



Global
Entrepreneurship
Monitor 2018 / 2019

Report on Switzerland 



HAUTE ÉCOLE DE GESTION
HOCHSCHULE FÜR WIRTSCHAFT
SCHOOL OF MANAGEMENT

Fribourg
Freiburg

Global Entrepreneurship Monitor 2018/2019 Report on Switzerland

Published in June 2019 by:
School of Management Fribourg (HEG-FR)
HES-SO // University of Applied Sciences and
Arts Western Switzerland
Chemin du Musée 4
CH - 1700 Fribourg
+41 (0) 26 429 63 70
www.heg-fr.ch

Copyright © School of Management Fribourg 2019
R. Baldegger, S. Alberton, R. Gaudart, A. Huber, and P. Wild

ISBN: 978-2-940384-48-8

Citation:
Baldegger R., Alberton S., Gaudart R., Huber A., Wild P. (2019).
Global Entrepreneurship Monitor 2018/2019: Report on Switzerland.
Fribourg: School of Management.

... Acknowledgments

For a study of this scope, an extraordinary contribution on the part of many individuals is necessary. Most importantly, the authors would like to thank Project Managers, Raphaël Gaudart and Gabriel Simonet, who were responsible for their efficient and effective coordination at the School of Management Fribourg (HEG-FR).

The authors are also grateful to GEM project's coordination team, in particular, Chris Aylett, Jonathan Carmona, Alicia Coduras, Slavica Singer and Forrest Wright, as well as the sponsors of the GEM project at Babson College, Babson Park,

MA (USA); Korea Entrepreneurship Foundation, Korea. Some elements of this report are based on the results of the global report written by Niels Bosma and Donna Kelley of the Global Entrepreneurship Research Association GERA – Global Entrepreneurship Monitor 2018/19 Global Report.

The report is available online at www.gemconsortium.org and at www.heg-fr.ch/GEM. All data used in this report are collected and processed centrally by the GEM consortium. The authors have exclusive responsibility for evaluating and interpreting the data.

..... About the Authors

Rico J. Baldegger

As Professor of Strategy, Innovation and Entrepreneurship at the School of Management Fribourg (member of the University of Applied Sciences and Arts Western Switzerland [HES-SO]), Rico J. Baldegger directs the School of Management Fribourg (HEG-FR). He graduated from the University of St. Gallen and obtained his doctorate from the University of Fribourg. He is the author of numerous publications on entrepreneurship and innovation, internationalization of SMEs, and entrepreneurship education. Moreover, he is a serial entrepreneur, as is demonstrated by the many companies he has created, but also by his activities as a business angel.

Siegfried Alberton

As Professor of the Economics of Innovation, Siegfried Alberton leads the competence center inno3 (innovation, firms and entrepreneurship) at the Department of Business Economics, Health and Social Care of the University of Applied Sciences and Arts of Southern Switzerland (SUPSI). He is the scientific contact, and person in charge of the Master of Science in Business Administration with Major in Innovation Management. He completed his studies at the University of Fribourg. His research interests, publications and service activity cover the fields of the economics of innovation, entrepreneurship and entrepreneurial dynamics, regional economics, innovation and entrepreneurship policy, innovation and entrepreneurship metrics.

Pascal Wild

Pascal Wild is an Assistant Professor at the School of Management Fribourg (member of the University of Applied Sciences and Arts Western Switzerland [HES-SO]) and teaches undergraduate and graduate students. He holds a Master of Science in Business Administration (orientation Entrepreneurship) from the University of Applied Sciences Fribourg and a PhD in Social Sciences (orientation Socioeconomics) from the University of Geneva. His research interests are in the areas of international entrepreneurship, global cities, and emerging markets.

Raphaël Gaudart

Raphaël Gaudart is head of the Master of Science in Business Administration, Major in Entrepreneurship and an Assistant Professor at the School of Management Fribourg (member of the University of Applied Sciences and Arts Western Switzerland [HES-SO]). He teaches undergraduates and graduates within his research interests around Entrepreneurship (especially Youth), Innovation and Lean Start-Ups. Raphaël holds an MSc BA, Major in Entrepreneurship and has 10+ years of industry experience in various companies from start-ups to international ones.



..... TABLE OF CONTENTS

Acknowledgments	1
About the Authors	2
Management Summary/Key results	6
1 Recommendations for Policy and Practice	10
2 The Phases and Profiles of Entrepreneurship	13
2.1 Entrepreneurial Attitudes.....	13
2.2 Entrepreneurial Activities.....	17
2.2.1 Total Early-Stage Entrepreneurial Activity (TEA).....	19
2.2.2 Age profile of Entrepreneurs	20
2.2.3 Gender Profile of Entrepreneurs.....	22
2.2.4 Motivations to Start a Business	22
2.2.5 Established Business Ownership	26
2.2.6 Industry Sector Participation	26
2.2.7 Discontinuance.....	27
3 Special topics	31
3.1 Ease of Starting a Business.....	31
3.2 Solo Entrepreneurship.....	32
3.3 Family – Based Entrepreneurship	32
3.4 Technology-based entrepreneurial activity	34
3.5 Entrepreneurial Employee Activity.....	35

4	Impact of entrepreneurial activity	37
4.1	Job creation expectations	37
4.2	Innovative Orientation	38
5	Entrepreneurial Framework Conditions	40
6	GEM research in Switzerland	45
6.1	Entrepreneurial behavior and attitudes across time	45
6.2	GEM Ticino	49
7	Literature	52
	GEM Framework	53
	The GEM Project	53
	How GEM Measures Entrepreneurship	53
	The GEM Conceptual Framework and Methodology	55
	Glossary	59
	Country List	62
	List of Experts (Interviews July, 2018)	63
	GEM Team Switzerland	66

..... Management Summary/Key results

The School of Management Fribourg (HEG-FR), member of the University of Applied Sciences and Arts Western Switzerland (HES-SO), in collaboration with SUPSI Manno in Switzerland, collected data for the international Global Entrepreneurship Monitor (GEM). 2448 telephone interviews and 36 talks with experts revealed entrepreneurial attitudes, activities and aspirations, and identified the factors influencing the type and extent of the entrepreneurial activities. The 2018/2019 Global Entrepreneurship Monitor Report on Switzerland illustrates national differences in entrepreneurial activity between economies, revealing the factors that determine the nature and level of national entrepreneurial activity, and identifying policy implications for enhancing entrepreneurship in Switzerland.

Myth: Start-up Nation Switzerland

Switzerland did invest a lot in supporting entrepreneurial activities on cantonal and national levels, and an important number of education and training programs, incubators and accelerators, corporate venture initiatives, entrepreneurial finance and investments in entre-

preneurial projects and start-up companies, start-up and innovation prizes did appear in the landscape. However, several factors show that Switzerland is far from being a start-up nation. The perception of its entrepreneurial capabilities has decreased in the last years, entrepreneurial intentions are at a low level and the total entrepreneurial activity (TEA-rate) is under the average of compared countries. Furthermore, Swiss citizens see entrepreneurship as a less favorable career choice than in compared countries. The status of successful entrepreneurs and media attention for entrepreneurship have decreased in Switzerland and are below average for high-income economies. The start-up scene in Switzerland is still young and strongly marked by Zurich and the Lake Geneva area and there is broad regional distribution.

Myth: high number of young successful Entrepreneurs

Entrepreneurial activity among the age groups 18–24 years has decreased in the last few years and is still lagging behind considerably. The differences have increased. Compared to other high-income econo-

mies, the TEA rate for the 18–24 age group is, at 2.2%, the lowest and is clearly below average (9.5%). Switzerland is ranked 30th of 32 high-income countries and only Poland and Cyprus have a lower TEA-rate for the young population. The difference to Canada (27.3%), the Netherlands (15.9%), the USA (14.7%) or Austria (14.0%) is impressive.

Among the 18 to 24-year-olds, only 15.4% of respondents recognise entrepreneurial opportunities in their environment. For the 35 to 54-year-olds, it is 48.9%. I conclude from this that our support offer, which takes place not only but particularly in and around the universities, actually addresses the wrong age group. The idea of the young entrepreneurial genius, the Mozart myth, is misleading.

Self-perception about Entrepreneurship

Switzerland shows a lower **perception of capabilities** (36.3%; 2017: 42.1%) paired with a higher fear of failure compared to 2017 (39.9%, 2017: 29.5%). Switzerland's perception of capabilities is below the European benchmark, and clearly behind the very strong belief of Americans in their own capacity to start a business (55.6%). The same is true of people in Canada, Slovenia, Korea Repub-

lic, Spain, Austria, UK and Netherlands. Only Italy has a lower perception of their capabilities. Since 2013 (44.7%), the perception of capabilities has been decreasing and we are at the same low level as in 2012. This finding is critical and must be closely watched in the next few years.

Gender Equality: Further significant differences between men and women

In Switzerland, the TEA rate was only 4.72% for women and 9.98% for men in 2018. In Switzerland, there were exactly two male founders per female founder in 2018. This figure is well above the average for all high-income countries (1.61). Thus, 25 of the 30 reference countries have a more favourable ratio of women to men founders.

Entrepreneurship Impact

When compared internationally, it is apparent that new business ideas in Switzerland are of high quality. The proportion of companies which start up due to good opportunities is above average (67.6%), while those stemming from necessity account for only 13.9%. This explains why founders tend to have high growth expectations: one-third would like to hire six or more people in the next five years.

The strong role of families in start-ups and established businesses

66.3% of established businesses are owned by the founder and his or her family. More than 84.0% are managed by this group. For start-ups, these figures are slightly lower, at 60.0% and 79.0% respectively. Whether family-run enterprises have a higher resilience or probability of survival and are, therefore, more frequently found among established enterprises, or whether a general change is taking place in business demography, cannot be answered without further data. What is remarkable is the above-average level of trust in family businesses. Experts rate family business management very positively.

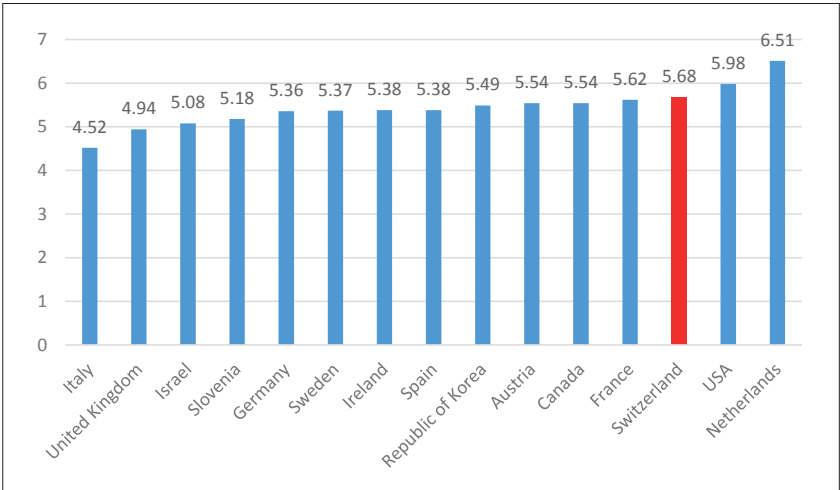
Entrepreneurial Framework Conditions

This country report uses a new index, the National Entrepreneurship Context Index (NECI). This evaluates the institutional framework and environment for start-up activities at the national level. The NECI consists of twelve framework conditions

selected from the expert survey. For the compilation of the index, the framework conditions were weighted according to their assigned importance, based on the experts' judgements. The higher the index value, the better the assessment of the start-up-related framework conditions in the respective country. The aim of the NECI is to inform interested supporters and stakeholders at a glance about the overall picture of the environment and framework conditions of Switzerland as a location for start-ups.

The overall entrepreneurial framework conditions in Switzerland are high compared to other high-income economies included in the study. Switzerland achieves outstanding results in finance, commercial infrastructure, tertiary education, and knowledge and technology transfer, as well as in government programs. However, although the experts see the entrepreneurial framework conditions in a fairly positive light, several points for improvement are mentioned in the report.

Figure 1 National Entrepreneurial Context Index (NECI)
in selected high-income economies, 2018



..... 1 Recommendations for Policy and Practice

Over the last years, and particularly after the global financial crisis, the realization that people could no longer depend on large organizations or government as job creators, is especially important for Switzerland with their SME dominance. Globalization, technological advances and the digital economy have also had a radical effect on the world of work. The traditional career path of a stable job with steady hours, a regular paycheck and solid pension – a job for life – is no longer an option for many people. New organizational concepts and career perspectives of young talents are influencing the entrepreneurial ecosystem.

Entrepreneurship isn't only about focusing on the start-up phase, and being seen as a mindset in young, growing, mature or companies going through change. A life-cycle-based approach of Entrepreneurship should be the backbone of support programs. Understanding the specific needs along startup development, growth and change is key. The programs have to adopt their support and expand the activities

on impact-driven entrepreneurial activities. For example, they have to invest more in SME succession and perceive it as a new venture creation by succession.

Faced with digitalization, entrepreneurial behavior in large organizations and public institutions plays a major role, supported by an entrepreneurial ecosystem with start-ups and dynamic SMEs. The number of career transitions experienced by individuals is already on the increase, and technology is disrupting the traditional patterns in many industries. While the changing world environment presents challenges of varying natures and magnitudes, it is clear that it also presents opportunities – in particular for innovative and dynamic entrepreneurs.

Strengthening corporate succession as a start-up option in family businesses. In the present GEM survey, start-up experts frequently mention the topic of “business succession” as a measure to support start-up activities. In principle, stronger SME networking within the

start-up world is a good idea. It creates personal relationships and new networks over a longer period of time and entrepreneurs can fall back on these in a handover situation. In the case of family businesses, digitization is currently a core issue with a great need for action in the context of business succession. Many companies have not yet taken full advantage of the opportunities offered by digitization (Since the next generation is regarded to be “digitally affine”, development processes are also expected here in the next few years.

Several initiatives should be fostered to enhance the entrepreneurial ecosystem in Switzerland in order to have more high ambition start-ups and growing SMEs. The government has to focus on high-growth entrepreneurs in order to build a generation of robust, engaged entrepreneurs. **Innovation based businesses and Gazelles** still create the majority of net new jobs in an economy. Government should create special dispensation for these two categories of enterprise, for example, providing special funding vehicles, and funding for business development services.

Mentorship quality: young entrepreneurs, in particular, often struggle to build up appropriate professional

networks. It is important to provide mentorship programs where the mentors have practical personal experience running a business. It is essential that all entrepreneurial trainers and consultants are well trained and/or experienced in the specific area of expertise that they offer.

Critical mass and density: Clusters/ business hubs should be created – including entrepreneurs, as well as commercial and professional support structures – so that start-ups can be assisted in a more protected and supportive environment. This is particularly important in **rural and semi-rural areas**.

Serial entrepreneurs, failure and resilience: in fact, the feeling is that if you never experience failure, you are not being innovative enough. In order to spur entrepreneurial activity, corporates, investors, and government also need to be disruptive and adopt a new approach to investing in and funding new businesses. They need to back entrepreneurs and encourage them to experiment, even if they fail the first time. The Swiss ecosystem should accept that there is a high chance that a first venture will fail, but recognize that this is a necessary part of the entrepreneurial journey.

Pension funds and venture capital:

Pension funds are allowed to invest in private equity and venture capital up to 15% of their investments. The focus of their investment should be for the growing stage of the company to allow and enhance their internationalization in order to create a greater impact for the local economy and society.

Finally, many people choose an entrepreneurial direction after school – it is, thus, important to increase investment in training programs in **entrepreneurship outside of the traditional higher education** institutions. Programs must be regularly evaluated and continually improved to take into account changes in national conditions and research. GEM research has confirmed a positive link between training in starting a business and entrepreneurial be-

havior, which is not always visible in the short run. Practical and interactive business and entrepreneurship training programs at secondary school are an important factor in encouraging effective **youth entrepreneurship**. Education in entrepreneurship at school level should equip learners with key business skills. It is imperative, however, that teachers in these courses are well trained. Schools also need to actively promote entrepreneurship as a career path – inviting successful young entrepreneurs to participate in the educational program. **Internships**, especially inside start-ups and SMEs, should be provided for young adults interested in entrepreneurship. A culture of experiential learning provides young people with the opportunity to learn from the professional world while still students.

... 2 The Phases and Profiles of Entrepreneurship

This section examines the rate for Switzerland of individual participation in the various phases of entrepreneurship as compared with other high-income economies. We discuss potential entrepreneurs, individuals with the intention of starting businesses, people starting and running new businesses (early-stage entrepreneurs), established businesses, and those after the discontinuation of businesses.

The GEM data collection for Switzerland yields entrepreneurial profiles along three important dimensions. Entrepreneurial attitudes, perceptions, and intentions reflect the degree to which individuals tend to appreciate entrepreneurship, both in terms of general attitudes and in terms of self-perceptions: how many individuals recognize business opportunities? How many believe they have the skills and knowledge to exploit such opportunities, and how many would be prevented from exploiting such opportunities due to fear of failure? Entrepreneurial activity measures the observed involvement in several phases of entrepreneur-

ial activity. It also tracks the degree to which entrepreneurial activities are driven by opportunity and/or necessity. Moreover, estimations of discontinuations of entrepreneurial activity (and the reasons for doing so) are based on the GEM Adult Population Surveys. Finally, entrepreneurial aspirations are of key importance in addressing the socio-economic impact of entrepreneurial behavior. Of particular interest are those entrepreneurs who expect to create jobs, to be involved in international trade, and/or to contribute to society by offering new products and services.

2.1 Entrepreneurial Attitudes

Fostering entrepreneurial awareness and positive attitudes toward entrepreneurship is high on Switzerland's policy agenda. The idea is that evolving attitudes and perceptions toward entrepreneurship could affect those individuals wishing to venture into entrepreneurship. However, the key factor that determines whether someone progresses to entrepreneurship is not the perception of opportunities for start-ups or of (matching) personal capabilities: context also plays a role. Factors

Table 1 Percentage of People with Specific Entrepreneurial Perceptions, Intentions and Societal Attitudes in Selected High-income Economies, 2018

Selected High-Income Economies	Perceived opportunities	Perceived capabilities	Fear of failure *	Entrepreneurial intentions **	Entrepreneurship as a good career choice	High status to successful entrepreneurs	Media attention for entrepreneurship
Australia	46.8	48.3	36.7	11.8	50.2	75.3	64.6
Canada	63.0	55.9	42.3	14.5	64.1	74.1	76.0
France	35.0	37.5	37.1	18.6	58.2	71.5	52.8
Germany	42.1	38.3	35.1	5.9	49.6	74.8	50.6
Ireland	51.7	45.6	39.3	15.4	55.5	83.9	73.4
Israel	56.2	41.5	47.5	26.2	66.0	85.0	54.3
Italy	34.6	29.8	51.7	9.0	63.9	74.6	60.2
Korea Republic	45.7	49.7	32.8	31.0	53.0	70.0	67.1
Netherlands	66.7	46.1	34.7	7.7	81.7	63.1	64.8
Slovenia	42.2	51.0	32.0	15.3	58.4	75.8	77.2
Spain	29.1	48.5	36.2	6.2	53.1	49.8	49.4
Sweden	81.6	38.4	37.2	9.6	49.0	72.1	62.8
Switzerland	45.5	36.3	39.9	6.9	46.5	69.7	47.7
United Kingdom	44.0	46.6	37.7	7.2	56.1	76.4	58.5
USA	69.8	55.6	35.2	12.2	62.7	78.7	74.4
Average (High-Income Economies)	46.6	46.6	36.6	17.1	58.1	67.2	60.4

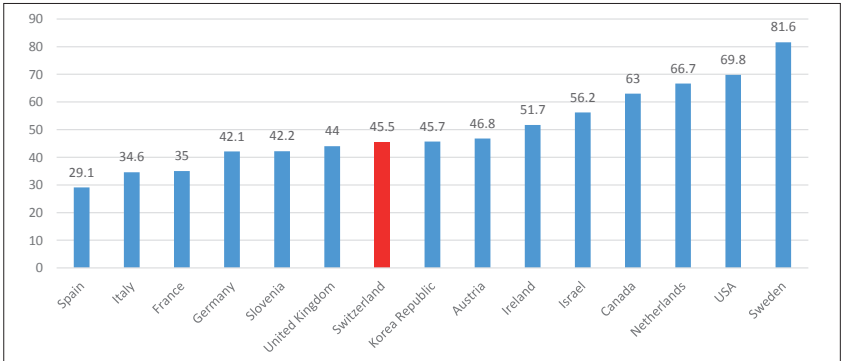
* Fear of failure assessed among those seeing opportunities.

** Respondent expects to start a business within three years; currently not involved in entrepreneurial activity.

such as the availability of (good) job alternatives in an economy can make a difference for those who perceive market opportunities and have confidence in their own entrepreneurial capabilities, and help to determine whether they engage in independent entrepreneurial activity or not. So, while in some societies, positive attitudes and perceptions toward entrepreneurship may be instrumental in achieving new (high-value) entrepreneurial activities, in many others they are certainly not, on their own, sufficient reason for people to choose to engage in entrepreneurial activity. For example, there may be other excellent options available to individuals. Bearing this in mind, we can see in Table 1 how, in terms of entrepreneurial perceptions and attitudes, Switzerland compares to other high-income economies in general and to the comparison group in particular.

Table 1 reflects the percentage of individuals who believe there are opportunities to start a business in the area they live in. Perceived capabilities reflect the percentages of individuals who believe they have the required skills and knowledge to start a new business. The measure of fear of failure (when it comes to starting your own business) applies only to those individuals who want to start a business. Entrepreneurial intentions are defined by the percentage of individuals who expect to start a business within the next three years (those who are currently already entrepreneurially active are excluded from this calculation.) For all four measures, cultural differences and business-cycle patterns are an important explanation for the differences in perceptions across countries.

Figure 2 Perception of Opportunities for Starting a Business in high-income economies, 2018

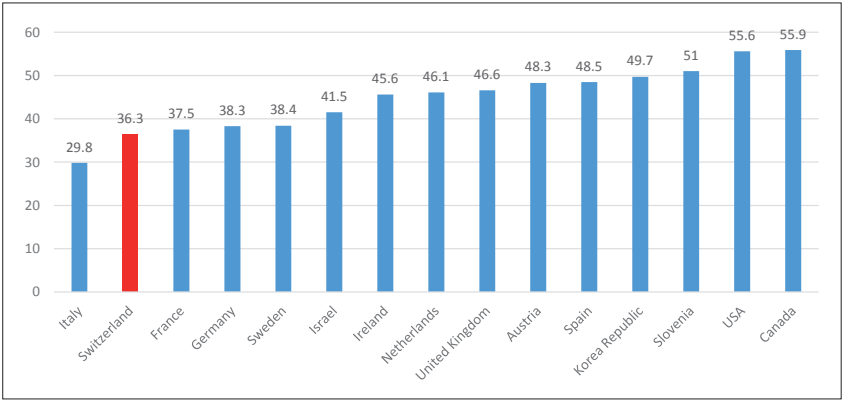


In the 2018 census, the **perceived opportunities** in Switzerland to start a business (45.5%) are at a lower level compared to the average for high-income economies (46.6%). As in 2017, Sweden, the United States, the Netherlands, Canada, and Israel remain at the top when it comes to available opportunities.

Switzerland shows a lower **perception of capabilities** (36.3%; 2017: 42.1%) paired with a higher fear of failure compared to 2017 (39.9%, 2017: 29.5%). Switzerland's percep-

tion of capabilities is below the European benchmark, and clearly behind the very strong belief of Americans in their own capacity to start a business (55.6%). The same is true of people in Canada, Slovenia, Korea Republic, Spain, Austria, UK and Netherlands. Only Italy has a lower perception of their capabilities. Since 2013 (44.7%), the perception of capabilities has been decreasing and we are at the same low level as in 2012. This finding is critical and must be closely watched in the next few years.

Figure 3 Perception of Capabilities of Starting a Business in high-income economies, 2018



The **fear of failure** in Switzerland (39.9%) is slightly higher than the average when comparing economies and the difference to 2017 is remarkable (29.5%). In the last years, the fear of failure has been below the

high-income countries compared. The impact of fear of failure tends to be more common in developed economies, where the greater prevalence of alternative career options can create the impression that people have

more to lose by foregoing these other opportunities. However, the impact of the experience of fear on individual cognition and behavior can be beneficial as well as detrimental. Despite this dualistic nature, fear is examined to date as only a barrier to entrepreneurial behavior. Thus, a low fear of failure is not always directly linked to the creation of new ventures (Cacciotti & Hayton, 2015).

The **entrepreneurial intentions** of Swiss inhabitants are lower (6.9%) than in 2017 (10.5%) and under the average for high-income economies (17.1%). They are at the same level as in 2009. Most remarkable are the differences between Switzerland, the Korean Republic, Israel, France and Slovenia. Only in Germany (5.9%) and Spain (6.2%) do fewer individuals expect to start a business in the next three years than in Switzerland. Almost 31.0% of the individuals in the Republic of Korea, 26.2% in Israel, and 18.6% in France are thinking about setting up a new business. As in the previous year, Israel and Korea are at the top of countries regarding entrepreneurial intentions.

In the low-and middle-income economies, two-thirds of adults, on average, think **entrepreneurship is a good career choice**. In the high-income

economies, 58.1% have this belief. The number of people to see entrepreneurship as a good career choice in Switzerland (46.5%) decreased in 2018 compared to 2017 (53.0%) and is under the average of high-income economies (58.1%). Compared to 81.7% in the Netherlands, 64.1% in Canada, 66.0% in Israel, 63.9% in Italy and 62.7% in the United States, it seems that an entrepreneurial career is less attractive in Switzerland. Overall compared to 2009, fewer people see entrepreneurship as good career choice.

The perspective of an entrepreneurial career and, simultaneously, the high status of successful entrepreneurs (69.7%) are average internationally. Media attention for entrepreneurship has decreased in Switzerland, at 47.7%, and is below average for high-income economies. In Slovenia, Canada, the US, Ireland and Korea Republic reports of entrepreneurs in the media are increasingly more important than in Switzerland.

2.2 Entrepreneurial Activities

GEM conceptualizes entrepreneurship as a continuous process that includes nascent entrepreneurs involved in setting up a business, entrepreneurs who own and manage a new business, and entrepreneurs who own and manage an established

business. In addition, GEM assesses the rate and nature of business discontinuations. As a result, indicators for several phases of the entrepreneurial process are available.

Table 2 illustrates the entrepreneurial activity by phases of organizational life cycle on the one hand (nascent, newly established and discontinued), and on the other hand, by

Table 2 Percentages of Entrepreneurial Activity in selected high-income economies, 2018

Selected High-Income Economies	Early-stage entrepreneurial activity (TEA)	Entrepreneurial Employee Activity (EEA)	Established business ownership rate	Discontinuation of businesses
Australia	10.9	6.4	6.5	5.0
Canada	18.7	8.6	7.5	8.6
France	6.1	4.3	2.5	2.9
Germany	5.0	5.2	7.5	1.6
Ireland	9.6	8.6	6.8	3.8
Israel	12.7	7.2	4.2	5.0
Italy	4.2	3.2	6.4	1.6
Korea Republic	14.7	3.6	12.5	2.5
Netherlands	12.3	7.9	12.0	2.5
Slovenia	6.4	5.9	6.8	2.4
Spain	6.4	1.7	6.1	1.7
Sweden	6.8	6.8	5.3	3.7
Switzerland	7.4	6.3	11.5	2.0
United Kingdom	8.2	7.3	6.4	2.7
USA	15.6	8.0	7.9	4.7
Average (High-Income Economies)	10.4	5.1	7.3	4.2

sectors of entrepreneurial activities (early-stage entrepreneurial activity, entrepreneurial employee activity, established business ownership). In this section, we elaborate on these phases of entrepreneurial activity. Most attention is paid to the situation in Switzerland, its development over the last years, and the comparison with high-income economies.

Table 2 shows a low rate of discontinuation of business (2.0 %) in Switzerland and a high-established business ownership rate (11.5 %) compared to the average of high-income economies. Furthermore, entrepreneurial employee activity is below average. Thus, we are quite positive about the situation in the more mature stage of the entrepreneurial process in Switzerland. However, what is the setting

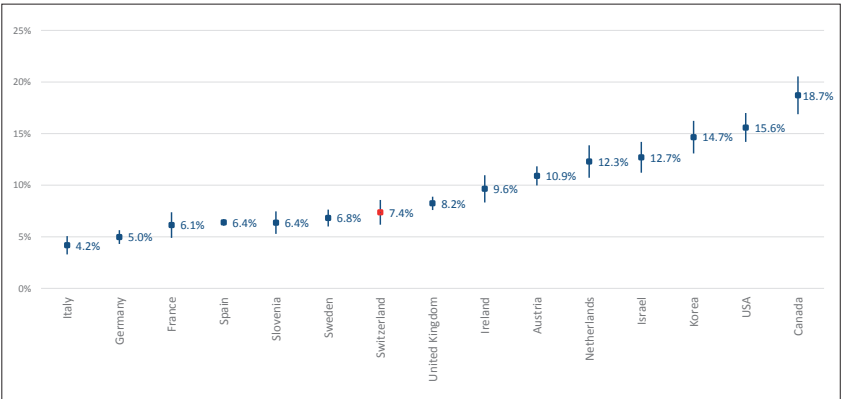
regarding early entrepreneurial activity in Switzerland?

2.2.1 Total Early-Stage Entrepreneurial Activity (TEA)

The Total Early-Stage Entrepreneurial Activity (TEA) rate is defined as the prevalence rate of individuals in the working-age population who are actively involved in business start-ups, either in the phase in advance of the birth of the firm (nascent entrepreneurs), or the phase spanning 42 months after the birth of the firm (owner-managers of new firms). As such, GEM takes the payment of any wages for more than three months as the “birth event” of the firm.

Table 2 and Figure 4 present the TEA rates for high-income economies. The 95.0 % confidence intervals help

Figure 4 Total Early-stage Entrepreneurial Activity (TEA) in selected high-income economies, 2018



to interpret the differences between countries. Although the Swiss TEA rate tends to be higher than in neighboring countries, such as France, Italy or Germany, only Austria's TEA rate is higher than in Switzerland with regard to adopting a 95.0% certainty. Among the comparison group, like in 2015, only Canada (18.7%), Australia (12.2%), the United States (15.6%) and Israel (12.7%) differ considerably. In addition, Netherlands (12.3%) and Korea Republic (14.7%) have high TEA-rates. After the 2010 cycle, which was strongly influenced by the aftermath of the financial crisis, many Swiss entrepreneurship activity indicators for 2011 and 2012 turned upward again, with the total entrepreneurial activity (TEA) being one of them. After the all-time low of a Swiss TEA rate of only 5.0% in 2010, the most important indicator for entrepreneurial activity has once more reached a normal level (7.4%) but is below average for high-income economies (10.4%).

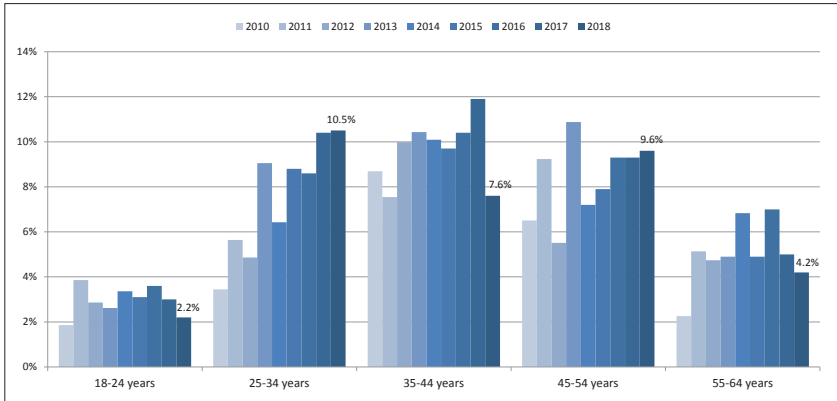
Thus, the difference to the top countries regarding entrepreneurial activity has grown bigger in 2018 and the positive results in 2017 regarding entrepreneurial perceptions, or higher entrepreneurial intentions, social status or media attention are not translated into the total entrepreneurial activity.

2.2.2 Age profile of Entrepreneurs

In the majority of economies, the most prevalent age group for starting businesses is either the 25 – 34 or 35 – 44 age range. People in these age groups may have earned a college education and gained some work experience, but they may not yet have reached a point in their careers where they own and manage established businesses or pursue attractive and/or stable employment positions. They are likely to be in tune with the latest ideas and feel enthusiasm for pursuing new opportunities. If their ventures are not successful, they have many working years ahead of them to pursue other income-generating options.

Entrepreneurial activities in Switzerland are reflected across most of the different age categories (Figure 5). When it comes to entrepreneurship, age matters. On the one hand, young people are often more likely to have fresh ideas; they have grown up with digital technologies, and in some societies, they have received more education than their parents. On the other hand, older people have often accumulated an extensive body of experience, contacts, and capital over the course of their careers. This mix of social and financial capital puts this age group into a particular position.

Figure 5 Total Early-Stage Entrepreneurial Activity (TEA) in Switzerland by Age, 2010 – 2018



The findings show that the highest rate in the last six years for the 25–34 years age group (10.5%) is below the average of high-income economies (13.3%). The results for the 35–44 age group decreased, and the TEA rate for people older than 45 years is, at 9.6%, also above the average of high-income economies (9.4%).

Entrepreneurial activity among the 18–24 age group has decreased in the last years and is still lagging behind considerably. The differences have increased. Compared to other high-income economies, the TEA rate for the 18–24 age group is, at 2.2%, the lowest and is clearly below average (9.5%). Switzerland is ranked 30th of 32 high-income countries and only Poland and Cyprus have a

lower TEA-rate for the young population. The difference to Canada (27.3%), the Netherlands (15.9%), the USA (14.7%) or Austria (14.0%) is impressive.

Interestingly, more 18–24 year-olds see Entrepreneurship as career choice (53.2%) than on average in Switzerland, but they perceive fewer opportunities and they don't trust their entrepreneurial capabilities compared to the other age groups.

With regard to encouraging young people to become entrepreneurs, Switzerland pulls strongly but pushes weakly. Research is needed to further clarify the effects of these institutional conditions upon entrepreneurial behavior (Schøtt et al. 2015, 32).

Table 3 Age groups and entrepreneurial indicators in Switzerland, 2018

	Age groups						Overall
	18–24	25–34	35–44	45–54	55–64	65+	
Perceived opportunities	32.4 %	48.6 %	42.0 %	51.6 %	46.9 %	43.9 %	45.5 %
Perceived capabilities	10.2 %	27.6 %	38.8 %	47.2 %	46.7 %	34.9 %	36.3 %
Entrepreneurship as a desirable career choice	53.2 %	50.6 %	42.1 %	45.9 %	43.4 %	49.8 %	46.5 %
Fear of failure (among those seeing opportunities)	30.1 %	48.4 %	46.0 %	43.1 %	32.3 %	34.1 %	39.9 %
Entrepreneurial intentions	3.9 %	9.9 %	6.8 %	9.1 %	3.6 %	0.2 %	6.9 %
TEA	2.0 %	10.5 %	7.6 %	9.5 %	4.4 %	1.1 %	7.4 %

2.2.3 Gender Profile of Entrepreneurs

In contrast, the Europe and North America regions have many economies with a lack of gender equality. In six countries, women start at less than half the rate of men (Slovenia, Greece, Sweden, Switzerland, United Kingdom, and Turkey). Furthermore, no country in this region shows equal levels between the genders. Figure 6 shows that in half of the countries here, female TEA rates are at 5.0 % or less. The relation male (9.98) to female (4.72 %) TEA-rate is at a value of 2.11:1 for Switzerland and 42nd among 48 countries.

It should be noted that, at least for the 31 high-income countries, there is no statistical correlation between the overall TEA rate and the relationship between male and female TEA rates. Countries with a relatively

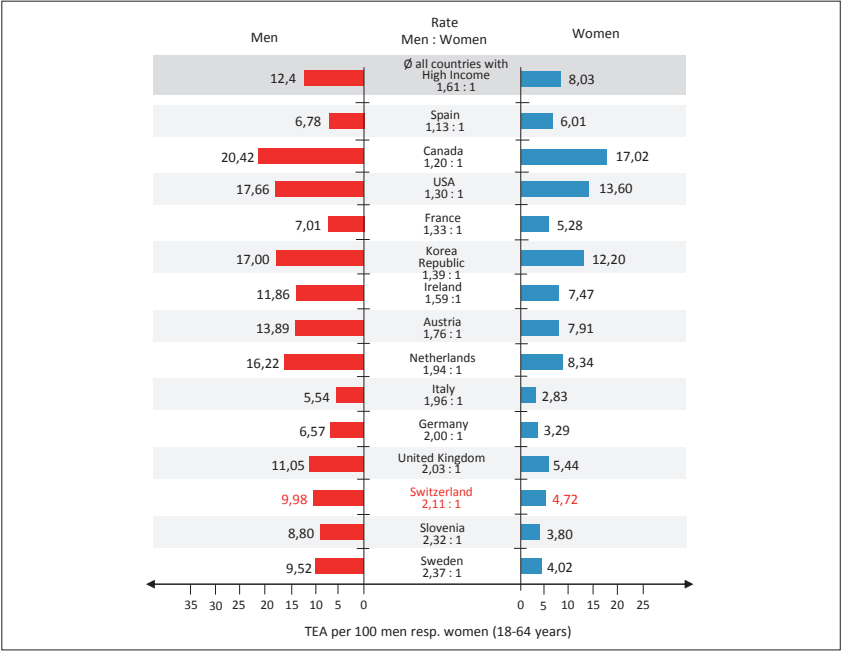
high proportion of women start ups generally do not have a higher rate – and vice versa.

If, however, the aim of start-up promotion policy should be to make greater use of start-up potential as a whole, i.e. to persuade more people who have been dependent on a company or have not been employed at all to start a company, then it makes sense to focus on the support of women – because the potential is obviously not as well exploited here as it is among men.

2.2.4 Motivations to Start a Business

The motivations for starting a business differ vastly across the globe. Individual drivers are traditionally captured within the GEM framework by differentiating between necessity-driven and opportunity-driven entre-

Figure 6 TEA rates by gender in selected high-income economies, 2018

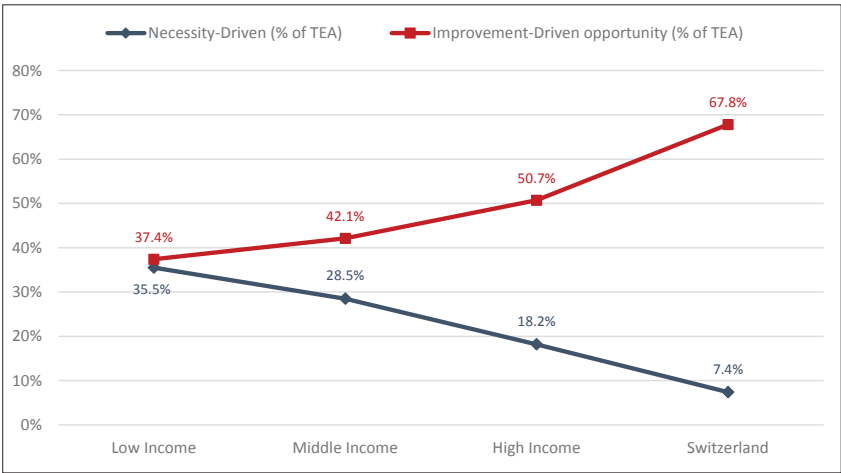


preneurship. A necessity-driven entrepreneur (ND) indicates in the GEM Adult Population Survey that s/he started the business because there were no better options for work, rather than seeing the start-up as an opportunity. For those who did see the start-up as an opportunity (rather than no other options for work), a further assessment was made on the nature of this opportunity. Improvement-driven opportunity (IDO) entrepreneurs are defined as those who indicate that they see an opportunity to improve their live-

lihoods and thus their motivation is linked to either earning more money or being more independent, as opposed to maintaining income.

As Figure 7 shows, entrepreneurs in low-income economies are driven only slightly more by necessity as compared to IDO motives. With greater economic development levels, necessity gradually falls off as a motivator, while IDO motives increase. The Swiss indicator for improvement-driven activities lies slightly higher than the average for

Figure 7 Percentage of Entrepreneurs motivated by Necessity and Opportunity by phase of Economic Development and in Switzerland, 2018



high-income economies and has remained rather stable over the last four years. Although the difference in the motivation structure of Swiss female and male inhabitants is not statistically significant, one can state that for maintaining income, opportunity-driven entrepreneurship is more strongly represented among females than among males.

Among entrepreneurs with opportunity-driven motives, a portion of these seeks to improve their situation, either through increased independence or through increased income (versus maintaining their income). GEM calls these improve-

ment-driven opportunity (IDO) entrepreneurs. Entrepreneurs may view these improvements in their work situation as a possibility, perhaps because they have a promising opportunity or because they see good conditions in the environment. Alternatively, they may simply endeavor to make this improvement.

Table 4 presents the large differences among the high-income economies. The highest score for Switzerland is remarkable due to the fact that necessity as a motive (7.4%) decreased compared to 2017 (13.9%). The Netherlands and the United States have a high percentage of IDO

entrepreneurs than those motivated by necessity. This signals that more people are seeking to improve their

lives through entrepreneurship and/or that fewer are driven to start businesses out of necessity.

Table 4 Motivational Index in selected high-income economies, 2018

Selected High-Income Economies	Improvement-driven opportunity (% of TEA)	Necessity-driven (% of TEA)	Motivational index*
Australia	38.1	15.9	2.4
Canada	44.6	13.7	3.3
France	63.7	22.3	2.9
Germany	52.8	16.7	3.2
Ireland	43.4	19.5	2.2
Israel	43.9	16.4	3.3
Italy	31.2	11.4	2.7
Korea Republic	67.1	21.0	3.2
Netherlands	69.3	8.9	7.8
Slovenia	47.3	24.2	2.0
Spain	43.8	22.6	1.9
Sweden	40.9	9.3	4.4
Switzerland	67.8	7.4	9.1
United Kingdom	48.2	12.9	3.7
USA	56.4	8.1	6.9
Average (High-Income Economies)	50.7	18.2	3.4

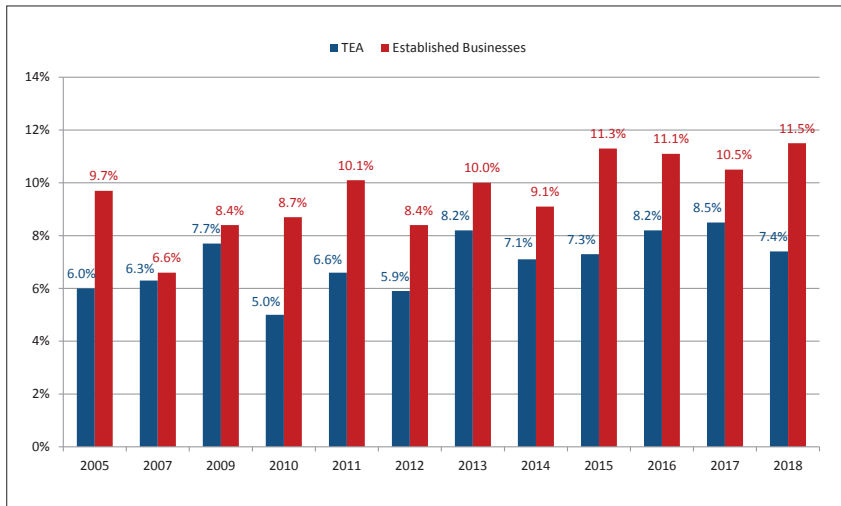
* Motivational Index is the ratio between Improvement-driven Opportunity TEA and Necessity-driven TEA

2.2.5 Established Business Ownership

While it is important to have early-stage entrepreneurs to generate dynamism in an economy, established businesses and their owner-managers ensure an important degree of stability for the private sector. Owner-managers in established firms pro-

vide stable employment, can avail themselves of the knowledge accumulated in past experiences, and as such may contribute greatly to their societies – even if they are small or solo entrepreneurs. A healthy set of business owners provide some indication of the sustainability of entrepreneurship in a society.

Figure 8 TEA Rates and Established Business Rates from 2005-2018 in Switzerland



Together with the TEA, the Swiss rate for established business (11.5%) is more or less at the same level as in the last years (Figure 8). The distinct prevalence of the established business rate over the TEA is quite unique within the comparison group. Switzerland, among other countries with lower-than-average TEA rates,

shows comparatively high-established business ownership.

2.2.6 Industry Sector Participation

The analysis of industry sectors demonstrates diversity in the regional and development level of entrepreneurs around the world. Half or more of the entrepreneurs in Africa,

Asia and Oceania, and Latin America and the Caribbean are starting wholesale or retail businesses, while just over one-fourth of the entrepreneurs in Europe and North America operate in this sector.

In contrast, information and communications, financial, professional, health, education and other services represent over half the entrepreneurs in North America and nearly half of those in Europe. However, less than one-fourth of entrepreneurs in the other two regions appear in the industry sector by economy and region. A look into the industry profile across the individual economies illustrates the diversity of entrepreneurship around the world. The emphasis on knowledge and service-based industries in Europe and North America is obvious.

Switzerland has the highest proportion of early-stage entrepreneurs in finance/real estate/business services (30.0%). In Switzerland, 14.5% of the new ventures operate service businesses in health, education, government and social concerns, showing the highest percentage. They are followed by Germany and the Netherlands (25.9%) and Israel (22.9%). Wholesale and retail are the dominant industries in the Korea

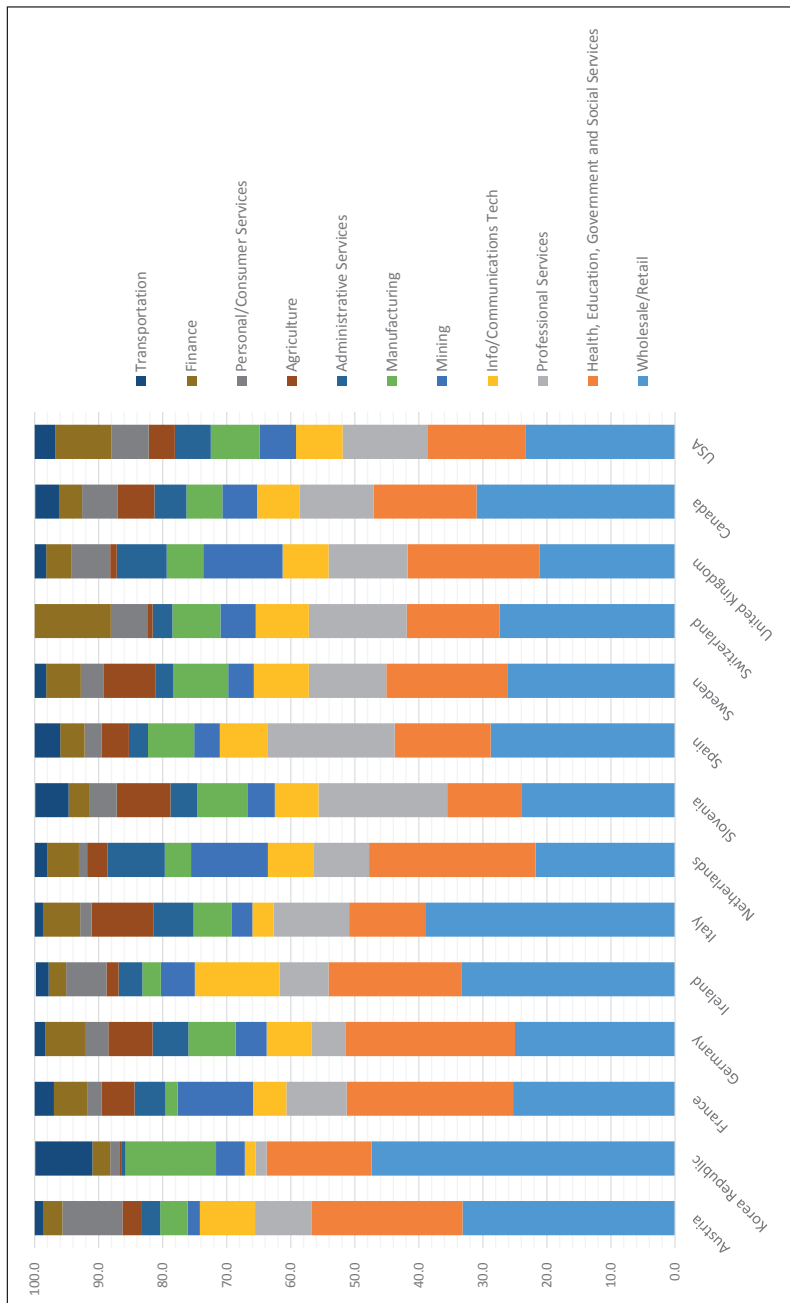
Republic (63.1%) and Spain (32.1%). In Switzerland wholesale and retail cover one quarter of all start-ups. In third position in Switzerland are new ventures in administrative services (10.3%), followed by entrepreneurs in finance. Entrepreneurial activity in the financial sector is led by Switzerland (11.9%) followed by the USA (8.8%).

Whereas agriculture, finance, wholesale/retail, construction and manufacturing are male dominated, women's activities refer principally to personal consumer services or government/health/education/social services.

2.2.7 Discontinuance

As new businesses emerge, others close. Individuals selling or closing their businesses may once again benefit their societies by re-entering the entrepreneurship process. Recognizing the importance of this measure, GEM tracks the number of individuals who have discontinued a business in the last 12 months. Along with TEA and established businesses, discontinuance may be considered a component of entrepreneurial dynamism in an economy. GEM Survey respondents who had discontinued a business in the previous 12 months were asked to give the main reason for doing so. First of all, it must be

Figure 9 Industry Distribution of TEA in selected high-income economies, 2018



highlighted that in Switzerland the percentage rate of people who abandon their business is one of the lowest (2.0 %) compared to their peers of high-income economies.

The results regarding Switzerland are special on two points: Bureaucracy is not a major reason to stop the business. When comparing countries and for a substantial portion of entrepreneurs, discontinuance was

already planned in advance. 15.5% chose an exit strategy or invested their time in another business opportunity (12.9%). They may even have sold the business (9.8%). These “positive” reasons for discontinuing businesses explain half of all discontinuations in Switzerland (Figure 11). Personal reasons (17.9%), an unprofitable situation (23.5%) or problems with finance (10.7%) cover the other reasons for discontinuing.

Figure 10 Industry distribution of TEA Male and TEA Male and TEA Female, 2018

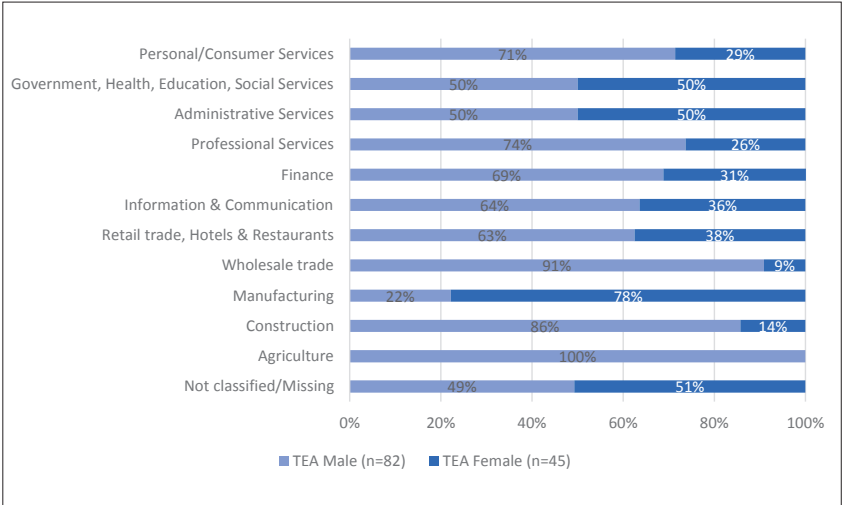
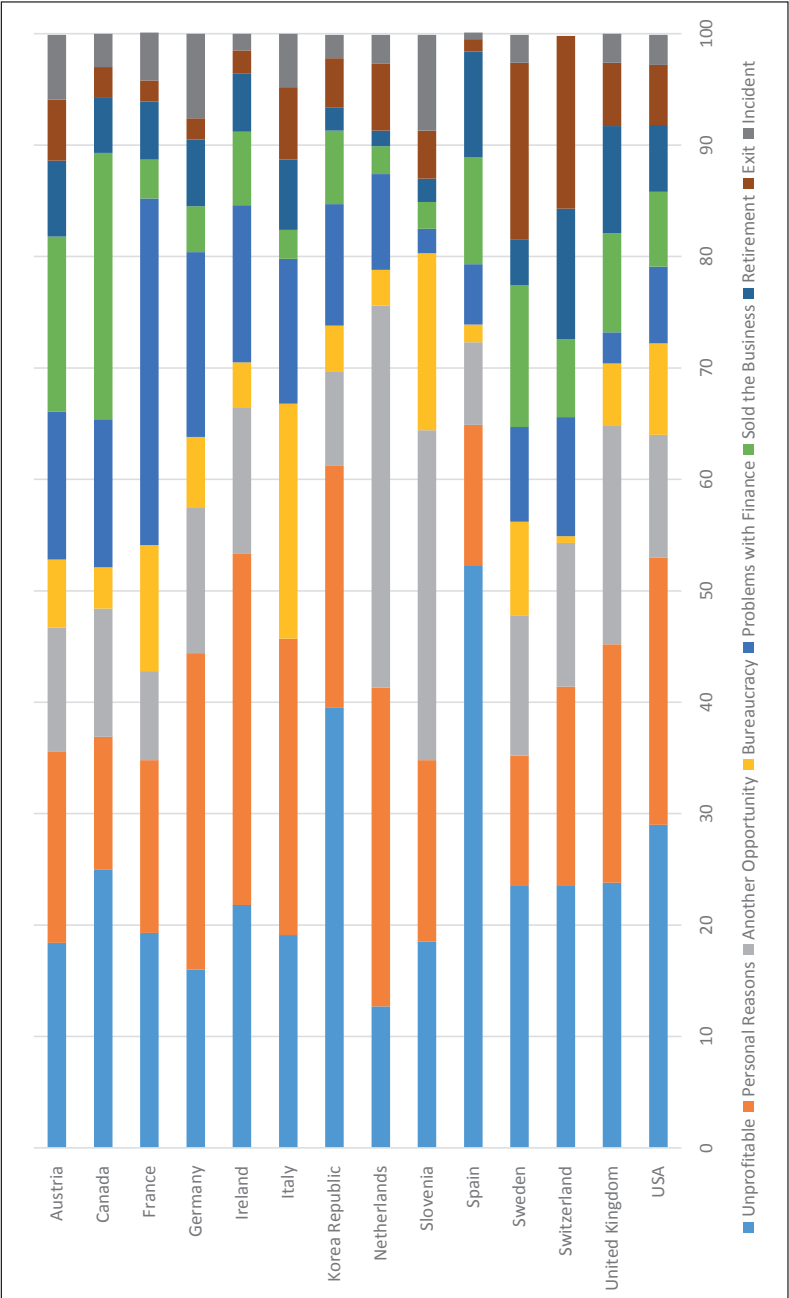


Figure 11 Reasons for Discontinuing a Business in selected high-income economies, 2018



... 3 Special topics

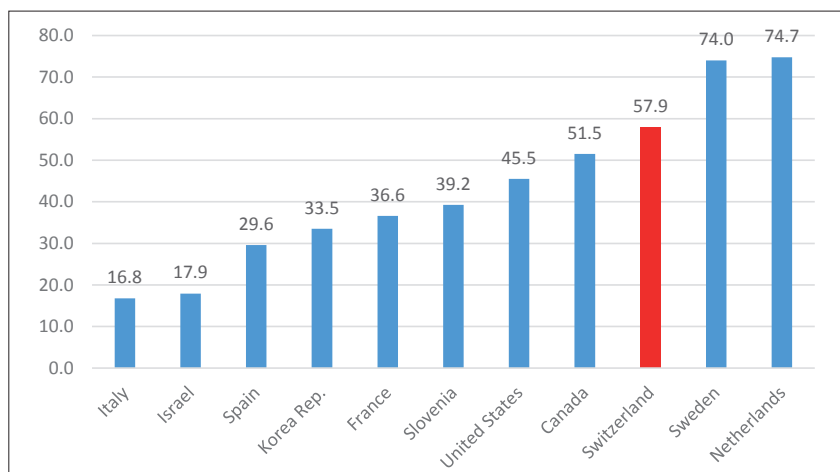
3.1 Ease of Starting a Business

This GEM global report features for the first time an indicator that assesses whether people believe it is easy to start a business. The findings show a wide variation of opinions within the regions, particularly in Europe, where the scale goes from 12.0% of the adult population in Greece to 75.0% in the Netherlands.

Switzerland, like Sweden, is an example of a country where despite the fact that 57.9% of adults think it is

easy to start a business, fewer than half think it is a good career choice. This illustrates that there may be more viable career alternatives (such as becoming an entrepreneurial employee) and people are less likely to consider starting a business. However, to the extent there is an interest in stimulating entrepreneurship in society, this evidence shows that simply reducing barriers to starting may not be enough to compel people to do so.

Figure 12 Societal Attitudes about Ease of Starting a Business among Adults (age 18 – 64), 2018

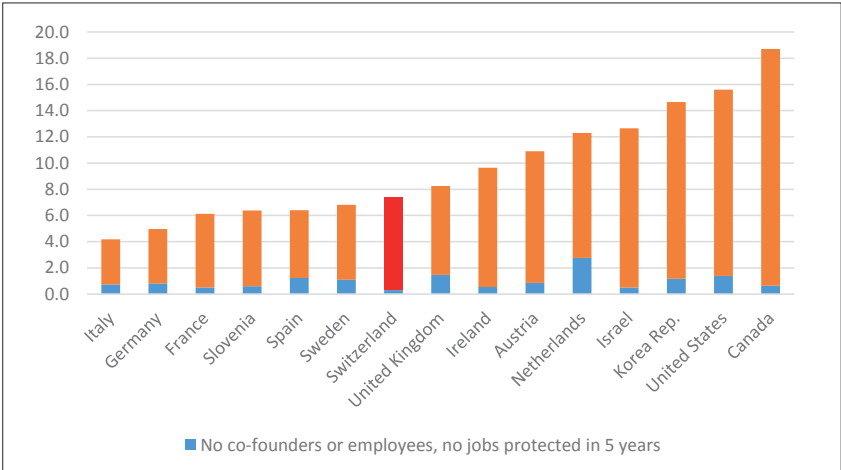


3.2 Solo Entrepreneurship

The case is that few entrepreneurs operate on their own without co-founders or employees, and with no intention to employ others. These solo entrepreneurs, however, can be found in all regions and at all

development levels. What may perhaps be surprising is the frequency of solo entrepreneurship in many European economies, as can be seen in Netherlands or Spain. In Switzerland the percentage is low (0.3 %).

Figure 13 TEA Rates among Adults (age 18 – 64) in selected high-income economies, Showing the Proportion of Solo Entrepreneurs, 2018



3.3 Family – Based Entrepreneurship

Family-run small businesses are visible in most communities; and family involvement can be seen in many regional, national and global businesses. What may be less known, however, is to what extent entrepreneurs start out as a family venture. It may be the case that some businesses start with family members

getting the business up and running, but may or may not maintain this distinction as they progress. In some cases, family members may get involved at a later phase.

The GEM report 2018/19 offers preliminary findings on startup activity involving families. The report adopts a broad definition of family-based entrepreneurship, including entre-

preneurs involved in TEA who: (i) report that they (expect to) partly own and manage their business jointly with family members, or (ii) do not share ownership but have at least one employee and manage their business jointly with family members. GEM identifies the former as “a strong indication” of family-based entrepreneurship and the latter as “some indication” of family-based entrepreneurship.

The highest “strong indications” of family-based early-stage entrepreneurs (as percentage of TEA) are found in Switzerland and Bulgaria. More than of quarter of the start-up projects are strongly family based

and in total 41.0% of the total entrepreneurial activity is family influenced.

Figure 15 clearly shows that in many TEA start-ups and established enterprises there is a high proportion of family members or relatives who either own or, especially, manage the businesses. More than 60% of the respondents who are not the sole owners of the enterprise but are only partners say they share the ownership with other family members or relatives. It is also noteworthy that in a not insignificant number of enterprises and start-up plans, the majority of employees also come from the family or are closer relatives.

Figure 14 TEA Rates among Adults (age 18 – 64) in selected high-income economies, Showing the Proportion of Family-owned or Managed, 2018

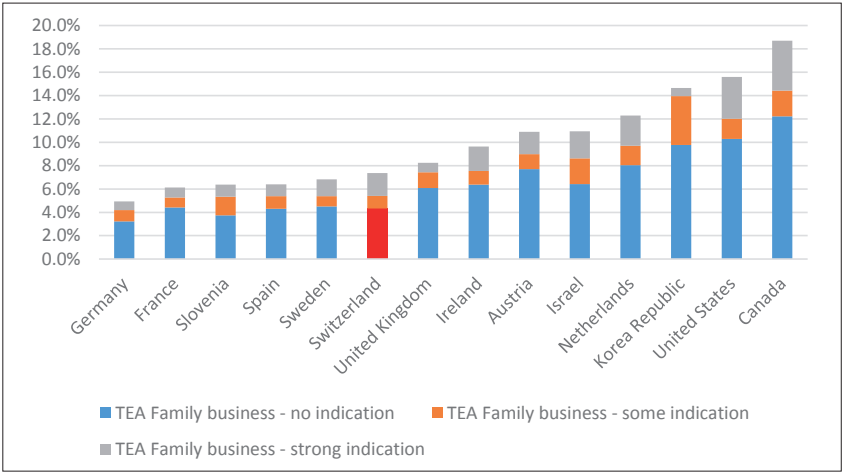
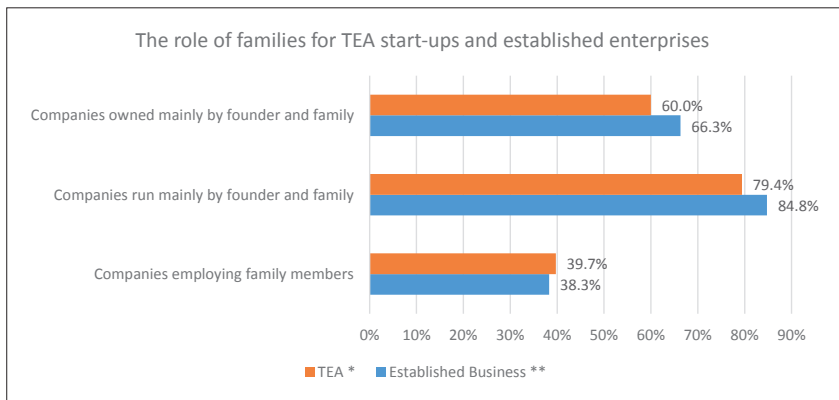


Figure 15 The Role of Families for TEA Start-ups and Established Enterprises in Switzerland, 2018



* Percentage of the 18 – 64 age group who have started a business in the last 3.5 years.

** Percentage of the entire 18 – 64 age group who own and run a business that is more than 3.5 years old.

The established companies tend to have a somewhat stronger family connection than current start-up projects or young companies (up to 42 months old). However, whether family-run companies have a higher resilience or are more likely to survive, and that is why they are found among established companies or whether a general change is taking place in business demography cannot be determined at this point without running a time series.

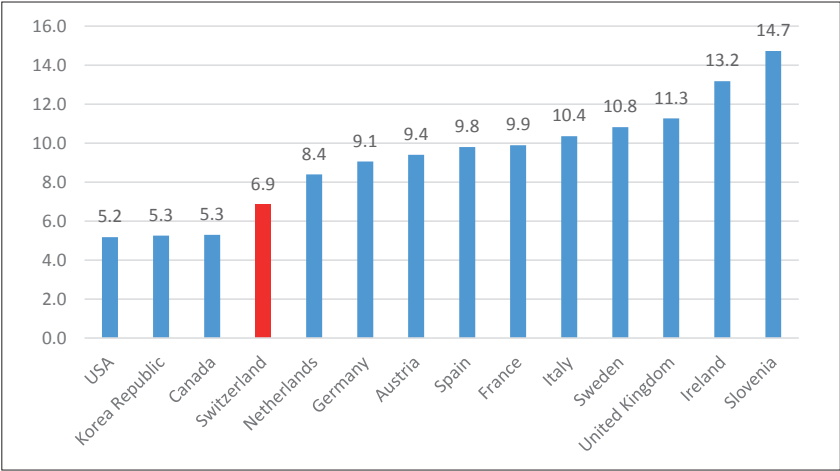
3.4 Technology-based entrepreneurial activity

Switzerland's comparative strengths in international competition lie in knowledge- and technology-inten-

sive products and services. Like other economies that are poor in raw materials, strong in exports and disadvantaged by demographic change, its cost structures usually prevent it from keeping pace with competitors from emerging markets in terms of prices. This is also why the quality and specific innovation-related characteristics of business start-ups should not be ignored with regard to the Swiss economy's ability to compete.

Aspects of these knowledge- and technology-intensive start-ups recorded via the TEA quota shed light on the GEM data for 2018. Figure 16 shows the proportion of TEA start-

Figure 16 TEA Start-ups according to selected technology-intensive in selected high-income economies, 2018



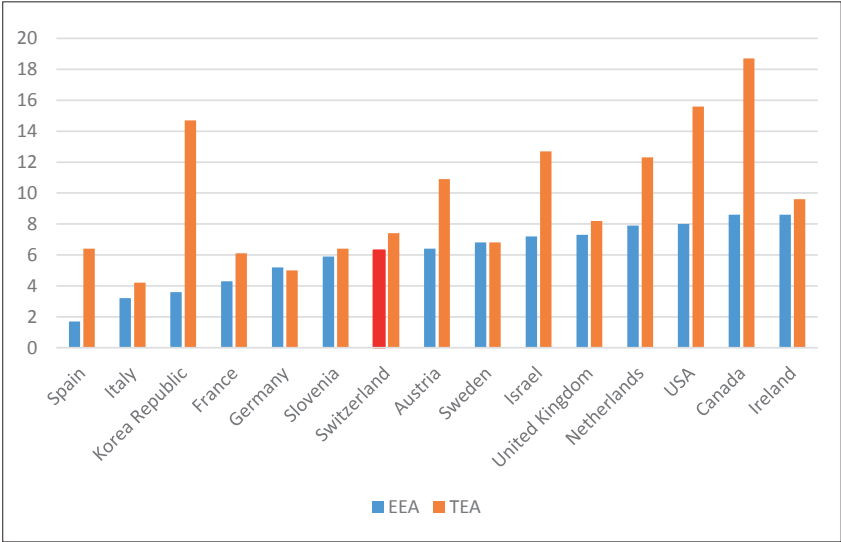
ups in 14 selected, high-income GEM countries, comparable to those in Switzerland assignable to the medium- or high-tech sector. Firstly, Switzerland's TEA rate puts it not among the top technology-intensive countries which represent many of the more important high-income economies.

3.5 Entrepreneurial Employee Activity

Entrepreneurs are not often related with mature, or large, organizations. But these organizations need to create new sources of top-line growth to remain viable over the long term and create entrepreneurial activities.

Employee entrepreneurship activity (EEA) results from the pursuit of new business activities inside an existing organization, where entrepreneurs seek to leverage internal advantages and the organization may initiate and/or support their efforts. Entrepreneurial activities among employees of existing organizations are most prevalent in Europe. In Switzerland (6.3%), like in Sweden (6.8%) and Germany (5.2%), entrepreneurship is at least as likely to occur in organizations as it is in independent startups. Only in other countries, like the Netherlands and Canada, do high levels of employee entrepreneurship complement high TEA rates.

Figure 17 Percentages of Entrepreneurial Employee Activity (EEA) and TEA in selected high-income economies, 2018 to selected technology-intensive in selected high-income economies, 2018



... 4 Impact of entrepreneurial activity

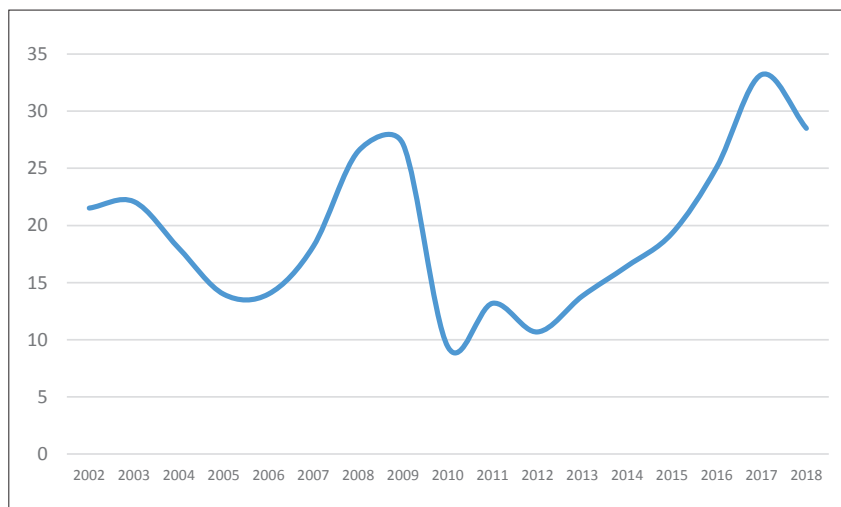
The effects of entrepreneurial activity are multi-scalar. On one level, it has an effect on individuals, inasmuch as it satisfies a number of “needs” such as self-fulfillment; on another level, it has positive effects on the region/territory (the community we live in); and then it also bears fruit at a macro level (the economy as a whole). Generally speaking, entrepreneurial activity produces positive economic results, including the creation of new jobs and more employment opportunities (which in turn reduces the unemployment rate), generating, adopting and spreading

innovation (whether technological or not) and lower prices, by boosting competition and competitiveness. All these factors together make it possible to create wealth and, ultimately, economic growth.

4.1 Job creation expectations

As part of the survey, entrepreneurs, defined according to GEM criteria, were asked to provide figures for their current payroll numbers and payroll numbers expected by their respective company in five years' time. Growth expectations may be inferred from the balance between the two data.

Figure 18 Job creation expectations (6 or more jobs in 5 years) Switzerland, 2002 – 2018

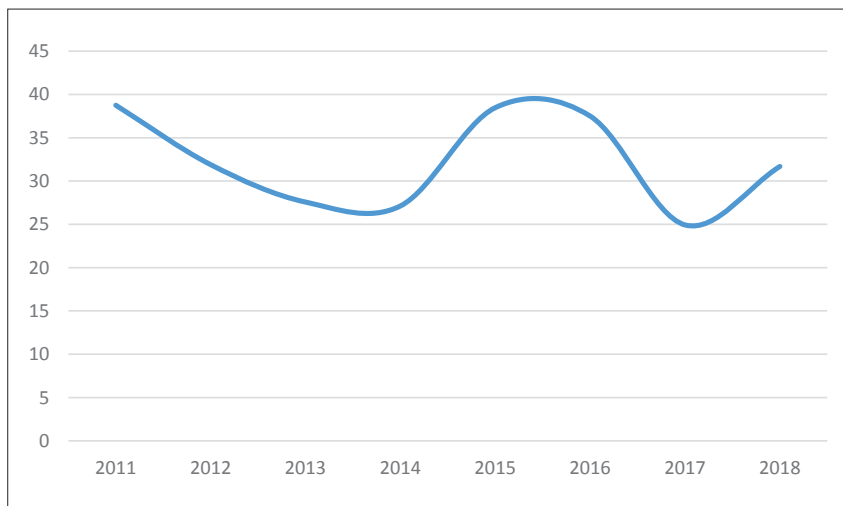


Broadly speaking, Europe and North America show strong growth expectations. With a 28.5% rate of entrepreneurs planning to create more than 6 new jobs over the next few years, Switzerland comes 11th in the ranking of 49 economies taking part in the survey. Compared to the previous survey, and considering 5 years of uninterrupted and steady growth, there has been a drop of 4.7 percentage points. That notwithstanding, the figure recorded for 2018 remains one of the highest since the time Switzerland joined the GEM project. It is now a matter of checking, based on future measurements, whether this trend reversal is cyclical or structural.

4.2 Innovative Orientation

Innovation is one of the fundamental processes of strategic management. Regardless of its different forms and typologies, innovation is generally seen as the primary source of competitive advantage for individual firms, as well as for whole socio-economic system. The entrepreneurial process invariably involves some form of innovation, be it in its product, service, process, and organizational structure or, which is increasingly the case, in its entire business model. By pursuing a consistently innovative policy, for example, an entrepreneur will remain one step ahead of other imitators, while also maintaining a competitive advantage.

Figure 19 Innovation Levels of TEA in Switzerland, 2011 – 2018



GEM monitors the innovative direction of entrepreneurial activities by launching new products and services (for all or some of one's clients), as well as on the strength of their uniqueness.

With 47.9% of its entrepreneurs having introduced new or unique products to some or all of their customers, Luxembourg is in first place, followed by Chile and India. Interest-

ingly, the three countries at the top of the relevant league table belong to three different continents. Switzerland, with a percentage of 31.7, comes in 15th place (out of 49 economies). Compared to the previous survey, there has been an increase of 6.7 percentage points, but we are still some distance away from the 38.7% and the 38.5% observed in 2011 and 2015 respectively.

..... 5 Entrepreneurial Framework Conditions

The GEM conceptual framework identifies the social, cultural, political and economic context in which individuals express their intentions and perform their entrepreneurial activities. It illustrates the relevant national settings that affect economic development and those activities that facilitate innovation and entrepreneurship in particular. The National Expert Survey (NES) employs expert judgments to evaluate specific framework conditions for entrepreneurship.

The NES data provides insights into how these EFCs either foster or con-

strain entrepreneurial climate, activity, and development. To assess the Swiss framework conditions influencing entrepreneurial activity, 36 Swiss experts completed a closed questionnaire on factors relating to our entrepreneurial environment. Experts' responses were measured on a 9-point Likert scale to achieve greater accuracy and sensitivity. Figure 20 shows at a glance that in almost all cases, Swiss ratings are at least equal or higher than average for each EFC. The only two exceptions are the internal market dynamics and cultural and social norms, which are below average.

Figure 20 Composite indicators on Entrepreneurship Framework Conditions, by stage of development compared to Switzerland

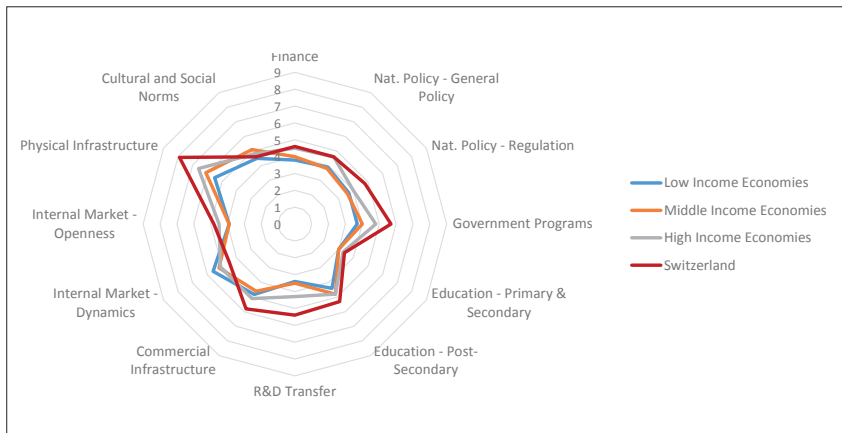


Table 5 displays the assessed values of the nine EFCs in Switzerland, as well as the values of selected high-income economies (benchmark economies). These high-income economies serve as a comparison group and help to make more sense of our data.

The entrepreneurial finance framework condition describes the availability of financial resources – equity and debt – for small and medium enterprises (SMEs). Experts evaluate Switzerland's financial environment **(4.6/9)** for entrepreneurship and innovation slightly more positively and higher than the average of high-income economies (4.5/9). Experts strongly emphasize the areas of further improvement in early-stage funding in terms of access to seed and venture capital.

Government policy conditions have two components; to which extend public policies priorities and support (4.6/9 – same as the average) new and growing firms and the bureaucracy, tax regime, labor market regulation, social security legislation (4.8/9 – above the average of 4.0/9), that specifically aim at the new and small business sector. Local experts see a potential area for improvement here, especially through easing bureaucratic procedures in founding new ventures and their taxation policies.

The government entrepreneurship program condition relates to the presence of programs (at national and regional levels) and other initiatives to support new and growing firms. Experts in Switzerland rate the presence of these governmental programs to support new and growing firms very positively **(5.7/9)**, whereas the average of high-income economies is at (4.8/9). An area of further improvement could be achieved towards improved coordination among various programs.

EFC entrepreneurial education relates to the extent to which entrepreneurship and entrepreneurial qualities receive attention in all phases of the educational and training system. Entrepreneurial education at primary and secondary levels in Switzerland **(3.4/9)** is slightly ahead of the average of all the benchmark economies (3.3/9) but behind leading countries like, e.g. the Netherlands. This is one of the EFCs where experts see major potential for improvement to be similar to previous years. The experts overwhelmingly recommend entrepreneurship as a pedagogical tool, especially in the early years of schooling. On the other hand, Swiss experts evaluate post-secondary education (colleges, university, and professional education) more posi-

tively and emphasize the world-class quality of the Swiss higher education system **(5.3/9)**.

The R&D transfer condition refers to the extent to which national research and development will lead to

Table 5 Entrepreneurial framework conditions, GEM 2018

Weighted average: 1 = highly insufficient, 9 = highly sufficient

	Financial environment related with entrepreneurship 1	Government concrete policies, priority and support 2a	Government policies bureaucracy, taxes 2b	Government Programs 3	Entrepreneurial education at Primary and Secondary levels 4a	Entrepreneurial education at Vocational and Professional levels 4b
Australia	5.0	4.7	4.0	6.2	2.6	5.2
Canada	5.3	4.9	4.3	4.9	4.1	4.8
France	4.7	5.9	5.3	5.6	2.9	5.6
Germany	4.8	4.3	4.3	5.8	3.0	4.6
Ireland	5.2	4.8	4.5	5.5	3.8	5.0
Israel	5.3	3.7	2.6	4.0	2.8	4.7
Italy	4.6	4.0	3.1	3.9	2.7	4.5
Korea Republic	4.7	6.1	4.5	5.2	3.4	4.4
Netherlands	5.9	5.4	5.4	5.7	5.4	6.2
Slovenia	5.0	4.4	3.3	5.0	3.1	4.8
Spain	4.5	4.7	4.0	5.6	3.5	5.3
Sweden	4.8	4.0	3.7	4.8	3.9	4.6
Switzerland	4.6	4.6	4.8	5.7	3.4	5.3
United Kingdom	5.0	3.4	4.9	4.0	3.0	4.4
USA	6.0	4.2	4.7	4.4	4.3	5.5
Average of High-Income Economies	4.5	4.6	4.0	4.8	3.3	4.8

new commercial opportunities and whether or not these are available for new, small, and growing firms.

Experts rate Switzerland highly positively (**5.4/9**), ranked in 1st place, especially when compared to the

	R&D level of transfer	Access to professional and commercial infrastructure	Internal market dynamics	Internal market burdens	Access to physical infrastructure and services	Cultural and social norms, social support
	5	6	7a	7b	8	9
Australia	4.5	6.1	4.5	5.7	7.6	3.9
Canada	4.8	6.1	4.2	4.5	6.7	5.6
France	4.8	5.3	4.3	3.9	7.7	4.7
Germany	4.6	5.7	5.1	5.1	6.1	4.5
Ireland	4.6	5.2	4.2	5.0	5.3	5.4
Israel	4.3	5.7	4.7	3.7	6.9	7.0
Italy	4.1	4.3	5.0	4.3	5.0	3.5
Korea Republic	4.0	4.3	7.2	3.8	6.7	5.1
Netherlands	5.3	6.1	5.3	5.9	7.7	6.2
Slovenia	4.3	5.0	5.3	4.8	6.9	3.7
Spain	4.6	5.2	4.8	4.6	6.3	5.1
Sweden	4.1	5.0	5.8	4.9	7.2	4.9
Switzerland	5.4	5.8	4.5	4.8	7.9	4.6
United Kingdom	4.2	5.2	4.9	4.4	5.6	4.8
USA	4.4	5.9	5.5	4.7	7.1	7.3
Average of High-Income Economies	4.3	5.1	5.1	4.5	6.6	4.8

benchmark high-income economies (4.3/9). Local experts have particular praise for the excellence of its industry and technology. However, they still suggest potential improvements in technology transfer projects between academia and industry.

The commercial and legal infrastructure framework conditions relate to the presence of property rights, commercial, accounting, and other legal and assessment services and institutions that support or promote SMEs. In this framework requirement, the Swiss value **(5.8/9)** is ahead of the average, but still behind leading countries like Austria, Canada, Netherlands, and the USA. It is noteworthy that the other economies made major improvements and took over the lead. Experts see areas of improvement in startup advisory services, especially more tailored and affordable facilities and services for firms.

Entry regulation condition has two components; internal market dynamics and internal market burdens. Internal market dynamics **(4.5/9)** refers to the level of dramatic change in markets from year to year. This has an inverse scaling; hence, smaller values are regarded more positively. On the other hand, internal market burdens **(4.8/9)** relate to the extent to which new firms are restrained from entering markets. Local experts

rated market openness as favorable, especially due to the growing Swiss economy; however, they also acknowledge the underutilized potential, especially from ideas and startups that are not necessarily ETH or EPFL branded.

The physical infrastructure refers to the presence of and access to available physical resources, e.g., communication, utilities, transportation, land or space, at a price that does not discriminate against new, small or growing firms. Switzerland **(7.9/9)** ranked 1st, proving that Switzerland offers one of the world's finest physical and technological infrastructures for economic growth.

The cultural and social norms are the extent to which norms encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income. In this EFC, Switzerland **(4.6/9)** is slightly below the average (4.8/9), proving that with regard to cultural and social norms, we are lagging behind the leading benchmark economies. To achieve a desirable position, local experts emphasize a need for a mindset shift, especially in overcoming stigmatization of failure.

... 6 GEM research in Switzerland

6.1 Entrepreneurial behavior and attitudes across time

The GEM project began two decades ago, in 1999, as a joint project between the Babson College in the United States and the London Business School. Its main goal was to measure economic activities in different countries with the aim to understand the factors that determine these activities and to understand how they relate to economic growth and development. In 2002 the GEM was launched in Switzerland. Since then, the Swiss population is regularly surveyed with a uniform and consistent questionnaire. Only minor changes to the questionnaire are made from year to year and the number of countries participating in the study that survey a minimum of 2000 individuals are consistently increasing. Currently, data from 112 economies at all levels of economic development are available to the GEM consortium.

So far, the data have contributed to approximately 1000 reports and more than 650 academic papers. From the knowledge gained through academic research it can be pointed out that entrepreneurial activities tend to

impact economic development in various ways. This chapter outlines first the development of some national GEM indicators and compares them with other economic data from Switzerland. Consistent differences among the Swiss language regions that have been observed in the past few years are then discussed in the second part.

Analyzing the development of GEM indicators over time is a recurring ambition of the GEM community. The 2013 global report already highlighted the impact of entrepreneurship on business cycles through an analysis in various countries and now, after two decades of GEM research, is doing the same again with a special chapter. The underlying motivation is to understand how entrepreneurship activities are affected by economic cycles.

In countries such as the US or Japan we can observe that rates of entrepreneurial activities and nascent entrepreneurship tend rather to follow than to announce annual rates of GDP growth. Hardly hit by the financial crisis in 2007–08 and the subsequent economic meltdown, the

US GDP fell 2007 to 2009. The rates of total early-stage entrepreneurship (TEA) and established business ownership fell in 2008 as well, recovering only after the national economy began to slightly recover as well. During these years of economic crisis, however, rising unemployment rates led to an increased rate of necessity-based entrepreneurship motives

and thus to increased nascent entrepreneurship activities.

These patterns of decreasing GDP growth and thus TEA rates alongside rising unemployment, nascent and, in particular, necessity-based entrepreneurship can be observed in the Japanese economy in two cycles: Before being hit by the 2007 global

Figure 21 Entrepreneurship patterns and GDP growth between 2001 and 2018 for the US (above) and between 2002 and 2018 for Switzerland (below)



economic crisis, Japan had already gone through the Asian crisis in the early years of this new century. Both crises resulted in a short-term decrease of TEA rates but an increase in necessity-based nascent entrepreneurship activities. However, whereas the United States is recording a steady rise in TEA and EB in this current decade, Japan remains with rather low TEA and EB rates. This divergence is partially explained by the rise of the gig and sharing economy in the US and the society's strong emphasis on big multinational companies in Japan.

After a long-lasting period of economic growth in Switzerland since the early 2000, Switzerland was hit by the economic crisis in 2009 with a negative GDP growth rate. Necessity-based entrepreneurship rates are among the lowest in Switzerland, even when measured exclusively among high-income and high-income economies. Only around 10 to 15% of new business activities are motivated by necessity.

The figures on the left show the business cycles represented by annual

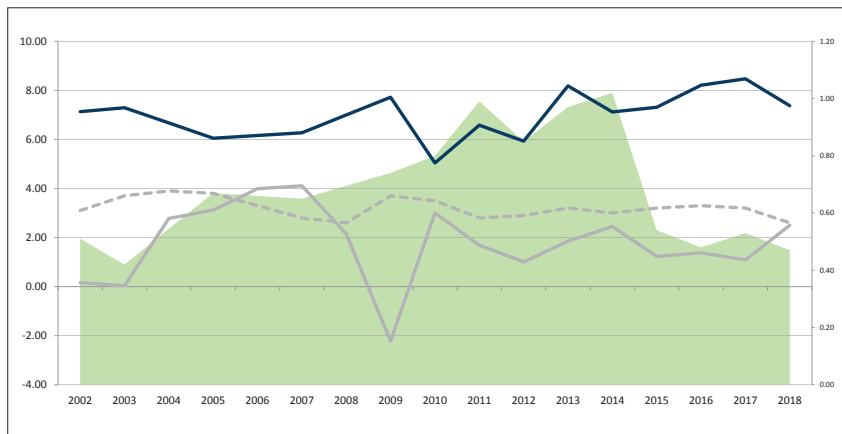
GDP growth, shown as the grey areas linked to the vertical axis on the left, in a longitudinal perspective compared with Established Business Ownership, Total early-stage Entrepreneurial Activity and Entrepreneurial Employee Activity. For Switzerland, TEA rates have risen slightly in recent years. In an overall perspective, they remain at a relatively low level of between 6% and 8%. Established Business Ownership, on the other hand, rose over the past two decades from 6.82% in 2002 to 11.5% in 2018. From an initial analysis we can state that annual GDP growth rates tend to be negatively correlated with early-stage entrepreneurial activity¹ and are thus reacting in an opposite direction compared to economies such as the US or Japan. In figure 22 below, we can clearly observe the negative correlation between GDP growth (in grey) and TEA rates (in dark blue). Nevertheless, when considering a time lag between a change in economic development and an impact on entrepreneurial activities, we can draw a slightly different conclusion. Entrepreneurial activities are not undertaken simultaneously to economic cycles but rather as an effect

¹ There is actually a significant negative correlation between the two variables, annual GDP growth and TEA rates of -0.507^* ($p < 5\%$)

in the aftermath of a downturn, for example, when companies start to reduce their activities or stop hiring. During the years of economic prosperity between 2003 and 2007, TEA remained rather stable but at low levels. As in Japan, big multinational companies offer good employment opportunities and the benefits of a good reputation for well-paid job opportunities among the working population. In 2009, the Swiss economy recorded a negative GDP growth due to the global crisis. In the subsequent years, TEA rates fell as well. While GDP steadily recovered, TEA rates recovered as well, reaching more than 8% for the first time in 2013, followed by a newer peak in 2016 and the all-time high in 2017.

Despite the economic downturn in 2009, unemployment rates in Switzerland generally remain at very low levels of between 2.5% and 3.5% (grey broken line in figure 22). Given this situation, there is no significant change in necessity-based entrepreneurship activities across these years. Another rather volatile development can be observed when studying gender proportions of the TEA sample. From 2009 to 2014, Switzerland recorded an ever-balanced ratio between the genders reaching an egalitarian situation in 2014. In 2015, however, that proportion changed in favor of male entrepreneurs: for the last four years (2015 – 2018) female entrepreneurs in Switzerland have made up only half of the population of male entrepreneurs.

Figure 22 TEA patterns and economic indicators between 2002 and 2018 for Switzerland



Reasons for this drastic change cannot be found by analyzing the entrepreneurs' motives. Whether female and male entrepreneurs were equally represented, such as in the years between 2011 and 2014, or whether the number of female entrepreneurs was drastically reduced, most interviewees cited independency as a major motive. There was no significant change in the number of necessity-based female entrepreneurship rates, nor did the size or growth expectation of these female-led entrepreneurial activities differ between these two periods.

Since 2014, the national report highlights regional differences between the three major language regions: German-, French- and Italian-speaking parts of Switzerland. In this regional comparison, German-speaking Switzerland tends to have the highest TEA rates, whereas the Italian-speaking Swiss from the Canton of Ticino usually measure very low rates of entrepreneurial activities. This trend is also consistent with Ticino having the lowest rates of perceived opportunities and capacities among its population when compared to the German- and French-speaking areas. In the following section, the GEM Ticino case will be discussed more in detail.

6.2 GEM Ticino

In 2018/19, the Total Early-Stage Entrepreneurial Activity (TEA) index for Ticino reached 3.8%, nearly two percentage points lower than in the previous year, and nowhere near the 8.8% recorded for 2016, its best performance since Canton Ticino was first "regionalized". The current rate of early-stage entrepreneurship, therefore, has dropped back to 2015 levels. In general, all major GEM indicators regarding Canton Ticino have taken a turn for the worse compared to last year. The exception is the status acquired by the role of the entrepreneur, up from the 62.9% measured for 2017/18 to today's 64.4%. This figure, combined with the ease of launching an activity (68.9% in Ticino, compared to the national average 57.9%), is not really reflected in the actual implementation of an entrepreneurial path. Indeed, even in terms of entrepreneurial intentions, the figure remains below 1%, the lowest recorded so far. This is due, among other things, to the impact of the high rate of fear of failure. Granted that this rate is invariably higher in Ticino than the national average, this year it has shot up above 70%, compared to 39.9% nationwide. This suggests that a certain degree of disenchantment has set in, or a lack of consideration for

an entrepreneurial career as an alternative to regular employment. This conclusion is also highlighted by the low rate of “perceived opportunities” (12.9%, a good 23 percentage points lower than in the previous year) and, more particularly, of “perceived capacities” in doing business. According to previous surveys, the latter was gradually coming closer to the national average – with 2.4 percentage points last year – though it dropped drastically this year, creating a differ-

ential of 11 percentage points compared to the Swiss average (36.3%).

In view of the above, it seems, at least judging from GEM findings, that Canton Ticino’s current situation in terms of entrepreneurial capabilities and aspirations is not rosy. Yet, before drawing conclusions on the situation, it would be prudent to wait until the next surveys are published. It is not the first time that Canton Ticino, in comparison with the other Swiss re-

Table 6 Comparison of several variables as per the different linguistic regions in Switzerland, 2018

	CH	CH-D	CH-F	CH-I
Entrepreneurship as a good career choice	46.5	38.9	68.3	52.6
High status to successful entrepreneurs	69.7	65.1	83.7	64.4
Media attention for entrepreneurship	47.7	47.4	52.3	27.6
Perceived opportunities	45.5	44.1	57.6	12.9
Perceived capabilities	36.3	35.8	39.7	25.0
Fear of failure	39.9	38.8	42.5	72.2
Ease of starting a business	57.9	57.2	58.2	68.9
Entrepreneurial intentions	6.9	9.4	12.7	0.7
Early-stage entrepreneurial activity (TEA)	7.4	7.7	7.2	3.8

gions, reveals a state of affairs that is far from ideal, a picture that has been painted more than once in GEM's previous Swiss reports. Notice, however, that these are comparisons with economies north of the Alps that are in good shape. In fact, if Canton Ticino is compared to other regions outside the Swiss borders, its outlook is not so gloomy. This does not give us license to sit on our hands. On the contrary, the lesson to be drawn from comparisons with those that are in better shape should be an inspiration and a prompt for our Canton to act in such a way as to minimize the differential. Until a few years ago, the

authorities (political, but not only) of Canton Ticino had always looked to the South. Now – as a result of sometimes awkward relations between Switzerland and Italy – the tendency is to look mostly north of the Alps, an attitude no doubt facilitated by the opening of the Alptransit. A clear illustration of this is the fact that Ticino has recently joined the Greater Zurich Area, an initiative that will make it easier for our Canton to attract innovative entrepreneurial activities likely to generate high value-added and to create skilled jobs.

..... 7 Literature

Bosma, N., Kelley, D. (2019). *Global Entrepreneurship Monitor: 2018/2019 Global Report*. Babson Park, MA: Babson College; Santiago, Chile: Universidad del Desarrollo; Seoul, Korea Republic: Korea Entrepreneurship Foundation.

Cacciottti, G. & Hayton, J. C. (2015). *Fear and Entrepreneurship: A Review and Research Agenda*. International Journal of Management Reviews, Vol. 17, 165–190.

OECD (2017). *The Missing Entrepreneurs 2017. Policies for inclusive Entrepreneurship*. OECD Publishing. Paris.

Schøtt, Th., Kew, P., & Cheraghi, M. (2015). *Future Potential: A GEM perspective on youth entrepreneurship 2015*.

Schwab, K. (2018). *The Global Competitiveness Report 2018*. Geneva: WEF.

... GEM Framework

The GEM Project

Entrepreneurship has become a term that is increasingly widespread around the world. According to key players in society, including policy-makers, academics, entrepreneurs themselves, and the population at large, entrepreneurship tends to be associated with economic development and social well-being. Since its beginning, one of GEM's core principles has been to explore and assess the role of entrepreneurship in national economic growth. This scope is aligned with the "Schumpeterian" view that entrepreneurs are ambitious and spur innovation, speed up structural changes in the economy, introduce new competition and contribute to productivity, job creation, and national competitiveness. However, entrepreneurship has many faces and includes initiatives that are accompanied by less ambitious business activities leading to limited or no growth. It is important to note that different types of entrepreneurship may all have important implications for socio-economic development.

In 2016, 65 economies participated in the study, collectively representing all regions of the world and a broad range

of economic development levels.

GEM contributes to the understanding of the role played by new and small businesses in the economy by focusing on the following objectives (Reynolds et al., 1999, p. 3):

- to allow for comparisons with regard to the level and characteristics of entrepreneurial activity among different economies;
- to determine the extent to which entrepreneurial activity influences economic growth within individual economies;
- to identify factors which encourage and/or hinder entrepreneurial activity;
- to guide the formulation of effective and targeted policies aimed at stimulating entrepreneurship.

GEM provides a comprehensive view of entrepreneurship across the globe by measuring the attitudes of a population, and the activities and characteristics of individuals involved in various phases and types of entrepreneurial activity.

How GEM Measures Entrepreneurship

Since its beginning, GEM's focus has been on individuals as units of

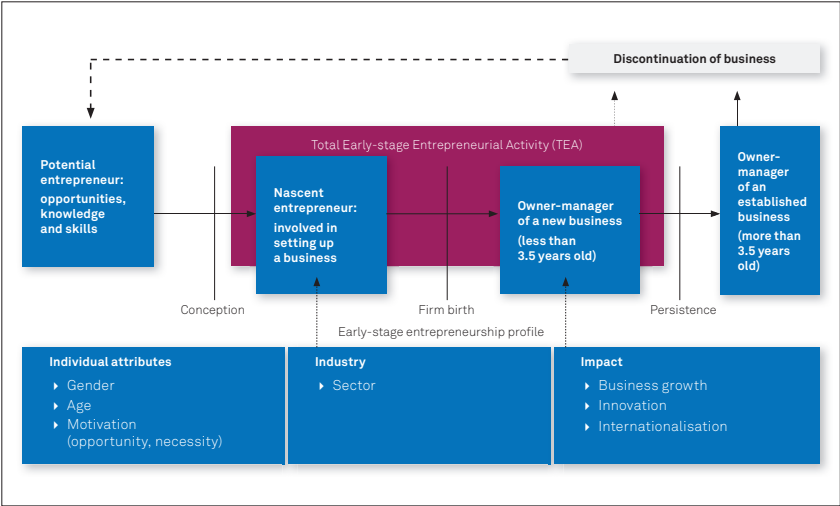
observation: men and women who are involved in different stages of entrepreneurial dynamics. Entrepreneurship is a process comprising different phases, from intending to start, to just starting, to running new or established enterprises and even discontinuing a business.

Given that the context and conditions that affect entrepreneurship in different economies are diverse and complex, it is not possible to conclude that one phase inevitably leads to the next. The entrepreneurship process and GEM's operational definitions are illustrated in Figure 23. GEM's conceptualization of entrepreneurship as a multiphase process is useful for assessing the state of entrepreneurship at different points. This process starts with the involvement of potential entrepreneurs – those individuals who believe they possess the capabilities to start businesses, who see opportunities for entrepreneurship, and who would not be dissuaded from doing so for fear of failing. For some potential entrepreneurs, their intentions to start businesses are underpinned by the perceptions society holds of entrepreneurs, the status these individuals enjoy in their society, and whether the media positively represents entrepreneurs.

The next phase is nascent entrepreneurial activity – i.e. those starting new enterprises less than three months old. Given the challenges associated with starting a new business, many fledgling businesses fail in the first few months, hence not all nascent entrepreneurs progress to the next stage. New business owners are defined as those former nascent entrepreneurs who have been in business for more than three months, but less than three and a half years. Nascent and new business owners together account for the total early-stage entrepreneurial activity (TEA) in an economy, a key measure of GEM.

Established businesses are those that have been in existence for more than three and a half years. It is important to consider both established business owners as well as entrepreneurs who have discontinued or exited businesses because these two categories represent a key resource for other entrepreneurs (for example, by providing financing, mentorship, advice or other types of support). In addition, former entrepreneurs may re-enter entrepreneurship (serving as serial entrepreneurs) or they may join established companies and enact their entrepreneurial ambitions as employees.

Figure 23 GEM model of business phases and entrepreneurship characteristics



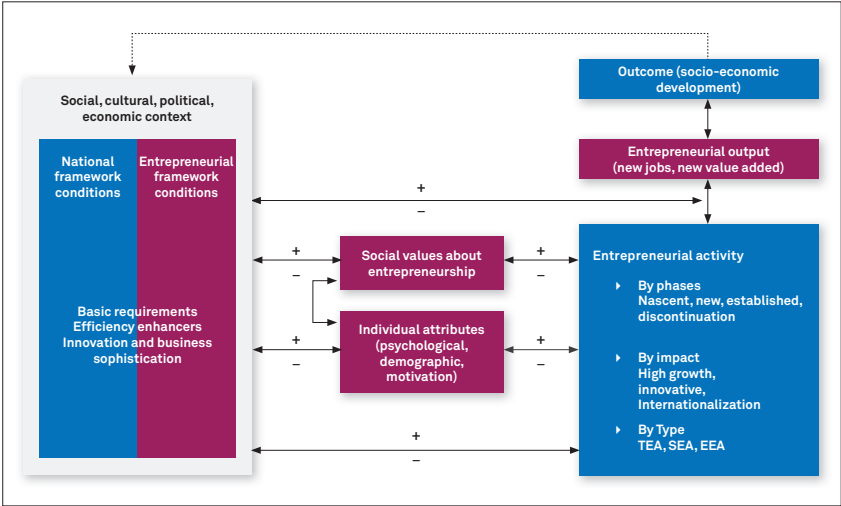
The GEM Conceptual Framework and Methodology

The GEM model shown in Figure 23 sets out key elements of the relationship between entrepreneurship and economic growth and the way in which the elements interact. At the same time, it acknowledges that the contribution entrepreneurs make to an economy varies according to that economy’s phase of economic development, which to a certain extent drives the institutional setting. It also reflects a nuanced distinction between phases of economic development, in line with Porter’s typology of “factor-driven economies”, “efficiency-driven economies” and “innovation-driven economies” (Porter et

al., 2002), and recognizes that GEM’s unique contribution was to describe and measure, in detail, the conditions under which entrepreneurship and innovation can thrive.

Classification according to phases of economic development is based on the level of GDP per capita and the extent to which countries are factor-driven in terms of how much primary goods account for total exports. Factor-driven economies are primarily extra-active in nature, while efficiency-driven economies exhibit scale intensity as a major driver of development. At the innovation-driven stage of development, economies are characterized by the

Figure 24 The GEM Conceptual Framework



production of new and unique goods and services that are created via sophisticated, and often pioneering, methods. Together with 26 other countries, Switzerland is included in the group of “innovation-driven” economies.

The framework incorporates the three main components that capture the multi-faceted nature of entrepreneurship: entrepreneurial attitudes, entrepreneurial activity, and entrepreneurial aspirations. These are included as components of a “black box” that produces innovation, economic growth and job creation, without spelling out in detail how they affect and reinforce each other.

Figure 24 also shows how GEM measures different components, such as entrepreneurial framework conditions using the national expert survey, and the entrepreneurship profiles, encompassing entrepreneurial attitudes, activity and aspirations using the adult population survey.

One of the key purposes of GEM is to provide reliable data on entrepreneurship that will be useful over time in making meaningful comparisons, both internally and between economies. For this reason, all participating economies make use of standard research instruments. The GEM data is gathered annually and is derived from the following two main sources.

Adult Population Survey (APS)

Each participating economy conducts a survey of a random representative sample of at least 2000 adults (aged 18 years and older). The surveys are conducted at the same time of year (generally between April and June), using a standardized questionnaire developed by the GEM consortium. The raw data is sent directly to the GEM data team for inspection and uniform statistical calculations before being made available to the participating economies.

National Experts Survey (NES)

The NES provides insights into the entrepreneurial start-up environment in each economy with regard to the nine entrepreneurial framework conditions, namely:

- Entrepreneurial finance
- Government policies: support and relevance
- Government policies: taxes and bureaucracy
- Government entrepreneurship programs
- Entrepreneurial education at school stage
- Entrepreneurial education at post school stage
- R & D Transfer
- Commercial and legal infrastructure
- Internal market dynamics

The NES sample comprises a minimum of 36 respondents, with four experts drawn from each of the entrepreneurial framework condition categories. Out of this sample, a minimum of 25% must be entrepreneurs or business owners, and 50% must be professionals.

Additional aspects such as geographical distribution, gender, the public versus private sector, and level of experience are also taken into account in selecting the sample.

In addition to the APS and NES, GEM reports also make use of standardized national data from international data sources such as the World Bank, the International Monetary Fund, and the United Nations. This information is used to add context to the report, and to explain the relationship between entrepreneurial activity and national economic growth.

The GEM conceptual framework opens the “black box” of an Entrepreneurship Profile and tests the characteristics of the assumed relationships between social values, personal attributes and forms of entrepreneurial activity.

The **social values towards entrepreneurship** include the social sta-

tus of entrepreneurs, how society values entrepreneurship as a good career choice and how media attention to entrepreneurship has an impact on the development of a national entrepreneurial culture. Individual attributes cover demographic factors (gender, age and geographic

location), psychological factors (perceived capabilities and opportunities, fear of failure) and motivational aspects (necessity-based versus opportunity-based venturing). Entrepreneurial Activity defines the venture's life cycle phases, the types of activity and the sector of the activity.

... Glossary

Measure	Description
---------	-------------

Societal values and perceptions

Entrepreneurship as a good career choice	Percentage of the adult population between the ages of 18 and 64 years who believe that entrepreneurship is a good career choice.
High status to successful entrepreneurs	Percentage of the adult population between the ages of 18 and 64 years who believe that high status is afforded to successful entrepreneurs.
Media attention for entrepreneurship	Percentage of the adult population between the ages of 18 and 64 years who believe that there is a lot of positive media attention for entrepreneurship in their country.

Individual attributes of a potential entrepreneur

Perceived opportunities	Percentage of the population between the ages of 18 and 64 years who see good opportunities to start a firm in the area where they live.
Perceived capabilities	Percentage of the population between the ages of 18 and 64 years who believe they have the required skills and knowledge to start a business.
Entrepreneurial intention	Percentage of the population aged 18–64 years (individuals involved in any stage of entrepreneurial activity excluded), who are latent entrepreneurs and who intend to start a business within three years.
Fear of failure rate	Percentage of the population aged 18–64 years perceiving good opportunities who indicate that fear of failure would prevent them from setting up a business.

Entrepreneurial activity indicators

Three indicators describe the life cycle of a venture:

TEA Total Early-stage Entrepreneurial Activity	<p>Percentage of the adult population between the ages of 18 and 64 years who are in the process of starting a business (a nascent entrepreneur) or owner-manager of a new business which is less than 42 months old. This indicator can additionally be enriched by providing information related to motivation (opportunity vs. necessity), inclusiveness (gender, age), impact (business growth in terms of expected job creation, innovation, internationalization) and industry (sectors).</p> <p>Nascent entrepreneurs – those who have committed resources to starting a business, but have not paid salaries or wages for more than three months.</p> <p>New business owners – those who have moved beyond the nascent stage and have paid salaries and wages for more than three months but less than 42 months.</p>
Established business ownership rate	<p>Percentage of the adult population between the ages of 18 and 64 years who are currently an owner-manager of an established business, i.e. owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than 42 months.</p>
Business discontinuation rate	<p>Percentage of the adult population aged between 18 and 64 years (who are either a nascent entrepreneur or an owner-manager of a new business) who have, in the past 12 months, discontinued a business, either by selling, shutting down, or otherwise discontinuing an owner/management relationship with the business.</p>

Other indicators which describe additional types of entrepreneurial activity:

EEA Entrepreneurial Employee Activity	<p>Percentage of the adult population aged between 18 and 64 years who as employees have been involved in entrepreneurial activities such as developing or launching new goods or services, or setting up a new business unit, a new establishment or subsidiary.</p>
SEA Social Entrepreneurial Activity	<p>Percentage of the adult population aged between 18 and 64 years who are engaged in early-stage entrepreneurial activities with a social goal.</p>

International orientation	Percentage of entrepreneurs who report that 25% or more of their sales come from outside their economy.
Necessity-driven (% of TEA)	Percentage of TEA of the adult population aged 18–64 years old who have started a business out of necessity because they have no other option.
Opportunity-driven (% of TEA)	Percentage of TEA of the adult population aged 18–64 years old who have started a business out of an opportunity.

..... Country List

Country/International code

Angola	AO	Mozambique	MZ
Argentina	AR	Netherlands	NL
Austria	AT	Panama	PA
Brazil	BR	Peru	PE
Bulgaria	BG	Poland	PL
Canada	CA	Puerto Rico	PR
Chile	CL	Qatar	QA
China	CN	Russian Federation	RU
Colombia	CO	Saudi Arabia	SA
Croatia	HR	Slovakia	SK
Cyprus	CY	Slovenia	SI
Dominican Republic	DO	Spain	ES
Egypt	EG	Sudan	SD
France	FR	Sweden	SE
Germany	DE	Switzerland	CH
Greece	GR	Taiwan	TW
Guatemala	GT	Thailand	TH
India	IN	Turkey	TR
Indonesia	ID	United Arab Emirates	AE
Iran	IR	United Kingdom	UK
Ireland	IE	United States	US
Israel	IL	Uruguay	UY
Italy	IT		
Japan	JP		
Kazakhstan	KZ		
Korea Republic	KR		
Latvia	LV		
Lebanon	LB		
Luxembourg	LU		
Madagascar	MG		
Mexico	MX		
Morocco	MA		

... List of Experts (Interviews July, 2018)

Jean-Marie Ayer

Dartfish

Peter Balsiger

TFA Group

Alcide Barberis

Centro Promozione Start-up and Incubator

Vincent Bardy

Movement Skis

Markus Baumer

Radio Fribourg

Zoran Bjelic

includeed

Christian Brändli

Insightness

Simon Bühler

RP consulting

Xavier Comtesse

Comtesse

Arnaud Cottet

Cause

Thierry Duvanel

Masschallenge

Andreas Ernst

Bettina Ernst

Preclin Biosystems AG

Dominik Escher

Präsident Swiss Biotech Association & Chairman CDR-Life AG

Matthias Etter

Cuboro AG

Manuel Fankhauser

Arven Partners

Bruno Fleur

Altais

Oliver Flueckiger

Klazz

Katherine A. Foster

World Bank

Markus Frei-Hardt

PSI

Serge Gander

Comba Group

Daniel Gerber

Christophe Gevisier

Promotion économique du canton de Fribourg (PromFR)

Christian Gmür

Vicova

Sunnie Groeneveld

Inspire 925

Alain Kunz

Coinlab Capital

Stefano Melera

L'Ente regionale per lo sviluppo del Bellinzonese e Valli (ERS-BV)

Antoine Perruchoud

Hes-so Valais

Jeffrey S. Petty

Université de Lausanne

Giselle Rufer

Delance Swiss Watches AG

Jérôme Ruffieux

Innopark

Claudia Sauter

PWC

Samuel Scheer

Mindseed

Beat Schillig

Institut für Jungunternehmen

Sandro Schmid

AAAccell Ltd

Gian-Mattia Schucan

Fairtiq

..... GEM Team Switzerland



Rico J. Baldegger



Pascal Wild



Gabriel Simonet



Raphaël Gaudart



Siegfried Alberton



Andrea Huber



University of Applied Sciences and Arts
of Southern Switzerland

SUPSI

