GUESSS

Global University Entrepreneurial Spirit Students' Survey

An international comparison of entrepreneurship among students

International report of the Global University Entrepreneurial Spirit Students' Survey project (GUESSS 2008)

Urs Fueglistaller, Heinz Klandt, Frank Halter, Christoph Müller

Swiss Research Institute of Small Business and Entrepreneurship

University of St.Gallen

European Business School
International University · Schloss Reichartshausen

GUESSS
Global University Entrepreneurial Spirit Students' Survey

www.guesssurvey.org

Swiss Research Institute of Small Business and Entrepreneurship

University of St.Gallen

KMU-HSG
Swiss Institute for Small Business and Entrepreneurship at the University of St.Gallen
Dufourstrasse 40a
CH-9000 St.Gallen
+41 (0) 71 224 71 00 (Telephone)
+41 (0) 71 224 71 01 (Fax)

www.kmu.unisg.ch

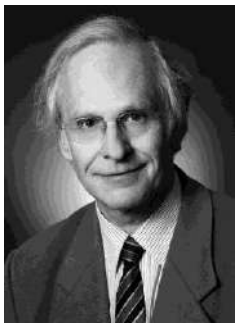
European Business School
International University · Schloss Reichartshausen

Chair for Entrepreneurship at the
EUROPEAN BUSINESS SCHOOL (EBS)
International University
Schloss Reichartshausen
DE-65375 Oestrich-Winkel
+49 (0) 6723 888 230 (Telefon)
+49 (0) 6723 692 35 (Fax)

www.ebs.edu

Preface

Urs Fueglistaller
Prof. Dr., KMU-HSG
Project chairman



Heinz Klandt
Prof. Dr., EBS
Project chairman

Frank Halter
Dr., KMU-HSG
Project manager

Christoph Müller
Prof. Dr., CEE-HSG
Project chairman

GUESSS stands for »**Global University Entrepreneurial Spirit Students' Survey**« – an international research project that examines entrepreneurship in universities and universities of applied sciences. The goal of the project is to examine the entrepreneurial behavior and intentions of students i.e. to illustrate to what extent students are already self-employed or if they would like to become one in the future. The project GUESSS is the continuation of previous surveys from the years 2003, 2004 and 2006. Further information about the project and previous reports can be found under: www.guesssurvey.org.

The project is coordinated on an international level by the Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG) in Switzerland and by the Chair for Entrepreneurship at the European Business School (EBS) in Germany. Without the active support of our colleagues - Mrs. Stavroula Laspita and Mr. Thomas Wolf, the work could not be coped with.

We are very grateful to our partner Universities, which were responsible for the survey at a national level. Without the intensive effort put in by all national teams, the project would not have been realized up to the current level.

We cordially thank our sponsor. The Web-based data collection 2008 was supported and technically implemented by the company Information Factory GmbH (www.information-factory.com). The data collection took place among all countries within the deadline due to its professionalism and flexibility.

This report presents a wide range of useful information in the field of youth entrepreneurship across many countries. On the one hand there is significant entrepreneurial potential among students. On the other hand it can be stated that there is still room for improvement on different levels of the university education.

We hope in this report that students, professors, instructors and consultants will find ideas, impulses and suggestions in order to participate in building up an entrepreneurial spirit among young people.

St. Gallen and Oestrich-Winkel, in Juli 2009
The editors

Table of contents

List of figures

List of tables

1 Introduction

1.1 Research background

Entrepreneurship is an important factor for all national economies. The high flexibility and the above average innovative abilities of small and medium enterprises are considered as substantial factors of a healthy economy. Furthermore entrepreneurship counteracts the outflow of know-how and jobs that arises from the growing globalization. Therefore there is a justified interest to promote entrepreneur-ship.

The international scientific research project GUESSS focuses on students at universities and universities of applied sciences and examines their entrepreneurial intentions and activities. We focus on university students as we are convinced that a great amount of innovation power and entrepreneurial competences is embedded within students that can later lead to successful start-ups. [1]

From the examination, concrete measures for the improvement on the one hand of the entrepreneurial environment and on the other hand of the entrepreneurial climate in universities are proposed. In order to be able to verify the implementation of these measures for the promotion of the entrepreneurial power and the entrepreneurial competencies in universities, the surveys will be conducted every two to three years. The periodic comparison and observation of the entrepreneurial potential and change in the international and national framework should contribute to positively influence the entrepreneurial climate in universities.

The research project GUESSS aims to increase the quality of university as far as the entrepreneurial competencies of students are concerned and to sensitize the students of the participating universi-ties about the field of entrepreneurship. This report aims to produce recommendations for action and to present the entrepreneurial situation in an international level. The results presented in this report serve only as a reflection of each country's and university's own strengths and weaknesses. The aim of this report is not in any case to provide any kind of a rank list of the several countries or universities.

1.2 Research goals

The main goal of the study is to compare on an international level the entrepreneurial intention and activity of university students. The data collection will be periodically conducted in order to grasp the development of the entrepreneurial potential of students.

[1] The project was previously held under the name ISCE – International Survey on Collegiate Entrepreneurship. The history of the project and previous reports can be found in the project's website: www.guesssurvey.org.

The **main goals** of the international research project are presented below:

- **The start-up process:** GUESSS helps to systematically record the founding intention and activity of students on a long-term basis, and therefore makes a temporal and geographical comparison possible (panel study).
- **The university:** offers a temporal and geographical comparison of the range of offers of the universities in the field of entrepreneurship (e.g. in the form of entrepreneurship courses, founding climate, infrastructure, etc.).
- **The individual:** GUESSS allows for a temporal and geographical comparison of individual-based characteristics that impact the founding intention and activity of students.

The **secondary goals** of the project are the following:

- GUESSS helps with the verification and establishment of explanatory approaches at various levels of analysis (e.g. individual, process, macro-economical effectiveness) for the investigation of the founding intention and activity of students.
- GUESSS enables the participating countries to reflect on their entrepreneurial spirit with regard to specific basic founding conditions that drive students to become entrepreneurs.
- GUESSS can observe the quality of the start-ups created by students (e.g. jobs, turnover, etc.)
- GUESSS helps generate research models and verify existing ones.

1.3 Research Framework

As mentioned above three perspectives are in the focus of the research project. However over the years different perspectives could also be taken into account (Figure 1).

I: An important part of the examination is the start-up process. At the beginning students are asked about their career aspirations directly after their studies. Afterwards we specifically examine students' entrepreneurial intention and activity. In doing so, we would like to examine the economical meaning of this question over time but we would also like to discover factors that foster or hinder students' entrepreneurial intentions and activities. Finally the start-ups that have already been founded by students are examined more closely. For the entrepreneurial intention and activity an index is computed, which illustrates the entrepreneurial power of students' from different universities and countries. The main findings as far as the start-up process is concerned can be found in the 3rd chapter.

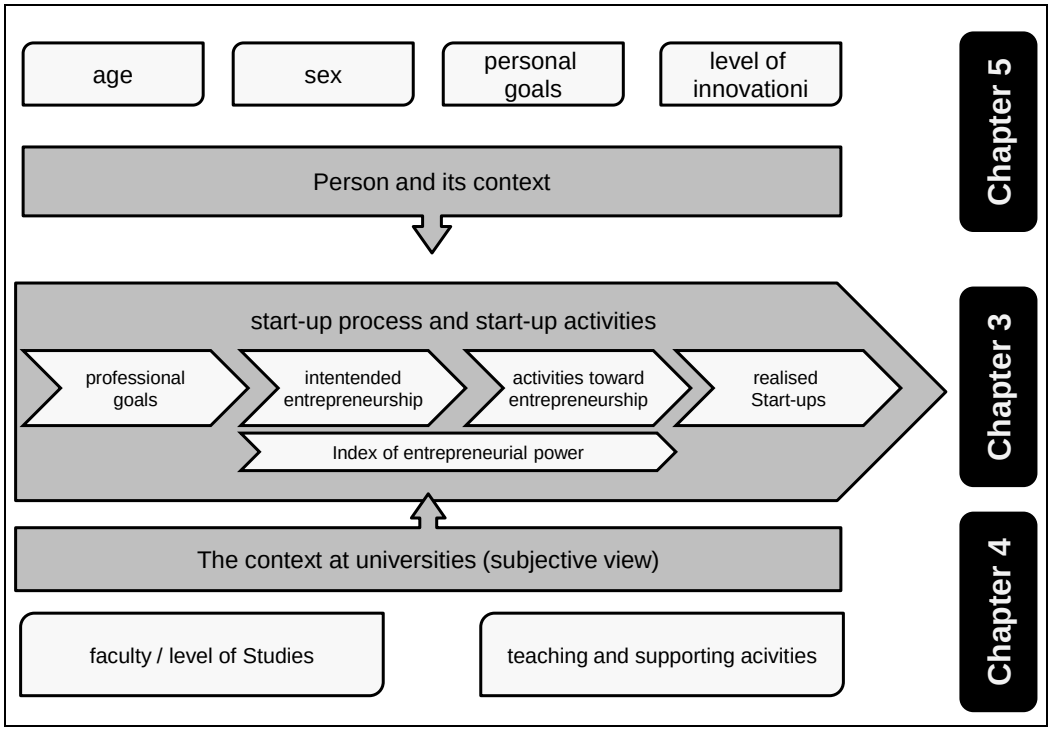


Figure 1: Research framework GUESSS 2008

II: A second focus is the university. We are concerned with the importance, the existence and the quality of possible university services in the field of entrepreneurship. Moreover we differentiate in our analysis among different field of study in order to be able to make inter-disciplinary statements. The main findings as far as the university is concerned can be found in the 4th chapter.

III: A third focus is the individual. Besides demographic characteristics we also examine among others, students' business goals, their motives towards entrepreneurship, their personal evaluation of the innovation degree of the businesses they would like to establish, etc. The main findings as far as the individual is concerned can be found in the 5th chapter.

1.4 Project coordination

The project is coordinated on an international level by the Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG) in Switzerland together with the Chair for Entrepreneurship at the European Business School (EBS) in Germany.

Each country had one representative who is presented in Table 1 (p. 5). The country representatives were responsible for contacting universities and universities of applied sciences in their country and were asked to email the link to the questionnaire to as many students as possible, encouraging them to participate in the survey. A link to the questionnaire was sent from the country representatives to the person at the university who was responsible to contact the students via email and ask them to participate in the survey. Prize draws amongst

participants were used as an incentive in some countries, so as to increase students' participation in the survey. The national reports will also be available soon online in the project's website.

The available data were raised by means of a Web-based questionnaire. The questionnaire was technically implemented with support of the company Information Factory GmbH. The company also provided us with the IT-infrastructure, for which we cordially thank them.

2 Country representatives and data structure

In this section you find an overview of the country representatives and the response rate internationally and in each country.

2.1 Country representatives

Country	University / Institution	Country representative
Switzerland (SUI)	Swiss Research Institute of Small Business and Entrepreneurship at University of St. Gallen	Prof. Dr. Urs Fueglistaller Prof. Dr. Christoph Müller Dr. Frank Halter
Germany (GER)	Chair for Entrepreneurship at European Business School (ebs)	Prof. Dr. Heinz Klandt
Austria (AUT)	Institut für Unternehmensgründung and Unternehmensentwicklung, Johannes Kepler Universität Linz	Prof. Dr. Norbert Kailer
Liechtenstein (LIE)	Hochschule Liechtenstein	Prof. Dr. Urs Baldegger
France (FRA)	UPR Stratégie et Organisation, EM Lyon	Prof. Dr. Alain Fayoll
Belgium (BEL)	Vlerick Leuven Gent Management School	Prof. Dr. Hans Crijns
Luxembourg (LUX)	Institut Universitaire Internnational Luxembourg	Pol Wagner, Professeur-attaché MESR, Directeur IUIL
Ireland (IRL)	University of Limerick / Department f. Management & Marketing	Dr. Naomi Birdthistle
Norway (NOR)	Department of Strategy and Management, Norwegian School of Economics and Business Administration	Prof. Dr. Johannessen Tor Aase
Finland (FIN)	Lappeenranta University of Technology	Prof. Dr. Asko Miettinen
Hungary (HUN)	University of Pecs, Faculty of Business & Economics	Prof. Dr. Laszlo Szerb
Estonia (EST)	Tallinn University of Technology School of Economics and Business Administration	Prof. Dr. Urve Venesaar
Greece (GRE)	University of Western Macedonia Department of Balkan Studies	Katerina Sarri, Associate Professor
Portugal (POR)	Technical University of Lisbon Instituto Superior Tecnico	João Leitão, PhD in Economics Baptista, Rui; PhD in Business Administration
Australia (AUS)	Murdoch Business School, Murdoch University	Prof. Dr. Brian Gibson
New Zealand (NZL)	University of Otago Department of Marketing and Tourism	Jürgen Gnoth, PhD
South Africa (RSA)	University of Stellenbosch	Dr. Retha Scheepers
Singapore (SIN)	National University of Singapore	Prof. Dr. Wong Poh Kam
Indonesia (IND)	Bakrie School of Management	M. Taufiq Amir
Mexico (MEX)	Tecnologico de Monterrey, Institutio Technologico de Estudios Superiores de Monterrey	Elisa Cobas Flores, Ph.D, Bakrie School of Management

Table 1: Country representatives in GUESSS 2008

2.2 Response rate

The following table gives an overview of the response rate in each country and internationally. Dif-ferences in the distribution of the data among countries can be found as the project is still in the phase of becoming internationally established. The differences in the distribution of the data can be seen on the one hand in the number of the universities that have participated in the various countries and on the other hand in the number of the students that participated in the survey in each country.

Country	Abbr.	Number of questioned universities	Population of questioned universities	Responses (=n)	Response rate (In %)
Switzerland	SUI	23	69.289	12.685	18,3
Liechtenstein	LIE	1	600	278	46,3
Germany	GER	30	270.000	7.626	2,8
Austria	AUT	18	127.832	5.818	4,6
France	FRA	22	7.000	1.150	16,4
Belgium	BEL	13	101.294	9.833	9,7
Ireland	IRL	4	1.639	140	8,5
Finland	FIN	10	11.448	1.122	9,8
Hungary	HUN	24	307.621	11.366	3,7
New Zealand	NZL	3	26 000	5.332	20,5
Australia	AUS	1	300	89	29,7
South Africa	RSA	8	211.802	2.150	1,0
Singapore	SIN	8	86.079	2.319	2,7
Mexico	MEX	1	18.600	720	3,9
Estonia	EST	5	44.608	1.548	3,5
Luxembourg	LUX	2	4.674	424	9,1
Greece	GRE	5	1.500	284	18,9
Portugal	POR	1	8.900	60	0,7
Indonesia	IND	4	4.053	583	14.3
International	**INT**	**83**	**1.303.239**	**63.527**	**4.9**

Table 2: Participating countries and response rate

As far as the structure of the data is concerned attention should be paid to the following:

- Despite of the differences in the national response rates, in most countries a sufficiently large sample could be gathered in order to be included in the international comparison.
- In Liechtenstein (LIE) there is only one university in the country. For the country the data are therefore representative. However it should be taken into consideration in the international com-parison that in this university two fields of study are offered: business administration and architecture.

- The response rate in Ireland (IRL) is smaller compared to 2006 and no longer representative for the country. Therefore the results in this report should be handled with caution.
- The response rate in Australia (AUS) and Portugal (POR) is too small, in order to be included in the international comparisons. For the representatives from Portugal the survey was a test run.

Altogether 63,527 filled out questionnaires were generated, which corresponds a potential response rate on an international average of 4.9 per cent.

2.3 Structure of the data

In addition to the response rate, the structure of data should also be taken into consideration in order to evaluate the validity of the results. The structure of the data per country is shown in Table 3. In the interpretation of the results the following should be considered:

- As far as the level of the study is concerned:
  - The majority of the students are in their Bachelor or Master studies.
  - PhD students in NZL, BEL, SIN and mostly in GRE are over-represented.
  - The master level when internationally compared in IND, RSA and IRL is under-represented.
- The average age of the respondents is 23 years old. In Australia (AUS) when compared internationally, the average age is substantially higher (28 years old), whereas in Indonesia (IND) substantially lower (19 years old).
- In the international sample the proportion between men and women is almost even.
- In the report we have aggregated the different fields of studies in order to be able to compare the results. The whole list of the field of study can be found in the Appendix 7.1 and 7.2 (p.34f)[2]. It is important to note that the students have assigned themselves to the different fields of studies.
  - We have differentiated between economic fields (e.g. management, public administration), natural sciences (e.g. mathematics, architecture and building), social sciences (e.g. humanities, health and social services) and other (e.g. arts, security services, military). We focus on the first three groups.
  - When compared internationally, it can be stated that the distribution among the different fields of study is rather unequal and therefore the evaluations in the report should be handled with caution. For the analysis we have excluded all the countries

[2] The fields of study were applied according to ISCED 1997, pp. 41-45 (United Nation Educational, Scientific and Cultural Organization); they are also applied from OECD since 1998.

in which there are less than 100 students in each of the subgroups. The countries Liechtenstein, Ireland, Australia, Luxembourg, Greece, Portugal and Indonesia are affected.

- Finally it should be mentioned that Ireland (IRL), Australia (AUS) and Portugal (POR) should be dealt with caution in the international comparisons, as the representativeness of the sample cannot be guaranteed. Therefore these countries are presented in this report with a (*).

Country	Level			Average age	Average study year	Gender		Field of study[3]			
	Undergraduate, Bachelor	Undergraduate, Master	Postgraduate, PhD			male	female	Business related studies	Natural sciences	Social sciences	Other
SUI	73.1%	24.3%	2.6%	23.38	3.36	55.6%	44.4%	36.5%	26.6%	27.3%	9.5%
LIE	52.9%	46.8%	0.4%	25.83	3.28	66.9%	33.1%	76.3%	18.3%	1.1%	4.3%
GER	50.3%	46.5%	3.1%	24.78	3.14	47.2%	52.8%	34.0%	22.1%	34.6%	9.3%
AUT	50.4%	43.7%	5.9%	25.10	3.42	47.3%	52.7%	43.0%	24.3%	21.4%	11.4%
FRA	50.7%	48.5%	0.8%	21.47	4.68	54.2%	45.8%	62.8%	22.4%	1.6%	13.2%
BEL	58.0%	35.6%	6.4%	21.34	4.16	45.7%	54.3%	28.8%	16.9%	42.2%	12.2%
IRL	93.6%	3.6%	2.9%	23.86	4.81	52.1%	47.9%	87.9%	3.6%	4.3%	4.3%
FIN	74.9%	24.9%	0.3%	25.36	6.16	48.3%	51.7%	48.2%	24.6%	10.3%	16.8%
HUN	78.9%	19.2%	2.0%	23.40	11.16	38.6%	61.4%	30.0%	17.8%	43.0%	9.1%
NZL	79.6%	11.4%	9.0%	25.30	4.13	41.7%	58.3%	30.8%	9.5%	46.1%	13.6%
AUS	82.0%	13.5%	4.5%	28.48	5.12	36.0%	64.0%	89.9%	2.2%	1.1%	6.7%
RSA	86.0%	9.7%	4.3%	22.33	3.36	52.8%	47.2%	46.9%	18.2%	25.4%	9.4%
SIN	80.4%	11.4%	8.2%	21.56	10.70	49.3%	50.7%	44.0%	19.2%	18.7%	18.1%
MEX	88.2%	11.3%	0.6%	22.20	12.23	54.3%	45.7%	37.4%	31.5%	17.4%	13.8%
EST	83.5%	15.6%	0.9%	22.83	14.09	21.5%	78.5%	26.9%	8.4%	45.2%	19.5%
LUX	82.5%	14.2%	3.3%	22.27	3.37	53.5%	46.5%	50.2%	10.1%	36.8%	2.8%
GRE	61.6%	21.5%	16.9%	23.20	4.38	37.0%	63.0%	43.0%	3.2%	43.7%	10.2%
POR	18.3%	76.7%	5.0%	23.68	8.46	63.3%	36.7%	38.3%	48.3%	8.3%	5.0%
IND	98.6%	1.4%	0.0%	19.01	8.00	52.0%	48.0%	83.7%	4.3%	7.4%	4.6%
INT	**68.4%**	**27.4%**	**4.1%**	**23.39**	**5.68**	**46.6%**	**53.4%**	**36.0%**	**19.8%**	**33.2%**	**11.0%**

Table 3: Structure of the data

[3] The whole list can be found in Appendix 7.1 and 7.2.

3 The start-up process

In the following pages we present and analyze the future career aspirations and entrepreneurial activities of the students.

- We first present (chapter 3.1, p. 9) students' preferences as to where they would like to work directly after their studies (< 5 years) and after a few years of work experience (>5 years). Therefore we examine their future career aspirations.
- We then examine students' entrepreneurial intentions and activities (chapter 3.2, p. 19). In a first step we ask the students about their entrepreneurial intentions (entrepreneurial intention, chapter 3.2.1). Then we ask the students what steps they have already taken for their potential start-up (entrepreneurial activity, chapter 3.2.2). These two questions are then combined in order to form the index that shows the entrepreneurial power of the students. (Index of entrepreneurial power, chapter 3.2.3).
- Finally we present and describe the already existing start-ups founded by the students. (Chapter 3.3).

We differentiate the three above mentioned aspects, to the extent that it makes sense, after the different fields of study and gender.

3.1 Students' future career aspirations

3.1.1 Career aspirations in general

Students' future career aspirations were examined be asking them where they would like to work directly after their studies (< 5 years) and after a few years of work experience (>5 years). The results about all countries can be found in Figure 2. The distribution within the countries can be found in the Appendix 7.3 p. 35 (for < 5 years) and in Appendix 7.4 p. 36 (for > 5 years). In Figure 3 p. 11 the aggregated career aspirations (dependent employment (e.g. employee), independent employment (e.g. self-employment), other (e.g. focus on family), dont't know yet) are presented in the different countries.

Drawing from the figures presented above and from the tables in the Appendix the following points can be made:

- **Directly after the studies (< 5 years)** the students clearly prefer a **dependent employment,** as internationally 76 percent of all students would like to gather experience as employees.

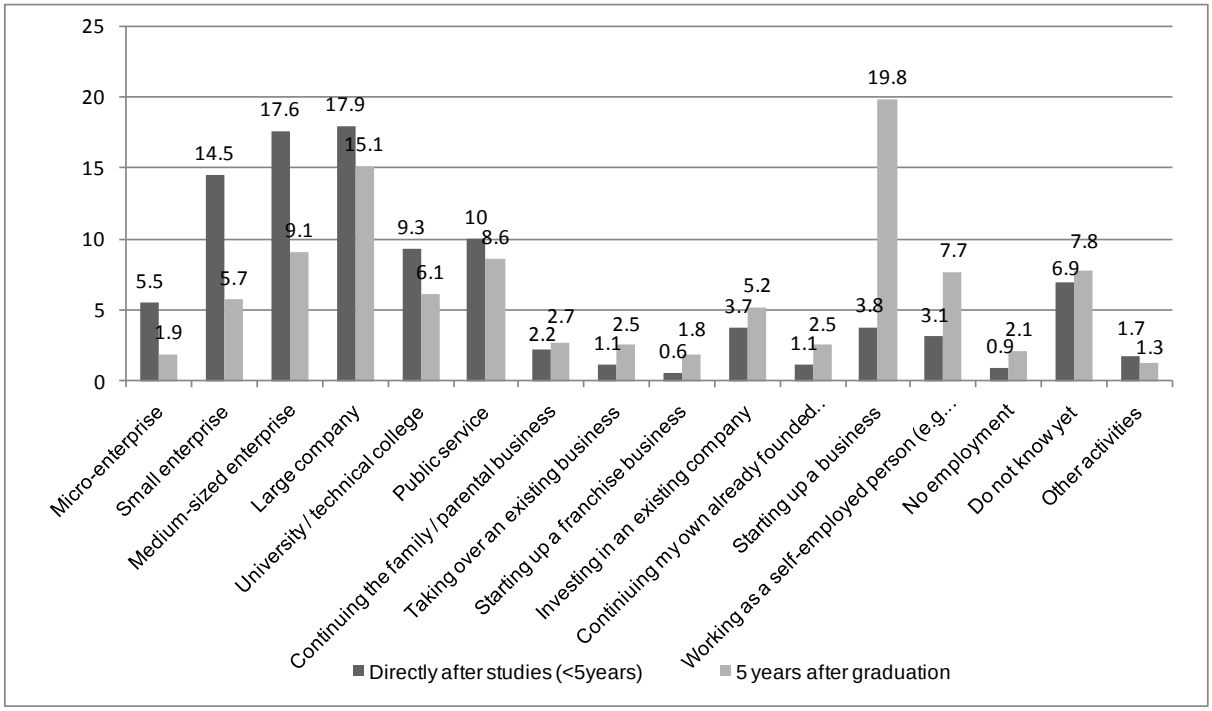


Figure 2: Students' future career aspirations

- Compared internationally this proportion is in Switzerland, Liechtenstein, and Germany clearly higher.[4] In Hungary, South Africa, Singapore, Mexico and Estonia the proportion is clearly lower, which means that in these countries students do not necessary prefer a dependent employment directly after their studies.
- The international averages for students who intend to enter a dependent employment directly after graduation are as follows: entry into a large company (17.9 percent), a medium-sized company (17.6 percent), or a small company (14.5 percent). Students see additional important activities in the public sector (10.0 percent), in universities and universities of applied sciences (8.9%), as well as in micro-businesses (5.5 percent).
- Compared internationally mostly students in France (42.9 percent), Indonesia (40.5 percent), Mexico (30.89 percent) and Liechtenstein (28.4 percent) are interested to work for a large company. Substantially below the international average this is true for students studying in Estonia (4.3 percent), Belgium (12.4 percent), New Zealand (14.2 percent) and Hungary (14.4 percent). Working for the public sector is especially attractive for students in Greece (20.8 percent), Luxembourg (19.3 percent) and Hungary (16.4 percent).

[4] A difference of 5 percentage points to the international average was interpreted as a relevant difference.

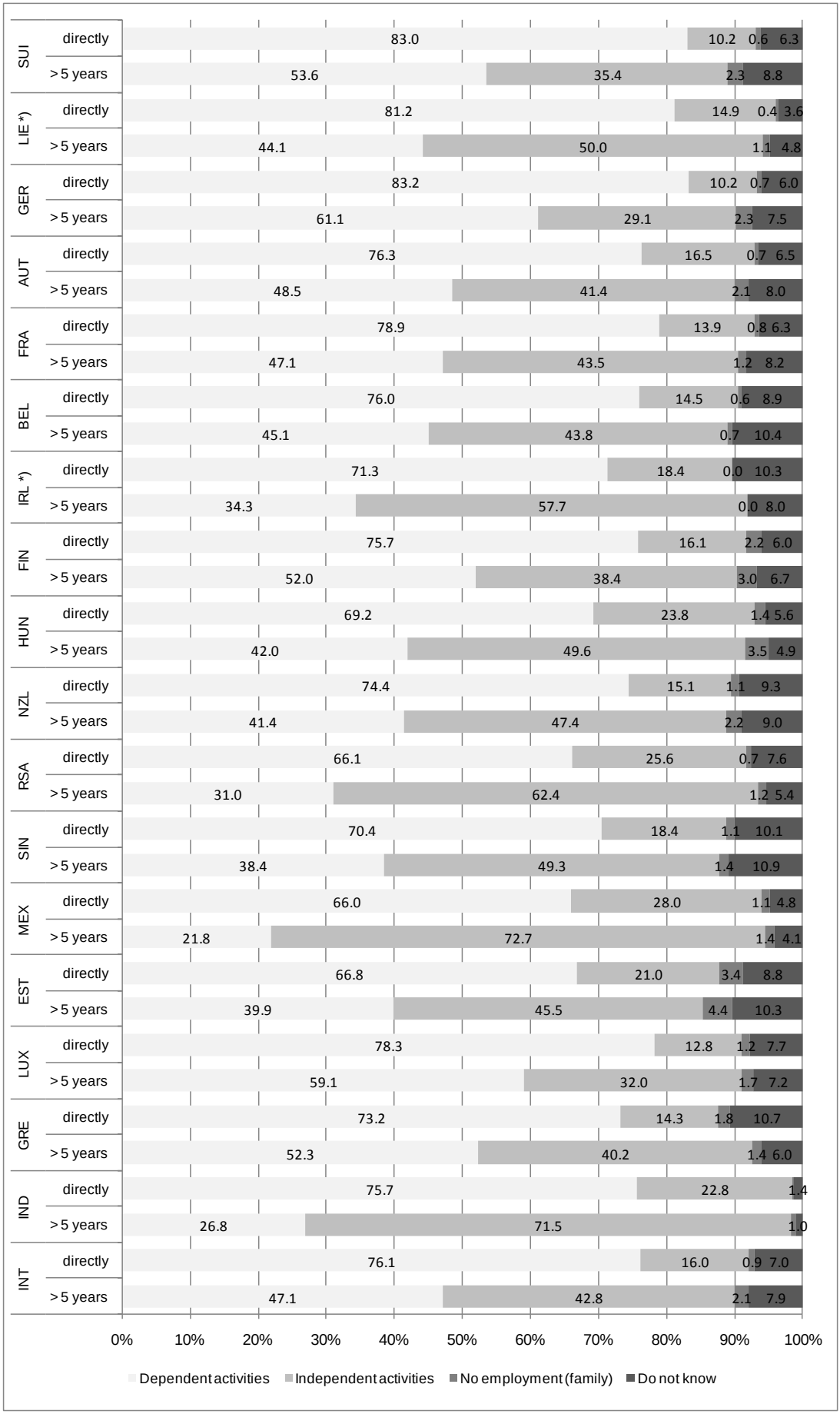


Figure 3: Students' preference towards dependent and independent employment

- **Directly after the studies (< 5 years)** 16 percent of the students prefer an **independent employment**.
- Compared internationally this proportion is higher in Mexico (28.0 percent), South Africa (25.6 percent), Finland (23.8 percent) and Indonesia (22.8 percent)[5], whereas it is lower in Switzerland and Germany (each 10.2 percent).
- Students that directly after their studies would like to become self-employed prefer to found their own company (3.8 Percent) and to buy a stake of an existing company (3.7 Percent). About 2.2 percent of the students would like to continue the family business.
- Compared internationally starting up an own business is the most preferable option as far as independent employment is concerned. However in Mexico (8.8 percent), Greece (5.3 percent) and Hungary (5.1 percent) succession of the family business is also an often mentioned option. In central Europe students often prefer investing in an already existing company (Switzerland, Liechtenstein, Germany, Austria, France and Belgium).

- **After some years of working experience (> 5 Years)** students' career aspirations change. The choice of independent employment becomes more attractive as 43 percent of the students prefer it (in comparison to 16 percent that prefer this choice directly after their studies). The preference for dependent employment becomes much lower (from ca. 76 percent to 47 percent). From these results we can draw the conclusion that students that would like to become self-employed in the future prefer first to gain some year of working experience in a company before they found their own one. We would like once more to point out that this question deals with the students' intentions and not their actual behavior. From our experience from other studies we can say that a lot of business foundation occur after the founder has gained working experience but there are a lot cases where the potential founder does not make the step towards entrepreneurship as the opportunity costs are quite high (e.g. it is difficult to leave a well paid job in order to found a company as this action entails risks especially when someone has a family).
- Compared internationally there are relative large differences as far as entrepreneurial intentions after some years of working experience (> 5 years) are concerned. The highest proportions can be found in Mexico (72.7 percent), Indonesia (71.5 percent), South Africa (62.4 percent) and Liechtenstein (50.0 percent). The lowest proportions can be found in Germany (29.1 percent), Switzerland (35.4 percent) and in Finland (38.4 percent).
- Regarding the desired form of independent employment, starting up a business stands in all countries in the first place. High proportions of succession as a choice were found in Mexico (6.8 percent) and Liechtenstein (6.8 percent).

[5] A difference of 5 percentage points to the international average was interpreted as a relevant difference.

3.1.2 Future career aspirations from a field of study perspective

We have differentiated between business related fields[6] (e.g. management, public administration), natural sciences[7] (e.g. mathematics, architecture and building), social sciences[8] (e.g. humanities, health and social services) and other[9] (e.g. arts, security services, military). We focus on the first three groups. In the following we will present the aggregated future career aspirations of the students from a field of study perspective for the time directly after the studies (Figure 4 for < 5 years) and for the time after some years of working experience (Figure 5 for < 5 years). For the analysis we have excluded all the countries in which there are less than 100 students in each of the subgroups. As far as the field of study is concerned the following points can be made:

- **Directly after the studies (< 5 years) the international average (INT)** shows that mostly students with an economic related field of study would like to become self-employed (16.9 percent), followed by students that have social sciences as a study field (15.2 percent) and by students that study natural sciences (13.4 percent) (Figure 4).

[6] Business, political economics and administration, Law, Transport services, Computer sciences, Manufacture and processing

[7] Natural sciences, Mathematics and Statistics, Engineering and engineering trades, Architecture and building, Agriculture, forestry and fishery

[8] Teacher training and education sciences, Humanities, Social and behavioral sciences, Life sciences, Health and social sciences

[9] Art, Journalism and Information, Personal services, Environmental protection, Security services, other

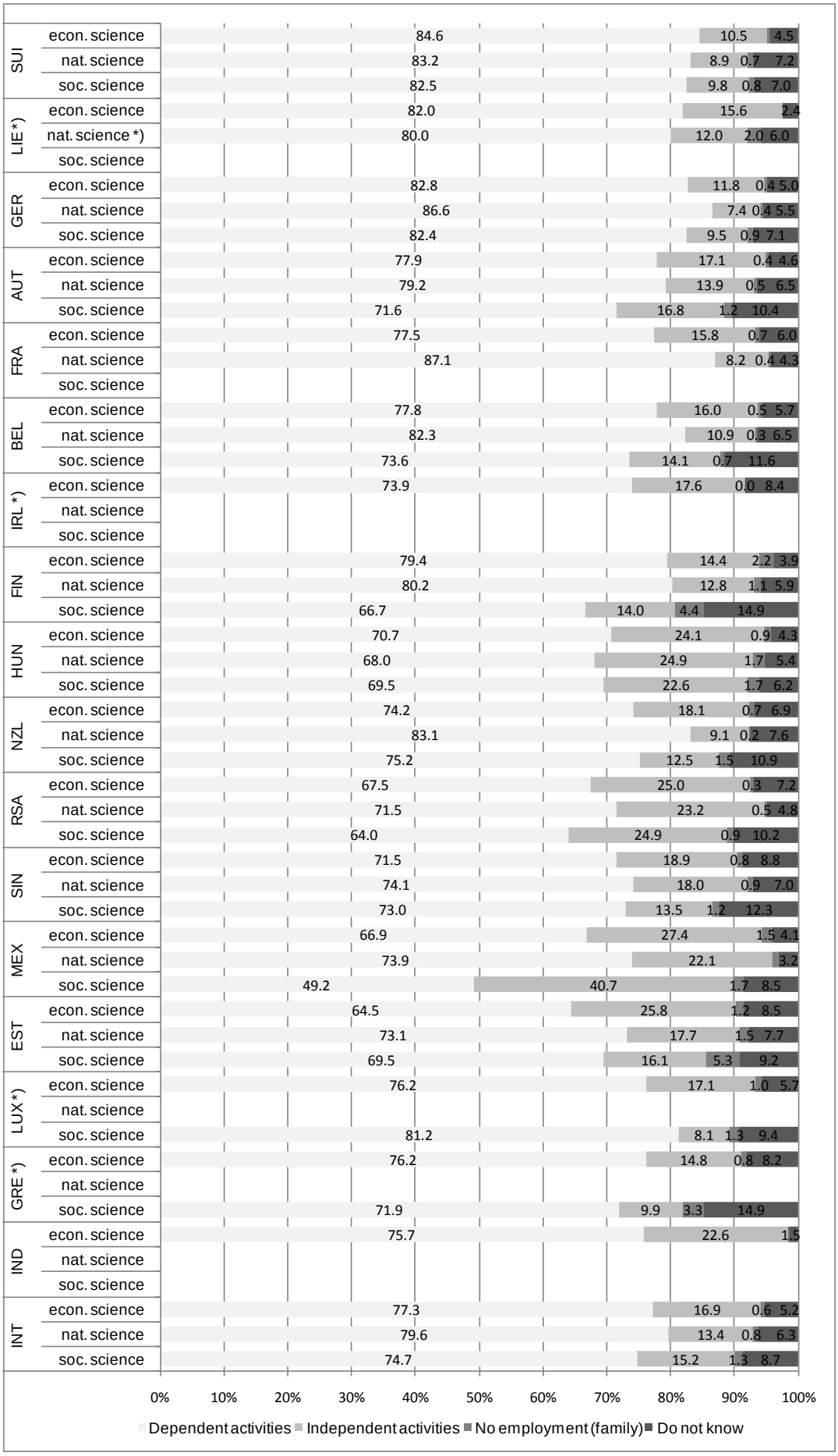


Figure 4: Career aspirations after the field of study (< 5 years)

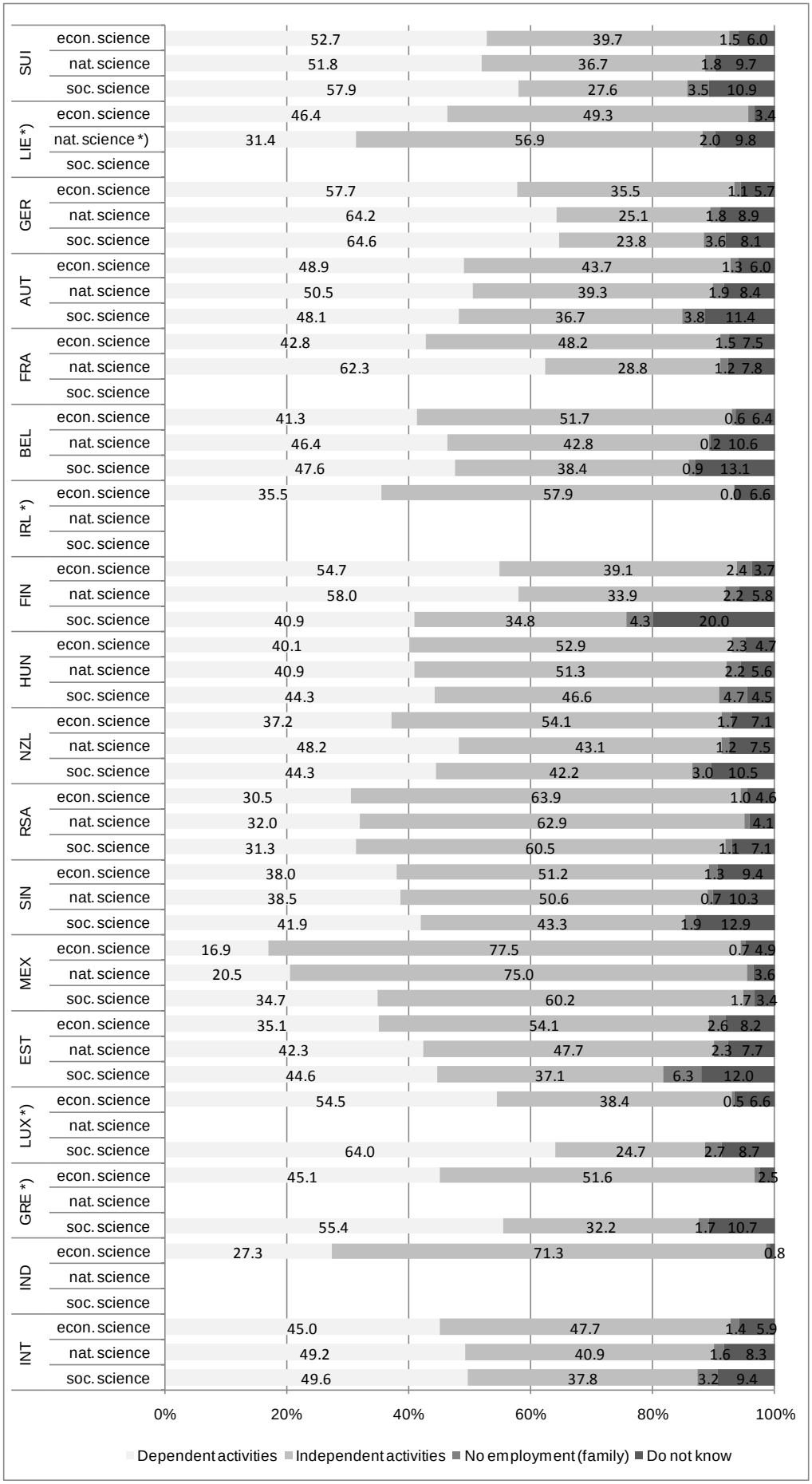


Figure 5: Career aspirations after the field of study (> 5 years)

- The international comparison shows that directly after the studies and among the countries of central Europe the sequence business-related sciences => social sciences => natural sciences can be defined as a recurring pattern. The preference of an independent employment is interdisciplinary high in Hungary, whereby the ratio is surprisingly higher for students of natural sciences than students of the other fields of study. Furthermore an amazingly high ratio of 40.7 Percent of students of social sciences in Mexico would prefer an independent employment directly after their studies. It should be however noted that a certain bias is possible, since 124 students that answered this question come primarily from one university.

- **After some years of working experience (> 5 Years)** the international average of career aspirations shifts only slightly. 47.7 percent of the students in business related studies favor an independent employment, followed by students of natural sciences (40.9 percent) and students of social sciences (37.8 percent). The results are found in Figure 5. This picture is recurring in most countries of Central Europe. This allows us to assume that for example students of natural sciences would like to collect more professional experience before they become self-employed. It could also be assumed that founding a start-up in this field requires more start-up capital and thus renders it more difficult for students directly after the studies, than for students of other fields of study.

3.1.3 Future career aspirations from a gender perspective

The results of students' future career aspirations (dependent and independent employment) from a gender perspective are found in Figure 6 (for < 5 years) and in Figure 7 (for > 5 years). "m" stands for men (male) and "w" for women (female). The following main points can be made:

- **Directly after the studies (< 5 years) the international average** shows that 16.9 percent of the male students would like to become self-employed compared to 15.1 percent of the female students. Compared internationally the excess of males that would like to become self-employed is found in all countries with the exception of Mexico. Gender differences are the lowest in countries like Switzerland (0.1 percent points), South Africa (0.9 percent points) and France (1.5 percent points) and they are the highest in countries like Austria (6.3 percent points), Finland (5 percent points), Hungary and Singapore (each 4.6 percent points).
- **After some years of working experience (> 5 years)** the proportion of males that would prefer an independent employment is higher than that of women. A possible explanation could be that women would prefer to do something else, like for example start a family.

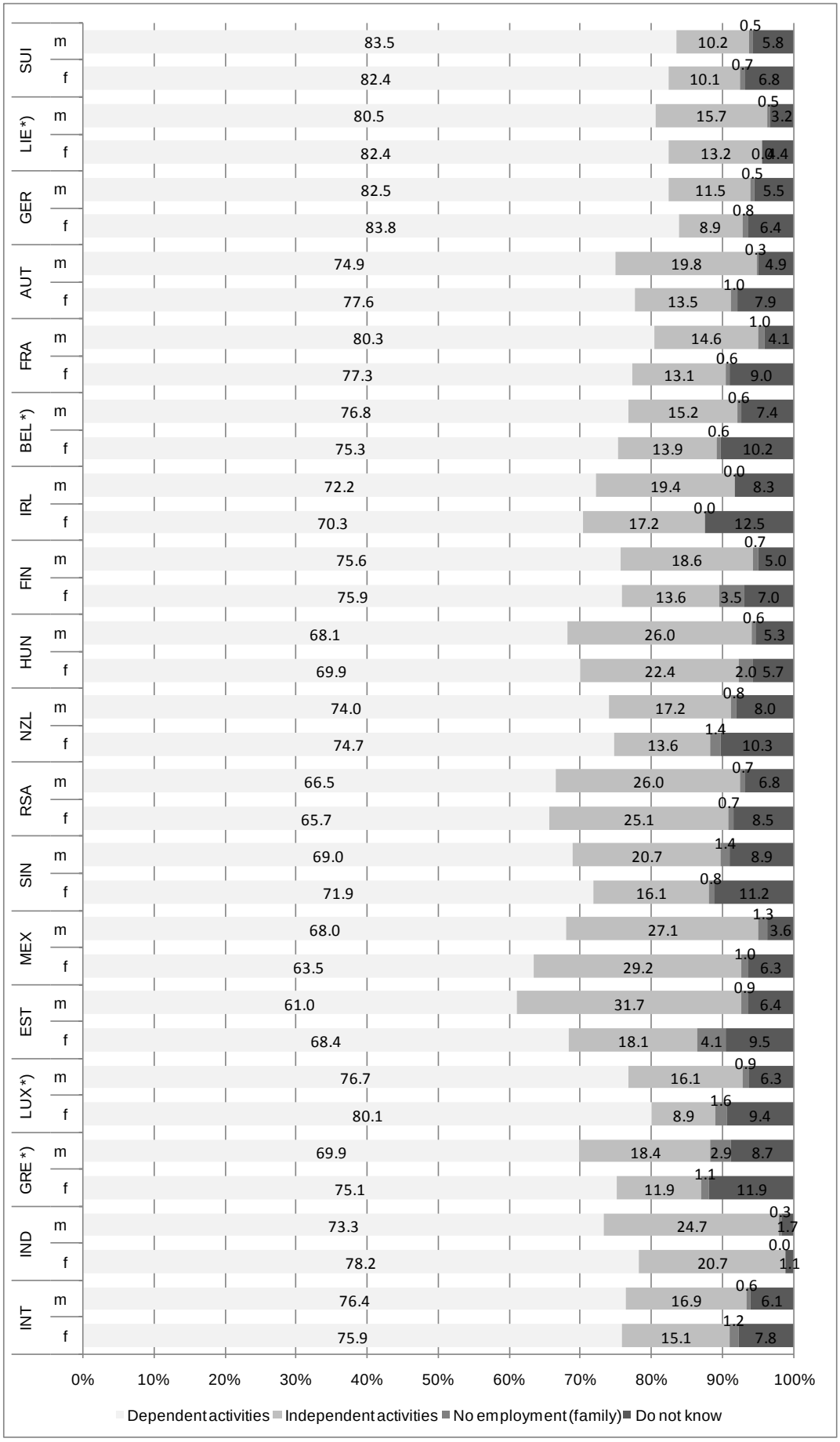


Figure 6: Future career aspirations after gender (< 5 years)

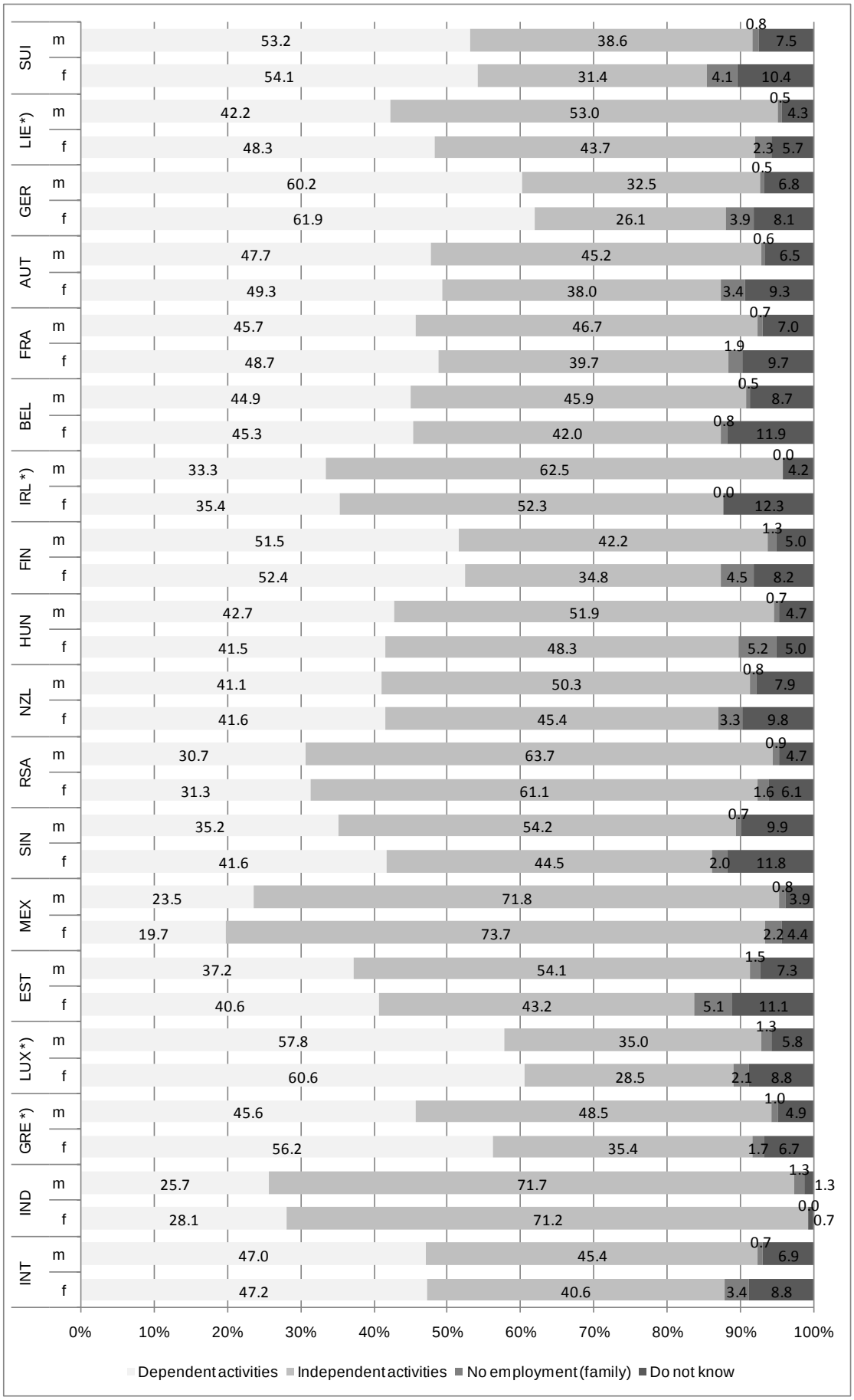

SUI m 53.2 38.6 0.8 7.5
f 54.1 31.4 4.1 10.4
LIE*) m 42.2 53.0 0.5 4.3
f 48.3 43.7 2.3 5.7
GER m 60.2 32.5 0.5 6.8
f 61.9 26.1 3.9 8.1
AUT m 47.7 45.2 0.6 6.5
f 49.3 38.0 3.4 9.3
FRA m 45.7 46.7 0.7 7.0
f 48.7 39.7 1.9 9.7
BEL m 44.9 45.9 0.5 8.7
f 45.3 42.0 0.8 11.9
IRL *) m 33.3 62.5 0.0 4.2
f 35.4 52.3 0.0 12.3
FIN m 51.5 42.2 1.3 5.0
f 52.4 34.8 4.5 8.2
HUN m 42.7 51.9 0.7 4.7
f 41.5 48.3 5.2 5.0
NZL m 41.1 50.3 0.8 7.9
f 41.6 45.4 3.3 9.8
RSA m 30.7 63.7 0.9 4.7
f 31.3 61.1 1.6 6.1
SIN m 35.2 54.2 0.7 9.9
f 41.6 44.5 2.0 11.8
MEX m 23.5 71.8 0.8 3.9
f 19.7 73.7 2.2 4.4
EST m 37.2 54.1 1.5 7.3
f 40.6 43.2 5.1 11.1
LUX*) m 57.8 35.0 1.3 5.8
f 60.6 28.5 2.1 8.8
GRE*) m 45.6 48.5 1.0 4.9
f 56.2 35.4 1.7 6.7
IND m 25.7 71.7 1.3 1.3
f 28.1 71.2 0.0 0.7
INT m 47.0 45.4 0.7 6.9
f 47.2 40.6 3.4 8.8
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Dependent activities
Independent activities
No employment (family)
Do not know

Figure 7: Future career aspirations after gender (> 5 years)

3.2 Entrepreneurial intentions and activities

In the following section, we will specifically discuss students' intentions and activities in relation to entrepreneurship.

3.2.1 Entrepreneurial intentions

As far as entrepreneurial intentions are concerned we have asked students whether they have ever seriously thought about setting up their own business. The results for all countries can be found in Figure 8. Specifically the results after each country and field of study can be found in the Appendix.

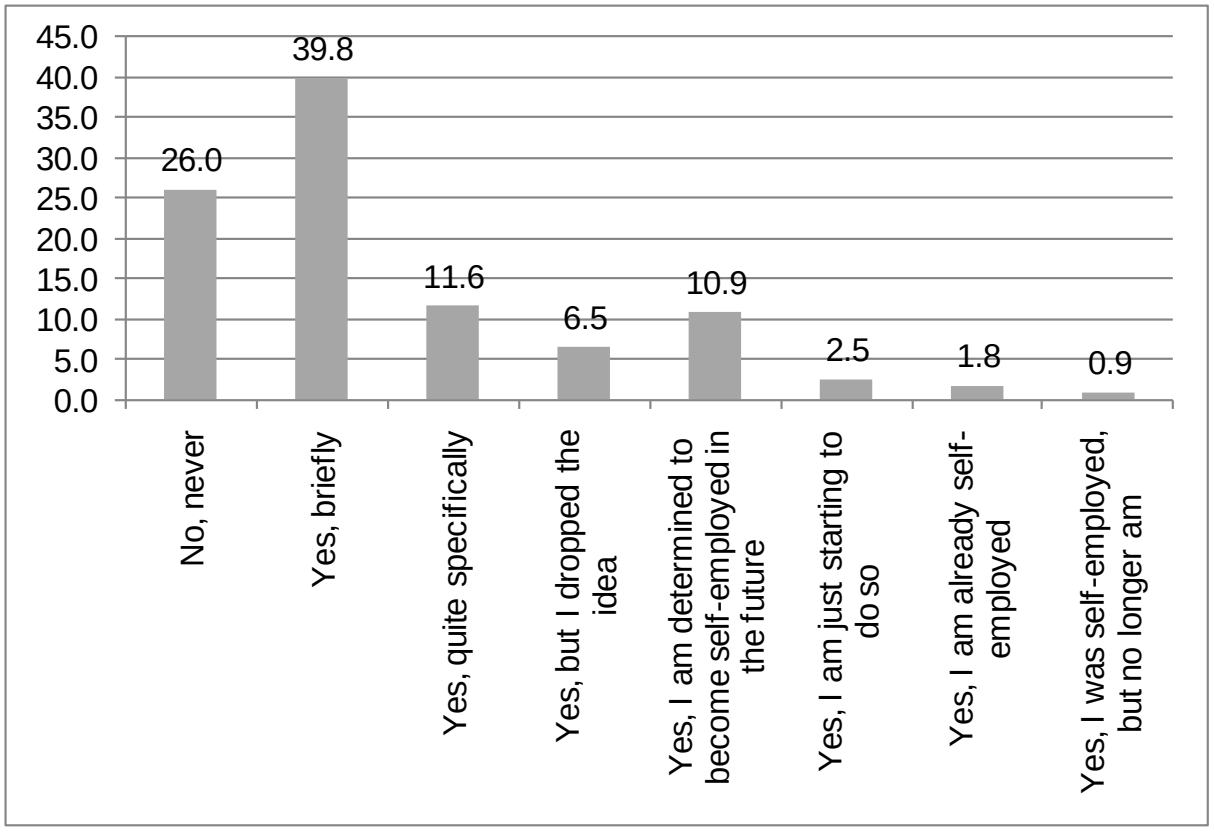


Figure 8: Entrepreneurial intentions and activities

The following main points can be made:

- 26.0 percent of all students **have never thought of becoming self-employed**. As far as the field of study is concerned, 33.1 percent of students in social sciences, followed by 28.1 percent of students in natural sciences and 19.0 percent of students in business related fields claim that they have never thought of becoming self-employed. Internationally compared students primary in Germany (37.2 percent), Switzerland (36.9 percent), Greece (32.0 percent) and Finland (31.9 percent), have never thought of becoming self-employed.

- 39.8 percent of all students only briefly have thought of becoming self-employed and that is the most frequently selected answer in all countries.
- Internationally 1.8 percent of all students are **active founders**. 0.9 percent of the students were some time in the past self- employed but they are no longer self-employed in the present. Most of the active founders can be found in Estonia (3.7 percent), Indonesia (2.6 percent) and Hungary (2.5 percent), whereas in France (0.4 percent), Belgium (0.6 percent) and Switzerland (0.8 percent) we find least of the active founders.
- The differences among countries as far as how concrete students' entrepreneurial intentions is concerned, are quite high and can be found in the Appendix 7.5 (p. 37).

3.2.2 Entrepreneurial activities

Regarding the actual entrepreneurial activity, different preparing activities are possible. Therefore all students that are potential founders were asked what steps they have already taken for the realization of their potential companies. Multiple answers were allowed. The aggregated results can be found in Figure 9. Results after each country and field of study can be found in Appendix 7.6 p. 38.

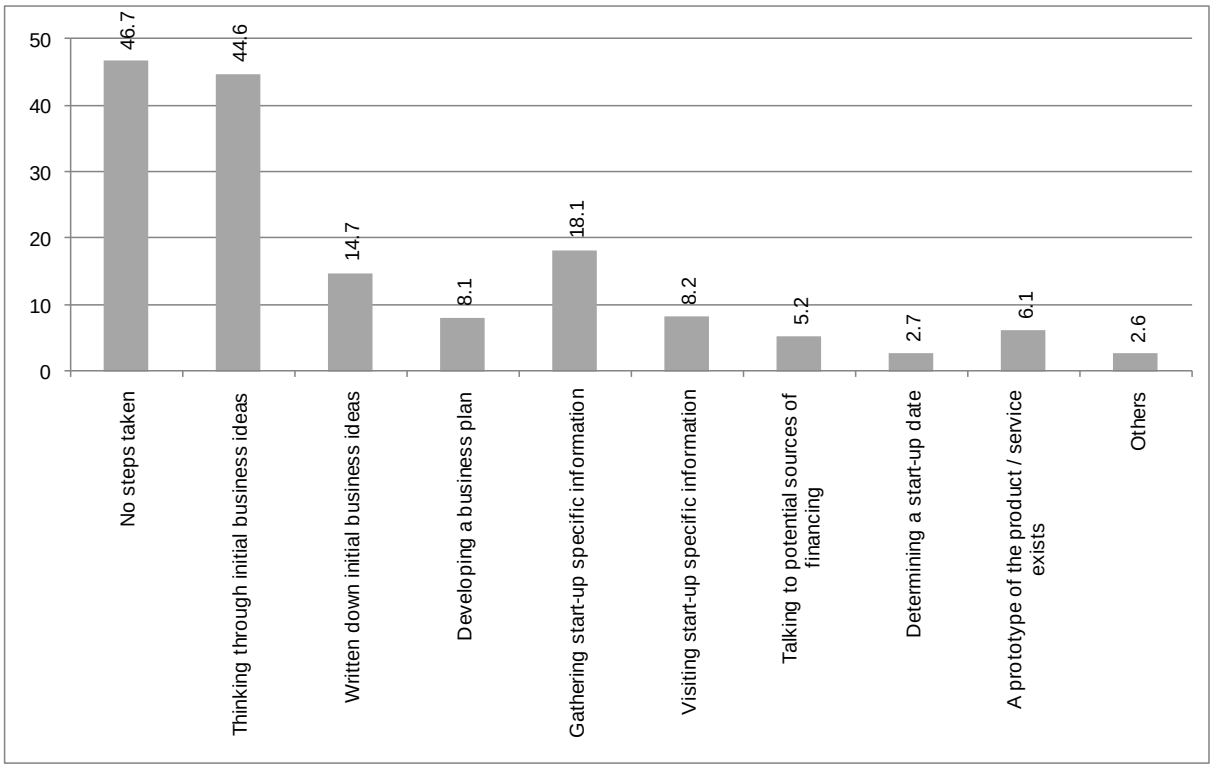


Figure 9: Steps already taken for the realization of a business

The following main points can be made:

- 46.7 percent of all students that have an interest in becoming self-employed have so far taken **no steps** for founding their start-up. This proportion is higher for students of social sciences (52.7 percent) and lower for students of business related studies (40.8 per-

cent). In Indonesia (3.8 percent), Mexico (24.0 percent) and South Africa (24.4 percent) the percentages are rather low compared to other countries.

- A large amount of students state that they have already started thinking through initial business ideas (44.6 percent). It can therefore be said that students are still in the first steps of their business foundation and the concrete steps that they have taken until now are still very vague. It is not amazing that other steps that follow like for example the writing of a business plan or the production of a prototype are less implemented. In the international comparison the distribution is similar and therefore will not be discussed further at this point. Compared internationally the distribution is quite similar and will not be further discussed in detail.

3.2.3 Students' entrepreneurial power according to an index

Students' entrepreneurial intentions and activities were used to create an index that shows their entrepreneurial power. The construction of the index can be found in 7.7 p. 39. The maximum value of the entrepreneurial power is 10 and the minimum 1. In Figure 10 the results are presented on an international and on a national level and after the field of study.
The following main points can be made:

- The international average of the index is 3.3.
- As expected students of business related fields show an above the international average value of entrepreneurial power (3.7 points) whereas students of social (3.0 points) and natural (3.1 points) sciences show a below the international average value of entrepreneurial power.
- In Indonesia (5.2 points), Mexico and Estonia (each 4.7 points) and South Africa (4.5 points) students have the highest values of entrepreneurial power, whereas students in Switzerland (2.8 points) and Germany (2.9 points) show the lowest values of entrepreneurial power.

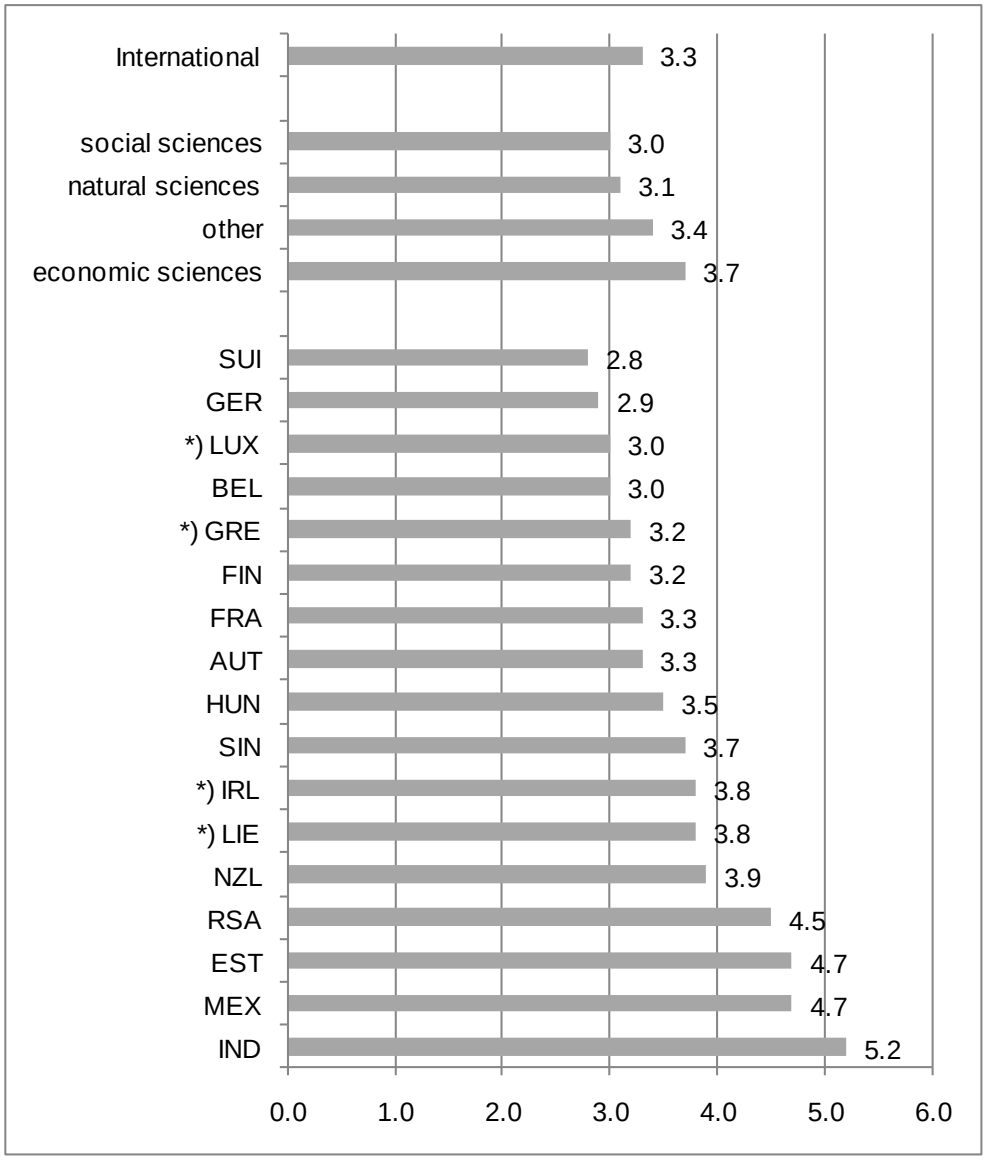


Figure 10: Index of students' entrepreneurial power

3.3 Start-ups founded by students

As presented in Figure 8 p. 19, only 1.8 percent of all students are already active founders. In the next table the number of the active founders in each country is presented.

Internationally compared it can be stated that students' foundation ratio in the different countries is between 4 percent and 0 percent. The highest representative ratios are found in Estonia and Austria, the lowest ratios in France and Belgium.

Country	n=	Number of foundations	Foundation rate
LIE *)	278	11	4,0%
EST	1548	58	3,7%
AUT	5818	194	3,3%
IND	583	15	2,6%
HUN	11366	279	2,5%
NZL	5332	125	2,3%
GER	7626	172	2,3%
FIN	1122	25	2,2%
RSA	2203	38	1,7%
MEX	720	11	1,5%
SIN	2319	28	1,2%
SUI	12685	99	0,8%
IRL *)	140	1	0,7%
BEL	9833	58	0,6%
FRA	1150	5	0,4%
GRE *)	284	1	0,4%
LUX *)	424	0	0,0%
INTERNATIONAL	63580	1127	1,8%

Table 4: Start-ups founded by students[10]

In the following existing start-ups founded by students will be examined. We focus on the industry, on students' assessment of the innovation degree of their companies and on students' previous experience with the industry, the products or services, the customers groups and distribution channels. In order to have enough cases per country, for this analysis we have included only the countries in which there are more than 50 students that are founders.

The industry analysis shows that approximately three quarters of all start-ups founded by students can be found in the service sector, followed by trade (approximately 14 percent), manufacturing (6.7 percent) and finally primary manufacturing as for example agriculture or fishery.

Compared internationally, it is noticeable that the proportion of primary manufacturing is remarkably high in New Zealand (7.2 percent). The proportion of services is mainly high in central European countries, like for example in Belgium (87.9 percent), Austria (85.1 percent) and Germany (84.3 percent). In Hungary (17.2 percent) and Switzerland (16.2 percent) business models in trade are relatively of high importance.

[10] Australia and Portugal are not included in this table – the total refers however to the whole data set.

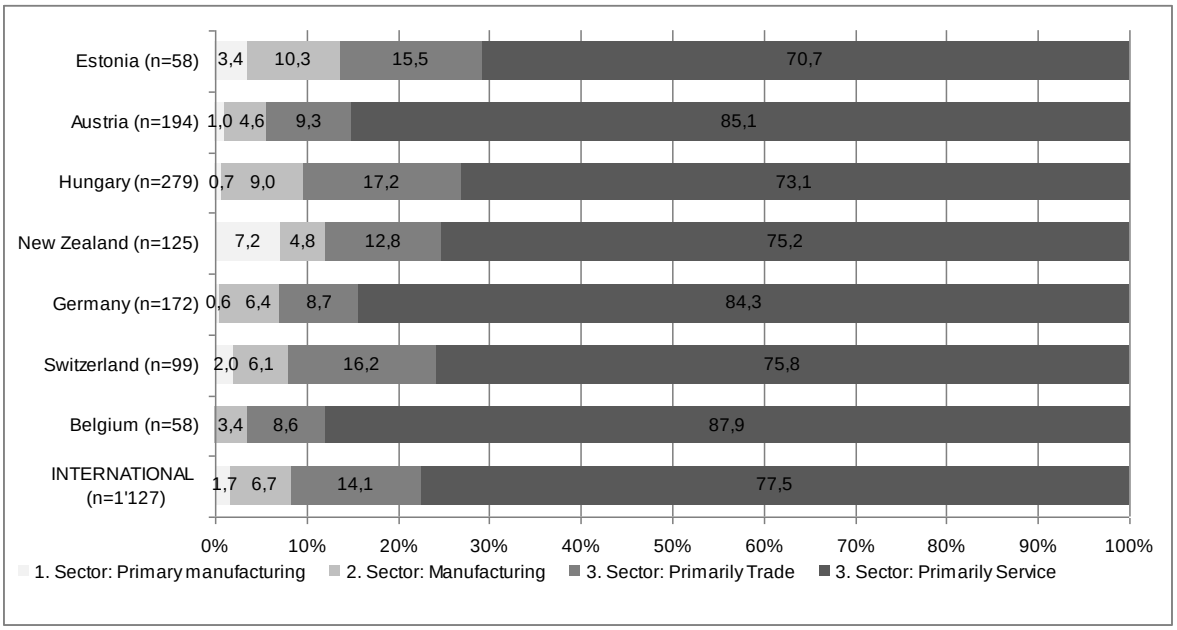


Figure 11: Industry distribution

Regarding the innovation degree of the selected business models it can be stated that in the international average 56.1 percent of all start-ups are classified by their founders to be traditional and proven concepts. Only 9.6 percent of the founders indicate that their concept is new worldwide. This ratio is particularly low in Hungary (2.5 percent) and particularly high in Switzerland (17.2 percent).

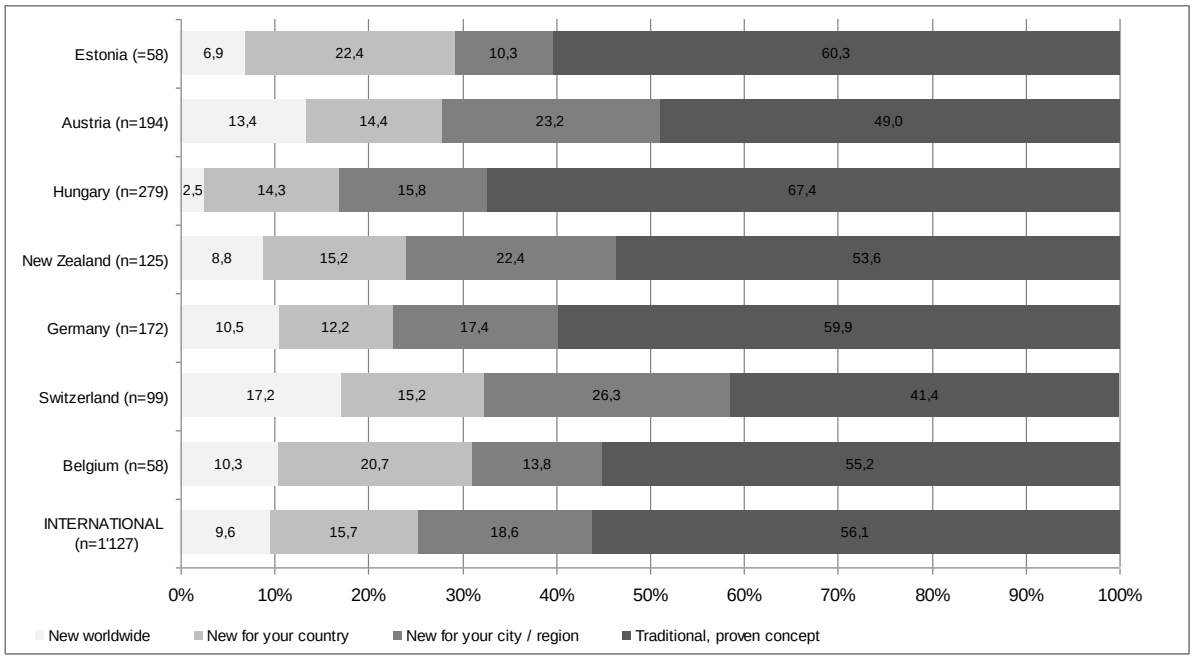


Figure 12: Perception of the innovation degree

Regarding the **experience**, which preceded the establishment of the start-up, it can be stated that the majority of the founders already had previous experience. The international average

shows that founders had particularly experience with products (88.6 percent) and customers (83.1 percent) followed by industry experience (80.5 percent) and experience with distribution channels (66.4 percent). The experience time is thereby on average between 5 to 6.5 years.

	Industry			Product/Services			Customers			Distribution channels		
	yes	no	no. of years	yes	no	no. of years	yes	no	no. of years	yes	no	no. of years
EST	81,0%	19,0%	4,92	89,7%	10,3%	4,58	89,7%	10,3%	4,76	62,1%	37,9%	3,92
AUT	92,3%	7,7%	7,46	95,9%	4,1%	7,07	89,7%	10,3%	6,76	73,2%	26,8%	6,13
HUN	70,6%	29,4%	6,42	87,1%	12,9%	6,09	83,9%	16,1%	5,86	69,9%	30,1%	5,13
NZL	82,4%	17,6%	8,06	87,2%	12,8%	7,82	79,2%	20,8%	7,70	58,4%	41,6%	6,75
GER	82,6%	17,4%	5,50	91,9%	8,1%	5,72	84,9%	15,1%	5,30	65,7%	34,3%	4,25
SUI	82,8%	17,2%	6,07	85,9%	14,1%	5,97	76,8%	23,2%	5,55	65,7%	34,3%	4,65
BEL	75,9%	24,1%	3,70	86,2%	13,8%	3,79	77,6%	22,4%	3,67	58,6%	41,4%	3,97
INT	80,5%	19,5%	6,38	88,6%	11,4%	6,20	83,1%	16,9%	5,85	66,4%	33,6%	5,17

Table 5: Founders previous experience

4 The university

Entrepreneurship is already a part of students' education in many universities and universities of applied sciences. Below we concern ourselves with the university environment, which can be fostering or hindering for students' entrepreneurial power.

4.1 The importance and existence of possible university services

In a first step we asked the students how they value the importance of different university services in the field of entrepreneurship (Figure 13). The comparison between the different countries can be found in Appendix 7.8 p. 40. The following main points can be made:

- The international average shows that contact points for general questions are evaluated as having high importance (Mw=4.16), followed by start-up coaching (Mw=4.11) and incubators (Mw=4.00). This means that the desire for very concrete support as far as founding-related questions are concerned is judged as important.
- More informative platforms, for example general seminars and lectures (Mw=3.83) or regular round tables for founders (Mw=3.85) are judged as less important.

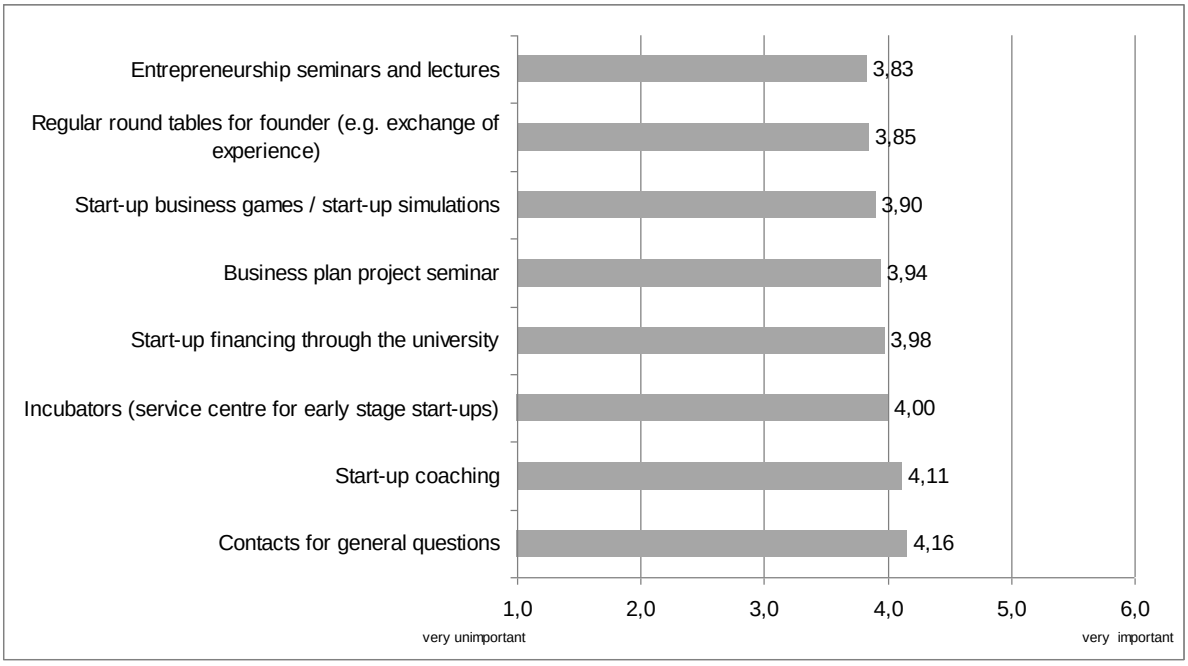


Figure 13: The importance of university services

- Compared internationally particularly students in Switzerland, Germany, Austria, Belgium and New Zealand find possible university services as less important as the international average. Students from Indonesia find the different services as most important and especially seminar and lectures and start-up business games / start-up simulations.

Students were also asked which services already exist in their universities or universities of applied sciences. It is important to note that in the following we present students' perceptions and not whether the following are indeed offered by the universities.

- Regarding the existing services by the university in the field entrepreneurship it can be stated that in international average seminars and lectures are mostly widespread (37.9 percent), which is not a surprise since they are the classical lecture formats that are offered from universities and universities of applied sciences.

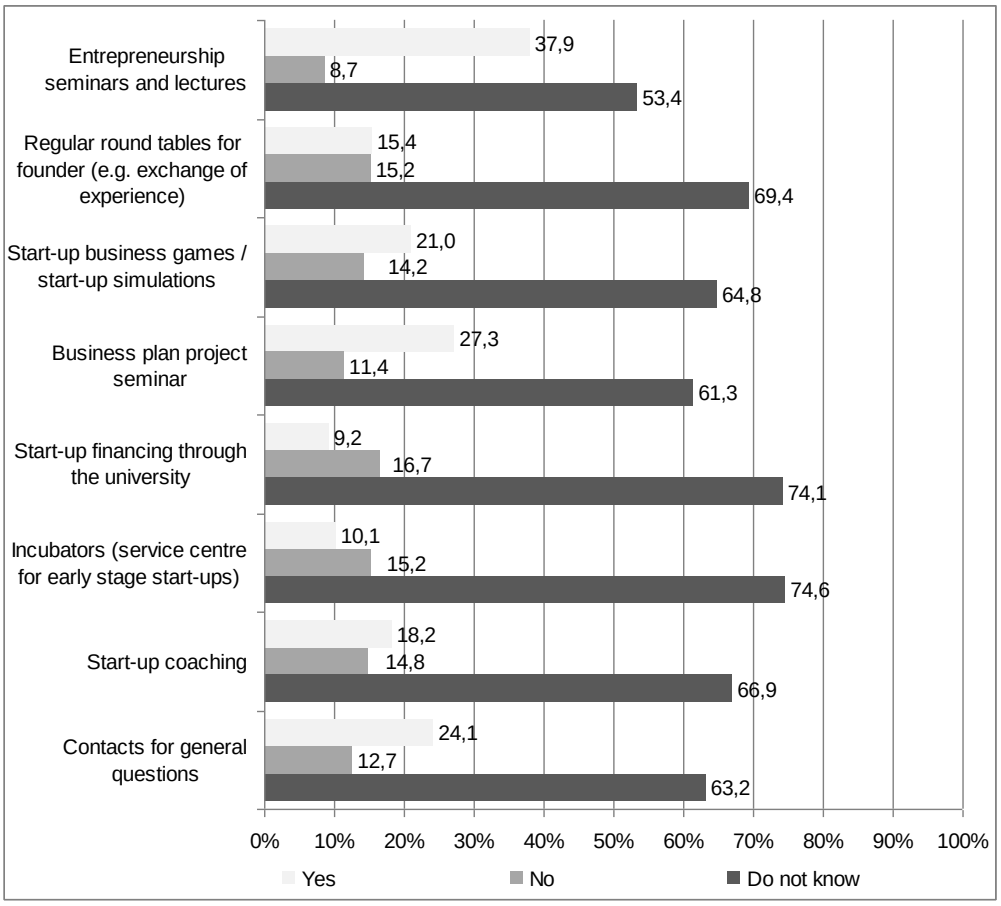


Figure 14: The existence of entrepreneurial services

- Students' wish for contact points for general questions regarding entrepreneurship seems to be good fulfilled as 24.1 percent of them state that they are offered by their university. Incubators (service centers for early stage start-ups) are mostly not offered.
- Remarkably a large number of students do not give an indication whether the above mentioned services exist in their universities. On the one hand, this could be due to the fact that students do not know if these services exist, which means that universities should intensify their communication strategies in order to make their offers and services more transparent. On the other hand it could be that students' founding intention is not yet so strong in order to mobilize them for the acquisition of more information. The

international comparison can be found in Appendix 7.9 p. 41 and will not be discussed further at this point.

4.2 The use of university services

The actual use of the selected services is presented in the Figure below.

- Compared internationally students most frequently make use of entrepreneurship seminars and lectures (41.9 percent) and business plan seminars (35.9 percent), followed by start-up business games / start-up simulations (32.7 percent).

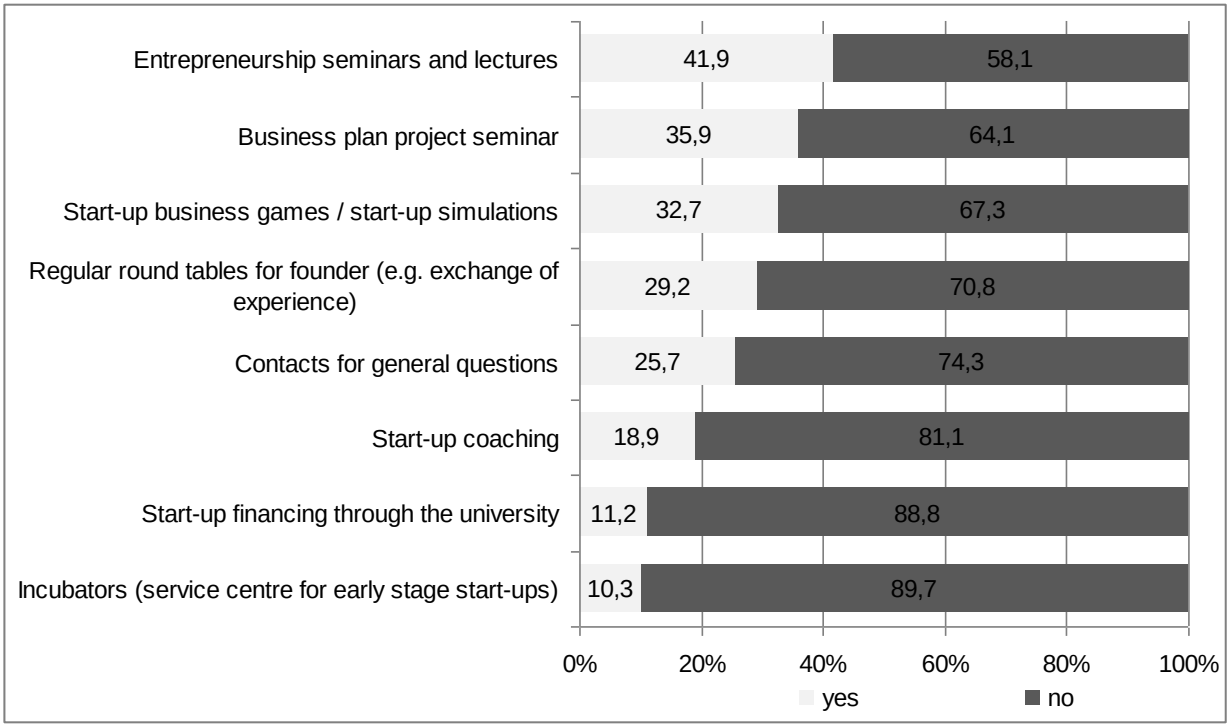


Figure 15: The use of the university services

- Incubators, for example in the form of service centers for early stage start-ups, are hardly used. Once more a possible interpretation is that the concretization degree of possible start-ups during the studies is for the majority of the student's relative low.
- With the exception of some deviations the distribution in the international comparison is relatively similar and therefore will not further be commented (Appendix).

5 The students and his/her goals

5.1 Students' business goals

All the potential students (with an entrepreneurial intention) and the already existing entrepreneurs were asked the question "which objectives they will have or have in the present". It is important to note that the question was about their business goals and not their personal goals. The most important aggregated results can be found in Figure 16. The AM-Table can be found in Appendix 7.11.

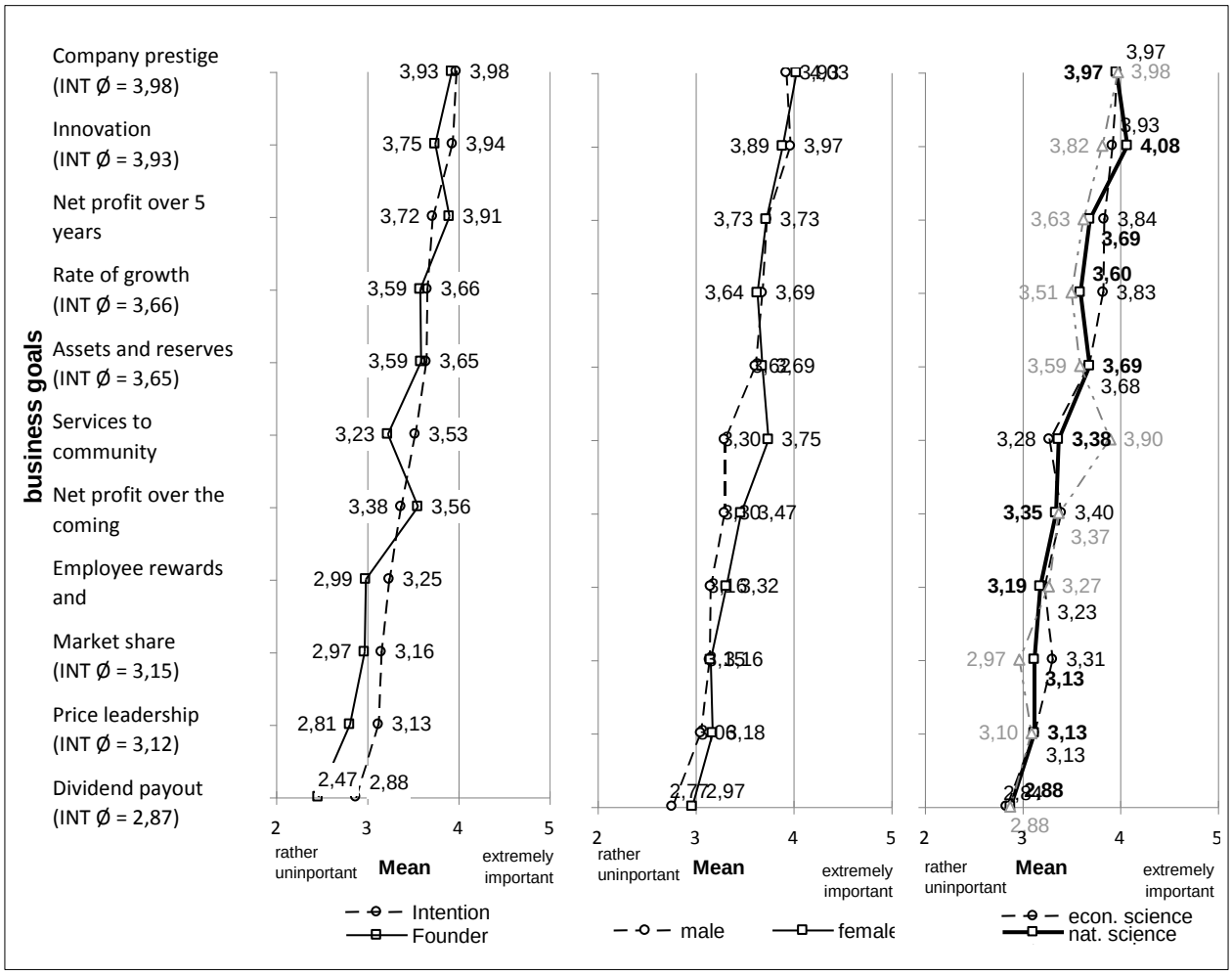


Figure 16: Students' business goals

The following main points can be made:

- The international average shows that the company's prestige (MW=3.98), the innovation power (MW=3.93), the net profit over 5 years (MW=3.73) and the growth rate (MW=3.66) are students' most important business goals. Goals like dividend payout (MW=2.87), price leadership (MW=3.12) or market share (MW=3.15) are seen as less important.
- Compared internationally in Switzerland, Liechtenstein, Singapore and Indonesia, innovation as a business goal has the highest priority. In France and South Africa the growth

rate of the business is the most important. In New Zealand and South Africa, services to the community are an additionally highly important business goal. As far as the low valued business goals are concerned there are no substantial differences between the different countries. Only the business goal price leadership is substantially higher evaluating from students from Indonesia than students from other countries.

- Regarding the business goals we have differentiated among potential and existing founders. It can be stated that potential founders value business goals higher than the actual founders. We can suppose that the expectations become reduced doe to some real experiences.
- A substantial difference is that actual founders give a higher importance to net profit over the coming year and over five years than potential founders. Seen simply, it could be said that the surviving of the enterprise is dependent on the net profit and in the context of the concrete activity these business goals are in the foreground while others are more in the background. In the international comparison no substantial differences occurred, therefore they will no further be discussed at this point and they will not be presented in the Appendix.
- Both female and male students rate the business goals very similar. A large difference can be found regarding the business goal "services to the community" - a goal, which is substantially stronger valued by female students. Compared internationally there are small gender differences and therefore they will no further be discussed at this point and they will not be presented in the Appendix.
- Finally we have examined the business goals from a field of study perspective. The AM lines as seen in Figure 16 flow – with few exceptions – very similarly. Once more, the largest differences are found regarding the business goal "services to the community". Students of social sciences value this business goal higher than students of natural and business related study fields. On the contrast the business goal "market share" is evaluated by students of social sciences substantially lower than students of the two other fields of studies. Finally the business goal "innovation" is evaluated higher by students of natural sciences. Due to reasons of clarity we will not present an international comparison, as there are the same trends in all countries.

5.2 Self-employment satisfaction

Finally we look more closely at those students that are already self-employed. We focus on seven countries (SUI, GER, AUT, BEL, NZL, HUN and EST) that had a sufficient self-employment response rate. In the following Figure we present (in red) the means of the international values as well as the highest and the lowest values of the previous mentioned countries. The means in each country can be found in the Appendix 7.12.

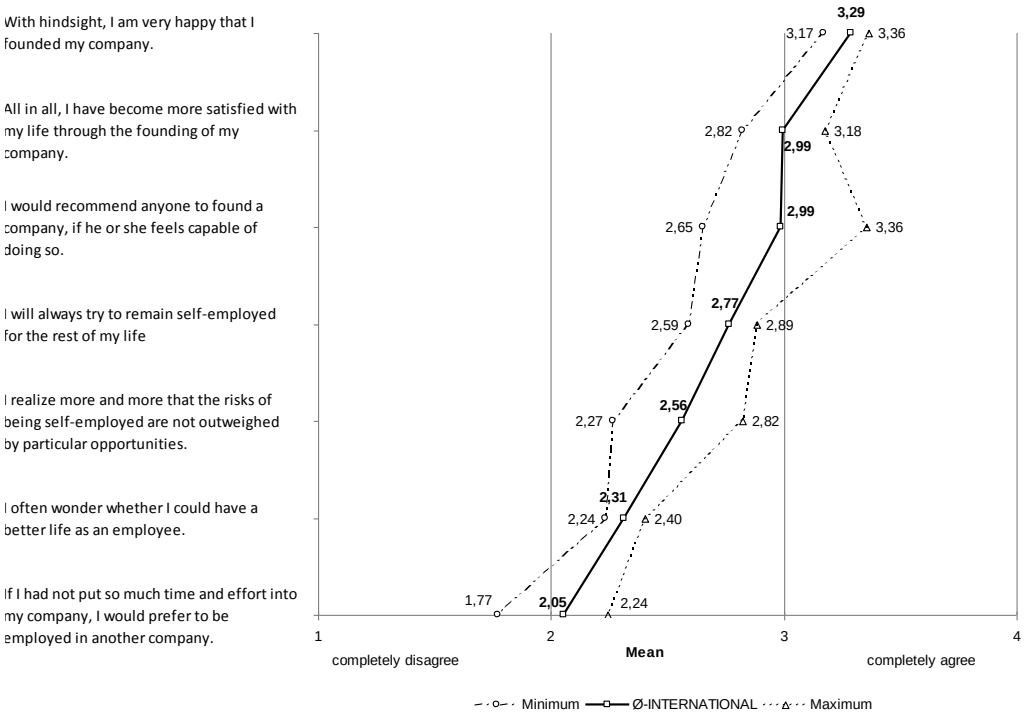


Figure 17: Self-employment satisfaction

The following main points can be made:

- Generally speaking, female and male entrepreneurs are very happy that they founded their companies and they would do it again.

6 Summary and practical implications

The report GUESSS 2008 analyzes the entrepreneurial activities and intentions of students. 19 countries took part in the survey in 2008, whereby the participation degree is not the same in all countries. Moreover the response rate and the structure of the data are not the same in all countries and therefore country comparisons presented in this report should be handled with caution. For these reasons some countries had to be excluded or they are presented with an *). We are however very confident that the comparability will be further increased in the next surveys as the project continues to evolve.

In the beginning of the report the students' career aspirations have been presented. The results show that a great proportion of students would prefer to begin their working life as employees. A possible explanation is that students would like to gather working experience, in order to be able to manage a start-up better in the future. However conceptions about the future change, like the report indicates, with an increasing time horizon. So there could be a trend that an entrepreneurial activity becomes more desirable with an increasing time horizon.

Another focus of the report is students' actual entrepreneurial intention and activities. Surprisingly it turns out that countries, in which students show a high sensitization degree towards entrepreneurship do not necessarily show high founder ratios. This sensitization seems to increase the entrepreneurial activity; nevertheless note it does not promote the effective number of start-ups among students.

Taking the index of students' entrepreneurial power into consideration we can draw the conclusion that in central Europe and especially Switzerland and Germany, students show the lowest entrepreneurial power. In Indonesia, Mexico, Estonia and South Africa students show the highest levels of entrepreneurial power.

As far as the already founded companies are concerned our results show that they do not concern primary high tech business foundations but they are rather proven concepts in the service sector as for example in the consultancy sector.

We have also examined the university environment and entrepreneurship related services offered by universities and universities of applied sciences. The first thing that we should note is that students are not aware of the services that are offered in their universities. A possible interpretation is that students should have a high entrepreneurial intention in order to seek for concrete information. Another explanation could be that universities do not satisfactory communicate to their students the existence of these services. It is worth mentioning that students evaluate contact points for general questions as being very important.

7 Appendix

7.1 Fields of study (absolute)

	SUI	LIE*)	GER	AUT	FRA	BEL	IRL*)	FIN	HUN	NZL	RSA	SIN	MEX	EST	LUX*)	GRE*)	IND	INT
Business, political economics	3057	185	1627	1632	684	1831	94	393	1652	1183	836	627	163	215	107	117	464	14946
Law	773	0	270	386	8	495	27	9	800	224	120	21	16	105	53	1	3	3316
Computer science	715	27	620	444	14	399	1	131	889	171	54	331	45	71	53	4	14	3999
Manufacturing and processing	79	0	25	18	2	71	1	5	27	43	16	30	44	14	0	0	7	384
Transportation services	5	0	53	20	14	31	0	3	46	21	7	11	1	11	0	0	0	224
Subtotal business related sciences	**4629**	**212**	**2595**	**2500**	**722**	**2827**	**123**	**541**	**3414**	**1642**	**1033**	**1020**	**269**	**416**	**213**	**122**	**488**	**22869**
Natural sciences	810	0	377	338	1	274	0	7	469	180	102	49	15	36	5	1	1	2667
Mathematics and Statistic	190	1	130	109	6	69	0	2	102	41	66	33	9	27	9	3	13	810
Engineering	1552	1	1020	575	220	742	1	188	956	189	110	347	131	42	22	4	5	6133
Architecture and building	716	49	102	272	31	408	4	69	325	27	53	16	63	19	7	0	3	2164
Agriculture, forestry and fishery	110	0	53	118	0	170	0	10	175	69	71	0	9	6	0	1	3	796
Subtotal natural sciences	**3378**	**51**	**1682**	**1412**	**258**	**1663**	**5**	**276**	**2027**	**506**	**402**	**445**	**227**	**130**	**43**	**9**	**25**	**12570**
Teacher training and education science	508	0	774	228	2	315	3	0	942	282	72	23	5	198	70	63	5	3491
Humanities	535	1	642	247	2	702	1	3	905	355	98	25	27	187	23	11	3	3767
Social and behavioral science	1038	2	628	517	12	1446	2	8	1831	336	135	141	26	152	40	45	22	6383
Life sciences	507	0	134	144	0	401	0	4	175	415	91	147	13	65	10	1	7	2117
Health	622	0	293	49	0	890	0	59	779	964	144	90	52	53	11	3	2	4011
Social services	259	0	167	60	2	394	0	42	256	106	20	8	2	45	2	1	4	1368
Subtotal social sciences	**3469**	**3**	**2638**	**1245**	**18**	**4148**	**6**	**116**	**4888**	**2458**	**560**	**434**	**125**	**700**	**156**	**124**	**43**	**21137**
Art	128	1	80	48	3	210	0	73	137	266	26	94	34	88	0	4	10	1202
Journalism and information	142	0	60	33	1	180	0	4	185	38	25	9	15	40	1	0	5	738
Personal services	94	0	58	72	18	16	1	2	132	50	17	83	8	71	0	1	2	628
Environmental protection	138	1	26	78	7	97	1	4	155	57	24	18	8	25	1	12	5	659
Security services	38	0	0	0	1	54	0	0	7	3	2	5	1	2	0	1	0	114
Unknown	669	10	487	430	122	638	4	106	421	312	114	211	33	76	10	11	5	3663
Subtotal other	**1209**	**12**	**711**	**661**	**152**	**1195**	**6**	**189**	**1037**	**726**	**208**	**420**	**99**	**302**	**12**	**29**	**27**	**7004**
Total fields of study	12685	278	7626	5818	1150	9833	140	1122	11366	5332	2203	2319	720	1548	424	284	583	63580

7.2 Fields of study (in Percent)

	SUI	LIE	GER	AUT	FRA	BEL	IRL	FIN	HUN	NZL	RSA	SIN	MEX	EST	LUX*)	GRE*)	IND	INT
Business, political economics	24,10	66,55	21,33	28,05	59,48	18,62	67,14	35,03	14,53	22,19	37,95	27,04	22,64	13,89	25,24	41,20	79,59	23,51
Law	6,09	0,00	3,54	6,63	0,70	5,03	19,29	0,80	7,04	4,20	5,45	0,91	2,22	6,78	12,50	0,35	0,51	5,22
Computer science	5,64	9,71	8,13	7,63	1,22	4,06	0,71	11,68	7,82	3,21	2,45	14,27	6,25	4,59	12,50	1,41	2,40	6,29
Manufacturing and processing	0,62	0,00	0,33	0,31	0,17	0,72	0,71	0,45	0,24	0,81	0,73	1,29	6,11	0,90	0,00	0,00	1,20	0,60
Transportation services	0,04	0,00	0,69	0,34	1,22	0,32	0,00	0,27	0,40	0,39	0,32	0,47	0,14	0,71	0,00	0,00	0,00	0,35
Subtotal business related sciences	**36,5**	**76,3**	**34,0**	**43,0**	**62,8**	**28,8**	**87,9**	**48,2**	**30,0**	**30,8**	**46,9**	**44,0**	**37,4**	**26,9**	**50,2**	**43,0**	**83,7**	**36,0**
Natural sciences	6,39	0,00	4,94	5,81	0,09	2,79	0,00	0,62	4,13	3,38	4,63	2,11	2,08	2,33	1,18	0,35	0,17	4,19
Mathematics and Statistic	1,50	0,36	1,70	1,87	0,52	0,70	0,00	0,18	0,90	0,77	3,00	1,42	1,25	1,74	2,12	1,06	2,23	1,27
Engineering	12,23	0,36	13,38	9,88	19,13	7,55	0,71	16,76	8,41	3,54	4,99	14,96	18,19	2,71	5,19	1,41	0,86	9,65
Architecture and building	5,64	17,63	1,34	4,68	2,70	4,15	2,86	6,15	2,86	0,51	2,41	0,69	8,75	1,23	1,65	0,00	0,51	3,40
Agriculture, forestry and fishery	0,87	0,00	0,69	2,03	0,00	1,73	0,00	0,89	1,54	1,29	3,22	0,00	1,25	0,39	0,00	0,35	0,51	1,25
Subtotal natural sciences	**26,6**	**18,3**	**22,1**	**24,3**	**22,4**	**16,9**	**3,6**	**24,6**	**17,8**	**9,5**	**18,2**	**19,2**	**31,5**	**8,4**	**10,1**	**3,2**	**4,3**	**19,8**
Teacher training and education	4,00	0,00	10,15	3,92	0,17	3,20	2,14	0,00	8,29	5,29	3,27	0,99	0,69	12,79	16,51	22,18	0,86	5,49
Humanities	4,22	0,36	8,42	4,25	0,17	7,14	0,71	0,27	7,96	6,66	4,45	1,08	3,75	12,08	5,42	3,87	0,51	5,92
Social and behavioral science	8,18	0,72	8,23	8,89	1,04	14,71	1,43	0,71	16,11	6,30	6,13	6,08	3,61	9,82	9,43	15,85	3,77	10,04
Life sciences	4,00	0,00	1,76	2,48	0,00	4,08	0,00	0,36	1,54	7,78	4,13	6,34	1,81	4,20	2,36	0,35	1,20	3,33
Health	4,90	0,00	3,84	0,84	0,00	9,05	0,00	5,26	6,85	18,08	6,54	3,88	7,22	3,42	2,59	1,06	0,34	6,31
Social services	2,04	0,00	2,19	1,03	0,17	4,01	0,00	3,74	2,25	1,99	0,91	0,34	0,28	2,91	0,47	0,35	0,69	2,15
Subtotal social sciences	**27,3**	**1,1**	**34,6**	**21,4**	**1,6**	**42,2**	**4,3**	**10,3**	**43,0**	**46,1**	**25,4**	**18,7**	**17,4**	**45,2**	**36,8**	**43,7**	**7,4**	**33,2**
Art	1,01	0,36	1,05	0,83	0,26	2,14	0,00	6,51	1,21	4,99	1,18	4,05	4,72	5,68	0,00	1,41	1,72	1,89
Journalism and information	1,12	0,00	0,79	0,57	0,09	1,83	0,00	0,36	1,63	0,71	1,13	0,39	2,08	2,58	0,24	0,00	0,86	1,16
Personal services	0,74	0,00	0,76	1,24	1,57	0,16	0,71	0,18	1,16	0,94	0,77	3,58	1,11	4,59	0,00	0,35	0,34	0,99
Environmental protection	1,09	0,36	0,34	1,34	0,61	0,99	0,71	0,36	1,36	1,07	1,09	0,78	1,11	1,61	0,24	4,23	0,86	1,04
Security services	0,30	0,00	0,00	0,00	0,09	0,55	0,00	0,00	0,06	0,06	0,09	0,22	0,14	0,13	0,00	0,35	0,00	0,18
Unknown	5,27	3,60	6,39	7,39	10,61	6,49	2,86	9,45	3,70	5,85	5,17	9,10	4,58	4,91	2,36	3,87	0,86	5,76
Subtotal other	**9,5**	**4,3**	**9,3**	**11,4**	**13,2**	**12,2**	**4,3**	**16,8**	**9,1**	**13,6**	**9,4**	**18,1**	**13,8**	**19,5**	**2,8**	**10,2**	**4,6**	**11,0**
Total fields of study	12685	278	7626	5818	1150	9833	140	1122	11366	5332	2203	2319	720	1548	424	284	583	63580

7.3 Students' future career aspirations (< 5 years in Percent)

	n=	Micro-enterprise	Small company	Medium sized company	Large company	University	Public sector	Family business	Take over	Franchise	Stake in a company	Continuing an own company.	Start-up	Freelance	No work	Don't know	Other
SUI	12'685	5.9	16.6	17.6	20.2	10.2	11.1	0.6	0.3	0.3	4.8	0.5	1.8	1.8	0.6	6.1	1.8
LIE *)	278	7.9	17.3	24.1	28.4	1.8	1.1	2.2	0.4	0.4	4.0	2.2	4.3	1.4	0.4	3.6	0.7
GER	7'626	3.3	12.3	19.9	21.9	12.7	11.7	0.8	0.3	0.1	3.1	0.6	1.7	3.4	0.6	5.9	1.6
AUT	5'818	4.6	14.7	20.5	17.4	11.1	7.1	1.7	0.6	0.3	4.3	1.6	3.2	4.6	0.7	6.4	1.3
FRA	1'150	1.5	9.8	19.8	42.9	2.1	1.8	0.8	0.5	0.3	7.5	0.2	4.0	0.5	0.8	6.3	1.3
BEL	9'833	8.6	18.3	15.5	12.4	12.8	6.8	1.7	1.3	0.7	3.6	0.6	2.5	3.7	0.6	8.7	2.1
IRL *)	140	6.4	10.0	17.1	24.3	4.3	7.1	3.6	0.0	0.7	0.7	0.7	7.9	4.3	0.0	10.0	2.9
FIN	1'122	7.7	22.1	22.5	17.3	1.0	4.3	2.0	0.9	0.6	1.1	1.9	5.1	4.3	2.1	6.0	1.2
HUN	11'366	4.0	10.4	16.1	14.4	7.0	16.4	5.1	2.2	0.9	4.4	1.5	6.6	2.7	1.4	5.5	1.3
NZL	5'332	8.4	17.5	17.5	14.2	7.8	7.4	1.4	1.3	0.7	1.4	1.7	4.4	3.8	1.1	9.1	2.1
RSA	2'203	4.4	11.9	18.0	20.8	5.7	3.9	3.0	1.8	2.5	4.6	1.8	8.0	3.3	0.7	7.4	2.0
SIN	2'319	2.3	9.7	16.7	26.4	7.9	6.0	2.5	0.8	1.3	1.9	1.9	6.2	3.5	1.1	9.9	1.9
MEX	720	2.8	7.6	17.4	30.8	5.0	0.8	8.8	2.9	1.5	1.0	1.3	9.0	2.9	1.1	4.7	2.4
EST	1'548	5.9	18.7	15.4	4.3	4.4	17.0	2.8	2.6	0.7	2.4	2.7	4.7	4.8	3.4	8.7	1.6
LUX *)	424	5.7	13.9	15.3	11.8	10.4	19.3	1.2	0.9	0.2	5.4	0.5	2.1	2.1	1.2	7.5	2.4
GRE *)	284	6.0	9.2	17.6	12.0	6.7	20.8	5.3	1.8	1.1	1.4	0.0	1.8	2.8	1.8	10.6	1.4
IND	583	1.7	4.6	18.5	40.5	3.4	5.3	3.9	1.7	2.7	2.2	1.7	8.7	1.2	0.2	1.4	2.1
INT	**63'580**	**5.5**	**14.5**	**17.6**	**17.9**	**9.3**	**10.0**	**2.2**	**1.1**	**0.6**	**3.7**	**1.1**	**3.8**	**3.1**	**0.9**	**6.9**	**1.7**

7.4 Students' future career aspirations (> 5 years, in Percent)

	n=	Micro-enterprise	Small company	Medium sized company	Large company	University	Public sector	Family business	Take over	Franchise	Stake in a company	Continuing an own company.	Start-up	Freelance	No work	Don't know	Other
SUI	12'685	2.5	7.7	10.9	15.7	6.0	10.1	2.3	2.2	1.0	6.2	1.3	14.9	7.1	2.2	8.7	1.3
LIE *)	278	1.4	5.0	11.5	20.5	2.9	1.8	6.8	3.6	0.4	5.8	2.5	24.5	5.4	1.1	4.7	2.2
GER	7'626	1.0	4.4	12.3	21.3	8.4	12.9	1.6	1.5	0.5	4.6	1.4	11.6	7.5	2.3	7.4	1.3
AUT	5'818	1.4	5.5	10.1	16.3	6.8	7.9	2.8	2.1	0.5	6.1	2.6	17.1	9.7	2.1	7.9	1.0
FRA	1'150	0.7	3.2	10.1	28.0	2.4	1.9	2.2	2.0	2.4	7.0	0.5	22.0	6.6	1.2	8.1	1.6
BEL	9'833	2.8	7.3	9.7	12.3	6.2	6.1	2.0	3.1	2.2	3.8	1.6	20.2	10.2	0.7	10.2	1.6
IRL *)	140	0.7	2.9	7.9	14.3	2.1	5.7	4.3	1.4	2.1	4.3	5.0	25.0	14.3	0.0	7.9	2.1
FIN	1'122	2.9	10.5	16.1	16.8	1.7	3.6	2.7	3.3	0.7	3.0	3.7	20.1	4.6	2.9	6.6	0.9
HUN	11'366	1.5	3.1	6.6	14.1	5.0	11.2	4.8	2.2	2.2	5.1	3.6	26.0	5.2	3.4	4.9	1.1
NZL	5'332	3.2	8.2	7.1	10.3	7.1	4.7	2.0	3.8	2.7	4.2	3.3	20.4	10.3	2.2	8.8	1.6
RSA	2'203	1.1	2.6	6.1	14.9	4.0	1.7	2.5	4.1	4.9	9.6	4.9	26.4	9.0	1.2	5.3	1.7
SIN	2'319	0.9	2.5	5.5	17.1	7.3	4.5	2.0	1.8	3.2	5.0	3.4	28.1	5.0	1.3	10.7	1.8
MEX	720	0.8	1.7	3.2	11.0	3.8	1.0	7.4	2.4	6.7	4.2	9.2	35.0	6.5	1.4	4.0	1.9
EST	1'548	1.6	7.9	7.9	5.4	5.6	11.3	2.9	3.9	1.0	3.6	4.7	21.2	8.0	4.3	10.2	0.6
LUX *)	424	2.1	4.7	7.5	14.2	8.7	20.8	1.9	1.4	0.2	4.7	0.5	13.2	9.4	1.7	7.1	1.9
GRE *)	284	1.4	0.7	3.5	9.2	9.5	27.5	2.1	2.5	4.6	5.6	2.1	14.1	8.8	1.4	6.0	1.1
IND	583	0.7	0.9	2.4	14.9	1.9	5.8	3.3	3.1	5.1	6.9	5.3	44.6	2.6	0.7	1.0	0.9
INT	63'580	1.9	5.7	9.1	15.1	6.1	8.6	2.7	2.5	1.8	5.2	2.5	19.8	7.7	2.1	7.8	1.3

7.5 Students' entrepreneurial intentions (in Percent)

	No, never	Yes, briefly	Yes, quite specifically	Yes, but I dropped the idea	Yes, I am determined to become self-employed in the future	Yes, I am just starting to do so	Yes, I am already self-employed	Yes, I was self-employed, but no longer
Internationally	26.0	39.8	11.6	6.5	10.9	2.5	1.8	0.9
Business related sciences	19.0	40.1	13.0	7.1	14.2	3.2	2.3	1.1
Natural sciences	28.1	41.4	10.6	6.0	9.8	1.9	1.4	0.6
Social sciences	33.1	38.4	10.3	6.0	7.9	2.0	1.3	1.0
Other	23.6	40.2	12.7	7.1	10.8	2.6	2.0	0.9
SUI	36.9	40.5	9.7	4.3	6.0	1.3	0.8	0.5
LIE *)	19.1	39.9	13.7	8.6	9.0	3.6	4.0	2.2
GER	37.2	38.0	8.5	6.8	4.9	1.2	2.3	1.0
AUT	24.8	41.6	11.6	8.4	7.9	1.3	3.3	1.1
FRA	23.1	40.0	16.1	3.8	14.3	1.8	0.4	0.4
BEL	28.5	35.7	13.1	8.1	12.2	1.5	0.6	0.1
IRL *)	18.6	35.7	10.7	6.4	24.3	2.1	0.7	1.4
FIN	31.9	42.4	6.4	7.3	6.7	1.2	2.2	1.8
HUN	16.8	48.9	13.2	5.5	8.6	3.4	2.5	1.2
NZL	18.3	35.4	12.0	7.0	17.6	4.6	2.3	2.8
RSA	8.2	26.6	13.0	7.9	36.0	5.9	1.7	0.6
SIN	16.6	26.6	11.7	9.0	19.0	6.1	1.2	0.9
MEX	7.2	30.6	13.9	3.6	34.7	8.2	1.5	0.3
EST	19.5	47.7	12.0	6.1	8.5	1.5	3.7	1.0
LUX *)	30.2	42.0	11.3	6.6	7.8	1.9	0.0	0.2
GRE *)	32.0	21.8	16.9	10.9	16.2	1.4	0.4	0.4
IND	5.3	24.7	19.4	7.7	31.0	8.2	2.6	1.0

7.6 Steps already taken for the potential start-up (in Percent)

	No steps taken	Thinking through initial business ideas	Writing down initial business ideas	Developing a business plan	Gathering start-up specific information	Visiting start-up specific events	Talking to potential sources of financing	Determining a start-up date	A prototype of the product/ service exists	Other
Internationally	46.7	44.6	14.7	8.1	18.1	8.2	5.2	2.7	6.1	2.6
Business related sciences	40.8	50.1	17.7	10.4	21.5	10.4	6.1	3.2	7.0	2.5
Natural sciences	50.7	41.3	12.1	6.6	15.8	7.5	4.3	2.2	5.9	2.1
Social sciences	52.2	39.4	11.9	6.0	14.9	5.6	4.5	2.3	4.7	2.5
Other	45.2	45.4	15.9	8.1	18.6	9.0	5.4	2.6	7.3	3.8
SUI	55.8	37.6	10.5	5.8	12.6	6.6	3.1	1.4	6.0	2.1
LIE *)	32.4	58.0	23.2	15.5	20.3	12.1	3.9	2.9	8.2	2.9
GER	50.0	46.7	14.0	5.3	13.8	6.9	3.1	2.0	6.4	2.2
AUT	46.3	49.3	14.8	5.3	16.7	8.2	3.2	2.2	6.7	2.3
FRA	48.7	37.5	12.2	10.5	27.2	27.2	4.9	1.6	5.3	2.5
BEL	61.0	30.6	9.5	5.1	13.2	8.4	3.7	1.3	3.7	2.1
IRL *)	42.3	42.3	27.0	22.5	23.4	5.4	7.2	6.3	4.5	5.4
FIN	29.0	65.0	12.0	6.5	27.4	14.5	2.8	2.4	6.3	3.1
HUN	43.1	44.4	11.9	5.5	23.2	5.7	4.9	2.2	2.9	2.0
NZL	41.6	49.2	21.0	10.9	14.7	5.8	7.2	3.2	6.3	4.7
RSA	24.4	58.4	30.8	19.3	28.3	12.2	14.9	7.0	9.4	4.4
SIN	33.4	61.8	24.3	18.9	23.3	11.8	10.4	6.5	9.9	2.8
MEX	24.0	62.9	35.4	27.6	20.9	15.9	10.4	7.9	19.8	1.7
EST	39.1	52.7	13.0	4.7	24.1	10.7	3.8	2.0	14.2	3.2
LUX *)	47.1	44.7	9.5	7.5	19.7	11.5	5.4	2.0	7.5	2.4
GRE *)	38.7	36.6	26.7	11.5	19.4	5.2	4.7	4.2	6.3	2.1
IND	3.8	73.8	30.1	39.4	42.9	21.1	23	18.3	26.4	4.0

7.7 Construction of the index

The construction of index is based on two questions. The first question is about students' entrepreneurial intentions and activities. The answers to this question were weighted as shown in the next Table. Students could only select one answer to this question.

Possible answer	Points	Type of business founder
No, never	1	No business founder
Yes, sketchily	3	Potential business founder
Yes, rather concretely	3	Potential business founder
Yes, but I turned away from it	3	Potential business founder
Yes, I am bound and determined to work self-employed	5	Advanced potential business founder
Yes, I already started with the realization	5	Advanced potential business founder
Yes, I am already self-employed	10	Business founder
Yes, I was self-employed, but no longer am I	10	Business founder

For potential business founders, we also took into account whether or not they had already taken any specific steps to realize their plans. We have differentiated between more binding and less binding activities. Students could select multiple answers to this question. The rating of possible answers can be seen in the table below.

Possible answer	Points
No steps taken	0
Thinking through first business ideas	0.25
Writing down first business ideas	0.25
Developing a business plan	0.25
Gathering start-up specific information	0.25
Visiting star-up specific events	0.75
Talking to potential sources of financing	0.75
Determining a date of foundation	0.75
A prototype of the product / service exists	0.75

The minimum number of points that a student could get was 1 (for 'non-founders', i.e. students who had never considered establishing their own business). The maximum number of points was 10 (for students who had previously established their own business).

7.8 Importance of university services (AM-Table)

	Entrepreneurship seminars and lectures	Regular round tables for founders (e.g. exchange of experiences)	Start-up business games / start-up simulations	Business plan project seminars	Start-up financing through the university	Incubators (service centre for early stage start-ups)	Start-up coaching	Contacts for general questions
SUI	3,67	3,70	3,78	3,68	3,94	3,88	3,95	4,03
LIE *)	4,27	4,07	4,13	4,51	3,97	4,27	4,40	4,52
GER	3,39	3,33	3,50	3,58	3,62	3,65	3,66	3,92
AUT	3,73	3,63	3,78	3,93	3,75	4,02	4,04	4,34
FRA	4,10	4,25	4,53	4,05	4,13	4,39	4,68	3,86
BEL	3,72	3,86	3,84	3,78	3,89	3,87	4,18	4,08
IRL *)	4,04	4,00	3,81	4,24	4,21	4,01	4,17	4,30
FIN	3,89	4,11	3,63	4,13	4,03	4,15	4,43	4,24
HUN	4,08	4,12	4,20	4,26	4,23	4,24	4,33	4,24
NZL	3,71	3,70	3,58	3,77	3,69	3,72	3,82	4,09
RSA	4,66	4,50	4,44	4,69	4,65	4,60	4,65	4,78
SIN	4,17	4,37	4,20	4,26	4,52	4,42	4,43	4,35
MEX	3,93	4,07	4,11	4,17	4,23	4,37	4,14	4,16
EST	4,41	4,18	4,19	4,49	3,88	4,16	4,48	4,43
LUX *)	3,88	4,04	4,14	3,96	4,23	4,07	4,21	4,26
GRE *)	4,24	4,20	4,19	4,38	4,76	4,55	4,70	4,15
IND	5,04	4,87	5,01	4,99	4,89	4,85	4,97	4,71
INT	**3,83**	**3,85**	**3,90**	**3,94**	**3,98**	**4,00**	**4,11**	**4,16**

7.9 Existence of university services (AM-Table)

	Business Plan Project Seminars			Start-up Coaching			Entrepreneurship seminars and lectures			Start-up business games / start-up simulations			Regular round tables for founders (e.g. exchange of expe-riences)			Contacts for general questions			Start-up financing through the university			Incubators (service centre for early stage start-ups)		
	yes	no	don't know	yes	no	don't know	yes	no	don't know	yes	no	don't know	yes	no	don't know	yes	no	don't know	yes	no	don't know	yes	no	don't know
SUI	26,3	9,3	64,3	17,3	12,3	70,4	33,4	8,2	58,4	18,5	11,4	70,1	13,7	12,5	73,7	13,9	12,2	73,9	9,9	12,2	77,9	8,2	12,0	79,8
LIE*)	63,7	4,3	32,0	40,6	6,8	52,5	83,5	2,2	14,4	46,4	8,3	45,3	28,4	10,8	60,8	39,9	8,3	51,8	11,2	17,6	71,2	19,1	15,5	65,5
GER	21,4	8,1	70,5	23,5	8,9	67,7	19,2	7,7	73,1	23,9	8,2	67,9	8,6	11,7	79,6	22,5	8,4	69,1	5,9	11,0	83,0	6,6	9,9	83,5
AUT	25,7	7,5	66,7	16,8	11,4	71,9	29,6	7,3	63,1	18,2	10,9	70,9	9,5	13,6	76,9	17,6	10,9	71,5	3,7	13,6	82,7	8,5	11,9	79,6
FRA	42,7	15,2	42,1	42,9	15,1	42,0	80,5	5,0	14,5	57,0	12,9	30,2	61,0	12,7	26,3	29,9	21,3	48,8	11,7	20,4	67,8	37,8	17,8	44,3
BEL	21,9	12,9	65,1	14,0	16,8	69,1	31,6	10,4	58,0	19,0	15,8	65,3	18,6	14,8	66,6	26,0	12,7	61,3	9,6	16,8	73,6	7,3	15,3	77,4
IRL*)	30,7	10,0	59,3	13,6	15,0	71,4	46,4	8,6	45,0	16,4	19,3	64,3	10,0	15,7	74,3	37,1	11,4	51,4	5,7	20,7	73,6	9,3	15,7	75,0
FIN	51,4	5,3	43,2	40,6	9,1	50,4	60,4	5,8	33,8	34,5	12,5	53,0	12,8	13,9	73,3	32,8	7,9	59,3	4,9	14,0	81,1	29,2	9,1	61,7
HUN	25,4	19,3	55,2	8,8	25,7	65,5	43,0	13,2	43,8	17,2	23,4	59,3	14,8	23,8	61,3	20,2	20,2	59,6	4,6	28,8	66,6	3,0	27,8	69,3
NZL	18,7	6,8	74,5	13,6	7,4	79,0	30,6	5,8	63,6	14,7	7,5	77,8	8,9	8,2	82,9	31,0	5,6	63,4	8,2	9,7	82,2	11,1	7,7	81,3
RSA	33,8	13,1	53,1	19,9	16,2	63,9	60,1	6,3	33,5	16,8	17,5	65,7	15,1	17,5	67,5	50,2	9,4	40,4	15,9	19,2	64,9	9,7	17,1	73,2
SIN	43,5	11,2	45,3	28,8	15,8	55,4	68,9	5,2	25,9	36,2	14,5	49,2	30,2	16,4	53,4	37,0	13,7	49,4	29,7	16,2	54,2	28,9	12,6	58,5
MEX	79,9	2,2	17,9	71,1	4,9	24,0	82,8	1,8	15,4	62,1	8,6	29,3	48,2	8,9	42,9	69,2	5,1	25,7	58,3	7,8	33,9	96,0	0,7	3,3
EST	37,1	9,6	53,4	26,8	11,0	62,1	51,0	6,8	42,2	10,7	17,4	71,8	6,2	18,5	75,3	29,0	10,8	60,2	5,4	17,2	77,3	8,8	14,3	76,9
LUX*)	10,6	17,0	72,4	5,4	17,5	77,1	15,1	13,2	71,7	9,2	14,6	76,2	8,5	16,0	75,5	9,7	15,8	74,5	5,9	16,0	78,1	3,1	15,8	81,1
GRE*)	29,9	25,4	44,7	15,5	35,2	49,3	57,7	16,2	26,1	13,7	38,4	47,9	13,0	38,7	48,2	40,1	21,5	38,4	5,3	30,6	64,1	4,6	28,5	66,9
IND	75,3	11,3	13,4	56,9	17,0	26,1	93,0	1,7	5,3	65,9	20,9	13,2	61,9	14,6	23,5	59,9	22,1	18,0	37,7	34,1	28,1	29,5	34,0	36,5
INT	27,3	11,4	61,3	18,2	14,8	66,9	37,9	8,7	53,4	21,0	14,2	64,8	15,4	15,2	69,4	24,1	12,7	63,2	9,2	16,7	74,1	10,1	15,2	74,6

7.10 Use of university services (in Percent)

	Business Plan Project Seminars		Start-up Coaching		Entrepre-neurship seminars and lectures		Start-up business games / start-up simulations		Regular round tables for founders (e.g. ex-change of expe-riences)		Contacts for general questions		Start-up financing through the university		Incubators (service centre for early stage start-ups)	
	yes	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes	no
SUI	20,4	79,6	7,8	92,2	24,2	75,8	16,4	83,6	19,0	81,0	7,7	92,3	2,9	97,1	4,8	95,2
LIE*)	36,2	63,8	23,9	76,1	47,0	53,0	38,8	61,2	30,4	69,6	17,1	82,9	6,5	93,5	3,8	96,2
GER	29,8	70,2	12,1	87,9	29,1	70,9	30,8	69,2	14,3	85,7	11,6	88,4	4,7	95,3	8,3	91,7
AUT	37,1	62,9	12,2	87,8	39,0	61,0	33,1	66,9	13,3	86,7	12,7	87,3	1,9	98,1	11,2	88,8
FRA	52,5	47,5	15,8	84,2	62,7	37,3	58,9	41,1	49,4	50,6	16,3	83,7	5,9	94,1	3,7	96,3
BEL	40,3	59,7	25,3	74,7	40,0	60,0	36,9	63,1	34,9	65,1	31,1	68,9	10,6	89,4	10,3	89,7
IRL*)	62,8	37,2	31,6	68,4	58,5	41,5	26,1	73,9	28,6	71,4	42,3	57,7	0,0	100,0	23,1	76,9
FIN	52,5	47,5	27,3	72,7	46,2	53,8	35,4	64,6	18,1	81,9	30,2	69,8	10,9	89,1	6,1	93,9
HUN	41,2	58,8	18,7	81,3	51,4	48,6	35,7	64,3	30,8	69,2	22,5	77,5	18,7	81,3	15,8	84,2
NZL	25,6	74,4	17,2	82,8	27,7	72,3	23,2	76,8	22,2	77,8	35,3	64,7	13,5	86,5	10,2	89,8
RSA	38,1	61,9	29,2	70,8	47,4	52,6	30,7	69,3	34,3	65,7	48,7	51,3	24,5	75,5	24,4	75,6
SIN	33,5	66,5	27,1	72,9	47,6	52,4	28,8	71,2	30,4	69,6	32,8	67,2	8,1	91,9	8,5	91,5
MEX	47,5	52,5	33,0	67,0	58,2	41,8	47,9	52,1	32,9	67,1	32,7	67,3	15,0	85,0	12,0	88,0
EST	44,8	55,2	22,2	77,8	49,4	50,6	36,7	63,3	17,7	82,3	24,5	75,5	8,3	91,7	7,4	92,6
LUX*)	40,0	60,0	43,5	56,5	23,4	76,6	53,8	46,2	22,2	77,8	19,5	80,5	0,0	100,0	15,4	84,6
GRE*)	49,4	50,6	40,9	59,1	59,8	40,2	43,6	56,4	29,7	70,3	43,0	57,0	26,7	73,3	38,5	61,5
IND	68,1	31,9	58,1	41,9	80,8	19,2	62,0	38,0	60,4	39,6	57,9	42,1	47,7	52,3	45,3	54,7
INT	35,9	64,1	18,9	81,1	41,9	58,1	32,7	67,3	29,2	70,8	25,7	74,3	11,2	88,8	10,3	89,7

7.11 Students business goals (AM-Table)

	Dividend payout	Price leadership	Market share	Employee rewards and benefits	Net profit over the next year	Services to the community	Assets and reserves	Growth rate	Net Profit over 5 years	Innovation	Company's prestige
SUI (n=8000)	2,62	2,90	3,05	2,73	3,11	3,11	3,56	3,45	3,57	4,04	3,81
LIE (n=224)	2,62	2,56	3,22	3,00	3,28	2,70	3,69	3,63	3,85	4,04	3,86
GER (n=4788)	2,51	2,59	2,99	2,93	3,40	2,95	3,62	3,46	3,79	3,80	3,89
AUT (n=4375)	2,53	2,55	3,06	3,02	3,33	2,85	3,76	3,45	3,82	3,97	3,98
FRA (n=884)	2,77	3,54	3,30	2,96	3,35	3,19	3,41	3,91	3,74	3,86	3,63
BEL (n=7025)	2,96	3,18	3,05	3,19	3,22	3,67	3,41	3,61	3,54	3,83	3,71
IRL (n=114)	2,97	3,24	3,43	3,49	3,45	3,86	3,53	3,81	3,98	3,84	4,11
FIN (n=764)	2,50	2,38	2,77	2,53	2,42	3,12	3,58	3,01	3,46	3,52	3,99
HUN (n=9460)	3,10	3,49	3,20	3,56	3,67	3,95	3,90	3,87	3,87	3,90	4,34
NZL (n=4357)	2,77	3,08	3,05	3,51	3,28	3,89	3,39	3,57	3,67	3,81	3,89
RSA (n=2022)	3,44	3,83	3,65	3,95	3,70	4,29	4,05	4,29	4,04	4,28	4,15
SIN (n=1935)	3,30	3,55	3,49	3,66	3,80	3,74	3,74	4,01	3,95	4,04	3,91
MEX (n=668)	3,57	3,80	3,66	3,77	3,70	4,06	3,71	4,08	3,91	4,25	4,46
EST (n=1246)	2,87	2,91	3,35	3,60	3,20	3,74	3,59	3,63	3,41	4,02	4,31
LUX (n=296)	3,03	3,28	3,20	3,09	3,49	3,42	3,72	3,64	3,72	3,88	3,98
GRE (n=193)	3,41	3,51	3,82	3,28	3,84	3,54	3,68	4,19	4,10	4,06	4,42
IND (n=552)	3,72	4,21	4,10	3,92	4,14	4,39	4,07	4,38	4,06	4,56	4,25
INT (n=47025)	**2,87**	**3,12**	**3,15**	**3,24**	**3,38**	**3,52**	**3,65**	**3,66**	**3,73**	**3,93**	**3,98**

7.12 Self employment satisfaction (AM-Table)

	SUI n=165	**GER** n=251	**AUT** n=259	**BEL** n=70	**HUN** n=412	**NZL** n=272	**EST** n=73	**INT** n=1725
With hindsight, I am very happy that I founded my company	3.28	3.19	3.29	3.34	3.17	3.36	3.33	**3.29**
All in all, I have become more satisfied with my life through the founding of my company.	2.85	2.82	2.94	3.17	2.94	3.10	3.18	**2.99**
I would recommend anyone to found a company, if he or she feels capable of doing so.	2.89	2.65	2.69	3.16	3.01	3.19	3.36	**2.99**
I will always try to remain self-employed for the rest of my life	2.62	2.60	2.79	2.76	2.89	2.59	2.82	**2.77**
I realize more and more that the risks of being self-employed are not outweighed by particular opportunities.	2.27	2.28	2.29	2.81	2.82	2.66	2.47	**2.56**
I often wonder whether I could have a better life as an employee.	2.40	2.33	2.40	2.39	2.24	2.35	2.32	**2.31**
If I had not put so much time and effort into my company, I would prefer to be employed in another company.	1.85	1.94	1.77	2.10	2.24	2.13	2.18	**2.05**

Sponsors of the international project:

Information Factory GmbH
www.information-factory.com

Swiss Institute for Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG)
www.kmu.unisg.ch

Chair for Entrepreneurship at the EUROPEAN BUSINESS SCHOOL (EBS)
www.ebs.edu

GUESSS
Global University Entrepreneurial Spirit Students' Survey

www.guesssurvey.org

Swiss Research Institute of Small Business and Entrepreneurship

University of St.Gallen

KMU-HSG
Swiss Institute for Small Business and Entrepreneurship at the University of St.Gallen
Dufourstrasse 40a
CH-9000 St.Gallen
+41 (0) 71 224 71 00 (Telephone)
+41 (0) 71 224 71 01 (Fax)

www.kmu.unisg.ch

European Business School
International University · Schloss Reichartshausen

Chair for Entrepreneurship at the
EUROPEAN BUSINESS SCHOOL (EBS)
International University
Schloss Reichartshausen
DE-65375 Oestrich-Winkel
+49 (0) 6723 888 230 (Telefon)
+49 (0) 6723 692 35 (Fax)

www.ebs.edu