



Global
Entrepreneurship
Monitor 2017/2018

Report on Switzerland 

Global Entrepreneurship Monitor 2017/2018 Report on Switzerland

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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.



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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.

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..... Management Summary (EN)

The School of Management Fribourg (HEG-FR), member of the University of Applied Sciences and Arts Western Switzerland (HES-SO), in collaboration with the SUPSI Manno in Switzerland, collected data for the international Global Entrepreneurship Monitor (GEM). 2422 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 2017/2018 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. The GEM data complements already existing indicators of competitiveness and innovation.

General Characteristics of Switzerland as a centre for innovation

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Rating of GEM indicators for Swiss entrepreneurs (2017) *

	Switzerland	Average innovation-driven economies
Perceived Opportunities	47.2 %	43.4 %
Perceived Capabilities	42.1 %	43.0 %
Fear of Failure	29.5 %	40.3 %
Entrepreneurial Intentions	10.5 %	15.2 %
Entrepreneurship as a good career choice	53.0 %	57.0 %
Female / Male TEA Ratio	0.53	0.63
Total early-stage Entrepreneurial Activity Rate (TEA)	8.5 %	9.2 %
Necessity-driven (in % of TEA rate)	13.9 %	17.2 %
Improvement-driven (in % of TEA rate)	67.6 %	53.5 %
Entrepreneurial Employee Activity (EEA)	4.8 %	5.1 %
Established business ownership	10.5 %	6.8 %
Job creation expectations in % TEA (6 or more jobs in 5 years)	33.3	22.2

* Please see glossary for definitions and references



Entrepreneurial Framework Conditions

The overall entrepreneurial framework conditions in Switzerland, along with those in the Netherlands, are generally better than those of other innovation-based 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. Though the experts see the entrepreneurial framework conditions in a fairly positive light, several points for improvement are mentioned:

- Experts strongly emphasize the areas of further improvement in early stage funding, in terms of access to seed and venture capital.
- Therefore, local experts see a potential area for improvement, especially through easing bureaucratic procedures in founding new ventures and their taxation policies.
- An area of improvement could be achieved towards streamlining government programs and achieving higher coordination among various programs, such as Innosuisse, SECO and cantonal initiatives.
- The experts overwhelmingly recommend entrepreneurship as a pedagogical tool, especially in early

years of schooling, and especially comparing to Israel and Estonia. On the other hand, Swiss experts evaluate post-secondary education (colleges, university and professional education) more positively and emphasize the world-class quality of the Swiss higher education system.

- Experts still suggest potential improvements in collaborating in technology transfer projects in the academy industry, especially with micro, small and medium-size enterprises.
- Experts see areas of improvement in startup advisory services, especially more tailored and affordable facilities and services for firms.
- To achieve a desirable place, local experts emphasize a need for a shift in mindset, especially in overcoming stigmatization of failure.

Entrepreneurial Attitudes

In the 2017 census, the **perceived opportunities** (47.2%) to start a business are higher than in 2016 in Switzerland. Sweden, the Netherlands, the United States, Estonia and Canada remain at the top when it comes to available opportunities. Switzerland shows, as in previous years, a rather **high perception of capabilities** (42.1%) paired with a low

fear of failure (29.5%). While Switzerland's perception of capabilities is as good as the European benchmark, it still lags behind that of the inhabitants of the United States, Canada, Slovenia, Estonia and Australia. The findings regarding opportunities and capabilities could be a signal for feeling more self-confident when demonstrating entrepreneurial behavior in Switzerland but the results regarding entrepreneurial intentions are not so positive.

Entrepreneurial intentions of Swiss inhabitants (10.5%) are on a higher level than in 2016 but under the average (15.2%) for innovation-driven economies. Most remarkable are the differences compared to Israel, the Republic of Korea, Canada, Estonia and France. The findings related to entrepreneurial intentions show that there is still a lack of entrepreneurial actions in Switzerland and that fear of failure is an ambiguous indicator for entrepreneurial behavior.

In 2017 more people saw **entrepreneurship as a good career choice** (53.0%) compared to 2016 (38.9%) but these numbers still lag behind the Netherlands (81.0%), Portugal (68.8%), Canada (65.6%), or Israel (65.2%). It seems that an entrepreneurial career is better established in Swiss society, but there is still room for improvement.

Media attention for entrepreneurship in Switzerland is shown to be average for innovation-driven economies. Nevertheless, the difference compared to countries like Australia, Canada, the United States, Ireland or Slovenia is still remarkable.

Entrepreneurial Activity

Switzerland showed a slightly higher potential in 2017 with regard to creating new jobs via young companies (Total Early-Stage Entrepreneurial Activity, TEA) and like last year, Switzerland's founding rate (8.5%) stands below average among innovation-based economies (9.2%). Although the Swiss TEA rate tends to be higher than in neighboring countries such as France, Italy or Germany, among the comparison group, only Canada (18.8%), the United States (13.6%), Korea (13.0%), Israel (12.8%), Australia (12.2%), and the Netherlands (9.9%) differ considerably.

With the exception of 2010, the TEA fluctuated between six and eight percent in the last 10 years. Although the quantitative aspect of TEA is of great interest to policy makers, more attention should be paid to the motivation of the new venture, its quality – low vs high job expectations –, the resilience of the new business and the entrepreneurial behavior of

employees. Swiss parameters related to entrepreneurial employee activity are below average compared with other innovation-driven economies and the results for **owner-manager of an established business** (more than 3.5 years old) are excellent.

The data collected on entrepreneurial attitudes corroborate the low rate of founding activity **among 18 to 24-year-olds** in that this age group regards entrepreneurship to be a good career opportunity and expresses little fear of failing. However, they are unsure of their entrepreneurial abilities. These results could be an indication of a lack of self-confidence, or may simply mean that this age group is not necessarily willing to leave behind the **comfort zone** associated with being an employee. This begs two questions: are entrepreneurial incentives and training introduced too late in Switzerland, and would it be better to impart entrepreneurial spirit and innovative behavior as early as during compulsory school years?

A look into the industry profile illustrates the obvious emphasis on knowledge and service-based industries in Europe and North America. The most important sectors of new ventures in Switzerland are created in health, education, government and social services (33.8%). In Switzer-

land, wholesale and retail cover one sixth of all start-ups.

Job Creation

The impact of entrepreneurial behavior measured through their growth expectations in terms of jobs and innovation (mostly product- and services-oriented innovation) are, in general, positive for their innovative orientation. Switzerland demonstrates, at least in its intent, an exciting dynamism for business activities where employment expectations are higher than six people. Switzerland is well placed when comparing innovation-driven countries. With 33.2% of entrepreneurs forecasting the creation of 6 or more jobs over the next five years, Switzerland ranks directly behind the United States. Not only is this the highest rate among European countries; it is also the highest result recorded for our country since joining the GEM project. This figure has been increasing steadily since 2012, bouncing back from a trough of 9.4% in 2010: a steady rise, therefore, which highlights a positive entrepreneurial dynamism in terms of job creation. Based on this, if nothing else, we seem to have left the 2008 crisis behind us. It is now time to check whether these intentions will materialise and turn out actual jobs.

Indirectly, Switzerland's 31.5% is one of the lowest rates of entrepreneurs with no growth expectations. The average rate for countries driven by innovation is 45.3%. With regard to growth expectations of 1 – 5 jobs over

the next 5 years, Switzerland shows a percentage of around 35%, approximately three percentage points higher than the readings for all the countries surveyed.



..... Management Summary (DE)

Die Hochschule für Wirtschaft (HSW) Freiburg, Mitglied der Fachhochschule Westschweiz (HES-SO), hat 2017 in Zusammenarbeit mit der SUPSI Manno in der Schweiz die Datenerhebung für den internationalen Global Entrepreneurship Monitor (GEM) durchgeführt. Mittels 2422 Telefon- und 36 Experteninterviews wurden die unternehmerischen Einstellungen, Aktivitäten und Ambitionen ermittelt sowie Einflussfaktoren erhoben, die Art und Ausmass der unternehmerischen Tätigkeiten determinieren.

Der Länderbericht Schweiz des Global Entrepreneurship Monitors 2017/2018 dokumentiert nationale Unterschiede bezüglich unternehmerischer Einstellungen, Aktivitäten und Ambitionen. Im Weiteren werden die Einflussfaktoren erhoben, welche die unternehmerischen Tätigkeiten eines Landes beschreiben. Zudem kann dank des Global Entrepreneurship Monitors das politische Engagement für Unternehmertum analysiert werden. Die GEM-Daten ergänzen indes bereits bestehende Daten in den Bereichen Wettbewerbsfähigkeit und Innovation.

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* Für Definitionen und Quellenangaben siehe Glossar.



Unternehmerische Rahmenbedingungen

Die generellen Rahmenbedingungen der Schweiz und den Niederlanden sind im Allgemeinen besser als diejenigen der anderen innovationsbasierten Volkswirtschaften, die sich an der Studie beteiligt haben. Die Schweiz erreicht überragende Ergebnisse in den Bereichen Finanzen, wirtschaftliche Infrastruktur, tertiäre Ausbildung, Wissens- und Technologietransfer sowie bei den öffentlichen Programmen. Obwohl die Experten die Rahmenbedingungen mehrheitlich positiv beurteilen, erkennen sie Optimierungspotential, das sie wie folgt konkretisieren:

- Erhöhung der Finanzierungsmöglichkeiten in jeder unternehmerischen Wachstumsphase, vom «Seed Capital» bis zur Wachstumsfinanzierung.
- Erleichterung bzw. Vereinfachung bürokratischer Prozesse bei der Unternehmensgründung in der Steuerpolitik.
- Bessere Koordination kantonaler und eidgenössischer Programme wie Innosuisse, SECO und kantonaler Initiativen.
- Unternehmertum als Ausbildungsthema vor allem auf Ebene der Primar- und Sekundarschule ist essentiell, um Kompetenzen in Leadership, Kreativität, Innovation

und unternehmerisches Verhalten zu entwickeln. Allerdings wird die tertiäre Ausbildungsstufe ausnehmend positiv beurteilt.

- Verbesserung von Beratungsdienstleistungen für Start-ups (vor allem auf kantonaler Ebene), wobei nicht nur der Zugang zu Dienstleistungen, sondern auch deren Bezahlbarkeit für Jungunternehmen im Fokus stehen muss.
- Verbesserung der Kooperation zwischen den Fachhochschulen, Universitäten und der Industrie für Technologietransfer-Projekte, insbesondere im Zusammenhang mit KMU.
- Ausbau fiskalischer Anreize, damit Start-ups mehr investieren; grundsätzliche Anpassung des Steuersystems für Start-ups.
- Ein fundamentaler Mentalitätswandel mit Blick auf Scheitern wird als wesentlich erachtet, damit sich die Schweiz de facto international von allen anderen Nationen abheben kann, was Unternehmertum betrifft.

Unternehmerische Einstellungen

2017 waren die **wahrgenommenen Gelegenheiten** (47.2%) für eine Unternehmensgründung höher als 2016. Schweden, Niederlande, die USA, Estland und Kanada befinden sich in der Topposition, was die

Wahrnehmung von Gründungsgelegenheiten anbelangt.

In der Schweiz kann wie in vorherigen Jahren eine eher hohe Wahrnehmung von Fähigkeiten (42.1%) kombiniert mit einer tiefen Angst vor dem Scheitern (29.5%) verzeichnet werden. Während die wahrgenommenen Fähigkeiten in der Schweiz so gut sind wie der europäische Durchschnitt, liegt sie nach wie vor hinter den Ergebnissen der USA, Kanadas, Sloweniens oder Australiens. Die Erkenntnisse über Gründungsgelegenheiten und Fähigkeiten können als Signal gesteigerten Selbstvertrauens in Sachen unternehmerisches Verhalten interpretiert werden, die Resultate bezüglich unternehmerischer Absichten bestätigten diese These hingegen (noch) nicht.

Die **unternehmerischen Absichten** der Schweizer Bevölkerung (10.5%) sind auf einem höheren Niveau als 2016 (7.9%), aber für innovationsorientierte Volkswirtschaften prägnant unterdurchschnittlich (15.2%) zu veranschlagen. Erwähnenswert sind die Differenzen zu Ländern wie Israel, Korea, Kanada, Estland oder Frankreich. Die Ergebnisse hinsichtlich unternehmerischer Absichten belegen, dass in der Schweiz weiterhin ein unternehmerisches Manko existiert, das die tiefe Angst vor dem Scheitern nicht wettzumachen ver-

mag. Sich nicht allzu sehr vor dem Scheitern zu fürchten, ist offenkundig nur notwendig, aber beileibe nicht hinreichend dafür, um ein unternehmerisches Projekt tatsächlich zu realisieren.

Verglichen mit dem Vorjahr (38.9%) sehen die Befragten 2017 Unternehmertum vermehrt **als gute Karrierewahl** (53.%). Dies ist mit Blick auf die Niederlande (81.0%), Portugal (68.8%), Kanada (65.6%) oder Israel (65.2%) indessen immer noch ein tiefer Wert. Es scheint, dass die unternehmerische Karriere in der schweizerischen Gesellschaft besser etabliert ist, aber durchaus noch Potential birgt. Die mediale Aufmerksamkeit für Unternehmertum in der Eidgenossenschaft liegt unter dem Mittel der innovationsorientierten Volkswirtschaften, die Divergenz zu Ländern wie Australien, Kanada, Irland, Slowenien oder den Vereinigten Staaten ist augenscheinlich signifikant.

Unternehmerische Aktivitäten – Gründungsaktivität in der Schweiz

Die Studie 2017/18 belegt ein minimales gehobenes Potential, was die Schaffung neuer Arbeitsstellen vonseiten der Jungunternehmen (Total Entrepreneurial Activity, TEA) anlangt. Ferner ist die Schweiz wie im vorangegangenen Jahr mit der

Gründungsrate (8.5%) unter dem Durchschnitt der innovationsbasierten Länder (9.2%) positioniert. Obwohl die helvetische TEA-Rate diejenige der Nachbarländer wie Frankreich, Italien oder Deutschland übertrifft, sind markante Unterschiede in der Vergleichsgruppe primär zu Kanada (18.8%), den USA (13.6%), Korea (13.0%), Australien (12.2%) und den Niederlanden (9.9%) zu konstatieren.

Abgesehen von den Ergebnissen im 2010 bewegte sich die Quote der Gründungsaktivität (TEA) jeweils zwischen sechs und acht Prozent. Interessiert der quantitative Aspekt vor allem politische Entscheidungsträger, sollte den qualitativen Aspekten (bspw. tiefe vs. hohe Joberwartungen) sowie dem unternehmerischen Verhalten von Mitarbeitern nichtsdestoweniger vermehrt Aufmerksamkeit geschenkt werden. Die Schweizer Ergebnisse im Bereich unternehmerischer Mitarbeiteraktivität sind unterdurchschnittlich, wenn als Referenz die innovationsbasierten Volkswirtschaften gelten; die Resultate für Inhaber/Manager eines etablierten Geschäfts (mehr als 3.5 Jahre alt) sind freilich exzellent. Die Erhebung der unternehmerischen Einstellungen untermauert die tiefe Gründungsaktivität der 18- bis 24-jährigen Personen insofern, als

diese Altersgruppe Unternehmertum als gute Karrieremöglichkeit betrachtet und relativ wenig Versagerängste bekundet; nichtsdestotrotz ist diese Altersgruppe nicht von den eigenen unternehmerischen Fähigkeiten überzeugt. Dies kann einerseits ein Indiz für wenig ausgeprägtes Selbstvertrauen sein, weist vielleicht andererseits darauf hin, dass diese jungen Leute nicht unbedingt bereit sind, die Komfortzone der unselbstständigen Erwerbstätigkeit zu verlassen. Es stellt sich die sicherlich nicht unberechtigte Frage, ob in der Schweiz zu spät mit unternehmerischen Anreizen und Ausbildungen gestartet wird. Sollte nicht schon während der obligatorischen Schulzeit fundiert Unternehmerteil und innovatives Verhalten vermittelt werden?

Ein Einblick in das Branchenprofil illustriert die offensichtliche Betonung der wissens- und dienstleistungsorientierten Branchen in Europa und Nordamerika. Die wichtigsten volkswirtschaftlichen Sektoren für Neugründungen in der Schweiz sind Gesundheit, Erziehung und soziale Dienstleistungen (33,8%). In der Schweiz fällt ein Sechstel der Gründungen auf den Handel und die Gastronomie.

Wachstumserwartung und Job Creation

Die Auswirkungen von unternehmerischem Verhalten gemessen an den Wachstumserwartungen bezüglich der Bildung neuer Stellen für die nächsten fünf Jahre sind in globaler Hinsicht positiv. Die unternehmerisch tätigen Personen demonstrieren zumindest den Willen, ihre Geschäftstätigkeiten auszubauen. 33,2 Prozent der Start-ups möchten mehr als 6 Personen einstellen. Dies ist nicht nur der höchste Wert aller europäischen Länder, sondern gleichzeitig das höchste Resultat seit dem Beitritt der Schweiz zum GEM-Projekt. Von den Vergleichsländern weisen nur die Vereinigten Staaten einen leicht

höheren Wert auf. Bemerkenswert ist, dass seit 2012 der Anteil der Start-ups mit höheren Wachstumserwartungen stetig steigt. Überdies hegen nur 31,5% der Gründer in der Schweiz keine Wachstumserwartungen, was notabene der tiefste Wert aller innovationsorientierten Länder (45,3%) ist. 35% der Befragten planen, in den nächsten fünf Jahren, 1–5 Personen einzustellen, dies ist drei Prozentpunkte höher als in den Vergleichsländern. Dieser erfreuliche Befund bietet zweifelsfrei Anlass, Unternehmertum im weitesten Sinn nach Kräften zu fördern, insbesondere junge Unternehmerinnen und Unternehmer zu ermutigen.

..... Management Summary (FR)

La Haute école de gestion Fribourg (HEG-FR), membre de la Haute école spécialisée de Suisse occidentale (HES-SO), en partenariat avec la SUPSI Manno du Tessin, a mené le volet helvétique de l'étude internationale Global Entrepreneurship Monitor (GEM). 2422 entretiens téléphoniques et 36 interviews d'experts ont été réalisés afin d'identifier les attitudes, les activités et les aspirations entrepreneuriales de la population, ainsi que les facteurs de succès déterminant la forme et l'ampleur de l'entrepreneuriat.

Le rapport du Global Entrepreneurship Monitor 2017/2018 pour la Suisse illustre les différences au sein des différentes régions en termes d'attitudes, d'activité et d'aspirations entrepreneuriales. Il relève également les facteurs qui déterminent la nature et le niveau de l'activité entrepreneuriale nationale. Il permet finalement d'identifier les implications politiques liées à l'encouragement de l'entrepreneuriat en Suisse. Les données du GEM complètent les indicateurs de compétitivité et d'innovation déjà existants.

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* Voir glossaire pour les définitions et références



Le contexte de l'entrepreneuriat

Les conditions pour entreprendre en Suisse et aux Pays-Bas sont globalement meilleures que celles qui prévalent dans les autres pays ayant participé à l'étude et dont l'économie est axée sur l'innovation. La Suisse atteint des résultats exceptionnels dans les domaines de la finance, de l'infrastructure commerciale, de la formation tertiaire, du transfert de connaissances et de technologies, de même que dans les programmes gouvernementaux. Bien que les experts jugent le contexte entrepreneurial comme globalement positif, ils relèvent plusieurs points d'amélioration possibles :

- Les experts insistent fortement sur les améliorations possibles dans le financement au stade précoce de la création de l'entreprise, en termes d'accès au capital de démarrage et au capital-risque.
- Les experts locaux identifient un potentiel d'amélioration dans l'allègement des procédures administratives lors de la création de nouvelles entreprises et de leur imposition fiscale.
- Une autre amélioration consisterait à opérer une rationalisation des programmes gouvernementaux et à renforcer la coordination entre les différents programmes tels qu'Innosuisse, le SECO et les initiatives cantonales.

- Les experts recommandent vivement de recourir à l'entrepreneuriat comme outil pédagogique, en particulier dans les premières années de la scolarité, à l'instar d'Israël et de l'Estonie. Les experts suisses évaluent de manière plus positive la formation post-secondaire (collèges, formation universitaire et professionnelle) et soulignent unanimement la qualité du système d'enseignement supérieur suisse.
- Ils suggèrent encore des améliorations dans la collaboration entre le milieu académique et les micro, petites et moyennes entreprises dans le cadre de projets de transfert technologique.
- Les experts voient un potentiel d'amélioration dans les services de conseil aux start-up, dans des infrastructures et des services aux entreprises plus adaptés et abordables.
- Pour atteindre une place enviable, les experts suisses estiment qu'un changement de mentalité est nécessaire, ce qui permettrait notamment de surmonter la stigmatisation de l'échec.

Les attitudes entrepreneuriales

Dans le recensement 2017, la **perception d'opportunités** (47.2%) pour démarrer une activité entrepreneuriale

riale est plus forte en Suisse qu'en 2016. La Suède, les Pays-Bas, les Etats-Unis, l'Estonie et le Canada restent en tête pour ce qui est du nombre d'opportunités identifiées. Comme les années précédentes, la Suisse montre une **perception plutôt élevée des capacités entrepreneuriales** (42.1%) associée à une **faible crainte de l'échec** (29.5%). Si, en Suisse, la perception de ses propres capacités est aussi bonne que l'indice de référence européen, elle reste inférieure à celle de la population des Etats-Unis, du Canada, de la Slovénie, de l'Estonie ou de l'Australie. Ce constat devrait concourir à augmenter la confiance en soi en Suisse et influencer sur le comportement entrepreneurial. Toutefois, les intentions entrepreneuriales restent faibles pour l'instant.

En Suisse, les **intentions entrepreneuriales** de la population (10.5%) se situent à un niveau plus élevé qu'en 2016, mais restent inférieures à la moyenne (15.2%) des économies axées sur l'innovation. En effet, la différence par rapport à Israël, à la République de Corée, au Canada, à l'Estonie et à la France reste importante. Les résultats liés aux intentions entrepreneuriales démontrent un manque d'actions entrepreneuriales en Suisse, ainsi que l'ambiguïté

de la peur de l'échec en tant qu'indicateur du comportement entrepreneurial d'une population. En 2017, davantage de personnes considèrent **l'entrepreneuriat comme un bon choix de carrière** (53.0%) par rapport à 2016 (38.9%). Mais sur ce point, la Suisse reste à la traîne derrière les Pays-Bas (81.0%), le Portugal (68.8%), le Canada (65.6%), et Israël (65.2%). Il semble que la carrière entrepreneuriale ait gagné une meilleure aura dans la société helvétique, même si elle est encore considérée comme potentielle. **L'attention médiatique** portée à l'entrepreneuriat en Suisse se situe dans la moyenne des économies orientées vers l'innovation. L'écart reste important avec l'Australie, le Canada, les Etats-Unis, l'Irlande ou la Slovénie.

L'activité entrepreneuriale

En 2017, la Suisse affiche un potentiel légèrement plus élevé de création de nouveaux emplois par le biais de jeunes entreprises (Total Entrepreneurial Early-Stage, TEA). Comme l'année précédente, le taux de création d'entreprises de la Suisse (8,5%) est inférieur à la moyenne des économies basées sur l'innovation (9,2%). Bien qu'en Suisse, ce taux soit plus élevé que dans les pays voisins comme la France, l'Italie ou l'Allemagne, seuls le Canada (18,8%),

les États-Unis (13,6%), la Corée (13,0%) et Israël (12,8%), L'Australie (12,2%) et les Pays-Bas (9,9%) se détachent considérablement de l'ensemble.

À l'exception de 2010, le TEA a fluctué entre 6 et 8 pour cent au cours des dix dernières années. Bien que l'aspect quantitatif du TEA soit d'un grand intérêt pour les décideurs politiques, une plus grande attention devrait être accordée à la motivation, la qualité (nombre de postes de travail attendus) et la résilience des nouvelles entreprises, ainsi qu'au comportement entrepreneurial des employés. Les paramètres suisses liés à l'activité entrepreneuriale des employés sont inférieurs à la moyenne des autres économies axées sur l'innovation. Quant aux résultats relatifs aux **propriétaires-dirigeants d'une entreprise établie** (plus de 3,5 ans), ils sont excellents.

Les données récoltées sur les attitudes entrepreneuriales corroborent le faible taux de création d'entreprise chez **les 18–24 ans** dans la mesure où ce groupe d'âge considère l'entrepreneuriat comme une bonne opportunité de carrière et exprime une faible peur de l'échec, mais n'est pas sûr de ses propres capacités entrepreneuriales. Ces résultats pourraient indiquer un manque de confiance en soi, ou peuvent simple-

ment signifier que ce groupe d'âge n'est pas nécessairement prêt à quitter la zone de confort associée au statut d'employé. Cela soulève deux questions: les incitations à l'entrepreneuriat et la formation sont-elles introduites trop tard en Suisse, et serait-il préférable de transmettre l'esprit d'entreprise et le comportement innovant dès les années de scolarité obligatoire?

Un regard sur le profil industriel de l'Europe et de l'Amérique du Nord illustre l'importance évidente accordée aux industries du savoir et des services. Les secteurs qui génèrent le plus grand nombre de nouvelles entreprises en Suisse sont les secteurs de la santé, de l'éducation, des administrations et des services sociaux (33,8%). En Suisse, le commerce en gros et de détail couvre un sixième de l'ensemble des start-up.

La création d'emplois

L'impact du comportement entrepreneurial mesuré par les attentes de croissance en termes d'emplois et d'innovation (innovation principalement axée sur les produits et les services) est généralement positif pour l'orientation des entreprises vers l'innovation. La Suisse démontre, du moins dans l'intention, un fort dynamisme avec des perspectives d'emplois supérieures à six personnes.

La Suisse est bien placée en comparaison aux pays dont l'économie est basée sur l'innovation. Avec 33,2% des entrepreneurs prévoyant la création de six emplois ou plus au cours des cinq prochaines années, la Suisse n'est précédée que des États-Unis. Il s'agit non seulement du taux le plus élevé parmi les pays européens, mais c'est aussi le résultat le plus élevé enregistré pour notre pays depuis son adhésion au projet GEM. Ce chiffre n'a cessé d'augmenter depuis 2012, rebondissant après un creux de 9,4% en 2010. Cette progression régulière met en évidence un dynamisme entrepreneurial positif en termes de création d'emplois. Il

semble ainsi que la crise de 2008 soit derrière nous; il reste à vérifier si ces intentions se concrétiseront à travers la création d'emplois réels.

Le taux d'entrepreneurs qui n'envoient pas de perspective de croissance de 31,5% en Suisse s'avère indirectement l'un des plus faibles. Ce taux moyen correspond à 45,3% pour les économies basées sur l'innovation. Quant aux prévisions de croissance de 1 à 5 emplois au cours des cinq prochaines années, la Suisse affiche un pourcentage d'environ 35%, soit environ trois points de pourcentage de plus que les chiffres de tous les pays ayant participé à l'enquête.

..... Management Summary (IT)

La Haute école de gestion di Friburgo (HEG-FR), membro della University of Applied Sciences and Arts Western Switzerland (HES-SO), in collaborazione con la Scuola universitaria professionale della Svizzera italiana (SUPSI) di Manno, si è occupata del rapporto svizzero dello studio internazionale del Global Entrepreneurship Monitor (GEM). 2422 interviste telefoniche e 36 interviste ad esperti sono state realizzate al fine d'identificare le attitudini, le attività e le aspirazioni imprenditoriali della popolazione, nonché i fattori di successo che determinano la natura e

la dimensione delle attività imprenditoriali.

Il rapporto svizzero del Global Entrepreneurship Monitor 2017/2018 illustra le differenze tra le diverse regioni nelle attitudini, nelle attività e nelle aspirazioni imprenditoriali, rilevando nel contempo i fattori che determinano la natura ed il livello dell'attività imprenditoriale nazionale e le implicazioni politiche relative alla promozione dell'imprenditorialità. I dati GEM integrano i dati già esistenti nei campi della competitività e dell'innovazione.

General Characteristics of Switzerland as a centre for innovation

Rank in Doing Business Index 2018	33 / 190
Rank in Global Competitiveness Index 2017 – 2018	1 / 137
Rank in Economic Freedom Index 2018	4 / 180
Rank in Global Innovation Index 2017	1 / 127
Rank in GEDI Index 2018	2 / 137
• Entrepreneurial Attitudes	11 / 137
• Entrepreneurial Ability	1 / 137
• Entrepreneurial Aspiration	1 / 137

Rating of GEM indicators for Swiss entrepreneurs (2017) *

	Switzerland	Average innovation-driven economies
Perceived Opportunities	47.2 %	43.4 %
Perceived Capabilities	42.1 %	43.0 %
Fear of Failure	29.5 %	40.3 %
Entrepreneurial Intentions	10.5 %	15.2 %
Entrepreneurship as a good career choice	53.0 %	57.0 %
Female / Male TEA Ratio	0.53	0.63
Total early-stage Entrepreneurial Activity Rate (TEA)	8.5 %	9.2 %
Necessity-driven (in % of TEA rate)	13.9 %	17.2 %
Improvement-driven (in % of TEA rate)	67.6 %	53.5 %
Entrepreneurial Employee Activity (EEA)	4.8 %	5.1 %
Established business ownership	10.5 %	6.8 %
Job creation expectations in % TEA (6 or more jobs in 5 years)	33.3	22.2

* Per le definizioni e le fonti si veda il glossario.



Condizioni quadro per l'imprenditorialità

In Svizzera le condizioni quadro per fare impresa, analogamente a quelle dei Paesi Bassi, sono risultate complessivamente migliori rispetto alle economie basate sull'innovazione che hanno partecipato all'inchiesta. La Svizzera ha ottenuto ottimi risultati nel campo finanziario, nell'infrastruttura commerciale, nella formazione terziaria, nel trasferimento di conoscenze e di tecnologia, nonché nei programmi governativi a sostegno dell'imprenditorialità. Anche se gli esperti considerano positive le condizioni quadro per l'imprenditorialità, sono state comunque menzionate alcune criticità e alcuni margini di miglioramento.

- Gli esperti sollecitano un ulteriore sforzo e miglioramento nel finanziamento nella fase iniziale dell'attività, in termini di accesso a capitali seed e venture.
- Pertanto, gli esperti locali vedono una potenziale area di miglioramento soprattutto nell'alleggerimento delle procedure burocratiche per la creazione di nuove imprese e le rispettive politiche fiscali.
- Un'area di miglioramento potrebbe essere raggiunta attraverso l'ottimizzazione dei programmi federali e un maggiore coordina-

mento tra i vari programmi, quali ad esempio Innosuisse, SECO e iniziative cantonali.

- Gli esperti raccomandano in modo innegabile di trattare e considerare l'imprenditorialità come uno strumento pedagogico, soprattutto nei primi anni di scolarizzazione. D'altra parte, gli esperti svizzeri valutano in modo più che positivo l'istruzione post-secondaria (scuola universitaria professionale, università e formazione professionale), sottolineando la qualità a livello mondiale del sistema di istruzione superiore svizzero.
- Suggestiscono ancora potenziali miglioramenti nella collaborazione di progetti di trasferimento tecnologico tra settore accademico e, specialmente, le micro, piccole e medie imprese.
- Gli esperti vedono aree di miglioramento nei servizi di consulenza alle nuove imprese, in particolare tramite servizi più personalizzati e convenienti.
- Per ambire ad un luogo desiderabile, gli esperti locali sottolineano la necessità di un cambiamento a livello di abito mentale, soprattutto per soverchiare la stigmatizzazione del fallimento.

Attitudini imprenditoriali

Nel rilevamento 2017, in Svizzera, la **opportunità percepite** per avviare un'attività imprenditoriale (47.2%) sono più alte rispetto al 2016. Svezia, Olanda, Stati Uniti, Estonia e Canada restano ai vertici per quanto concerne le opportunità percepite. Come negli anni precedenti, la Svizzera presenta una **percezione sulle capacità di fare impresa** piuttosto elevata (42.1%), abbinata ad una bassa paura del fallimento (29.5%). Mentre le capacità percepite in Svizzera sono in linea rispetto agli altri paesi europei, vi è comunque un certo ritardo nel confronto con Stati Uniti, Canada, Slovenia, Estonia e Australia. Questi risultati possono essere sintomo di una forte fiducia in sé stessi per quanto attiene al comportamento imprenditoriale in Svizzera, ma i risultati sulle intenzioni imprenditoriali non sono così positivi.

Le **intenzioni imprenditoriali** degli svizzeri (10.5%) si situano ad un livello superiore rispetto al 2016, ma sotto la media delle economie basate sull'innovazione (15.2%). Notevoli le differenze rispetto a paesi quali Israele, Corea del Sud, Canada, Estonia e Francia. I risultati associati alle intenzioni imprenditoriali degli svizzeri mostrano una certa lacuna nell'azione imprenditoriale, così come la paura del fallimento risulta

un indicatore ambiguo del comportamento imprenditoriale degli svizzeri. Nel 2017 sempre più persone considerano l'imprenditorialità una **buona scelta di carriera** (53.0%), rispetto al 2016 (38.9%), ma rimane un forte scarto nel confronto con paesi quali Olanda (81.0%), Portogallo (68.8%), Canada (65.6%) o Israele (65.2%). Sembra che la carriera imprenditoriale si sia meglio radicata nella società svizzera, ma rimane ancora un potenziale.

L'**attenzione dei media** svizzeri per l'imprenditorialità è abbastanza in linea con quanto rilevato nelle economie basate sull'innovazione; tuttavia la differenza con paesi come Australia, Canada, Stati Uniti, Irlanda o Slovenia rimane ancora notevole.

Attività imprenditoriali

Lo studio ha evidenziato un potenziale leggermente più alto di creazione di nuovi posti di lavoro da parte delle attività imprenditoriali ai primi stadi (Total Entrepreneurship Activity, TEA). La Svizzera, con un tasso di attività imprenditoriali dell'8.5%, si situa, come lo scorso anno, al di sotto della media delle economie basate sull'innovazione. Il TEA svizzero tende ad essere più elevato nel confronto con i paesi limitrofi, come Francia, Italia o Germania. Tuttavia, differisce considerevolmente rispetto a Canada

(18.8%), Stati Uniti (13.6%) Corea del Sud (13.0), Israele (12.8%), Australia (12.2%) e Olanda (11.0%).

Con l'eccezione dei risultati dell'inchiesta condotta nel 2010, negli ultimi 10 anni il TEA svizzero oscilla tra il 6 e l'8%. Anche se l'aspetto quantitativo del TEA è di grande interesse per i decisori politici, maggiore attenzione deve essere rivolta agli aspetti qualitativi (come ad esempio basse, rispettivamente alte, aspettative di posti di lavoro), alla capacità di resilienza dell'impresa e al comportamento imprenditoriale dei dipendenti. I risultati per la Svizzera nel campo dell'attività imprenditoriale dei dipendenti (intraprenditorialità) sono inferiori rispetto ai livelli medi riscontrati per le economie basate sull'innovazione, mentre quelli dei proprietari di imprese esistenti (attive da più di 3.5 anni) sono eccellenti. I dati raccolti sulle attitudini imprenditoriali confermano il basso tasso di attività imprenditoriale tra i giovani di 18–24 anni; questo gruppo di età, che considera l'imprenditorialità come una buona opportunità di carriera, esprime una paura del fallimento relativamente bassa, ma non è convinto delle proprie capacità imprenditoriali. Questo può essere sintomo di una bassa autostima e può lasciar pensare che gli individui in questa fascia d'età non siano

disposti ad abbandonare la zona di comfort garantita dal lavoro dipendente. Ci si può pertanto anche interrogare se, in Svizzera, per gli incentivi e la formazione all'imprenditorialità non si intervenga troppo tardi e se non sia più proficuo incentivare e allenare lo spirito imprenditoriale ed un comportamento innovativo già nel corso della scuola dell'obbligo.

L'analisi dei settori economici evidenzia l'importanza per l'Europa e l'America de Nord dei servizi basati sulla conoscenza. I settori che generano il maggior numero di nuove imprese in Svizzera sono la sanità, l'educazione, la pubblica amministrazione ed i servizi sociali (33.8%). In Svizzera, il commercio all'ingrosso e al dettaglio copre un sesto di tutte le nuove iniziative.

Nuovi posti di lavoro

L'impatto del comportamento imprenditoriale, misurato attraverso le aspettative di crescita in termini di nuovi posti di lavoro e innovazione (principalmente di prodotto e servizio), è generalmente positivo per l'orientamento innovativo. La Svizzera presenta, almeno nelle intenzioni, una dinamica interessante per le attività in cui le aspettative d'impiego sono superiori a 6 persone. Nel confronto con le economie basate sull'innovazione, la Svizzera è ben

posizionata: con il 33.2% degli imprenditori che prevede la creazione di 6 o più posti di lavoro nei prossimi cinque anni, la Svizzera si posiziona direttamente dopo gli Stati Uniti. Non solo questo è il più alto tasso tra i paesi europei; è anche il risultato più alto registrato dal nostro Paese da quando è entrato nel progetto GEM. Questo dato è in costante aumento dal 2012, riprendendosi dal valore minimo riscontrato nel 2010, pari a 9.4%. Un aumento costante, quindi, che evidenzia un dinamismo imprenditoriale positivo per quanto concerne la generazione di posti di lavoro. Basandoci su questo aspetto, la crisi del 2008 sembra quindi alle spalle. Si

tratta ora di verificare se queste intenzioni si concretizzeranno in effettivi posti di lavoro.

Di riflesso, la Svizzera presenta una delle percentuali più basse (31.5%) per quanto attiene agli imprenditori senza aspirazioni di crescita in termini di posti di lavoro. La media delle economie basate sull'innovazione è pari al 45.3%. Per quanto concerne le aspettative di crescita di 1 – 5 posti di lavoro nei prossimi 5 anni, la Svizzera presenta una percentuale pari al 35% circa, approssimativamente tre punti percentuali superiore rispetto a quanto rilevato nei paesi considerati nel confronto.

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1 Introduction

1.1 The GEM Project

Entrepreneurship has become a term that is increasingly widespread around the world. According to key players in society, including policymakers, 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 also 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.

1.2 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.

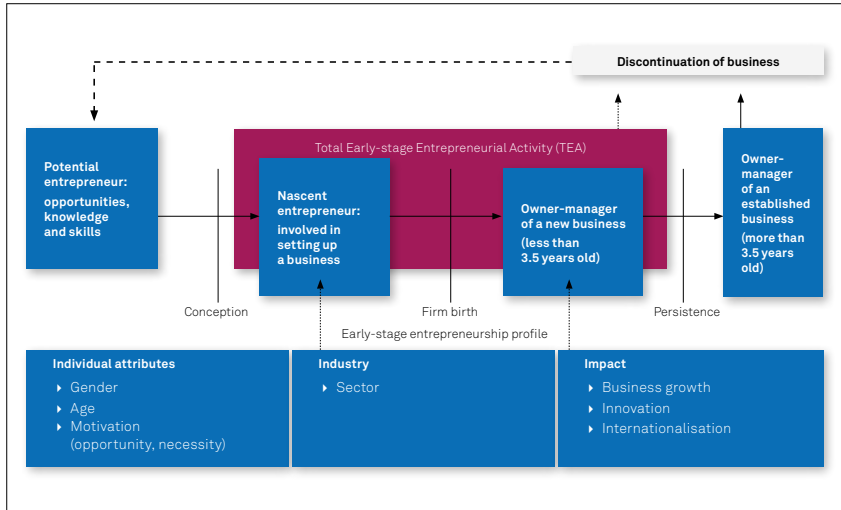
Given that the context and conditions that affect entrepreneurship in different economies are diverse and complex, it is not possible to conclude that one phase inevitably leads to the next. The entrepreneurship process and GEM's operational definitions are illustrated in Figure 1. GEM's conceptualization 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 soci-

ety, 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 reenter entrepreneurship (serving as serial entrepreneurs) or they may join established companies and enact their entrepreneurial ambitions as employees.

Figure 1 GEM model of business phases and entrepreneurship characteristics



1.3 The GEM Conceptual Framework and Methodology

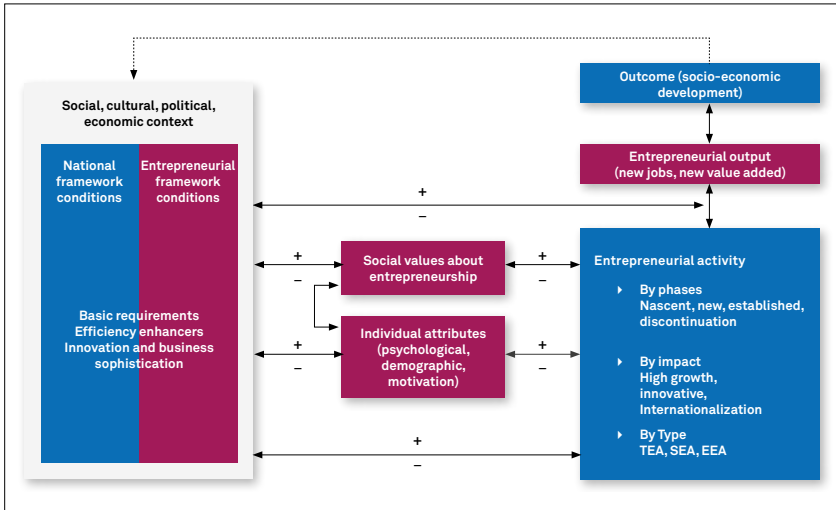
The GEM model shown in Figure 1 sets out key elements of the relationship between entrepreneurship and economic growth and the way in which the elements interact. At the same time, it acknowledges that the contribution entrepreneurs make to an economy varies according to that economy’s phase of economic 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 production of new and unique goods and services that are created via sophisticated, and often pioneering, methods.

Together with 25 other countries, Switzerland is included in the group of innovation-driven economies.

Figure 2 The GEM Conceptual Framework



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 2 also shows how GEM measures different components, such as en-

trepreneurial 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 2,000 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)

With regard to the nine entrepreneurial framework conditions, the NES provides insights into the entrepreneurial start-up environment in each economy, 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 status 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 (gen-

der, 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.



..... 2 The Phases and Profiles of Entrepreneurship

This section examines the rate of individual participation in the various phases of entrepreneurship for Switzerland as compared with other innovation-driven 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 entrepreneurial 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 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 ex-

cellent 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 innovation-driven 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.



Table 1 Percentage of People with Specific Entrepreneurial Perceptions, Intentions and Societal Attitudes in selected innovation-driven economies, 2017

Selected innovation-driven 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	51.4	49.3	41.4	13.2	53.9	68.9	74.0
Canada	60.2	55.6	43.8	14.1	65.6	74.0	76.5
Estonia	61.0	49.7	31.8	18.1	54.2	64.7	61.0
France	34.1	36.3	39.1	17.6	59.1	74.2	47.0
Germany	42.0	37.5	36.3	7.2	51.3	77.9	49.5
Ireland	44.5	42.2	39.2	11.9	53.2	81.9	72.9
Israel	58.3	44.1	48.0	26.4	65.2	86.1	55.3
Italy	28.8	30.4	49.4	10.3	64.2	73.2	54.9
Korea Republic	35.3	45.7	32.2	22.8	47.2	68.6	60.5
Netherlands	64.1	44.6	29.7	8.1	81.0	67.5	63.2
Slovenia	34.6	53.3	31.8	14.2	55.1	73.4	72.7
Spain	31.9	44.8	39.2	5.6	53.8	47.9	50.9
Sweden	79.5	34.5	36.7	8.1	53.6	70.5	64.7
Switzerland	47.2	42.1	29.5	10.5	53.0	73.2	59.0
United Kingdom	43.0	48.2	35.9	7.3	55.6	75.6	58.5
USA	63.6	54.3	33.4	14.5	63.1	75.5	74.5
Average (Innovation-driven economies)	43.4	43.0	40.3	15.2	57.0	70.0	62.3

* fear of failure assessed among those seeing opportunities.

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

In the 2017 census, the **perceived opportunities** in Switzerland (47.2%) to start a business are on a higher level compared to the average (43.4%) for innovation-driven economies. While in Switzerland the perceived opportunities have increased since 2016 (41.4%), the average for innovation driven economies is on the same level as in the previous year. Sweden, the Netherlands, the United States, Estonia, Canada, Israel and Australia remain at the top when it comes to available opportunities.

Switzerland shows, as in previous years, a medium **perception of capabilities** (42.1%) paired with an extremely low fear of failure (29.5%). While Switzerland's perception of capabilities is as high as the European benchmark, it still lags behind the very strong belief of Americans in their own capacity to start a business (54.3%). The same is true of people in Canada, Slovenia, Australia and Estonia. Only Italy, Sweden, France and Germany have a lower perception of their capabilities.

Switzerland and the Netherlands have the lowest fear of failure when comparing innovation-driven countries. The **low fear of failure** in Switzerland is remarkable. Normally, fear of failure is higher in the innovation-driven economies than for the factor- and efficiency-driven econ-

omies. 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 forgoing 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, to date fear is examined 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 high fear of failure of Israel (48.0%) and Canada (43.8%) was no obstacle for high entrepreneurial intention and a high TEA-rate.

The findings regarding opportunities, capabilities and fear of failure could be a signal for the higher self-confidence for entrepreneurial behavior in Switzerland but the results on entrepreneurial intentions are not so positive. The **entrepreneurial intentions** of Swiss inhabitants (10.5%) are slightly higher than in 2016 (7.9%) but under the average (15.2%) for innovation-driven economies. Most remarkable are the differences between Switzerland, Israel, the Korean Republic, Estonia and France. While in Spain only 5.6% and in Germany 7.2% of the individu-

als expect to start a business in the next three years, almost 26.4% of the individuals in Israel, 22.8% in the Republic of Korea, 18.1% in Estonia, 17.6% 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 factor-driven and efficiency-driven economies, two-thirds of adults, on average, think **entrepreneurship is a good career choice**. In the innovation-driven economies, 57.0% have this belief. The amount of people to see entrepreneurship as a good career choice (53.0%) increased in 2017 compared to 2016 (38.9%) but is still under the average (57.0%) of innovation-driven economies. Compared to 81.0% in the Netherlands, 65.6% in Canada, 65.2% in Israel, 64.2% in Italy or 63.1% in the United States, it seems that the entrepreneurial career still has potential in Switzerland. Regarding the entrepreneurial career perspective and, simultaneously, the high status of successful entrepreneurs (73.2%) this is a positive development.

Media attention for entrepreneurship has increased in Switzerland but, at 59.0%, is below average for innovation-driven economies. In Canada, the US, Australia, Ireland and Slovenia 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, new established and discontinuation), and on the other hand, by 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 innovation-driven economies.

Table 2 shows a low rate of discontinuation of business (1.1%) in Switzerland and a high-established business ownership rate (10.5%) compared to the average of innova-

tion-driven economies. Furthermore, entrepreneurial employee activity is average. Thus, we are quite positive about the situation in the more ma-

ture stage of the entrepreneurial process in Switzerland. However, what is the setting regarding early entrepreneurial activity in Switzerland?

Table 2 Percentages of Entrepreneurial Activity in selected innovation-driven economies, 2017

Selected innovation-driven economies	Nascent entrepreneurship rate	New business ownership rate	Early-stage entrepreneurial activity (TEA)	Entrepreneurial Employee Activity (EEA)	Established business ownership rate	Discontinuation of businesses
Australia	6.4	5.9	12.2	7.8	9.0	3.8
Canada	11.3	8.1	18.8	8.2	6.2	6.9
Estonia	13.4	6.2	19.4	9.1	11.4	4.4
France	2.9	1.1	3.9	3.9	3.6	3.3
Germany	3.4	2.0	5.3	5.7	6.1	1.6
Ireland	5.8	3.3	8.9	5.5	4.4	3.3
Israel	8.4	5.1	12.8	8.6	3.3	4.8
Italy	2.7	1.7	4.3	2.4	6.0	2.1
Korea Republic	6.2	6.9	13.0	1.9	11.4	2.7
Netherlands	4.7	5.4	9.9	7.6	8.6	3.1
Slovenia	4.0	3.0	6.9	6.0	6.8	2.3
Spain	2.8	3.5	6.2	1.4	7.1	1.9
Sweden	5.3	2.1	7.3	6.2	4.2	2.5
Switzerland	4.7	3.9	8.5	4.8	10.5	1.1
United Kingdom	4.4	4.2	8.4	8.0	6.7	2.6
USA	9.4	4.6	13.6	7.6	7.8	4.0
Average (Innovation-driven economies)	5.5	3.8	9.2	5.1	6.8	3.6



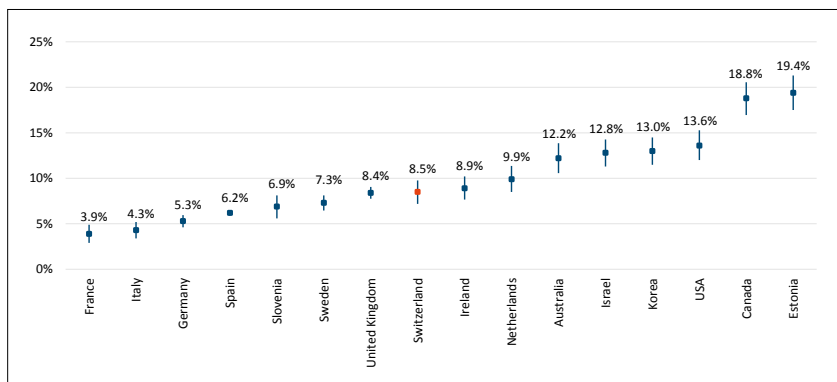
2.2.1 Total Early-Stage Entrepreneurial Activity (TEA)

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.

Figure 3 presents the TEA rates for innovation-driven economies. The 95% confidence intervals help to interpret the differences between countries. Although the Swiss TEA rate tends to be higher than in neighboring coun-

tries, such as France, Italy or Germany, only Austria's TEA rate is higher than in Switzerland with regard to adopting a 95% certainty. Among the comparison group, like in 2015, only Canada (18.8), Australia (12.2%), the United States (13.6%) and Israel (12.8%) differ considerably, and in addition Estonia (19.4%) and Korea Republic (13.0%) have a high TEA rate. 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% in 2010, the most important indicator for entrepreneurial activity once more reaches a normal level

Figure 3 Total Early-stage Entrepreneurial Activity (TEA) in selected innovation-driven economies, 2017



(8.2%) but is below average for innovation-driven economies (8.5%).

Thus, the positive results regarding entrepreneurial perceptions, or higher entrepreneurial intentions, social status or media attention are not translated into the total entrepreneurial activity.

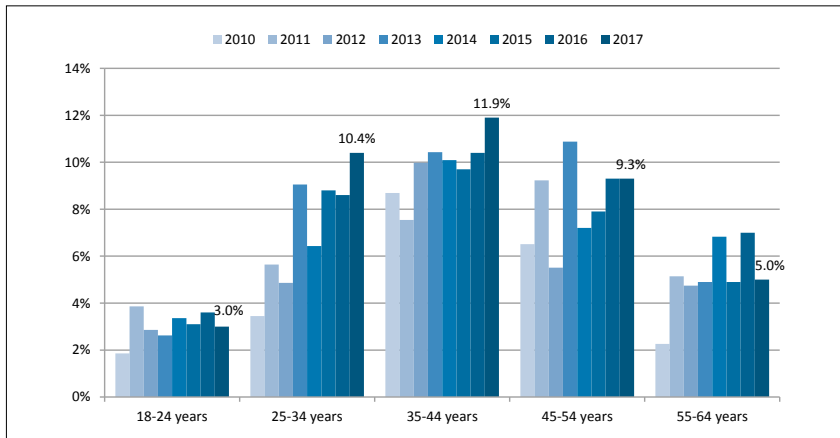
This rebound in entrepreneurial activities in Switzerland is reflected across most of the different age categories (Figure 4). When it comes to entrepreneurship, age matters. On the one hand, young people are often more likely to have fresh ideas; they have grown up with digital technologies, and in some societies, they have received more education than their parents. On the other hand, older people have often accumulated an extensive body of experience, con-

tacts, and capital over the course of their careers. This mix of social and financial capital puts this age group into a particular position.

The share of the Swiss population currently involved in early-stage entrepreneurial activity (TEA) stands at 8.5% in 2017. It is the same high percentage as in 2013, whereby this indicator is usually at a lower level of between 6% and 8%. Since the beginning of the GEM survey in Switzerland in 2002, the 5% level has been measured twice only, namely in 2010 (5.0%) and in 2012 (5.9%).

In 2017, the percentage of total entrepreneurial activities among the Swiss German populations measures slightly higher than for the Swiss French and Italians. The activities measured in the French-speak-

Figure 4 Total Early-Stage Entrepreneurial Activity (TEA) in Switzerland by Age, 2010 – 2017



ing regions of Switzerland also decreased to the same level as in 2014. At present, we are not able to judge whether this rise in entrepreneurial activities in both the French- and Italian-speaking parts of Switzerland is due to a short-term trend, a statistical deviation for this year, or if it is part of a long-term development. The special case of the Ticino region is part of further discussion in Chapter 5 GEM Ticino.

Entrepreneurial activity among the age groups 25–34 and 35–44 years is the highest in the last 7 years. The adult population 35–44 years at 11.9%, whereas the TEA rate of younger Swiss inhabitants still lags considerably behind and the differences to 35 years and older increased. Compared to other innovation-driven economies, the TEA rate for the 18–24 age group is, at 3.0%, the lowest and is clearly below average (7.6%). Switzerland is ranked at position 52 and only France and Slovenia have a lower TEA-rate for the young population.

The rate for entrepreneurs between 25–34 years (10.4%) is below the average of innovation-driven economies (11.9%), but higher compared to 2016. The results for the 35–44 age group is remarkable, while, with 11.9%, Switzerland is above the average for innovation-driven economies

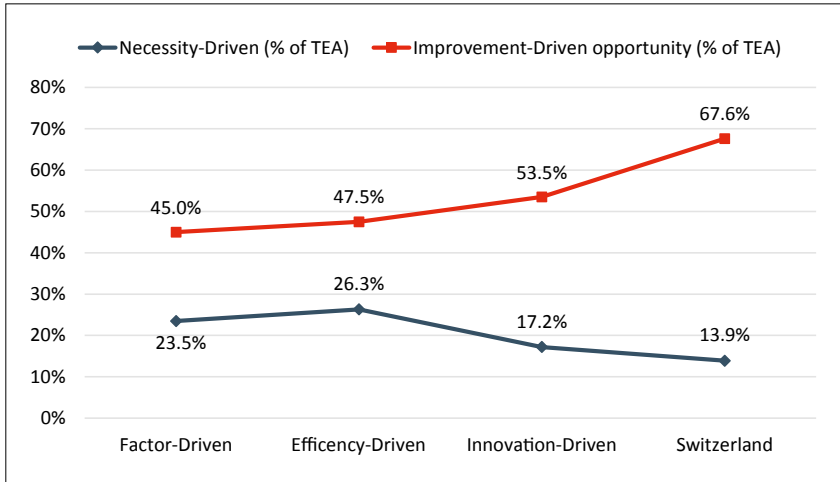
(11.3%). Furthermore, the TEA rate for people older than 45 years is, at 9.3%, also above the average of innovation-driven economies (8.6%).

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).

2.2.2 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 entrepreneurship. 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 livelihoods and thus their motivation is linked to either

Figure 5 Percentage of Entrepreneurs motivated by Necessity and Opportunity by phase of Economic Development and in Switzerland, 2017



earning more money or being more independent, as opposed to maintaining income.

As figure 5 shows, entrepreneurs in factor-driven economies are driven only slightly less 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 innovation-driven 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 improvement-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. On this measure, the factor-driven economies report the lowest proportion of IDO at 45.0%, but show increases of all entrepreneurs compared to 2016

(37.9%). This proportion increases with the level of economic development.

To assess the relative prevalence of improvement-driven opportunity en-

Table 3 Motivational Index in selected innovation-driven economies, 2017

Selected innovation-driven economies	Improvement-driven opportunity (% of TEA)	Necessity-driven (% of TEA)	Motivational index*
Australia	63.0	16.8	3.7
Canada	53.6	17.1	3.1
Estonia	50.9	18.6	2.7
France	61.5	20.6	3.0
Germany	59.9	11.1	5.4
Ireland	52.1	20.9	2.5
Israel	33.1	16.4	2.0
Italy	35.2	14.0	2.5
Korea Republic	64.2	22.0	2.9
Netherlands	72.6	7.2	10.0
Slovenia	48.4	19.6	2.5
Spain	48.2	28.3	1.7
Sweden	44.8	7.5	5.9
Switzerland	67.6	13.9	4.9
United Kingdom	60.8	13.6	4.5
USA	76.3	10.6	7.2
Average (Innovation-driven economies)	53.5	17.2	3.7

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



trepreneurs versus those motivated by necessity, the Motivational Index indicates interesting differences. This index reveals that there are one and a half times as many IDO entrepreneurs as necessity-driven (ND) ones on average in the factor-driven economies. The efficiency-driven economies show a higher proportion at 2.0 times.

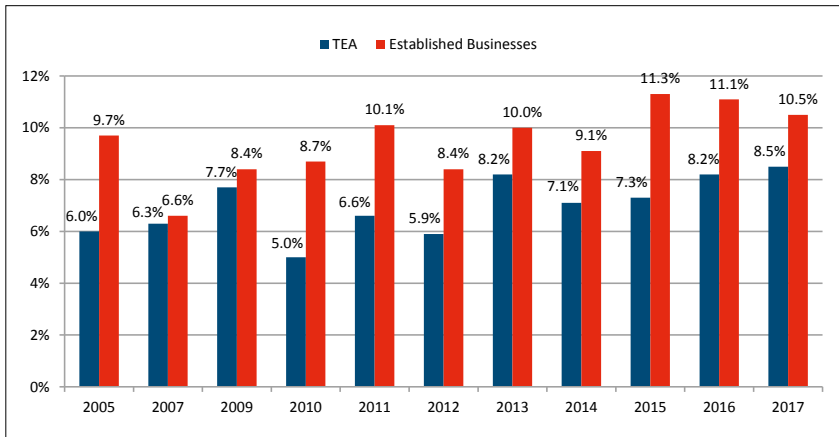
Table 3 presents the large difference in the innovation-driven economies, where there are more than four times as many IDO as necessity-motivated entrepreneurs. The Netherlands, the United States, Sweden, Switzerland and the UK – have five times as many IDO entrepreneurs as those motivated by necessity. 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.

2.2.3 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 provide 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 6 TEA Rates and Established Business Rates from 2005 – 2017 in Switzerland



Together with the TEA, the Swiss rate for established business (10.5%) is more or less on the same level as in the last years (Figure 6). 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.

2.2.4 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.

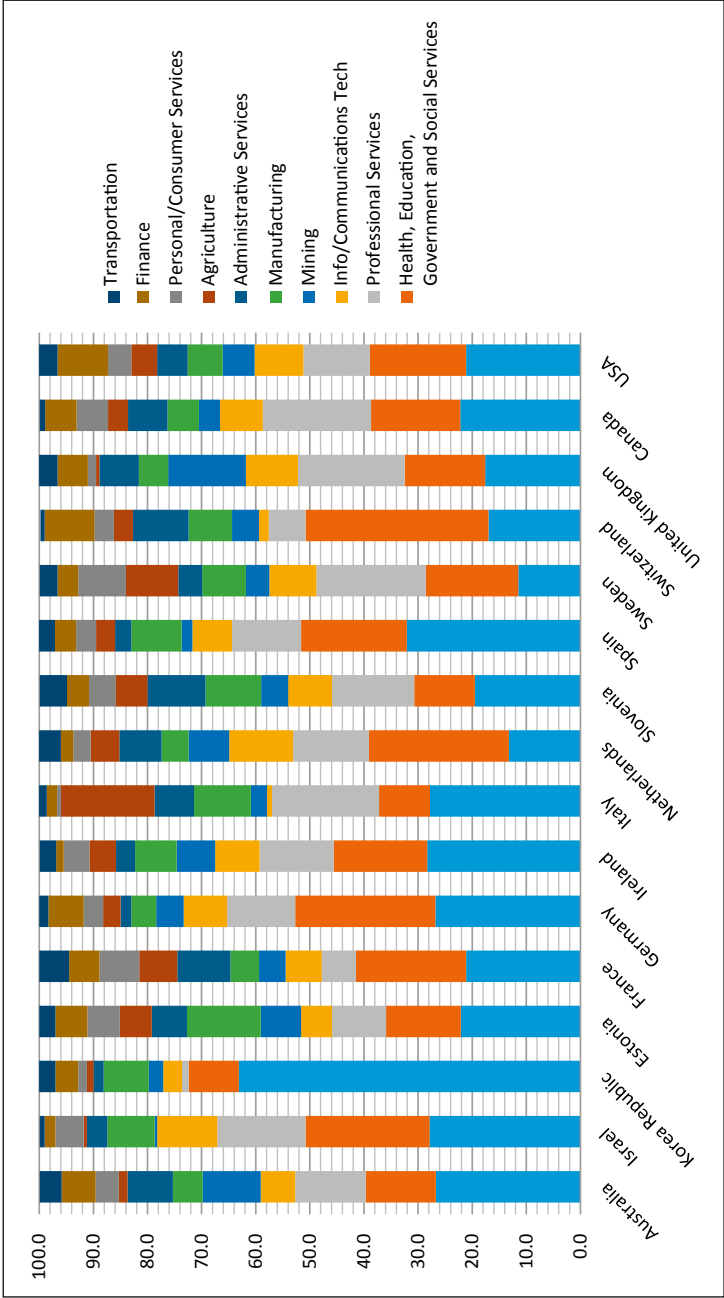
In contrast, information and communications, financial, professional, health, education and other services represent over half the entrepreneurs in North America and nearly half of those in Europe. However, less

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. In Switzerland, 33.8% of the new ventures operate service businesses in health, education, government and social concerns, showing the highest percentage and 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 sixth 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 Japan (14.4%), the USA (9.3%), and Switzerland (9.2%).



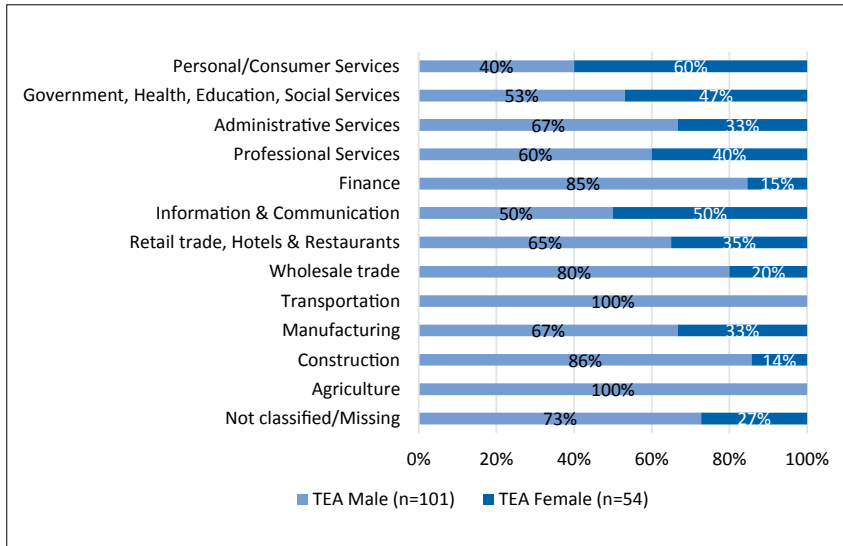
Figure 7 Industry Distribution of TEA in selected innovation-driven economies, 2017



Whereas wholesale/retail, agriculture, finance, wholesale/retail, construction and manufacturing are male dominated, women's activities

refer principally to personal consumer service or government/health/education/social services.

Figure 8 Industry distribution of TEA Male and TEA Female, 2017



2.2.5 Discontinuance

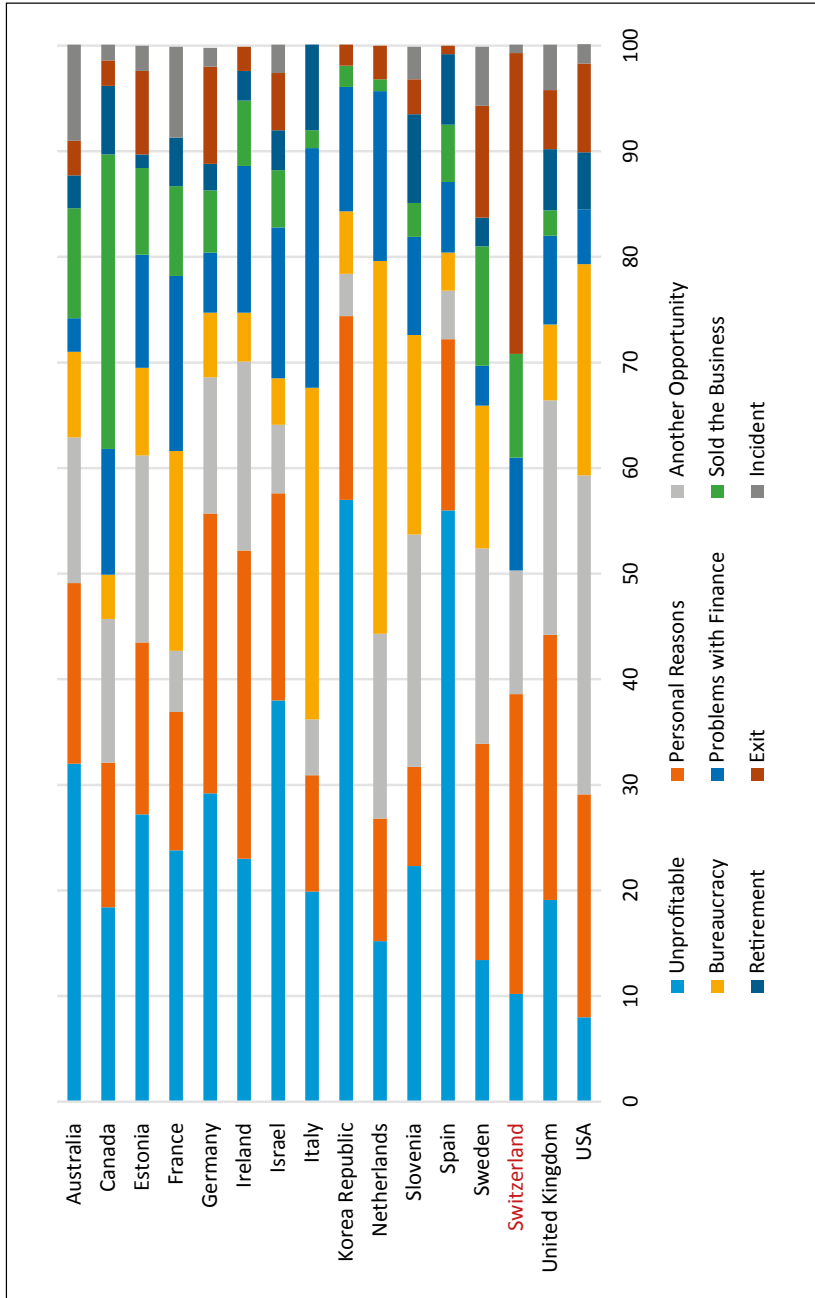
As new businesses emerge, others close. Individuals selling or closing their businesses may once again benefit their societies by re-entering the entrepreneurship process. Recognizing the importance of this measure, GEM tracks the number of individuals who have discontinued a business in the last 12 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 highlighted that in Switzerland the percentage rate of people who abandon their business is one of the

lowest (1.1 %) compared to their peers of innovation-driven 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. 28.5% chose an exit strategy or invested their time in another business opportunity (11.7%). They may even have sold the business (9.8%). These 'positive' reasons for discontinuing businesses explain half of all discontinuations in Switzerland (Figure 9). Personal reasons (28.4%), an unprofitable situation (10.2%) or problems with finance (10.7%) cover the other reasons for discontinuing.



Figure 9 Reasons for Discontinuing a Business in selected innovation-driven economies, 2017



... 3 Impact of Entrepreneurial Activity

Table 4 Job creation expectations (6 or more jobs in 5 years) by Region

Region	Job creation expectations (%)
Africa	17.0
Asia & Oceania	21.0
Latin America & Caribbean	18.0
Europe	18.5
North America	29.5

Entrepreneurship is a major driver of economic growth. It contributes to enhancing quality in sectors, economies, and whole countries (Ribeiro & Huarng, 2013). It is vital for the creation of new economic activities, for a dynamic and competitive market, for the creation of new jobs and wealth. For this reason, one priority target on political agendas (it is not the only objective) is to boost, support and accompany the new entrepreneurial initiatives towards fulfilling their potential, not least in terms of innovation and creation of new jobs.

3.1 Job Creation Expectations

Job creation is key to achieving sustainable and inclusive growth, as it is to creating wealth and reducing

poverty. Entrepreneurs, defined according to GEM's criteria, were asked at the time of the survey how many workers they had on their payroll and how many they expected to have five years on. The difference between the two data represents their growth expectations.

The highest percentage of entrepreneurs anticipating medium-to-high job creation opportunities, i.e. more than 6 over the next 5 years, is to be found in North America (29.5%). The United States, in particular, stands out because 38.6% of its entrepreneurs are forecasting at least 6 new jobs. The U.S. is followed by Asia and Oceania (21.0%), Europe (18.5%), Latin America and the Caribbean (18.0%) and, lastly, Africa (17.0%).

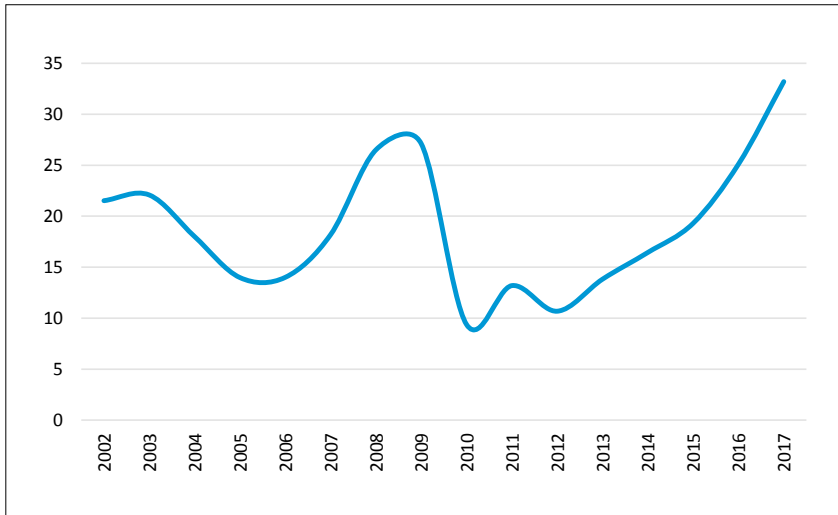
Table 5 Job creation expectations (6 or more jobs in 5 years) for innovation-driven countries

	Economy	6 or more jobs in 5 years (% TEA)	
		Score	Rank / 54
Innovation-driven	Australia	28.2	12
	Canada	20.3	28
	Estonia	27.2	15
	France	27.9	13
	Germany	22.0	25
	Ireland	26.9	16
	Israel	8.7	45
	Italy	14.0	35
	Korea	9.7	41
	Netherlands	15.6	33
	Slovenia	21.1	26
	Spain	8.6	46
	Sweden	6.3	49
	Switzerland	33.2	6
	United Kingdom	23.4	21
	USA	38.6	3
Total	22.2		

Switzerland is well placed when comparing innovation-driven countries. With 33.2% of entrepreneurs forecasting the creation of 6 or more jobs over the next five years, our country ranks 4th, after Qatar, Taiwan, and the United States. Not only is this the highest rate among European countries; it is also the highest result recorded for our country since joining the GEM project.

This figure has been increasing steadily since 2012, bouncing back from a trough of 9.4% in 2010: a steady rise, therefore, which highlights a positive entrepreneurial dynamism in terms of job creation. Based on this, if nothing else, we seem to have left the 2008 crisis behind us. It is now time to check whether these intentions will materialise and turn out actual jobs.

Figure 10 Job creation expectations (6 or more jobs in 5 years) Switzerland, 2002 – 2017



Indirectly, Switzerland's 31.5% is one of the lowest rates of entrepreneurs with no growth expectations. The average rate for countries driven by innovation is 45.3%. With regard to growth expectations of 1 – 5 jobs over the next 5 years, Switzerland shows a percentage of around 35%, approximately three percentage points higher than the readings for all the countries surveyed.

3.2 Innovative Orientation

Entrepreneurship and innovation go hand in hand. Schumpeter himself (1934), the father of innovation economics, used to define entrepreneurs as the main actors of the innova-

tive process. Entrepreneurs, indeed, have a way of disrupting the market balance by introducing new combinations of goods and services, new production processes, new forms of procurement and logistics, but also – and more and more frequently – new business models. Far from only just meaning «doing better» or «optimising», innovation also means «doing differently»; it means constantly trying to satisfy the changing – and ever more rapidly saturated – demands of consumers and society. An internal strategy for innovation is a vital resource with which organisations (be they start-ups or consolidated) can seek to acquire competitive advan-

tage. GEM monitors the innovative orientation of entrepreneurial activities manifested in the introduction

of new goods and services (for all or a part of their customers), as well as in their uniqueness.

Table 6 Innovation Levels of TEA (product is new to all or some customers AND few / no businesses offer the same product) by Stage of development

Stage of development	Innovation (product is new to all or some customers AND few / no businesses offer the same product) (% TEA)
Factor-driven	21.0
Efficiency-driven	23.1
Innovation-driven	31.2

In general, there is a direct connection between a country's average levels of innovation and its economic development. The more intense a nation's innovative activity, the greater its competitiveness. At a rate of 31.2%, entrepreneurs of innovation-driven economies are markedly more innovative than those of economies that are efficiency-driven (23.1%) and factor-driven (21.0%). These figures hardly deviate from those gathered in the previous survey. There are various reasons why innovative activity may be linked to economic development,

including: higher level of safeguard of intellectual and industrial property, supply of qualified and skilled labour, access to higher education and training, large proportion of the workforce employed in sophisticated industrial sectors (ICT, life sciences, bio-tech, etc.), access to advanced technologies and activities for the transfer of skills and technologies, to mention but a few (Singer, et al. 2018). These are, in fact, the elements that support entrepreneurs in the execution of their innovative projects.



Table 7 Innovation Levels of TEA (product is new to all or some customers AND few / no businesses offer the same product) in innovation-driven economies

	Economy	Score	Rank
Innovation-driven	Australia	28.5	19
	Canada	43.2	5
	Estonia	30.2	12
	France	48.6	3
	Germany	23.7	35
	Ireland	42.7	6
	Israel	26.7	24
	Italy	28.2	21
	Korea	26.3	26
	Netherlands	22.5	37
	Slovenia	34.2	10
	Spain	25.0	32
	Sweden	29.1	18
	Switzerland	24.9	33
	United Kingdom	27.1	23
	USA	35.9	9
	Total	31.2	

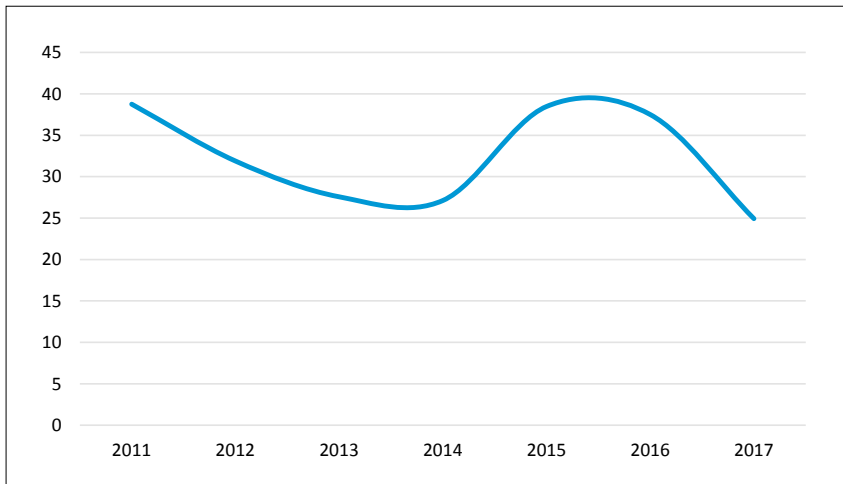
In 2017/2018, the percentage of Swiss entrepreneurs introducing new or unique products to some or all of their customers is set at 25%, more than 6 percentage points lower than the average for innovation-driven countries. As far as our nation is concerned, this is the lowest level since this measurement was first introduced. What needs to be as-

certained, now, is whether it signals a trend reversal (negative) or, on the other hand, it is nothing more than contingent. Our economy tops the respective rankings for competitiveness and innovation – for example, the *Global Competitiveness Report* issued by the World Economic Forum, and the *Global Innovation Index* produced by INSEAD. And yet, inno-

vation is quoted as one of the main difficulties or problematic aspects of being an entrepreneur in our country, behind an inefficient state bureaucracy, an overly restrictive employ-

ment regulation, and finally a workforce that could do with being more adequately and properly trained (World Economic Forum, 2017).

Figure 11 Innovation Levels of TEA in Switzerland, 2011 – 2017



... 4 Entrepreneurial Framework Conditions

GEM conceptual framework identifies social, cultural, political and economic context in which individuals express their intentions and perform their entrepreneurial activities. It illustrates the relevant national conditions that affect economic development and those activities that facilitate innovation and entrepreneurship in particular.

The National Expert Survey (NES) is similar to other surveys that employ expert judgments to evaluate specific national conditions. However, the NES focuses only on the environmental features that are expected to have a significant impact on the entrepreneurial attitudes and activities rather than on general economic factors.

These environmental features define the GEM's entrepreneurial framework conditions and are captured in the 9 EFCs that are illustrated and described in Table 8 below.

The NES data provides insights into the ways in which these EFCs either foster or constrain entrepreneurial climate, activity and development. In order to assess the Swiss framework conditions influencing entrepreneurial activity, 36 Swiss key 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.

Table 8 Entrepreneurial Framework Conditions (EFCs)

1. *Entrepreneurial Finance*. The availability of financial resources – equity and debt – for small and medium enterprises (SMEs) (including grants and subsidies).
2. The extent to which government policies support entrepreneurship has two components:
 - 2a. *Government Policies: support and relevance* Entrepreneurship as a relevant economic issue
 - 2b. *Government Policies: taxes and bureaucracy* encouraging established and new firms & SMEs.
3. *Government Entrepreneurship Programs*. The presence and quality of programs directly assisting SMEs at all levels of government (national, regional, municipal).
4. The extent to which training in creating or managing SMEs is incorporated within the education and training system at all levels. These EFCs have two components:
 - 4a. *Entrepreneurial Education at school stage* (primary and secondary) and,
 - 4b. *Entrepreneurial Education at post school stage* (higher education such as vocational, college, business schools, etc.).
5. *R&D Transfer*. The extent to which national research and development will lead to new commercial opportunities and are available to SMEs.
6. *Commercial and Legal Infrastructure*. The presence of property rights, commercial, accounting and other legal and assessment services and institutions that support or promote SMEs.
7. Market openness contains two components:
 - 7a. *Internal Market Dynamics*: the level of change in markets from year to year, and
 - 7b. *Internal Market burdens or entry regulation*: freedom to enter existing markets.
8. *Physical Infrastructure*. Ease of access to physical resources – communication, utilities, transportation, land or space – at a price that does not discriminate against SMEs.
9. *Cultural and Social Norms*. social and cultural norms encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income.

(Scores: 1 = Completely false, 2 = False, 3 = Moderately false, 4 = Somewhat false, 5 = Neither true nor false, 6 = Somewhat true, 7 = Moderately true, 8 = True, 9 = Completely true)

The statements are phrased so that a score above 5 would indicate that the expert regarded the factor as rather positive for entrepreneurship, while a score below would indicate that the expert regarded the factor as somewhat negative for entrepreneurship. Table 9 displays the assessed values of the nine EFCs in Switzerland, as well as the values of selected innovation-driven economies (benchmark economies) that serve as a comparison group to help make more sense of our data.

The entrepreneurial finance framework condition (No.1) describes the availability of financial resources – equity and debt – for small and medium enterprises (SMEs) (including grants and subsidies).

Experts evaluate Switzerland's financial environment for entrepreneurship and innovation slightly positively (5.2), higher than the average of innovation-driven economies (4.5). Within this group of economies, only the Netherlands (6.0), Israel (5.5) and Estonia (5.4) offer a slightly better financial framework. Experts strongly emphasize the areas of further improvement in early stage funding, in terms of access to seed and venture capital.

The government policy condition (No.2) relates to the extent to which public policies support new and

growing firms. This includes the tax regime, labor market regulation, social security legislation, as well as regulations and schemes that specifically aim at the new and small business sector. Historically, this framework requirement is valued positively in Switzerland. This year, compared to last year (5.3), Switzerland, lost some points and was overtaken by the USA, but still lies above the average of all innovation-driven economies with (4.9). Therefore, local experts see a potential area for improvement, especially through easing bureaucratic procedures in founding new ventures and their taxation policies.

The government entrepreneurship program condition (No.3) 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 government programs to support new and growing firms positively (5.5) where the average of innovation-driven economies is (4.7). An area of improvement could be achieved towards streamlining government programs and achieving higher coordination among various programs.

The EFC entrepreneurial education (No.4) relates to the extent to which entrepreneurship and entrepreneurial qualities receive attention

in all phases of the educational and training system. Compared to last year (4.1), Switzerland lost some points (3.7) and is ranked 5th of all the benchmark economies (3.5). 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 early years of schooling. On the other hand, Swiss experts evaluate the post-secondary education (colleges, university and professional education) more positively and emphasize the world-class quality of the Swiss higher education system. Here, Switzerland gained more points again and is rated yet again above all other benchmark economies with 6.3 where the average is 4.8.

The R&D transfer condition (No.5) refers to the extent to which national research and development will lead to new commercial opportunities and whether or not these are available for new, small, and growing firms. Experts rate Switzerland iteratively positive (5.7), especially when compared to the benchmark economies; all other innovation-driven economies (4.4) are rated below, where Switzerland had a consistent trend as in previous years. Local experts have particular praise for the excel-

lence of its industry and technology; however, they still suggest potential improvements in collaborating in technology transfer projects in the academy industry.

The commercial and legal infrastructure framework conditions (No.6) relate to the presence of property right, commercial, accounting, and other legal and assessment services and institutions that support or promote SMEs. In this framework requirement, the Swiss value lost some minor points compared to last year and is ranked 5th together with Israel's economy. It has to be added that basically the other economies made major improvements and took the lead. Experts see areas of improvement in startup advisory services, especially more tailored and affordable facilities and services for firms.

Entry regulation condition (No.7) has two components; internal market dynamics and internal market burdens. Internal market dynamics refer 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 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 underutilized potential, especially from ideas and startups that do not necessarily carry the ETH Zurich or EPF Lausanne brand. Switzerland holds the 4th rank and tops most of the benchmark economies, below only the Netherlands, Estonia and USA.

The physical infrastructure (No.8) 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. In 2016, Switzerland ranked 2nd after the Netherlands (7.9) and this year, 2017, scores 7.4 and occupies 3rd place after the Netherlands and Estonia. Experts

consistently praise this EFC of the Swiss economy, as it offers one of the world's finest physical and technological infrastructures for economic growth.

The cultural and social norms (No.9) 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, compared to last year at 5.4, Switzerland lost some points (5.7), and, among the benchmark economies, ranks 6th, together with the United Kingdom. To achieve a desirable place, local experts emphasize a need for a mindset shift, especially in overcoming stigmatization of failure.



Table 9 Entrepreneurial Framework Conditions (EFC) in selected innovation-driven economies, 2017

Average scores from Likert scales of 9 points (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	4.3	3.8	4.0	4.4	3.0	3.8
Canada	5.0	3.8	4.1	4.3	3.3	4.8
Estonia	5.4	4.9	5.1	5.5	5.0	5.6
France	4.6	5.6	5.0	5.4	3.0	5.4
Germany	4.7	4.4	4.1	5.6	2.6	4.2
Ireland	4.5	4.4	4.6	5.7	3.2	4.4
Israel	5.5	3.1	2.5	3.8	2.9	4.5
Italy	3.7	4.1	3.1	4.0	2.8	4.6
Korea Republic	4.0	5.8	4.5	4.9	2.9	3.9
Netherlands	6.0	5.4	5.8	6.0	5.6	6.2
Slovenia	4.5	4.2	3.0	4.4	3.4	4.7
Spain	4.1	3.7	2.9	4.9	3.0	4.7
Sweden	4.7	3.6	3.4	4.4	4.1	4.3
Switzerland	5.2	4.9	5.7	5.5	3.7	6.3
United Kingdom	4.5	4.3	4.6	4.4	3.3	4.5
USA	5.2	5.2	5.0	5.4	4.0	5.2
Average of Innovation-driven economies	4.5	4.5	4.2	4.7	3.5	4.8

	R&D level of transfer 5	Access to professional and commercial infrastructure 6	Internal market dynamics 7a	Internal market burdens 7b	Access to physical infrastructure and services 8	Cultural and social norms, social support 9
Australia	3.6	5.0	5.2	4.5	6.0	4.8
Canada	3.8	5.1	4.6	3.8	6.4	6.7
Estonia	4.7	6.0	4.2	5.9	7.6	6.5
France	4.9	5.2	4.5	4.1	7.2	4.3
Germany	4.3	5.8	4.6	4.5	6.6	4.3
Ireland	4.4	5.1	4.3	4.6	5.5	5.0
Israel	4.2	5.5	4.4	3.7	6.9	7.2
Italy	4.4	4.5	5.2	4.5	5.4	3.9
Korea Republic	3.9	3.9	7.1	3.4	6.7	5.0
Netherlands	5.3	6.2	5.5	6.1	7.8	6.7
Slovenia	4.3	5.0	5.3	4.3	6.7	3.8
Spain	3.7	4.8	4.0	3.7	5.9	3.8
Sweden	4.2	4.8	5.1	4.3	7.3	5.0
Switzerland	5.7	5.5	4.7	4.8	7.4	5.4
United Kingdom	4.4	5.0	4.4	4.5	5.9	5.4
USA	4.8	6.1	4.3	5.0	7.0	6.0
Average of Innovation-driven economies	4.4	5.1	5.0	4.5	6.6	5.1

Figure 12 and 13 give a quick overview of the Swiss EFCs benchmarked against other economies: Factor-driven; Efficiency-driven; Innovation-driven! In almost all cases,

Swiss ratings are at least equal to or higher than average for each EFC. The only exception is the internal market dynamics, which is below average.

Figure 12 Composite indicators on Entrepreneurship Framework Conditions, by stage of development compared to Switzerland (EFC 1 – 4)

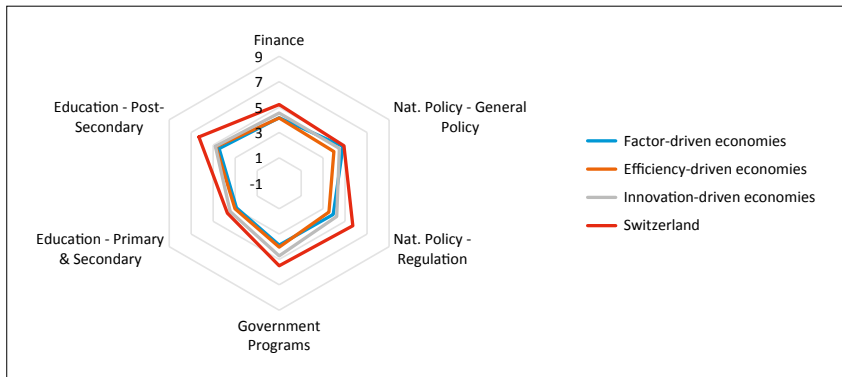
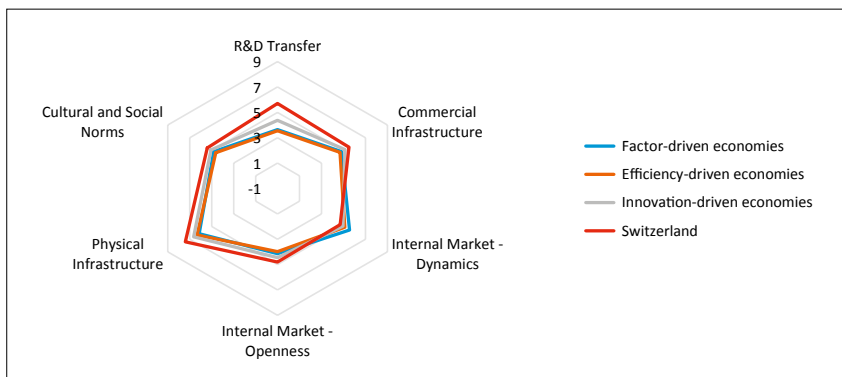


Figure 13 Composite indicators on Entrepreneurship Framework Conditions, by stage of development compared to Switzerland (EFC 5–9)¹



¹ Note: Internal market – dynamics is an inversely scaled indicator.

... 5 GEM Highlights in Switzerland

Societal values and perceptions about entrepreneurship as well as the measured individual attributes of potential entrepreneurs can differ strongly from nation to nation. The global GEM Data allows us to compare these indicators across nations and between world economies among different stages of development. Nevertheless, we need to pay attention to the fact that some major urban areas can contribute largely to a nation's economic growth, whereas other regions, often predominantly rural ones, struggle hard to keep up with the general economic development. Moreover, some important factors that can influence entrepreneurial activities may vary strongly from one region to another. The region's dominant culture, a specific policy, or even the infrastructure could be counted as such factors. Hence, spatially oriented entrepreneurship research is of growing interest for many scholars (Acs and Armington, 2004; Acs and Storey, 2004; Acs et al, 2008; Feldman, 2001; Wagner and Sternberg 2004; Van Stel and Storey, 2004) and the GEM community does not hesitate to take this into account. In the past few years, some major regional and even city-related con-

tributions have been published in addition to the national reports. Examples of this were the GEM Euroace Report, that discusses entrepreneurship in the three European regions of Alentejo, Centro (both Portuguese regions) and Extremadura (Spanish region), published in 2015 by Mogollon et al. Or the Quebec (St-Jean, E. and Duhamel, M., 2016), British Columbia (Langford, C.H., Josty, P. and Sanders, C., 2014) and Ontario (Haber, S., Lo, M. and Davis, C.H., 2016) reports in Canada.

A diverse cultural population with three major language regions characterizes Switzerland. In the following chapters, regional entrepreneurial activities are examined in more detail before another special chapter is dedicated to the Italian-speaking canton of Ticino. In the final subchapter, we try to shed light on age and gender-specific differences.

5.1 Regional Entrepreneurial Values and Attributes

The GEM team Switzerland has already observed and compared regional differences regarding the individual attributes of potential entrepreneurs and their societal values and perceptions about entrepreneurship in

general for several years. In this year again we have observed some very important differences related to language regions and urban-rural gaps. In consistence with last year's survey perceived opportunities seem to be closely linked to the area in which the respondent lives. In the urban regions of the Swiss German and the Swiss French cantons, perceived opportunities are rather high. In the Lake Geneva region, clearly more than half of the population detect opportunities to start a business within the next six months in their surroundings nearby. Overall, the French-speaking cantons have always been slightly ahead of the German-speaking ones, and

as a general tendency observed with last year's oversampling, in the vibrant urban regions this value seems much higher than in the rural ones. This trend is then underlined by the populations' perceived capacities to start such a venture. In both Swiss German and Swiss French language regions, slightly more than forty percent replied in the affirmative to the question of whether they felt they had the necessary skills and capacities for entrepreneurship. In contrast to perceived opportunities, there is no evidence that perceived capacities are linked to an urban-rural gap. The Canton of Ticino brings up the rear regarding these two perceived

Table 10 Individual attributes according to the Swiss language regions

	Individual attributes			
	Perceived opportunities	Perceived capabilities	Fear of failure *	Entrepreneurial intentions **
General Switzerland	47.2%	42.1%	29.5%	10.5%
Swiss German	46.0%	41.8%	26.8%	8.6%
Swiss French	53.2%	43.4%	35.0%	16.0%
Swiss Italian	36.8%	39.2%	45.0%	6.9%
Average (Innovation-driven economies)	43.4%	43%	40.3%	15.2%

* Fear of failure assessed among those seeing business opportunities.

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



individual attributes. Since the measurement of these values was brought to a subnational level, the perception of opportunity and capacity has been significantly lower in this region. For the 2017 – 18 study, opportunity recognition is more than 15% lower than the French-speaking cantons, whereas regarding capacities, the values are closer but still a significant 4.2% lower between these two Latin regions.

Another trend that has been observed for a few years can be affirmed, once again, in this study, namely the fear of failure rankings. Whereas there is no urban-rural difference regarding the question if individuals who see business opportunities would have been prevented by a possible business-failure, there is a clear difference among the three language regions. Only one out of four Swiss Germans who see business opportunities has a fear of failure, preventing him from starting such a business. This value has always been significantly higher in the French-speaking cantons of Switzerland, in which it amounts to 35% in the current study. In the Italian-speaking cantons, fear

of failure is consistently higher than in the two other language regions. In 2017, almost half of the rather low portion of the population (36.8%) seeing business opportunities in Ticino, namely 45%, would not start their business because of a fear to fail. Once again, this difference is more likely to be influenced by different economic and social circumstances rather than by the urbanization types of the cantons: For the second year in which the subnational values have been analyzed regarding the «Regiosuisse» typology², no significant differences between the urban and rural communes were observed regarding fear of failure in 2017.

In the Swiss German region, entrepreneurship is not necessarily a good career choice. Only 48% and thus less than the Swiss average of 53%, perceives entrepreneurship as a good career choice among the Swiss Germans. The many opportunities given by the solid service and industry branch are in serious competition with entrepreneurial undertakings. This trend is further underlined by the remarkably low entrepreneurial activities and aspirations among

² The spatial typology from Regiosuisse serves as a major reference for new regional policy (NRP).

It divides the communes into the following four types: metropolitan areas, agglomerations and other urban communities, suburban and rural areas and alpine tourist centers and peripheral rural areas.

the Swiss youth in general, especially when it comes to an international comparison and even with regard to the other western OECD countries (see Chapter X). In the French and the Italian-speaking parts of Switzerland, 65 to 67 % of the population considers entrepreneurial careers to be a good professional path. The highest entrepreneurial intention, however, has been observed in the French cantons of Switzerland. Not only do French-speaking indi-

viduals in Switzerland indicate having the highest rates of perceived opportunities and capacities, there are also three times as many individuals, not yet involved in an entrepreneurial activity, who are expecting to start a business within three years. This trend has now been measured for more than five years and raises hopes for a more vibrant start-up scene in Western Switzerland in the years ahead.

Table 11 Societal values and perceptions in the three language regions of Switzerland

	Societal values and perceptions		
	Entrepreneurship as a good career choice	High status to successful entrepreneurs	Media attention for entrepreneurship
General Switzerland	53.0%	73.2%	59.0%
Swiss German	48.0%	68.8%	59.7%
Swiss French	65.6%	87.2%	57.6%
Swiss Italian	66.7%	62.7%	55.1%
Average (Innovation-driven economies)	57.0%	70.0%	62.3%

5.2 GEM Ticino

Ticino's Total Early-stage entrepreneurial Activity (TEA) for 2017/2018 is set at 5.7%, three percentage points lower than the previous sur-

vey. The findings for 2016/2017, when the TEA rose to 8.8% (against a Swiss average of 8.2%), may be seen as exceptional: typically, in fact, Ticino's TEA lies below the Swiss



average, which, for 2017/18, recorded a figure of 8.5%. In addition, the figure recorded for Ticino this year is perfectly in line with the data gathered by the «Swiss Labour Force Survey» (SLFS) of the Federal Statistical Office. Though data are not entirely comparable, the SLFS states that for the past two years the average rate of self-employed has been 5.2%.

When compared with the other language regions of Switzerland, Canton Ticino once again stands out with a rate of 66.7% on account of the fact that it considers entrepreneurship to be a good career choice – 2 percentage points higher than the figure recorded last year. The Swiss average is 53%. On the other hand, the status accorded to the role of the entrepreneur (62.7%), together with media attention to the entrepreneurial phenomenon (55.1%), have dropped – compared to the year before – hitting, in both cases, levels below the national average (73.2% and 59% respectively).

Perceived opportunities, however, shot up from 28.6% in 2016 to 36.8%, though this indicator, too, lies well below the national average (47.2%). Because perceived capacity to do business is nudging closer and closer to the national average – which can only be positive – a lot remains to be done, despite the

45% fear-of-failure factor. A good 15 percentage points above the national average, this figure reveals a degree of apprehension that acts as a dampener, slowing down entrepreneurial activity. This is backed up by little consideration given to entrepreneurial intentions, which, for our Canton stands at 6.9%, against the 10.5% national average.

At present – and not only judging by the data provided by the GEM survey –, the situation in Canton Ticino is far from ideal. In recent years, plenty of efforts have been made, both in terms of raising awareness, taking action, and enacting concrete measures and legislation. The new law on economic innovation, and the establishment of a regional system of innovation in Ticino, bear witness to that. Nonetheless, it might be well worth reflecting on how much return there has been – a sort of business «Return on Investment» (ROI) – on what has been achieved so far. The courage to change, to take risks, and put yourself on the line, which are an entrepreneur's typical features and prerogatives, must also continue to apply to the conditions in favour and in support of entrepreneurship.

A decade of planning and operational euphoria has inevitably spawned several public and private initiatives in favour of entrepreneurship, as

demonstrated in a recent conference organised by the School of Management, HEG-Fribourg. Now, it would seem both advisable and desirable to focus more on the quality of offers and services, even if, for the sake of transforming and optimising some projects or initiatives, this means failing to move forward. A larger number of initiatives does not necessarily create high-quality entrepreneurial projects. This, in fact, depends a good deal on other factors, such as time, and the intensity and quality of mentoring and coaching activities at given stages of the entrepreneurial process. Quantity may even stand in the way of the selection and self-selection process for projects. Among all the numerous initiatives, measures, instruments, educational programs in existence, two options for improvement deserve particular attention. They consist in reviewing and re-imagining the way some training courses in support of entrepreneurship are conducted, and how they are conceived and structured, as none of this can happen without higher investment in so-called «seed money». If we want to accompany *start-uppers* first in the early stage, i.e. drafting an innovative proposal that is of value, unique, exclusive and apt to satisfy concrete and focused demands of the market and, later,

help them develop a sound business model, it is not enough to tap into funds raised among family or friends. To launch its own business model and succeed in making it increasingly attractive to business angels, venture capitalists and, more generally, investors, a firm cannot rely purely on those very popular training courses for entrepreneurship and the odd hour of mentoring. The support package must be completed with «seed money», which would make the support more suitable, intense and targeted during its design and setting up phases, and down to the prototyping stage and the early trials on the market. From the viewpoint of re-imagining the training courses, something is stirring: witness the innovative courses run by SUPSI, for example, under the supervision of the «Competence Centre inno3», Department of Business Economics, Health and Social Care, and of the tutor in charge of Business administration in the Department of Innovative Technologies. And yet, on the «seed capital» front, a stronger commitment is required. Without these funds, the gap between ideas, however sound and interesting, and fully-fledged business projects that are innovative and worth supporting will (continue to) be too wide, even insurmountable. By not providing one-

self with the necessary means one might indeed nip promising initiatives in the bud. A great shame, if one cares about socio-economic growth and development.

5.3 Entrepreneurship Across Ages and Gender

With a total entrepreneurship activity-rate of 8.5%, Switzerland ranks in the middle in comparison to other innovation-driven economies. Another image of entrepreneurial activities in Switzerland is depicted, however, when analyzing entrepreneurial activity rates regarding the age categories of their respondents. Switzerland is significantly below average in terms of youth entrepreneurship as well as individual attributes and societal values regarding entrepreneurship among the younger population. Considering the first age category, that is, starting from the age of majority in Switzerland (18 years) until 24, in fact, only one innovation-driven economy ranks lower. Considering the total population of countries participating in the GEM-study, across all levels of economic development, we even find that only two countries, namely France (innovation-driven) and Slovakia (efficiency-driven), rank lower than Switzerland.

Only three among one hundred young adults are involved in an entrepre-

neurial project. Such weak levels of youth entrepreneurship has been recorded for years. This is surprising considering the fact that a rather high proportion of the population is getting in touch with professional life early through a very vocational-ly-oriented course of education. Evidently, the older the sample group becomes, the higher the percentage and our rank, relative to other innovation-driven economies. At the age of between 25 and 34, slightly more than one out of ten individuals are working in the field of entrepreneurship. An age category later, between the ages of 35 to 44, Switzerland reaches its middle-level 10th position among innovation-driven economies, with a population of 11.9% in the TEA rate. So-called senior entrepreneurship, this means entrepreneurial activities among the 55-to-64-year-olds, has usually been the category in which Switzerland ranked among the highest. In 2009, almost ten years ago, Switzerland ranked as the third highest innovation-driven economy, with an average of 6.1% senior-entrepreneurs. Nowadays, Switzerland still has 5% of their senior population working in an entrepreneurial activity.

With such senior entrepreneurship rates, however, Switzerland has fallen way behind other innovation-

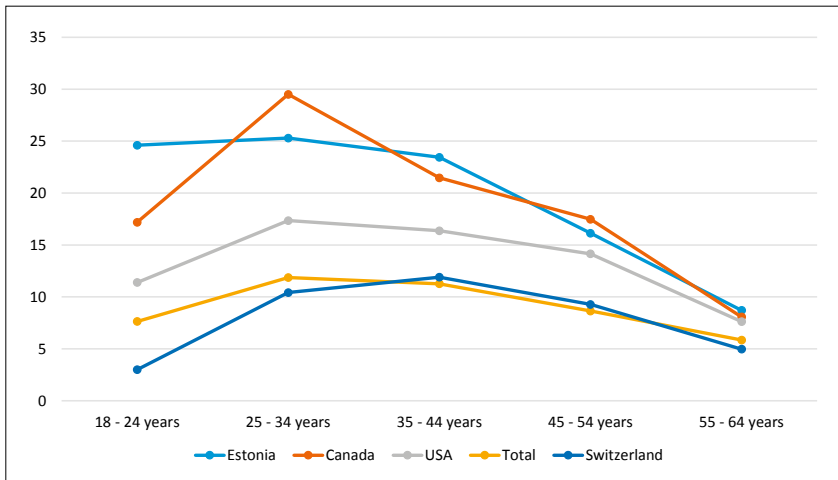
Table 12 Ranking of TEA for 18 – 24 age category, 25 – 34 age category and 35 – 44 age category in innovation-driven economies (24 countries)

TEA 18 – 24 age category			TEA 25 – 34 years category			TEA 35 – 44 years category		
Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
2	Canada	17.2	1	Canada	29.5	1	Estonia	23.5
4	USA	11.4	3	USA	17.4	2	Canada	21.5
5	Netherlands	11.2	5	Netherlands	15.0	3	Australia	16.5
8	Sweden	7.9	6	Israel	14.8	4	USA	16.4
9	Australia	7.6	7	Australia	13.9	5	Korea	14.7
11	Israel	7.5	9	Korea	12.8	6	Israel	14.5
13	United Kingdom	6.8	10	United Kingdom	11.6	7	Netherlands	12.7
14	Ireland	6.6	12	Slovenia	10.9	8	Puerto Rico	12.5
17	Spain	4.9	14	Ireland	10.4	9	Taiwan	12.1
18	Japan	3.9	15	Switzerland	10.4	10	Switzerland	11.9
19	Italy	3.9	17	Spain	8.3	11	United Arab Emirates	11.7
20	Germany	3.4	18	Sweden	8.2	12	Cyprus	11.6
21	Korea	3.3	19	Germany	7.7	13	Luxembourg	10.5
23	Switzerland	3.0	22	Italy	5.8	14	Ireland	10.3
24	France	1.6	23	France	5.0	15	Slovenia	9.1
Total	7.6		24	Japan	4.3	16	United Kingdom	8.6
			Total	11.9		17	Sweden	7.9
						18	Spain	7.8
						19	Greece	7.6
						20	Qatar	6.5
						21	Germany	6.5
						22	Japan	6.4
						23	Italy	5.3
						24	France	4.4
						Total	11.3	

driven economies, such as South Korea, with 14.2% (only 4.2% in 2009) or Israel with 12.5% (with 2.9% still ranked middle field in 2009). In many economies though, senior entrepreneurship has progressed much more than in Switzerland. Tougher eco-

nomie conditions and thereby higher rates of necessity entrepreneurship in these other countries might partially explain such a rise in senior entrepreneurship among many innovation-driven economies.

Figure 14 TEA rates in selected innovation-driven economies compared among the five age groups, 2017



Despite the fact that entrepreneurship is a desirable career choice for more than half of the young adults, and the value of 55.5% lies close to the Swiss average of 53%, there is a great gap in the perception of opportunities and capabilities among the youth. In their early years of adulthood, the great majority of the

Swiss population do not think they have the knowledge, skills, and experience required to start a business. Only 15.8% perceive entrepreneurial capacities whereas the overall average lies at 42.1%. In addition to this, the fear of failure rate is remarkably high at 46.4% and way above the Swiss average of 29.4%. Whereas

opportunity, recognizing abilities and perceived entrepreneurial capacities are rising until the mid-age categories, fear of failure as a reason for preventing entrepreneurial activities falls steadily until the senior-age categories. Whereas entrepreneurship as a desirable career choice does not

vary significantly from one age-group to another, entrepreneurial intentions to start a business within the next three years are depicted slightly differently. With 15%, they reach the highest levels at the 25-to-34-year-old category before they fall to 6.2% at the senior-age level.

Table 13 Selected variables and their values for the various age categories in Switzerland, in 2017

	Age groups					
	18–24	25–34	35–44	45–54	55–64	Overall
Perceived opportunities	37.5%	45.3%	56.9%	50.3%	40.5%	47.2%
Perceived capabilities	15.8%	36.3%	49.9%	49.9%	47.0%	42.1%
Entrepreneurship as a desirable career choice	55.5%	55.8%	56.8%	49.4%	48.5%	53.0%
Fear of failure (among those seeing opportunities)	46.4%	39.5%	26.0%	24.6%	19.6%	29.5%
Entrepreneurial intentions	10.0%	15.0%	11.3%	9.3%	6.2%	10.5%
TEA	2.9%	10.4%	11.9%	9.3%	5.0%	8.5%

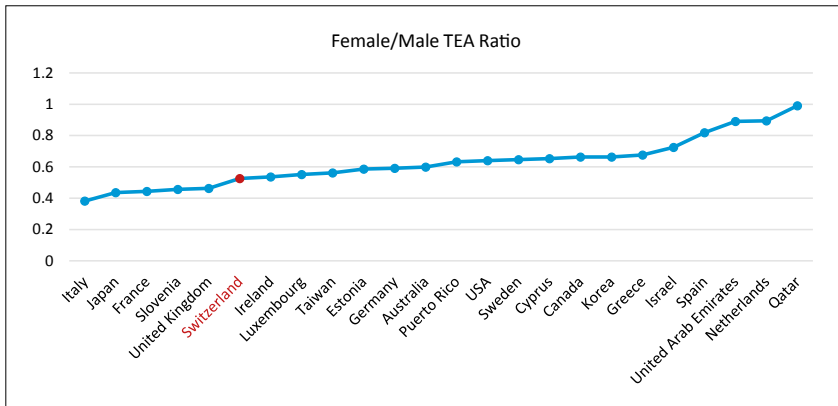
A very volatile trend has been observed since 2003 with regard to women entrepreneurship rates. The portion of women entrepreneurs increased significantly until 2011 and stabilized at a high level until 2014.

Since then, the female-to-male-ratio has decrease to a level as low as in 2003 and does not seem to have risen significantly in 2017. With an average of 0.53 women entrepreneurs per one male entrepreneur, Switzer-

land ranks the fifth lowest innovation-driven country. In an international comparison, Qatar is the only innovation-driven economy that has an equal Female to Male TEA ratio. The Netherlands (0.89) and the United Arab Emirates (0.89) both place second, behind the Arabian monarch state of Qatar in this ranking. There are multiple dimensions to explain this development and still, a lot of questions remain unanswered. In 2011, the high female entrepre-

neurship rate has been explained as the aftermath of the global financial crisis and the short-term rise in unemployment. An increased job market situation in the last years could be reasons for an absence of women in entrepreneurial activities. On the other hand, many other social factors, such as a work-life balance or a higher dedication to raising children could likewise be explanations for a reduced female entrepreneurship rate.

Figure 15 Female/Male TEA Ratio in selected innovation-driven economies, 2017



..... 6 Conclusions and 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 its high proportion of SMEs. 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.

Job expectations and Born Global

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 new jobs in an economy. Government should create special dispensation for these two categories of enterprise, for example, by providing

special funding vehicles, and funding for business development services. Government should foster digital technology to create new products, services and business models and leverage digital technology to initiate aggressive export campaigns for products and services, especially for «Born global».

Corporate Entrepreneurship and digitalization

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 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.

Innovation should be introduced in existing, traditional businesses through employee entrepreneurship

activities (EEA), productivity improved, excellence fostered in manufacturing and service industries and experimentation by employees encouraged, especially in SMEs.

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.

Policy making process and international organizations

Policies, rules and regulations that allow for the rapid evolution of an appropriate entrepreneurial environment should be developed (e.g. taxation schemes that support new businesses and SMEs; programs in support of entrepreneurs in high growth, high impact, export-oriented industrial sectors should be introduced).

Take the United Nations seventeen sustainable goals as backbone for the program in entrepreneurship in Switzerland, in order to progress towards some of these goals (No poverty, Quality education, Gender equality, Decent work and economic development). The UN goal of «Partnerships for the goals» may be attained by using the cache of GEM's harmonized data bases to identify

relevant benchmarks and best practices in various regions and economies in the world for mutual learning.

Opening pension funds for venture capital: Pension funds should have the possibility to invest up to 15% of their investments in private equity and venture capital. The focus of their investment should be for the growing stage of the company to allow and enhance their internationalization for a greater impact on the local economy and society.

Encourage «angel» investments by allowing for a complete and immediate write-off of invested capital against commitment for multi-year, staggered investments in new ventures.

Academic and educational institutions: More suggestions

Create new co-op educational/internship programs that involve the students in entrepreneurial activities throughout their studies. Enrich each one of the traditional academic disciplines with a mandatory minor curriculum in digital and digital platform creation skills.

In order to *nurture a culture of «successful failure»* – i.e., a failure that encourages learning from a failed experience, academia and research programs should support research and teaching in the areas of entre-

preneurship, innovation, business scaling and failure behavior.

Create youth entrepreneurship programs for teenagers at school age, using the mentorship of teachers, business executives and university students. These programs should be year-long, following a structured curriculum, simulating a true-to-life corporate *modus operandi*, including issuing shares, executive appointments, assignment of responsibilities and assessment of the business results by a professional panel of executives.

Increase 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 of 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.

Promote the concept of serial entrepreneurs: 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.

Finally, many people choose an entrepreneurial direction after school – thus, it is 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 the national conditions as well as research. GEM research has confirmed a positive link between training in starting a business and entrepreneurial behavior, 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. Schools also need to actively promote entrepreneurship as a career path – inviting successful young entrepreneurs to participate in the educational program.

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... Glossary

Measure	Description
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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	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). Nascent entrepreneurs – those who have committed resources to starting a business, but have not paid salaries or wages for more than three months. 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.
Established business ownership rate	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.
Business discontinuation rate	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.

Other indicators which describe additional types of entrepreneurial activity:

EEA Entrepreneurial Employee Activity	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.
SEA Social Entrepreneurial Activity	Percentage of the adult population aged between 18 and 64 years who are engaged in early-stage entrepreneurial activities with a social goal.

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

Argentina	AR	Mexico	MX
Australia	AU	Morocco	MA
Bosnia and Herzegovina	BA	Netherlands	NL
Brazil	BR	Panama	PA
Bulgaria	BG	Peru	PE
Canada	CA	Poland	PL
Chile	CL	Puerto Rico	PR
China	CN	Qatar	QA
Colombia	CO	Saudi Arabia	SA
Croatia	HR	Slovakia	SK
Cyprus	CY	Slovenia	SI
Ecuador	EC	South Africa	ZA
Egypt	EG	Spain	ES
Estonia	EE	Sweden	SE
France	FR	Switzerland	CH
Germany	DE	Taiwan	TW
Greece	GR	Thailand	TH
Guatemala	GT	United Arab Emirates	AE
India	IN	United Kingdom	UK
Indonesia	ID	United States	US
Iran	IR	Uruguay	UY
Ireland	IE	Vietnam	VN
Israel	IL		
Italy	IT		
Japan	JP		
Kazakhstan	KZ		
Korea Republic	KR		
Latvia	LV		
Lebanon	LB		
Luxembourg	LU		
Madagascar	MG		
Malaysia	MY		

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