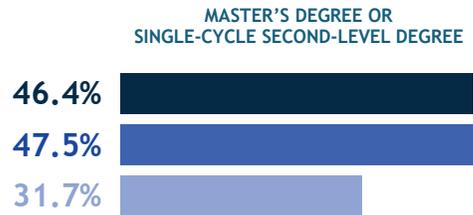
## JOINERS



## POPULATION

### TYPE OF COURSE

More than half of founders (53.6%) and joiners (52.5%) have a Bachelor's degree (compared to 68.3% of all graduates); 46.4% of founders and 47.5% joiners have a Master's degree or Single-cycle second-level degree (compared to 31.7% of all graduates).



THE MOST REPRESENTED FIELDS OF STUDY AMONG FOUNDERS (compared to the population)

- 18.1% ECONOMIC-STATISTICAL (+5.5)
- 14.2% POLITICS, SOCIAL SCIENCES (+2.3)
- 9.4% LAW (+1.0 POINTS)



### GRADUATION UNIVERSITY AND GEOGRAPHICAL MOBILITY

75.0% of the founders studied created a company in the same region as the university they received their degree from, 11.3% did so in a different region but in the same geographical area of the university, and the remaining 13.6% created a company in a different geographical area than that of the university. 74.2% of joiners have acquired equity shares in a company based in the same region in which they studied, 12.5% in a company based in a different region but in the same geographical area as their studies, and 13.3% joined a company in a different geographical area from that of the university in which they obtained their degree.

75.0% COMPANY IN THE SAME REGION AS THE UNIVERSITY THEY RECEIVED THEIR DEGREE FROM



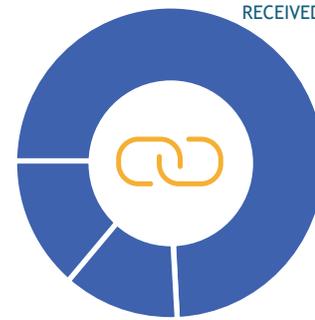
13.6%

COMPANY IN A DIFFERENT GEOGRAPHICAL AREA THAN THAT OF THE UNIVERSITY

11.3%

DIFFERENT REGION BUT IN THE SAME GEOGRAPHICAL AREA OF THE UNIVERSITY

74.2% COMPANY IN THE SAME REGION AS THE UNIVERSITY THEY RECEIVED THEIR DEGREE FROM



13.3%

COMPANY IN A DIFFERENT GEOGRAPHICAL AREA THAN THAT OF THE UNIVERSITY

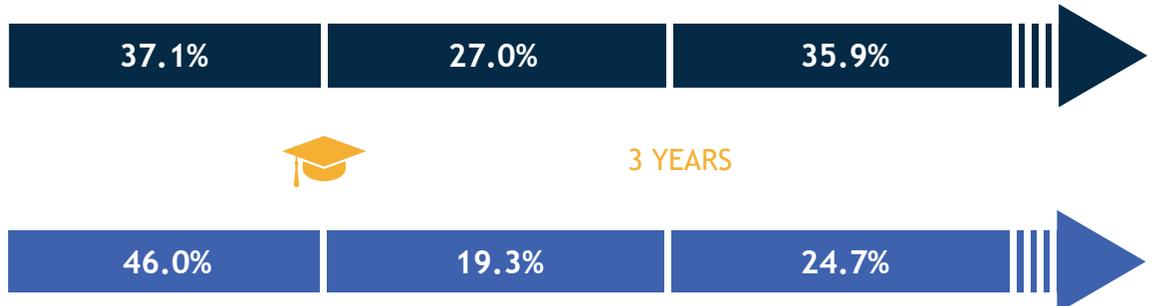
12.5%

DIFFERENT REGION BUT IN THE SAME GEOGRAPHICAL AREA OF THE UNIVERSITY

### TIME OF FOUNDATION FROM DATE OF GRADUATION

37.1% of founders founded their company before graduating, 27.0% by the third year after graduation, and 35.9% three or more years after graduation

46.0% of joiners acquired an equity share before graduating, 19.3% within three years of graduation, and 24.7% after the third year after graduation.



## FOUNDERS



84.9% FOUNDERS who have founded A SINGLE company

15.1%

SERIAL FOUNDERS (they founded more than one company)

38.6% OF THE FOUNDERS FOUNDED A PARTNERSHIP OR A CORPORATION

Of them:



6.7% OF GRADUATES founded their company WITH FELLOW UNIVERSITY STUDENTS

2.7% OF GRADUATES founded their company WITH FELLOW STUDENTS ON THE SAME COURSE



## COMPANIES FOUNDED BY GRADUATES

The companies founded by graduates refer to the 1995-2019 period and, unless otherwise indicated, are compared to the companies founded in Italy in the same period.

### COMPANIES FOUNDED BY GRADUATES

**236,362**  
(2.2%)

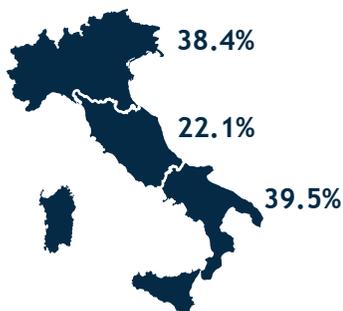
### COMPANIES FOUNDED IN ITALY

**10,783,746**

(Unioncamere Database)

#### GEOGRAPHICAL AREA

In the ten-year period from 2009 to 2018, 38.4% of companies founded by graduates were headquartered in Northern Italy (compared to 44.3% of all companies founded in Italy), 22.1% in Central Italy (compared to 22.3% of all companies), 39.5% were headquartered in Southern Italy (compared to 33.4% of all companies).



#### LEGAL FORM

60.2% of companies founded by graduates were sole proprietorships, 24.8% were corporations and 15.0% were partnerships. At a national level, during the same timeframe, 66.2% of companies established were sole proprietorships, 18.8% were corporations, 12.3% were partnerships and 2.7% were companies with other legal forms.



#### STATUS OF COMPANIES: COMPANIES CEASED

44.0% of companies founded by graduates have since ceased operations. At the national level the percentage of companies that had ceased operations was 83.2%.



#### WOMEN-LED COMPANIES

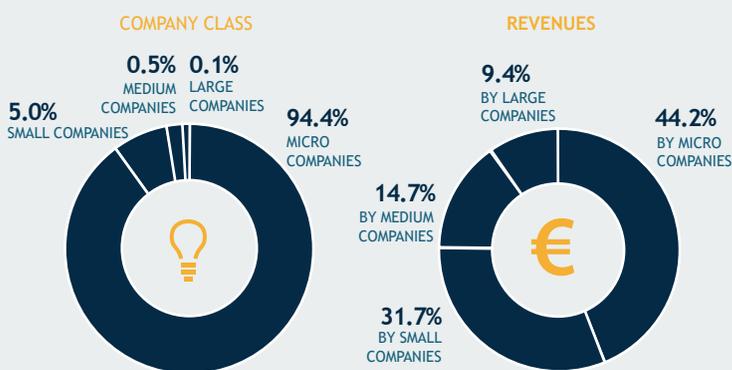
Women-led companies comprise 38.0% of companies founded by graduates. This percentage is higher than the national one, which stands at 22.7%.



#### CORPORATIONS

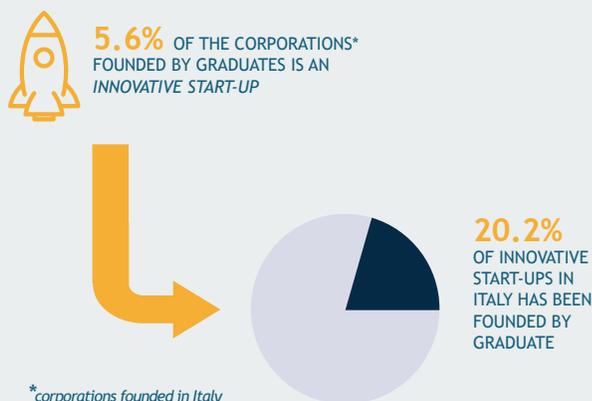
##### COMPANY CLASS AND REVENUES

In terms of revenues, focusing on corporations, 94.4% of companies founded by graduates are micro companies; 5.0% are small companies; 0.5% are medium companies; and 0.1% are large companies. What stands out is that 44.2% of total revenues are generated by micro companies, 31.7% by small companies, 14.7% by medium companies and the remaining 9.4% by large companies.



##### INNOVATIVE START-UPS

Graduates founded 2,127 innovative start-ups, representing 5.6% of the total number of corporations founded by graduates from 2013 to 2019 and 20.2% of the total number of innovative start-ups founded in Italy in the same period.



\*corporations founded in Italy from 2013 to 2019



## COMPANIES INVESTED IN BY GRADUATES

The companies invested in by graduates refer to the period 1995-2019 \* and are compared with companies founded by graduates in the same period, excluding sole proprietorships from the latter.

\* The year 1995 includes companies owned by graduates, founded in 1995 or earlier, while the year 2019 is observed until September.

### COMPANIES INVESTED IN BY GRADUATES

# 68,852

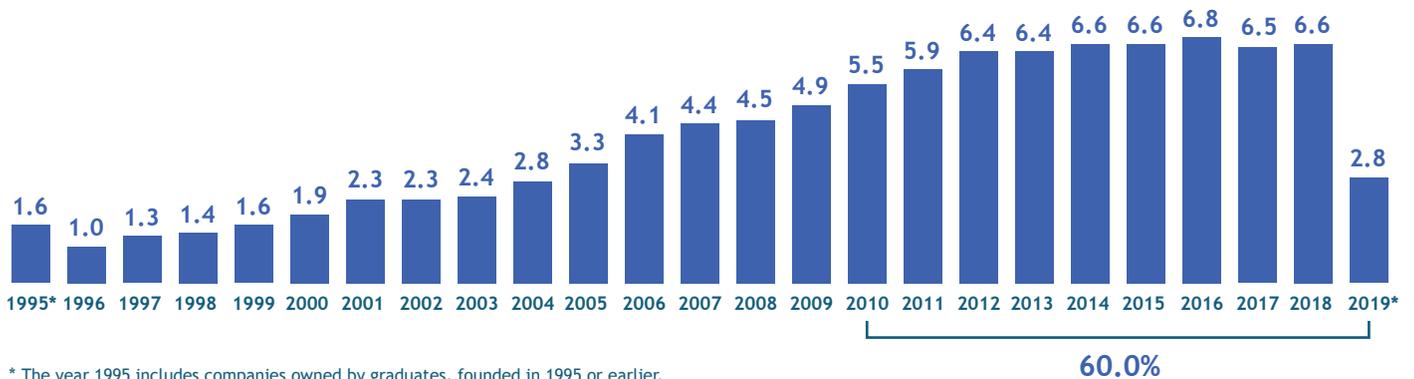
### COMPANIES FOUNDED BY GRADUATES

# 94,151

SOLE PROPRIETORSHIPS EXCLUDED

#### YEAR OF INVESTMENT

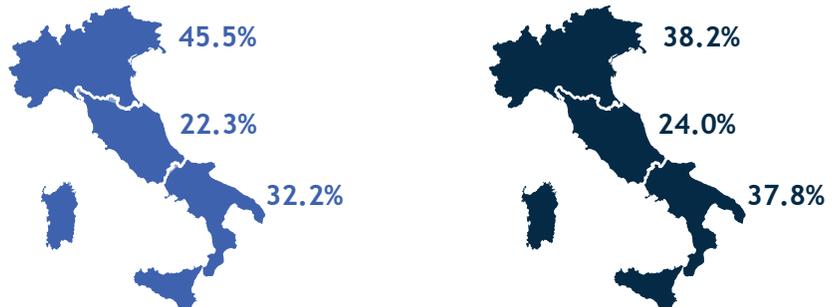
60.0% of acquisitions of equity shares by graduates took place in the last ten years (2010-2019; percentage value).



\* The year 1995 includes companies owned by graduates, founded in 1995 or earlier, while the year 2019 is observed until September.

#### GEOGRAPHIC AREA

45.5% of the companies invested in by graduates are based in Northern Italy, compared to 38.2% of the companies founded by graduates during the same period; 22.3% are based in Central Italy (compared to 24.0% of companies founded) and 32.2% in Southern Italy (compared to 37.8% of companies founded).



#### STATUS OF COMPANIES: COMPANIES CEASED

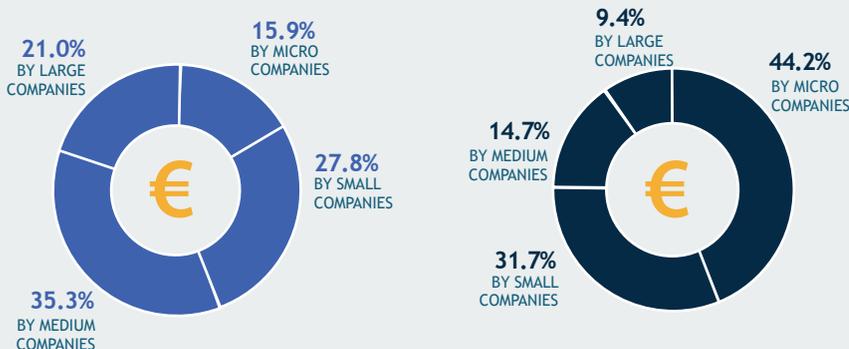
23.5% of companies invested in by graduates have ceased operations, compared to 25.8% of the companies founded.



#### CORPORATIONS

##### COMPANY CLASS AND REVENUES

56.3% of total revenues are generated by large companies (21.0%) and medium companies (35.3%); 27.8% by small companies and 15.9% by micro companies. For companies founded by graduates, 75.9% of total revenues are generated by micro (44.2%) and small (31.7%) companies, 14.7% by medium companies and 9.4% by large companies.



##### INNOVATIVE START-UPS

Innovative start-ups invested in by graduates represent 6.3% of all corporations invested in by graduates and founded between 2013 and 2019.



**6.3%** OF ALL CORPORATIONS INVESTED IN BY GRADUATES IS AN INNOVATIVE START-UP



## Index

1.	INTRODUCTION .....	11
2.	THE STUDY .....	15
2.1	THE CONTEXT OF THE STUDY: UNIVERSITY DEGREES IN ITALY .....	17
3.	ENTREPRENEUR GRADUATES .....	19
3.1	CHARACTERISTICS OF THE POPULATION .....	20
	Demographics .....	21
	Family background .....	21
	Degree Course .....	22
	University .....	23
3.2	PERCENTAGE OF GRADUATE FOUNDERS .....	25
	Demographics .....	25
	Family background .....	25
	Degree Course .....	26
	University .....	27
	Trends in the percentage of founders .....	29
3.3	CHARACTERISTICS OF FOUNDERS .....	35
	Demographics .....	35
	Family background .....	36
	Degree Course .....	37
	Graduation University and Geographical Mobility .....	38
	Time of foundation from date of graduation .....	41
3.3.1	SERIAL FOUNDERS .....	42
	Demographics .....	43
	Family background .....	43
	Degree Course .....	45
	Graduation University and Geographical Mobility .....	46
	Time of foundation from date of graduation .....	47
3.3.2	FOUNDERS STARTING A COMPANY WITH FELLOW STUDENTS FROM THE SAME UNIVERSITY OR COURSE .....	47
	Demographics .....	49
	Family background .....	50
	Degree Course .....	51
	Graduation University and Geographical Mobility .....	53
	Time of foundation from date of graduation .....	54
3.4	PERCENTAGE OF JOINER GRADUATES .....	55
	Demographics .....	55
	Family background .....	56
	Graduation Year .....	56
	Degree Course .....	57
	University .....	57
3.5	CHARACTERISTICS OF JOINER .....	59

Demographics .....	59
Family background .....	59
Degree Course.....	61
Graduation University and Geographical Mobility .....	62
Time from date of graduation to joining .....	64
4. THE COMPANIES.....	65
4.1 CHARACTERISTICS OF COMPANIES FOUNDED IN ITALY .....	67
Foundation Year .....	68
Geographical area .....	69
Legal form .....	69
Status of companies .....	70
Economic sectors .....	70
Innovative start-ups .....	70
Women-led Companies.....	71
4.2 CHARACTERISTICS OF GRADUATE-FOUNDED COMPANIES .....	71
Foundation Year .....	71
Geographical area .....	72
Legal Form .....	75
Status of companies founded .....	77
Economic sectors .....	79
Growth rate.....	83
Economic impact of companies founded by graduates: performance and growth. Focus on corporations .....	84
Innovative start-ups .....	87
Women-led Companies.....	89
Companies founded by graduates returning to their own area of residence.....	90
4.3 CHARACTERISTICS OF COMPANIES INVESTED IN BY GRADUATES .....	92
Foundation Year .....	92
Year Joined .....	94
Geographical area .....	95
Legal form .....	97
Status of companies invested in.....	99
Economic sectors .....	101
Growth rate.....	103
Economic impact of companies invested in by graduates: performance and growth. Focus on corporations.....	105
Innovative start-ups .....	107
METHODOLOGICAL NOTES.....	108
BIBLIOGRAPHY .....	119
APPENDIX .....	121



# 1. INTRODUCTION



Universities are key institutions when it comes to creating, preserving, and disseminating knowledge. Given the increased importance of science and technology in the world economy, universities have been called upon to play a fundamental role in applying and increasing knowledge so as to contribute to society's social, cultural, and economic development. Since the reforms introduced in the USA with the Bayh-Dole Act of 1980, a number of countries have changed their rules regarding regulation of intellectual property rights, creation of new companies, management of consultancy contracts, and national oversight of activities that pertain to technology transfer.

In this environment, scholars, policymakers, and society as a whole have begun to pay more attention to graduates who choose to become entrepreneurs. In particular, there is interest in evaluating and measuring the impact that universities have on both local and national economies, thanks to these initiatives. The first study on entrepreneurship among graduates dates back to 2003, when Edward Roberts and Charles Eesley of the Massachusetts Institute of Technology (MIT) analysed companies founded by MIT alumni and measured their impact. In particular, the results of the study showed that over 20% of MIT alumni had founded one or more companies, significantly contributing to regional innovation ecosystems and the global economy (Roberts & Eesley, 2011). Similar studies conducted at Stanford University (Eesley & Miller, 2012) and Tsinghua University (Eesley et al., 2009) show that 29% and 24% of alumni, respectively, became entrepreneurs.

Over the past few years, many universities have started monitoring and evaluating their graduates' business endeavours in order to measure their economic impact on both a local and national scale. To this end, several studies on entrepreneurial graduates have been conducted in Italy. In 2014, the Department of Management at the University of Bologna, in collaboration with AlmaLaurea, developed a specific study to collect information relating to student entrepreneurs. The study focused on a population of 65,115 students from 64 Italian universities who graduated between September and December 2014. Results showed that 1,644 (2.7%) graduates founded a company during their time at university or before starting their studies (Fini et al., 2016). A study conducted in the same period by the Politecnico University in Milan shows that 3.4% of alumni founded a company in the period between when they enrolled in a Master's degree programme and five years after graduation (Colombo et al., 2015). Finally, the GUESS project, launched in 2003 by the Swiss Institute for Small Business and Entrepreneurship at the University of St. Gallen, monitors the entrepreneurial plans and endeavours of students in 34 different countries, including Italy. The GUESS project is based on sample interviews of students about to graduate. It is one of the first studies that allowed scholars to compare the entrepreneurial behaviour of students from different countries (Sieger et al., 2014). The latest report released by the GUESS project reflects data from 2018. According to that data, 7.2% of respondents in Italy are currently



managing a company, a higher percentage than in 2016 (4.9%) but lower than average among the 34 countries surveyed (11.2%) (Hahn et al., 2018).

These studies have made it possible to measure the phenomenon of graduate entrepreneurship for the first time. While rigorous, however, they have some limitations. First of all, some focus on a specific time frame (Fini et al., 2016); others, such as those conducted by Eesley and colleagues, analyse a much longer time span but focus on individual universities. Still others, such as the one conducted by GUESS, do not focus on the entire population but on specific samples (Sieger et al., 2014). Finally, almost all studies, with the exception of that by Colombo et al. (2015), use data on companies founded by student entrepreneurs based on answers given by the students themselves and not on structured and verifiable information that can be directly accessed through formal records.

The objective of this study, which arose from a partnership between the AlmaLaurea Interuniversity Consortium, the Department of Management at the University of Bologna, and Unioncamere, is to overcome some of these limits. It aims to provide a detailed and complete analysis of entrepreneurial behaviour among graduates in Italy over a period of more than twenty years, using established longitudinal databases both for individuals and for the companies founded and/or invested in by graduates.





## 2. THE STUDY



The study herein has three objectives. First, it wants to provide a complete picture of entrepreneurial behaviour in Italy among graduates. Secondly, it aims to analyse in depth the characteristics of graduates who have founded a new company or who have acquired equity shares as shareholders in existing companies. Finally, it aims to typify companies that are founded or invested in by graduates, measuring their economic impact.

For this purpose, a longitudinal database has been built, containing data on the graduate presence in companies as well as on the companies in which graduates are involved. The database covers the full spectrum of graduates' entrepreneurial activities, ranging from establishing companies to managing and acquiring shares in existing companies. More specifically, the study examined information on the creation of companies, the amount of capital owned by graduates, and their role in the company. This information makes it possible to analyse the complexity of the phenomenon and to outline its characteristics.

In order to analyse graduates' entrepreneurial activities, the first step was to examine the characteristics of graduates who obtained a degree from an Italian university between 2004 and 2018. This data, which was contained in the AlmaLaurea database, focused on individuals' socio-demographic characteristics and the characteristics of their completed degree course. Founded in 1994, AlmaLaurea is an Interuniversity Consortium which consists of 76<sup>1</sup> Italian universities to date (2020), representing about 90% of all graduates in Italian universities every year. Participating universities provide administrative data to AlmaLaurea relating to the characteristics of the degrees obtained by graduates (university, degree course, date and graduation grade, etc.). This data is added to the information derived from the annual surveys carried out by the Consortium: the Graduate Profile Survey and the Employment Status Survey, conducted one, three, and five years after the completion of degrees, PhDs and postgraduate diplomas.

Information regarding companies founded or invested in by graduates was obtained from the Italian Business Register, one of the databases of Unioncamere, the Italian Union of Chambers of Commerce, Industry, Handicrafts, and Agriculture. The business register is a public and digital register and can be defined as a general registry of companies, in which the data of all companies, of any legal form and economic sector, with headquarters or offices in the country, are found. In particular, information was retrieved regarding all companies founded and invested in by graduates in the years 2004 to 2018. These business endeavours were largely undertaken from 1995 to 2019 (data is current as of September 2019); in other words, such endeavours were not necessarily begun after graduation, but also during university studies, or even before. For this reason, the phenomenon of graduate

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<sup>1</sup> There are 97 Italian universities overall; Bocconi University, the Catholic University of the Sacred Heart, the Politecnico di Milano, the LUISS Business School in Milan, online universities, and a few other universities with a limited number of students do not belong to the Consortium.



entrepreneurship analysed herein also includes, in a broad sense, that of university students. Finally, to round out the information on companies founded and invested in by graduates, data on the companies' financial statements, contained in the AIDA Bureau van Dijk database, was also collected.

By integrating these different databases, it was possible to create a single database as well as an innovative and unique study of its kind. On one hand, it was possible to identify graduates who have created a new company or who have acquired equity shares and to compare them with graduates in Italy as a whole; on the other hand, it was possible to identify the companies created or invested in by graduates, comparing them to the sum total of Italian companies.

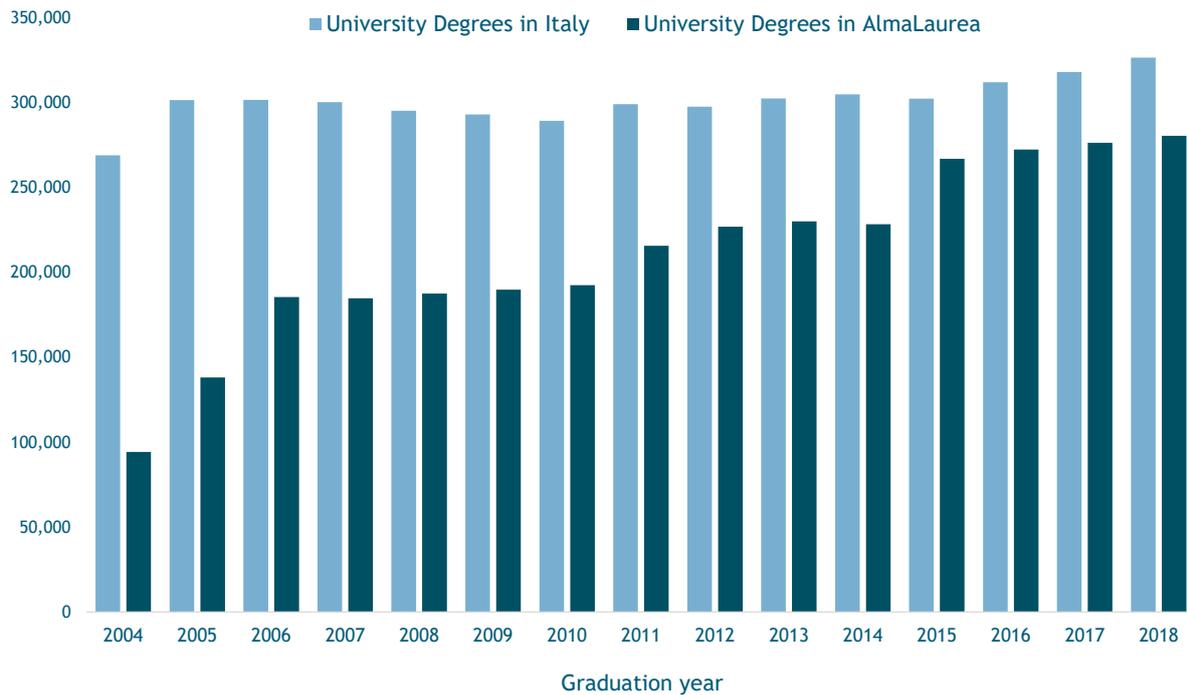
## 2.1 THE CONTEXT OF THE STUDY: UNIVERSITY DEGREES IN ITALY

Figure 2.1 shows the number of degrees obtained in Italy (MUR, 2018) and the number of degrees obtained from Consortium member universities, by graduation year<sup>2</sup>. The Italian Ministry data shows how, since 2004, the number of degrees has grown. In 2017, over 317,000 degrees were obtained from one of the 97 Italian universities (+ 1.2% compared to 2004). The increase in the number of university degrees also derives from Ministerial Decree Reform no. 509/1999, which separates the Italian university system into two levels: first-level degrees (Bachelor's degrees) and second-level degrees (Master's degrees, or single-cycle second-level degrees).

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<sup>2</sup> If the same individual has obtained more than one university degree, they are counted here as many times as the number of degrees obtained.

**Figure 2.1** Degrees obtained in Italian universities and degrees in the AlmaLaurea database.  
Years 2004-2018 (absolute values)



Note: the data refers to the degrees obtained, so if the same individual has obtained more than one university degree, they are counted here as many times as the number of degrees obtained.

Source: Italian Ministry of University and Research (“University Degrees in Italy”), AlmaLaurea (“University Degrees in AlmaLaurea”)

With reference to the AlmaLaurea data, it is important to highlight that the sharp increase in the number of degrees seen over the years is mainly linked to the increase in the number of universities belonging to the Consortium. Consequently, the analyses and results regarding the companies founded and invested in by graduates are affected by changes in composition of the population of graduates and universities.



## 3. ENTREPRENEUR GRADUATES



The objective of this section is to typify and describe the graduates who have founded or have acquired an equity share in a company. In particular, the first section focuses on the characteristics of graduates who found companies (also called “founders”); the second part focuses on those of graduates who own shares in a company (also called “joiners”). In both cases, a summary of their demographic characteristics, family background, the characteristics of the degree course and the university, and the location of the company compared to that of the university will be provided.

### 3.1 CHARACTERISTICS OF THE POPULATION

The AlmaLaurea database collects data on degrees, postgraduate diplomas and PhDs. For the purpose of this study, the focus was solely on degrees; analysis of postgraduate qualifications will be performed in a future study.

The results in this Report encompass 2,891,980 individuals who obtained their degree between 2004 and 2018 in one of the Consortium member universities<sup>3</sup>. With reference to this population, **Errore. L'origine riferimento non è stata trovata.** Table 3.1 shows, for each calendar year, the number of graduates and universities present in the AlmaLaurea database. In the latter category, the number of universities increased from 38 in 2004 to 75 in 2018.

**Table 3.1 Graduates from 2004 to 2018 and universities, by graduation year**

Graduation year	Graduates		Number of universities
	Absolute value	Percentage value	
2004	149,143	5.2	38
2005	193,091	6.7	43
2006	197,981	6.8	48
2007	182,671	6.3	51
2008	179,931	6.2	56
2009	171,583	5.9	57
2010	199,247	6.9	67
2011	206,189	7.1	71
2012	208,171	7.2	74
2013	205,720	7.1	75
2014	201,632	7.0	75
2015	196,538	6.8	75
2016	199,322	6.9	75
2017	199,241	6.9	75

<sup>3</sup> In this paragraph and in the subsequent ones, the term “graduates” refers to those individuals who have obtained a degree and who are present in the AlmaLaurea database. Therefore, each individual is only counted once, regardless of the number of degrees obtained. Please refer to the Methodological Notes for more details.



2018	201,520	7.0	75
<b>Total</b>	<b>2,891,980</b>	<b>100.0</b>	

The main characteristics of the cohort as a whole are described below. Please refer to the Appendix for a separate analysis broken down by graduation year.

### Demographics

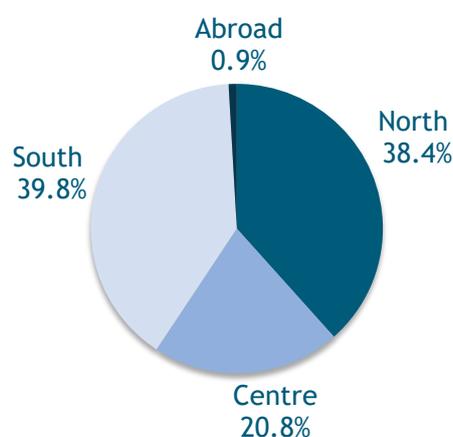
Women are more prevalent in the population of graduates studied; they comprise 59.9% of graduates, while men are the remaining 40.1%.

**Table 3.2 Graduates from 2004 to 2018: gender (absolute and percentage values)**

	Total graduates (n=2,891,980)	
	n	%
Men	1,160,671	40.1
Women	1,731,309	59.9

At the time of graduation, 38.4% of graduates resided in the North of Italy, 20.8% in the Centre, 39.8% in the South, and the remaining 0.9% reside abroad.

**Figure 3.1 Graduates from 2004 to 2018: geographical area of residence (percentage values)**



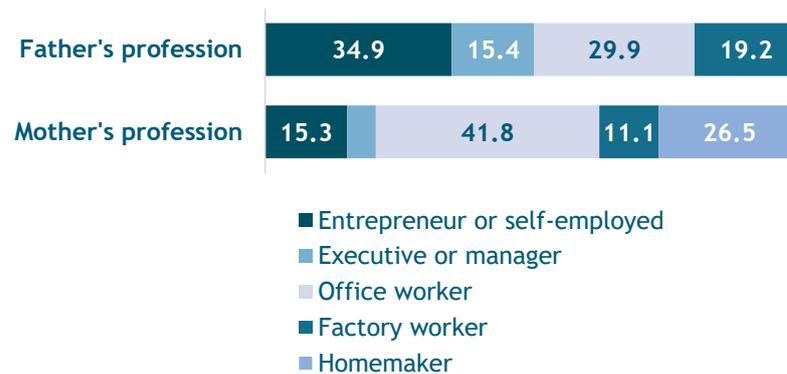
Almost all graduates in Italy are Italian citizens (96.7%); only 3.3% are foreign citizens.

### Family background

The information from the Graduate Profile Survey (AlmaLaurea, 2020a) makes it possible to typify the graduates' family background, specifically in terms of each parent's education and profession. Over 25% of graduates report that they have at least one parent with a university degree. In greater detail, 10.4% have two parents with a degree, while a further 16.9% report having only one parent with a degree. The remaining graduates (72.7%) come from families where the parents do not hold a degree.

In terms of parental profession, it appears that 34.9% of graduates have fathers who are self-employed (entrepreneurs or self-employed). The remainder report fathers working as employees, in positions such as executive or manager (15.4%), office worker (29.9%), or factory worker (19.2%). The percentage of graduates with homemaker fathers (0.5%) is minimal.

**Figure 3.2 Graduates from 2004 to 2018: profession of father and mother (percentage values)**



As pertains to the mother's profession, there are fewer entrepreneurs or self-employed (15.3%) as well as fewer executives or managers (5.4%); on the other hand, the percentage of mothers who are office workers is higher (41.8%). Graduates with mothers who are factory workers account for 11.1% of the total, while 26.5% of graduates have mothers who are homemakers.

### Degree Course

Over two-thirds of graduates obtained a Bachelor's degree (68.3%), while the remaining 31.7% obtained a Master's degree or Single-cycle second-level degree.

23.5% of graduates obtained a STEM (Science, Technology, Engineering, and Mathematics) degree, while the remaining 76.5% received a non-STEM degree.



**Table 3.3 Graduates from 2004 to 2018: degree characteristics**  
(absolute and percentage values)

		Total graduates (n=2,891,980)	
		n	%
<b>Degree type</b>	First-level	1,976,253	68.3
	Second-level	915,727	31.7
<b>STEM/non-STEM</b>	STEM	680,664	23.5
	non-STEM	2,211,316	76.5
<b>Fields of study</b>	economic-statistical	366,283	12.7
	politics, social sciences	342,351	11.8
	engineering	297,861	10.3
	health professions	286,692	9.9
	humanities	249,564	8.6
	law	244,613	8.5
	foreign languages	174,851	6.0
	education	154,103	5.3
	architecture	134,057	4.6
	geo-biological	124,410	4.3
	psychological	118,650	4.1
	medicine and dentistry	95,048	3.3
	mathematics, physics, natural sciences	83,204	2.9
	agriculture	56,142	1.9
	pharmaceutical	53,473	1.8
	physical education	48,810	1.7
	chemistry	44,917	1.6
veterinary	12,019	0.4	
defence, security, military studies	4,932	0.2	

Most graduates completed courses that fell into the field of study of economic-statistical (12.7%), politics, social sciences (11.8%), and engineering (10.3%). Less represented, on the other hand, are graduates from the health professions (9.9%) or from humanities (8.6%), law (8.5%), foreign languages (6.0%), and education (5.3%) programmes. Still fewer graduates come from eleven other fields of study, each of which represents less than 5% of graduates: architecture (4.6%), geo-biological (4.3%), psychological (4.1%), medicine and dentistry (3.3%), mathematics, physics, natural sciences (2.9%), agriculture (1.9%), pharmaceutical (1.8%), physical education (1.7%), chemistry (1.6%), veterinary (0.4%), and defence, security, military studies (0.2%).

### University

42.0% of graduates come from a university in the north of Italy, 24.8% from a university in the centre, and 33.2% from a university in the south.

In almost all cases, graduates obtained their degree from a state university (97.3%); the percentage of graduates from non-state universities (2.7%) is nominal.

Based on the number of students enrolled, the universities were divided into four categories<sup>4</sup>:

- small, responsible for 8.9% of the graduates;
- medium, responsible for 15.4% of the graduates;
- large, responsible 30.9% of the graduates;
- mega, responsible 44.8% of the graduates.

**Table 3.4 Graduates from 2004 to 2018: university characteristics**  
(absolute and percentage values)

		Total graduates (n=2,891,980)	
		n	%
<b>Geographic area</b>	North	1,216,003	42.0
	Centre	716,912	24.8
	South and isles	959,065	33.2
<b>State/ non state</b>	State	2,813,090	97.3
	Non state	78,890	2.7
<b>Size</b>	Small	256,903	8.9
	Medium	445,466	15.4
	Large	893,793	30.9
	Mega	1,295,818	44.8

When looking at the results, it is necessary to consider not only the demographics of the population but also the country's economic conditions and the different employment opportunities that were available to graduates when they entered the job market. The following pages show general results for the population as a whole. Please refer to the Appendix and, for the percentage of founders, to paragraph 3.2. for a detailed analysis by graduation year.

The following paragraphs, focusing on graduates who are also entrepreneurs, first describe those who have founded a company and then those who purchased an equity share of a company after it was founded.

<sup>4</sup> The universities were divided into four categories based on the information from the Italian Ministry of University and Research regarding the number of students enrolled. Specifically, "small" universities are defined as having at most 10,000 students enrolled; "medium" universities are those with enrolments between 10,000 and 20,000; "large" universities are those with 20,000-40,000 students; and "mega" universities have over 40,000 students. For further information, see the Methodological Notes.



## 3.2 PERCENTAGE OF GRADUATE FOUNDERS

By merging the AlmaLaurea database and the Unioncamere database, it became possible to identify graduates who have created a new company, hereinafter defined as founders. These are individuals who hold a position of ownership or administration and own equity shares of a specific company (these conditions must be met at the moment the company itself was created).

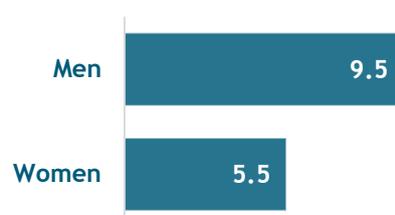
Out of the total population analysed, 7.1% of graduates (205,137 individuals) are founders.

The percentage of founders observed in the population under analysis varies according to the characteristics of the population itself.

### Demographics

Entrepreneurial endeavours are more widespread among men, among whom the percentage of founders rises to 9.5%, while among women it drops to 5.5%.

Figure 3.3 Graduates from 2004 to 2018: percentage of founders by gender (percentage values)



Among graduates resident in the North, 6.8% of graduates are founders, while the percentage is higher among residents of central Italy (7.2%) and in the south (7.5%). The percentage of founders among those that reside abroad is nominal (1.4%).

Among graduates with foreign citizenship, the percentage of founders is lower than average (3.8%).

### Family background

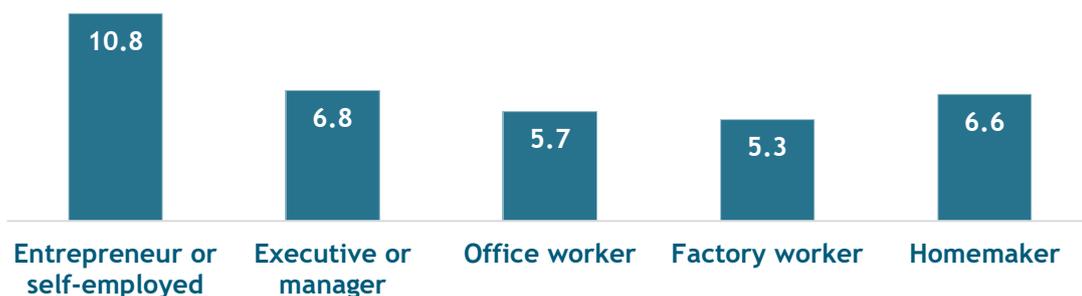
Entrepreneurship is strongly linked to the characteristics of the family background, in particular to the parents' profession. Indeed, the percentage of founders is higher than the average (the aforementioned 7.1%) among graduates who have at least one parent who is self-employed. In greater detail, considering the father's profession, the rate of entrepreneurial endeavours among graduates whose fathers are entrepreneurs or self-employed is equal to 9.9% (16.8% for those with an entrepreneur father and 8.9% for those with a self-employed father). On the other hand, the percentage of founders among graduates whose fathers are executives or managers drops to 6.5%, while the percentage among those whose father is an office or factory worker is lower than 5%.

**Figure 3.4 Graduates from 2004 to 2018: percentage of founders by father's profession (percentage values)**



The pattern is confirmed if the mother's profession is taken into account. Among graduates with a mother who is an entrepreneur or self-employed, 10.8% are founders (17.5% for those whose mother is an entrepreneur; 10.1% for those whose mother is self-employed), while the percentage is below average among graduates with a mother who is an executive or manager (6.8%), office worker (5.7%), factory worker (5.3%), or homemaker (6.6%).

**Figure 3.5 Graduates from 2004 to 2018: percentage of founders by mother's profession (percentage values)**



On the other hand, there are no noteworthy differences in entrepreneurship when it comes to the parents' education. The percentage of founders among those who have at least one parent with a degree is 6.8%, while it is 6.9% for graduates whose parents do not hold a degree.

### Degree Course

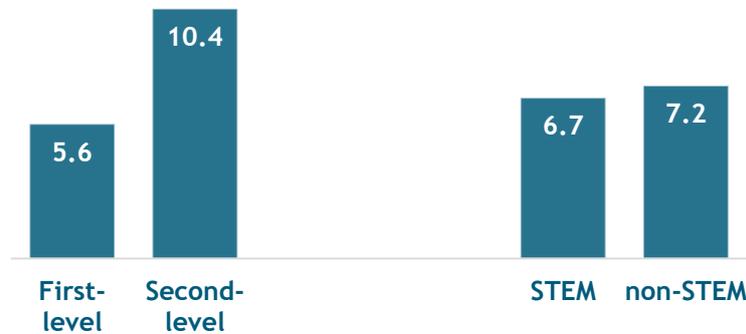
When analysing the data with regard to the degree obtained, it becomes clear that the percentage of founders decreases over time, going from 10.2% of those who graduated in 2004 to 2.6% of graduates in 2018. This result reflects the nature of the data itself. As described in paragraph 3.3, it is consistent with the substantial percentage of founders who started their company after graduation. For a more appropriate temporal analysis, please refer to the paragraph "Trend in the percentage of founders".

With respect to the type of course, only 5.6% of Bachelor's degree graduates undertake entrepreneurial activities, while the percentage is 10.4% among Master's degree or Single-cycle second-level degree graduates. This result can be linked, at least in part, to the high



number of those who choose to continue their studies after a Bachelor's degree (64.2%), subsequently postponing entrance into the job market (AlmaLaurea, 2020b).

**Figure 3.6 Graduates from 2004 to 2018: percentage of founders by degree characteristics (percentage values)**



Overall, 6.7% of STEM (Science, Technology, Engineering and Mathematics) graduates are founders, while the percentage rises to 7.2% among graduates of non-STEM courses. However, if the type of course is also taken into account, it is clear that among Bachelor's degree graduates, 4.7% of STEM graduates and 5.9% of non-STEM graduates become founders. Among Master's degree or Single-cycle second-level degree graduates, on the other hand, there is a greater propensity for STEM graduates to start entrepreneurial endeavours (12.2%) compared to non-STEM graduates (9.9%).

The subject matter of the completed university programme is linked to a varying propensity to start entrepreneurial endeavours. Indeed, the percentage of founders peaks among graduates from fields of study such as agriculture (14.9%), chemistry (10.8%), and economic-statistical (10.1%). It is also higher than average for fields of study such as architecture (9.1%), pharmaceutical (9.0%), politics, social sciences (8.5%), law (7.9%), and physical education (7.4%). On the other hand, the percentage of founders is lower than 5% among graduates of medicine and dentistry programmes (2.5%) and of fields of study such as foreign languages (4.4%), health professions (4.7%), and education (4.8%); graduates from fields of study such as psychological (5.2%), mathematics, physics, natural sciences (5.4%), engineering (5.9%), geo-biological (6.4%), and veterinary (6.7%) also show below average rates of founders. Finally, graduates from humanities programmes are at an average level (7.1%).

### University

Analysis according to the university's geographical area shows some significant differences: for example, the percentage of founders is lower (6.7%) than the average among graduates of universities located in the North of Italy, while it is higher among graduates from universities in the Centre (7.3%) and in the South (7.5%).

Among graduates of state universities, the percentage of founders is substantially in line with the overall average (7.0%) while it rises to 9.4% among graduates of non-state universities.

Analysis by university enrolment shows that among graduates of small universities the percentage of founders reaches 8.9%, while it falls below the average for graduates of larger universities. However, there are no meaningful differences between medium (6.8%), large (7.0%), and mega (6.9%) universities. This may be due to the fact that the small universities included in this dataset predominantly offer degree courses focused on fields of study such as economics, management, and law, all of which encourage students toward entrepreneurial activities.

Within the dataset analysed, a much higher than average percentage of founders is observed specifically among those who have graduated from the LUM Jean Monnet University (16.7%), LIUC Carlo Cattaneo (13.8%), and Milan IULM (13.0%). Entrepreneurial activities are also widespread among graduates from the University of Camerino (12.4%) and Scienze Gastronomiche (12.3%) as well as Rome LUMSA, Teramo, Rome UNINT, Reggio Calabria Mediterranea, and Molise, where the percentage of founders is close to 11%. These are universities that show the highest levels of entrepreneurship in all years of this study.

**Table 3.5 Graduates from 2004 to 2018: founders by university, top 10 universities**  
(absolute and percentage values)

	Founders		Graduates	
	n	%	n	%
LUM Jean Monnet	346	16.7	2,072	100.0
LIUC Carlo Cattaneo	768	13.8	5,559	100.0
Milan IULM	2,266	13.0	17,462	100.0
Camerino	1,540	12.4	12,431	100.0
Scienze Gastronomiche	70	12.3	569	100.0
Rome LUMSA	1,807	10.9	16,563	100.0
Teramo	1,020	10.8	9,406	100.0
Rome UNINT	239	10.8	2,217	100.0
Reggio Calabria Mediterranea	1,395	10.7	13,039	100.0
Molise	1,573	10.7	14,758	100.0

Note: the 10 universities with the highest percentage of founders are shown



### Trends in the percentage of founders

As previously mentioned, the temporal analysis shows how the percentage of founders varies according to graduation year, peaking with those who obtained their degree in 2004 (10.2%) and falling to its lowest level (2.6%) among graduates in 2018. This result depends on various factors, including the composition of the dataset analysed (the growing number of universities, and therefore graduates, considered), the long period of observation, and the fact that each subsequent batch of graduates had one fewer year to found a company than the previous cohort, as well as the high percentage of graduates who founded their company after graduating. To provide a more appropriate temporal analysis, therefore, founders were defined as those who started their company within two years of their graduation date. Moreover, the analysis was limited to graduates from the 2010-2016 period and only took into account graduates from universities already present in the dataset in 2010; that is, graduates from universities whose data are available only for more recent years were excluded. In this way, the criticalities related to the composition and characteristics of the population were limited. Several criteria went into the decision to analyse this particular timeframe. On the one hand, 2010 was selected as the first year of observation given the number of universities present, which represented a significant increase compared to 2009 (+10 universities). On the other hand, the decision to stop observation in 2016 derives from the fact that the Unioncamere data relating to companies used for this report are up to date until September 2019. The graduates of 2017 and 2018, therefore, had fewer than two years available to start their entrepreneurial activities; therefore, the relative percentage of founders would be underestimated by necessity.

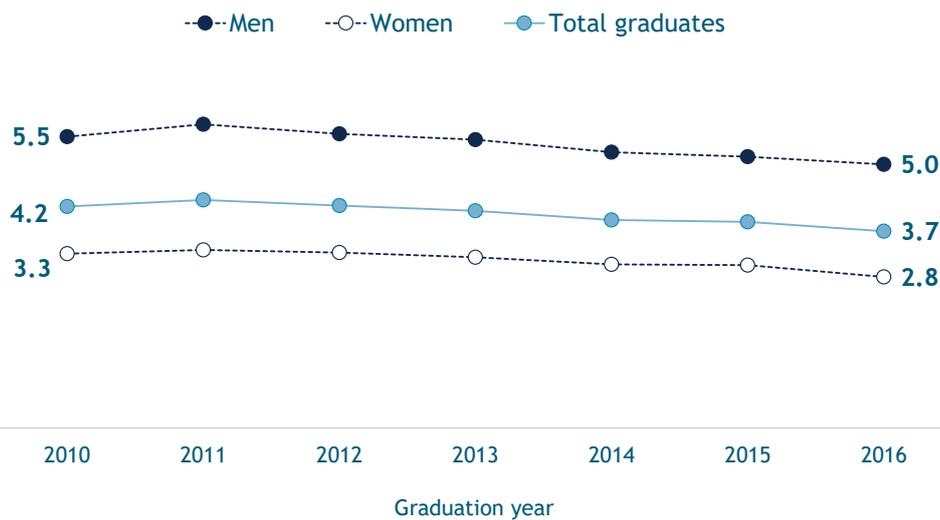
This paragraph will describe the change in the percentage of founders over time, according to the main characteristics of said group. It will highlight how, for all years studied, the trends described in the previous paragraph, relating to the total number of graduates analysed, are confirmed.

In the population thus selected, made up of 1,383,436 graduates from 67 Italian universities, the percentage of founders shows a downward trend from 4.2% among graduates in 2010 to 3.7% among graduates in 2016, although it was stable during the first years of observation.



The downward trend in the percentage of founders is also confirmed separately by gender. Furthermore, the analysis shows that for the entire period (2010-2016) men had a greater propensity to start entrepreneurial endeavours, with a markedly constant differential around +2.2 percentage points, compared to women.

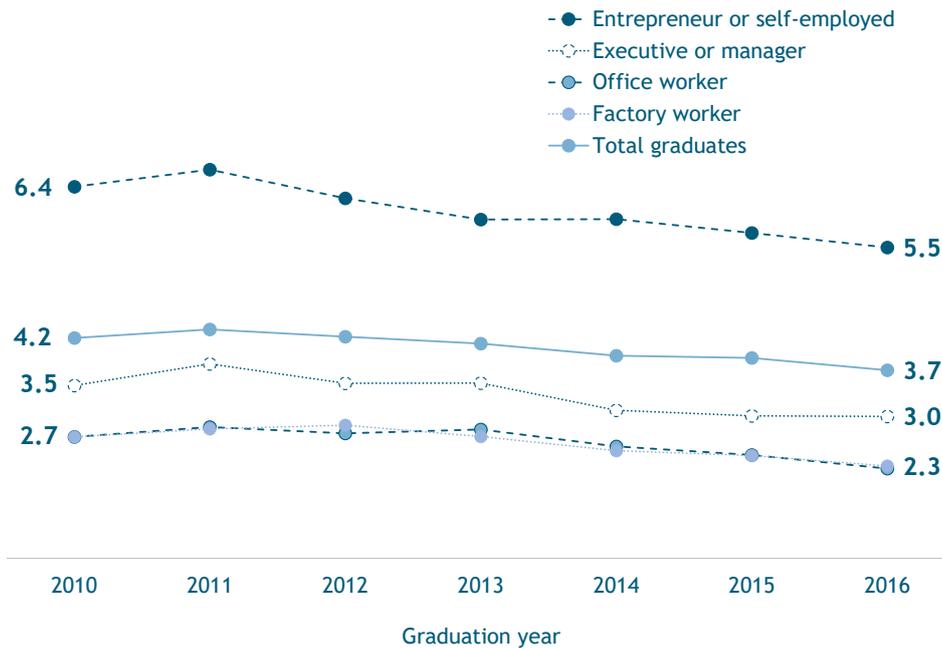
**Figure 3.7** Graduates from 2010 to 2016: percentage of founders within two years of graduation, by gender and graduation year (percentage values)



Also in this case, the family background is shown to be a determinant, despite the declining trend for all the categories observed. Considering the father's profession, graduates who come from a family where the father is an entrepreneur or self-employed show a much higher percentage of founders across the entire timeframe, from 6.4% among graduates in 2010 to 5.5% among those in 2016. There are significantly lower levels of entrepreneurship for graduates from families where the father is an executive or a manager (from 3.5% among graduates in 2010 to 3.0% among those in 2016). These individuals, however, show a greater propensity to start entrepreneurial activities compared to the offspring of office and factory workers, among whom the percentage of founders never reaches 3% during the years studied.



**Figure 3.8 Graduates from 2010 to 2016: percentage of founders within two years of graduation, by father’s profession and graduation year (percentage values)**



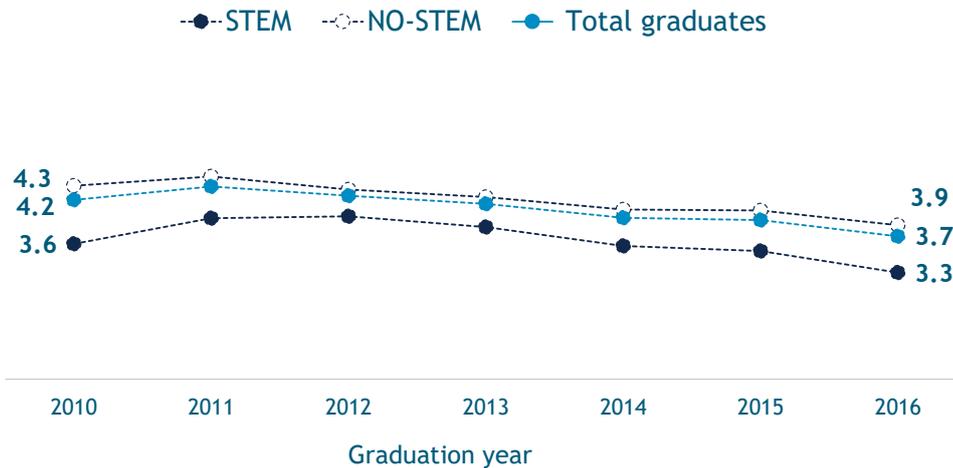
Analysis by geographical area of the university confirms, for the entire period studied, the general decline in the percentage of founders and the greater propensity to start entrepreneurial activities among graduates from universities in the South, in particular compared to those in the North; respectively, 4.7% and 3.7% among graduates in 2010 and 4.2% and 3.3% among those in 2016. Graduates of the universities of Central Italy, on the other hand, show a percentage of founders that is essentially in line with the average over the various years.

**Figure 3.9 Graduates from 2010 to 2016: percentage of founders within two years of graduation, by geographical area of the university and graduation year (percentage values)**



Analysis by STEM and non-STEM degrees shows a declining trend in the percentage of founders, especially in recent years. Furthermore, for the whole period of study, there has been a greater propensity among graduates of non-STEM courses to start entrepreneurial endeavours, even if the differential always remains below 1 percentage point.

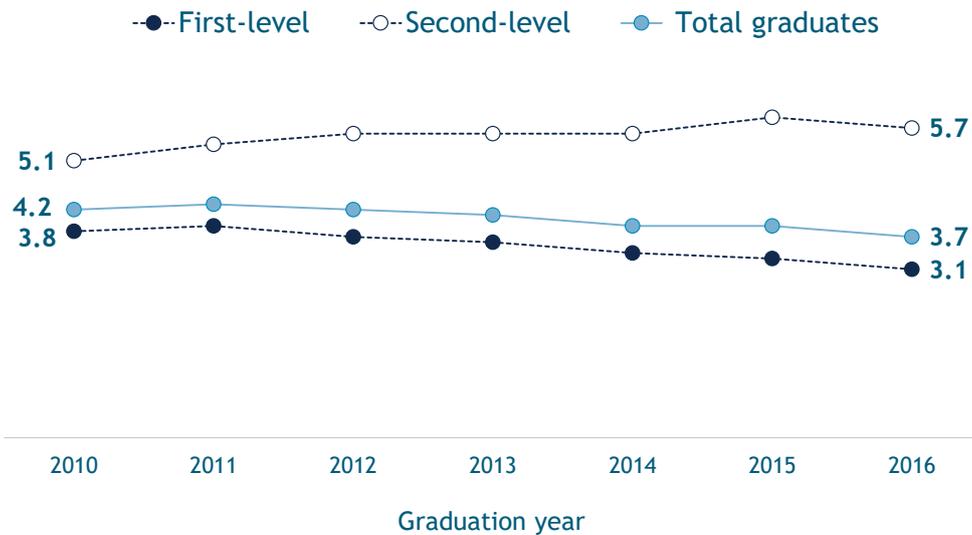
**Figure 3.10 Graduates from 2010 to 2016: percentage of founders within two years of graduation, by STEM and non-STEM degree and graduation year (percentage values)**



The analysis by type of course confirms, across all years studied, that Master's degree or Single-cycle second-level degree graduates have a greater propensity to start entrepreneurial endeavours than Bachelor's degree graduates, with a differential that has increased over time. This was also the result of different trends in the percentage of founders observed in the two cohorts. Indeed, similarly to what was observed in the dataset as a whole, the percentage of founders among Bachelor's degree graduates has declined progressively from 3.8% in 2010 to 3.1% in 2016. Master's degree or Single-cycle second-level degree graduates, on the other hand, show not only a higher percentage of founders than that observed among Bachelor's degree graduates, but that percentage increased in the time frame studied. That stands in contrast to what was observed overall; the percentage went from 5.1% in 2010 to 5.7% in 2016, with a difference that increases from +1.3 percentage points to +2.6 points compared to Bachelor's degree graduates.



Figure 3.11 Graduates from 2010 to 2016: percentage of founders within two years of graduation, by type of course and graduation year (percentage values)



Although increasingly, the tendencies across all graduates are confirmed among Master's degree or Single-cycle second-level degree graduates in the period from 2010 to 2016: greater propensity to create a company among men rather than women, among graduates of universities in the South compared to those in the North, as well as among graduates with an entrepreneur or self-employed father. When STEM and non-STEM graduates are compared, however, the analysis shows a greater propensity to create a company among STEM graduates, unlike graduates as a whole.

More specifically, among men the percentage of graduate founders increases from 6.9% in 2010 to 8.1% in 2016. Among women, the increase in the percentage of founders is modest, going from 3.9% in 2010 to 4.3% in 2016.

Considering the father's profession, Master's degree or Single-cycle second-level degree graduates whose parents are entrepreneurs or self-employed constitute, for all the years considered, a much higher percentage of founders, which fluctuates around 7.5% for the entire period studied. However, the children of executives or managers, office and factory workers still constitute less than 5%.

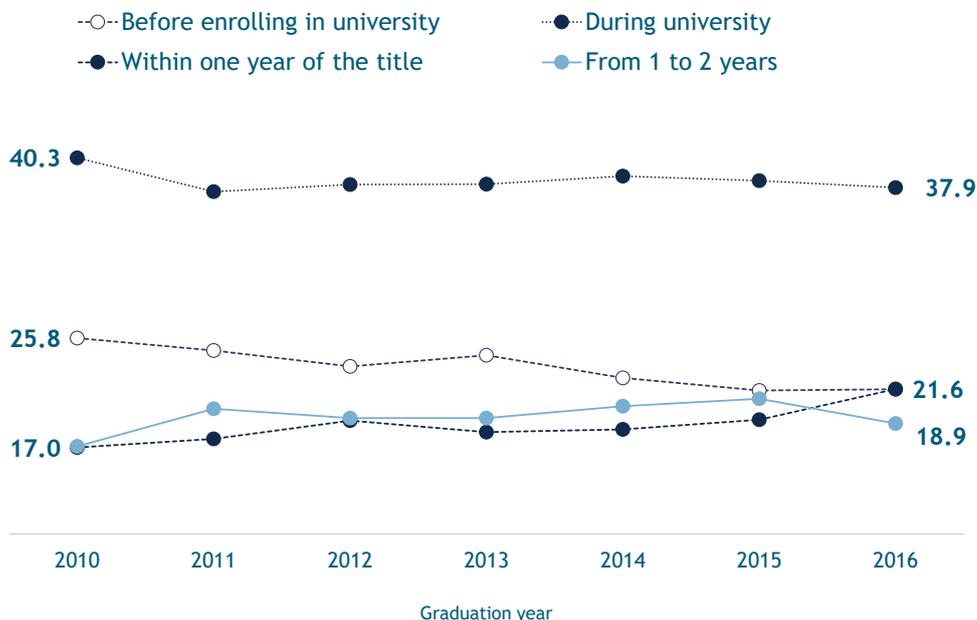
With regard to the university's geographical area, Master's degree or Single-cycle second-level degree graduates in the South still show a higher percentage of founders than among graduates in the North, even if the differential has tended to decrease, going from +1.3 percentage points in 2010 to +0.7 points in 2016. This derives from the fact that, in the period studied, the increase in the percentage of founders was relatively greater for graduates from the North (from 4.4% to 5.2%) than for graduates from the South (from 5.7% to 5.9%).

Finally, among Master's degree or Single-cycle second-level degree graduates of STEM courses, the percentage of founders increases throughout the period studied, going from

5.2% in 2010 to 7.9% in 2016. Graduates from non-STEM courses, on the other hand, have a more limited and markedly constant percentage of founders - just over 5% - for the years analysed. The edge among STEM graduates, therefore, increases from +0.1 percentage points in 2010 to +2.6 points in 2016.

Across both Bachelor's degree and Master's degree or Single-cycle second-level degree graduates, analysing the time of foundation compared to the date of graduation shows different trends over time, highlighting an increase in the percentage of graduates who founded their first company only after obtaining their degree. Indeed, there is a decrease in the percentage of those who founded their company before enrolling in university (from 25.8% in 2010 to 21.6% in 2016) and of those who founded it during university (from 40.3% in 2010 to 37.9% in 2016). On the other hand, the percentage of those who founded their companies in the two years following their graduation increases, going from 34.0% in 2010 to 40.5% in 2016. More specifically, a respective 17.0% and 21.6% founded a company in the first year after graduation while 17.0% and 18.9%, respectively, founded a company in the second year after graduation.

**Figure 3.12 Graduates from 2010 to 2016: founders within two years from graduation - time of foundation compared to graduation by graduation year (percentage values)**



### 3.3 CHARACTERISTICS OF FOUNDERS

#### Demographics

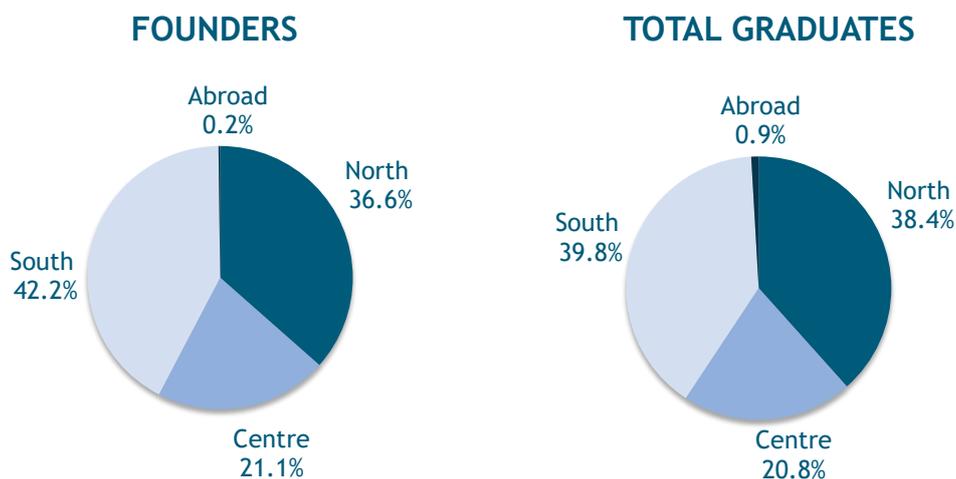
Men are represented more among founders than in the overall population analysed: indeed, men represent 53.9% of the entrepreneurs while women are only 46.1% (in the graduate population, on the other hand, they comprise 40.1% and 59.9% respectively).

**Table 3.6 Founders among graduates from 2004 to 2018: gender**  
(absolute and percentage values)

	Founders (n=205,137)		Total graduates (n=2,891,980)	
	n	%	n	%
Men	110,495	53.9	1,160,671	40.1
Women	94,642	46.1	1,731,309	59.9

Analysis of the geographical area of residence at the time of graduation shows some slight differences compared to the overall population: among the founders, 36.6% are resident in the North of Italy (compared to 38.4% of the population), 21.1% in the Centre (compared to 20.8%), and 42.2% in the South (39.8% of the total); the percentage of residents abroad is significantly lower (0.2%; it is 0.9% in the total population).

**Figure 3.13 Founders among graduates from 2004 to 2018: geographical area of residence**  
(percentage values)



Among founders, foreign citizens represent 1.8% (almost half of what is observed in the population: 3.3%).

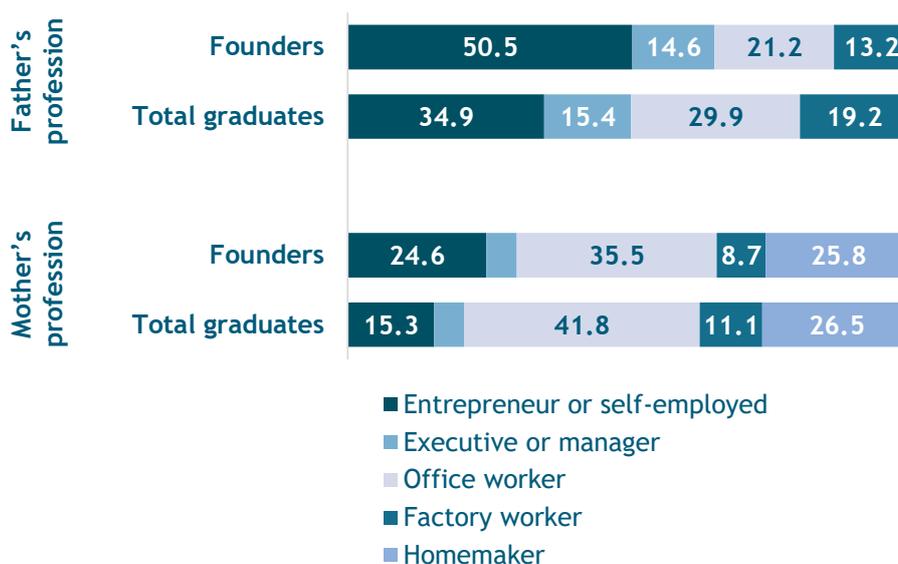


### Family background

With respect to their parents' education, the founders studied have very similar characteristics compared to the overall average. More specifically, 9.6% have two parents with a university degree while 17.2% have only one parent with a university degree. The vast majority of founders, on the other hand, come from families in which the parents do not have a degree (73.1%). In the overall population of graduates, these percentages are equal to 10.4%, 16.9%, and 72.7%, respectively.

In terms of their parents' profession, the founders studied are characterised, compared to the overall population, by a greater number of graduates with self-employed parents. Indeed, considering the father's profession, half of founders (50.5%) have a father who is an entrepreneur or self-employed (34.9% in the total graduate population). On the other hand, the percentage of founders with a father who is an executive or manager is lower than the average (14.6% compared to 15.4% observed in the overall population), as is the case with fathers who are office workers (21.2%, compared to 29.9%) or factory workers (13.2% compared to 19.2%). If we consider the mother's profession, the distribution is different although it confirms the trends: 24.6% are the offspring of an entrepreneur or self-employed mother (15.3% overall), 5.4% have a mother who is an executive or manager (in line with what has been observed in the population as a whole), 35.5% have a mother who is an office worker, and 8.7% have a mother who is a factory worker (in the population the percentages are 41.8% and 11.1%). Finally, 25.8% of the founders analysed have a homemaker mother (compared to 26.5% in the total graduate population).

Figure 3.14 Founders among graduates from 2004 to 2018: profession of father and mother (percentage values)



## Degree Course

The founders studied are also strongly characterised by some characteristics of their completed degree. Indeed, the percentage of Master's degree or Single-cycle second-level degree graduates is decidedly higher than the average (46.4%, compared to 31.7% of the population), even if the majority are Bachelor's degree graduates (53.6%, compared to 68.3% of the average).

Among founders, 22.4% have a STEM degree, while 77.6% have a non-STEM degree (the percentages are, respectively, 23.5% and 76.5% in the population as a whole).

The most represented fields of study for founders are economic-statistical (18.1%; +5.5 percentage points compared to the population as a whole), politics, social sciences (14.2%; +2.3 points), law (9.4%; +1.0 points) but also the humanities (8.6%, in line with the average), engineering (8.6%; -1.7 points), and the health professions (6.6%; -3.3 points). On the other hand, graduates from other fields of study are less well-represented.

**Table 3.7 Founders among graduates from 2004 to 2018 by degree characteristics**  
(absolute and percentage values)

		Founders (n=205,137)		Total graduates (n=2,891,980)	
		n	%	n	%
Degree type	First-level	109,878	53.6	1,976,253	68.3
	Second-level	95,259	46.4	915,727	31.7
STEM/non-STEM	STEM	45,891	22.4	680,664	23.5
	non-STEM	159,246	77.6	2,211,316	76.5
Fields of study	economic-statistical	37,165	18.1	366,283	12.7
	politics, social sciences	29,029	14.2	342,351	11.8
	law	19,310	9.4	244,613	8.5
	humanities	17,671	8.6	249,564	8.6
	engineering	17,609	8.6	297,861	10.3
	health professions	13,492	6.6	286,692	9.9
	architecture	12,134	5.9	134,057	4.6
	agriculture	8,384	4.1	56,142	1.9
	geo-biological	7,923	3.9	124,410	4.3
	foreign languages	7,719	3.8	174,851	6.0
	education	7,465	3.6	154,103	5.3
	psychological	6,199	3.0	118,650	4.1
	chemistry	4,829	2.4	44,917	1.6
	pharmaceutical	4,802	2.3	53,473	1.8
	mathematics, physics, natural sciences	4,502	2.2	83,204	2.9
	physical education	3,633	1.8	48,810	1.7
	medicine and dentistry	2,408	1.2	95,048	3.3
	veterinary	808	0.4	12,019	0.4
	defence, security, military studies	55	0.0	4,932	0.2

Among the founders studied, 96.4% come from a state university and 3.6% from a non-state university, which is very close to what was observed for all graduates (the percentages are, respectively, 97.3% and 2.7%).

Compared to the overall population, graduates from small universities are slightly overrepresented among founders, while there is a smaller percentage from larger universities. More specifically, 11.1% of founders graduated from a small university, 14.8% from a medium-sized university, 30.3% from a large one, while 43.8% from a mega university (the percentages are, respectively, equal to 8.9%, 15.4%, 30.9%, and 44.8% in the population as a whole).

**Table 3.8 Founders among graduates from 2004 to 2018: university characteristics**  
(absolute and percentage values)

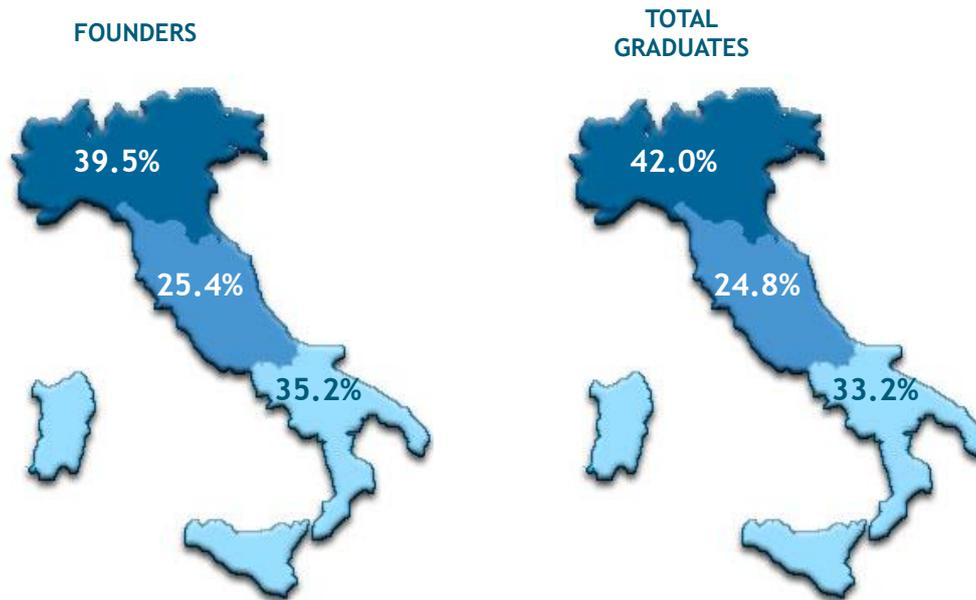
		Founders (n=205,137)		Total graduates (n=2,891,980)	
		n	%	n	%
<b>State/ non state</b>	State	197,708	96.4	2,813,090	97.3
	Non state	7,429	3.6	78,890	2.7
<b>Size</b>	Small	22,779	11.1	256,903	8.9
	Medium	30,276	14.8	445,466	15.4
	Large	62,232	30.3	893,793	30.9
	Mega	89,850	43.8	1,295,818	44.8

### Graduation University and Geographical Mobility

When compared to the overall population of graduates analysed, graduates from universities in Southern Italy are overrepresented among founders. Indeed, 39.5% of founders studied graduated from a university in the North, 25.4% from a university in the Centre, and 35.2% from a university in the South. In the overall population of graduates, the percentages are 42.0%, 24.8%, and 33.2% respectively.



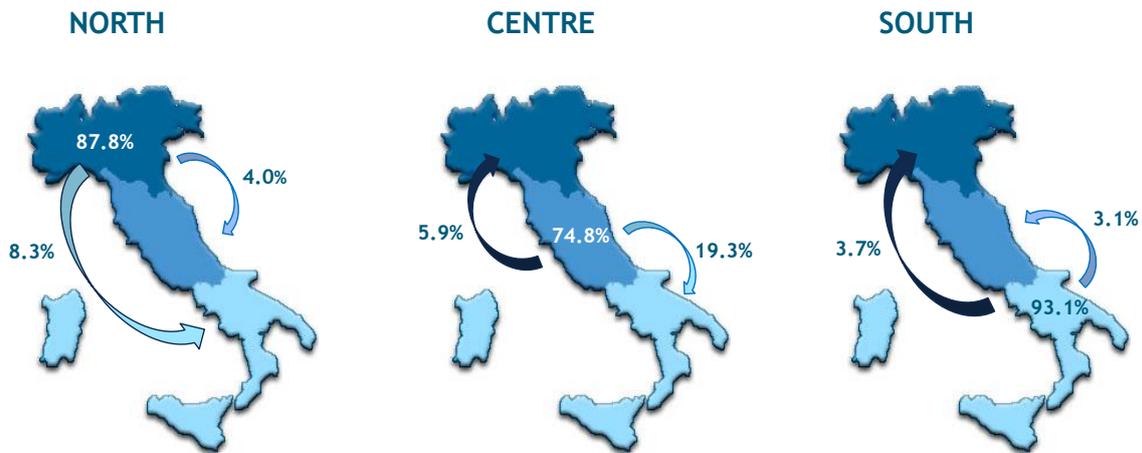
Figure 3.15 Founders among graduates from 2004 to 2018: geographical area of universities (percentage values)



75.0% of the founders studied created a company in the same region as the university they received their degree from, 11.3% did so in a different region but in the same geographical area of the university, and the remaining 13.6% created a company in a different geographical area than that of the university.

Taking into account the geographical area of the university and that of the headquarters of the company founded, different mobility flows can be observed. Despite having a slightly lower than average percentage of founders in the same region as the university, graduates from universities in Northern Italy still tend to remain in the same geographical area in which they studied, namely in the North (87.8%): 71.5% in the same region and 16.3% in a different region but in the same geographical area. 12.2%, on the other hand, moved towards the Centre (4.0%) or the South (8.3%).

**Figure 3.16 Founders among graduates from 2004 to 2018: mobility between the geographical area of the university and that of the company founded (percentage values)**



Increased mobility, on the other hand, is seen among graduates from the universities in Central Italy, especially towards different geographical areas. Overall, 74.8% remain in the Centre (68.2% in the same region and 6.7% in another region of the Centre), while 25.2% change geographical area from their place of study (5.9% found a company in the North while 19.3% do in the South).

Graduates from universities in the South are likeliest to set up their companies in the same area and, above all, in the same region of the university they attended. Indeed, over 90% create a company in the South, 84.0% in the same region as their university, and 9.1% in another region of the South. Only 6.9%, on the other hand, have changed geographical area, 3.7% going to the North and 3.1% to the Centre.

Considering overall the various flows into and out of the various geographical areas of study, it also emerges that the North acquires 2.8% (graduates who studied in other areas and who then founded a company in the North) and loses 4.8% of founders (graduates who, after studying in the North, created a company in another area), thus recording a negative balance of 2.0%. The Centre also has a negative balance, acquiring 2.7% of founders and losing 6.4% (balance equal to -3.7%). On the other hand, the South records a positive balance, acquiring 8.2% of founders and losing 2.4% (balance equal to +5.7%).

These mobility flows are heavily influenced by graduates who return to their geographical area of residence after studying in a different area. This phenomenon mainly concerns graduates from universities in the North and the Centre. Indeed, among all founders considered, 3.9% studied in the North and then returned to their area of residence to found a company, 5.3% graduated from a university in the Centre and then returned “home”, and only 0.8% studied in the South and then returned to their area of residence to found a company. The balances have therefore been recalculated considering the net mobility flows of those who have returned to their area of residence, and in this case the situation changes



radically. The North has a positive balance of 1.3%, resulting from a 2.4% acquisition (graduates who studied in other areas and then founded a company in the North) and a loss of 1.1% (graduates who, after studying in the North, created a company in another area); similarly, the Centre has a positive balance of 0.7% (acquiring 1.9% and losing 1.2%). On the contrary, the South has a negative balance of 2.0% (acquiring 1.2% and losing 3.2%). As a result, the data shows a strong tendency to start a company in one's area of residence (94.3%) rather than in that of study (86.3%). This can be linked, at least in part, to the fact that it is possible for graduates to reap the rewards of a better and wider network of relationships in their area of residence.

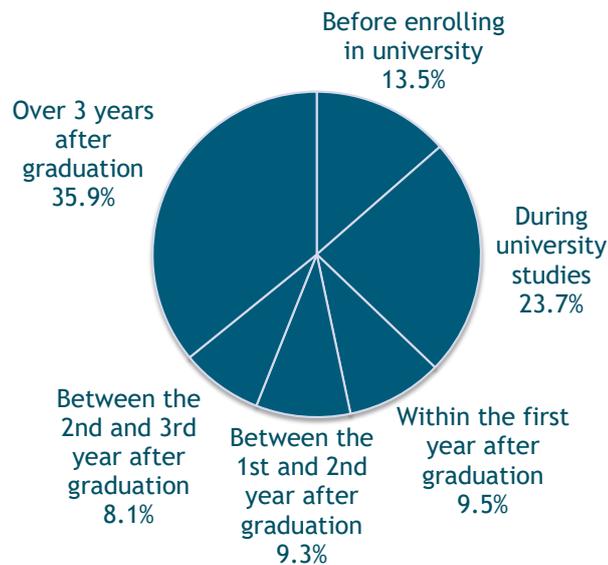
Almost all graduates have founded a company alone (94.5%) while the remaining 5.5% have created a company together with at least one other graduate. Please refer to paragraph 3.3.2 for more information on the founders who have created a company with other graduates and, specifically, with graduates from the same university.

#### **Time of foundation from date of graduation**

The analysis of founders by graduation year shows a lower percentage of recent graduates compared to the overall population. In fact, 58.5% of founders obtained a degree in the last 10 years (i.e. between 2009 and 2018) while 41.5% of them graduated over 10 years ago (2004-2008). In the total population, the percentage is 68.8% and 31.2% respectively. As anticipated, this is linked not only to the nature of the data but also to the significant percentage of founders who started their company after graduation. Taking a closer look, just over a third of the graduates founded their company before graduation: 23.7% during university studies, plus a further 13.5% who started an entrepreneurial endeavour even before enrolling in university. On the other hand, the vast majority (62.9%) founded a company after obtaining their degree, in particular within the first three years (27.0%): 9.5% within the first year after graduation, 9.3% between the first and second year, and 8.1% between the second and third year after graduation. The remaining 35.9% founded a company over three years after graduation.



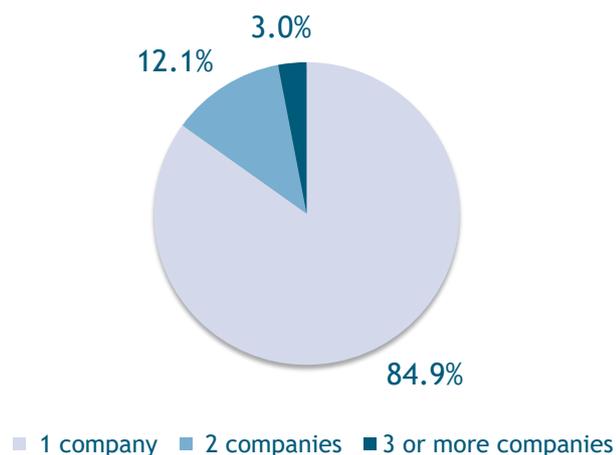
**Figure 3.17 Founders among graduates from 2004 to 2018: time of foundation from date of graduation (percentage values)**



### 3.3.1 SERIAL FOUNDERS

The overwhelming majority of founders (84.9%) started a single entrepreneurial endeavour while the remaining 15.1% are so-called “serial founders”, i.e. they have founded more than one company. In greater detail, 12.1% founded two companies and 3.0% founded three companies or more.

**Figure 3.18 Founders among graduates from 2004 to 2018: number of companies founded (percentage values)**



This paragraph will describe the characteristics of graduate founders that have founded several companies (there are a total of 30,960 graduates in this category), comparing them both with founders and with the graduate population as a whole.

80.2% of serial founders founded two companies while 19.8% started three or more. The maximum number of companies founded is 15, involving graduates from less recent years,



who therefore benefited from a wider time frame in which to start entrepreneurial endeavours. The following analyses refer to the first company founded.

Indeed, the distribution by graduation year shows an over-representation of older graduates when compared to founders and all graduates: 49.0% obtained a degree in the last 10 years while the remaining 51.0% obtained a degree between 2004 and 2008 (for founders, these percentages are 58.5% and 41.5% respectively; for the total population the percentages are 68.8% and 31.2% respectively).

### Demographics

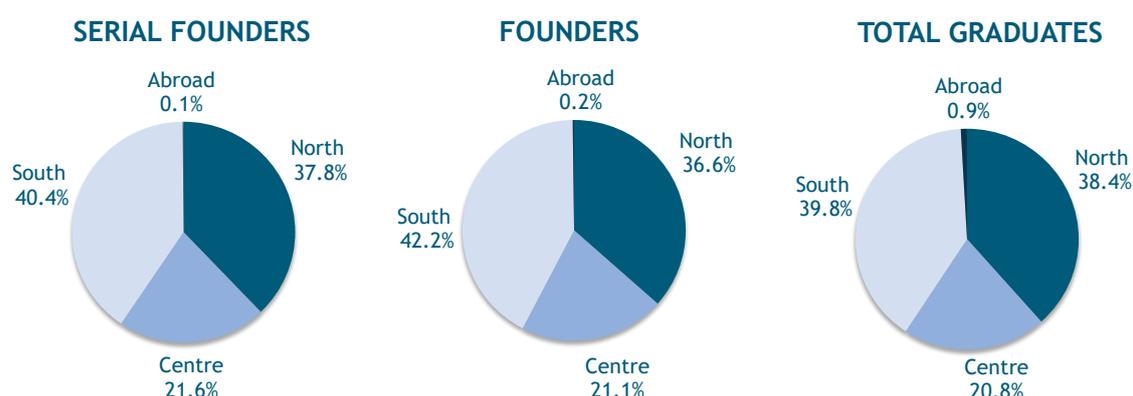
Serial founders are predominantly male. Indeed, men represent 65.8% of serial founders, while women are 34.2% (the percentages are, respectively, 53.9% and 46.1% of founders and 40.1% and 59.9% of the total number of graduates).

**Table 3.9** Serial founders among graduates from 2004 to 2018: gender (absolute and percentage values)

	Serial founders (n=30,960)		Founders (n=205,137)		Total graduates (n=2,891,980)	
	n	%	n	%	n	%
Men	20,364	65.8	110,495	53.9	1,160,671	40.1
Women	10,596	34.2	94,642	46.1	1,731,309	59.9

In terms of residence at the time of graduation, no noteworthy differences are observed either with respect to founders or the overall population.

**Figure 3.19** Serial founders among graduates from 2004 to 2018: geographical area of residence (percentage values)



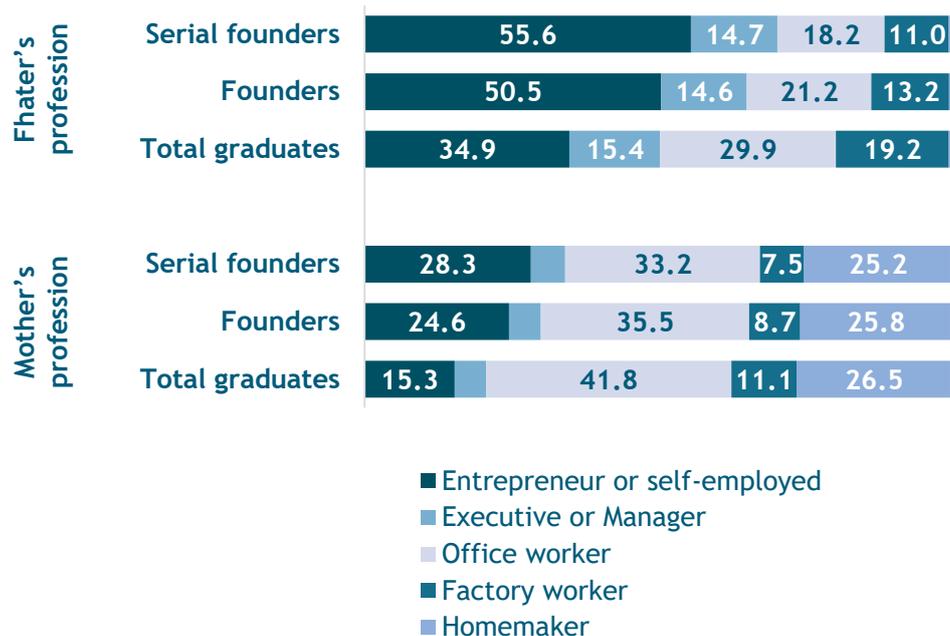
In line with what was observed for the founders as a whole, foreign citizens represent 1.7% of serial founders (almost half of what is observed in the population: 3.3%).

### Family background

In terms of the family cultural background, serial founders do not differ from either founders or with respect to the population of graduates as a whole.

More relevant differences, however, can be observed regarding the parents' profession. A greater propensity toward starting entrepreneurial endeavours again arises for those who have at least one parent who is self-employed. As regards the father's profession, more than half of serial founders (55.6%) have a father who is an entrepreneur or self-employed, a percentage higher than that observed for founders (50.5%) and for the graduate population (34.9%). 14.7%, on the other hand, have an executive or manager father (in line with 14.6% of founders and with the 15.4% observed in the entire population). 18.2% have a father who is an office worker and 11.0% have a father who is a factory worker; both values are lower than those observed for founders (21.2% and 13.2%, respectively) and in the population as a whole (29.9% and 19.2%). The trend is also confirmed with respect to the mother's profession.

Figure 3.20 Serial founders among graduates from 2004 to 2018: profession of father and mother (percentage values)



## Degree Course

Similarly to what was observed for founders as a whole (46.4%), serial founders show a percentage of Master's degree or Single-cycle second-level degree graduates that is decidedly higher than the average of all graduates (45.5%, compared to 31.7% of the population), even if there are more Bachelor's degree graduates (54.5%; it is 53.6% of founders and 68.3% of the population).

**Table 3.10 Serial founders among graduates from 2004 to 2018: degree characteristics**  
(absolute and percentage values)

		Serial founders (n=30,960)		Founders (n=205,137)		Total graduates (n=2,891,980)	
		n	%	n	%	n	%
Degree type	First-level	16,871	54.5	109,878	53.6	1,976,253	68.3
	Second-level	14,089	45.5	95,259	46.4	915,727	31.7
STEM/non-STEM	STEM	6,847	22.1	45,891	22.4	680,664	23.5
	non-STEM	24,113	77.9	159,246	77.6	2,211,316	76.5
Fields of study	economic-statistical	6,678	21.6	37,165	18.1	366,283	12.7
	politics, social sciences	4,794	15.5	29,029	14.2	342,351	11.8
	law	2,992	9.7	19,310	9.4	244,613	8.5
	engineering	2,770	8.9	17,609	8.6	297,861	10.3
	humanities	2,375	7.7	17,671	8.6	249,564	8.6
	architecture	1,918	6.2	12,134	5.9	134,057	4.6
	health professions	1,889	6.1	13,492	6.6	286,692	9.9
	agriculture	1,243	4.0	8,384	4.1	56,142	1.9
	geo-biological	961	3.1	7,923	3.9	124,410	4.3
	foreign languages	850	2.7	7,719	3.8	174,851	6.0
	education	767	2.5	7,465	3.6	154,103	5.3
	psychological	767	2.5	6,199	3.0	118,650	4.1
	mathematics, physics, natural sciences	723	2.3	4,502	2.2	83,204	2.9
	chemistry	712	2.3	4,829	2.4	44,917	1.6
	pharmaceutical	665	2.1	4,802	2.3	53,473	1.8
	physical education	522	1.7	3,633	1.8	48,810	1.7
	medicine and dentistry	239	0.8	2,408	1.2	95,048	3.3
	veterinary	88	0.3	808	0.4	12,019	0.4
	defence, security, military studies	7	0.0	55	0.0	4,932	0.2

STEM degrees are chosen by 22.1% of serial founders while non-STEM degrees comprise the remaining 77.9%. These values are in line with what was observed for founders (22.4% and 77.6%, respectively) and for the graduate population (23.5% and 76.5%).

The university courses associated with a greater propensity for entrepreneurship are once again the economic-statistical and politics/social sciences fields of study, which constitute, respectively, 21.6% and 15.5% of serial founders. Both values are higher than those observed for all founders (+3.5 and +1.3 percentage points, respectively) and, even more so, for the entire population studied (+8.9 and +3.6 points). Among serial founders, degrees in fields of study such as education (2.5%; -1.2 and -2.9 percentage points compared to founders and all graduates) and foreign languages (2.7%; -1.0 and -3.3 points, respectively) are less well-represented.

### Graduation University and Geographical Mobility

As regards the geographical area of the university, serial founders do not show significant differences either with respect to founders or to graduates as a whole. 40.5% of serial founders come from a university in the North, 25.6% from one in the Centre, and 33.9% from one in the South. For founders, the percentages are 39.5%, 25.4%, and 35.2% respectively, while in the overall population of graduates the percentages are 42.0%, 24.8%, and 33.2% respectively.

Comparing the location of the university and the company headquarters shows that, overall, serial founders have greater mobility, albeit slightly so, than that observed among founders in general. 72.9% of serial founders created their first company in the same region as the university they attended (75.0% of founders), 12.3% did so in a different region but in the same geographical area of the university, while the remaining 14.9% created their first company in a different geographical area than that of the university attended (higher values, respectively, of +0.9 and +1.2 percentage points compared to the average of founders). When reading the results, one should keep in mind that the data analysed here refers to the first company founded, not to all companies founded. Therefore, an overall measure of mobility is not provided, and the phenomenon is likely to be underestimated.

Taking into account the university's geographical area, serial founders show different mobility flows. Among graduates from the North, 86.9% of serial founders create the first company in the same geographical area as the university, i.e. in the North (87.8% among founders): 69.3% in the same region, 17.5% in a different region but in the same geographical area (the percentages are, respectively, 71.5% and 16.3% among founders). Over 13%, on the other hand, change geographical area, moving toward the Centre (4.5%, compared to 4.0%) or the South (8.7%; 8.3% of founders).

Even among serial founders, those graduating in Central Italy show greater mobility especially towards different geographical areas. Overall, 74.2% remain in the area: 66.8% in the same region (-1.4 percentage points compared to founders) and 7.4% in another region of the Centre (+0.8 points). 25.8%, on the other hand, change geographical area, leaving their place of study: 7.4% start their first company in the North while 18.4% do so in the South (respectively +1.5 and -0.9 percentage points compared to founders).

Finally, the study on serial founders confirms that it is above all graduates from the South who start their first company in the same geographical area (91.3%) and, above all, in the same region as the university attended (81.7%; -2.4 percentage points compared to founders); 9.6% (+0.6 points) start the company in the South, but in a different region than that of the university attended. 8.7%, on the other hand, change geographical area, moving towards the North (4.6%; +0.9 points) or the Centre (4.1%; +1.0 points) of the country.



While substantially confirming what was observed in the analysis of founders as a whole, therefore, this data shows a slight decrease in the percentage of graduates who start their first company in the same region where they studied, compared to the average of founders. This is particularly true for graduates from the North of Italy (-2.1 percentage points) and from the South (-2.4 points).

In terms of university characteristics, there are some, albeit limited, differences when compared to founders and graduates. Of serial founders, 95.7% come from a state university and 4.3% from a non-state university (the percentages are, respectively, 96.4% and 3.6% for founders; 97.3% and 2.7% for all graduates).

**Table 3.11 Serial founders among graduates from 2004 to 2018: university characteristics**  
(absolute and percentage values)

		Serial founders (n=30,960)		Founders (n=205,137)		Total graduates (n=2,891,980)	
		n	%	n	%	n	%
<b>Geographic area</b>	North	12,551	40.5	80,977	39.5	1,216,003	42.0
	Centre	7,920	25.6	52,016	25.4	716,912	24.8
	South and isles	10,489	33.9	72,144	35.2	959,065	33.2
<b>State/ non state</b>	State	29,634	95.7	197,708	96.4	2,813,090	97.3
	Non state	1,326	4.3	7,429	3.6	78,890	2.7
<b>Size</b>	Small	3,790	12.2	22,779	11.1	256,903	8.9
	Medium	4,380	14.1	30,276	14.8	445,466	15.4
	Large	9,329	30.1	62,232	30.3	893,793	30.9
	Mega	13,461	43.5	89,850	43.8	1,295,818	44.8

Furthermore, among serial founders, a higher percentage are from small universities (12.2%; +1.1 percentage points compared to the total of founders and +3.3 points compared to the total of graduates) and a lower percentage graduated from medium (14.1%; -0.6 and -1.3 points, respectively), large (30.1%; -0.2 and -0.8 points), and mega (43.5%; -0.3 and -1.3 points) universities.

#### Time of foundation from date of graduation

Almost half of serial founders created their first company before graduation (48.7%, +11.6 percentage points compared to 37.1% of the total founders): 29.2% during their studies (+5.6 percentage points compared to the total number of founders) and 19.5% who started an entrepreneurial endeavour before enrolling in university (+6.0 points). Just over half (51.3% compared to 62.9% of founders), on the other hand, founded their first company after obtaining their degree, in particular within the third year (25.7%, compared to 27.0% of the total number of founders).

### 3.3.2 FOUNDERS STARTING A COMPANY WITH FELLOW STUDENTS FROM THE SAME UNIVERSITY OR COURSE

The study also looked specifically at graduate founders who started their company with another student (or students) from the same university or degree course. To this end, the definition “fellow university students” includes those graduates that founded a company with another graduate from the same university with no more than a three-year difference in graduation dates between the two; the term “fellow students on the same course” defines those who founded a company with others who graduated from the same university and the same degree course with no more than a three-year difference between them<sup>5</sup>. The analysis concerned only graduates who founded a corporation or a partnership; those who founded a sole proprietorship were excluded as this, by definition, provides for only one owner. The analysis that follows, therefore, involved a total of 79,224 graduates, representing 38.6% of the total number of founders. Of these, 57.3% founded a corporation while 42.6% started a partnership<sup>6</sup>. The main characteristics will be described below, separated by fellow students on the same course and by fellow university students, compared with the total population, i.e. the founders of corporations and partnerships. For the sake of completeness, the tables and figures also show data on the total number of founders, i.e. including those who founded a sole proprietorship, described in paragraph 3.3 above.

When reading the data, it should be borne in mind that the analyses reported here refer, in the case of serial founders, to the first company founded and not to all companies founded. Consequently, information regarding fellow university students or students on the same course may be underestimated as any fellow students from the same university or course who appear in a second or subsequent company are not identified. However, it should be remembered that the vast majority of graduates studied founded only one company (84.9%); therefore, any underestimate of the phenomenon is limited. Furthermore, in the event that a graduate has obtained more than one university degree, only one of these was considered in the analyses, i.e. the one held at the time of foundation of the first company, and not all other degrees obtained. It is possible, therefore, that those who attended the same course/university to obtain another degree, and with whom the company was founded, will not be identified. Even in this case, however, the distortion is limited since the vast majority of graduates considered in the analyses have only one degree<sup>7</sup>.

In particular, 2.7% of founders of corporations or partnerships founded a company with at least one fellow student on the same course (2,102 graduates) and 97.1% without a fellow student on the same course. If the definition is extended to encompass the entire university and not the course of study, 6.7% (5,322 graduates) of graduates started their company with

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<sup>5</sup> According to this definition, therefore, fellow students on the same course are included in the larger cohort of fellow university students.

<sup>6</sup> The remaining 0.1% founded a company featuring a different legal form.

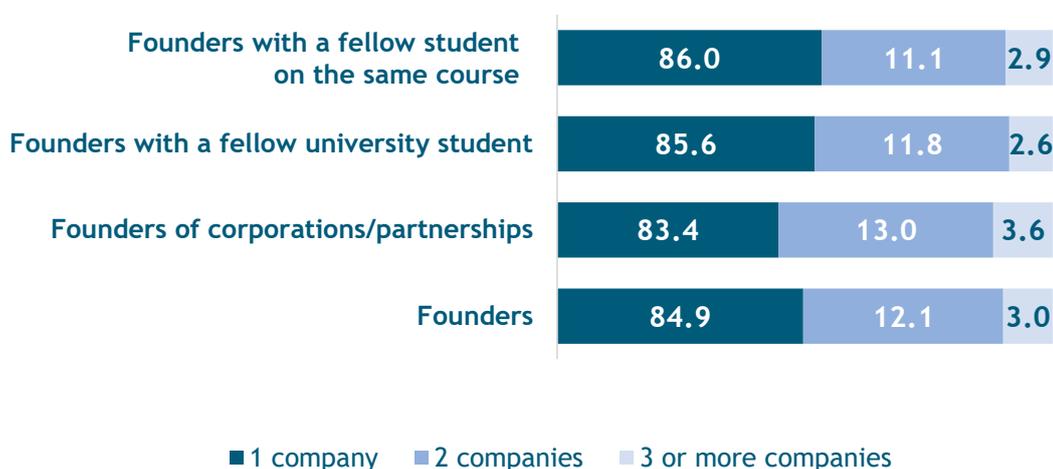
<sup>7</sup> See Methodological Notes for details on the degree utilised.



a fellow university student while the remaining 93.3% started it with someone other than a fellow university student.

Those who started a company with a fellow university student or fellow student on the same course have founded only one company to a slightly greater extent than the group of founders of corporations or partnerships. More specifically, 86.0% of those who founded a company with a fellow student on the same course founded only one company while 11.1% founded two and 2.9% three or more. This distribution is also confirmed among those who created a company with a fellow university student: 85.6% founded only one, 11.8% two, and 2.6% three or more (respectively 83.4%, 13.0% and 3.6% among the founders of corporations or partnerships).

**Figure 3.21** Graduates from 2004 to 2018 who founded companies with fellow students from the same course or university: number of companies founded (percentage values)



## Demographics

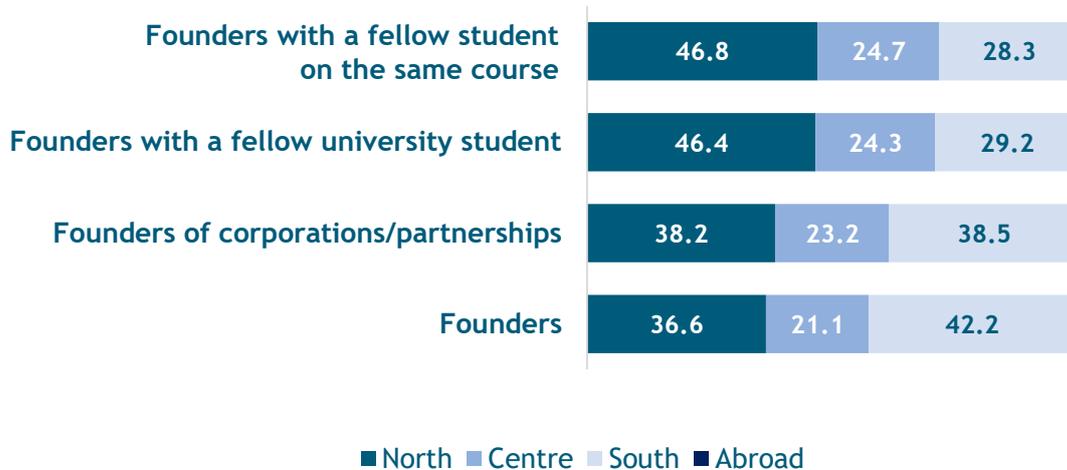
Among graduates who have started a company with a fellow student from the same course or university, the percentage of men is decidedly higher: 71.2% among the former group and 64.7% among the latter (54.4% for the group of founders of corporations or partnerships).

**Table 3.12** Graduates from 2004 to 2018 who founded companies with fellow students from the same course or university: gender (absolute and percentage values)

	Founders with a fellow student on the same course (n=2,102)		Founders with a fellow university student (n=5,322)		Founders of corporations/partnerships (n=79,224)		Founders (n=205,137)	
	n	%	n	%	n	%	n	%
Men	1,497	71.2	3,444	64.7	43,099	54.4	110,495	53.9
Women	605	28.8	1,878	35.3	36,125	45.6	94,642	46.1

In terms of residence at the time of graduation, among those who founded a company with fellow students from the same course, 46.8% reside in the North, 24.7% in the Centre, and 28.3% in the South. Similarly, among those who have started a company with fellow university students, 46.4% reside in the North, 24.3% in the Centre, and 29.2% in the South (in the whole population analysed these percentages are, respectively, 38.2 %, 23.2%, and 38.5%). The percentage of those residing abroad is nominal, which for all three groups analysed herein reaches a value of at most 0.2%.

**Figure 3.22 Graduates from 2004 to 2018 who founded companies with fellow students from the same course or university: geographical area of residence (percentage values)**



Even among these cohorts, the presence of foreign citizens is very limited: 0.9% among fellow students on the same course and 1.0% among fellow university students (-0.5 and -0.4 percentage points compared to the average of the population considered).

### Family background

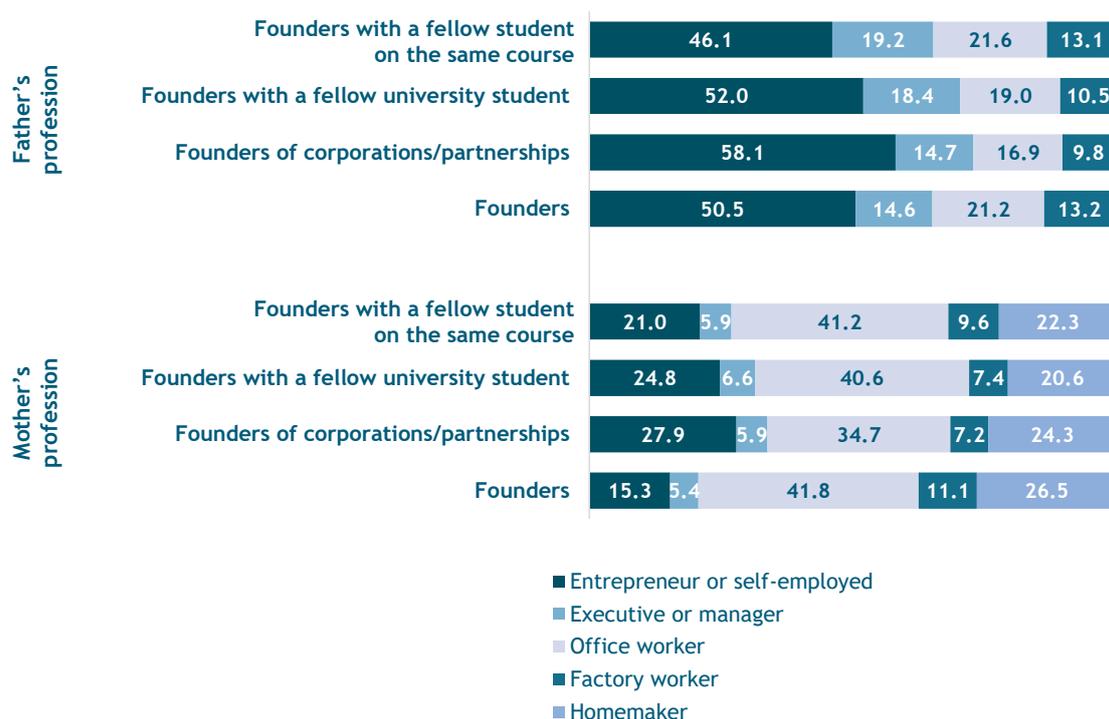
Graduates who have started a company with other alumni (fellow students from the same course or university) are mostly the children of parents with a degree. Among fellow students on the same course, 14.6% have two parents with university degrees, 20.7% have only one parent with a degree, and 64.7% have parents with no degree. Among fellow university students, the percentage of those who have parents with a degree is higher: 16.5% have two parents with university degrees, 21.9% have only one parent with a degree, 61.6% are the offspring of non-graduates (these percentages are, respectively, 11.8%, 18.9% and 69.3% of all founders of corporations and partnerships).

Considering the father's profession, those who founded their first company together with other alumni have some specific characteristics. Compared to the group of founders of corporations and partnerships, the percentage of offspring of entrepreneurs or self-employed fathers is lower (46.1% among fellow students on the same course, 52.0% among fellow university students; -12.0 and -6.2 percentage points compared to the average) while



the percentage of offspring of fathers with an executive or managerial position increases (19.2% among fellow students on the same course, 18.4% among fellow university students; +4.4 and +3.6 compared to the entire population); the same holds true for fathers who are office workers (21.6% and 19.0%; +4.6 and +2.1). 13.1% of fellow students on the same course and 10.5% of fellow university students are offspring of factory workers (9.8% for the group of founders of corporations and partnerships). The trends described are confirmed upon analysing the mother’s profession.

**Figure 3.23 Graduates from 2004 to 2018 who founded companies with fellow students from the same course or university: profession of father and mother (percentage values)**



### Degree Course

Those who choose to start a company with a fellow student on the same course come mainly from a Master’s degree or Single-cycle second-level degree course (61.3%); just over a third, on the other hand, hold a Bachelor’s degree (38.7%). There is also a greater presence of Master’s degree or Single-cycle second-level degree graduates among fellow university students compared to Bachelor’s degree graduates, even if the difference between the two types of courses is less pronounced: 56.2% come from a Master’s degree or Single-cycle second-level degree and 43.8% from a Bachelor’s degree (in the population overall, the percentages are respectively 49.8% and 50.2%).



**Table 3.13 Graduates from 2004 to 2018 who founded companies with fellow students from the same course or university: degree characteristics (absolute and percentage values)**

		Founders with a fellow student on the same course (n=2,102)		Founders with a fellow university student (n=5,322)		Founders of corporations/partnerships (n=79,224)		Founders (n=205,137)	
		n	%	n	%	n	%	n	%
<b>Degree type</b>	First-level	813	38.7	2,331	43.8	39,786	50.2	109,878	53.6
	Second-level	1,289	61.3	2,991	56.2	39,438	49.8	95,259	46.4
<b>STEM/non-STEM</b>	STEM	853	40.6	1,986	37.3	20,276	25.6	45,891	22.4
	non-STEM	1,249	59.4	3,336	62.7	58,948	74.4	159,246	77.6
<b>Field of study</b>	engineering	411	19.6	1,022	19.2	9,471	12.0	17,609	8.6
	economic-statistical	259	12.3	848	15.9	15,404	19.4	37,165	18.1
	architecture	253	12.0	471	8.9	5,791	7.3	12,134	5.9
	health professions	179	8.5	271	5.1	4,625	5.8	13,492	6.6
	politics, social sciences	141	6.7	479	9.0	9,951	12.6	29,029	14.2
	mathematics, physics, natural sciences	116	5.5	245	4.6	1,800	2.3	4,502	2.2
	pharmaceutical	107	5.1	184	3.5	1,862	2.4	4,802	2.3
	humanities	92	4.4	314	5.9	5,703	7.2	17,671	8.6
	physical education	81	3.9	165	3.1	1,489	1.9	3,633	1.8
	law	80	3.8	314	5.9	7,649	9.7	19,310	9.4
	medicine and dentistry	80	3.8	153	2.9	1,599	2.0	2,408	1.2
	geo-biological	74	3.5	223	4.2	2,472	3.1	7,923	3.9
	agriculture	58	2.8	142	2.7	1,915	2.4	8,384	4.1
	education	46	2.2	118	2.2	2,535	3.2	7,465	3.6
	chemistry	46	2.2	108	2.0	1,215	1.5	4,829	2.4
	veterinary	30	1.4	40	0.8	308	0.4	808	0.4
	psychological	28	1.3	103	1.9	2,568	3.2	6,199	3.0
	foreign languages	21	1.0	121	2.3	2,841	3.6	7,719	3.8
	defence, security, military studies	0	0.0	1	0.0	26	0.0	55	0.0

STEM degrees are more common among graduates who founded companies with fellow students from the same course or university than among founders of corporations and partnerships: 40.6% (+15.0 percentage points compared to the average) of those who start a company with a fellow student on the same course come from a STEM course, 59.4% from a non-STEM course. Such distribution is in line with what happens with fellow university students: 37.3% come from a STEM course (+11.7 points compared to the average) and 62.7% from a non-STEM course.

Those graduates who have chosen to start a company with a student from the same course mainly come from fields of study such as engineering (19.6%, +7.6 percentage points compared to the average), economics/statistics (12.3%, -7.1 points), and architecture (12.0%, +4.7 points). Similar results are observed when studying those who start a company with a fellow university student.



### Graduation University and Geographical Mobility

With respect to the geographical area of the university, it can be observed that those who founded a company with a fellow student on the same course come mostly from the North (48.0%); 26.7% studied in the Centre, and 25.3% in the South. Among fellow university students, 48.6% graduated in the North, 26.0% in the Centre, and 25.4% in the South (for founders of corporations and partnerships, these percentages are, respectively, 40.6%, 27.0%, and 32.4%).

**Table 3.14 Graduates from 2004 to 2018 who founded companies with fellow students from the same course or university: characteristics of the university (absolute and percentage values)**

		Founders with a fellow student on the same course (n=2,102)		Founders with a fellow university student (n=5,322)		Founders of corporations/partnerships (n=79,224)		Founders (n=205,137)	
		n	%	n	%	n	%	n	%
Geographic area	North	1,008	48.0	2,588	48.6	32,195	40.6	80,977	39.5
	Centre	562	26.7	1,384	26.0	21,390	27.0	52,016	25.4
	South and isles	532	25.3	1,350	25.4	25,639	32.4	72,144	35.2
State/ non state	State	2,016	95.9	5,197	97.7	75,778	95.7	197,708	96.4
	Non state	86	4.1	125	2.3	3,446	4.3	7,429	3.6
Size	Small	209	9.9	361	6.8	8,878	11.2	22,779	11.1
	Medium	296	14.1	675	12.7	10,759	13.6	30,276	14.8
	Large	698	33.2	1,730	32.5	24,540	31.0	62,232	30.3
	Mega	899	42.8	2,556	48.0	35,047	44.2	89,850	43.8

Comparing the location of a university's main campus with a company headquarters shows that graduates who start their company with fellow students from the same course or university are more likely to establish the company in the geographical area in which they studied, compared to all founders of corporations and partnerships. More specifically, 92.4% of graduates who start a company with at least one fellow student on the same course started their company in the same geographical area as the university: in particular, 83.5% in the same region (74.4% overall) and 8.9% in another region of the same area (compared to 11.6%). Lastly, 7.6% founded a company in an area other than the one in which they studied (14.0% overall). In particular, 95.1% of those who studied in the North remained in the same area: 82.0% in the same region (70.7% overall), 13.1% in a different region (17.3% overall). Only 4.9% founded their company in the Centre (2.7% compared to 4.5% overall) or in the South (2.2% compared to 7.5%). Among those who studied in the Centre, 89.9% remained in the same geographical area: 85.1% in the same region and 4.8% in another region of the same area (respectively 70.2% and 6.7% of all founders analysed). 10.1% instead moved away, going to Northern (3.4% compared to 6.2%) or to Southern Italy (6.8% compared to 16.9%). Finally, among those who studied in universities in the South, 90.0% remained in the South: 84.8% chose to start their company in the same region (82.6% in the total) while 5.3% changed region but not geographical area (8.6% in the total). Finally, 10% completely

changed geographical area, moving towards the North (6.6% compared to 4.4%) or the Centre (3.4% compared to 4.3%).

The same trends are confirmed among those who have founded a company with a fellow university student.

95.9% of those who partnered with fellow students on the same course and 97.7% of those who partnered with fellow university students (95.7% of founders of corporations and partnerships) come from a state university while the remaining 4.1% of the former and 2.3% of the latter (4.3% of all graduate founders) come from a non-state university.

Regarding the size of the university, there are no significant differences compared to the reference total among those who partnered with fellow students on the same course; slight differences are found, however, among those who partnered with fellow university students. 9.9% of those who partnered with fellow students on the same course and 6.8% of those who partnered with fellow university students (11.2% of all graduate founders) come from small universities, 14.1% and 12.7% respectively from medium universities (13.6% of all founders), 33.2% and 32.5% (31.0% of the total) from large universities, and 42.8% and 48.0% (44.2% of all founders) from mega universities.

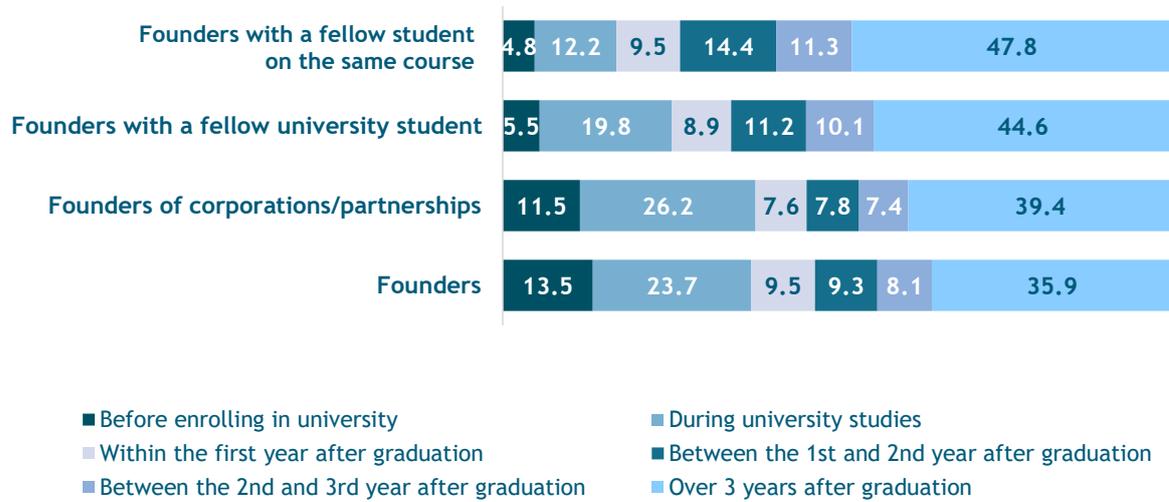
#### **Time of foundation from date of graduation**

55.2% of graduates who founded a company with a fellow student on the same course graduated in the last 10 years, 44.8% more than 10 years ago. A similar distribution can be observed among those who started a company with a fellow university student (56.3% and 43.7% respectively) and among the population (57.0% and 43.0%).

With regard to the time of foundation of the company, as could have been expected given the cohort analysed, the vast majority of graduates who founded a company with a fellow student from the same course or university did so after graduation, or at least during the course of study. More in detail, only 4.8% of the former and 5.5% of the latter started a company before starting their studies (11.5% of founders of corporations or partnerships); 12.2% of fellow students on the same course and 19.8% of fellow university students, on the other hand, created a company during their studies (26.2% in the reference group), while 83.0% and 74.7% (62.2% of the total number of founders of corporations and partnerships) created a company after graduation, in particular in the first three years after graduation.



**Figure 3.24 Graduates from 2004 to 2018 who founded companies with fellow students from the same course or university: time of foundation from date of graduation (percentage values)**



### 3.4 PERCENTAGE OF JOINER GRADUATES

In addition to identifying the graduate founders, the study also analysed those who have acquired an equity share in a company, greater than or equal to 10%, at a moment subsequent to its foundation (joiners). There are 66,098 such graduates, representing 2.3% of the total population analysed. The percentage of joiners varies according to the characteristics of the population itself.

#### Demographics

The percentage of joiners observed across graduates (2.3%) is greater among men, reaching 2.9% while it falls among women, landing at 1.9%.

**Figure 3.25 Graduates from 2004 to 2018: percentage of joiners by gender (percentage values)**



The percentage of joiners is higher among graduates residing in the North (2.7%) and in the Centre of Italy (2.4%) while it is lower among those residing in the South (1.9%). The percentage of joiners among those residing abroad is almost zero (0.4%).

Among Italian citizens, the percentage of joiners is equal to 2.3%, a number which drops to 0.6% among foreign citizens.

### Family background

The percentage of joiners is affected by the characteristics of their family background, in particular by the parents' education and profession. Indeed, the offspring of parents with a degree show greater entrepreneurial aptitude: both among those who have only one parent with a degree and among those who have both parents with a degree, 2.7% possess shares in a company (for the purposes of this analysis, shares greater than or equal to 10%). However, this percentage falls to 2.0% among graduates whose parents do not have a degree.

Among graduates with a father who is an entrepreneur or self-employed, there is a greater percentage of joiners (4.5%; 11.0% among the children of entrepreneurs, 3.5% among the children of self-employed people). This percentage is equal to 1.6% among those who have an executive or manager father, while it is lower than 1% among the children of office and factory workers.

**Figure 3.26 Graduates from 2004 to 2018: percentage of joiners by father's profession (percentage values)**



These results are also seen when analysing the mother's profession: 5.0% of the children of entrepreneurs or self-employed mothers are joiners, a number that drops to 2.3% among the children of executives or managers, to 1.7% among the children of office workers, to 1.0% among the children of factory workers, and to 1.8% among the children of homemakers.

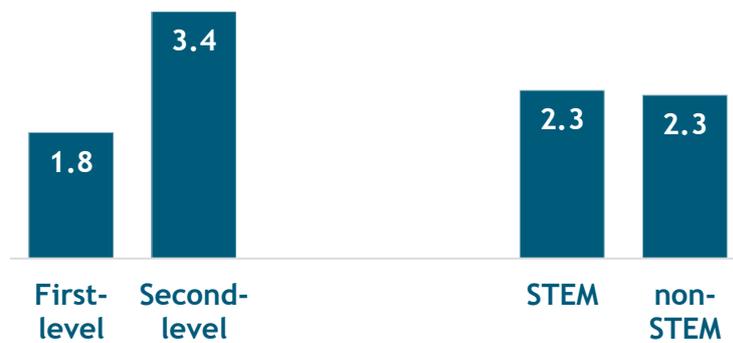
### Graduation Year

As already highlighted for founders, and given the composition of the population, the percentage of graduates who own a share of capital in a company also decreases based on graduation year, going from 3.6% in 2004 to 1.0% in 2018.

## Degree Course

With respect to the type of course, the percentage of joiners among Master's degree or Single-cycle second-level degree graduates is much higher than that recorded among Bachelor's degree graduates: 3.4% of the former compared to 1.8% of the latter.

**Figure 3.27 Graduates from 2004 to 2018: percentage of joiners by degree characteristics (percentage values)**



Overall, there are no differences in investment in companies between STEM and non-STEM graduates; the percentage of joiners is, for both, equal to 2.3%. As per type of course, we see that among Bachelor's degree graduates the percentage of joiners is equal to 1.6% for STEM graduates and 1.8% for non-STEM graduates. Among Master's degree or Single-cycle second-level degree graduates, on the other hand, not only are there higher levels of investment in companies than among Bachelor's degree graduates but the differences between STEM and non-STEM graduates are clearer; the percentage of joiners is, respectively, equal to 4.2% and 3.2%.

When analysing the fields of study the graduates come from, the percentage of joiners is higher than the average in areas such as economic-statistical (3.7%), pharmaceutical and architecture (3.3% for both), law (2.9%), agriculture (2.7%), engineering, and politics, social sciences (2.4% for both). Smaller percentages of joiners are found in the remaining fields of study, where joiners constitute at most 2.0%.

## University

Joiners are mainly present among graduates from universities in the North (2.5%), in line with the average among graduates in the Centre, and less frequent in the South where they represent 1.9%.

Among graduates of state universities, the percentage of joiners is equal to 2.2% while it reaches 4.0% among graduates in non-state universities.

The number of graduates who have shares in a company grows mainly when we consider those who come from small universities (2.7%). In line with the average is the percentage of

joiners in larger universities: 2.1% from medium, 2.2% from large, and 2.3% from mega universities.

Among all graduates studied, levels of entrepreneurial behaviour varied by university attended. Indeed, the data shows a decidedly higher-than-average percentage of joiners, in particular among those who have graduated from LIUC Carlo Cattaneo University (8.4%), LUM Jean Monnet (7.3%), Milan IULM (5.6%), Scienze Gastronomiche (4.9%), and Rome LUMSA (4.5%). Participation in entrepreneurial endeavours is also widespread among graduates of the University of Rome UNINT (4.0%), Venice IUAV (3.8%), Camerino (3.7%), Milano Vita-Salute S. Raffaele (3.2%), and Florence (3.0%). These are universities that have the highest percentage of joiners across almost all years of study, and, in general, also high numbers of graduate founders (see previous paragraph 3.2).

**Table 3.15** Graduates from 2004 to 2018: joiners by university, top 10 universities (absolute and percentage values)

	Joiner		Graduates	
	n	%	n	%
LIUC Carlo Cattaneo	466	8.4	5,559	100.0
LUM Jean Monnet	152	7.3	2,072	100.0
Milan IULM	979	5.6	17,462	100.0
Scienze Gastronomiche	28	4.9	569	100.0
Rome LUMSA	746	4.5	16,563	100.0
Rome UNINT	88	4.0	2,217	100.0
Venice IUAV	639	3.8	16,924	100.0
Camerino	456	3.7	12,431	100.0
Milan Vita-Salute S. Raffaele	158	3.2	5,000	100.0
Florence	3,264	3.0	107,368	100.0

Note: the 10 universities with the highest percentage of joiners are shown



### 3.5 CHARACTERISTICS OF JOINER

The vast majority of joiners (86.7%) have an equity share greater than or equal to 10% in one company, 10.4% in two companies, and 3.0% in three or more companies.

#### Demographics

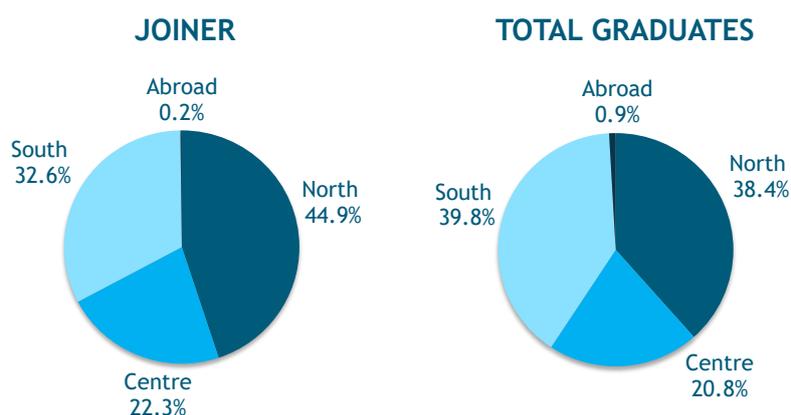
More than half of joiners are men (51.3%), showing a different distribution from the total population of graduates, where the presence of women is higher than that of men (59.9% compared to 40.1%).

**Table 3.16 Joiners among graduates from 2004 to 2018: gender**  
(absolute and percentage values)

	Joiner (n=66,098)		Total graduates (n=2,891,980)	
	n	%	n	%
Men	33,908	51.3	1,160,671	40.1
Women	32,190	48.7	1,731,309	59.9

Compared to the total population analysed, the joiners reside to a greater extent in the North (44.9% compared to 38.4% of the total population) while 22.3% reside in the Centre (compared to 20.8% of the whole); it follows that they reside to a lesser extent in the South (32.6% compared to 39.8% of the whole). The share of residents abroad is notably limited (0.2% compared to 0.9% of the population).

**Figure 3.28 Joiners among graduates from 2004 to 2018: geographical area of residence**  
(percentage values)



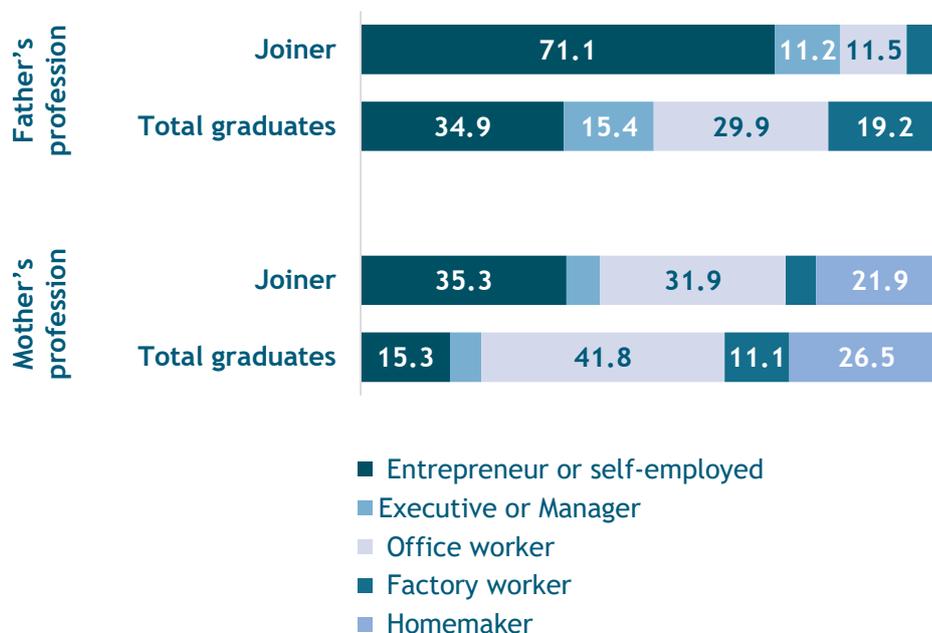
The presence of foreign citizens among joiners is almost zero; they represent 0.9% compared to 3.3% of the population analysed.

#### Family background

Two out of three joiners have non-graduate parents (66.5%), followed by those who have only one parent with a university degree (20.7%) and, finally, those who have both parents with degrees (12.8%). These characteristics are very similar to those observed among the population as a whole, where the percentages are 72.7%, 16.9%, and 10.4%, respectively.

Upon analysing the parents' profession, however, the joiners' characteristics appear decidedly different from those of the population as a whole, highlighting an over-representation of graduates who come from families in which at least one parent carries out an entrepreneurial activity. Indeed, 71.1% of joiners are the offspring of an entrepreneur or self-employed parent (34.9% of the population); followed at a distance by the offspring of executives or managers (11.2% compared to 15.4%) and of office workers (11.5% compared to 29.9% of the population). The presence of factory workers' children is more limited (6.0% compared to 19.2%). Important differences also emerge with respect to the mother's profession: more than one joiner out of three has a mother who is an entrepreneur or self-employed (35.3% compared to 15.3% of the population); on the other hand, the children of executives or managers are in line with the average (5.8% compared to 5.4%). 31.9% have a mother who is an office worker and 5.2% have a mother who is a factory worker, percentages which are, in both cases, decidedly below the average (respectively 41.8% and 11.1%); finally 21.9% are the child of a homemaker (26.5% of the population).

**Figure 3.29 Joiners among graduates from 2004 to 2018: profession of father and mother (percentage values)**



## Degree Course

As in the population observed, the percentage of Bachelor's degree graduates compared to Master's degree or Single-cycle second-level degree graduates is also higher among joiners even if the difference between the types of courses is much smaller than that observed in the population as a whole: 52.5% of the joiners have a Bachelor's degree and 47.5% a Master's degree or Single-cycle second-level degree (in the population the percentages are, respectively, 68.3% and 31.7%).

The distribution between STEM and non-STEM degrees among graduates who have a share in a company is in line with what is recorded in the population: 24.1% of the joiners have a STEM degree compared to 23.5% of the population.

With regard to fields of study, joiners come mainly from areas such as economic-statistical (20.4% compared to 12.7% of the population), politics, social sciences (12.3% compared to 11.8%), engineering (11.0% compared to 10.3%), and law (10.6% compared to 8.5%). Less represented are the other fields of study which do not reach the 10% threshold.

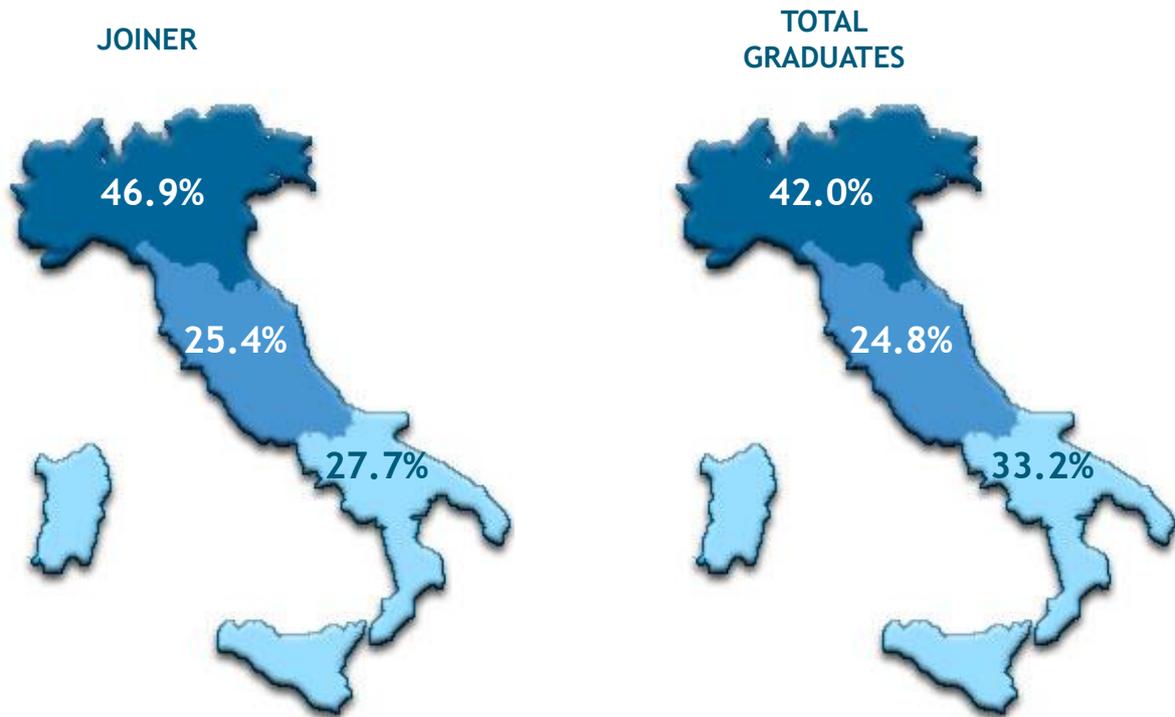
**Table 3.17** Joiners among graduates from 2004 to 2018: degree characteristics (absolute and percentage values)

		Joiner (n=66,098)		Total graduates (n=2,891,980)	
		n	%	n	%
<b>Degree type</b>	First-level	34,676	52.5	1,976,253	68.3
	Second-level	31,422	47.5	915,727	31.7
<b>STEM/non-STEM</b>	STEM	15,911	24.1	680,664	23.5
	non-STEM	50,187	75.9	2,211,316	76.5
<b>Fields of study</b>	economic-statistical	13,454	20.4	366,283	12.7
	politics, social sciences	8,152	12.3	342,351	11.8
	engineering	7,260	11.0	297,861	10.3
	law	6,987	10.6	244,613	8.5
	humanities	4,746	7.2	249,564	8.6
	architecture	4,391	6.6	134,057	4.6
	health professions	3,519	5.3	286,692	9.9
	foreign languages	2,584	3.9	174,851	6.0
	psychological	2,256	3.4	118,650	4.1
	geo-biological	2,093	3.2	124,410	4.3
	education	2,018	3.1	154,103	5.3
	pharmaceutical	1,778	2.7	53,473	1.8
	medicine and dentistry	1,604	2.4	95,048	3.3
	agriculture	1,531	2.3	56,142	1.9
	mathematics, physics, natural sciences	1,475	2.2	83,204	2.9
	chemistry	1,031	1.6	44,917	1.6
	physical education	969	1.5	48,810	1.7
veterinary	227	0.3	12,019	0.4	
defence, security, military studies	23	0.0	4,932	0.2	

### Graduation University and Geographical Mobility

46.9% of joiners come from a university located in the North of Italy, 25.4% from one in the Centre, and 27.7% from one in the South. Among the total number of graduates, these percentages are respectively 42.0%, 24.8%, and 33.2%.

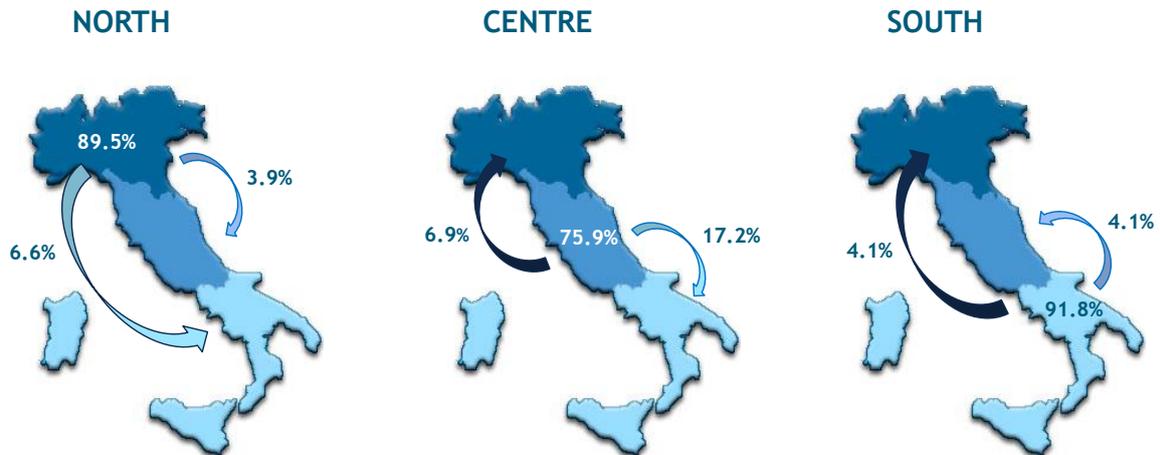
Figure 3.30 Joiners among graduates from 2004 to 2018: geographical area of university (percentage values)



Just under three out of four graduates (74.2%) have acquired for the first time equity shares in a company based in the same region in which they studied, 12.5% in a company based in a different region but in the same geographical area as their studies, and 13.3% joined a company in a different geographical area from that of the university in which they obtained their degree.

In particular, 89.5% of graduates from universities in the North have acquired shares in a company in the same geographical area: 71.5% studied in the same region as the company they have invested in and 18.0% in a different region but in the same area. 10.5% acquired shares in a company in the Centre (3.9%) or South (6.6%).

**Figure 3.31 Joiners among graduates from 2004 to 2018: mobility between the geographical area of the university and the geographical area of the company invested in (percentage values)**



Graduates from Central Italy generally show more mobility than their colleagues from other areas: 75.9% joined a company in the same geographical area of the university where they studied (69.0% remained in the same region; 6.9% in another Central region) while 24.1% joined a company based in a different area, namely in the North (6.9%) or in the South (17.2%).

The vast majority of graduates who studied in the South also acquired shares in companies in the same geographical area (91.8%): 83.5% acquired shares in companies located in the same region and 8.3% in another region of the same area. 8.2% of graduates from the South joined companies located in a different area from the one in which they studied.

95.3% of joiners studied come from a state university and 4.7% from a non-state university, characteristics in line with the results of the population (97.3% of graduates come from a state university and 2.7% from a non-state university).

In terms of the size of the university among joiners, there are no substantial differences compared to the total population. Indeed, 10.5% studied in a small university (8.9% in the population as a whole), 13.8% in a medium university (15.4% overall), 30.4% in a large university (30.9% overall), and 45.3% in a mega university (44.8% overall).

**Table 3.18 Joiners among graduates from 2004 to 2018: university characteristics**  
(absolute and percentage values)

		Joiner (n=66,098)		Total graduates (n=2,891,980)	
		n	%	n	%
<b>State/ non state</b>	State	62,961	95.3	2,813,090	97.3
	Non state	3,137	4.7	78,890	2.7
<b>Size</b>	Small	6,944	10.5	256,903	8.9
	Medium	9,138	13.8	445,466	15.4
	Large	20,095	30.4	893,793	30.9
	Mega	29,921	45.3	1,295,818	44.8

### Time from date of graduation to joining

Among joiners, 57.0% graduated in the last 10 years (between 2009 and 2018), and 43.0% before that (between 2004 and 2008). The latter value is greater than what was observed in the overall population (31.2%), due to the considerations already highlighted with reference to graduate founders: firstly, the composition of the population analysed; and secondly, the moment in which a graduate joined a company by acquiring shares. Indeed, when the date of acquisition of shares is compared to the date of graduation, it is clear that over half of joiners (54.0%) joined a company after graduating, in particular in the years immediately following graduation: 6.8% within one year of graduation, 6.5% between one and two years afterward, and 6.0% between two and three years afterward. 46.0% of the joiners studied, on the other hand, joined a company before graduation: in particular, 16.5% acquired shares before enrolling in university while 29.6% did so during university.



## 4. THE COMPANIES





This section aims to understand the phenomenon of entrepreneurship among graduates in Italy by analysing both the companies they founded and those in which they have invested, in the period from 1995 (the year in which the first companies were founded by graduates of the population analysed) to 2019 (the last year under study). Companies founded by graduates are described as a whole and through comparison with data for all companies founded in Italy, in order to facilitate the reading and interpretation of data on graduate-founded companies in the period studied. Regarding the temporal analyses, two factors were considered: the first takes into account the composition of the population analysed; the second the growing number of universities, and therefore of graduates, considered. To ensure an appropriate temporal analysis, we considered both the total number of companies founded and invested in by graduates, and a dataset limited to companies founded and invested in by graduates in the years 2010-2018. For this subset of analysis, 2010 was chosen as an appropriate first year for observation, given the significant increase in the number of universities included in the AlmaLaurea database (+10) compared to 2009. In particular, the cohort of graduates present in the AlmaLaurea database includes numerous universities in Lombardy (Milan, Milano Bicocca, Bergamo, Brescia, Pavia), starting with graduates in 2010. Some of the results herein are affected by this changed composition of the population of graduates and universities. The analyses presented in this section refer to the collective analysis of the entire population of graduates. Where present, differences from the cohort of 2010-2018 graduates are highlighted. With regard to companies invested in by graduates, these are described as a whole as well as by comparison with companies founded by graduates. The considerations with respect to the temporal analyses and the cohorts analysed are the same as those described for companies founded by graduates.

The chapter is organized as follows. The first part identifies characteristics of Italian-based companies, i.e. those enterprises founded in Italy in the years studied (1995-2019). The second part describes characteristics of companies founded by graduates while the third part illustrates the characteristics of companies invested in by graduates.

#### 4.1 CHARACTERISTICS OF COMPANIES FOUNDED IN ITALY

In order to assess and profile in detail the phenomenon of graduate entrepreneurship, it is important to describe the main characteristics of the current Italian business system. For this purpose, data relating to the entire period studied (from 1995 to 2019<sup>8</sup>) was collected;

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<sup>8</sup> For the year 2019, data up to the third quarter of 2019 was included. Please refer to the Methodological Notes for more details.

when it was not possible to access data for the entire time period, the last ten years were considered, i.e. the period 2009-2018. Data was collected through the Movimprese platform, an InfoCamere service that collects and analyses the data of companies entered in the register of companies founded in Italy.

### Foundation Year

In the period between 1995 and 2019, 10,783,746 new companies were founded in Italy. With reference to this population, Table 4.1 shows, for each year under study, the number of companies founded in Italy.

**Table 4.1 Companies founded in Italy between 1995-2019: distribution by foundation year (absolute and percentage values)<sup>9</sup>**

Year	Companies founded (n=10,783,746)	
	n	%
1995	350,498	3.3
1996	505,354	4.7
1997	1,260,364	11.7
1998	408,475	3.8
1999	390,074	3.6
2000	403,408	3.7
2001	421,451	3.9
2002	417,204	3.9
2003	389,342	3.6
2004	425,510	3.9
2005	421,291	3.9
2006	423,571	3.9
2007	436,025	4.0
2008	410,666	3.8
2009	385,512	3.6
2010	410,736	3.8
2011	391,310	3.6
2012	383,883	3.6
2013	384,483	3.6
2014	370,978	3.4
2015	371,704	3.4
2016	363,488	3.4
2017	356,875	3.3
2018	348,492	3.2
2019	353,052	3.3

With regard to the number of companies present in the register, it must be borne in mind that in 1995 the total number of registered companies was 4,304,816 and there were

<sup>9</sup> The Register of Companies was established starting on February 27, 1997, and requires all those who carry out entrepreneurial activities to register, including some categories previously exempted, such as simple companies, small-scale entrepreneurs, agricultural entrepreneurs, and direct cultivators. These new rules led to an increase in the number of registered companies not directly attributable to new entrepreneurial initiatives, especially for section A (Agriculture, hunting and forestry). This increase, which began to appear in the last three months of 1996, came into full effect in 1997, significantly altering growth rates related to these activities, both on a quarterly and on an annual basis for all the areas considered.

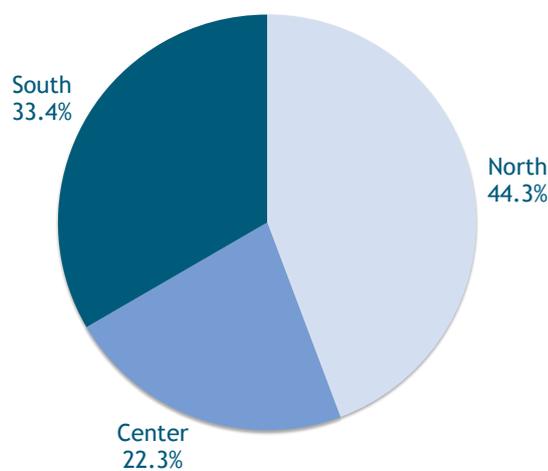


3,578,931 active companies (83.1% of registered companies). In 2019, the total number of registered companies was 6,091,971 and there were 5,137,78 active companies (84.3% of registered companies).

### Geographical area

The geographical area of all companies founded in Italy in the last ten years (2009-2018) shows that 44.3% of the companies are located in the North, 22.3% in the Centre, and 33.4% in the South (Figure 4.1).

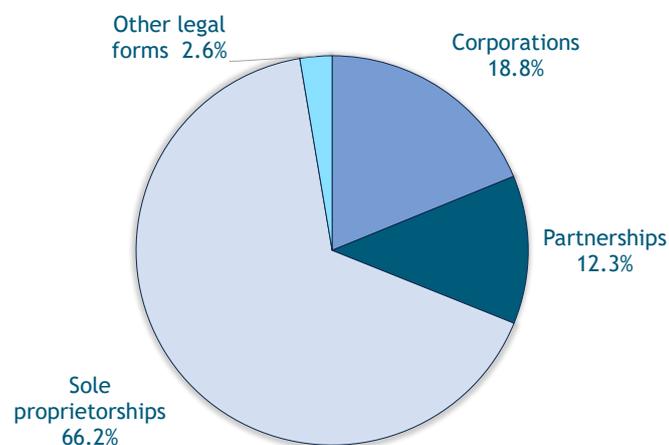
**Figure 4.1** Companies founded in Italy between 2009-2018: geographical area (percentage values)



### Legal form

The distribution of legal forms for all companies founded in Italy from 1995 to 2019 is as follows: 66.2% are sole proprietorships, 18.8% corporations, 12.3% partnerships, and the remaining 2.6% are companies that take on other legal forms (Figure 4.2).

**Figure 4.2** Companies founded in Italy between 1995-2019: legal form (percentage values)



## Status of companies

In the period between 1995 and 2019, 8,976,762 companies ceased operations in Italy; table 4.2 shows the relative distribution by year.

**Table 4.2 Companies which ceased operations in Italy between 1995-2019: breakdown by year of cessation**  
(absolute and percentage values)

Year	Companies which ceased operations (n=8,976,762)	
	n	%
1995	298,191	3.3
1996	268,339	3.0
1997	351,030	3.9
1998	368,023	4.1
1999	313,345	3.5
2000	316,632	3.5
2001	331,713	3.7
2002	347,074	3.9
2003	317,553	3.5
2004	335,145	3.7
2005	341,014	3.8
2006	373,217	4.2
2007	440,332	4.9
2008	432,086	4.8
2009	406,751	4.5
2010	389,076	4.3
2011	393,463	4.4
2012	403,923	4.5
2013	414,970	4.6
2014	383,690	4.3
2015	357,379	4.0
2016	349,143	3.9
2017	341,740	3.8
2018	340,715	3.8
2019	362,218	4.0

## Economic sectors

With respect to the economic sectors in which companies founded in Italy operate, we can see that 20.4% are in the agricultural sector, 15.9% in the secondary sector, and 63.7% in services. In the last ten years, the service sector has grown (+6.6%) while the agricultural sector (-14.5%) and industrial one (-11.2%) have decreased.

## Innovative start-ups

In 2012, the Italian Ministry of Economic Development introduced new legislation around innovative start-ups, with the aim of promoting technological development in the country. A start-up is defined as innovative if it fulfils at least one of the following requirements: a) 15% of the higher value between costs and total value of production is attributable to research and development; b) 2/3 of staff have a Master's degree; c) or the team has 1/3 AlmaLaurea Interuniversity Consortium



PhD students, PhD graduates, or graduates with 3 years of experience in certified research activity; d) the company must be a holder or licensee of industrial property, or owner of registered software (Unioncamere).

The number of innovative start-ups founded in Italy, registered as of September 2019, is 10,546. 81.6% of innovative start-ups founded in Italy operate in the service sector, 17.7% in the industrial sector, and the remaining 0.7% operate in agriculture. Based on revenues, 99.2% of innovative start-ups founded in Italy are micro-enterprises, and the remaining 0.8% are small companies.

### Women-led Companies

Women-led companies are defined as companies predominantly under the control and ownership of women<sup>10</sup>. In Italy there are 1,337,000 women-led companies registered as of September 2019, and they represent 22.7% of the total number of companies in the Register in 2019. 68.6% of women-led companies are sole proprietorships, 18.9% are corporations, 10.3% are partnerships, and 2.2% take on other legal forms. As regards geographical area, 41.0% of the companies are located in the North, 22.7% in the Centre, and 36.3% in the South.

## 4.2 CHARACTERISTICS OF GRADUATE-FOUNDED COMPANIES

A total of 236,362 companies were founded by the 205,137 graduates in the years from 1995<sup>11</sup> to 2019, as described in the previous paragraph 3.3, which represents 2.2% of all companies founded in Italy in the same period.

### Foundation Year

Out of the total number of companies founded by graduates, 65.3% of them were founded in the last ten years (from 2010 to 2019). 27.3% of the companies were founded in the decade 2000-2009, and the remainder (7.4%) from 1995 to 1999.

Figure 4.3 shows the trend of graduate-founded companies and that of companies founded in Italy by foundation year from 1995 to 2019. The comparison with all companies founded in Italy shows that the percentage of companies founded by graduates increased in the period from 2003 to 2017, reaching 7.9% in 2017. As regards companies founded in Italy, there is a constant trend over time, with percentage values that settle at around 3.5%.

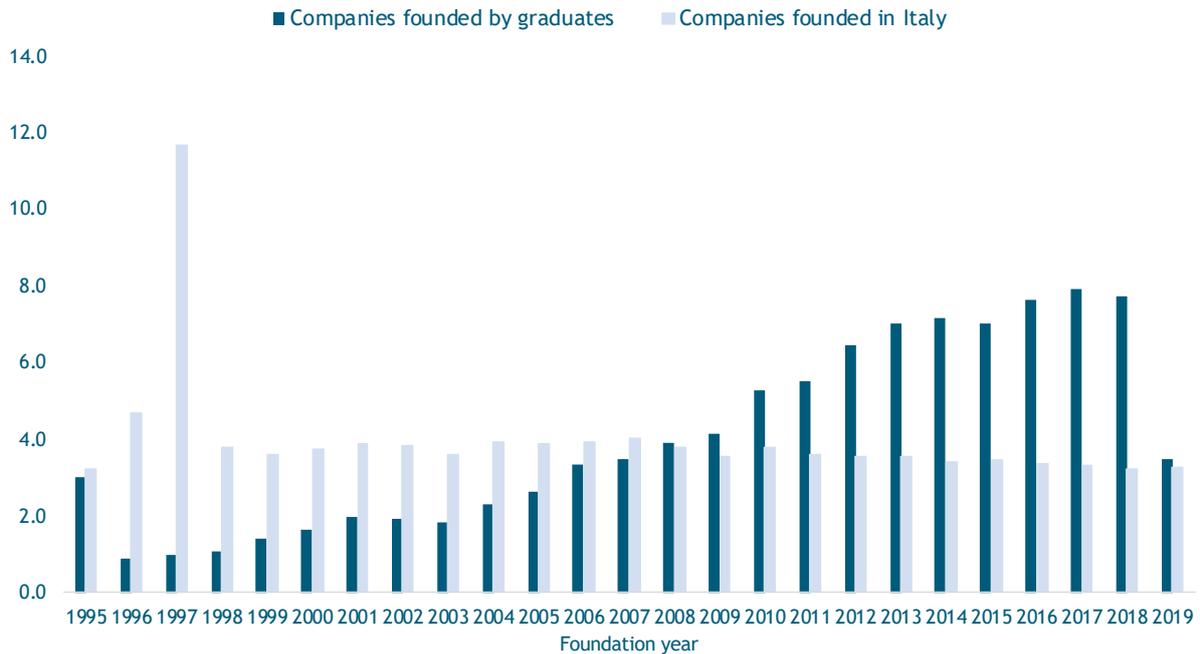
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<sup>10</sup> Unioncamere (Women's Entrepreneurship Observatory) states that women-led companies must be:

- sole proprietorships owned by women or managed by women;
- partnerships in which the majority of the shareholders are of female gender;
- corporations in which the majority of the shares are owned by women, or in which the majority of offices are given to women, or companies in which the average between the shares owned by women and the offices held by women is greater than 50%.

<sup>11</sup> The percentage of companies founded before 1995 is equal to 2% of all companies founded; for this reason, companies founded before 1995 were considered as founded in 1995.

**Figure 4.3 Companies founded by graduates (1995-2019): distribution by foundation year (percentage values)**



As highlighted in the introductory section on companies, the results regarding companies founded by graduates are partly linked to the population of graduates considered and to the large percentage of graduates who start a company after graduation. Furthermore, considering analyses of companies founded by graduates in the 2010-2018 period, the trend in the percentage of companies founded, by foundation year, is consistent with that shown for the total number of graduates. The last few years studied (2016, 2017, and 2018) are an exception in which the percentage of companies founded by graduates in the 2010-2018 period is approximately three percentage points higher than that highlighted in the entire population of graduates analysed.

### Geographical area

Of all companies founded by graduates, 37.5% are located in the North, 21.7% in the Centre, and 40.8% in the South (Figure 4.4).

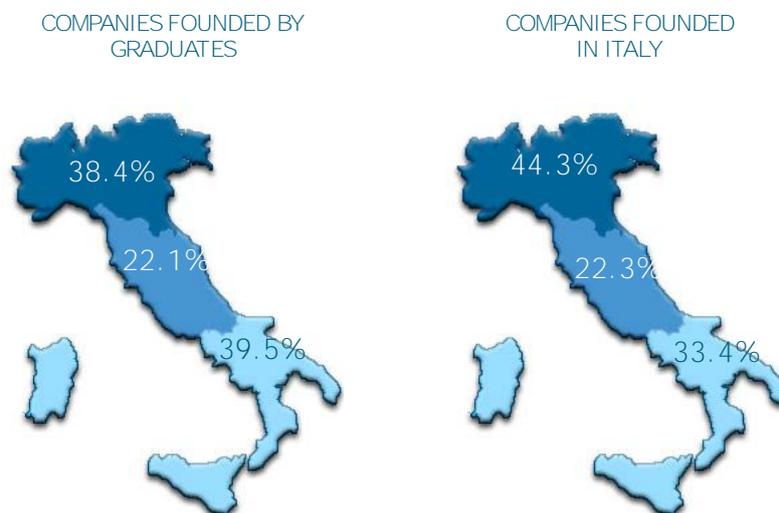


**Figure 4.4 Total companies founded by graduates (1995-2019): geographical area (percentage values)**



With reference to the geographical area of companies founded by graduates versus all companies founded in Italy in the last ten years (2009-2018), there are important differences to highlight (Figure 4.5). The geographical area of the companies founded by graduates is as follows: 38.4% in the North, 22.1% in the Centre, and 39.5% in the South. In the same period, all companies founded in Italy are distributed as follows: 44.3% of companies are located in the North, 22.3% in the Centre, and 33.4% in the South.

**Figure 4.5 Companies founded by graduates (2009-2018): geographical area (percentage values)**



After analysing the total number of companies founded by graduates, the data shows that 11.2% of the companies are located in Campania, followed by Lazio with 11.0%, Veneto with 8.9%, Sicily with 8.3%, and Lombardy with 8.1% (Table 4.3). The distribution observed for companies founded by graduates is linked to the characteristics of the population analysed, as described in the introductory part of the section on companies. In particular, data regarding Lombardy is likely to be underestimated.

**Table 4.3 Companies founded by graduates (1995-2019): region where the company is located (absolute and percentage values)**

Region	Companies founded by graduates (n=236,362)	
	n	%
Piedmont	17,464	7.4
Valle D'Aosta	496	0.2
Lombardy	19,062	8.1
Trentino Alto Adige	3,309	1.4
Veneto	21,069	8.9
Friuli Venezia Giulia	4,313	1.8
Liguria	5,645	2.4
Emilia Romagna	17,152	7.3
Tuscany	14,191	6.0
Umbria	5,308	2.3
Marche	5,887	2.5
Lazio	25,950	11.0
Abruzzo	7,699	3.3
Molise	2,029	0.9
Campania	26,510	11.2
Apulia	18,264	7.7
Basilicata	3,260	1.4
Calabria	12,483	5.3
Sicily	19,695	8.3
Sardinia	6,576	2.8

Focusing on the analysis of period 2009-2018, Table 4.4 shows the distribution of companies founded by graduates versus all of those founded in Italy by single region. For some regions, modest differences are observed between the percentage of companies founded by graduates versus all that were founded in Italy. Some examples are Veneto, with 9.1% of companies founded by graduates compared to 7.6% of all companies founded; Calabria, with 4.9% of companies founded by graduates compared to 3.0%; and Apulia, with 7.6% of companies founded by graduates compared to 6.6% of all companies. Lombardy is again an exception as it is underestimated in terms of companies founded by graduates.



**Table 4.4 Companies founded by graduates (2009-2018): region where the company is headquartered**  
(absolute and percentage values)

Regione	Companies founded by graduates (n=164,073)		Companies founded in Italy (n=3,767,463)	
	n	%	n	%
Piedmont	12,282	7.5	279,876	7.4
Valle D'Aosta	342	0.2	7,841	0.2
Lombardy	14,631	8.9	596,898	15.8
Trentino Alto Adige	2,451	1.5	58,806	1.6
Veneto	14,867	9.1	287,027	7.6
Friuli Venezia Giulia	2,921	1.8	59,092	1.6
Liguria	3,691	2.2	99,319	2.6
Emilia Romagna	12,134	7.4	280,971	7.5
Tuscany	9,912	6.0	271,134	7.2
Umbria	3,542	2.2	54,522	1.4
Marche	4,315	2.6	102,327	2.7
Lazio	18,455	11.2	412,193	10.9
Abruzzo	5,326	3.2	93,229	2.5
Molise	1,362	0.8	20,246	0.5
Campania	17,692	10.8	374,473	9.9
Apulia	12,478	7.6	246,942	6.6
Basilicata	2,242	1.4	32,802	0.9
Calabria	7,984	4.9	112,358	3.0
Sicily	12,998	7.9	280,586	7.4
Sardinia	4,448	2.7	96,821	2.6

### Legal Form

In terms of their legal form, 60.2% of the companies founded by graduates from 1995 to 2019 are sole proprietorships, 24.8% are corporations, 15.0% are partnerships, and 0.04% take on other legal forms. On a national level, in the same period, the percentage of sole proprietorships is much higher, equal to 66.2% of companies founded; corporations are 18.8%, partnerships 12.3%, and companies with other legal forms are 2.7% (Figure 4.6).

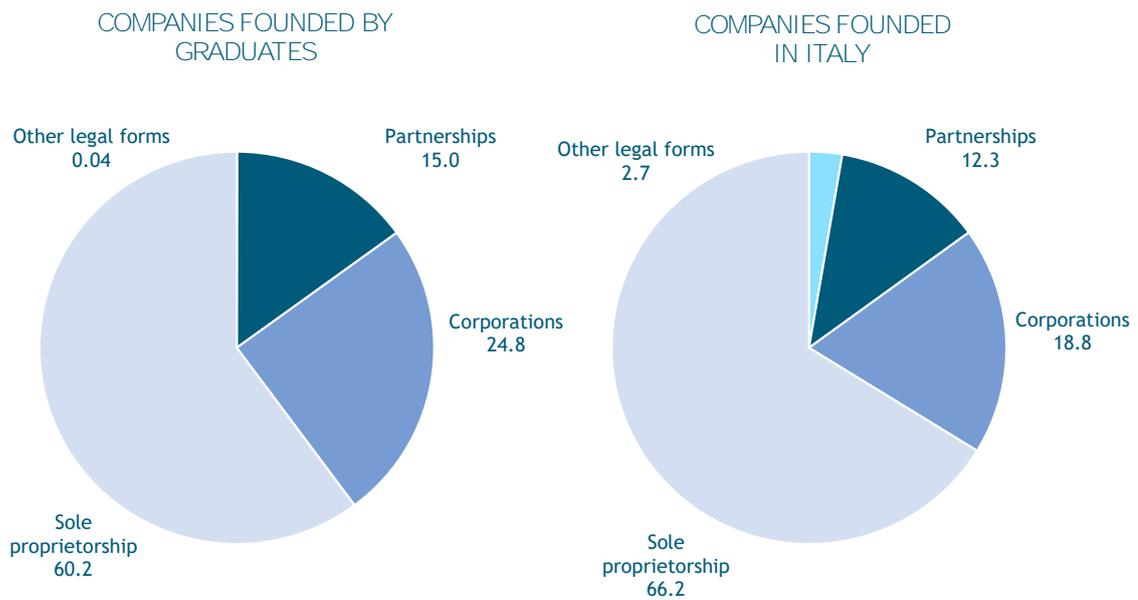
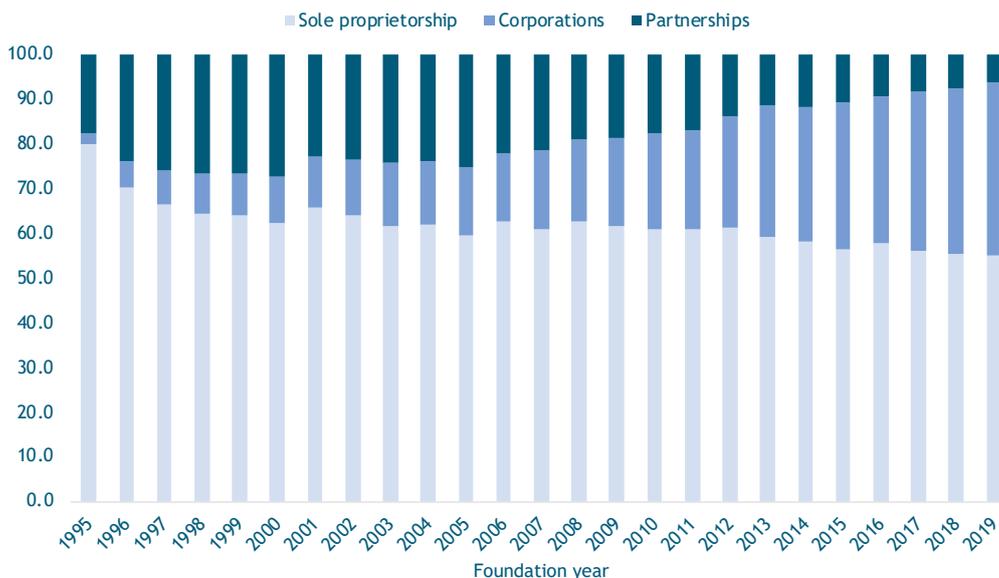
**Figure 4.6 Companies founded by graduates (1995-2019): legal forms (percentage values)**

Figure 4.7 shows the legal forms of graduate-founded companies by foundation year. It shows that the distribution of companies with respect to legal form has changed significantly over time. In particular, the percentage of sole proprietorships decreased, going from 80.0% in 1995 to 55.0% in 2019; for corporations, the percentage increased in the period under analysis (from 2.4% in 1995 to 38.8% in 2019). Finally, the percentage of partnerships fell sharply from 17.6% in 1995 to 6.1% in 2019.

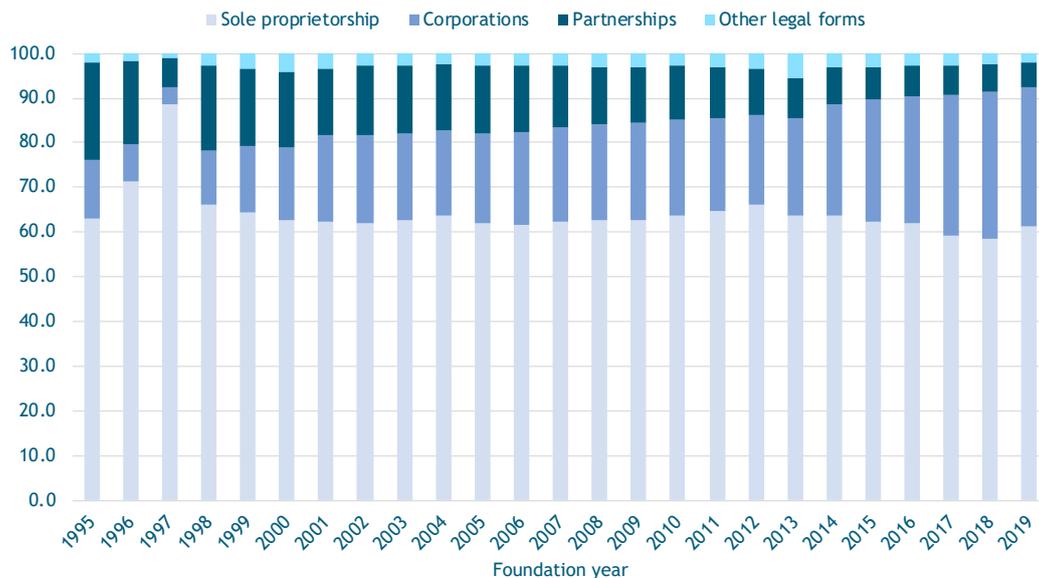
**Figure 4.7 Companies founded by graduates (1995-2019): legal form by foundation year (percentage values)**

Note: companies that take on other legal forms are not shown in the graph because they represent values lower than 1%.



Likewise, Figure 4.8 shows the distribution by foundation year and by legal form of all companies founded in Italy. The percentage of sole proprietorships was constant over the period observed, from 63.0% in 1995 to 61.4% in 2019; the percentage of corporations increased from 13.2% in 1995 to 31.2% in 2019; the percentage of partnerships decreased from 21.7% to 5.5%.

**Figure 4.8 Companies founded in Italy (1995-2019): legal form by foundation year (percentage values)**



With reference to the geographical area of companies founded by graduates, in terms of their legal form, it should be noted that 42.8% of sole proprietorships are based in the South, followed by the North with 36.9%, and the Centre with 20.3%. With respect to corporations, 38.1% are based in the South, followed by the North with 36.1% and the Centre with 25.8%. Finally, partnerships are distributed as follows: 41.7% are based in the North, followed by the South with 37.5% and the Centre with 20.8%<sup>12</sup>.

### Status of companies founded

Out of all companies founded by graduates, 44.0% have ceased to operate. Out of the total number of companies founded in Italy in the same period, the percentage of companies that have ceased operations (83.2%) is much higher than that of companies founded by graduates.

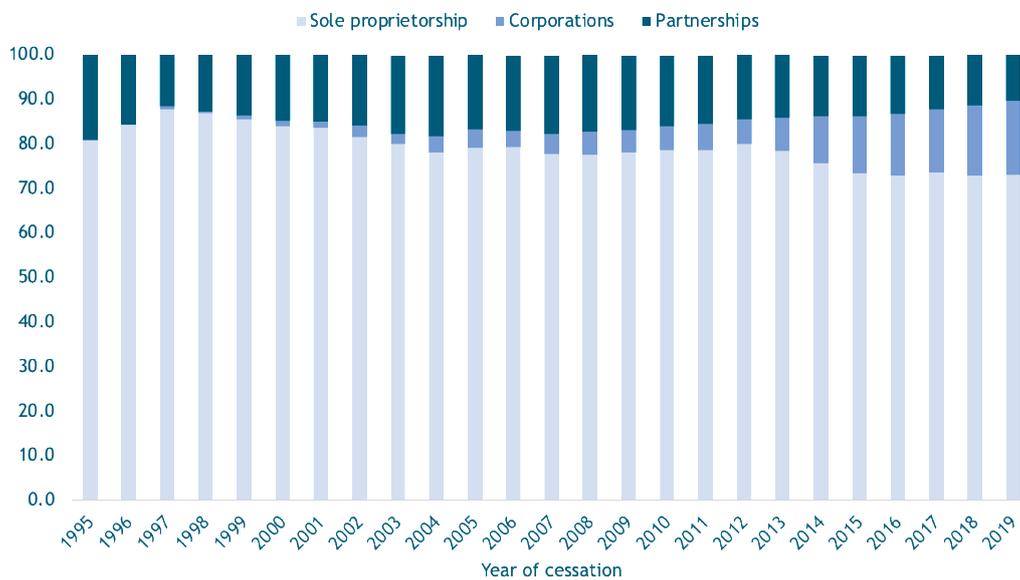
With respect to the legal form, 76.6% of the companies founded by graduates which have ceased operations were sole proprietorships, 9.2% corporations, and 14.2% partnerships. For all companies founded in Italy, 71.8% of companies that have ceased operations were sole

<sup>12</sup> No national data is available.

proprietorships, 11.2% were corporations, 14.6% were partnerships, and 2.4% had other legal forms.

Figure 4.9 shows the percentage of companies, out of all graduate-founded companies, that have ceased operations, alongside their legal form and year of cessation. The percentage of corporations that ceased operating increased from 0.0% in 1995 to 16.7% in 2019, while the percentage of partnerships that ceased operating decreased from 19.1% in 1995 to 10.3% in 2019. The percentage of sole proprietorships that ceased operations appears to be fairly constant over time, even though it has decreased in recent years, going from 80.9% in 1995 to 73.1% in 2019.

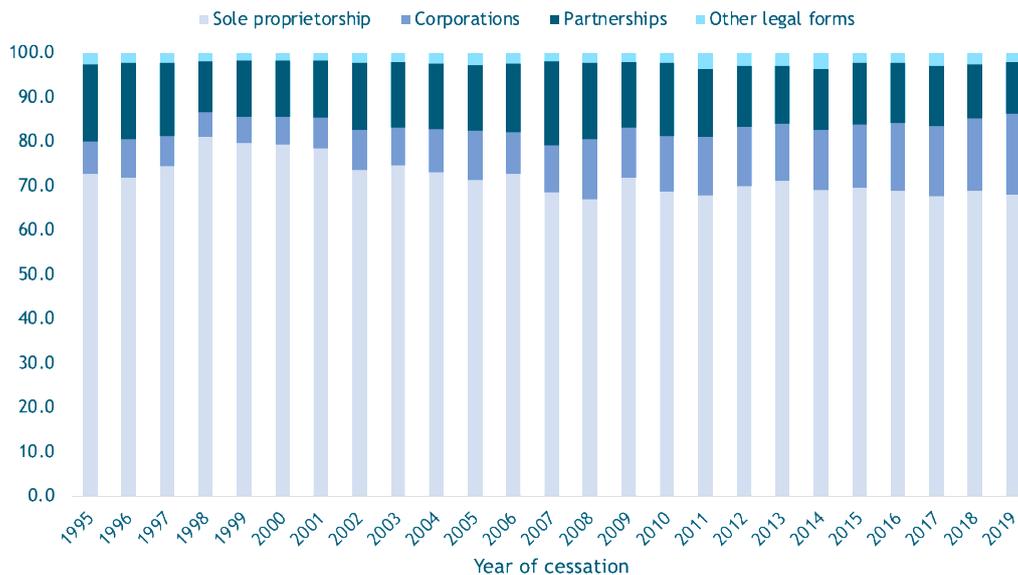
**Figure 4.9 Companies founded by graduates which have since ceased operations (1995-2019): legal form by year of cessation (percentage values)**



Note: companies that take on other legal forms are not shown in the graph because they represent values lower than 1%.

This distribution is consistent with the trend of companies founded by graduates by legal form (Figure 4.7) and with that of companies that have ceased operations on a national basis (Figure 4.10). On the latter, the percentage of corporations that ceased operations increased from 7.2% in 1995 to 18.3% in 2019, while the percentage of partnerships that ceased operations decreased from 17.5% in 1995 to 11.7% in 2019. The percentage of sole proprietorships that ceased operations appears to be fairly constant over time even if it has decreased in recent years, going from 72.7% in 1995 to 68.5% in 2019.

**Figure 4.10 Companies founded in Italy which have ceased operations (1995-2019): legal form and year of cessation (percentage values)**



As regards the geographical area of the companies founded by graduates which have ceased to operate in the last decade (2009-2018), we can see that 40.1% of them were located in the North, 21.7% in the Centre, and 38.2% in the South. For all companies founded in Italy, the data shows that 46.9% of companies that ceased to operate were in the North, 20.8% in the Centre, and 32.3% in the South.

By analysing the legal form and geographical area, we can see that 42.5% of sole proprietorships which ceased operations were located in the South, followed by the North with 36.9% and finally the Centre with 20.6%. For corporations, 39.5% of those that ceased to operate were located in the North, followed by the South with 33.9% and the Centre with 26.6%. Finally, for partnerships, 39.4% of those that ceased to operate were located in the South, 39.1% in the North, and 21.5% in the Centre<sup>13</sup>.

Finally, with reference to the cessation of graduate-founded companies compared to foundation year, it should be noted that 80.8% of companies founded in 1995 have since ceased operations. This percentage of cessation shows a decreasing trend over the period analysed (1995-2019), reaching 49.7% in 2011 and 2.5% in 2019<sup>14</sup>.

### Economic sectors

Within the subset of companies founded by graduates, 11.6% operate in agriculture, 9.4% in the secondary sector, and 79.0% in services. In particular, in the service sector—which is the most represented—29.1% of the companies operate in “Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles”, 9.8% in “Professional, Scientific, and

<sup>13</sup> No national data is available.

<sup>14</sup> No national data is available.

Technical Activities”, 8.9% in “Financial and Insurance Activities”, 7.5% in “Accommodation and Catering Services”, 6.9% in “Information and Communication Services”. At a national level, the percentage of companies founded in Italy operating in the agricultural sector in the same time frame (1995-2019), is equal to 20.4%; 15.9% are in the secondary sector and 63.7% in services. Within the latter, 21.9% are in “Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles”, 1.5% work in “Professional, Scientific, and Technical Activities”, 6.0% in “Financial and Insurance Activities”, 3.7% in “Accommodation and Catering Services”, 2.2% in “Information and Communication Services”. Table 4.5 shows the distribution of companies founded by graduates versus all companies founded in Italy according to the ATECO 2007 classification of economic activities.

**Table 4.5 Companies founded by graduates (1995-2019): economic sector**  
(absolute and percentage values)

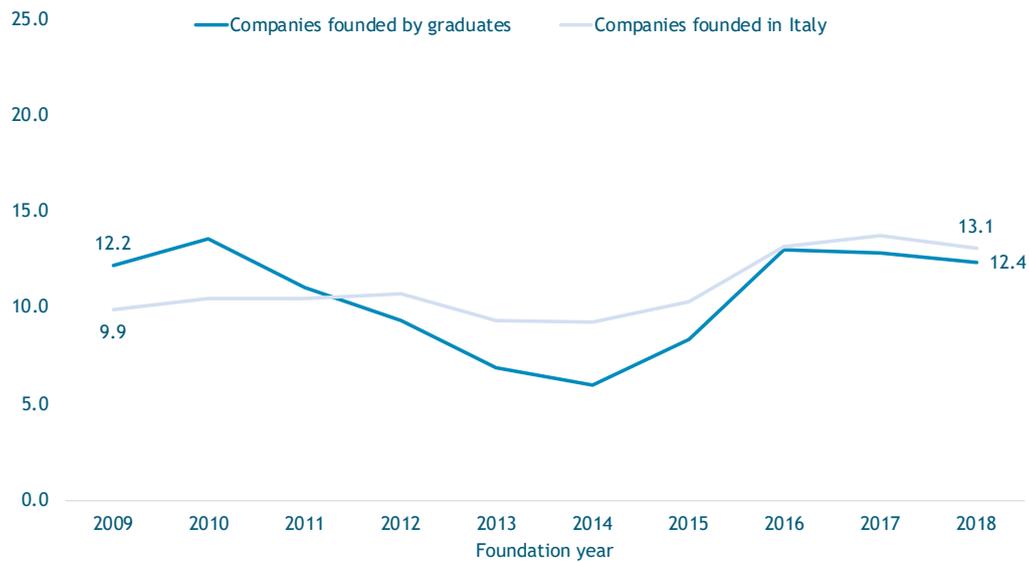
Economic sector (ATECO 2007)	Companies founded by graduates (n=214,624) *		Companies founded in Italy (n= 9,091,203) *	
	n	%	n	%
A. Agriculture, Forestry, and Fishing	24,845	11.6	1,838,430	20.2
B. Extraction of Minerals from Quarries and Mines	21	0.0	13,357	0.1
C. Manufacturing Activities	11,019	5.1	199,529	2.2
D. Supply of Electric Energy, Gas, Steam, Air Conditioning	538	0.3	483,293	5.3
E. Water Supply; Sewerage, Waste Management and Remediation Activities	187	0.1	3,457	0.0
F. Construction	9,172	4.3	1,249,518	13.7
G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	62,375	29.1	1,989,139	21.9
H. Transport and Warehousing	2,243	1.1	259,338	2.9
I. Accommodation and Catering Services	16,069	7.5	340,430	3.7
J. Information and Communication Services	14,747	6.9	202,996	2.2
K. Financial and Insurance Activities	19,166	8.9	546,211	6.0
L. Real Estate Activities	7,954	3.7	71,983	0.8
M. Professional, Scientific and Technical Activities	21,022	9.8	137,895	1.5
N. Rental, Travel Agencies, Business Support Services	10,345	4.8	1,584,311	17.4
O. Public Administration and Defence, Compulsory Social Insurance	9	0.0	170	0.0
P. Education	2,520	1.2	12,623	0.1
Q. Health and Social Care	3,429	1.6	8,958	0.1
R. Artistic, Sports, Entertainment and Leisure Activities	4,782	2.2	34,685	0.4
S. Other Service Activities	4,181	2.0	114,844	1.3
U. Extraterritorial Organizations and Bodies	1	0.0	36	0.0

\*Number of companies for which information is available by economic sector.

The trend over time in the distribution of companies by economic sector highlights differences between graduate-founded companies and those founded in Italy in general. In particular, Figure 4.11 shows the trend of graduate-founded companies and those founded in Italy in general in the last ten years with respect to the “Agriculture, Forestry and Fishing” sector. For companies founded by graduates, we can see a decreasing trend from 2010 to 2014, and an increasing trend, which tends to stabilize with the national one, from 2014 to 2018.

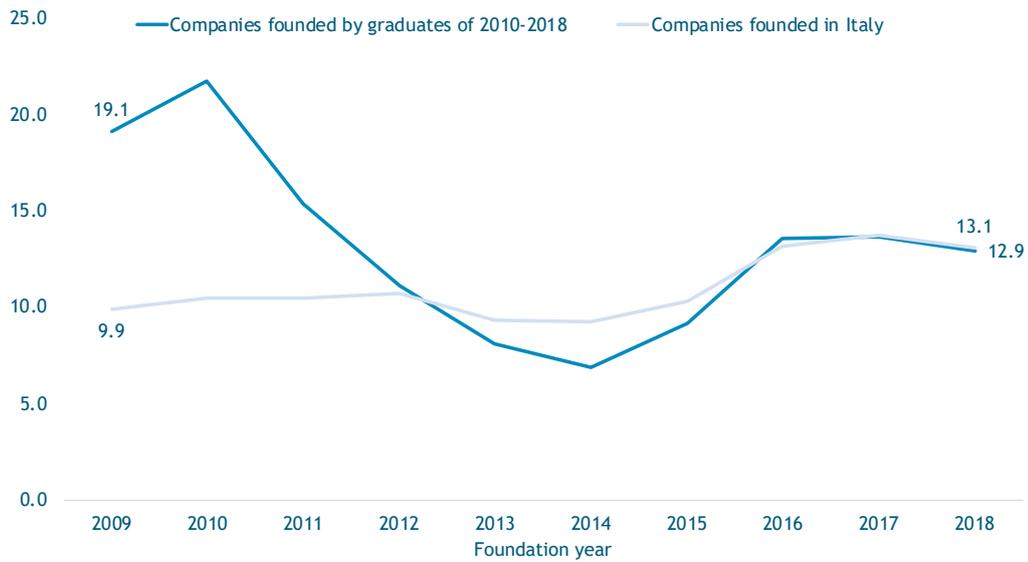


**Figure 4.11 Companies founded by graduates (2009-2018): dynamics of the “Agriculture, Forestry and Fishing” sector (percentage values)**



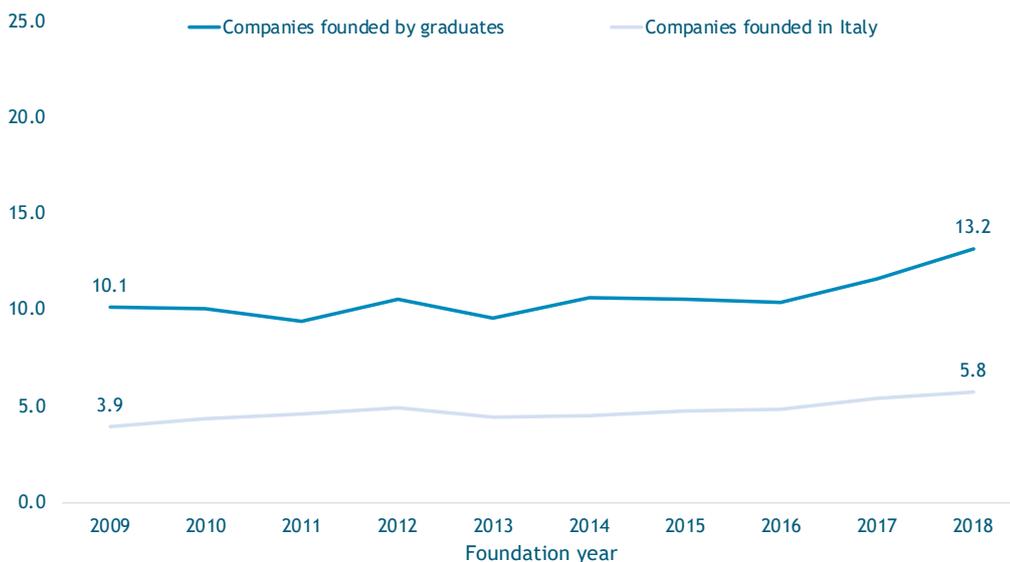
With respect to this specific analysis, concerning “Agriculture, Forestry and Fishing”, it was considered appropriate to also examine the results regarding graduates who obtained their degree in the period 2010-2018. In particular, Figure 4.12 shows the trend of graduate-founded companies in the period 2009-2018 and that of companies founded in Italy. There was a significant decrease from 2009 to 2014 (from 19.1% to 6.8%) and a subsequent increase, which reached 12.9% in 2018. The latter was very close to the overall national percentage in 2018 (13.1%).

**Figure 4.12 Companies founded by 2010-2018 graduates between 2009-2018: dynamics of the “Agriculture, Forestry, and Fishing” sector (percentage values)**



With reference to “Professional, scientific and technical activities”, we can see that in the last ten years the percentage of companies operating in this sector has grown from 10.1% in 2009 to 13.2% in 2018 for graduate-founded companies. In the same period, for companies founded in Italy in general, the percentage of companies that carry out professional, scientific, and technical activities went from 3.9% to 5.8% (Figure 4.13).

**Figure 4.13 Companies founded by graduates (2009-2018): dynamics of the “Professional, scientific and technical activities” sector (percentage values)**



## Growth rate

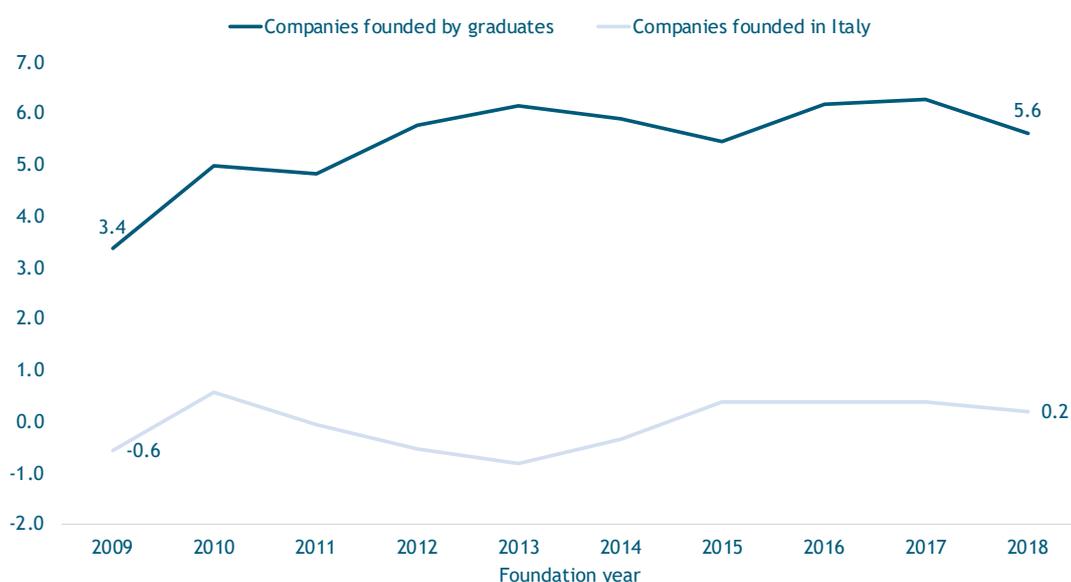
For the period between 2009 and 2018, the growth rate of companies founded by graduates and companies founded in Italy was calculated and compared. The growth rate was calculated as the ratio between the balance between registrations and cessations for each year of observation and the total number of companies founded in the observation period (between 2009 and 2018). The growth rate for companies founded by graduates has increased over the last ten years, going from 3.4% in 2009 to 5.6% in 2018. At the national level, the growth rate of companies shows a negative trend in the period 2009-2014, excepting 2010, and a positive trend in the last four years observed, from 2015 to 2018, with growth rates not exceeding 0.5% (Table 4.6; Figure 4.14).

**Table 4.6 Companies founded by graduates (2009-2018): growth rate**

Year	Companies founded by graduates				Companies founded in Italy			
	Companies founded (n=155,879)	Companies which ceased operations (n=70,809)	Balance*	Growth rate	Companies founded (n=3,767,461)	Companies which ceased operations (n=8,976,762)	Balance*	Growth rate
2009	9,821	4,566	5,255	3.4	385,512	406,751	-21,239	-0.6
2010	12,467	4,705	7,762	4.9	410,736	389,076	21,660	0.6
2011	13,022	5,502	7,520	4.8	391,310	393,463	-2,153	-0.1
2012	15,271	6,243	9,028	5.8	383,883	403,923	-20,040	-0.5
2013	16,622	7,028	9,594	6.1	384,483	414,970	-30,487	-0.8
2014	16,923	7,711	9,212	5.9	370,978	383,690	-12,712	-0.3
2015	16,629	8,102	8,527	5.5	371,704	357,379	14,325	0.4
2016	18,100	8,477	9,623	6.2	363,488	349,143	14,345	0.4
2017	18,765	8,965	9,800	6.3	356,875	341,740	15,135	0.4
2018	18,259	9,510	8,749	5.6	348,492	340,715	7,777	0.2

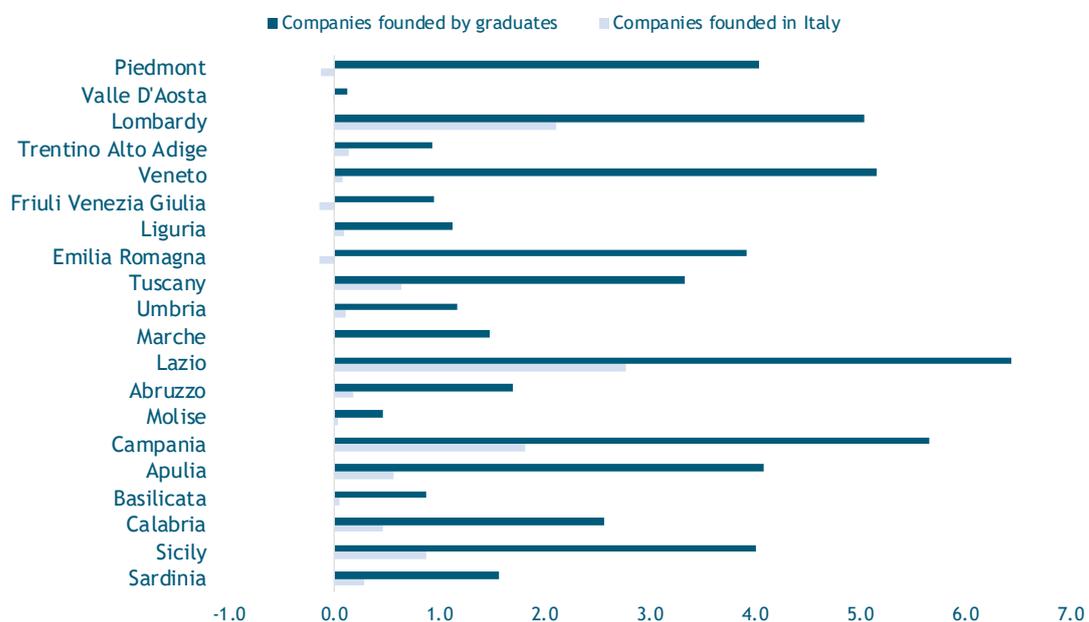
\*The balance is calculated as the difference between the number of companies created and the number of companies that ceased operations in the year being analysed.

**Figure 4.14 Companies founded by graduates (2009-2018): growth rate (percentage values)**



For the period between 2009 and 2018, Figure 4.15 shows the growth rate, by region, of companies founded by graduates and those founded in Italy. The growth rate by region of graduate-founded companies always shows a positive trend. Higher growth rates are highlighted for the regions of Lazio (6.4), Campania (5.6), and Veneto (5.2). The situation is different for companies founded in Italy, showing more modest and, for some regions, negative growth rates. In particular, Lazio and Campania follow a positive trend (2.8 and 1.8 respectively), Veneto shows a growth rate of 0.1 and many regions, such as, for example, Piedmont, Liguria, and Emilia Romagna show negative rates.

**Figure 4.15 Companies founded by graduates (2009-2018): growth rate by region (percentage values)**



The analyses on the sub-cohort of graduates in the period 2010-2018 show no significant differences. Interestingly, Lombardy, shows a higher growth rate than that of the total population of graduates: 5.0% vs. 6.5% respectively. This result is certainly linked to the change in the composition of the population of graduates and universities that took place starting from 2010, when numerous universities in Lombardy became part of AlmaLaurea.

### **Economic impact of companies founded by graduates: performance and growth. Focus on corporations**

The information contained in the AIDA Bureau van Dijk database was used to evaluate the performance of graduate-founded companies. This database collects economic and financial information of all companies operating in Italy that are obliged to file their financial statements, i.e. the corporations. In particular, AIDA collects comprehensive information on companies dating back up to ten years.



This section therefore focuses on the 58,500 corporations founded by graduates in the period studied (1995-2019). In particular, the data made available by the AIDA database concerns the economic performance over the last ten years, from 2009 to 2018, of 20,038 corporations founded by graduates. The corporations for which there is no information are those cancelled from the business register before 2009, which are therefore no longer present in the AIDA database.

On the basis of revenue, companies have been categorised into four distinct classes: micro companies (revenues of less than 2 million Euros), small companies (revenues between 2 and 10 million Euros), medium companies (revenues between 10 million Euros and 50 million Euros), and large companies (revenues greater than 50 million Euros). Data shows that 94.4% of the companies founded by graduates are micro companies; 5.0% are small companies; 0.5% are medium companies; and 0.1% are large companies. In terms of revenues generated by business class, it should be noted that 44.2% of total revenues are generated by micro companies, 46.4% by small and medium companies, with large companies generating the remaining 9.4% (Table 4.7).

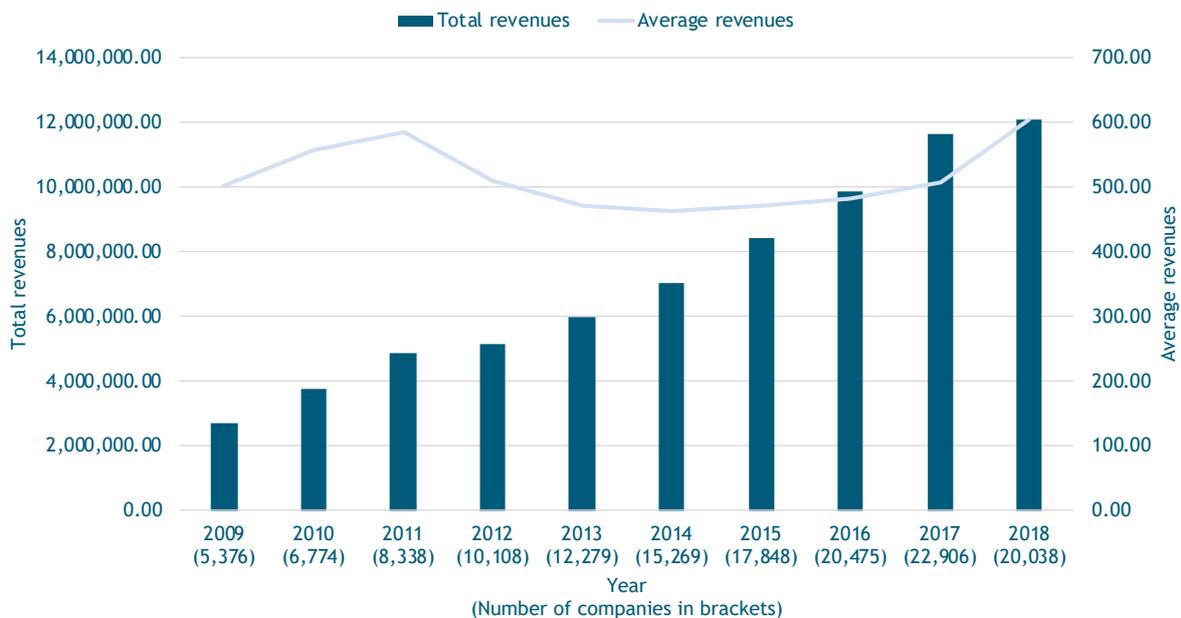


**Table 4.7 Corporations founded by graduates (1995-2019): company class and revenues for the period 2009-2018**

Company Class	Companies (n=20,038)		Revenues	
	n	%	Average by company (thousands of euros)	Share of total revenues
Micro (<2M)	18,924	94.4	282.6	44.2
Small (2-10M)	1,000	5.0	3,826.6	31.7
Medium (10-50 M)	105	0.5	16,946.6	14.7
Large (>50M)	9	0.1	125,910.5	9.4

At a national level, again referring to corporations, micro companies are 95.3% of active companies and contribute 29.7% to the creation of added value<sup>15</sup>. Small and medium companies are 4.6% and contribute 38.8% to the creation of added value. Finally, large companies account for 0.4% and contribute 31.5% of the added value achieved.

The revenues of the companies under analysis were then analysed (Figure 4.16). In particular, the average revenues of companies from 2009 to 2018 were considered. It is noted that in this period of time the total revenues generated by the companies founded by graduates have constantly increased. The average revenues have undergone various fluctuations over the years: the years with the highest average revenues for companies are 2011 and 2018.

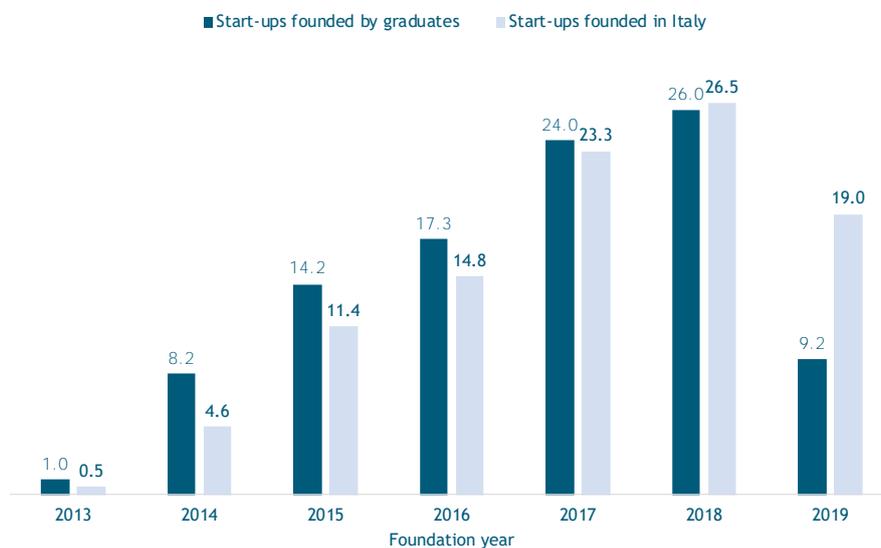
**Figure 4.16 Corporations founded by graduates: total revenues and average revenues for (2009-2018) (thousands of euro)**

<sup>15</sup> The added value represents the value that the production factors used by the company, capital and labour, have 'added' to the inputs purchased from the outside in order to obtain a given production (Economic Value Added, EVA).

### Innovative start-ups

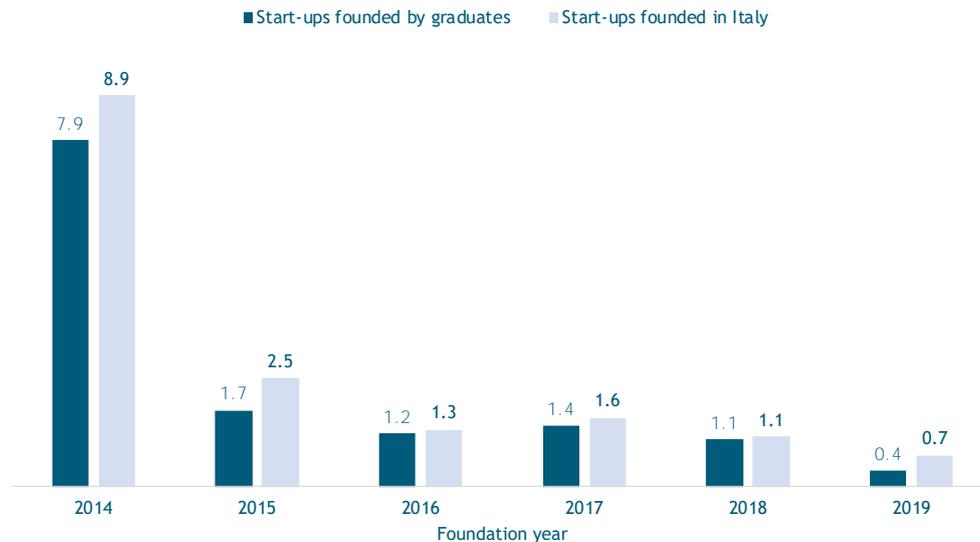
In the group of companies analysed, the total number of innovative start-ups founded by graduates is 2,127, representing 5.6% of the total number of corporations founded by graduates in the period between 2013 and 2019 (n= 38,016) and 20.2% of the total number of innovative start-ups founded in Italy (n= 10,546) registered by September 2019. The innovative start-ups were founded by graduates in the period between 2013 and 2019 (last year of study). In 2018, 26.0% of innovative start-ups were founded by graduates, and 24.0% in 2017. This trend is consistent with the national one: 26.5% of innovative start-ups were founded in 2018 and 24.0% were created in 2017 (Figure 4.17).

**Figure 4.17 Innovative start-ups founded by graduates (2013-2019): distribution by foundation year (percentage values)**



As regards growth rate, we can see that in 2014 it was 7.9% for innovative start-ups founded by graduates and 8.9% for innovative start-ups founded in Italy in general. Since 2015, the growth rate has decreased from 1.7 to 0.4 for start-ups founded by graduates and from 2.5 to 0.7 for start-ups founded in Italy in general (Figure 4.18).

**Figure 4.18 Innovative start-ups founded by graduates (2013-2019): growth rate in the period 2014-2019 (percentage values)**



86.8% of the innovative start-ups founded by graduates operate in the services sector, 12.8% in the secondary sector, and 0.4% operate in agriculture. Nationally, 81.6% of innovative start-ups founded in Italy operate in the service sector, 17.7% in the secondary sector, and the remaining 0.7% operate in agriculture.

As regards the classification of innovative start-ups with respect to revenues, 99.2% of the innovative start-ups founded by graduates are micro companies (with revenues of less than 2 million Euros) and the remaining 0.8% are small companies (revenues between 2 and 10 million Euros). This distribution is consistent with the national one: 99.2% of the innovative start-ups founded in Italy are micro companies and the remaining 0.8% are small companies.

Considering some of the characteristics of graduates who have founded innovative start-ups, we can see that 36.9% of innovative start-ups are classified as “youth-run” companies, mainly made up of young people aged between 18 and 35. 1.6% are companies managed mainly by foreigners. Finally, only 0.5% of graduates’ innovative graduates are socially-oriented, i.e. innovative start-ups that operate exclusively in sectors that impact the community’s well-being, such as social assistance, health, education, and training. A comparison with the innovative start-ups founded in Italy shows that 19.8% of innovative start-ups are “youth-run” companies, 3.4% are start-ups managed mainly by foreigners, and 2.1% are start-ups with a social vocation.



## Women-led Companies

Women-led companies are 38.0% (or 89,917) of the total number of companies established by graduates from 1995 to 2019. This percentage is higher than the national one recorded in Italy in the third quarter of 2019, which is equal to 22.7% (approximately 1,166,645)<sup>16</sup>.

With respect to the legal form, we can see that 71.9% of women-led companies founded by graduates are sole proprietorships, 20.8% are partnerships, and the remaining 7.3% are corporations. This distribution differs from that presented for all companies founded by graduates, which consists of 60.2% sole proprietorships, 24.8% corporations, and 15.0% partnerships. By referring to the national data, we can see that the percentage of women-led companies is distributed by legal form as follows: 68.6% are sole proprietorships, 18.9% are corporations, 10.3% are partnerships, and 2.2% take on other legal forms (Figure 4.19).

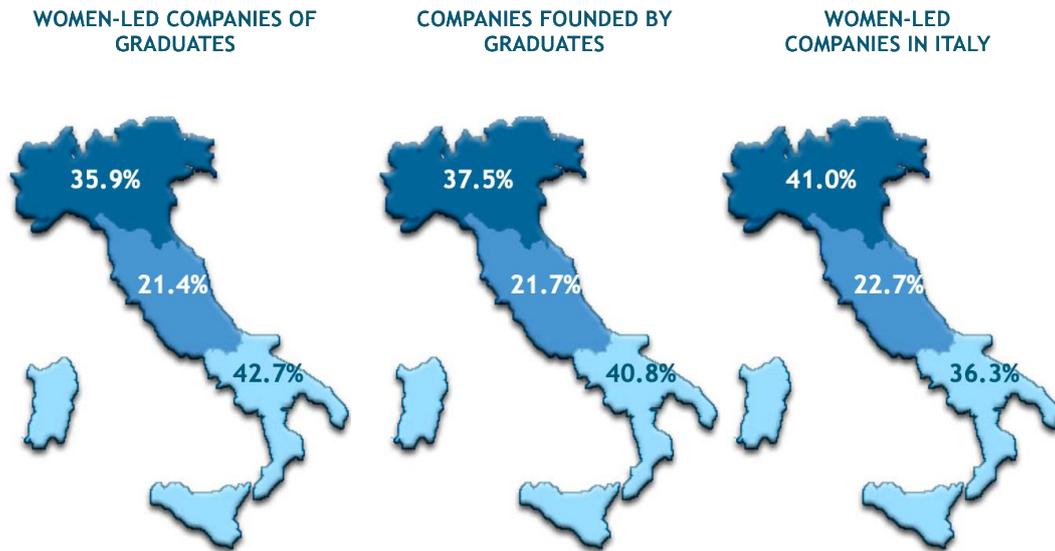
**Figure 4.19 Women-led companies founded by graduates (1995-2019): legal form (percentage values)**



As for the geographical area of companies, 42.7% of women-led companies founded by graduates are located in the South, a higher percentage than that of total graduate-founded companies (40.8%); 21.4% are located in the Centre, compared to 21.7% of total companies founded by graduates. Finally, 35.9% are located in the North, a lower percentage than the total number of companies founded by graduates located in the North (37.5%). As regards the area of women-led companies founded in Italy, we can see that 36.3% of companies are located in the South, 41.0% in the North, and 22.7% in the Centre (Figure 4.20).

<sup>16</sup> The data concerning Italian women-led companies refers to the entire population of women-led companies currently registered in the business register. The percentage is therefore calculated based on the stock of companies and not on the total number of companies founded.

**Figure 4.20 Women-led companies founded by graduates (1995-2019): geographical area (percentage values)**



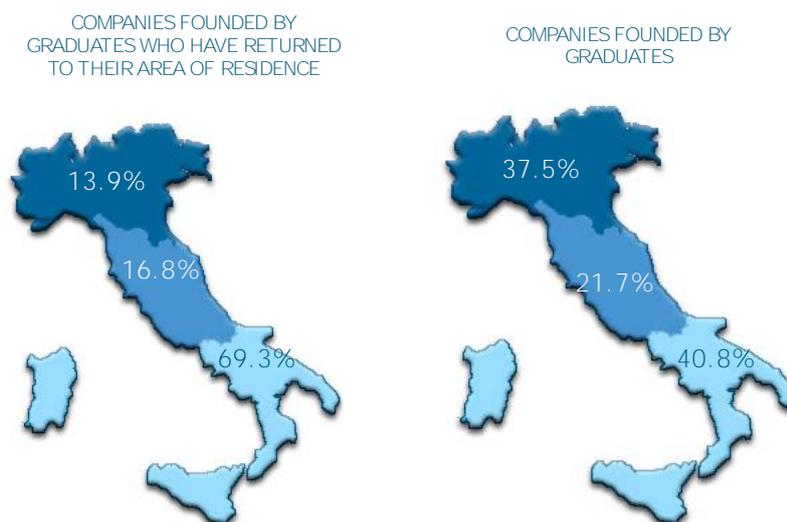
12.8% of women-led companies operate in the agricultural sector, 7.4% in the secondary sector, and 79.8% operate in the service sector (specifically, 30.4% in commerce). The percentage of women-led graduate companies in the professional, technical, and scientific sector is 7.7%; a lower percentage than that observed in the total number of companies (9.8%) but higher than the national percentage of women-led companies operating in the same sector (3.8%). Finally, out of the total number of innovative start-ups founded by graduates, 4.8% are innovative and women-led start-ups; this percentage is lower than the national one of 13.9%.

#### **Companies founded by graduates returning to their own area of residence**

Companies founded by graduates who have returned to their own area of residence after having studied in a different area constitute 10.2% (i.e. 24,157) of the total number of companies founded by graduates from 1995 to 2019.

With respect to the geographical area of the companies, 69.3% of these companies are located in the South, a higher percentage than that observed for all the companies founded by graduates (40.8%), 16.8% are based in the Centre compared to 21.7% of the total number of graduate-founded companies. Finally, 13.9% of companies are located in the North, a much lower percentage than the overall figure for graduate companies located in the North (37.5%) (Figure 4.21).

**Figure 4.21 Companies founded by graduates who have returned to their area of residence (1995-2019): geographical area (percentage values)**



When we look at the area where a company was founded, we can see that 15.6% of the companies founded by graduates who have returned to their area of residence are located in Apulia, followed by Sicily with 14.0%, Campania with 11.9%, and Calabria with 9.2%. This distribution differs from that shown for the total number of companies founded by graduates: 7.7% of the total companies founded by graduates are located in Apulia, 8.3% in Sicily, 11.2% in Campania, and 5.3% in Calabria (Table 4.8).

**Table 4.8 Companies founded by graduates who returned to their area of residence (1995-2019): companies by region of headquarters (absolute and percentage values)**

Regione	Companies founded by graduates who have returned to their area of residence (n=24,157)		Companies founded by graduates (n=236,362)	
	n	%	n	%
Piedmont	447	1.8	17,464	7.4
Valle D'Aosta	12	0.1	496	0.2
Lombardy	850	3.5	19,062	8.1
Trentino Alto Adige	136	0.6	3,309	1.4
Veneto	608	2.5	21,069	8.9
Friuli Venezia Giulia	112	0.5	4,313	1.8
Liguria	350	1.5	5,645	2.4
Emilia Romagna	835	3.5	17,152	7.3
Tuscany	945	3.9	14,191	6.0
Umbria	287	1.2	5,308	2.3
Marche	1,447	6.0	5,887	2.5
Lazio	1,384	5.7	25,950	11.0
Abruzzo	1,892	7.8	7,699	3.3
Molise	608	2.5	2,029	0.9
Campania	2,884	11.9	26,510	11.2
Apulia	3,785	15.6	18,264	7.7
Basilicata	1,008	4.2	3,260	1.4
Calabria	2,226	9.2	12,483	5.3
Sicily	3,385	14.0	19,695	8.3
Sardinia	955	4.0	6,576	2.8

With respect to the legal form, we can see that 59.4% of the companies founded by graduates who have returned to their area of residence are sole proprietorships, 24.6% are corporations, and 16.0% are partnerships. This distribution is consistent with that observed for all companies founded by graduates, which is 60.2% sole proprietorships, 24.8% corporations, and 15.0% partnerships.

However, in terms of revenues, sector, innovative start-ups, and the status of the companies founded by graduates who have returned to their area of residence, there are no significant differences compared to companies founded by graduates overall.

### 4.3 CHARACTERISTICS OF COMPANIES INVESTED IN BY GRADUATES

Companies invested in by graduates are those companies in which graduates own at least 10% of the total shares, in which they may hold a given corporate role or not, and in which they are not a founder of the company. In this paragraph, companies invested in by graduates are compared with companies founded by graduates, excluding sole proprietorships from the latter group (n=94,151). Companies invested in by graduates, by their very nature, cannot assume the legal form of sole proprietorship. Therefore, we compare companies invested in by graduates with companies founded by graduates that take the legal form of corporations, partnerships, or other legal forms. The comparison of companies invested in by graduates with established companies will refer to the 1995-2019 time frame; to facilitate reading and comparison with founded companies, all companies founded in 1995 or earlier will be categorized as being created in 1995<sup>17</sup>.

In total, there are 68,852 companies invested in by the 66,098 graduates, as described in the previous paragraph 4.4.

#### Foundation Year

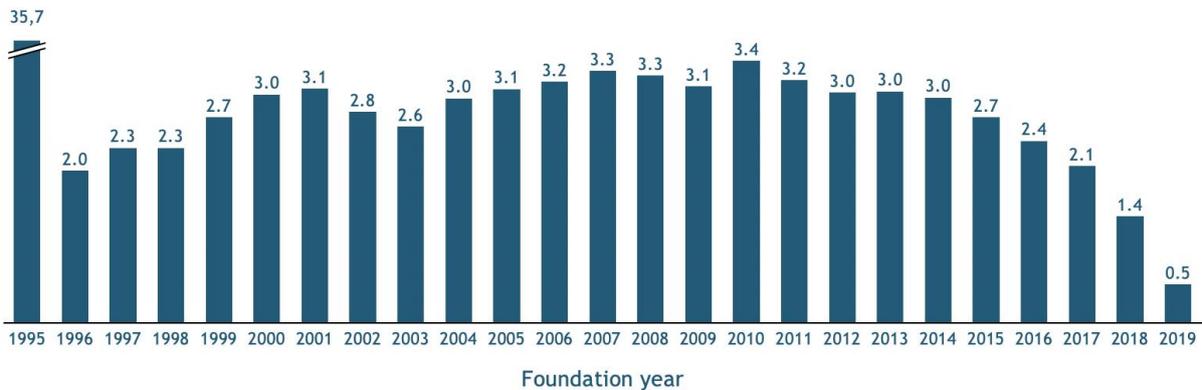
Of the companies invested in by graduates, 24.7% were founded in the last ten years (from 2010 to 2019). In the decade 2000-2009, 30.3% of companies invested in by graduates were founded; 45.0% were founded in the period from 1995\* to 1999. Figure 4.22 shows the distribution, by foundation year, of the companies invested in by graduates. The percentage of companies invested in by graduates has decreased near-constantly since 2014, from 3.0% in 2014 to 0.5% in 2019, highlighting how graduates tend to invest more in older companies.

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<sup>17</sup> The year 1995 is identified with an asterisk to indicate that the year 1995 includes companies founded in 1995 or earlier.



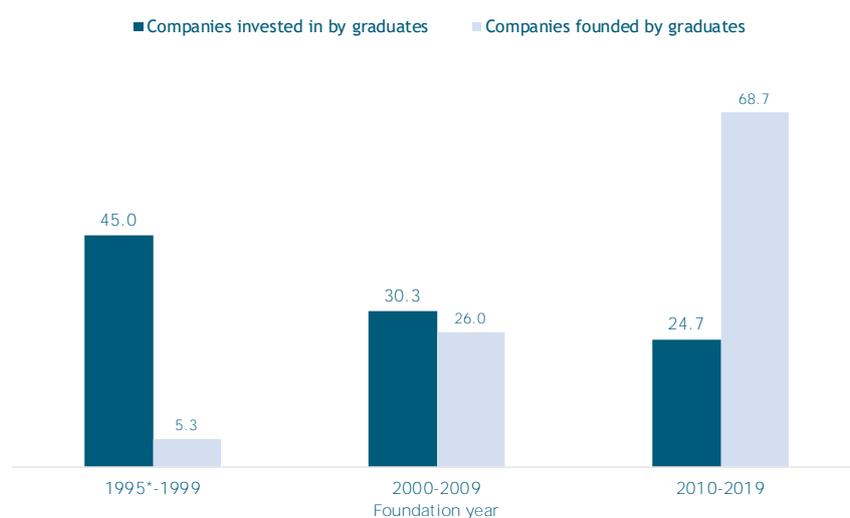
**Figure 4.22 Companies invested in by graduates (1995\*-2019): distribution by foundation year (percentage values)**



\*The year 1995 includes companies founded in 1995 or earlier.

Comparing the distribution of companies invested in by graduates with those founded by graduates by foundation period, important differences are highlighted. 68.7% of companies founded by graduates were created in the last 10 years, between 2010 and 2019, 26.0% of companies were founded in the period 2000-2009, and only 5.3% of companies in the period between 1995 and 1999. A different trend can be observed for companies invested in by graduates, as highlighted above: 45.0% of the companies invested in by graduates were founded in the period 1995\*-1999 (Figure 4.23). These results highlight even more clearly how graduates are likelier to invest more in older companies.

**Figure 4.23 Companies invested in by graduates (1995\*-2019): distribution by period of foundation (percentage values)**



\*The year 1995 includes companies founded in 1995 or earlier.

### Year Joined

The distribution of companies invested in by graduates by year of joining, i.e. the year in which graduates acquired shares in a company, shows an increasing and constant trend over time. In particular, investment in companies by graduates went from 1.6% in 1995\* to 6.6% in 2019 (Table 4.9). In the last 10 years (2010-2019), the sum of companies invested in by graduates reached 41,422, equivalent to 60% of all companies invested in by graduates.

**Table 4.9 Companies invested in by graduates (1995\*-2019): distribution by year of joining (absolute and percentage values)**

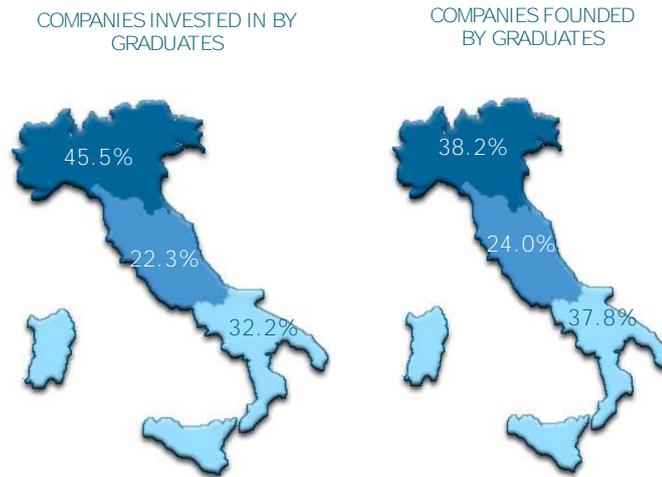
Year of investment	Companies invested in by graduates (n=68,852)	
	n	%
1995*	1,136	1.6
1996	676	1.0
1997	885	1.3
1998	935	1.4
1999	1,113	1.6
2000	1,310	1.9
2001	1,559	2.3
2002	1,603	2.3
2003	1,645	2.4
2004	1,914	2.8
2005	2,286	3.3
2006	2,846	4.1
2007	3,052	4.4
2008	3,091	4.5
2009	3,379	4.9
2010	3,769	5.5
2011	4,066	5.9
2012	4,422	6.4
2013	4,386	6.4
2014	4,570	6.6
2015	4,531	6.6
2016	4,650	6.8
2017	4,486	6.5
2018	4,569	6.6
2019	1,973	2.9

\*The year 1995 includes companies founded in 1995 or earlier.

### Geographical area

Of companies invested in by graduates, 45.5% are located in the North, 22.3% in the Centre, and 32.2% in the South. This distribution is inconsistent with that of companies founded by graduates, which are divided as follows: 38.2% of the companies are located in the North, 24.0% are in the Centre, and 37.8% in the South (Figure 4.24).

**Figure 4.24 Companies invested in by graduates in Italy (1995\*-2019): geographical area (percentage values)**



\*The year 1995 includes companies founded in 1995 or earlier.

With respect to the breakdown of companies invested in by graduates by single region, there are some noteworthy differences when compared to all founded companies (Table 4.10). The regions with the highest number of companies invested in are Veneto, with 11.0% of total companies invested in; Campania, with 10.9%; and Lazio with 10.6%. As regards companies founded by graduates, Veneto has 9.8% of the companies founded, Campania 12.6%, and Lazio 13.2%.

**Table 4.10 Companies invested in by graduates (1995\*-2019): geographical area (absolute and percentage values)**

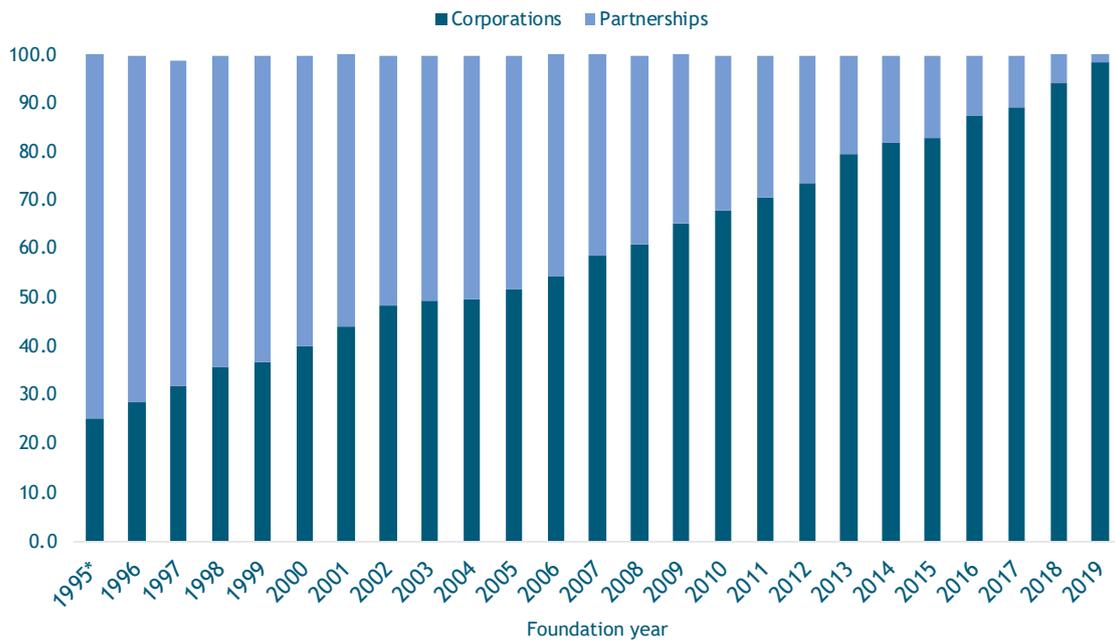
Region	Companies invested in by graduates (n=68,852)		Companies founded by graduates (n=94,151)	
	n	%	n	%
Piedmont	6,356	9.2	6,674	7.1
Valle D'Aosta	178	0.3	196	0.2
Lombardy	6,696	9.7	8,368	8.9
Trentino Alto Adige	1,301	1.9	1,440	1.5
Veneto	7,581	11.0	9,240	9.8
Friuli Venezia Giulia	1,335	1.9	1,463	1.6
Liguria	1,955	2.8	2,045	2.2
Emilia Romagna	5,896	8.6	6,559	7.0
Tuscany	4,870	7.1	5,431	5.8
Umbria	1,494	2.2	2,317	2.5
Marche	1,749	2.5	2,345	2.5
Lazio	7,279	10.6	12,454	13.2
Abruzzo	1,928	2.8	2,840	3.0
Molise	433	0.6	629	0.7
Campania	7,473	10.9	11,832	12.6
Apulia	3,541	5.1	6,301	6.7
Basilicata	643	0.9	1,027	1.1
Calabria	2,338	3.4	4,124	4.4
Sicily	4,382	6.4	6,598	7.0
Sardinia	1,422	2.1	2,268	2.4

### Legal form

47.7% of the companies invested in by graduates are corporations, 52.1% are partnerships, and the remaining 0.2% take on other legal forms. The distribution, with respect to legal form, of companies founded by graduates is different: 62.1% of companies are corporations, 37.8% are partnerships, and the remaining 0.1% take on other legal forms.

Figure 4.25 shows the distribution of companies invested in by graduates by foundation year and legal form. We can see that the percentage of corporations has increased substantially compared to partnerships and other legal forms. In particular, the percentage of corporations increased from 25.3% in 1995 to 98.3% in 2019; the percentage of partnerships, on the other hand, decreased from 74.7% in 1995 to 1.7% in 2019.

**Figure 4.25 Companies invested in by graduates (1995\*-2019): legal form by foundation year (percentage values)**

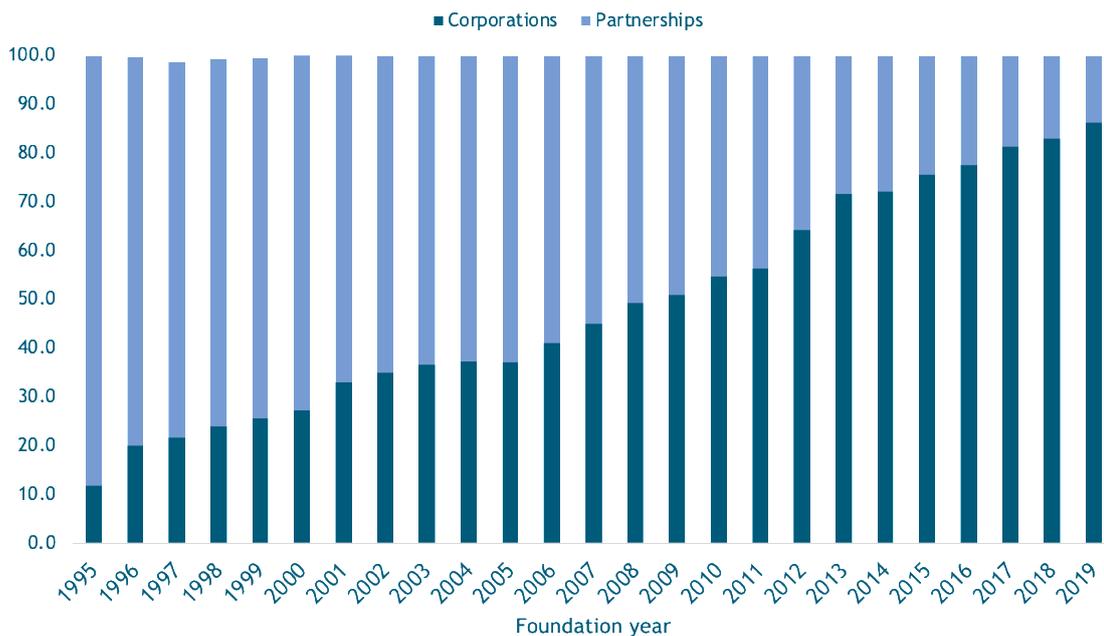


\*The year 1995 includes companies founded in 1995 or earlier.

Note: companies that take on other legal forms are not shown in the graph because they represent values lower than 1%.

This trend is consistent with that of companies founded by graduates in the same period. In the timeframe studied (1995-2019), the percentage of corporations increased compared to that of partnerships (Figure 4.26). In particular, the percentage of corporations increased from 11.9% in 1995 to 86.3% in 2019.

**Figure 4.26 Companies founded by graduates (1995-2019): legal form by foundation year (percentage values)**



\*The year 1995 includes companies founded in 1995 or earlier.

Note: companies that take on other legal forms are not shown in the graph because they represent values lower than 1%.



As regards geographical area of the companies invested in by legal form, it should be noted that 39.7% of corporations are located in the North, followed by the South with 36.4%, and the Centre with 23.9%. For companies founded by graduates, 38.1% of corporations are founded in the South, followed by the North with 36.1%, and the Centre with 25.9%. For partnership companies invested in by graduates, 50.8% are located in the North, 28.3% in the South, and 20.9% in the Centre. The difference between North and South is less pronounced for partnerships founded by graduates: in particular, 41.7% are located in the North, 37.5% in the South, and 20.8% in the Centre.

### Status of companies invested in

Of the total number of companies invested in by graduates, 23.5% have ceased operations and the remaining 76.5% are still active in the business register. For graduate-founded companies, we can see that 25.8% have ceased operations and 74.2% are still active.

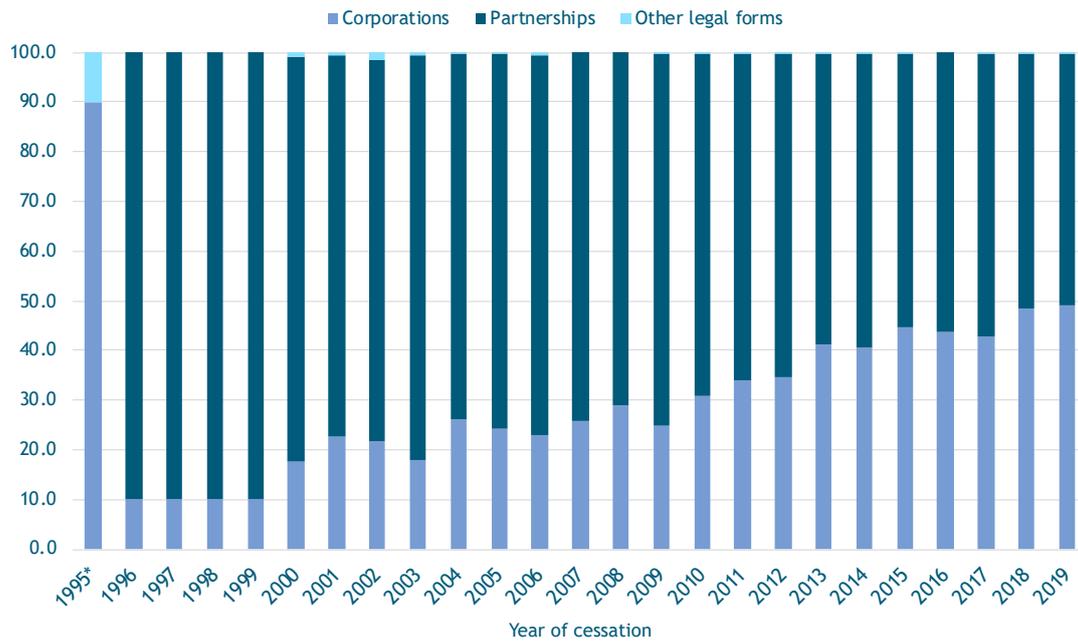
As pertains to the legal form of the companies, 37.6% of the companies invested in by graduates which have since ceased operations were corporations, 62.2% partnerships, and the remaining 0.2% companies with other legal forms. For companies founded by graduates, 39.4% of companies founded by graduates which have since ceased operations were corporations, 60.5% partnerships, and the remaining 0.1% are companies with other legal forms.

As regards the geographical area of the companies which have ceased operations, 46.7% of the companies invested in by graduates which have since ceased to operate are based in the North, 30.3% in the South, and 23.0% in the Centre. This breakdown differs from that of companies founded by graduates, where the percentages are respectively 39.2%, 37.3%, and 23.5%.

Figure 4.27 shows the distribution by legal form and foundation year of the companies which have ceased to operate. Among the companies that have ceased operations, the percentage of corporations has increased over time while the percentage of partnerships has decreased. Specifically, the percentage of corporations that have ceased operations went from around 10% in the years prior to 2000 to 49.1% in 2019, while the percentage of partnerships went from 90.0% to 50.7% in 2019.



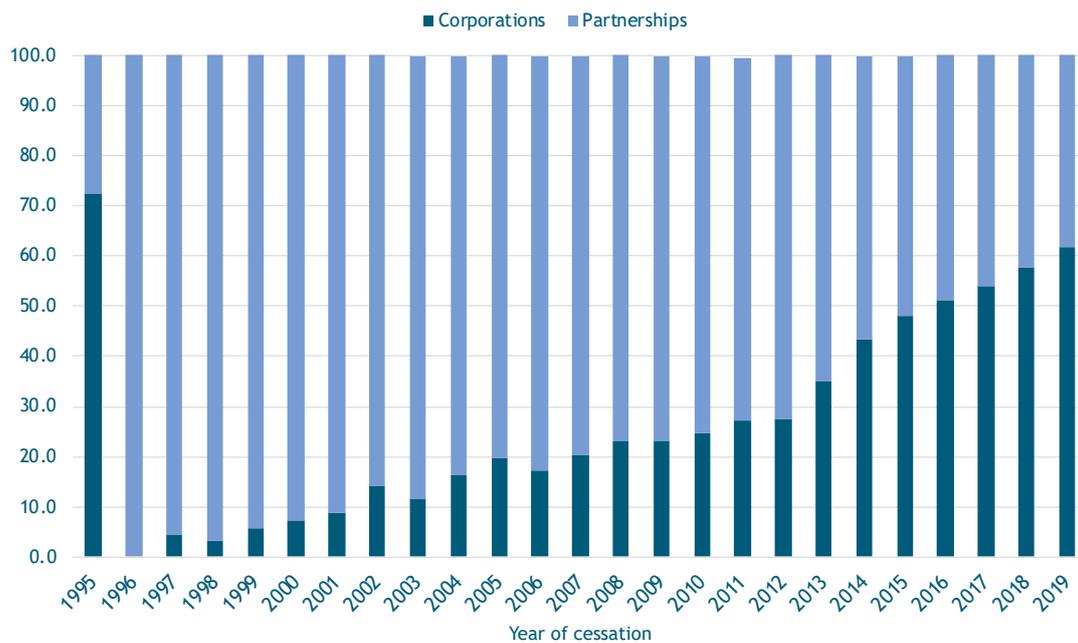
**Figure 4.27 Companies invested in by graduates (1995\*-2019): legal form by year of cessation (percentage values)**



\*The year 1995 includes companies founded in 1995 or earlier.

These trends are very similar to those observed for companies founded by graduates (Figure 4.28), in which there is a constant increase in cessations of corporations. Specifically, the percentage of corporations that ceased operations went from 7.4% in 2000 to 61.9% in 2019.

**Figure 4.28 Companies founded by graduates (1995-2019): legal form by year of cessation (percentage values)**



Note: The year 1995 includes companies founded in 1995 or earlier.



Taking into account the legal form and geographical area, it is noted that 42.2% of corporations which ceased operations are located in the North (compared to 39.5% of the companies founded), 33.2% are located in the South (compared to 33.9% of companies founded), and 24.6% in the Centre (compared to 26.6% of companies founded). For partnerships invested in by graduates, 49.5% of companies which ceased operations are located in the North (compared to 39.1% of companies founded), 28.5% in the South (compared to 39.4% of companies founded), and 21.9% in the Centre (compared to 21.5% of companies founded).

Finally, with respect to the foundation year, 23.9% of the companies invested in by graduates and founded in 1995 or earlier have ceased operations. This percentage of cessation shows an increasing trend from 1995 to 2006, reaching 26.4% in 2006, then a decreasing trend from 2007 to 2019, reaching 0% in 2019. For graduate-founded companies, it is noted that 67.2% of companies founded in 1995 have ceased operations. This rate has steadily decreased, reaching 0.1% in 2019.

### **Economic sectors**

4.1% of companies invested in by graduates operate in the agriculture sector, 19.7% in the secondary sector, and 76.2% in services. As regards graduate-founded companies, the data shows that 5.2% are in the agricultural sector, 14.7% in the secondary sector, and the remaining 80.2% in services. Companies invested in by graduates, like those founded by graduates, operate mostly in the tertiary sector. In the case of companies invested in by graduates, the percentage of companies operating in the secondary sector is higher than that of companies founded by graduates (19.7% vs. 14.7%, respectively).

Table 4.11 shows the distribution by economic sector of the companies invested in by graduates and those founded by graduates, highlighting some important differences. For example, 10.5% of companies invested in by graduates operate in “Manufacturing Activities” compared to 7.2% of companies founded by graduates; for “Real Estate Activities”, we note that 14.2% of companies invested in by graduates operate in this sector compared to 6.9% of companies founded by graduates. For “Professional, Scientific and Technical Activities”, the opposite trend is observed: 9.2% of companies invested in by graduates vs. 13.4% of companies founded by graduates.

**Table 4.11 Companies invested in by graduates and companies founded by graduates: economic sector (1995-2019) (absolute and percentage values)**

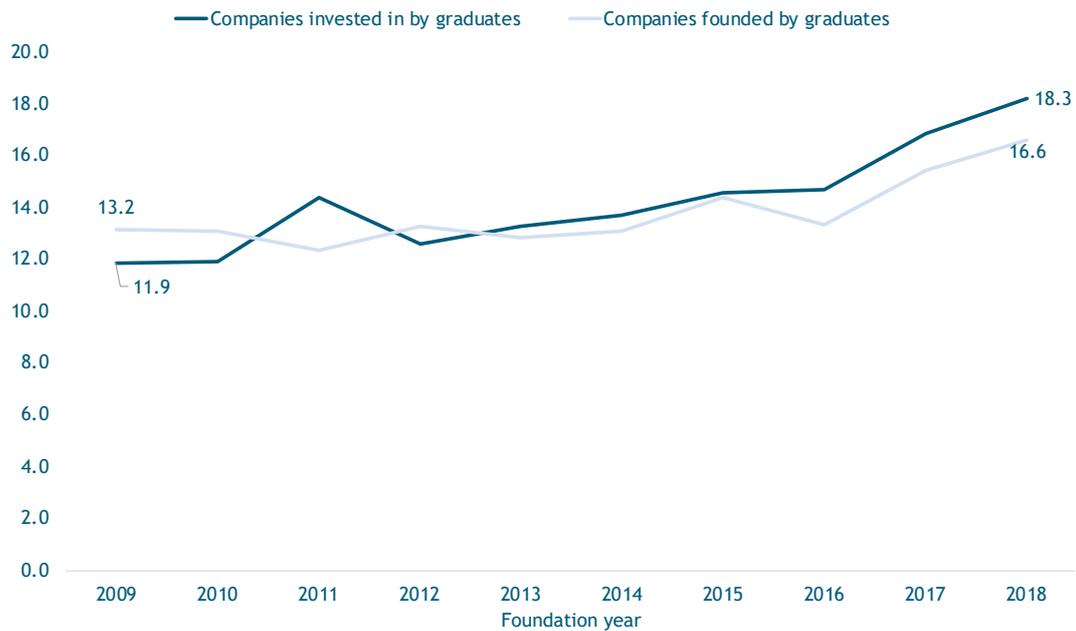
Economic sector (ATECO 2007)	Companies invested in by graduates (n=64,348)*		Companies founded by graduates (n=77,217)*	
	n	%	n	%
A. Agriculture, Forestry, and Fishing	2,595	4.0	3,986	5.2
B. Extraction of Minerals from Quarries and Mines	66	0.1	16	0.0
C. Manufacturing Activities	6,764	10.5	5,571	7.2
D. Supply of Electric Energy, Gas, Steam, Air Conditioning	312	0.5	389	0.5
E. Water Supply; Sewerage, Waste Management and Remediation Activities	194	0.3	146	0.2
F. Construction	5,895	9.2	5,743	7.4
G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	13,572	21.1	16,624	21.5
H. Transport and Warehousing	1,007	1.6	1,019	1.3
I. Accommodation and Catering Services	5,762	8.9	8,354	10.8
J. Information and Communication Services	4,111	6.4	7,155	9.3
K. Financial and Insurance Activities	1,561	2.4	1,711	2.2
L. Real Estate Activities	9,172	14.2	5,309	6.9
M. Professional, Scientific and Technical Activities	5,905	9.2	10,308	13.4
N. Rental, Travel Agencies, Business Support Services	2,422	3.8	3,984	5.2
O. Public Administration and Defence, Compulsory Social Insurance	2	0.0	4	0.0
P. Education	784	1.2	1,240	1.6
Q. Health and Social Care	1,913	2.9	2,141	2.8
R. Artistic, Sports, Entertainment and Leisure Activities	1,392	2.2	2,205	2.9
S. Other Service Activities	918	1.4	1,311	1.7
U. Extraterritorial Organizations and Bodies	1	0.0	1	0.0

\*It was not possible to identify the ATECO code for some companies

The trend over time in the distribution of companies by type of sector highlights differences between the companies invested in by graduates and those founded by graduates. In particular, Figure 4.29 shows the trend of companies invested in by graduates and companies founded by graduates which operate in the “Professional, Scientific and Technical Activities” sector, by foundation year. The trends are both increasing from 2012 onwards; 2016 is an exception for companies founded by graduates.



**Figure 4.29 Companies invested in by graduates: dynamics of the “Professional, scientific, and technical activities” sector (percentage values)**



**Growth rate**

For the period between 2009 and 2018, the growth rate of companies invested in by graduates was calculated and compared with the number of those founded by graduates. The growth rate of companies invested in by graduates has decreased in the last ten years, going from 7.8% in 2008 to -4.2% in 2018, in contrast to what was observed for companies founded by graduates (Table 4.12).

**Table 4.12 Companies invested in by graduates (2009-2018): growth rate**

Year	Companies invested in by graduates				Companies founded by graduates			
	Companies founded (n=18,807)	Companies which ceased operations (n=11,287)	Balance*	Growth rate	Companies founded (n=64,810)	Companies which ceased operations (n=17,226)	Balance*	Growth rate
2009	2,138	665	1,473	7.8	3,779	1,002	2,777	4.3
2010	2,370	690	1,680	8.9	4,873	1,004	3,869	6.0
2011	2,194	690	1,504	8.0	5,096	1,175	3,921	6.0
2012	2,087	848	1,239	6.6	5,922	1,249	4,673	7.2
2013	2,096	1,054	1,042	5.5	6,774	1,516	5,258	8.1
2014	2,036	1,176	860	4.6	7,099	1,878	5,221	8.1
2015	1,857	1,239	618	3.3	7,246	2,149	5,097	7.9
2016	1,648	1,491	157	0.8	7,614	2,301	5,313	8.2
2017	1,416	1,672	-256	-1.4	8,246	2,372	5,874	9.1
2018	965	1,762	-797	-4.2	8,161	2,580	5,581	8.6

\*The balance is calculated as the difference between the number of companies founded and the number of companies that ceased operations in the reference year.

Figure 4.30 compares the growth rate of companies invested in by graduates and those founded by graduates. The graph shows that the growth rate of companies invested in by

graduates is decreasing, with a substantial decrease starting from 2015. The trend is inverted for companies founded by graduates.

**Figure 4.30 Growth rate: companies invested in by graduates and companies founded by graduates (percentage values)**

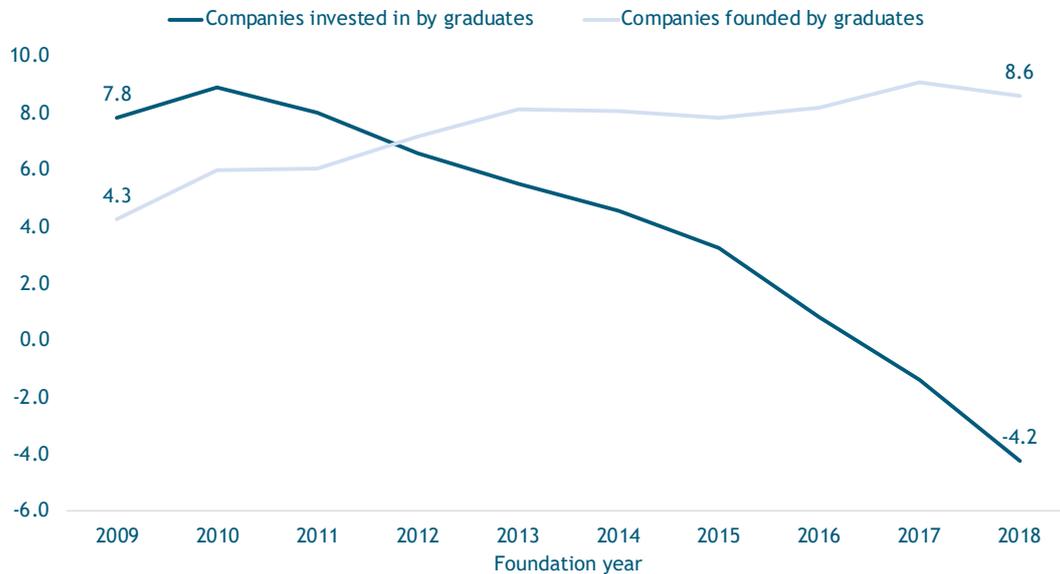
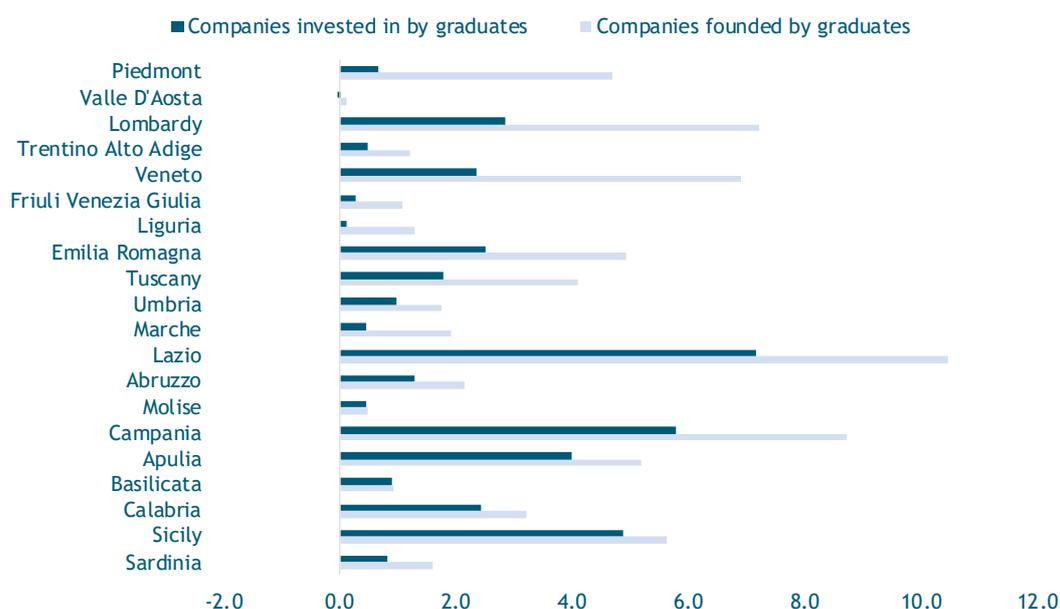


Figure 4.31 shows the growth rate, by region, of companies invested in by graduates and those founded by graduates over the last ten years, from 2009 to 2018. For companies invested in by graduates, the highest growth rates are found in the regions of Lazio (7.2%), Campania (5.8%), and Sicily (4.9%). For companies founded by graduates, the region with the highest growth rate is Lazio (10.5%) followed, as for companies invested in by graduates, by Campania (8.7%). Sicily, on the other hand, is in fifth position in terms of the growth rate of founded companies, with a rate of 5.6%.



**Figure 4.31 Companies invested in by graduates and companies founded by graduates: regional growth rate in 2009-2018 (percentage values)**



### Economic impact of companies invested in by graduates: performance and growth. Focus on corporations

This section refers to the 32,859 corporations invested in by graduates. The data available from the AIDA database covers 13,555 corporations. The corporations for which there is no information are those that went bankrupt before 2009 and that are therefore no longer present in the AIDA database.

Based on revenues for the last available year (2018), 81.4% of the companies invested in by graduates are micro companies, 14.2% are small companies, 4.0% are medium companies, and 0.4% are large companies. For companies founded by graduates, 94.4% are micro companies; 5.0% are small companies, 0.5% are medium companies, and 0.1% are large companies.

In terms of revenue generated by company size, it should be noted that 56.3% of total revenues are generated by large (21.0%) and medium companies (35.3%), 27.8% from small and 15.9% from micro companies (Table 4.13). This revenue distribution differs from that observed for companies founded by graduates, in which 75.9% of total revenues are generated by micro (44.2%) and small (31.7%) companies; medium companies generate 14.7% of total revenues and large companies generate the remaining 9.4%.

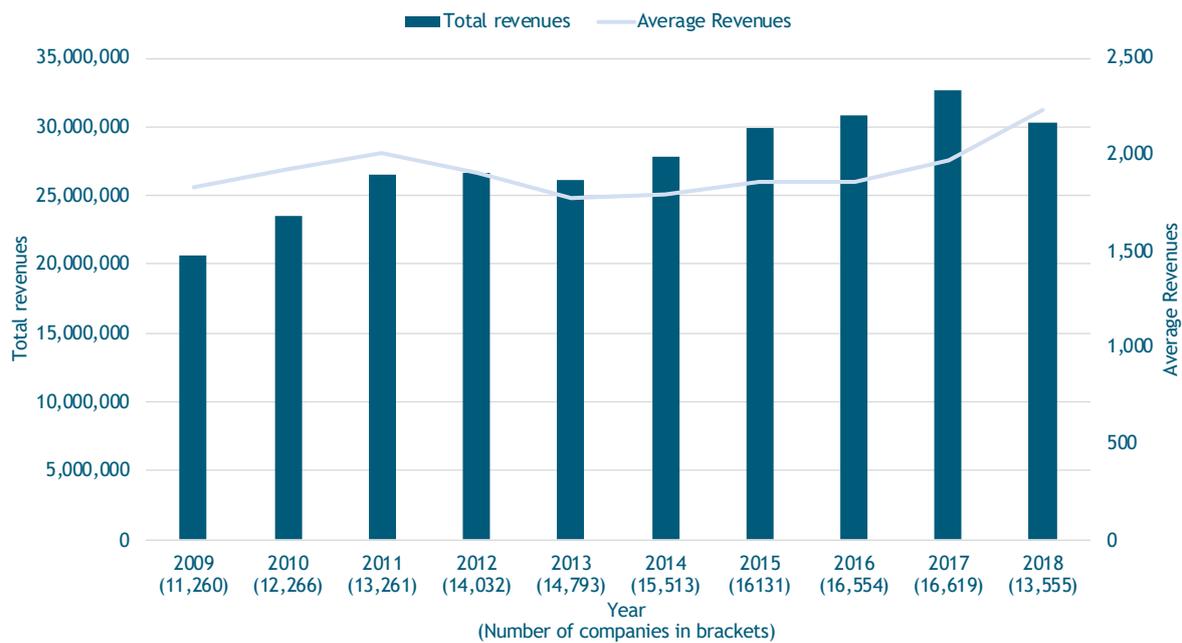
**Table 4.13 Companies invested in by graduates (1995\*-2019): distribution of revenues for corporations invested in by graduates**

Company Class	Companies (n=13,555)		Revenues (Thousands of Euros)	
	n	%	Media	%
Micro (<2M)	11030	81.4	435.7	16.9
Small (2-10M)	1928	14.2	4,366.80	27.8
Medium (10-50 M)	539	4.0	19,855.40	35.3
Large (>50M)	58	0.4	109,655.00	21.0

\*The year 1995 includes companies founded in 1995 or earlier.

We then analysed the revenues over the last ten years (2009-2018) for the companies invested in by graduates which are present in the AIDA database (Figure 4.32). It is interesting to point out that, overall, the average revenues for companies follow a linear trend over time, and since 2013 they have shown a certain growth. An almost similar trend is observed for the total revenues generated by companies for each year of observation.

**Figure 4.32 Companies invested in by graduates (1995\*-2019): revenue distribution for corporations invested in by graduates in the period 2009-2018 (thousands of euro)**



### Innovative start-ups

Compared to the total number of companies invested in by graduates, the total number of investee innovative start-ups is 558, i.e. 0.8% of the total number of companies invested in by graduates (n=68,852) and 6.3% of the total number of corporations founded from 2013 to 2019 and invested in by graduates.

The innovative start-ups invested in by graduates were founded in the period between 2013 and 2019. 23.3% (the majority) of the innovative start-ups invested in by graduates were founded in 2015. When it comes to innovative start-ups founded by graduates, it appears that the majority of companies were founded in 2018 (26.1%). Table 4.14 shows the distribution by foundation year.

**Table 4.14 Start-ups invested in by graduates (2013-2019): foundation year (absolute and percentage values)**

Year	Start-ups invested in by graduates (n=558)		Start-ups founded by graduates (n=2,127)	
	n	%	n	%
2013	8	1.5	23	1.1
2014	81	14.5	174	8.2
2015	130	23.3	303	14.3
2016	118	21.2	368	17.3
2017	105	18.8	510	24.0
2018	89	16.0	554	26.1
2019	27	4.8	195	9.2

When it comes to the economic sector, 87.3% of innovative start-ups invested in by graduates operate in services, compared to 86.8% of start-ups founded by graduates; 12.5% are in the secondary sector compared to 12.8% of start-ups founded by graduates; and 0.2% are in the primary sector compared to 0.4% of those founded by graduates.

As for the classification of innovative start-ups by revenues, it should be noted that 99.3% of the innovative start-ups invested in by graduates are micro companies; the remaining 0.7% are small companies. This distribution is very similar to that observed in innovative start-ups founded by graduates: 99.2% are micro companies and 0.8% are small companies.

If we look at some characteristics of the graduates who hold shares in innovative start-ups, we can see that 34.2% of these start-ups are classified as “youth-run”, made up mainly of young people between 18 and 35 years of age, compared to 36.9% of start-ups founded by graduates. 0.9% of innovative start-ups invested in by graduates are chiefly managed by foreigners, compared to 1.6% of innovative start-ups founded by graduates. Finally, 0.3% of start-ups invested in by graduates are socially-oriented, i.e. they operate exclusively in sectors that impact the well-being of the community, such as social assistance, health, education, and training, compared to 0.5% of innovative start-ups founded by graduates.

## METHODOLOGICAL NOTES



This study arises from a partnership between the AlmaLaurea Interuniversity Consortium, the Department of Management of the University of Bologna, and Unioncamere, with the goal of providing a detailed and complete analysis of the phenomenon of entrepreneurship among graduates in Italy. In particular, it aims to analyse the characteristics of graduates who have founded a new company or who have acquired equity shares (equal to at least 10%) in one, as well as the characteristics of the companies that have been founded or invested in by graduates.

Founded in 1994, AlmaLaurea is an Interuniversity Consortium which consists of 76<sup>18</sup> Italian universities to date (as of 2020), representing about 90% of the graduates who leave Italian universities every year. The AlmaLaurea database collects data on degrees, PhDs and postgraduate diplomas. Participating universities provide administrative data to AlmaLaurea relating to the characteristics of the degrees obtained by graduates (university, degree course, date and graduation grade, etc.). This data is added to the information derived from the annual surveys carried out by the Consortium: the Graduate Profile Survey and the Employment Condition Survey, conducted one, three, and five years after the completion of degrees, PhDs and postgraduate diplomas.

The Department of Management (DISA) of the University of Bologna is in charge of strengthening and disseminating managerial culture as well as promoting innovation. It is also the lodestar in terms of teaching, research, and relationships with companies and institutions for studies in the fields of banking, finance, business administration, management engineering, entrepreneurship and innovation, marketing, business organization, production management and strategy. The Department was designated as a Department of Excellence by the MUR in 2018.

Unioncamere - Italian Union of Chambers of Commerce, Industry, Handicrafts and Agriculture - is the public entity that unites and represents the Italian chamber system before regional, national and international governing bodies. Unioncamere performs and handles services and activities of interest to the Chambers of Commerce and to professional associations. It coordinates the directions and guidelines the system gives to the organisations which are part of it.

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<sup>18</sup> The European University of Rome is not a member of the Consortium, but has entered into an agreement with it in order to carry out statistical surveys. There are 97 Italian universities overall; Bocconi University, the Catholic University of the Sacred Heart, the Politecnico di Milano, the LUISS Business School in Milan, online universities, and a few other universities with a limited number of students do not belong to the Consortium.

## Data sources

The information used for the preparation of this Report comes from the integration of three different sources:

- AlmaLaurea database: graduates' characteristics concerning, in particular, demographic information (gender, residence at graduation, citizenship), family background (parents' education and profession) as well as characteristics of the completed degree course (for example, type of course, name of the University, graduation date);
- Data stored in Unioncamere Italian business register databases include: characteristics of the companies (in particular their legal form, status with regard to activity/inactivity, date of foundation/cessation, territorial location of the company) and of their members (especially their roles, the number of shares held and the corresponding acquisition date);
- AIDA Bureau van Dijk database: historical information on corporations operating in Italy, dating back up to ten years (in particular the company's financials, its personnel and the economic activities carried out by the company).

Integration of these different databases made it possible to create a single database as well as an innovative and unique study of its kind as pertains to Italy. On one hand, it was possible to identify graduates who have created a new company or who have acquired equity shares and to compare them with graduates in Italy as a whole; on the other hand, it was possible to identify the companies created or invested in by graduates, comparing them to the sum total of Italian companies.



## The target population

The study takes into consideration the graduates in the AlmaLaurea database who obtained a degree between 2004 and 2018. This choice has been made for two main reasons: first, the number of universities in the AlmaLaurea database has gradually grown over time, and thus the number of graduates included in the annual surveys carried out by the Consortium has also increased. Second, in the last twenty years, there has been a considerable increase in third-stream activities in the Italian university system. The country has increased its commitment in parallel to increased activities and number of universities, encouraging and supporting in particular involvement in entrepreneurial activities, by both teachers and researchers, as well as students.

For a proper interpretation of the results, it is therefore necessary to keep in mind the different composition of the population analysed -in terms of universities and number of graduates over the years - as well as the time span of observation, i.e. the different quantities of time that graduates had to start a company.

### Degrees considered

The AlmaLaurea database contains information relating to university degrees obtained in Consortium member universities. If a student has obtained more than one degree, this can be found in the database with reference to each degree held (for example, Bachelor's degree, Master's degree, PhD). The analysis herein includes only degrees (Bachelor's degrees and Master's or Single-cycle second-level degrees, as shown in table A1) and not postgraduate qualifications (PhDs and postgraduate diplomas).

Among the students that graduated during the 2004-2018 period and whose data were stored in the AlmaLaurea database, 26.4% obtained more than one degree. In the analysis reported in this study, if a graduate in the company has more than one university degree, reference was only made to the degree held at the time of joining the company (as per his/her starting date in the company). If the office was assumed before the degree was obtained, the first degree obtained was considered. Similarly, the degree held at the time of acquisition of the shares was considered, for those who do not hold any position in the company, but own equity shares. If the shares were acquired prior to obtaining the degree, the first degree obtained was considered. For all the other graduates not involved in entrepreneurial endeavours, the first degree obtained was considered. Taking into account the above considerations, what stands out is that graduate entrepreneurship phenomena also includes, in a broad sense, the entrepreneurship of university students.

Because of the time frame of the study, the analysis includes graduates who have obtained different degrees on the basis of the prevailing norms at the time of their enrolment. In particular, 15.1% of the graduates studied obtained their degree prior to the

reform introduced by Italian Ministerial Decrees no. 509/1999 and no. 270/2004. These measures aligned Italian university programmes with the plan defined at European level by the Bologna Process. The remaining 84.9% of graduates in the study obtained a degree following this reform. Specifically, 68.3% obtained a Bachelor's degree, 10.7% a Single-cycle second-level degree and 5.8% a Master's degree. The population examined is therefore highly heterogeneous, due to the coexistence of graduates from the so-called old system and post-reform graduates.

**Table A1** Graduates from 2004 to 2018 by type of course

<b>Type of course</b>	<b>Number of graduates</b>	<b>% of graduates</b>
Bachelor's degree	1,976,253	68.3
Master's or Single-cycle second-level degree	915,727	31.7
<i>Pre-reform degree</i>	<i>436,076</i>	<i>15.1</i>
<i>Two-year postgraduate degrees</i>	<i>169,117</i>	<i>5.8</i>
<i>Single-cycle degrees</i>	<i>310,534</i>	<i>10.7</i>
<b>Total</b>	<b>2,891,980</b>	<b>100.0</b>

### Companies analysed

The business register is a public and digital registry, which can be defined as a general registry of companies. It tracks all information relating to the establishment, modification and cessation of companies - regardless of their legal form and their economic sector - with headquarters or local offices on Italian national territory. The business register collects all information relating to the companies (e.g. name, bylaws, administrators) and all related events after they were registered (e.g. amendments to the bylaws and to corporate offices, or relocation of headquarters).

The companies analysed in the report consist of all the companies founded and/or invested in by those who obtained a degree between 2004 and 2018. The period of study for these companies is between 1995 and 2019. This period was chosen for two reasons, the first having to do with the percentage of companies founded by graduates before 1995, which is equal to 2% of all companies founded. Second, for comparison with the national system, for which we have precise information from 1995 onwards. It is precisely for these reasons that the study takes into consideration the period between 1995 and 2019; consequently, all companies founded before 1995 were considered as founded in 1995.



In order to describe the entrepreneurship phenomenon among graduates, the entirety of Italian companies founded from 1995 to 2019 was used as a point of comparison. More specifically, the study collected information regarding Italian companies founded from 1995 to 2019 (available through September 2019). When it was not possible to access the data for the entire time span, the last ten years were considered, i.e. the 2009-2018 period. The data related to Italian companies was collected through the Movimprese platform, an InfoCamere service that collects and analyses the data of companies registered in the register of companies founded in Italy. In particular, Movimprese makes available the aggregate data of companies in each Italian region - namely, their foundation, cessation of operations, legal form and economic sector - in the 1995-2019 period.

## Definitions used and considerations regarding some variables

### Founders and joiners

The information available in the Unioncamere database made it possible to identify, for each graduate, the companies in which they hold a position and/or equity shares. Furthermore, for each company thus identified, it was possible to analyse for each graduate the type of role held, the potential ownership of shares and the relevant dates. This information, together with other information concerning the company (the legal form and the date of foundation) made it possible to identify graduate founders and graduates who invested in a company (called joiners).

More specifically, a founder is a graduate who owns all or part of the company's share capital and holds a position as owner or administrator. These requirements must both be met at the moment the company is founded. The individual information necessary to define the founder of a company, therefore, is linked to their position in the company, their possession of shares in that company, as well as the related dates of the commencement of office and of share acquisition. Those dates must fall within 15 days of the date of foundation of the company. Obviously, all owners of sole proprietorships have been, by definition, classified as founders of the company. Similarly, in the case of partnerships, those who, according to the information in the Unioncamere database, were partners of a company at the moment it was founded have been classified as founders of the company.

A joiner is a graduate who has acquired equity shares in a company equal to at least 10% of the total capital, after that company was founded, regardless of the type of position held. Those who own equity shares but do not hold any formal position in the company are also regarded as joiners.

For about 1% of the graduates not all the information needed for such classification is available. Therefore, it has not been possible to define them as founders or joiners.

A graduate classified as a company's founder was not considered a joiner of that company, even if the equity shares held or the assigned role in the company have changed over time.

Since the same graduate can be present in several companies, they may be classified both as founders of a company and as joiners of another one.

The analyses in this report regarding founder/joiner graduates refer to the first company founded/invested in. On the other hand, the analyses of the companies founded/invested in by graduates refer to all companies founded/invested in by graduates.

### **Serial founders**

A serial founder is a graduate who, according to the previous definition, was classified as the founder of two or more different companies.

### **Time of foundation of a company (or joining a company) from date of graduation**

The time of the foundation of a company by a graduate, or of the acquisition of shares in the company concerned, was calculated as the difference between the date of foundation of the first company (or the acquisition of an equity share in the first company) and the date of his/her graduation.

### **Fellow university students and fellow students on the same course**

The administrative records in the AlmaLaurea database made it possible to identify graduates who obtained their degree in the same University and in the same degree course. On the other hand, the information in the Unioncamere database made it possible to identify those who have founded the same company. Thanks to the integration between the information present in the two databases it was possible to identify those who founded a company with fellow university students and those who founded a company with fellow students on the same course.

To this end, the definition “fellow university students” includes those graduates that founded a company with other graduates from the same university who graduated with no more than a three-year difference between them. Likewise, the term “fellow students on the same course” defines those who founded a company together with others who graduated from the same university and the same degree course with no more than a three-year difference between them. According to this definition, therefore, fellow students on the same course are included in the larger cohort of fellow university students.

There are two main aspects to keep in mind for a correct interpretation of the results in the analyses relating to fellow university students and fellow students on the same course. Fellow university students and fellow students on the same course were identified considering only the first founded company and not the total number of founded companies, in the case of serial founders. Second, the analyses take into account just one degree, i.e. AlmaLaurea Interuniversity Consortium



the one held at the time of foundation of the first company, and not all other degrees obtained. Therefore, the phenomenon of fellow university students and fellow students on the same course could be underestimated. However, such misrepresentation is likely limited since the vast majority of graduates have founded only one company and hold just one degree, as specified in the report.

### **Geographical area**

The analyses concerning the geographical area of residence, studies or company headquarters, take into account the following geographical areas:

- North;
- Centre;
- South;
- Abroad (only as pertains residence).

Please note that with “South”, this paper refers to both Southern Italy and the Islands.

“Residence” refers to what the graduate declared at the time of graduation, and not at the time of the foundation or investment in the company.

“Location” of studies refers to the main University campus, which in some cases may differ from the location of the course.

When reading the data on geographical area and geographical mobility, it should be kept in mind that the results are affected by the characteristics of the population, particularly in terms of universities and time span of observation.

Moreover, the analysis of geographical mobility seems likely to be underestimated since the data only consider the first founded company, and not the total amount of founded companies. Such misrepresentation is, however, more relevant in the analysis that refers to serial founders. It only slightly affects the totality of the founders since the vast majority of graduates founded a single company.

### **Parents’ education**

The variable of parents’ education takes into account the parent with the highest qualification level and distinguishes between graduates from families in which both parents are graduates, those in which just one parent holds a university degree, and those who come from families where no parent has graduated university. The information is taken from the AlmaLaurea Graduate Profile Survey, thus it is not available for those who have not filled out the survey form. The statistics are therefore calculated considering only valid cases.

### **Profession of father and mother**

The information refers to the most recent profession of the graduate’s parents and is taken from the AlmaLaurea Graduate Profile Survey, thus is not available for those who have

not filled out the survey form. The statistics are therefore calculated considering only valid cases.

### **STEM (Science, Technology, Engineering and Mathematics) and non-STEM degrees**

Graduates have been classified in two categories: STEM- (Science, Technology, Engineering and Mathematics) and non-STEM graduates, based on the programme from which a degree was obtained. More specifically, according to the classification of the Ministry of University and Research, STEM degrees (Bachelor's degrees and Master's or Single-cycle second-level degrees) include:

- all engineering degree courses;
- architecture degree courses, except for Industrial Design (Bachelor's degree) and Design (Master's degree);
- chemistry-pharmaceutical degree courses, except for single-cycle second-level degrees in pharmacy and industrial pharmacy;
- only the degree courses in statistics within the economic-statistical group;
- geo-biological degree courses, except for agricultural biotechnology (Master's degree);
- scientific degree courses, except for IT methodologies for humanities (Master's degree);
- the only degree course in human nutrition (Master's degree) within the medical group;
- the only degree course in techniques and methods for information societies (Master's degree) within the "politics, social sciences" group;
- degree courses in Diagnostics for the conservation of cultural heritage (Bachelor's degree), conservation of architectural and environmental heritage (Master's degree), sciences for the conservation of cultural heritage (Master's degree), conservation and restoration of cultural heritage (single-cycle second-level degree) within the humanities group.

All those that do not fall within the above list of degree courses are considered non-STEM degrees.

### **Size of university**

Based on the number of students enrolled, universities were divided into four categories:

- small universities, with an enrolment up to 10,000;
- medium universities, with an enrolment between 10,000 and 20,000;
- large universities, with an enrolment between 20,000 and 40,000;
- mega universities, with an enrolment greater than 40,000.

Enrolment numbers taken from the files of the Ministry of Universities and Research.



### **Type of company**

The study includes all companies founded by graduates in the AlmaLaurea database and those in which at least one graduate has acquired an equity share, and that require registration with the Italian Chamber of Commerce. As for legal form, companies have been classified into four groups: corporations, partnerships, sole proprietorships, and companies with other legal forms. The latter group includes the following types of companies: social companies (e.g. cooperative societies, social cooperatives, consortia, associations, foundations) and companies with other legal forms that do not fall within the group of social companies (e.g. special companies, municipal consortia, inter-municipal consortia).

### **Innovative start-ups**

A start-up is defined as innovative if it fulfils at least one of the following requirements: a) 15% of the higher value between costs and total value of production is attributable to research and development; b) 2/3 of staff have a Master's degree; c) or the team has 1/3 PhD students, PhD graduates, or graduates with 3 years of experience in certified research activity. The company must be a holder or licensee of industrial property, or owner of registered software.

### **Women-led Companies**

Women-led companies are defined as companies predominantly under the control and ownership of women. More specifically, Unioncamere states that women-led companies must be either:

- sole proprietorships owned by women or managed by women;
- partnerships in which the majority of the shareholders are of female gender;
- corporations in which the majority the shares are owned by women, or in which the majority of roles are held by women, or companies in which the average between the shares owned by women and the offices roles held by women is greater than 50%.

### **Growth rate**

The growth rate was calculated as the ratio between the balance between companies founded and which ceased to operate in each year of observation and the total number of graduate-founded companies in the period studied.

### **Company Classification**

Companies were classified into four different classes according to their revenues in 2018 (last year available on AIDA):

- micro company (revenues of less than 2 million euro);
- small company (revenues between 2 and 10 million euro);
- medium company (revenues between 10 and 50 million euro);
- large company (revenues of over 50 million euro).

## Conventions and warnings

### Missing data

The administrative data in the AlmaLaurea database concerning degrees obtained, as well as demographic data are always complete. However, data taken from AlmaLaurea's Graduate Profile surveys (parents' education and professions) have missing data (i.e. people who did not participate in the survey) and non-responses (i.e. people that during the survey decide not to answer a specific question) which were not considered in the statistics.

As for data concerning companies, information is not always complete. More specifically, data concerning the foundation year and cessation year, the economic sector, the state of the company (active or having ceased operations), as well as the date of acquisition of shares, have missing data (i.e. information not available in the business register) which were not considered in the statistics.

As for the data concerning economic and financial information of companies, AIDA collects economic and financial information for all companies that operate in Italy that are obliged to file financial statements, i.e. corporations (partnerships, sole proprietorships and companies with other legal forms are excluded). In particular, AIDA collects comprehensive information on companies dating back up to ten years.

### Rounding

Percentage values are rounded to the first decimal place. Because of this rounding the sum of the percentages is sometimes different from 100.



## BIBLIOGRAPHY

AlmaLaurea. 2020a. XXII Indagine Profilo dei Laureati 2019. Rapporto 2020. <https://www.alma laurea.it/universita/profilo/profilo2019>

AlmaLaurea. 2020b. XXII Indagine Condizione occupazionale dei Laureati. Rapporto 2020. <https://www.alma laurea.it/universita/occupazione/occupazione18>

Colombo M., Piva E., & Rossi-Lamastra C. 2015. Student entrepreneurs from technology-based universities: the impact of course curriculum on entrepreneurial entry. Milan, Politecnico University of Milan.

Eesley, C.E., Miller, F.W. 2012. Impact: Stanford University's Economic Impact via Innovation and Entrepreneurship. Working Paper. Stanford University.

Eesley, C.E., Roberts, E.B., Yang, D. 2009. Entrepreneurial Ventures from Technology-Based Universities: A Cross-National Comparison. Working Paper. Stanford University.

Fini, R., Meoli, A., Sobrero, M., Ghiselli, S. & F. Ferrante. 2016. Student entrepreneurship: Demographics, competences and obstacles. Bologna: AlmaLaurea Interuniversity Consortium.

Hahn, D., Minola, T., & Aschedamini, A. 2018. Global University Entrepreneurial Spirit Students' Survey National Report Italy 2018. Retrieved from GUESSS Website: <http://www.guesssurvey.org/>

Roberts, E.B., Eesley, C.E. 2011. Entrepreneurial Impact: The Role of MIT. Foundations and Trends in Entrepreneurship, 7(1): 1-149.

Sieger, P., Fueglistaller, U., Zellweger, T. 2014. Student Entrepreneurship Across the Globe: A Look at Intentions and Activities. St.Gallen: Swiss Research Institute of Small Business and Entrepreneurship at the University of St.Gallen (KMU-HSG).

## WEBLIOGRAPHY

MUR. "Indagine sull'Istruzione universitaria - Laureati". [http://statistica.miur.it/ustat/Statistiche/IU\\_home.asp](http://statistica.miur.it/ustat/Statistiche/IU_home.asp)

Unioncamere. "Osservatorio Imprenditoria Femminile". <http://www.imprenditoriafemminile.camcom.it/P42A0C0S806/Osservatorio-imprenditoria-femminile.htm>.

Unioncamere. "Start-up innovative". <http://www.unioncamere.gov.it/P43K1084C16000/start-up-innovative.html>





## APPENDIX



## Characteristics of graduates, by graduation year (absolute values)

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
<b>Gender</b>	Female	87,767	112,778	117,659	110,662	107,472	102,669	119,003	124,266	126,031	124,992	122,425	118,203	118,814	118,891	119,677	1,731,309
	Male	61,377	80,313	80,321	72,011	72,458	68,915	80,242	81,923	82,139	80,729	79,208	78,334	80,508	80,350	81,843	1,160,671
	Total	149,144	193,091	197,980	182,673	179,930	171,584	199,245	206,189	208,170	205,721	201,633	196,537	199,322	199,241	201,520	2,891,980
<b>Citizenship</b>	Italian citizenship	146,771	189,175	193,476	177,743	175,006	166,692	193,139	199,737	201,114	198,122	193,550	188,370	190,897	190,700	192,750	2,797,242
	Foreign citizenship	2,373	3,891	4,504	4,930	4,924	4,892	6,106	6,452	7,056	7,599	8,083	8,167	8,425	8,541	8,770	94,713
	Total	149,144	193,066	197,980	182,673	179,930	171,584	199,245	206,189	208,170	205,721	201,633	196,537	199,322	199,241	201,520	2,891,955
<b>Degree programme type</b>	First level	49,644	84,839	107,035	115,341	122,952	122,366	140,050	146,538	152,085	155,764	155,743	153,322	155,890	155,993	158,691	1,976,253
	Second level	99,500	108,252	90,945	67,332	56,978	49,218	59,195	59,651	56,085	49,957	45,890	43,215	43,432	43,248	42,829	915,727
	Total	149,144	193,091	197,980	182,673	179,930	171,584	199,245	206,189	208,170	205,721	201,633	196,537	199,322	199,241	201,520	2,891,980
<b>Field of study</b>	Agriculture	3,406	3,681	3,468	3,074	2,734	2,528	3,183	3,401	3,469	3,605	3,883	4,099	4,781	5,242	5,588	56,142
	Architecture	5,790	7,953	8,591	8,807	8,579	8,588	9,448	10,005	10,232	10,508	9,835	9,571	9,283	8,782	8,085	134,057
	Chemistry	3,566	3,895	3,849	3,024	2,712	2,498	3,025	3,150	2,746	2,679	2,680	2,714	2,790	2,758	2,831	44,917
	Defence, security, military studies	249	268	263	230	394	301	459	410	415	407	389	337	303	342	165	4,932
	Economic-statistical	22,072	25,036	24,561	21,668	21,619	20,608	23,682	25,972	26,415	26,276	26,287	25,762	25,842	25,326	25,157	366,283
	Education	8,347	9,563	10,372	10,855	9,774	9,665	9,687	10,819	11,531	11,772	11,753	9,653	9,559	10,380	10,373	154,103
	Engineering	17,184	21,639	21,934	18,614	17,633	16,331	20,579	20,572	20,940	19,578	19,446	20,173	20,555	20,789	21,894	297,861
	Foreign languages	7,629	10,634	10,335	9,495	9,113	9,020	12,225	12,742	12,907	12,785	12,699	12,951	13,421	14,433	14,462	174,851
	Geo-biological	5,964	7,674	8,252	7,631	8,136	7,595	9,564	9,402	9,094	8,721	8,440	8,440	8,299	8,329	8,869	124,410
	Health professions	12,882	15,940	17,190	18,923	18,955	18,114	19,713	21,702	21,365	22,278	21,450	20,370	20,175	19,183	18,452	286,692
	Humanities	13,548	18,251	18,252	16,763	16,566	15,740	19,069	19,130	18,915	17,966	16,319	15,065	14,929	14,594	14,457	249,564
	Law	16,788	20,606	19,730	15,081	14,624	13,878	14,646	15,174	15,845	16,365	16,462	16,190	17,001	16,328	15,895	244,613
	Mathematics, physics, natural sciences	4,256	5,111	5,669	5,057	4,943	4,862	6,259	5,942	5,759	5,599	5,741	5,511	5,847	5,823	6,825	83,204
	Medicine and dentistry	2,210	2,832	3,628	4,616	5,331	5,473	6,945	6,924	7,162	7,315	7,021	7,686	8,313	9,269	10,323	95,048
	Pharmaceutical	1,046	1,326	1,790	2,115	2,683	2,916	3,742	3,817	4,179	4,581	4,945	5,205	5,259	4,949	4,920	53,473
	Physical education	1,114	1,524	1,960	1,948	2,620	2,393	3,023	3,704	4,078	3,998	4,338	4,337	4,478	4,720	4,575	48,810
	Politics, social sciences	18,019	28,738	27,869	24,894	24,586	22,579	24,698	23,833	23,550	22,228	20,965	19,937	19,981	19,890	20,584	342,351
	Psychological	4,707	8,025	9,746	9,275	8,292	7,799	8,390	8,512	8,587	8,084	7,963	7,441	7,489	7,183	7,157	118,650
	Veterinary	367	395	521	603	636	696	908	978	981	976	1,017	1,095	1,017	921	908	12,019
	Total		149,144	193,091	197,980	182,673	179,930	171,584	199,245	206,189	208,170	205,721	201,633	196,537	199,322	199,241	201,520
<b>STEM / non-STEM</b>	STEM	36,395	46,390	48,234	43,003	41,893	39,723	48,488	48,819	48,453	46,712	45,915	46,196	46,378	46,047	48,018	680,664
	non-STEM	112,749	146,701	149,746	139,670	138,037	131,861	150,757	157,370	159,717	159,009	155,718	150,341	152,944	153,194	153,502	2,211,316
	Total	149,144	193,091	197,980	182,673	179,930	171,584	199,245	206,189	208,170	205,721	201,633	196,537	199,322	199,241	201,520	2,891,980
<b>Geographical area of the university</b>	North	77,909	86,466	81,326	71,331	67,796	64,583	82,101	82,887	83,741	85,435	85,471	84,648	85,970	87,010	89,329	1,216,003
	Centre	24,603	49,340	50,444	45,591	49,250	48,444	52,018	53,981	52,540	50,283	49,011	47,188	48,178	47,901	48,140	716,912
	South	46,632	57,285	66,210	65,751	62,884	58,557	65,126	69,321	71,889	70,003	67,151	64,701	65,174	64,330	64,051	959,065
Total	149,144	193,091	197,980	182,673	179,930	171,584	199,245	206,189	208,170	205,721	201,633	196,537	199,322	199,241	201,520	2,891,980	
<b>State / non state</b>	State	145,444	188,515	193,712	178,862	176,213	167,753	195,145	201,305	201,432	198,938	194,917	190,497	193,133	192,739	194,485	2,813,090
	Non state	3,700	4,576	4,268	3,811	3,717	3,831	4,100	4,884	6,738	6,783	6,716	6,040	6,189	6,502	7,035	78,890
	Total	149,144	193,091	197,980	182,673	179,930	171,584	199,245	206,189	208,170	205,721	201,633	196,537	199,322	199,241	201,520	2,891,980

## Characteristics of graduates, by graduation year (absolute values)

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
<b>Size of university</b>	Small (at most 10,000 students)	10,513	14,760	15,417	14,913	17,690	16,643	17,166	17,892	19,900	19,557	18,671	17,843	18,224	18,408	19,306	256,903
	Medium (10,000 and 20,000 students)	20,478	26,109	27,410	24,274	25,390	23,145	29,900	35,525	34,704	34,096	33,035	32,022	33,073	32,798	33,507	445,466
	Large (20,000-40,000 students)	49,486	55,662	62,392	61,650	60,456	56,397	58,639	60,167	61,207	61,597	61,859	60,866	61,210	60,751	61,454	893,793
	Mega (over 40,000 students)	68,667	96,560	92,761	81,836	76,394	75,399	93,540	92,605	92,359	90,471	88,068	85,806	86,815	87,284	87,253	1,295,818
	Total	149,144	193,091	197,980	182,673	179,930	171,584	199,245	206,189	208,170	205,721	201,633	196,537	199,322	199,241	201,520	2,891,980
<b>Parents' education</b>	Both parents with a degree	10,401	13,504	13,504	12,565	12,525	12,947	13,391	15,216	16,108	16,278	16,677	19,361	21,086	21,825	22,984	238,372
	Only one parent with a degree	17,215	22,194	23,144	21,563	20,717	21,091	21,938	24,739	26,132	27,314	27,028	31,221	34,128	34,999	35,018	388,441
	Parents do not hold a degree	83,242	104,941	108,735	103,315	100,034	98,538	99,943	109,986	114,194	114,635	111,489	124,582	130,887	131,709	132,537	1,668,767
	Total	110,858	140,639	145,383	137,443	133,276	132,576	135,272	149,941	156,434	158,227	155,194	175,164	186,101	188,533	190,539	2,295,580
<b>Father's profession</b>	Entrepreneur or self-employed	35,912	44,737	46,767	44,203	43,537	44,066	43,402	49,630	51,319	52,680	51,856	58,828	63,704	64,886	66,514	762,041
	Executive or Manager	21,050	25,925	25,436	22,430	21,587	21,246	20,503	22,679	22,708	21,864	21,468	22,529	22,422	22,513	22,767	337,127
	Office worker	29,930	39,176	41,224	39,025	38,238	37,247	36,923	41,405	43,554	43,797	42,377	52,074	55,930	56,151	57,254	654,305
	Factory worker	19,307	23,853	25,727	24,871	25,258	24,801	24,761	28,265	30,424	31,212	30,442	30,588	32,650	33,780	34,328	420,267
	Homemaker	0	19	626	713	699	749	692	838	826	868	864	1,091	1,157	1,198	1,210	11,550
	Total	106,199	133,710	139,780	131,242	129,319	128,109	126,281	142,817	148,831	150,421	147,007	165,110	175,863	178,528	182,073	2,185,290
<b>Mother's profession</b>	Entrepreneur or self-employed	16,484	19,906	19,901	18,714	18,345	18,640	18,510	21,005	21,487	22,134	22,110	23,840	26,224	27,177	28,430	322,907
	Executive or Manager	5,175	7,154	7,315	6,727	6,935	7,108	7,193	8,022	8,069	8,066	7,939	8,308	8,014	8,484	8,510	113,019
	Office worker	40,809	52,173	54,157	50,285	49,655	49,269	48,916	55,003	57,557	58,715	57,665	70,183	77,037	78,503	81,522	881,449
	Factory worker	11,716	14,324	14,840	14,306	14,648	14,514	14,605	16,560	17,763	18,632	18,450	15,108	15,445	15,959	16,359	233,229
	Homemaker	0	1,099	43,452	41,169	39,774	38,601	37,115	42,103	42,464	40,307	38,344	47,615	49,465	48,795	47,955	558,258
	Total	74,184	94,656	139,665	131,201	129,357	128,132	126,339	142,693	147,340	147,854	144,508	165,054	176,185	178,918	182,776	2,108,862
<b>Geographical area of residence</b>	North	68,881	73,359	67,072	60,143	56,949	55,339	75,963	76,782	76,895	77,572	77,318	75,596	76,795	77,261	79,197	1,075,122
	Centre	22,422	40,918	41,460	38,165	35,937	35,051	37,660	43,647	42,994	42,043	40,902	39,712	40,625	40,668	40,613	582,817
	South and isles	45,230	58,744	67,071	78,003	64,299	70,793	79,158	83,793	86,261	83,886	81,100	78,660	79,370	78,846	79,133	1,114,347
	Abroad	667	917	987	1,249	1,296	1,403	1,741	1,848	1,963	2,199	2,255	2,544	2,514	2,449	2,541	26,573
	Total	137,200	173,938	176,590	177,560	158,481	162,586	194,522	206,070	208,113	205,700	201,575	196,512	199,304	199,224	201,484	2,798,859

Note: missing responses not reported

## Characteristics of graduates, by graduation year (percentage values)

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
<b>Gender</b>	Female	58.8	58.4	59.4	60.6	59.7	59.8	59.7	60.3	60.5	60.8	60.7	60.1	59.6	59.7	59.4	59.9
	Male	41.2	41.6	40.6	39.4	40.3	40.2	40.3	39.7	39.5	39.2	39.3	39.9	40.4	40.3	40.6	40.1
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Citizenship</b>	Italian citizenship	98.4	98.0	97.7	97.3	97.3	97.1	96.9	96.9	96.6	96.3	96.0	95.8	95.8	95.7	95.6	96.7
	Foreign citizenship	1.6	2.0	2.3	2.7	2.7	2.9	3.1	3.1	3.4	3.7	4.0	4.2	4.2	4.3	4.4	3.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Degree programme type</b>	First level	33.3	43.9	54.1	63.1	68.3	71.3	70.3	71.1	73.1	75.7	77.2	78.0	78.2	78.3	78.7	68.3
	Second level	66.7	56.1	45.9	36.9	31.7	28.7	29.7	28.9	26.9	24.3	22.8	22.0	21.8	21.7	21.3	31.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Field of study</b>	Agriculture	2.3	1.9	1.8	1.7	1.5	1.5	1.6	1.6	1.7	1.8	1.9	2.1	2.4	2.6	2.8	1.9
	Architecture	3.9	4.1	4.3	4.8	4.8	5.0	4.7	4.9	4.9	5.1	4.9	4.9	4.7	4.4	4.0	4.6
	Chemistry	2.4	2.0	1.9	1.7	1.5	1.5	1.5	1.5	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.6
	Defence, security, military studies	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
	Economic-statistical	14.8	13.0	12.4	11.9	12.0	12.0	11.9	12.6	12.7	12.8	13.0	13.1	13.0	12.7	12.5	12.7
	Education	5.6	5.0	5.2	5.9	5.4	5.6	4.9	5.2	5.5	5.7	5.8	4.9	4.8	5.2	5.1	5.3
	Engineering	11.5	11.2	11.1	10.2	9.8	9.5	10.3	10.0	10.1	9.5	9.6	10.3	10.3	10.4	10.9	10.3
	Foreign languages	5.1	5.5	5.2	5.2	5.1	5.3	6.1	6.2	6.2	6.2	6.3	6.6	6.7	7.2	7.2	6.0
	Geo-biological	4.0	4.0	4.2	4.2	4.5	4.4	4.8	4.6	4.4	4.4	4.2	4.2	4.3	4.2	4.4	4.3
	Health professions	8.6	8.3	8.7	10.4	10.5	10.6	9.9	10.5	10.3	10.8	10.6	10.4	10.1	9.6	9.2	9.9
	Humanities	9.1	9.5	9.2	9.2	9.2	9.2	9.6	9.3	9.1	8.7	8.1	7.7	7.5	7.3	7.2	8.6
	Law	11.3	10.7	10.0	8.3	8.1	8.1	7.4	7.4	7.6	8.0	8.2	8.2	8.5	8.2	7.9	8.5
	Mathematics, physics, natural sciences	2.9	2.6	2.9	2.8	2.7	2.8	3.1	2.9	2.8	2.7	2.8	2.8	2.9	2.9	3.4	2.9
	Medicine and dentistry	1.5	1.5	1.8	2.5	3.0	3.2	3.5	3.4	3.4	3.6	3.5	3.9	4.2	4.7	5.1	3.3
	Pharmaceutical	0.7	0.7	0.9	1.2	1.5	1.7	1.9	1.9	2.0	2.2	2.5	2.6	2.6	2.5	2.4	1.8
	Physical education	0.7	0.8	1.0	1.1	1.5	1.4	1.5	1.8	2.0	1.9	2.2	2.2	2.2	2.4	2.3	1.7
	Politics, social sciences	12.1	14.9	14.1	13.6	13.7	13.2	12.4	11.6	11.3	10.8	10.4	10.1	10.0	10.0	10.2	11.8
	Psychological	3.2	4.2	4.9	5.1	4.6	4.5	4.2	4.1	4.1	3.9	3.9	3.8	3.8	3.6	3.6	4.1
	Veterinary	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.4
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>STEM / non-STEM</b>	STEM	24.4	24.0	24.4	23.5	23.3	23.2	24.3	23.7	23.3	22.7	22.8	23.5	23.3	23.1	23.8	23.5
	non-STEM	75.6	76.0	75.6	76.5	76.7	76.8	75.7	76.3	76.7	77.3	77.2	76.5	76.7	76.9	76.2	76.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Geographical area of the university</b>	North	52.2	44.8	41.1	39.0	37.7	37.6	41.2	40.2	40.2	41.5	42.4	43.1	43.1	43.7	44.3	42.0
	Centre	16.5	25.6	25.5	25.0	27.4	28.2	26.1	26.2	25.2	24.4	24.3	24.0	24.2	24.0	23.9	24.8
	South	31.3	29.7	33.4	36.0	34.9	34.1	32.7	33.6	34.5	34.0	33.3	32.9	32.7	32.3	31.8	33.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>State / non state</b>	State	97.5	97.6	97.8	97.9	97.9	97.8	97.9	97.6	96.8	96.7	96.7	96.9	96.9	96.7	96.5	97.3
	Non state	2.5	2.4	2.2	2.1	2.1	2.2	2.1	2.4	3.2	3.3	3.3	3.1	3.1	3.3	3.5	2.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

## Characteristics of graduates, by graduation year (percentage values)

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
<b>Size of university</b>	Small (at most 10,000 students)	7.0	7.6	7.8	8.2	9.8	9.7	8.6	8.7	9.6	9.5	9.3	9.1	9.1	9.2	9.6	8.9
	Medium (10,000 and 20,000 students)	13.7	13.5	13.8	13.3	14.1	13.5	15.0	17.2	16.7	16.6	16.4	16.3	16.6	16.5	16.6	15.4
	Large (20,000-40,000 students)	33.2	28.8	31.5	33.7	33.6	32.9	29.4	29.2	29.4	29.9	30.7	31.0	30.7	30.5	30.5	30.9
	Mega (over 40,000 students)	46.0	50.0	46.9	44.8	42.5	43.9	46.9	44.9	44.4	44.0	43.7	43.7	43.6	43.8	43.3	44.8
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Parents' education</b>	Both parents with a degree	9.4	9.6	9.3	9.1	9.4	9.8	9.9	10.1	10.3	10.3	10.7	11.1	11.3	11.6	12.1	10.4
	Only one parent with a degree	15.5	15.8	15.9	15.7	15.5	15.9	16.2	16.5	16.7	17.3	17.4	17.8	18.3	18.6	18.4	16.9
	Parents do not hold a degree	75.1	74.6	74.8	75.2	75.1	74.3	73.9	73.4	73.0	72.4	71.8	71.1	70.3	69.9	69.6	72.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Father's profession</b>	Entrepreneur or self-employed	33.8	33.5	33.5	33.7	33.7	34.4	34.4	34.8	34.5	35.0	35.3	35.6	36.2	36.3	36.5	34.9
	Executive or Manager	19.8	19.4	18.2	17.1	16.7	16.6	16.2	15.9	15.3	14.5	14.6	13.6	12.7	12.6	12.5	15.4
	Office worker	28.2	29.3	29.5	29.7	29.6	29.1	29.2	29.0	29.3	29.1	28.8	31.5	31.8	31.5	31.4	29.9
	Factory worker	18.2	17.8	18.4	19.0	19.5	19.4	19.6	19.8	20.4	20.7	20.7	18.5	18.6	18.9	18.9	19.2
	Homemaker	0.0	0.0	0.4	0.5	0.5	0.6	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Mother's profession</b>	Entrepreneur or self-employed	22.2	21.0	14.2	14.3	14.2	14.5	14.7	14.7	14.6	15.0	15.3	14.4	14.9	15.2	15.6	15.3
	Executive or Manager	7.0	7.6	5.2	5.1	5.4	5.5	5.7	5.6	5.5	5.5	5.5	5.0	4.5	4.7	4.7	5.4
	Office worker	55.0	55.1	38.8	38.3	38.4	38.5	38.7	38.5	39.1	39.7	39.9	42.5	43.7	43.9	44.6	41.8
	Factory worker	15.8	15.1	10.6	10.9	11.3	11.3	11.6	11.6	12.1	12.6	12.8	9.2	8.8	8.9	9.0	11.1
	Homemaker	0.0	1.2	31.1	31.4	30.7	30.1	29.4	29.5	28.8	27.3	26.5	28.8	28.1	27.3	26.2	26.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Geographical area of residence</b>	North	50.2	42.2	38.0	33.9	35.9	34.0	39.1	37.3	36.9	37.7	38.4	38.5	38.5	38.8	39.3	38.4
	Centre	16.3	23.5	23.5	21.5	22.7	21.6	19.4	21.2	20.7	20.4	20.3	20.2	20.4	20.4	20.2	20.8
	South and isles	33.0	33.8	38.0	43.9	40.6	43.5	40.7	40.7	41.4	40.8	40.2	40.0	39.8	39.6	39.3	39.8
	Abroad	0.5	0.5	0.6	0.7	0.8	0.9	0.9	0.9	0.9	1.1	1.1	1.3	1.3	1.2	1.3	0.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: statistics are calculated excluding missing responses

## Graduates 2004-2018

## Characteristics of founders, by graduation year (absolute values)

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Gender	Female	6,806	8,300	8,348	7,756	7,586	7,394	7,621	7,628	7,138	6,354	5,514	4,719	3,863	3,196	2,419	94,642
	Male	8,379	10,155	10,076	8,857	8,935	8,575	8,908	8,739	8,050	7,231	6,233	5,351	4,598	3,651	2,757	110,495
	Total	15,185	18,455	18,424	16,613	16,521	15,969	16,529	16,367	15,188	13,585	11,747	10,070	8,461	6,847	5,176	205,137
Citizenship	Italian citizenship	15,071	18,239	18,189	16,345	16,273	15,727	16,265	16,067	14,876	13,297	11,467	9,802	8,229	6,633	5,043	201,523
	Foreign citizenship	114	214	235	268	248	242	264	300	312	288	280	268	232	214	133	3,612
	Total	15,185	18,453	18,424	16,613	16,521	15,969	16,529	16,367	15,188	13,585	11,747	10,070	8,461	6,847	5,176	205,135
Degree programme type	First level	3,744	6,527	8,307	8,551	9,271	9,267	9,579	9,501	9,062	8,430	7,456	6,417	5,510	4,607	3,649	109,878
	Second level	11,441	11,928	10,117	8,062	7,250	6,702	6,950	6,866	6,126	5,155	4,291	3,653	2,951	2,240	1,527	95,259
	Total	15,185	18,455	18,424	16,613	16,521	15,969	16,529	16,367	15,188	13,585	11,747	10,070	8,461	6,847	5,176	205,137
Field of study	Agriculture	702	766	706	646	584	547	654	666	600	552	479	448	397	360	277	8,384
	Architecture	777	939	1,034	998	949	989	994	1,075	951	930	755	624	494	379	246	12,134
	Chemistry	539	594	615	448	397	324	329	305	316	261	230	170	127	109	65	4,829
	Defence, security, military studies	0	1	5	1	5	3	4	1	6	6	7	5	3	6	2	55
	Economic-statistical	3,108	3,318	3,183	2,671	2,807	2,759	2,761	2,968	2,754	2,554	2,266	1,970	1,738	1,348	960	37,165
	Education	532	593	634	660	560	583	595	592	592	523	498	339	261	267	236	7,465
	Engineering	1,540	1,824	1,755	1,479	1,400	1,395	1,459	1,330	1,221	980	847	757	664	559	399	17,609
	Foreign languages	613	700	679	578	573	547	670	636	592	476	456	394	330	275	200	7,719
	Geo-biological	546	628	696	647	613	634	681	682	614	543	476	450	308	258	147	7,923
	Health professions	797	1,265	1,275	1,176	1,101	1,067	1,076	1,036	1,061	917	775	643	537	415	351	13,492
	Humanities	1,326	1,696	1,613	1,483	1,540	1,514	1,498	1,434	1,364	1,199	921	737	571	454	321	17,671
	Law	1,659	1,875	1,766	1,535	1,491	1,443	1,429	1,351	1,267	1,182	1,081	996	896	747	592	19,310
	Mathematics, physics, natural sciences	343	415	380	377	370	389	404	369	354	265	246	184	157	127	122	4,502
	Medicine and dentistry	67	94	119	183	185	190	233	221	198	175	138	154	139	161	151	2,408
	Pharmaceutical	150	224	299	350	403	394	426	474	405	395	358	302	282	200	140	4,802
	Physical education	132	197	228	194	336	275	317	326	334	321	272	232	182	174	113	3,633
	Politics, social sciences	2,000	2,801	2,814	2,569	2,611	2,325	2,442	2,291	2,013	1,836	1,492	1,303	1,084	772	676	29,029
	Psychological	310	473	566	551	534	532	480	539	493	412	382	312	251	213	151	6,199
	Veterinary	44	52	57	67	62	59	77	71	53	58	68	50	40	23	27	808
	Total	15,185	18,455	18,424	16,613	16,521	15,969	16,529	16,367	15,188	13,585	11,747	10,070	8,461	6,847	5,176	205,137
STEM / non-STEM	STEM	3,553	4,255	4,242	3,827	3,659	3,641	3,781	3,682	3,413	2,957	2,526	2,179	1,754	1,443	979	45,891
	non-STEM	11,632	14,200	14,182	12,786	12,862	12,328	12,748	12,685	11,775	10,628	9,221	7,891	6,707	5,404	4,197	159,246
	Total	15,185	18,455	18,424	16,613	16,521	15,969	16,529	16,367	15,188	13,585	11,747	10,070	8,461	6,847	5,176	205,137
Geographical area of the university	North	7,687	8,095	7,367	6,331	6,068	5,796	6,374	6,148	5,597	5,247	4,538	3,949	3,256	2,609	1,915	80,977
	Centre	2,558	4,658	4,697	4,199	4,587	4,516	4,426	4,452	3,980	3,394	2,955	2,511	2,098	1,755	1,230	52,016
	South	4,940	5,702	6,360	6,083	5,866	5,657	5,729	5,767	5,611	4,944	4,254	3,610	3,107	2,483	2,031	72,144
	Total	15,185	18,455	18,424	16,613	16,521	15,969	16,529	16,367	15,188	13,585	11,747	10,070	8,461	6,847	5,176	205,137
State / non state	State	14,694	17,821	17,845	16,092	16,027	15,447	16,022	15,838	14,589	13,001	11,207	9,606	8,054	6,567	4,898	197,708
	Non state	491	634	579	521	494	522	507	529	599	584	540	464	407	280	278	7,429
	Total	15,185	18,455	18,424	16,613	16,521	15,969	16,529	16,367	15,188	13,585	11,747	10,070	8,461	6,847	5,176	205,137

## Graduates 2004-2018

## Characteristics of founders, by graduation year (absolute values)

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
<b>Size of university</b>	Small (at most 10,000 students)	1,340	1,896	1,902	1,743	1,920	1,855	1,776	1,836	1,723	1,602	1,363	1,182	1,038	848	755	22,779
	Medium (10,000 and 20,000 students)	1,943	2,341	2,386	2,157	2,346	2,173	2,480	2,793	2,542	2,265	1,918	1,600	1,383	1,106	843	30,276
	Large (20,000-40,000 students)	5,056	5,427	5,679	5,325	5,206	5,132	4,823	4,677	4,413	3,987	3,466	3,019	2,502	1,983	1,537	62,232
	Mega (over 40,000 students)	6,846	8,791	8,457	7,388	7,049	6,809	7,450	7,061	6,510	5,731	5,000	4,269	3,538	2,910	2,041	89,850
	Total	15,185	18,455	18,424	16,613	16,521	15,969	16,529	16,367	15,188	13,585	11,747	10,070	8,461	6,847	5,176	205,137
<b>Parents' education</b>	Both parents with a degree	1,085	1,246	1,235	1,122	1,152	1,203	1,111	1,167	1,093	1,017	928	896	828	663	507	15,253
	Only one parent with a degree	1,884	2,198	2,262	2,113	2,098	2,046	1,990	2,087	2,065	1,906	1,586	1,521	1,438	1,156	856	27,206
	Parents do not hold a degree	8,283	10,012	10,157	9,230	9,003	9,206	8,400	9,084	8,456	7,586	6,544	6,323	5,447	4,520	3,379	115,630
	Total	11,252	13,456	13,654	12,465	12,253	12,455	11,501	12,338	11,614	10,509	9,058	8,740	7,713	6,339	4,742	158,089
<b>Father's profession</b>	Entrepreneur or self-employed	5,317	6,199	6,506	5,853	5,776	5,925	5,233	5,831	5,407	4,979	4,403	4,332	3,959	3,373	2,638	75,731
	Executive or Manager	1,979	2,224	2,112	1,821	1,917	1,848	1,611	1,728	1,498	1,313	1,066	948	782	579	422	21,848
	Office worker	2,215	2,773	2,781	2,673	2,523	2,628	2,291	2,453	2,329	2,121	1,740	1,733	1,501	1,244	830	31,835
	Factory worker	1,305	1,601	1,704	1,603	1,654	1,589	1,472	1,568	1,674	1,415	1,174	1,019	862	654	513	19,807
	Homemaker	0	1	68	64	50	65	72	66	50	49	60	61	52	35	32	725
	Total	10,816	12,798	13,171	12,014	11,920	12,055	10,679	11,646	10,958	9,877	8,443	8,093	7,156	5,885	4,435	149,946
<b>Mother's profession</b>	Entrepreneur or self-employed	2,609	3,011	2,963	2,796	2,671	2,655	2,443	2,622	2,455	2,268	2,038	1,921	1,750	1,503	1,178	34,883
	Executive or Manager	539	671	686	600	651	645	609	654	576	500	441	386	299	249	172	7,678
	Office worker	3,650	4,330	4,376	3,983	3,964	4,086	3,635	3,863	3,628	3,330	2,711	2,755	2,559	2,035	1,514	50,419
	Factory worker	840	1,033	994	971	984	1,034	869	1,054	1,043	937	808	581	492	391	280	12,311
	Homemaker	0	102	4,025	3,608	3,584	3,598	3,076	3,413	3,109	2,615	2,218	2,387	2,003	1,674	1,274	36,686
	Total	7,638	9,147	13,044	11,958	11,854	12,018	10,632	11,606	10,811	9,650	8,216	8,030	7,103	5,852	4,418	141,977
<b>Geographical area of residence</b>	North	6,891	7,049	6,228	5,452	5,294	5,159	5,938	5,698	5,204	4,805	4,189	3,562	2,936	2,390	1,776	72,571
	Centre	2,253	3,904	3,881	3,451	3,441	3,345	3,233	3,566	3,177	2,831	2,420	2,080	1,712	1,468	1,070	41,832
	South and isles	4,951	6,151	6,762	7,425	6,232	6,884	6,997	7,053	6,767	5,916	5,107	4,391	3,780	2,971	2,311	83,698
	Abroad	13	16	18	14	21	28	27	42	32	31	27	37	32	18	18	374
	Total	14,108	17,120	16,889	16,342	14,988	15,416	16,195	16,359	15,180	13,583	11,743	10,070	8,460	6,847	5,175	198,475
<b>Region of the company founded with respect to the region of the University</b>	Same region as the University	10,978	13,151	13,425	12,165	12,178	11,969	12,575	12,541	11,696	10,562	9,098	7,783	6,557	5,277	3,994	153,949
	Other region same geographical area	2,333	2,541	2,364	2,079	1,950	1,750	1,683	1,620	1,498	1,365	1,171	960	755	649	519	23,237
	Other geographical area	1,874	2,763	2,635	2,369	2,393	2,250	2,271	2,206	1,994	1,658	1,478	1,327	1,149	921	663	27,951
	Total	15,185	18,455	18,424	16,613	16,521	15,969	16,529	16,367	15,188	13,585	11,747	10,070	8,461	6,847	5,176	205,137
<b>Number of companies founded</b>	1	12,167	14,968	14,934	13,674	13,667	13,412	14,055	14,045	13,259	12,003	10,428	8,990	7,660	6,195	4,720	174,177
	2	2,306	2,687	2,743	2,335	2,252	2,055	1,996	1,913	1,599	1,317	1,092	929	680	546	373	24,823
	3 or more	712	800	747	604	602	502	478	409	330	265	227	151	121	106	83	6,137
	Total	15,185	18,455	18,424	16,613	16,521	15,969	16,529	16,367	15,188	13,585	11,747	10,070	8,461	6,847	5,176	205,137
<b>Time of the foundation of the company with respect to the graduation time</b>	Before starting university studies	1,080	1,614	1,948	2,018	1,930	2,048	2,142	2,254	2,102	2,112	1,830	1,695	1,634	1,612	1,569	27,588
	During university studies	3,182	3,915	3,868	3,313	3,395	3,157	3,348	3,349	3,351	3,244	3,097	2,992	2,830	2,808	2,666	48,515
	Within a year after graduation	870	1,101	1,220	1,095	1,070	1,147	1,410	1,562	1,667	1,523	1,468	1,465	1,595	1,471	910	19,574
	From 1 to 2 years after graduation	997	1,256	1,212	1,086	1,220	1,351	1,418	1,781	1,682	1,626	1,601	1,597	1,410	906	28	19,171
	From 2 to 3 years after graduation	963	1,061	1,098	1,159	1,240	1,314	1,546	1,513	1,451	1,486	1,484	1,402	935	49	0	16,701
	Over 3 years after graduation	8,091	9,505	9,073	7,933	7,656	6,940	6,661	5,902	4,934	3,588	2,264	914	55	0	0	73,516
	Total	15,183	18,452	18,419	16,604	16,511	15,957	16,525	16,361	15,187	13,579	11,744	10,065	8,459	6,846	5,173	205,065

Note: missing responses not reported

## Graduates 2004-2018

## Characteristics of founders, by graduation year (percentage values)

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Totale
Gender	Female	44.8	45.0	45.3	46.7	45.9	46.3	46.1	46.6	47.0	46.8	46.9	46.9	45.7	46.7	46.7	46.1
	Male	55.2	55.0	54.7	53.3	54.1	53.7	53.9	53.4	53.0	53.2	53.1	53.1	54.3	53.3	53.3	53.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Citizenship	Italian citizenship	99.2	98.8	98.7	98.4	98.5	98.5	98.4	98.2	97.9	97.9	97.6	97.3	97.3	96.9	97.4	98.2
	Foreign citizenship	0.8	1.2	1.3	1.6	1.5	1.5	1.6	1.8	2.1	2.1	2.4	2.7	2.7	3.1	2.6	1.8
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Degree programme type	First level	24.7	35.4	45.1	51.5	56.1	58.0	58.0	58.0	59.7	62.1	63.5	63.7	65.1	67.3	70.5	53.6
	Second level	75.3	64.6	54.9	48.5	43.9	42.0	42.0	42.0	40.3	37.9	36.5	36.3	34.9	32.7	29.5	46.4
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Field of study	Agriculture	4.6	4.2	3.8	3.9	3.5	3.4	4.0	4.1	4.0	4.1	4.1	4.4	4.7	5.3	5.4	4.1
	Architecture	5.1	5.1	5.6	6.0	5.7	6.2	6.0	6.6	6.3	6.8	6.4	6.2	5.8	5.5	4.8	5.9
	Chemistry	3.5	3.2	3.3	2.7	2.4	2.0	2.0	1.9	2.1	1.9	2.0	1.7	1.5	1.6	1.3	2.4
	Defence, security, military studies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
	Economic-statistical	20.5	18.0	17.3	16.1	17.0	17.3	16.7	18.1	18.1	18.8	19.3	19.6	20.5	19.7	18.5	18.1
	Education	3.5	3.2	3.4	4.0	3.4	3.7	3.6	3.6	3.9	3.8	4.2	3.4	3.1	3.9	4.6	3.6
	Engineering	10.1	9.9	9.5	8.9	8.5	8.7	8.8	8.1	8.0	7.2	7.2	7.5	7.8	8.2	7.7	8.6
	Foreign languages	4.0	3.8	3.7	3.5	3.5	3.4	4.1	3.9	3.9	3.5	3.9	3.9	3.9	4.0	3.9	3.8
	Geo-biological	3.6	3.4	3.8	3.9	3.7	4.0	4.1	4.2	4.0	4.0	4.1	4.5	3.6	3.8	2.8	3.9
	Health professions	5.2	6.9	6.9	7.1	6.7	6.7	6.5	6.3	7.0	6.8	6.6	6.4	6.3	6.1	6.8	6.6
	Humanities	8.7	9.2	8.8	8.9	9.3	9.5	9.1	8.8	9.0	8.8	7.8	7.3	6.7	6.6	6.2	8.6
	Law	10.9	10.2	9.6	9.2	9.0	9.0	8.6	8.3	8.3	8.7	9.2	9.9	10.6	10.9	11.4	9.4
	Mathematics, physics, natural sciences	2.3	2.2	2.1	2.3	2.2	2.4	2.4	2.3	2.3	2.0	2.1	1.8	1.9	1.9	2.4	2.2
	Medicine and dentistry	0.4	0.5	0.6	1.1	1.1	1.2	1.4	1.4	1.3	1.3	1.2	1.5	1.6	2.4	2.9	1.2
	Pharmaceutical	1.0	1.2	1.6	2.1	2.4	2.5	2.6	2.9	2.7	2.9	3.0	3.0	3.3	2.9	2.7	2.3
	Physical education	0.9	1.1	1.2	1.2	2.0	1.7	1.9	2.0	2.2	2.4	2.3	2.3	2.2	2.5	2.2	1.8
	Politics, social sciences	13.2	15.2	15.3	15.5	15.8	14.6	14.8	14.0	13.3	13.5	12.7	12.9	12.8	11.3	13.1	14.2
	Psychological	2.0	2.6	3.1	3.3	3.2	3.3	2.9	3.3	3.2	3.0	3.3	3.1	3.0	3.1	2.9	3.0
	Veterinary	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.4	0.3	0.4	0.6	0.5	0.5	0.3	0.5	0.4
	Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
STEM / non-STEM	STEM	23.4	23.1	23.0	23.0	22.1	22.8	22.9	22.5	22.5	21.8	21.5	21.6	20.7	21.1	18.9	22.4
	non-STEM	76.6	76.9	77.0	77.0	77.9	77.2	77.1	77.5	77.5	78.2	78.5	78.4	79.3	78.9	81.1	77.6
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Geographical area of the university	North	50.6	43.9	40.0	38.1	36.7	36.3	38.6	37.6	36.9	38.6	38.6	39.2	38.5	38.1	37.0	39.5
	Centre	16.8	25.2	25.5	25.3	27.8	28.3	26.8	27.2	26.2	25.0	25.2	24.9	24.8	25.6	23.8	25.4
	South	32.5	30.9	34.5	36.6	35.5	35.4	34.7	35.2	36.9	36.4	36.2	35.8	36.7	36.3	39.2	35.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
State / non state	State	96.8	96.6	96.9	96.9	97.0	96.7	96.9	96.8	96.1	95.7	95.4	95.4	95.2	95.9	94.6	96.4
	Non state	3.2	3.4	3.1	3.1	3.0	3.3	3.1	3.2	3.9	4.3	4.6	4.6	4.8	4.1	5.4	3.6
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

## Graduates 2004-2018

## Characteristics of founders, by graduation year (percentage values)

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Size of university	Small (at most 10,000 students)	8.8	10.3	10.3	10.5	11.6	11.6	10.7	11.2	11.3	11.8	11.6	11.7	12.3	12.4	14.6	11.1
	Medium (10,000 and 20,000 students)	12.8	12.7	13.0	13.0	14.2	13.6	15.0	17.1	16.7	16.7	16.3	15.9	16.3	16.2	16.3	14.8
	Large (20,000-40,000 students)	33.3	29.4	30.8	32.1	31.5	32.1	29.2	28.6	29.1	29.3	29.5	30.0	29.6	29.0	29.7	30.3
	Mega (over 40,000 students)	45.1	47.6	45.9	44.5	42.7	42.6	45.1	43.1	42.9	42.2	42.6	42.4	41.8	42.5	39.4	43.8
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Parents' education	Both parents with a degree	9.6	9.3	9.0	9.0	9.4	9.7	9.7	9.5	9.4	9.7	10.2	10.3	10.7	10.5	10.7	9.6
	Only one parent with a degree	16.7	16.3	16.6	17.0	17.1	16.4	17.3	16.9	17.8	18.1	17.5	17.4	18.6	18.2	18.1	17.2
	Parents do not hold a degree	73.6	74.4	74.4	74.0	73.5	73.9	73.0	73.6	72.8	72.2	72.2	72.3	70.6	71.3	71.3	73.1
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Father's profession	Entrepreneur or self-employed	49.2	48.4	49.4	48.7	48.5	49.1	49.0	50.1	49.3	50.4	52.1	53.5	55.3	57.3	59.5	50.5
	Executive or Manager	18.3	17.4	16.0	15.2	16.1	15.3	15.1	14.8	13.7	13.3	12.6	11.7	10.9	9.8	9.5	14.6
	Office worker	20.5	21.7	21.1	22.2	21.2	21.8	21.5	21.1	21.3	21.5	20.6	21.4	21.0	21.1	18.7	21.2
	Factory worker	12.1	12.5	12.9	13.3	13.9	13.2	13.8	13.5	15.3	14.3	13.9	12.6	12.0	11.1	11.6	13.2
	Homemaker	0.0	0.0	0.5	0.5	0.4	0.5	0.7	0.6	0.5	0.5	0.7	0.8	0.7	0.6	0.7	0.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mother's profession	Entrepreneur or self-employed	34.2	32.9	22.7	23.4	22.5	22.1	23.0	22.6	22.7	23.5	24.8	23.9	24.6	25.7	26.7	24.6
	Executive or Manager	7.1	7.3	5.3	5.0	5.5	5.4	5.7	5.6	5.3	5.2	5.4	4.8	4.2	4.3	3.9	5.4
	Office worker	47.8	47.3	33.5	33.3	33.4	34.0	34.2	33.3	33.6	34.5	33.0	34.3	36.0	34.8	34.3	35.5
	Factory worker	11.0	11.3	7.6	8.1	8.3	8.6	8.2	9.1	9.6	9.7	9.8	7.2	6.9	6.7	6.3	8.7
	Homemaker	0.0	1.1	30.9	30.2	30.2	29.9	28.9	29.4	28.8	27.1	27.0	29.7	28.2	28.6	28.8	25.8
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Geographical area of residence	North	48.8	41.2	36.9	33.4	35.3	33.5	36.7	34.8	34.3	35.4	35.7	35.4	34.7	34.9	34.3	36.6
	Centre	16.0	22.8	23.0	21.1	23.0	21.7	20.0	21.8	20.9	20.8	20.6	20.7	20.2	21.4	20.7	21.1
	South and isles	35.1	35.9	40.0	45.4	41.6	44.7	43.2	43.1	44.6	43.6	43.5	43.6	44.7	43.4	44.7	42.2
	Abroad	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.4	0.4	0.3	0.3	0.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Region of the company founded with respect to the region of the University	Same region as the University	72.3	71.3	72.9	73.2	73.7	75.0	76.1	76.6	77.0	77.7	77.4	77.3	77.5	77.1	77.2	75.0
	Other region same geographical area	15.4	13.8	12.8	12.5	11.8	11.0	10.2	9.9	9.9	10.0	10.0	9.5	8.9	9.5	10.0	11.3
	Other geographical area	12.3	15.0	14.3	14.3	14.5	14.1	13.7	13.5	13.1	12.2	12.6	13.2	13.6	13.5	12.8	13.6
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of companies founded	1	80.1	81.1	81.1	82.3	82.7	84.0	85.0	85.8	87.3	88.4	88.8	89.3	90.5	90.5	91.2	84.9
	2	15.2	14.6	14.9	14.1	13.6	12.9	12.1	11.7	10.5	9.7	9.3	9.2	8.0	8.0	7.2	12.1
	3 or more	4.7	4.3	4.1	3.6	3.6	3.1	2.9	2.5	2.2	2.0	1.9	1.5	1.4	1.5	1.6	3.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Time of the foundation of the company with respect to the graduation time	Before starting university studies	7.1	8.7	10.6	12.2	11.7	12.8	13.0	13.8	13.8	15.6	15.6	16.8	19.3	23.5	30.3	13.5
	During university studies	21.0	21.2	21.0	20.0	20.6	19.8	20.3	20.5	22.1	23.9	26.4	29.7	33.5	41.0	51.5	23.7
	Within a year after graduation	5.7	6.0	6.6	6.6	6.5	7.2	8.5	9.5	11.0	11.2	12.5	14.6	18.9	21.5	17.6	9.5
	From 1 to 2 years after graduation	6.6	6.8	6.6	6.5	7.4	8.5	8.6	10.9	11.1	12.0	13.6	15.9	16.7	13.2	0.5	9.3
	From 2 to 3 years after graduation	6.3	5.8	6.0	7.0	7.5	8.2	9.4	9.2	9.6	10.9	12.6	13.9	11.1	0.7	0.0	8.1
	Over 3 years after graduation	53.3	51.5	49.3	47.8	46.4	43.5	40.3	36.1	32.5	26.4	19.3	9.1	0.7	0.0	0.0	35.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

Note: statistics are calculated excluding missing responses

## Graduates 2004-2018

## Characteristics of graduates who have acquired an equity share in a company (joiners), by graduation year (absolute values)

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Totale
Gender	Female	2,541	2,988	2,829	2,571	2,473	2,366	2,424	2,404	2,293	2,040	1,793	1,636	1,480	1,256	1,096	32,190
	Male	2,889	3,415	3,259	2,754	2,722	2,547	2,669	2,469	2,350	2,030	1,770	1,539	1,324	1,172	999	33,908
	Total	5,430	6,403	6,088	5,325	5,195	4,913	5,093	4,873	4,873	4,643	4,070	3,563	3,175	2,804	2,428	2,095
Citizenship	Italian citizenship	5,399	6,361	6,037	5,278	5,141	4,871	5,041	4,831	4,591	4,030	3,534	3,145	2,782	2,403	2,080	65,524
	Foreign citizenship	31	41	51	47	54	42	52	42	52	40	29	30	22	25	15	573
	Total	5,430	6,402	6,088	5,325	5,195	4,913	5,093	4,873	4,643	4,070	3,563	3,175	2,804	2,428	2,095	66,097
Degree programme type	First level	1,309	2,153	2,718	2,654	2,835	2,749	2,877	2,787	2,756	2,529	2,296	2,091	1,820	1,635	1,467	34,676
	Second level	4,121	4,250	3,370	2,671	2,360	2,164	2,216	2,086	1,887	1,541	1,267	1,084	984	793	628	31,422
	Total	5,430	6,403	6,088	5,325	5,195	4,913	5,093	4,873	4,643	4,070	3,563	3,175	2,804	2,428	2,095	66,098
Field of study	Agriculture	129	158	136	112	105	75	105	113	113	76	85	89	89	79	67	1,531
	Architecture	309	353	415	357	361	352	376	341	304	322	255	194	203	143	106	4,391
	Chemistry	142	151	133	107	70	78	69	52	48	37	36	36	27	26	19	1,031
	Defence, security, military studies	0	1	0	1	1	2	3	0	1	0	5	3	1	2	3	23
	Economic-statistical	1,234	1,259	1,226	1,072	1,053	959	1,027	1,026	955	837	725	672	513	486	410	13,454
	Education	184	164	180	155	137	142	141	146	152	140	107	97	106	96	71	2,018
	Engineering	726	801	735	594	562	578	545	514	488	398	348	312	265	221	173	7,260
	Foreign languages	176	288	218	174	164	183	201	196	194	164	140	139	133	100	114	2,584
	Geo-biological	150	173	160	158	168	170	201	143	147	131	146	91	86	93	76	2,093
	Health professions	243	360	327	327	296	250	234	241	257	230	218	167	131	132	106	3,519
	Humanities	379	450	412	349	372	381	401	373	385	318	243	223	189	144	127	4,746
	Law	635	800	677	542	506	491	504	474	431	378	379	344	321	289	216	6,987
	Mathematics, physics, natural sciences	120	154	120	106	117	120	119	116	100	82	81	66	74	46	54	1,475
	Medicine and dentistry	44	68	84	108	110	111	145	142	140	108	115	100	108	94	127	1,604
	Pharmaceutical	65	62	96	116	141	133	164	153	142	137	133	130	130	97	79	1,778
	Physical education	44	49	66	55	96	78	76	80	76	77	74	60	56	48	34	969
	Politics, social sciences	694	913	866	763	725	609	596	605	537	467	343	315	263	226	230	8,152
	Psychological	150	190	226	213	195	191	170	140	148	143	112	119	96	94	69	2,256
	Veterinary	6	9	11	16	16	10	16	18	25	25	18	18	13	12	14	227
	Total	5,430	6,403	6,088	5,325	5,195	4,913	5,093	4,873	4,643	4,070	3,563	3,175	2,804	2,428	2,095	66,098
STEM / non-STEM	STEM	1,393	1,599	1,493	1,277	1,251	1,269	1,286	1,148	1,088	949	862	691	648	530	427	15,911
	non-STEM	4,037	4,804	4,595	4,048	3,944	3,644	3,807	3,725	3,555	3,121	2,701	2,484	2,156	1,898	1,668	50,187
	Total	5,430	6,403	6,088	5,325	5,195	4,913	5,093	4,873	4,643	4,070	3,563	3,175	2,804	2,428	2,095	66,098
Geographical area of the university	North	3,072	3,242	2,859	2,385	2,264	2,133	2,328	2,110	2,089	1,843	1,699	1,465	1,310	1,208	995	31,002
	Centre	950	1,588	1,577	1,350	1,431	1,396	1,403	1,373	1,255	1,049	864	794	718	551	508	16,807
	South	1,408	1,573	1,652	1,590	1,500	1,384	1,362	1,390	1,299	1,178	1,000	916	776	669	592	18,289
	Total	5,430	6,403	6,088	5,325	5,195	4,913	5,093	4,873	4,643	4,070	3,563	3,175	2,804	2,428	2,095	66,098
State / non state	State	5,191	6,105	5,815	5,088	4,969	4,708	4,885	4,669	4,392	3,858	3,369	3,004	2,657	2,286	1,965	62,961
	Non state	239	298	273	237	226	205	208	204	251	212	194	171	147	142	130	3,137
	Total	5,430	6,403	6,088	5,325	5,195	4,913	5,093	4,873	4,643	4,070	3,563	3,175	2,804	2,428	2,095	66,098

## Graduates 2004-2018

## Characteristics of graduates who have acquired an equity share in a company (joiners), by graduation year (absolute values)

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Totale
Size of university	Small (at most 10,000 students)	482	631	610	557	610	536	500	479	515	472	405	322	304	275	246	6,944
	Medium (10,000 and 20,000 students)	657	755	733	606	655	618	702	797	766	606	567	504	447	385	340	9,138
	Large (20,000-40,000 students)	1,743	1,884	1,843	1,726	1,653	1,566	1,511	1,423	1,339	1,215	1,028	956	829	738	641	20,095
	Mega (over 40,000 students)	2,548	3,133	2,902	2,436	2,277	2,193	2,380	2,174	2,023	1,777	1,563	1,393	1,224	1,030	868	29,921
	Total	5,430	6,403	6,088	5,325	5,195	4,913	5,093	4,873	4,643	4,070	3,563	3,175	2,804	2,428	2,095	66,098
Parents' education	Both parents with a degree	467	523	527	470	438	466	422	489	459	404	407	425	377	328	272	6,474
	Only one parent with a degree	831	871	901	787	724	761	717	767	746	668	581	605	559	483	464	10,465
	Parents do not hold a degree	2,699	3,176	2,969	2,683	2,638	2,559	2,360	2,423	2,292	2,066	1,784	1,732	1,646	1,446	1,218	33,691
	Total	3,997	4,570	4,397	3,940	3,800	3,786	3,499	3,679	3,497	3,138	2,772	2,762	2,582	2,257	1,954	50,630
Father's profession	Entrepreneur or self-employed	2,646	2,997	2,919	2,596	2,546	2,532	2,282	2,508	2,400	2,147	1,919	1,955	1,889	1,669	1,462	34,467
	Executive or Manager	548	581	515	500	445	472	376	393	350	301	257	236	186	130	123	5,413
	Office worker	470	560	535	468	460	433	389	397	373	318	283	259	242	217	164	5,568
	Factory worker	222	267	302	232	268	245	200	201	213	189	143	134	104	97	85	2,902
	Homemaker	0	0	19	17	12	14	16	16	17	7	5	10	9	5	8	155
	Total	3,886	4,405	4,290	3,813	3,731	3,696	3,263	3,515	3,353	2,962	2,607	2,594	2,430	2,118	1,842	48,505
Mother's profession	Entrepreneur or self-employed	1,232	1,407	1,329	1,251	1,152	1,211	1,115	1,160	1,093	1,023	887	922	874	802	675	16,133
	Executive or Manager	200	232	233	216	221	215	192	214	190	174	131	133	113	94	76	2,634
	Office worker	1,165	1,287	1,274	1,089	1,090	1,097	985	1,033	996	874	807	818	755	674	612	14,556
	Factory worker	202	241	198	195	214	185	162	159	194	156	136	96	82	80	66	2,366
	Homemaker	0	33	1,182	1,041	1,001	941	805	931	790	655	568	588	584	451	418	9,988
	Total	2,799	3,200	4,216	3,792	3,678	3,649	3,259	3,497	3,263	2,882	2,529	2,557	2,408	2,101	1,847	45,677
Geographical area of residence	North	2,820	2,923	2,502	2,119	2,035	1,958	2,214	2,011	1,992	1,744	1,608	1,369	1,194	1,120	943	28,552
	Centre	871	1,387	1,354	1,189	1,109	1,067	1,095	1,126	1,057	907	745	683	641	501	449	14,181
	South and isles	1,296	1,557	1,655	1,907	1,452	1,686	1,683	1,719	1,584	1,413	1,201	1,114	960	800	694	20,721
	Abroad	6	8	3	4	6	7	10	13	9	6	7	9	9	7	9	113
	Total	4,993	5,875	5,514	5,219	4,602	4,718	5,002	4,869	4,642	4,070	3,561	3,175	2,804	2,428	2,095	63,567
Region of the company founded with respect to the region of the University	Same region as the University	3,915	4,529	4,354	3,892	3,826	3,566	3,804	3,681	3,562	3,136	2,759	2,447	2,141	1,822	1,601	49,035
	Other region same geographical area	828	959	831	728	656	632	587	528	503	454	391	320	293	292	253	8,255
	Other geographical area	687	914	903	705	713	715	702	664	578	480	413	408	369	314	241	8,806
	Total	5,430	6,402	6,088	5,325	5,195	4,913	5,093	4,873	4,643	4,070	3,563	3,175	2,803	2,428	2,095	66,096
Number of companies founded	1	4,528	5,392	5,170	4,510	4,454	4,230	4,379	4,272	4,087	3,596	3,169	2,856	2,522	2,202	1,913	57,280
	2	696	754	694	635	557	534	557	463	458	388	325	253	230	179	140	6,863
	3 or more	206	257	224	180	184	149	157	138	98	86	69	66	52	47	42	1,955
	Total	5,430	6,403	6,088	5,325	5,195	4,913	5,093	4,873	4,643	4,070	3,563	3,175	2,804	2,428	2,095	66,098
Time of the foundation of the company with respect to the graduation time	Before starting university studies	409	604	703	667	642	672	781	871	924	825	806	765	750	729	744	10,892
	During university studies	1,169	1,438	1,451	1,293	1,302	1,252	1,408	1,400	1,367	1,386	1,326	1,237	1,246	1,175	1,094	19,544
	Within a year after graduation	191	315	323	257	281	303	345	346	394	318	300	318	295	288	243	4,517
	From 1 to 2 years after graduation	304	344	301	296	268	350	336	325	338	333	308	313	274	216	14	4,320
	From 2 to 3 years after graduation	245	296	321	293	328	317	320	369	344	320	304	282	219	20	0	3,978
	Over 3 years after graduation	3,112	3,406	2,989	2,519	2,374	2,019	1,903	1,562	1,276	888	519	260	20	0	0	22,847
Total	5,430	6,403	6,088	5,325	5,195	4,913	5,093	4,873	4,643	4,070	3,563	3,175	2,804	2,428	2,095	66,098	

Note: missing responses not reported

## Graduates 2004-2018

Characteristics of graduates who have acquired an equity share in a company (joiners), by graduation year (percentage values)

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Totale
Gender	Female	46.8	46.7	46.5	48.3	47.6	48.2	47.6	49.3	49.4	50.1	50.3	51.5	52.8	51.7	52.3	48.7
	Male	53.2	53.3	53.5	51.7	52.4	51.8	52.4	50.7	50.6	49.9	49.7	48.5	47.2	48.3	47.7	51.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Citizenship	Italian citizenship	99.4	99.4	99.2	99.1	99.0	99.1	99.0	99.1	98.9	99.0	99.2	99.1	99.2	99.0	99.3	99.1
	Foreign citizenship	0.6	0.6	0.8	0.9	1.0	0.9	1.0	0.9	1.1	1.0	0.8	0.9	0.8	1.0	0.7	0.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Degree programme	First level	24.1	33.6	44.6	49.8	54.6	56.0	56.5	57.2	59.4	62.1	64.4	65.9	64.9	67.3	70.0	52.5
	Second level	75.9	66.4	55.4	50.2	45.4	44.0	43.5	42.8	40.6	37.9	35.6	34.1	35.1	32.7	30.0	47.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Field of study	Agriculture	2.4	2.5	2.2	2.1	2.0	1.5	2.1	2.3	2.4	1.9	2.4	2.8	3.2	3.3	3.2	2.3
	Architecture	5.7	5.5	6.8	6.7	6.9	7.2	7.4	7.0	6.5	7.9	7.2	6.1	7.2	5.9	5.1	6.6
	Chemistry	2.6	2.4	2.2	2.0	1.3	1.6	1.4	1.1	1.0	0.9	1.0	1.1	1.0	1.1	0.9	1.6
	Defence, security, military studies	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0
	Economic-statistical	22.7	19.7	20.1	20.1	20.3	19.5	20.2	21.1	20.6	20.6	20.3	21.2	18.3	20.0	19.6	20.4
	Education	3.4	2.6	3.0	2.9	2.6	2.9	2.8	3.0	3.3	3.4	3.0	3.1	3.8	4.0	3.4	3.1
	Engineering	13.4	12.5	12.1	11.2	10.8	11.8	10.7	10.5	10.5	9.8	9.8	9.8	9.5	9.1	8.3	11.0
	Foreign languages	3.2	4.5	3.6	3.3	3.2	3.7	3.9	4.0	4.2	4.0	3.9	4.4	4.7	4.1	5.4	3.9
	Geo-biological	2.8	2.7	2.6	3.0	3.2	3.5	3.9	2.9	3.2	3.2	4.1	2.9	3.1	3.8	3.6	3.2
	Health professions	4.5	5.6	5.4	6.1	5.7	5.1	4.6	4.9	5.5	5.7	6.1	5.3	4.7	5.4	5.1	5.3
	Humanities	7.0	7.0	6.8	6.6	7.2	7.8	7.9	7.7	8.3	7.8	6.8	7.0	6.7	5.9	6.1	7.2
	Law	11.7	12.5	11.1	10.2	9.7	10.0	9.9	9.7	9.3	9.3	10.6	10.8	11.4	11.9	10.3	10.6
	Mathematics, physics, natural sciences	2.2	2.4	2.0	2.0	2.3	2.4	2.3	2.4	2.2	2.0	2.3	2.1	2.6	1.9	2.6	2.2
	Medicine and dentistry	0.8	1.1	1.4	2.0	2.1	2.3	2.8	2.9	3.0	3.0	3.2	3.1	3.9	3.9	6.1	2.4
	Pharmaceutical	1.2	1.0	1.6	2.2	2.7	2.7	3.2	3.1	3.1	3.4	3.7	4.1	4.6	4.0	3.8	2.7
	Physical education	0.8	0.8	1.1	1.0	1.8	1.6	1.5	1.6	1.6	1.9	2.1	1.9	2.0	2.0	1.6	1.5
	Politics, social sciences	12.8	14.3	14.2	14.3	14.0	12.4	11.7	12.4	11.6	11.5	9.6	9.9	9.4	9.3	11.0	12.3
	Psychological	2.8	3.0	3.7	4.0	3.8	3.9	3.3	2.9	3.2	3.5	3.1	3.7	3.4	3.9	3.3	3.4
	Veterinary	0.1	0.1	0.2	0.3	0.3	0.2	0.3	0.4	0.5	0.6	0.5	0.6	0.5	0.5	0.7	0.3
	Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
STEM / non-STEM	STEM	25.7	25.0	24.5	24.0	24.1	25.8	25.3	23.6	23.4	23.3	24.2	21.8	23.1	21.8	20.4	24.1
	non-STEM	74.3	75.0	75.5	76.0	75.9	74.2	74.7	76.4	76.6	76.7	75.8	78.2	76.9	78.2	79.6	75.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Geographical area of the university	North	56.6	50.6	47.0	44.8	43.6	43.4	45.7	43.3	45.0	45.3	47.7	46.1	46.7	49.8	47.5	46.9
	Centre	17.5	24.8	25.9	25.4	27.5	28.4	27.5	28.2	27.0	25.8	24.2	25.0	25.6	22.7	24.2	25.4
	South	25.9	24.6	27.1	29.9	28.9	28.2	26.7	28.5	28.0	28.9	28.1	28.9	27.7	27.6	28.3	27.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
State / non state	State	95.6	95.3	95.5	95.5	95.6	95.8	95.9	95.8	94.6	94.8	94.6	94.6	94.8	94.2	93.8	95.3
	Non state	4.4	4.7	4.5	4.5	4.4	4.2	4.1	4.2	5.4	5.2	5.4	5.4	5.2	5.8	6.2	4.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

## Graduates 2004-2018

## Characteristics of graduates who have acquired an equity share in a company (joiners), by graduation year (percentage values)

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Totale
Size of university	Small (at most 10,000 students)	8.9	9.9	10.0	10.5	11.7	10.9	9.8	9.8	11.1	11.6	11.4	10.1	10.8	11.3	11.7	10.5
	Medium (10,000 and 20,000 students)	12.1	11.8	12.0	11.4	12.6	12.6	13.8	16.4	16.5	14.9	15.9	15.9	15.9	15.9	16.2	13.8
	Large (20,000-40,000 students)	32.1	29.4	30.3	32.4	31.8	31.9	29.7	29.2	28.8	29.9	28.9	30.1	29.6	30.4	30.6	30.4
	Mega (over 40,000 students)	46.9	48.9	47.7	45.7	43.8	44.6	46.7	44.6	43.6	43.7	43.9	43.9	43.7	42.4	41.4	45.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Parents' education	Both parents with a degree	11.7	11.4	12.0	11.9	11.5	12.3	12.1	13.3	13.1	12.9	14.7	15.4	14.6	14.5	13.9	12.8
	Only one parent with a degree	20.8	19.1	20.5	20.0	19.1	20.1	20.5	20.8	21.3	21.3	21.0	21.9	21.6	21.4	23.7	20.7
	Parents do not hold a degree	67.5	69.5	67.5	68.1	69.4	67.6	67.4	65.9	65.5	65.8	64.4	62.7	63.7	64.1	62.3	66.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Father's profession	Entrepreneur or self-employed	68.1	68.0	68.0	68.1	68.2	68.5	69.9	71.4	71.6	72.5	73.6	75.4	77.7	78.8	79.4	71.1
	Executive or Manager	14.1	13.2	12.0	13.1	11.9	12.8	11.5	11.2	10.4	10.2	9.9	9.1	7.7	6.1	6.7	11.2
	Office worker	12.1	12.7	12.5	12.3	12.3	11.7	11.9	11.3	11.1	10.7	10.9	10.0	10.0	10.2	8.9	11.5
	Factory worker	5.7	6.1	7.0	6.1	7.2	6.6	6.1	5.7	6.4	6.4	5.5	5.2	4.3	4.6	4.6	6.0
	Homemaker	0.0	0.0	0.4	0.4	0.3	0.4	0.5	0.5	0.5	0.2	0.2	0.4	0.4	0.2	0.4	0.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mother's profession	Entrepreneur or self-employed	44.0	44.0	31.5	33.0	31.3	33.2	34.2	33.2	33.5	35.5	35.1	36.1	36.3	38.2	36.5	35.3
	Executive or Manager	7.1	7.3	5.5	5.7	6.0	5.9	5.9	6.1	5.8	6.0	5.2	5.2	4.7	4.5	4.1	5.8
	Office worker	41.6	40.2	30.2	28.7	29.6	30.1	30.2	29.5	30.5	30.3	31.9	32.0	31.4	32.1	33.1	31.9
	Factory worker	7.2	7.5	4.7	5.1	5.8	5.1	5.0	4.5	5.9	5.4	5.4	3.8	3.4	3.8	3.6	5.2
	Homemaker	0.0	1.0	28.0	27.5	27.2	25.8	24.7	26.6	24.2	22.7	22.5	23.0	24.3	21.5	22.6	21.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Geographical area of residence	North	56.5	49.8	45.4	40.6	44.2	41.5	44.3	41.3	42.9	42.9	45.2	43.1	42.6	46.1	45.0	44.9
	Centre	17.4	23.6	24.6	22.8	24.1	22.6	21.9	23.1	22.8	22.3	20.9	21.5	22.9	20.6	21.4	22.3
	South and isles	26.0	26.5	30.0	36.5	31.6	35.7	33.6	35.3	34.1	34.7	33.7	35.1	34.2	32.9	33.1	32.6
	Abroad	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.2	0.3	0.3	0.3	0.4	0.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Region of the company founded with respect to the region of the University	Same region as the University	72.1	70.7	71.5	73.1	73.6	72.6	74.7	75.5	76.7	77.1	77.4	77.1	76.4	75.0	76.4	74.2
	Other region same geographical area	15.2	15.0	13.6	13.7	12.6	12.9	11.5	10.8	10.8	11.2	11.0	10.1	10.5	12.0	12.1	12.5
	Other geographical area	12.7	14.3	14.8	13.2	13.7	14.6	13.8	13.6	12.4	11.8	11.6	12.9	13.2	12.9	11.5	13.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of companies founded	1	83.4	84.2	84.9	84.7	85.7	86.1	86.0	87.7	88.0	88.4	88.9	90.0	89.9	90.7	91.3	86.7
	2	12.8	11.8	11.4	11.9	10.7	10.9	10.9	9.5	9.9	9.5	9.1	8.0	8.2	7.4	6.7	10.4
	3 or more	3.8	4.0	3.7	3.4	3.5	3.0	3.1	2.8	2.1	2.1	1.9	2.1	1.9	1.9	2.0	3.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Time of the foundation of the company with respect to the graduation time	Before starting university studies	7.5	9.4	11.5	12.5	12.4	13.7	15.3	17.9	19.9	20.3	22.6	24.1	26.7	30.0	35.5	16.5
	During university studies	21.5	22.5	23.8	24.3	25.1	25.5	27.6	28.7	29.4	34.1	37.2	39.0	44.4	48.4	52.2	29.6
	Within a year after graduation	3.5	4.9	5.3	4.8	5.4	6.2	6.8	7.1	8.5	7.8	8.4	10.0	10.5	11.9	11.6	6.8
	From 1 to 2 years after graduation	5.6	5.4	4.9	5.6	5.2	7.1	6.6	6.7	7.3	8.2	8.6	9.9	9.8	8.9	0.7	6.5
	From 2 to 3 years after graduation	4.5	4.6	5.3	5.5	6.3	6.5	6.3	7.6	7.4	7.9	8.5	8.9	7.8	0.8	0.0	6.0
	Over 3 years after graduation	57.3	53.2	49.1	47.3	45.7	41.1	37.4	32.1	27.5	21.8	14.6	8.2	0.7	0.0	0.0	34.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

Note: statistics are calculated excluding missing responses

## Companies founded in Italy 1995-2019

## Characteristics of companies founded in Italy, by year of foundation (absolute values)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Legal form</b>	Sole proprietorship	220,956	359,896	1,119,470	270,642	251,608	252,828	262,698	258,889	243,495	271,862	260,761	260,635	271,392
	Corporations	46,242	42,285	44,637	49,720	57,242	66,270	81,621	82,547	75,459	80,447	85,664	88,419	92,265
	Partnerships	76,208	93,911	85,313	76,674	68,604	67,612	63,177	63,851	59,397	63,109	64,114	63,641	60,598
	Other legal forms	7,092	9,262	10,944	11,439	12,620	16,698	13,955	11,917	10,991	10,092	10,752	10,876	11,770
	<b>Total</b>	<b>350,498</b>	<b>505,354</b>	<b>1,260,364</b>	<b>408,475</b>	<b>390,074</b>	<b>403,408</b>	<b>421,451</b>	<b>417,204</b>	<b>389,342</b>	<b>425,510</b>	<b>421,291</b>	<b>423,571</b>	<b>436,025</b>
<b>Geographical area</b>	North											198,983	198,583	205,426
	Centre											90,559	91,545	95,715
	South											131,749	133,443	134,884
	<b>Total</b>											<b>421,291</b>	<b>423,571</b>	<b>436,025</b>
<b>Status of companies</b>	Ceased	298,191	268,339	351,030	368,023	313,345	316,632	331,713	347,074	317,553	335,145	341,014	373,217	440,332
	<b>Total</b>	<b>350,498</b>	<b>505,354</b>	<b>1,260,364</b>	<b>408,475</b>	<b>390,074</b>	<b>403,408</b>	<b>421,451</b>	<b>417,204</b>	<b>389,342</b>	<b>425,510</b>	<b>421,291</b>	<b>423,571</b>	<b>436,025</b>
<b>Economic sector</b>	Agricultural	5,016	168,779	939,242	90,501	49,583	37,706	40,481	39,122	35,664	36,541	33,017	31,539	29,548
	Secondary	52,636	43,528	45,685	47,653	50,892	51,038	53,634	57,170	56,619	61,799	63,062	68,209	75,477
	Service	278,644	279,876	262,300	258,119	278,029	304,305	316,056	309,793	285,833	315,881	314,089	312,736	319,069
	<b>Total</b>	<b>336,296</b>	<b>492,183</b>	<b>1,247,227</b>	<b>396,273</b>	<b>378,504</b>	<b>393,049</b>	<b>410,171</b>	<b>406,085</b>	<b>378,116</b>	<b>414,221</b>	<b>410,168</b>	<b>412,484</b>	<b>424,094</b>
<b>Economic sector (ATECO 2007)</b>	A. Agriculture, Forestry, and Fishing	3,725	166,452	937,056	89,295	49,097	37,068	39,685	38,353	34,973	36,051	32,535	30,971	28,921
	B. Extraction of Minerals from Quarries and Mines	1,291	2,327	2,186	1,206	486	638	796	769	691	490	482	568	627
	C. Manufacturing Activities	273	177	157	133	89	77	71	68	60	36	35	38	34
	D. Supply of Electric Energy, Gas, Steam, Air Conditioning	49,739	37,410	37,719	39,204	36,566	33,568	34,665	32,666	29,821	29,586	28,943	29,654	30,266
	E. Water Supply; Sewerage, Waste Management and Remediation Activities	244	177	157	112	99	79	86	110	119	71	92	127	201
	F. Construction	52,363	43,351	45,528	47,520	50,803	50,961	53,563	57,102	56,559	61,763	63,027	68,171	75,443
	G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	97,978	78,397	81,752	75,745	80,883	93,539	92,105	91,808	86,209	93,655	90,259	89,784	88,851
	H. Transport and Warehousing	20,687	17,223	17,864	17,221	15,322	13,119	13,252	14,571	14,186	13,870	14,522	15,264	16,528
	I. Accommodation and Catering Services	14,644	11,994	12,108	10,636	10,159	10,414	10,402	9,804	9,348	11,286	10,865	7,340	7,492
	J. Information and Communication Services	8,943	8,244	10,205	9,783	10,781	12,007	11,633	8,969	6,836	8,027	7,028	8,436	9,539
	K. Financial and Insurance Activities	33,838	54,604	30,589	30,321	31,094	31,385	33,590	30,902	30,206	31,162	31,439	32,460	33,595
	L. Real Estate Activities	980	1,121	1,093	1,027	1,062	1,081	1,162	1,081	974	1,046	994	909	973
	M. Professional, Scientific and Technical Activities	1,153	1,773	1,149	1,023	943	702	724	707	714	662	642	663	710
	N. Rental, Travel Agencies, Business Support Services	50,417	68,896	69,629	73,006	91,113	108,407	118,434	119,174	107,417	126,516	129,305	128,099	130,914
	O. Public Administration and Defence, Compulsory Social Insurance	21	37	35	41	7	4	3	1	3	0	0	0	0
	P. Education	0	0	0	0	0	0	0	0	0	0	0	0	0
	Q. Health and Social Care	0	0	0	0	0	0	0	0	0	0	0	0	0
R. Artistic, Sports, Entertainment and Leisure Activities	0	0	0	0	0	0	0	0	0	0	0	0	0	
S. Other Service Activities	0	0	0	0	0	0	0	0	0	0	0	0	0	
U. Extraterritorial Organizations and Bodies	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total</b>	<b>336,296</b>	<b>492,183</b>	<b>1,247,227</b>	<b>396,273</b>	<b>378,504</b>	<b>393,049</b>	<b>410,171</b>	<b>406,085</b>	<b>378,116</b>	<b>414,221</b>	<b>410,168</b>	<b>412,484</b>	<b>424,094</b>	
<b>Innovative start-ups</b>	Innovative start-ups													
	Corporations (not innovative)													
	<b>Total</b>													

\* The year 2019 includes the companies established up to September 2019 (when the observation ended)

Note: The data concerning Italian women-led companies refers to the entire population of women-led companies currently registered in the business register. The data per year are not available.

## Companies founded in Italy 1995-2019

## Characteristics of companies founded in Italy, by year of foundation (absolute values)

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*	Totale
<b>Legal form</b>	Sole proprietorship	256,970	241,293	261,430	253,522	254,194	244,925	235,985	232,367	225,367	211,940	203,871	216,780	7,143,776
	Corporations	88,781	83,989	88,323	80,744	76,337	83,972	92,376	100,562	102,664	111,313	114,939	110,049	2,026,867
	Partnerships	52,926	48,793	49,267	45,187	40,880	34,212	30,810	27,895	25,843	23,990	21,961	19,513	1,327,486
	Other legal forms	11,989	11,437	11,716	11,857	12,472	21,374	11,807	10,880	9,614	9,632	7,721	6,710	285,617
	<b>Total</b>	<b>410,666</b>	<b>385,512</b>	<b>410,736</b>	<b>391,310</b>	<b>383,883</b>	<b>384,483</b>	<b>370,978</b>	<b>371,704</b>	<b>363,488</b>	<b>356,875</b>	<b>348,492</b>	<b>353,052</b>	<b>10,783,746</b>
<b>Geographical area</b>	North	191,013	176,545	187,350	176,410	170,389	170,757	162,033	162,268	157,965	153,755	152,358	158,030	2,621,865
	Centre	90,857	85,538	90,752	85,719	85,818	86,507	83,526	84,503	81,046	79,993	76,774	77,785	1,286,637
	South	128,796	123,429	132,634	129,181	127,676	127,219	125,420	124,934	124,477	123,127	119,360	117,237	1,903,566
	<b>Total</b>	<b>410,666</b>	<b>385,512</b>	<b>410,736</b>	<b>391,310</b>	<b>383,883</b>	<b>384,483</b>	<b>370,979</b>	<b>371,705</b>	<b>363,488</b>	<b>356,875</b>	<b>348,492</b>	<b>353,052</b>	<b>5,812,068</b>
<b>Status of companies</b>	Ceased	432,086	406,751	389,076	393,463	403,923	414,970	383,690	357,379	349,143	341,740	340,715	362,218	8,976,762
	<b>Total</b>	<b>410,666</b>	<b>385,512</b>	<b>410,736</b>	<b>391,310</b>	<b>383,883</b>	<b>384,483</b>	<b>370,978</b>	<b>371,704</b>	<b>363,488</b>	<b>356,875</b>	<b>348,492</b>	<b>353,052</b>	<b>10,783,746</b>
<b>Economic sector</b>	Agricultural	30,789	27,207	28,132	25,205	25,642	22,605	21,128	23,717	29,700	29,743	27,827	23,353	1,851,787
	Secondary	65,029	76,246	74,702	68,629	63,709	56,986	54,472	53,962	50,386	50,362	50,593	56,569	1,449,047
	Service	302,524	171,081	164,694	146,154	150,004	162,766	153,198	152,589	145,175	135,657	133,410	138,387	5,790,369
	<b>Total</b>	<b>398,342</b>	<b>274,534</b>	<b>267,528</b>	<b>239,988</b>	<b>239,355</b>	<b>242,357</b>	<b>228,798</b>	<b>230,268</b>	<b>225,261</b>	<b>215,762</b>	<b>211,830</b>	<b>218,309</b>	<b>9,091,203</b>
<b>Economic sector (ATECO 2007)</b>	A. Agriculture, Forestry, and Fishing	30,215	27,181	28,115	25,186	25,616	22,582	21,108	23,690	29,686	29,721	27,810	23,338	1,838,430
	B. Extraction of Minerals from Quarries and Mines	574	26	17	19	26	23	20	27	14	22	17	15	13,357
	C. Manufacturing Activities	26	21,443	21,000	19,570	18,953	17,988	17,068	17,465	16,263	16,020	15,909	16,576	199,529
	D. Supply of Electric Energy, Gas, Steam, Air Conditioning	28,783	279	483	544	649	405	420	466	357	363	347	390	483,293
	E. Water Supply; Sewerage, Waste Management and Remediation Activities	270	162	144	144	123	187	160	157	123	103	109	101	3,457
	F. Construction	65,003	54,803	53,702	49,059	44,756	38,998	37,404	36,497	34,123	34,342	34,684	39,993	1,249,518
	G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	82,350	84,286	80,918	71,792	71,286	77,912	73,154	71,901	65,665	57,942	55,323	55,645	1,989,139
	H. Transport and Warehousing	16,133	5,458	4,712	3,732	4,272	3,383	3,222	3,124	3,008	2,919	2,749	2,997	259,338
	I. Accommodation and Catering Services	6,926	22,090	19,900	16,797	17,535	18,842	18,575	17,729	17,692	16,129	15,704	16,019	340,430
	J. Information and Communication Services	7,915	6,822	6,791	6,463	6,772	6,510	6,925	7,096	6,584	6,605	6,996	7,086	202,996
	K. Financial and Insurance Activities	32,622	7,167	6,843	6,105	6,412	9,398	7,429	6,947	7,541	6,780	6,615	7,167	546,211
	L. Real Estate Activities	1,038	6,276	5,860	5,380	4,846	7,830	3,853	4,084	4,489	4,616	4,909	5,299	71,983
	M. Professional, Scientific and Technical Activities	700	10,825	11,748	10,968	11,721	10,717	10,250	10,874	10,926	11,640	12,189	13,772	137,895
	N. Rental, Travel Agencies, Business Support Services	125,787	10,775	10,493	10,053	11,689	12,790	14,184	14,419	13,243	13,078	12,946	13,527	1,584,311
	O. Public Administration and Defence, Compulsory Social Insurance	0	0	0	0	0	0	3	6	4	3	1	1	170
	P. Education	0	1,169	1,106	1,107	1,073	994	1,066	1,127	1,173	1,162	1,336	1,310	12,623
	Q. Health and Social Care	0	788	696	600	663	768	981	900	884	903	911	864	8,958
R. Artistic, Sports, Entertainment and Leisure Activities	0	3,794	3,533	3,215	3,444	3,278	2,992	3,005	3,038	2,864	2,676	2,846	34,685	
S. Other Service Activities	0	11,190	11,467	9,253	9,519	9,747	9,979	10,750	10,442	10,541	10,595	11,361	114,844	
U. Extraterritorial Organizations and Bodies	0	0	0	1	0	5	5	4	6	9	4	2	36	
<b>Total</b>	<b>398,342</b>	<b>274,534</b>	<b>267,528</b>	<b>239,988</b>	<b>239,355</b>	<b>242,357</b>	<b>228,798</b>	<b>230,268</b>	<b>225,261</b>	<b>215,762</b>	<b>211,830</b>	<b>218,309</b>	<b>9,091,203</b>	
<b>Innovative start-ups</b>	Innovative start-ups						54	483	1,200	1,556	2,452	2,799	2,002	10,546
	Corporations (not innovative)						83,918	91,893	99,362	101,108	108,861	112,140	108,047	2,016,321
	<b>Total</b>						<b>83,972</b>	<b>92,376</b>	<b>100,562</b>	<b>102,664</b>	<b>111,313</b>	<b>114,939</b>	<b>110,049</b>	<b>2,026,867</b>

\* The year 2019 includes the companies established up to September 2019 (when the observation ends)

Note: The data concerning Italian women-led companies refers to the entire population of women-led

## Companies founded in Italy 1995-2019

## Characteristics of companies founded in Italy, by year of foundation (percentage values)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Legal form</b>	Sole proprietorship	63.0	71.2	88.8	66.3	64.5	62.7	62.3	62.1	62.5	63.9	61.9	61.5	62.2
	Corporations	13.2	8.4	3.5	12.2	14.7	16.4	19.4	19.8	19.4	18.9	20.3	20.9	21.2
	Partnerships	21.7	18.6	6.8	18.8	17.6	16.8	15.0	15.3	15.3	14.8	15.2	15.0	13.9
	Other legal forms	2.0	1.8	0.9	2.8	3.2	4.1	3.3	2.9	2.8	2.4	2.6	2.6	2.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Geographical area</b>	North											47.2	46.9	47.1
	Centre											21.5	21.6	22.0
	South											31.3	31.5	30.9
	Total											100.0	100.0	100.0
<b>Status of companies</b>	Ceased	85.1	53.1	27.9	90.1	80.3	78.5	78.7	83.2	81.6	78.8	80.9	88.1	101.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Economic sector</b>	Agricultural	1.5	34.3	75.3	22.8	13.1	9.6	9.9	9.6	9.4	8.8	8.1	7.7	7.0
	Secondary	15.7	8.8	3.7	12.0	13.5	13.0	13.1	14.1	15.0	14.9	15.4	16.5	17.8
	Service	82.9	56.9	21.0	65.1	73.5	77.4	77.1	76.3	75.6	76.3	76.6	75.8	75.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Economic sector (ATECO 2007)</b>	A. Agriculture, Forestry, and Fishing	1.1	33.8	75.1	22.5	13.0	9.4	9.7	9.4	9.3	8.7	7.9	7.5	6.8
	B. Extraction of Minerals from Quarries and Mines	0.4	0.5	0.2	0.3	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2
	C. Manufacturing Activities	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	D. Supply of Electric Energy, Gas, Steam, Air Conditioning	14.8	7.6	3.0	9.9	9.7	8.5	8.5	8.0	7.9	7.1	7.1	7.2	7.1
	E. Water Supply; Sewerage, Waste Management and Remediation Activities	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	F. Construction	15.6	8.8	3.7	12.0	13.4	13.0	13.1	14.1	15.0	14.9	15.4	16.5	17.8
	G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	29.1	15.9	6.6	19.1	21.4	23.8	22.5	22.6	22.8	22.6	22.0	21.8	21.0
	H. Transport and Warehousing	6.2	3.5	1.4	4.4	4.1	3.3	3.2	3.6	3.8	3.4	3.5	3.7	3.9
	I. Accommodation and Catering Services	4.4	2.4	1.0	2.7	2.7	2.7	2.5	2.4	2.5	2.7	2.7	1.8	1.8
	J. Information and Communication Services	2.7	1.7	0.8	2.5	2.9	3.1	2.8	2.2	1.8	1.9	1.7	2.1	2.3
	K. Financial and Insurance Activities	10.1	11.1	2.5	7.7	8.2	8.0	8.2	7.6	8.0	7.5	7.7	7.9	7.9
	L. Real Estate Activities	0.3	0.2	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
	M. Professional, Scientific and Technical Activities	0.3	0.4	0.1	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	N. Rental, Travel Agencies, Business Support Services	15.0	14.0	5.6	18.4	24.1	27.6	28.9	29.4	28.4	30.5	31.5	31.1	30.9
	O. Public Administration and Defence, Compulsory Social Insurance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	P. Education	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Q. Health and Social Care	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	R. Artistic, Sports, Entertainment and Leisure Activities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	S. Other Service Activities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	U. Extraterritorial Organizations and Bodies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Innovative start-ups</b>	Innovative start-ups													
	Corporations (not innovative)													
	Total													

\* The year 2019 includes the companies established up to September 2019 (when the observation ended)

Note: The data concerning Italian women-led companies refers to the entire population of women-led companies currently registered in the business register. The data per year are not available.

## Companies founded in Italy 1995-2019

## Characteristics of companies founded in Italy, by year of foundation (percentage values)

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*	Totale
<b>Legal form</b>	Sole proprietorship	62.6	62.6	63.7	64.8	66.2	63.7	63.6	62.5	62.0	59.4	58.5	61.4	66.2
	Corporations	21.6	21.8	21.5	20.6	19.9	21.8	24.9	27.1	28.2	31.2	33.0	31.2	18.8
	Partnerships	12.9	12.7	12.0	11.6	10.7	8.9	8.3	7.5	7.1	6.7	6.3	5.5	12.3
	Other legal forms	2.9	3.0	2.9	3.0	3.3	5.6	3.2	2.9	2.6	2.7	2.2	1.9	2.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Geographical area</b>	North	46.5	45.8	45.6	45.1	44.4	44.4	43.7	43.7	43.5	43.1	43.7	44.8	45.1
	Centre	22.1	22.2	22.1	21.9	22.4	22.5	22.5	22.7	22.3	22.4	22.0	22.0	22.1
	South	31.4	32.0	32.3	33.0	33.3	33.1	33.8	33.6	34.2	34.5	34.3	33.2	32.8
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Status of companies</b>	Ceased	105.2	105.5	94.7	100.6	105.2	107.9	103.4	96.1	96.1	95.8	97.8	102.6	83.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Economic sector</b>	Agricultural	7.7	9.9	10.5	10.5	10.7	9.3	9.2	10.3	13.2	13.8	13.1	10.7	20.4
	Secondary	16.3	27.8	27.9	28.6	26.6	23.5	23.8	23.4	22.4	23.3	23.9	25.9	15.9
	Service	76.0	62.3	61.6	60.9	62.7	67.2	67.0	66.3	64.5	62.9	63.0	63.4	63.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Economic sector (ATECO 2007)</b>	A. Agriculture, Forestry, and Fishing	7.6	9.9	10.5	10.5	10.7	9.3	9.2	10.3	13.2	13.8	13.1	10.7	20.2
	B. Extraction of Minerals from Quarries and Mines	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
	C. Manufacturing Activities	0.0	7.8	7.9	8.2	7.9	7.4	7.5	7.6	7.2	7.4	7.5	7.6	2.2
	D. Supply of Electric Energy, Gas, Steam, Air Conditioning	7.2	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	5.3
	E. Water Supply; Sewerage, Waste Management and Remediation Activities	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
	F. Construction	16.3	20.0	20.1	20.4	18.7	16.1	16.4	15.9	15.2	15.9	16.4	18.3	13.7
	G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	20.7	30.7	30.3	29.9	29.8	32.2	32.0	31.2	29.2	26.9	26.1	25.5	21.9
	H. Transport and Warehousing	4.1	2.0	1.8	1.6	1.8	1.4	1.4	1.4	1.3	1.4	1.3	1.4	2.9
	I. Accommodation and Catering Services	1.7	8.1	7.4	7.0	7.3	7.8	8.1	7.7	7.9	7.5	7.4	7.3	3.7
	J. Information and Communication Services	2.0	2.5	2.5	2.7	2.8	2.7	3.0	3.1	2.9	3.1	3.3	3.3	2.2
	K. Financial and Insurance Activities	8.2	2.6	2.6	2.5	2.7	3.9	3.3	3.0	3.4	3.1	3.1	3.3	6.0
	L. Real Estate Activities	0.3	2.3	2.2	2.2	2.0	3.2	1.7	1.8	2.0	2.1	2.3	2.4	0.8
	M. Professional, Scientific and Technical Activities	0.2	3.9	4.4	4.6	4.9	4.4	4.5	4.7	4.9	5.4	5.8	6.3	1.5
	N. Rental, Travel Agencies, Business Support Services	31.6	3.9	3.9	4.2	4.9	5.3	6.2	6.3	5.9	6.1	6.1	6.2	17.4
	O. Public Administration and Defence, Compulsory Social Insurance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	P. Education	0.0	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.1
	Q. Health and Social Care	0.0	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.1
	R. Artistic, Sports, Entertainment and Leisure Activities	0.0	1.4	1.3	1.3	1.4	1.4	1.3	1.3	1.4	1.3	1.3	1.3	0.4
	S. Other Service Activities	0.0	4.1	4.3	3.9	4.0	4.0	4.4	4.7	4.6	4.9	5.0	5.2	1.3
	U. Extraterritorial Organizations and Bodies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
<b>Innovative start-ups</b>	Innovative start-ups						0.1	0.5	1.2	1.5	2.2	2.4	1.8	0.5
	Corporations (not innovative)						99.9	99.5	98.8	98.5	97.8	97.6	98.2	99.5
	Total						100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

\* The year 2019 includes the companies established up to September 2019 (when the observation ended)

Note: The data concerning Italian women-led companies refers to the entire population of women-led con

## Companies founded 1995-2019

## Characteristics of companies founded by graduates, by year of foundation (absolute values)

		1995*	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Legal form</b>	Sole proprietorship	5,722	1,413	1,654	1,739	2,072	2,444	3,085	2,907	2,680	3,412	3,699	4,974	5,014
	Corporations	170	121	181	229	299	406	528	572	614	784	933	1,218	1,449
	Partnerships	1,257	480	643	723	863	1,081	1,072	1,064	1,062	1,317	1,574	1,752	1,764
	Other legal forms	1	2	10	5	5	0	0	1	1	1	4	1	2
	<b>Total</b>	<b>7,150</b>	<b>2,016</b>	<b>2,488</b>	<b>2,696</b>	<b>3,239</b>	<b>3,931</b>	<b>4,685</b>	<b>4,544</b>	<b>4,357</b>	<b>5,514</b>	<b>6,210</b>	<b>7,945</b>	<b>8,229</b>
<b>Geographical area</b>	North	2,442	758	856	930	1,108	1,301	1,470	1,342	1,392	1,816	2,241	2,758	3,177
	Centre	1,560	413	509	573	668	875	992	946	980	1,061	1,283	1,454	1,765
	South	3,148	845	1,123	1,193	1,463	1,755	2,223	2,256	1,985	2,637	2,686	3,733	3,287
	<b>Total</b>	<b>7,150</b>	<b>2,016</b>	<b>2,488</b>	<b>2,696</b>	<b>3,239</b>	<b>3,931</b>	<b>4,685</b>	<b>4,544</b>	<b>4,357</b>	<b>5,514</b>	<b>6,210</b>	<b>7,945</b>	<b>8,229</b>
<b>Status of companies</b>	Registered	1,330	350	503	598	801	965	1,221	1,286	1,394	1,822	2,064	2,803	3,037
	Ceased	5,775	1,660	1,979	2,096	2,437	2,963	3,456	3,253	2,958	3,685	4,140	5,133	5,184
	<b>Total</b>	<b>7,105</b>	<b>2,010</b>	<b>2,482</b>	<b>2,694</b>	<b>3,238</b>	<b>3,928</b>	<b>4,677</b>	<b>4,539</b>	<b>4,352</b>	<b>5,507</b>	<b>6,204</b>	<b>7,936</b>	<b>8,221</b>
<b>Economic sector</b>	Agricultural	668	223	384	307	408	484	765	820	837	968	799	1,260	551
	Secondary	1,116	252	309	348	377	458	486	463	450	568	655	757	899
	Service	4,575	1,426	1,644	1,833	2,204	2,696	3,127	2,923	2,723	3,563	4,301	5,417	6,272
	<b>Total</b>	<b>6,359</b>	<b>1,901</b>	<b>2,337</b>	<b>2,488</b>	<b>2,989</b>	<b>3,638</b>	<b>4,378</b>	<b>4,206</b>	<b>4,010</b>	<b>5,099</b>	<b>5,755</b>	<b>7,434</b>	<b>7,722</b>
<b>Economic sector (ATECO 2007)</b>	A. Agriculture, Forestry, and Fishing	667	223	384	306	408	483	765	820	836	967	798	1,260	550
	B. Extraction of Minerals from Quarries and Mines	1	0	0	1	0	1	0	0	1	1	1	0	1
	C. Manufacturing Activities	799	170	205	220	224	291	272	242	239	275	292	311	410
	D. Supply of Electric Energy, Gas, Steam, Air Conditioning	4	0	0	0	3	2	3	0	1	1	5	2	17
	E. Water Supply; Sewerage, Waste Management and Remediation Activities	10	1	2	4	1	6	8	1	3	5	3	2	3
	F. Construction	317	82	104	128	153	167	214	221	211	293	363	446	489
	G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	2,221	609	716	683	857	984	1,134	1,186	1,037	1,310	1,591	1,962	2,407
	H. Transport and Warehousing	72	22	31	30	36	44	44	41	39	42	63	71	96
	I. Accommodation and Catering Services	294	110	138	180	199	211	256	269	292	344	452	484	499
	J. Information and Communication Services	306	127	124	157	154	268	318	252	245	289	295	419	473
	K. Financial and Insurance Activities	351	117	161	205	294	340	400	301	235	347	474	789	913
	L. Real Estate Activities	260	77	78	103	160	188	219	197	238	298	351	401	405
	M. Professional, Scientific and Technical Activities	298	123	127	179	179	255	296	256	252	368	458	585	661
	N. Rental, Travel Agencies, Business Support Services	224	69	88	107	118	141	187	161	154	239	286	308	336
	O. Public Administration and Defence, Compulsory Social Insurance	2	0	1	2	0	1	0	0	0	0	0	0	0
	P. Education	61	19	26	29	24	24	45	41	30	46	55	67	80
	Q. Health and Social Care	130	75	44	22	36	51	54	60	44	69	76	90	109
	R. Artistic, Sports, Entertainment and Leisure Activities	138	30	49	65	75	86	95	81	76	120	115	144	156
	S. Other Service Activities	204	47	59	66	68	95	68	77	77	85	77	93	117
U. Extraterritorial Organizations and Bodies	0	0	0	1	0	0	0	0	0	0	0	0	0	
<b>Total</b>	<b>6,359</b>	<b>1,901</b>	<b>2,337</b>	<b>2,488</b>	<b>2,989</b>	<b>3,638</b>	<b>4,378</b>	<b>4,206</b>	<b>4,010</b>	<b>5,099</b>	<b>5,755</b>	<b>7,434</b>	<b>7,722</b>	
<b>Women-led companies</b>	Women-led companies	2,841	874	1,067	1,127	1,360	1,655	2,001	1,927	1,867	2,317	2,635	3,234	3,253
	Not women-led companies	4,309	1,142	1,421	1,569	1,879	2,276	2,684	2,617	2,490	3,197	3,575	4,711	4,976
	<b>Total</b>	<b>7,150</b>	<b>2,016</b>	<b>2,488</b>	<b>2,696</b>	<b>3,239</b>	<b>3,931</b>	<b>4,685</b>	<b>4,544</b>	<b>4,357</b>	<b>5,514</b>	<b>6,210</b>	<b>7,945</b>	<b>8,229</b>
<b>Innovative start-ups</b>	Innovative start-ups													
	Corporations (not innovative)													
	<b>Total</b>													
<b>Companies founded by graduates who returned to their area of residence</b>	Companies founded by graduates who returned to their area of residence	911	244	284	302	365	445	534	542	474	596	625	820	784
	Companies founded by graduates who have not returned to their area of residence	6,239	1,772	2,204	2,394	2,874	3,486	4,151	4,002	3,883	4,918	5,585	7,125	7,445
	<b>Total</b>	<b>7,150</b>	<b>2,016</b>	<b>2,488</b>	<b>2,696</b>	<b>3,239</b>	<b>3,931</b>	<b>4,685</b>	<b>4,544</b>	<b>4,357</b>	<b>5,514</b>	<b>6,210</b>	<b>7,945</b>	<b>8,229</b>

Note: missing responses not reported

\* The year 1995 includes companies founded in 1995 and in previous years.

\*\* The year 2019 includes the companies established up to September 2019 (when the observation ended)

## Companies founded 1995-2019

## Characteristics of companies founded by graduates, by year of foundation (absolute values)

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019**	Totale
<b>Legal form</b>	Sole proprietorship	5,821	6,042	7,594	7,926	9,349	9,848	9,824	9,383	10,486	10,519	10,098	4,506	142,211
	Corporations	1,707	1,927	2,668	2,871	3,807	4,853	5,116	5,481	5,905	6,706	6,772	3,183	58,500
	Partnerships	1,754	1,850	2,201	2,219	2,109	1,914	1,971	1,758	1,696	1,532	1,387	502	35,545
	Other legal forms	3	2	4	6	6	7	12	7	13	8	2	3	106
	<b>Total</b>	<b>9,285</b>	<b>9,821</b>	<b>12,467</b>	<b>13,022</b>	<b>15,271</b>	<b>16,622</b>	<b>16,923</b>	<b>16,629</b>	<b>18,100</b>	<b>18,765</b>	<b>18,259</b>	<b>8,194</b>	<b>236,362</b>
<b>Geographical area</b>	North	3,599	3,643	4,498	4,801	5,869	6,405	6,745	6,490	7,088	7,084	7,164	3,532	88,509
	Centre	2,033	2,112	2,599	2,728	3,326	3,835	3,702	3,735	4,146	4,218	4,051	1,772	51,336
	South	3,653	4,066	5,370	5,493	6,076	6,382	6,476	6,404	6,866	7,463	7,044	2,890	96,517
	<b>Total</b>	<b>9,285</b>	<b>9,821</b>	<b>12,467</b>	<b>13,022</b>	<b>15,271</b>	<b>16,622</b>	<b>16,923</b>	<b>16,629</b>	<b>18,100</b>	<b>18,765</b>	<b>18,259</b>	<b>8,194</b>	<b>236,362</b>
<b>Status of companies</b>	Registered	3,865	4,406	5,922	6,520	8,076	9,322	10,559	11,436	13,657	15,509	16,579	7,958	131,983
	Ceased	5,405	5,391	6,520	6,473	7,157	7,263	6,332	5,140	4,387	3,199	1,609	207	103,802
	<b>Total</b>	<b>9,270</b>	<b>9,797</b>	<b>12,442</b>	<b>12,993</b>	<b>15,233</b>	<b>16,585</b>	<b>16,891</b>	<b>16,576</b>	<b>18,044</b>	<b>18,708</b>	<b>18,188</b>	<b>8,165</b>	<b>235,785</b>
<b>Economic sector</b>	Agricultural	1,010	1,118	1,555	1,306	1,286	1,047	922	1,271	2,156	2,166	1,969	586	24,866
	Secondary	857	843	1,123	1,093	1,296	1,334	1,365	1,261	1,199	1,178	1,057	447	20,191
	Service	6,855	7,176	8,751	9,407	11,225	12,818	13,199	12,628	13,224	13,456	12,876	5,249	169,568
	<b>Total</b>	<b>8,722</b>	<b>9,137</b>	<b>11,429</b>	<b>11,806</b>	<b>13,807</b>	<b>15,199</b>	<b>15,486</b>	<b>15,160</b>	<b>16,579</b>	<b>16,800</b>	<b>15,902</b>	<b>6,282</b>	<b>214,625</b>
<b>Economic sector (ATECO 2007)</b>	A. Agriculture, Forestry, and Fishing	1,008	1,118	1,555	1,305	1,284	1,045	922	1,269	2,155	2,163	1,968	586	24,845
	B. Extraction of Minerals from Quarries and Mines	2	0	0	1	2	2	0	2	1	3	1	0	21
	C. Manufacturing Activities	403	379	526	547	712	737	782	723	684	699	608	269	11,019
	D. Supply of Electric Energy, Gas, Steam, Air Conditioning	25	23	64	73	71	41	53	47	37	33	24	9	538
	E. Water Supply; Sewerage, Waste Management and Remediation Activities	1	13	8	23	15	11	18	17	14	7	9	2	187
	F. Construction	454	464	597	546	584	597	583	538	515	479	449	178	9,172
	G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	2,507	2,722	3,250	3,710	4,304	4,843	4,868	4,683	4,709	4,433	4,048	1,601	62,375
	H. Transport and Warehousing	82	82	126	131	181	182	166	164	145	152	146	55	2,243
	I. Accommodation and Catering Services	572	632	778	854	1,072	1,218	1,290	1,298	1,434	1,423	1,302	468	16,069
	J. Information and Communication Services	525	587	737	726	1,005	1,042	1,211	1,150	1,163	1,270	1,317	587	14,747
	K. Financial and Insurance Activities	912	835	916	1,016	1,104	1,755	1,530	1,323	1,522	1,461	1,382	483	19,166
	L. Real Estate Activities	394	361	420	447	440	366	403	364	458	539	521	266	7,954
	M. Professional, Scientific and Technical Activities	901	926	1,152	1,114	1,460	1,461	1,645	1,601	1,730	1,958	2,094	943	21,022
	N. Rental, Travel Agencies, Business Support Services	409	422	492	519	623	801	908	802	832	905	835	379	10,345
	O. Public Administration and Defence, Compulsory Social Insurance	0	0	0	0	0	0	2	1	0	0	0	0	9
	P. Education	74	100	147	131	158	172	186	212	200	222	265	106	2,520
	Q. Health and Social Care	129	132	182	189	202	241	275	289	268	298	292	72	3,429
R. Artistic, Sports, Entertainment and Leisure Activities	174	199	250	256	339	373	343	379	385	402	310	142	4,782	
S. Other Service Activities	150	142	229	218	251	312	301	298	327	353	331	136	4,181	
U. Extraterritorial Organizations and Bodies	0	0	0	0	0	0	0	0	0	0	0	0	1	
<b>Total</b>	<b>7,722</b>	<b>8,722</b>	<b>9,137</b>	<b>11,429</b>	<b>11,806</b>	<b>13,807</b>	<b>15,486</b>	<b>15,160</b>	<b>16,579</b>	<b>16,800</b>	<b>15,902</b>	<b>6,282</b>	<b>214,625</b>	
<b>Women-led companies</b>	Women-led companies	3,610	3,773	4,844	5,093	5,815	6,300	6,258	5,995	6,553	6,588	6,312	2,618	89,917
	Not women-led companies	5,675	6,048	7,623	7,929	9,456	10,322	10,665	10,634	11,547	12,177	11,947	5,576	146,445
	<b>Total</b>	<b>9,285</b>	<b>9,821</b>	<b>12,467</b>	<b>13,022</b>	<b>15,271</b>	<b>16,622</b>	<b>16,923</b>	<b>16,629</b>	<b>18,100</b>	<b>18,765</b>	<b>18,259</b>	<b>8,194</b>	<b>236,362</b>
<b>Innovative start-ups</b>	Innovative start-ups						23	174	303	368	510	554	195	2,127
	Corporations (not innovative)						4,830	4,942	5,178	5,537	6,196	6,218	2,988	35,889
	<b>Total</b>						<b>4,853</b>	<b>5,116</b>	<b>5,481</b>	<b>5,905</b>	<b>6,706</b>	<b>6,772</b>	<b>3,183</b>	<b>38,016</b>
<b>Companies founded by graduates who returned to their area of residence</b>	Companies founded by graduates who returned to their area of residence	868	1,037	1,327	1,303	1,519	1,574	1,656	1,599	1,825	1,984	1,794	745	24,157
	Companies founded by graduates who have not returned to their area of residence	8,417	8,784	11,140	11,719	13,752	15,048	15,267	15,030	16,275	16,781	16,465	7,449	212,205
	<b>Total</b>	<b>9,285</b>	<b>9,821</b>	<b>12,467</b>	<b>13,022</b>	<b>15,271</b>	<b>16,622</b>	<b>16,923</b>	<b>16,629</b>	<b>18,100</b>	<b>18,765</b>	<b>18,259</b>	<b>8,194</b>	<b>236,362</b>

Note: missing responses not reported

\* The year 1995 includes companies founded in 1995 and in previous years.

\*\* The year 2019 includes the companies established up to September 2019 (when the observation ended)

## Companies founded 1995-2019

## Characteristics of companies founded by graduates, by year of foundation (percentage values)

		1995*	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Legal form</b>	Sole proprietorship	80.0	70.1	66.5	64.5	64.0	62.2	65.8	64.0	61.5	61.9	59.6	62.6	60.9
	Corporations	2.4	6.0	7.3	8.5	9.2	10.3	11.3	12.6	14.1	14.2	15.0	15.3	17.6
	Partnerships	17.6	23.8	25.8	26.8	26.6	27.5	22.9	23.4	24.4	23.9	25.3	22.1	21.4
	Other legal forms	0.0	0.1	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Geographical area</b>	North	34.2	37.6	34.4	34.5	34.2	33.1	31.4	29.5	31.9	32.9	36.1	34.7	38.6
	Centre	21.8	20.5	20.5	21.3	20.6	22.3	21.2	20.8	22.5	19.2	20.7	18.3	21.4
	South	44.0	41.9	45.1	44.3	45.2	44.6	47.4	49.6	45.6	47.8	43.3	47.0	39.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Status of companies</b>	Registered	18.7	17.4	20.3	22.2	24.7	24.6	26.1	28.3	32.0	33.1	33.3	35.3	36.9
	Ceased	81.3	82.6	79.7	77.8	75.3	75.4	73.9	71.7	68.0	66.9	66.7	64.7	63.1
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Economic sector</b>	Agricultural	10.5	11.7	16.4	12.3	13.7	13.3	17.5	19.5	20.9	19.0	13.9	16.9	7.1
	Secondary	17.5	13.3	13.2	14.0	12.6	12.6	11.1	11.0	11.2	11.1	11.4	10.2	11.6
	Service	71.9	75.0	70.3	73.7	73.7	74.1	71.4	69.5	67.9	69.9	74.7	72.9	81.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Economic sector (ATECO 2007)</b>	A. Agriculture, Forestry, and Fishing	10.5	11.7	16.4	12.3	13.7	13.3	17.5	19.5	20.8	0.5	15.7	21.9	7.4
	B. Extraction of Minerals from Quarries and Mines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	C. Manufacturing Activities	12.6	8.9	8.8	8.8	7.5	8.0	6.2	5.8	6.0	0.1	5.7	5.4	5.5
	D. Supply of Electric Energy, Gas, Steam, Air Conditioning	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.2
	E. Water Supply; Sewerage, Waste Management and Remediation Activities	0.2	0.1	0.1	0.2	0.0	0.2	0.2	0.0	0.1	0.0	0.1	0.0	0.0
	F. Construction	5.0	4.3	4.5	5.1	5.1	4.6	4.9	5.3	5.3	0.1	7.1	7.7	6.6
	G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	34.9	32.0	30.6	27.5	28.7	27.0	25.9	28.2	25.9	0.6	31.2	34.1	32.4
	H. Transport and Warehousing	1.1	1.2	1.3	1.2	1.2	1.2	1.0	1.0	1.0	0.0	1.2	1.2	1.3
	I. Accommodation and Catering Services	4.6	5.8	5.9	7.2	6.7	5.8	5.8	6.4	7.3	0.2	8.9	8.4	6.7
	J. Information and Communication Services	4.8	6.7	5.3	6.3	5.2	7.4	7.3	6.0	6.1	0.1	5.8	7.3	6.4
	K. Financial and Insurance Activities	5.5	6.2	6.9	8.2	9.8	9.3	9.1	7.2	5.9	0.2	9.3	13.7	12.3
	L. Real Estate Activities	4.1	4.1	3.3	4.1	5.4	5.2	5.0	4.7	5.9	0.1	6.9	7.0	5.4
	M. Professional, Scientific and Technical Activities	4.7	6.5	5.4	7.2	6.0	7.0	6.8	6.1	6.3	0.2	9.0	10.2	8.9
	N. Rental, Travel Agencies, Business Support Services	3.5	3.6	3.8	4.3	3.9	3.9	4.3	3.8	3.8	0.1	5.6	5.4	4.5
	O. Public Administration and Defence, Compulsory Social Insurance	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	P. Education	1.0	1.0	1.1	1.2	0.8	0.7	1.0	1.0	0.7	0.0	1.1	1.2	1.1
	Q. Health and Social Care	2.0	3.9	1.9	0.9	1.2	1.4	1.2	1.4	1.1	0.0	1.5	1.6	1.5
	R. Artistic, Sports, Entertainment and Leisure Activities	2.2	1.6	2.1	2.6	2.5	2.4	2.2	1.9	1.9	0.1	2.3	2.5	2.1
	S. Other Service Activities	3.2	2.5	2.5	2.7	2.3	2.6	1.6	1.8	1.9	0.0	1.5	1.6	1.6
	U. Extraterritorial Organizations and Bodies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Women-led companies</b>	Women-led companies	39.7	43.4	42.9	41.8	42.0	42.1	42.7	42.4	42.9	42.0	42.4	40.7	39.5
	Not women-led companies	60.3	56.7	57.1	58.2	58.0	57.9	57.3	57.6	57.2	58.0	57.6	59.3	60.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Innovative start-ups</b>	Innovative start-ups													
	Corporations (not innovative)													
	Total													
<b>Companies founded by graduates who returned to their area of residence</b>	Companies founded by graduates who returned to their area of residence	12.7	12.1	11.4	11.2	11.3	11.3	11.4	11.9	10.9	10.8	10.1	10.3	9.5
	Companies founded by graduates who have not returned to their area of residence	87.3	87.9	88.6	88.8	88.7	88.7	88.6	88.1	89.1	89.2	89.9	89.7	90.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: statistics are calculated excluding missing responses

\* The year 1995 includes companies founded in 1995 and in previous years.

\*\* The year 2019 includes the companies established up to September 2019 (when the observation ended)

## Companies founded 1995-2019

## Characteristics of companies founded by graduates, by year of foundation (percentage values)

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*	Totale
<b>Legal form</b>	Sole proprietorship	62.7	61.5	60.9	60.9	61.2	59.2	58.1	56.4	57.9	56.1	55.3	55.0	60.2
	Corporations	18.4	19.6	21.4	22.0	24.9	29.2	30.2	33.0	32.6	35.7	37.1	38.8	24.8
	Partnerships	18.9	18.8	17.7	17.0	13.8	11.5	11.6	10.6	9.4	8.2	7.6	6.1	15.0
	Other legal forms	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Geographical area</b>	North	38.8	37.1	36.1	36.9	38.4	38.5	39.9	39.0	39.2	37.8	39.2	43.1	37.4
	Centre	21.9	21.5	20.8	20.9	21.8	23.1	21.9	22.5	22.9	22.5	22.2	21.6	21.7
	South	39.3	41.4	43.1	42.2	39.8	38.4	38.3	38.5	37.9	39.8	38.6	35.3	40.8
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Status of companies</b>	Registered	41.7	45.0	47.6	50.2	53.0	56.2	62.5	69.0	75.7	82.9	91.2	97.5	56.0
	Ceased	58.3	55.0	52.4	49.8	47.0	43.8	37.5	31.0	24.3	17.1	8.8	2.5	44.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Economic sector</b>	Agricultural	11.6	12.2	13.6	11.1	9.3	6.9	6.0	8.4	13.0	12.9	12.4	9.3	11.6
	Secondary	9.8	9.2	9.8	9.3	9.4	8.8	8.8	8.3	7.2	7.0	6.6	7.1	9.4
	Service	78.6	78.5	76.6	79.7	81.3	84.3	85.2	83.3	79.8	80.1	81.0	83.6	79.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Economic sector (ATECO 2007)</b>	A. Agriculture, Forestry, and Fishing	13.1	12.8	17.0	11.4	10.9	7.6	6.0	8.4	13.0	12.9	12.4	9.3	11.6
	B. Extraction of Minerals from Quarries and Mines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	C. Manufacturing Activities	5.2	4.3	5.8	4.8	6.0	5.3	5.0	4.8	4.1	4.2	3.8	4.3	5.1
	D. Supply of Electric Energy, Gas, Steam, Air Conditioning	0.3	0.3	0.7	0.6	0.6	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.3
	E. Water Supply; Sewerage, Waste Management and Remediation Activities	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1
	F. Construction	5.9	5.3	6.5	4.8	4.9	4.3	3.8	3.5	3.1	2.9	2.8	2.8	4.3
	G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	32.5	31.2	35.6	32.5	36.5	35.1	31.4	30.9	28.4	26.4	25.5	25.5	29.1
	H. Transport and Warehousing	1.1	0.9	1.4	1.1	1.5	1.3	1.1	1.1	0.9	0.9	0.9	0.9	1.0
	I. Accommodation and Catering Services	7.4	7.2	8.5	7.5	9.1	8.8	8.3	8.6	8.6	8.5	8.2	7.4	7.5
	J. Information and Communication Services	6.8	6.7	8.1	6.4	8.5	7.5	7.8	7.6	7.0	7.6	8.3	9.3	6.9
	K. Financial and Insurance Activities	11.8	9.6	10.0	8.9	9.4	12.7	9.9	8.7	9.2	8.7	8.7	7.7	8.9
	L. Real Estate Activities	5.1	4.1	4.6	3.9	3.7	2.7	2.6	2.4	2.8	3.2	3.3	4.2	3.7
	M. Professional, Scientific and Technical Activities	11.7	10.6	12.6	9.7	12.4	10.6	10.6	10.6	10.4	11.7	13.2	15.0	9.8
	N. Rental, Travel Agencies, Business Support Services	5.3	4.8	5.4	4.5	5.3	5.8	5.9	5.3	5.0	5.4	5.3	6.0	4.8
	O. Public Administration and Defence, Compulsory Social Insurance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	P. Education	1.0	1.1	1.6	1.1	1.3	1.2	1.2	1.4	1.2	1.3	1.7	1.7	1.2
	Q. Health and Social Care	1.7	1.5	2.0	1.7	1.7	1.7	1.8	1.9	1.6	1.8	1.8	1.1	1.6
	R. Artistic, Sports, Entertainment and Leisure Activities	2.3	2.3	2.7	2.2	2.9	2.7	2.2	2.5	2.3	2.4	1.9	2.3	2.2
	S. Other Service Activities	1.9	1.6	2.5	1.9	2.1	2.3	1.9	2.0	2.0	2.1	2.1	2.2	1.9
	U. Extraterritorial Organizations and Bodies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
<b>Women-led companies</b>	Women-led companies	38.9	38.4	38.9	39.1	38.1	37.9	37.0	36.1	36.2	35.1	34.6	32.0	38.0
	Not women-led companies	61.1	61.6	61.2	60.9	61.9	62.1	63.0	64.0	63.8	64.9	65.4	68.1	62.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Innovative start-ups</b>	Innovative start-ups						0.5	3.4	5.5	6.2	7.6	8.2	6.1	5.6
	Corporations (not innovative)						99.5	96.6	94.5	93.8	92.4	91.8	93.9	94.4
	Total						100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Companies founded by graduates who returned to their area of residence</b>	Companies founded by graduates who returned to their area of residence	9.3	10.6	10.6	10.0	9.9	9.5	9.8	9.6	10.1	10.6	9.8	9.1	10.2
	Companies founded by graduates who have not returned to their area of residence	90.7	89.4	89.4	90.0	90.1	90.5	90.2	90.4	89.9	89.4	90.2	90.9	89.8
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: statistics are calculated excluding missing responses

\* The year 1995 includes companies founded in 1995 and in previous years.

\*\* The year 2019 includes the companies established up to September 2019 (when the observation ended)

## Companies invested 1995-2019

## Characteristics of companies invested in by graduates, by year of foundation (absolute values)

		1995*	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Legal form</b>	Corporations	6,201	397	494	563	703	833	939	927	877	1,012	1,096	1,190	1,336
	Partnerships	18,333	993	1,042	1,009	1,194	1,231	1,181	979	897	1,016	1,016	992	938
	Other legal forms	9	6	17	6	6	3	1	4	3	6	3	2	2
	<b>Total</b>	<b>24,543</b>	<b>1,396</b>	<b>1,553</b>	<b>1,578</b>	<b>1,903</b>	<b>2,067</b>	<b>2,121</b>	<b>1,910</b>	<b>1,777</b>	<b>2,034</b>	<b>2,115</b>	<b>2,184</b>	<b>2,276</b>
<b>Geographical area</b>	North	13,441	699	702	718	855	941	945	747	725	863	861	927	903
	Centre	5,220	296	356	338	410	432	476	429	430	448	482	425	538
	South	5,882	401	495	522	638	694	700	734	622	723	772	832	835
	<b>Total</b>	<b>24,543</b>	<b>1,396</b>	<b>1,553</b>	<b>1,578</b>	<b>1,903</b>	<b>2,067</b>	<b>2,121</b>	<b>1,910</b>	<b>1,777</b>	<b>2,034</b>	<b>2,115</b>	<b>2,184</b>	<b>2,276</b>
<b>Status of companies</b>	Registeread	18,595	935	1,051	1,104	1,314	1,418	1,472	1,356	1,249	1,432	1,539	1,596	1,679
	Ceased	5,865	456	490	467	584	638	642	548	521	597	569	576	590
	<b>Total</b>	<b>24,460</b>	<b>1,391</b>	<b>1,541</b>	<b>1,571</b>	<b>1,898</b>	<b>2,056</b>	<b>2,114</b>	<b>1,904</b>	<b>1,770</b>	<b>2,029</b>	<b>2,108</b>	<b>2,172</b>	<b>2,269</b>
<b>Economic sector</b>	Agricultural	982	57	131	56	40	69	73	74	65	61	81	62	89
	Secondary	5,386	257	305	304	350	357	365	362	301	371	394	419	429
	Service	17,318	1,009	1,045	1,127	1,400	1,507	1,551	1,349	1,288	1,480	1,513	1,561	1,619
	<b>Total</b>	<b>23,686</b>	<b>1,323</b>	<b>1,481</b>	<b>1,487</b>	<b>1,790</b>	<b>1,933</b>	<b>1,989</b>	<b>1,785</b>	<b>1,654</b>	<b>1,912</b>	<b>1,988</b>	<b>2,042</b>	<b>2,137</b>
<b>Economic sector (ATECO 2007)</b>	A. Agriculture, Forestry, and Fishing	944	55	129	54	40	68	71	74	65	55	81	60	86
	B. Extraction of Minerals from Quarries and Mines	38	2	2	2	0	1	2	0	0	6	0	2	3
	C. Manufacturing Activities	3,352	128	185	164	173	180	155	156	124	160	162	172	179
	D. Supply of Electric Energy, Gas, Steam, Air Conditioning	21	0	0	4	1	2	3	4	2	6	3	8	11
	E. Water Supply; Sewerage, Waste Management and Remediation Activities	77	3	7	3	4	6	5	5	4	2	3	6	6
	F. Construction	2,034	129	120	140	177	177	210	206	177	211	232	247	250
	G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	5,343	279	295	291	374	395	382	332	332	338	335	404	455
	H. Transport and Warehousing	364	26	38	22	21	42	36	20	27	27	36	33	40
	I. Accommodation and Catering Services	1,665	106	108	121	160	164	177	161	163	195	232	210	192
	J. Information and Communication Services	986	82	89	109	115	141	150	123	112	96	122	119	133
	K. Financial and Insurance Activities	529	36	37	63	52	52	54	49	45	48	40	68	52
	L. Real Estate Activities	5,091	184	153	207	268	287	313	237	231	280	271	264	232
	M. Professional, Scientific and Technical Activities	1,165	139	145	123	148	188	187	179	173	210	204	183	240
	N. Rental, Travel Agencies, Business Support Services	554	55	56	61	98	83	80	88	65	89	102	104	97
	O. Public Administration and Defence, Compulsory Social Insurance	2	0	0	0	0	0	0	0	0	0	0	0	0
	P. Education	184	18	13	26	16	26	27	22	20	30	24	24	25
	Q. Health and Social Care	728	40	40	49	77	56	60	61	57	64	52	59	58
	R. Artistic, Sports, Entertainment and Leisure Activities	340	23	27	26	38	26	41	35	25	57	48	44	42
	S. Other Service Activities	269	18	37	21	28	39	36	33	32	38	41	35	36
	U. Extraterritorial Organizations and Bodies	0	0	0	1	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>23,686</b>	<b>1,323</b>	<b>1,481</b>	<b>1,487</b>	<b>1,790</b>	<b>1,933</b>	<b>1,989</b>	<b>1,785</b>	<b>1,654</b>	<b>1,912</b>	<b>1,988</b>	<b>2,042</b>	<b>2,137</b>	
<b>Innovative start-ups</b>	Innovative start-ups													
	Corporations (not innovative)													
	<b>Total</b>													

Note: statistics are calculated excluding missing responses

\* The year 1995 includes companies founded in 1995 and in previous years.

\*\* The year 2019 includes the companies established up to September 2019 (when the observation ended)

## Companies invested 1995-2019

## Characteristics of companies invested in by graduates, by year of foundation (absolute values)

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019**	Totale
<b>Legal form</b>	Corporations	1,365	1,400	1,612	1,546	1,537	1,669	1,664	1,538	1,444	1,264	908	344	32,859
	Partnerships	868	738	754	643	546	421	368	312	202	149	57	6	35,885
	Other legal forms	5	0	4	5	4	6	4	7	2	3	0	0	108
	<b>Total</b>	<b>2,238</b>	<b>2,138</b>	<b>2,370</b>	<b>2,194</b>	<b>2,087</b>	<b>2,096</b>	<b>2,036</b>	<b>1,857</b>	<b>1,648</b>	<b>1,416</b>	<b>965</b>	<b>350</b>	<b>68,852</b>
<b>Geographical area</b>	North	895	789	918	826	817	820	715	679	590	472	317	133	31,298
	Centre	527	477	559	535	488	473	488	512	407	323	255	75	15,399
	South	816	872	893	833	782	803	833	666	651	621	393	142	22,155
	<b>Total</b>	<b>2,238</b>	<b>2,138</b>	<b>2,370</b>	<b>2,194</b>	<b>2,087</b>	<b>2,096</b>	<b>2,036</b>	<b>1,857</b>	<b>1,648</b>	<b>1,416</b>	<b>965</b>	<b>350</b>	<b>68,852</b>
<b>Status of companies</b>	Registered	1,701	1,628	1,836	1,701	1,671	1,701	1,706	1,647	1,508	1,343	943	349	52,474
	Ceased	529	494	525	481	403	379	313	203	137	70	19	0	16,096
	<b>Total</b>	<b>2,230</b>	<b>2,122</b>	<b>2,361</b>	<b>2,182</b>	<b>2,074</b>	<b>2,080</b>	<b>2,019</b>	<b>1,850</b>	<b>1,645</b>	<b>1,413</b>	<b>962</b>	<b>349</b>	<b>68,570</b>
<b>Economic sector</b>	Agricultural	93	98	117	93	70	57	44	68	79	64	35	3	2,661
	Secondary	407	341	410	362	303	325	228	228	214	141	79	21	12,659
	Service	1,580	1,525	1,638	1,528	1,524	1,533	1,580	1,374	1,154	986	664	175	49,028
	<b>Total</b>	<b>2,080</b>	<b>1,964</b>	<b>2,165</b>	<b>1,983</b>	<b>1,897</b>	<b>1,915</b>	<b>1,852</b>	<b>1,670</b>	<b>1,447</b>	<b>1,191</b>	<b>778</b>	<b>199</b>	<b>64,348</b>
<b>Economic sector (ATECO 2007)</b>	A. Agriculture, Forestry, and Fishing	91	97	117	91	70	57	43	68	78	63	35	3	2,595
	B. Extraction of Minerals from Quarries and Mines	2	1	0	2	0	0	1	0	1	1	0	0	66
	C. Manufacturing Activities	187	141	186	162	155	184	114	125	113	69	32	6	6,764
	D. Supply of Electric Energy, Gas, Steam, Air Conditioning	13	26	53	50	31	23	13	15	10	6	6	1	312
	E. Water Supply; Sewerage, Waste Management and Remediation Activities	7	5	8	9	8	7	4	6	4	3	2	0	194
	F. Construction	220	200	224	200	148	141	114	103	101	72	47	15	5,895
	G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	415	461	436	436	442	423	417	322	261	232	138	34	13,572
	H. Transport and Warehousing	25	29	41	27	41	23	31	20	17	12	9	0	1,007
	I. Accommodation and Catering Services	201	171	210	201	230	213	246	219	183	117	101	16	5,762
	J. Information and Communication Services	140	108	141	128	156	184	223	196	164	157	99	38	4,111
	K. Financial and Insurance Activities	50	62	42	34	33	47	43	35	35	30	18	7	1,561
	L. Real Estate Activities	227	154	152	124	85	92	69	63	58	72	42	16	9,172
	M. Professional, Scientific and Technical Activities	261	233	258	286	239	254	254	243	213	201	142	37	5,905
	N. Rental, Travel Agencies, Business Support Services	83	98	111	72	74	86	92	107	65	56	38	8	2,422
	O. Public Administration and Defence, Compulsory Social Insurance	0	0	0	0	0	0	0	0	0	0	0	0	2
	P. Education	30	31	39	34	32	24	35	22	38	23	15	6	784
	Q. Health and Social Care	56	57	57	43	53	60	56	45	32	28	21	4	1,913
	R. Artistic, Sports, Entertainment and Leisure Activities	42	62	64	46	72	72	77	58	56	39	25	7	1,392
	S. Other Service Activities	30	28	26	38	28	25	20	23	18	10	8	1	918
	U. Extraterritorial Organizations and Bodies	0	0	0	0	0	0	0	0	0	0	0	0	1
<b>Total</b>	<b>2,080</b>	<b>1,964</b>	<b>2,165</b>	<b>1,983</b>	<b>1,897</b>	<b>1,915</b>	<b>1,852</b>	<b>1,670</b>	<b>1,447</b>	<b>1,191</b>	<b>778</b>	<b>199</b>	<b>64,348</b>	
<b>Innovative start-ups</b>	Innovative start-ups						8	81	130	118	105	89	27	558
	Corporations (not innovative)						1,661	1,583	1,408	1,326	1,159	819	317	8,273
	<b>Total</b>						<b>1,669</b>	<b>1,664</b>	<b>1,538</b>	<b>1,444</b>	<b>1,264</b>	<b>908</b>	<b>344</b>	<b>8,831</b>

Note: statistics are calculated excluding missing responses

\* The year 1995 includes companies founded in 1995 and in previous years.

\*\* The year 2019 includes the companies established up to September 2019 (when the observation ended)

## Companies invested 1995-2019

Characteristics of companies invested in by graduates, by year of foundation (percentage values)

		1995*	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Legal form	Corporations	25.3	28.4	31.8	35.7	36.9	40.3	44.3	48.5	49.4	49.8	51.8	54.5	58.7
	Partnerships	74.7	71.1	67.1	63.9	62.7	59.6	55.7	51.3	50.5	50.0	48.0	45.4	41.2
	Other legal forms	0.0	0.4	1.1	0.4	0.3	0.1	0.0	0.2	0.2	0.3	0.1	0.1	0.1
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Geographical area	North	54.8	50.1	45.2	45.5	44.9	45.5	44.6	39.1	40.8	42.4	40.7	42.4	39.7
	Centre	21.3	21.2	22.9	21.4	21.5	20.9	22.4	22.5	24.2	22.0	22.8	19.5	23.6
	South	24.0	28.7	31.9	33.1	33.5	33.6	33.0	38.4	35.0	35.5	36.5	38.1	36.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Status of companies	Registered	76.0	67.2	68.2	70.3	69.2	69.0	69.6	71.2	70.6	70.6	73.0	73.5	74.0
	Ceased	24.0	32.8	31.8	29.7	30.8	31.0	30.4	28.8	29.4	29.4	27.0	26.5	26.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Economic sector	Agricultural	4.1	4.3	8.8	3.8	2.2	3.6	3.7	4.1	3.9	3.2	4.1	3.0	4.2
	Secondary	22.7	19.4	20.6	20.4	19.6	18.5	18.4	20.3	18.2	19.4	19.8	20.5	20.1
	Service	73.1	76.3	70.6	75.8	78.2	78.0	78.0	75.6	77.9	77.4	76.1	76.4	75.8
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Economic sector (ATECO 2007)	A. Agriculture, Forestry, and Fishing	4.0	4.2	8.7	3.6	2.2	3.5	3.6	4.1	3.9	2.9	4.1	2.9	4.0
	B. Extraction of Minerals from Quarries and Mines	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.3	0.0	0.1	0.1
	C. Manufacturing Activities	14.2	9.7	12.5	11.0	9.7	9.3	7.8	8.7	7.5	8.4	8.1	8.4	8.4
	D. Supply of Electric Energy, Gas, Steam, Air Conditioning	0.1	0.0	0.0	0.3	0.1	0.1	0.2	0.2	0.1	0.3	0.2	0.4	0.5
	E. Water Supply; Sewerage, Waste Management and Remediation Activities	0.3	0.2	0.5	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.2	0.3	0.3
	F. Construction	8.6	9.8	8.1	9.4	9.9	9.2	10.6	11.5	10.7	11.0	11.7	12.1	11.7
	G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	22.6	21.1	19.9	19.6	20.9	20.4	19.2	18.6	20.1	17.7	16.9	19.8	21.3
	H. Transport and Warehousing	1.5	2.0	2.6	1.5	1.2	2.2	1.8	1.1	1.6	1.4	1.8	1.6	1.9
	I. Accommodation and Catering Services	7.0	8.0	7.3	8.1	8.9	8.5	8.9	9.0	9.9	10.2	11.7	10.3	9.0
	J. Information and Communication Services	4.2	6.2	6.0	7.3	6.4	7.3	7.5	6.9	6.8	5.0	6.1	5.8	6.2
	K. Financial and Insurance Activities	2.2	2.7	2.5	4.2	2.9	2.7	2.7	2.7	2.7	2.5	2.0	3.3	2.4
	L. Real Estate Activities	21.5	13.9	10.3	13.9	15.0	14.8	15.7	13.3	14.0	14.6	13.6	12.9	10.9
	M. Professional, Scientific and Technical Activities	4.9	10.5	9.8	8.3	8.3	9.7	9.4	10.0	10.5	11.0	10.3	9.0	11.2
	N. Rental, Travel Agencies, Business Support Services	2.3	4.2	3.8	4.1	5.5	4.3	4.0	4.9	3.9	4.7	5.1	5.1	4.5
	O. Public Administration and Defence, Compulsory Social Insurance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	P. Education	0.8	1.4	0.9	1.7	0.9	1.3	1.4	1.2	1.2	1.6	1.2	1.2	1.2
	Q. Health and Social Care	3.1	3.0	2.7	3.3	4.3	2.9	3.0	3.4	3.4	3.3	2.6	2.9	2.7
	R. Artistic, Sports, Entertainment and Leisure Activities	1.4	1.7	1.8	1.7	2.1	1.3	2.1	2.0	1.5	3.0	2.4	2.2	2.0
	S. Other Service Activities	1.1	1.4	2.5	1.4	1.6	2.0	1.8	1.8	1.9	2.0	2.1	1.7	1.7
	U. Extraterritorial Organizations and Bodies	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Innovative start-ups	Innovative start-ups													
	Corporations (not innovative)													
	Total													

Note: statistics are calculated excluding missing responses

\* The year 1995 includes companies founded in 1995 and in previous years.

\*\* The year 2019 includes the companies established up to September 2019 (when the observation ended)

## Companies invested 1995-2019

Characteristics of companies invested in by graduates, by year of foundation (percentage values)

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*	Totale
<b>Legal form</b>	Corporations	61.0	65.5	68.0	70.5	73.6	79.6	81.7	82.8	87.6	89.3	94.1	98.3	47.7
	Partnerships	38.8	34.5	31.8	29.3	26.2	20.1	18.1	16.8	12.3	10.5	5.9	1.7	52.1
	Other legal forms	0.2	0.0	0.2	0.2	0.2	0.3	0.2	0.4	0.1	0.2	0.0	0.0	0.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Geographical area</b>	North	40.0	36.9	38.7	37.6	39.1	39.1	35.1	36.6	35.8	33.3	32.8	38.0	45.5
	Centre	23.5	22.3	23.6	24.4	23.4	22.6	24.0	27.6	24.7	22.8	26.4	21.4	22.4
	South	36.5	40.8	37.7	38.0	37.5	38.3	40.9	35.9	39.5	43.9	40.7	40.6	32.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Status of companies</b>	Registered	76.3	76.7	77.8	78.0	80.6	81.8	84.5	89.0	91.7	95.0	98.0	100.0	76.5
	Ceased	23.7	23.3	22.2	22.0	19.4	18.2	15.5	11.0	8.3	5.0	2.0	0.0	23.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Economic sector</b>	Agricultural	4.5	5.0	5.4	4.7	3.7	3.0	2.4	4.1	5.5	5.4	4.5	1.5	4.1
	Secondary	19.6	17.4	18.9	18.3	16.0	17.0	12.3	13.7	14.8	11.8	10.2	10.6	19.7
	Service	76.0	77.6	75.7	77.1	80.3	80.1	85.3	82.3	79.8	82.8	85.3	87.9	76.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Economic sector (ATECO 2007)</b>	A. Agriculture, Forestry, and Fishing	4.4	4.9	5.4	4.6	3.7	3.0	2.3	4.1	5.4	5.3	4.5	1.5	4.0
	B. Extraction of Minerals from Quarries and Mines	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1
	C. Manufacturing Activities	9.0	7.2	8.6	8.2	8.2	9.6	6.2	7.5	7.8	5.8	4.1	3.0	10.5
	D. Supply of Electric Energy, Gas, Steam, Air Conditioning	0.6	1.3	2.4	2.5	1.6	1.2	0.7	0.9	0.7	0.5	0.8	0.5	0.5
	E. Water Supply; Sewerage, Waste Management and Remediation Activities	0.3	0.3	0.4	0.5	0.4	0.4	0.2	0.4	0.3	0.3	0.3	0.0	0.3
	F. Construction	10.6	10.2	10.3	10.1	7.8	7.4	6.2	6.2	7.0	6.0	6.0	7.5	9.2
	G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	20.0	23.5	20.1	22.0	23.3	22.1	22.5	19.3	18.0	19.5	17.7	17.1	21.1
	H. Transport and Warehousing	1.2	1.5	1.9	1.4	2.2	1.2	1.7	1.2	1.2	1.0	1.2	0.0	1.6
	I. Accommodation and Catering Services	9.7	8.7	9.7	10.1	12.1	11.1	13.3	13.1	12.6	9.8	13.0	8.0	9.0
	J. Information and Communication Services	6.7	5.5	6.5	6.5	8.2	9.6	12.0	11.7	11.3	13.2	12.7	19.1	6.4
	K. Financial and Insurance Activities	2.4	3.2	1.9	1.7	1.7	2.5	2.3	2.1	2.4	2.5	2.3	3.5	2.4
	L. Real Estate Activities	10.9	7.8	7.0	6.3	4.5	4.8	3.7	3.8	4.0	6.0	5.4	8.0	14.3
	M. Professional, Scientific and Technical Activities	12.5	11.9	11.9	14.4	12.6	13.3	13.7	14.6	14.7	16.9	18.3	18.6	9.2
	N. Rental, Travel Agencies, Business Support Services	4.0	5.0	5.1	3.6	3.9	4.5	5.0	6.4	4.5	4.7	4.9	4.0	3.8
	O. Public Administration and Defence, Compulsory Social Insurance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	P. Education	1.4	1.6	1.8	1.7	1.7	1.3	1.9	1.3	2.6	1.9	1.9	3.0	1.2
	Q. Health and Social Care	2.7	2.9	2.6	2.2	2.8	3.1	3.0	2.7	2.2	2.4	2.7	2.0	3.0
	R. Artistic, Sports, Entertainment and Leisure Activities	2.0	3.2	3.0	2.3	3.8	3.8	4.2	3.5	3.9	3.3	3.2	3.5	2.2
	S. Other Service Activities	1.4	1.4	1.2	1.9	1.5	1.3	1.1	1.4	1.2	0.8	1.0	0.5	1.4
U. Extraterritorial Organizations and Bodies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
<b>Innovative start-ups</b>	Innovative start-ups						0.5	4.9	8.5	8.2	8.3	9.8	7.8	6.3
	Corporations (not innovative)						99.5	95.1	91.5	91.8	91.7	90.2	92.2	93.7
	Total						100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: statistics are calculated excluding missing responses

\* The year 1995 includes companies founded in 1995 and in previous years.

\*\* The year 2019 includes the companies established up to September 2019 (when the observation ended)