



**Global  
Entrepreneurship  
Monitor 2015/2016**  
Report on Switzerland





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It is available online at [www.gemconsortium.org](http://www.gemconsortium.org). All data used in this report are collected and processed centrally by the GEM consortium. The authors have exclusive responsibility for evaluating and interpreting the data.

## *About the Authors*

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

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**Fredrik Hacklin** | Fredrik Hacklin is research director and junior faculty member at ETH Zurich, heading research activities of the Entrepreneurship group at the Department of Management, Technology and Economics. Fredrik's area of expertise centers around innovation and entrepreneurship in ICT industries. He has been a visiting professor at Keio University, Japan, a visiting scholar at Stanford University, USA, and an associate at Booz & Company. He has published his results in various journals, and is author of the book «Management of convergence in innovation» (Springer 2008). Fredrik holds a PhD in Management from ETH Zurich, and an MSc in Computer Science from KTH Stockholm.

## Management Summary (EN)

The School of Management Fribourg, in collaboration with the ETH Engineering School in Zurich, SUPSI Manno in Switzerland and the ZHAW School of Management and Law, collected data for the international Global Entrepreneurship Monitor (GEM). 2'000 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 Global Entrepreneurship Monitor Report 2015/2016 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					
Rank in Doing Business Index	26/189	Rank in Global Innovation Index	1/141		
Rank in Global Competitiveness Index	1/140	Rank in GEDI Index	67.8 (8/132)		
		- Entrepreneurial Attitudes	13/132		
Rank in Economic Freedom Index	4/178	- Entrepreneurial Ability	11/132		
		- Entrepreneurial Aspiration	6/132		
Rating of GEM indicators for Swiss entrepreneurs *					
	2015	**		2015	**
Perceived Opportunities	41.8	39.8	Total early-stage Entrepreneurial Activity Rate (TEA)	7.3	8.5
Perceived Capabilities	44.0	41.4	Necessity-driven (in % of TEA rate)	10.1	17.9
Fear of Failure	33.8	39.5	Improvement-driven (in % of TEA rate)	65.8	52.5
Entrepreneurial Intentions	7.0	11.4	Entrepreneurial Employee Activity (EEA)	6.5	5.2
Entrepreneurship as a good career choice	40.0	54.7	Established business ownership	11.3	7.0
Owner-Manager in Established Business Rate	11.3	7.0	International orientation (in % of TEA rate)	38.6	20.8

\*Please see glossary for definitions and references

\*\*Average innovation-driven economies

### Entrepreneurial Framework Conditions

The overall entrepreneurial framework conditions in Switzerland, along with those in Canada, 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 slightly positive light, several points for improvement are mentioned:

- Increasing the funding opportunities in each maturity stage, from seed capital to series financing, e.g. the banking services in Switzerland, which could extend more to the entrepreneurial community.
- Upgrading fiscal incentives for startup investments and adjusted taxation for startups.
- Developing competency in leadership, creativity, innovation & entrepreneurship in primary and secondary school levels of education.
- Female entrepreneurship: supporting re-integration programs after maternity leaves.
- Fostering founding spin-offs and the availability of techno parks and incubators/accelerators.
- Improving startup advisory services (possibly at cantonal level) especially in terms of affordability of such services for young firms/entrepreneurs rather than their availability.

## Entrepreneurial Attitudes

In the 2015 census the **perceived opportunities** (41.8%) to start a business are lower in Switzerland than in 2014, but above the average (39.8%) for innovation-driven economies. Nordic countries (such as Sweden, Norway, Finland), Israel, Canada, Australia, Netherlands and the United States remain at the top when it comes to available opportunities.

Switzerland shows, as in previous years, a rather **high perception of capabilities** (44.0%) paired with a low fear of failure (33.8%). While Switzerland's perception of capabilities is at least as good as, or even better than, the European benchmark, it still lags behind the United States inhabitants'. The findings regarding opportunities and capabilities 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 (7.0%) are on the same level as 2014 but under the average (11.4%) for innovation-driven countries. Most remarkable are the differences between Switzerland, the United States, Norway, Israel, Portugal and Australia.

In Switzerland only 40.0% see **entrepreneurship as a good career choice** compared to 79.2% in the Netherlands, 64.5% in Israel and 63.4% in Portugal. It seems that an entrepreneurial career is still not established well enough in Swiss society. **Media attention** for entrepreneurship increased in Switzerland and is, at 59.5%, now on the same level as the average for innovation-driven economies.



## Entrepreneurial Activity

Switzerland shows a slightly higher potential in 2015 with regard to creating new jobs via young companies (Total Early-Stage Entrepreneurial Activity, TEA) and like last year, Switzerland's founding rate stands (7.3%) below average among innovation-based economies (8.5%). Although the Swiss TEA rate tends to be higher than in neighboring countries such as Italy or Germany, but among the comparison group, only Canada (14.75), Australia (12.8%), the United States (11.9%) and Israel (11.8%) 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 its quality (low vs high job expectations) and to the **entrepreneurial behavior of employees**. Swiss parameters related to entrepreneurial employee activity are above 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 regard entrepreneurship to be a good career opportunity and express little fear of failing, but 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 behaviour 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 (27,2%). Whereas Finance and ICT and manufacturing are fully male-dominated, women's activities refer principally to Personal / Consumer Services, Retail and Restoration.

GEM tracks the number of individuals who have discontinued a business in the last 12 months. First of all it must be highlighted that in Switzerland the percentage rate of people who abandon their business is the lowest (1.7%) compared to their peers of innovation-driven economies. But one fact is noteworthy: 50.2% of all businesses stopped in Switzerland is due to bureaucracy. Issues such as complicated regulatory systems that increase the bureaucracy of starting and exiting businesses may produce barriers to entry, as well as barriers to exit, reducing people's willingness to venture into starting a business.

The impact of entrepreneurial behavior measured through their growth expectations in terms of jobs, innovation (mostly product- and services-oriented innovation) and international orientation are in general positive for their innovative and international orientation but less regarding job creation.

### Language Regions Show Differences

It has been proven that even though fear of failure is low, this does not necessarily contribute to a higher rate of founding activity. Keeping this in mind, analysing entrepreneurial attitudes according to language regions show very interesting results as seen in the following table. Fear of failing is very low in the German-speaking regions (D-CH). In French-speaking Switzerland (F-CH), there are significantly more people with entrepreneurial intentions, although they are more afraid of failing. In contrast, the successful entrepreneur enjoys an extremely positive status there, and an entrepreneurial career is described as attractive. In the Italian-speaking part of Switzerland (I-CH), the high social status of entrepreneurial activity cannot be transferred to intentions to found a business.

GEM Entrepreneurial Attitudes Indicators				
	CH	D-CH	F-CH	I-CH
Perceived Opportunities	41.8	46.4	29.0	39.8
Perceived Capabilities	44.0	47.0	36.5	31.7
Fear of Failure	33.8	31.8	39.0	49.0
Entrepreneurial Intentions	7.0	6.7	8.8	2.3
Entrepreneurship as a good career choice	40.0	32.9	55.1	79.2
High status to successful entrepreneurs	66.5	63.8	72.5	78.8

## Management Summary (DE)

Die Hochschule für Wirtschaft (HSW) Freiburg hat in Zusammenarbeit mit der ETH Zürich, der SUPSI Manno in der Schweiz sowie der ZHAW School of Management and Law, die Datenerhebung 2015 für den internationalen Global Entrepreneurship Monitor (GEM) durchgeführt. Mittels 2000 Telefon- und 36 Experteninterviews wurden die unternehmerischen Einstellungen, Aktivitäten und Ambitionen ermittelt sowie Einflussfaktoren erhoben, welche Art und Ausmass der unternehmerischen Tätigkeiten bestimmen.

Der Länderbericht Schweiz des Global Entrepreneurship Monitors 2015/2016 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 bereits bestehende Daten in den Bereichen Wettbewerbsfähigkeit und Innovation.

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\* Für Definitionen und Quellenangaben siehe Glossar

\*\* Average innovation-driven economies

## Unternehmerische Rahmenbedingungen

Die generellen Rahmenbedingungen der Schweiz und Kanadas 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 öffentliche Programme in... Obwohl die Experten die Rahmenbedingungen mehrheitlich positiv beurteilen, wurden verschiedenste Verbesserungspunkte erwähnt:

- Erhöhung der Finanzierungsmöglichkeiten in jeder unternehmerischen Wachstumsphase, von «Seed capital» bis zur Wachstumsfinanzierung. Der Service von Banken in der Schweiz sollte unternehmerfreundlicher ausgestaltet werden.
- Ausbau fiskalischer Anreize zur Investierung von Start-ups und Anpassung des Steuersystems für Start-ups.
- Entwicklung von Kompetenzen in Leadership, Kreativität, Innovation und Unternehmertum auf Primar- und Sekundärschulstufe.
- Frauen und Unternehmertum: Unterstützung von Programmen zur Re-integration nach Unterbruch bedingt durch Kinderphase.
- Förderung von Spin-offs und erleichterte Zugang zu Technoparks und Inkubatoren und Akzeleratoren.
- Verbesserung von Beratungsdienstleistungen für Start-ups, wobei nicht nur der Zugang der Dienstleistungen, sondern die Bezahlbarkeit solcher Dienstleistungen für Jungunternehmen im Fokus stehen soll.

## Unternehmerische Einstellungen

In 2015 waren die wahrgenommenen Gelegenheiten (41.8%) ein Unternehmen zu gründen tiefer als im 2014, aber über dem Durchschnitt (39.8%) für innovationsorientierte Volkswirtschaften. Nordische Länder (wie Schweden, Norwegen, Finnland), Israel, Kanada, Australien, Niederlande und die USA befinden sich in Top-position bezüglich Wahrnehmung von Gründungsgelegenheiten.

In der Schweiz kann, wie in vorherigen Jahren, eine eher hohe Wahrnehmung von Fähigkeiten (44.0%) kombiniert mit einer tiefen Angst vor Scheitern (33.8%) verzeichnet werden. Während die wahrgenommenen Fähigkeiten in der Schweiz zumindest so gut sind oder eher besser als der europäische Benchmark, sind wir immer noch hinter den Ergebnisse für Einwohner in den USA. Die Erkenntnisse bezüglich Gründungsgelegenheiten und Fähigkeiten können als Signal gesteigertem Selbstvertrauen für unternehmerisches Verhalten interpretiert werden, werden aber durch die Resultate bezüglich unternehmerischen Absichten nicht bestätigt.

Die unternehmerischen Absichten in der schweizerischen Bevölkerung (7.0%) sind auf demselben Niveau wie 2014 aber unter dem Durchschnitt (11.4%) für innovations orientierte Volkswirtschaften. Bemerkenswert sind die Unterschiede zwischen der Schweiz, Norwegen, Israel, Portugal und Australien.

In der Schweiz sehen nur 40.0% Unternehmertum als gute Karrierewahl verglichen zu 79.2% in Niederlande, 64.5% in Israel und 63.4% in Portugal. Es scheint, dass die unternehmerische Karriere immer noch nicht etabliert ist in der schweizerischen Gesellschaft. Die mediale Aufmerksamkeit für Unternehmertum in der Schweiz ist im steigen begriffen und bewegt sich mit 59.5% mittlerweile auf demselben Niveau wieder Durchschnitt der innovationsorientierte Volkswirtschaften

## Gründungsaktivität in der Schweiz

Die Studie 2015 belegt ein leicht höheres Potential bezüglich der erwarteten Schaffung neuer Arbeitsstellen durch Jungunternehmen (Total Entrepreneurial Activity, TEA) und die Schweiz liegt wie im vorherigen Jahr mit der Gründungsrate (7.3%) unter dem Durchschnitt der innovationsbasierten Länder (8.5%). Obwohl die schweizerische TEA-Rate höher ist als in Nachbarländern wie Italien oder Deutschland, sind markante Unterschiede in der Vergleichsgruppe in erster Linie zu Kanada (14.75), Australien (12.8%), den USA (11.9%) und Israel (11.8%) zu verzeichnen.

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 Jobberwartungen) sowie dem unternehmerischen Verhalten von Mitarbeitern nichtstdestoweniger vermehrt Aufmerksamkeit geschenkt werden. Die Schweizer Ergebnisse im Bereich unternehmerischer Mitarbeiteraktivität liegen über dem Durchschnitt der innovationsbasierten Volkswirtschaften und die Resultate für Inhaber/Manager eines etablierten Geschäfts (mehr als 3.5 Jahre alt) sind exzellent.

Die Erhebungen zu den unternehmerischen Einstellungen untermauert die tiefe Gründungsaktivität der 18-24 jährigen Personen insofern, als diese Altersgruppe Unternehmertum als

gute Karrieremöglichkeit betrachten, eine relativ tiefe Angst vor dem Scheitern ausdrücken aber nicht von den eigenen unternehmerischen Fähigkeiten überzeugt sind. Dies kann einerseits ein Indiz für nicht ausgeprägtes Selbstvertrauen sein und andererseits ein Hinweis, dass Personen dieser Altersgruppe nicht unbedingt bereit sind, die Komfortzone einer unselbstständigen Erwerbstätigkeit zu verlassen. Es stellt sich überdies die Frage, ob in der Schweiz zu spät mit unternehmerischen Anreizen und Ausbildungen gestartet wird und nicht schon während der obligatorischen Schulzeit fundiert Unternehmergeist und innovatives Verhalten vermittelt werden sollte.

Ein Einblick in das Branchenprofil illustriert die offensichtliche Betonung auf Wissens- und Dienstleistungsorientierte Branchen in Europa und Nordamerika, derweil in der Schweiz nur wenige Neugründungsprojekte (5.4%) diese Branchen zuzuordnen sind. Der wichtigste Sektor für Neugründungen in der Schweiz sind Projekte in Gesundheit, Erziehung und sozialen Dienstleistungen (27,2%). Finanzen, ICT und Produktion sind männer-dominiert und unternehmerische Aktivitäten von Frauen sind in erster Linie bei den persönlichen Dienstleistungen, im Handel und der Gastronomie vorzufinden.

GEM untersucht auch die Anzahl von Personen die ihre Geschäftstätigkeit in den letzten 12 Monaten aufgegeben hatten. Zuerst muss festgehalten werden, dass der prozentuale

Anteil (1.7%) von Personen, die ihre Geschäftstätigkeit aufgaben der tiefste ist, verglichen mit anderen unternehmerischen Tätigen in innovationsbasierten Volkswirtschaften. Aber ein Element ist bemerkenswert: 50.2% aller Geschäftstätigkeiten wurden in der Schweiz aufgrund der Bürokratie gestoppt. Themen wie komplizierte regulatorische Systeme, welche die Unternehmensgründung und den Unternehmensexit betreffen, bilden unternehmerische Eintrittsbarrieren.

Die Auswirkungen von unternehmerischem Verhalten gemessen an den Wachstumserwartungen bezüglich der Bildung neuer Stellen, Innovationen (vor allem Produkt- und Prozessinnovation) und internationaler Orientierung sind generell positiv bezüglich Innovation und Internationalisierung und eher durchzogene Resultate bei der Gründung neuer Stellen

## Unterschiede nach Sprachregionen

International konnte nachgewiesen werden, dass tiefe Angst vor Scheitern nicht unbedingt zu gesteigerter Gründungsaktivität beiträgt. Vor diesem Hintergrund liefert die Analyse der unternehmerischen Einstellungen nach Sprachregionen interessante Resultate. Die Angst vor dem Scheitern ist in der deutschsprachigen Schweiz (D-CH) ausgesprochen tief. In der französischsprachigen Schweiz (F-CH) weisen signifikant mehr Personen unternehmerische Absichten auf, obwohl die Angst vor dem Scheitern höher ist. Hingegen ist der Status des erfolgreichen Unternehmers ausgeprägt positiv und die unternehmerische Karriere wird als attraktiv bezeichnet. Die italienischsprachige Schweiz (I-CH) kann die hohe soziale Stellung unternehmerischer Aktivität aber nicht in die Gründungsabsichten transferieren.

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Entrepreneurship as a good career choice	40.0	32.9	55.1	79.2
High status to successful entrepreneurs	66.5	63.8	72.5	78.8



## Management Summary (FR)

En Suisse, la Haute école de gestion Fribourg (HEG-FR) a mené l'enquête pour le Global Entrepreneurship Monitor (GEM) en collaboration avec l'ETH Zürich, la SUPSI Manno en Suisse italienne et la ZHAW School of Management and Law. 2'000 entretiens téléphoniques et 36 interviews d'experts ont été réalisés afin d'identifier les attitudes, les activités et les aspirations entrepreneuriales, ainsi que les facteurs de succès déterminant la forme et l'ampleur de l'entrepreneuriat.

Le rapport du Global Entrepreneurship Monitor 2015/2016 pour la Suisse illustre les différences nationales dans les attitudes, l'activité et les aspirations entrepreneuriales. Il relève également les facteurs qui déterminent la nature et le niveau de l'activité entrepreneuriale nationale et identifie 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 le glossaire pour les définitions et sources des indicateurs

\*\* Average innovation-driven economies

### Conditions-cadre entrepreneuriales

Les conditions générales pour entreprendre en Suisse et au Canada sont globalement meilleures que celles qui prévalent dans les autres pays ayant participé à l'étude GEM et dont l'économie est basée sur l'innovation. En Suisse, les résultats sont excellents dans les domaines de la finance, des infrastructures économiques, de la formation tertiaire, du transfert de connaissances et de technologie, ainsi que des programmes gouvernementaux.

Bien que les experts jugent les conditions-cadre entrepreneuriales comme globalement positives, plusieurs points peuvent être améliorés:

- Augmentation des possibilités de financement à chaque étape du cycle de vie d'une entreprise, du capital de départ au financement à long terme. Les services bancaires en Suisse pourraient, par exemple, s'orienter davantage vers la communauté entrepreneuriale.
- Renforcement des incitations fiscales favorisant les investissements dans les startups et ajustement de la fiscalité pour les startups.
- Développement des compétences en leadership, créativité, innovation et esprit d'entreprise à l'école primaire et secondaire.
- Entrepreneuriat féminin: appui aux programmes de réinsertion après les congés maternité.
- Encouragements aux fondateurs de spin-offs et accès facilités aux parcs technologiques et incubateurs / accélérateurs d'entreprises.
- Amélioration des services de conseil aux startups (éventuellement au niveau cantonal), en particulier en termes d'accessibilité de ces services pour les jeunes entreprises/ entrepreneurs et non seulement en termes de disponibilité.

### Attitudes entrepreneuriales

En 2015, le nombre d'opportunités entrepreneuriales identifiées (41.8%) est moins élevé pour la Suisse qu'en 2014, mais se situe en dessus de la moyenne des économies basées sur l'innovation (39.8%). Les pays nordiques (à l'instar de la Suède, de la Norvège et de la Finlande), Israël, le Canada, l'Australie, les Pays-Bas et les États-Unis restent en tête en ce qui concerne les opportunités perçues.

Les Suisses, comme les années précédentes, ont une perception assez élevée de leurs capacités (44.0%) allant de pair avec une faible peur de l'échec (33.8%). Tandis que la perception, en Suisse, de nos compétences est au moins aussi bonne, voire meilleure, que l'indice de référence européen, nous restons à la traîne par rapport aux États-Unis. Ces résultats devraient améliorer la confiance en soi des Suisses et influencer sur le comportement entrepreneurial, mais les intentions entrepreneuriales restent faibles malgré cela.

Les intentions entrepreneuriales de la population suisse (7.0%) sont au même niveau qu'en 2014, mais restent inférieures à la moyenne des économies basées sur l'innovation (11.4%). Par ailleurs, il existe de grandes différences entre la Suisse, les États-Unis, la Norvège, Israël, le Portugal et l'Australie.

En Suisse, seuls 40.0% de la population considèrent l'entrepreneuriat comme un bon choix de carrière par rapport à 79.2% des citoyens aux Pays-Bas, 64.5% en Israël et 63.4% au Portugal. Il semble qu'une carrière entrepreneuriale n'a toujours pas une aura assez positive au sein de la société helvétique. Cependant, on constate que l'attention des médias pour l'entrepreneuriat a augmenté en Suisse (59.5%) et est maintenant comparable à la moyenne des économies basées sur l'innovation.

## Activités entrepreneuriales

L'étude 2015 montre un potentiel légèrement plus élevé de créations de nouveaux emplois par les jeunes entreprises (taux d'activité entrepreneuriale des 18-64 ans, TEA). La Suisse, avec un taux de création d'entreprises de 7.3%, se situe, comme l'année dernière, en dessous de la moyenne des économies basées sur l'innovation (8.5%). Ce taux (TEA) a tendance à être plus élevé en Suisse que dans les pays voisins, tels que l'Italie ou l'Allemagne. Cependant, il diffère considérablement du Canada (14.75%), de l'Australie (12.8%), des Etats-Unis (11.9%) et d'Israël (11.8%).

A l'exception des résultats de l'enquête menée en 2010, le taux d'activité entrepreneuriale (TEA) en Suisse a fluctué généralement entre 6 et 8 pour cent au cours des 10 dernières années. Bien que l'aspect quantitatif du TEA soit d'un grand intérêt pour les décideurs politiques, une plus grande attention devrait être portée aux aspects qualitatifs (attentes faibles versus élevées en matière d'emploi) et aux comportements entrepreneuriaux. Les résultats suisses liés à l'activité entrepreneuriale des employés se situent en dessus de la moyenne des économies basées sur l'innovation et les résultats pour les propriétaires-dirigeants d'une entreprise établie (depuis plus de 3.5 ans) sont excellents.

Par ailleurs, les données récoltées sur les attitudes entrepreneuriales confirment la faiblesse de l'activité de création d'entreprises des 18-24 ans; ce groupe d'âge considère

l'entrepreneuriat comme une bonne opportunité de carrière et manifeste une crainte de l'échec relativement faible, mais n'est pas convaincu de ses propres compétences entrepreneuriales. Ces résultats pourraient être une indication d'un manque de confiance en soi, ou tout simplement que ce groupe d'âge n'est pas prêt à quitter sa zone de confort et son statut d'employé. Deux questions peuvent ainsi être soulevées: les incitations et formations entrepreneuriales sont-elles mises en place trop tard en Suisse? Et doit-on favoriser l'esprit entrepreneurial et un comportement innovateur durant les années de scolarité obligatoire?

Un aperçu des profils industriels nationaux illustre l'importance des secteurs des connaissances et des services en Europe et en Amérique du Nord, alors qu'en Suisse, cette industrie ne représente que 5.4%. Les secteurs qui génèrent le plus grand nombre de nouvelles entreprises en Suisse sont la santé, l'éducation, les services gouvernementaux et sociaux (27.2%). Considérant que les domaines de la finance, des TIC et de l'industrie sont entièrement dominés par les hommes, les activités féminines se rapportent principalement aux services à la personne et services aux consommateurs, aux commerces de détail et à la restauration.

L'étude GEM suit également le nombre de personnes qui ont cessé leur activité entrepreneuriale au cours des 12 derniers mois. En Suisse, le pourcentage de personnes qui

abandonnent cette activité est le plus faible (1.7%) par rapport aux autres économies basées sur l'innovation. Il faut souligner que 50.2% des entreprises qui mettent un terme à leur activité en Suisse le font en raison de la bureaucratie. Les systèmes de réglementation complexes qui augmentent la bureaucratie pour les entreprises peuvent créer des barrières à l'entrée ainsi que des obstacles à la sortie et finir par décourager les futurs entrepreneurs.

L'impact du comportement entrepreneurial, mesuré par les anticipations de croissance en termes d'emplois, d'innovations (principalement d'innovation de produit et de processus) et d'orientation internationale, est de manière générale positif pour ce qui est de l'innovation et de l'internationalisation, mais moins en ce qui concerne la création d'emplois.

### Différences selon les régions linguistiques

Sur le plan international, nous avons pu montrer qu'une faible crainte de l'échec ne contribuait pas forcément à l'augmentation de l'activité de création d'entreprises. Dans ce contexte, l'analyse des attitudes entrepreneuriales selon les régions linguistiques a livré des résultats intéressants. La crainte de l'échec est particulièrement faible en Suisse alémanique (D-CH). En Suisse romande (F-CH), plus nombreux sont les individus qui font preuve d'attitudes entrepreneuriales, bien que la crainte de l'échec s'avère plus élevée. Le statut lié à la réussite de l'entrepreneur est considéré comme particulièrement positif et la carrière d'entrepreneur attractive. Enfin, la Suisse italienne (I-CH), elle, ne semble pas transférer les effets du statut social élevé lié à l'activité entrepreneuriale dans les intentions de créer une entreprise.

GEM Entrepreneurial Indicators				
	CH	D-CH	F-CH	I-CH
Perceived Opportunities	41.8	46.4	29.0	39.8
Perceived Capabilities	44.0	47.0	36.5	31.7
Fear of Failure	33.8	31.8	39.0	49.0
Entrepreneurial Intentions	7.0	6.7	8.8	2.3
Entrepreneurship as a good career choice	40.0	32.9	55.1	79.2
High status to successful entrepreneurs	66.5	63.8	72.5	78.8

## Management Summary (IT)

La Haute école de gestion (HEG) di Friburgo, in collaborazione con il Politecnico (ETH) di Zurigo, la Scuola universitaria professionale della Svizzera italiana (SUPSI) di Manno e la ZHAW School of Management and Law di Winterthur, ha condotto l'indagine 2015 per il Global Entrepreneurship Monitor (GEM). Attraverso 2000 interviste telefoniche e 36 interviste ad altrettanti esperti sono stati rilevati gli atteggiamenti, le attività e le aspirazioni, così come i fattori che influenzano la natura e la dimensione delle attività imprenditoriali.

Il rapporto per la Svizzera del Global Entrepreneurship Monitor 2015 illustra le differenze tra le economie nazionali nelle attitudini, nelle attività e nelle aspirazioni e ambizioni imprenditoriali, rilevando i fattori che determinano la natura ed il livello dell'attività imprenditoriale e le implicazioni politiche relative alla promozione dello spirito imprenditoriale nel confronto internazionale. 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	26/189		Rank in Global Innovation Index	1/141	
Rank in Global Competitiveness Index	1/140		Rank in GEDI Index	67.8 (8/132)	
Rank in Economic Freedom Index	4/178		- Entrepreneurial Attitudes	13/132	
			- Entrepreneurial Ability	11/132	
			- Entrepreneurial Aspiration	6/132	
Rating of GEM indicators for Swiss entrepreneurs *					
	2015	**		2015	**
Perceived Opportunities	41.8	39.8	Total early-stage Entrepreneurial Activity Rate (TEA)	7.3	8.5
Perceived Capabilities	44.0	41.4	Necessity-driven (in % of TEA rate)	10.1	17.9
Fear of Failure	33.8	39.5	Improvement-driven (in % of TEA rate)	65.8	52.5
Entrepreneurial Intentions	7.0	11.4	Entrepreneurial Employee Activity (EEA)	6.5	5.2
Entrepreneurship as a good career choice	40.0	54.7	Established business ownership	11.3	7.0
Owner-Manager in Established Business Rate	11.3	7.0	International orientation (in % of TEA rate)	38.6	20.8

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

\*\* Average innovation-driven economies

### Condizioni quadro per l'imprenditorialità

In Svizzera, le condizioni quadro per fare impresa, analogamente a quelle canadesi, sono risultate complessivamente migliori rispetto a quelle delle 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 conoscenza 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:

- Aumentare le opportunità di finanziamento in tutti gli stadi del ciclo di vita dell'impresa, dal seed capital fino ad una serie di possibili finanziamenti da parte degli istituti finanziari che potrebbero essere erogati ed estesi anche alla comunità imprenditoriale.
- Rivedere gli incentivi fiscali per gli investimenti in start-up e adattare la tassazione delle start-up.
- Sviluppare nella scuola primaria e secondaria le competenze di leadership, quelle legate alla creatività, all'innovazione e all'imprenditorialità.
- L'imprenditorialità femminile: sostenere i programmi di reinserimento dopo congedi di maternità.
- Promuovere gli spin-off e la disponibilità di parchi tecnologici e incubatori/acceleratori di imprese.
- Migliorare i servizi di consulenza alle start-up (possibilmente a livello cantonale) soprattutto in termini di accessibilità di servizi per giovani imprese/imprenditori piuttosto che la loro disponibilità.



### Attitudini imprenditoriali

Nel 2015, in Svizzera, le opportunità percepite per avviare un'attività imprenditoriale (41.8%) sono più basse rispetto all'anno precedente, ma al di sopra della media delle economie guidate dall'innovazione (39.8%). I Paesi Nordici (come la Svezia, la Norvegia e la Finlandia), Israele, Canada, Australia, Paesi Bassi e Stati Uniti restano ai vertici per quanto concerne le opportunità percepite.

Come negli anni precedenti, la Svizzera presenta una percezione sulla capacità di fare impresa piuttosto elevata (44.0%), abbinata ad una bassa paura del fallimento (33.8%). Mentre le capacità percepite in Svizzera sono in linea, o anche migliori, rispetto agli altri paesi europei, vi è comunque un certo ritardo nei confronti degli Stati Uniti. I risultati ottenuti sulle opportunità e sulle capacità percepite in Svizzera possono essere sintomo di una forte fiducia in se stessi per quanto attiene il comportamento imprenditoriale; tuttavia, i risultati sulle intenzioni imprenditoriali non sono altrettanto positivi.

Le intenzioni imprenditoriali degli svizzeri (7.0%), infatti, sono sullo stesso livello del 2014, ma sotto la media dei paesi guidati dall'innovazione (11.4%). Notevoli scarti e differenze sussistono con paesi quali Stati Uniti, Norvegia, Israele e Australia.

In Svizzera solo il 40.0% dei rispondenti vede nell'imprenditorialità una buona scelta di carriera, rispetto al 79.2% dei Paesi Bassi, il 64.5% di Israele e il 63.4% del Portogallo. Sembra quindi che la carriera imprenditoriale non sia ancora sufficientemente radicata nella cultura e nella società svizzera. L'attenzione dei media svizzeri per l'imprenditorialità (59.5%) è aumentata, raggiungendo ora lo stesso livello della media delle economie guidate dall'innovazione.

## Profilo dell'attività imprenditoriale

Nel 2015, la Svizzera presenta un potenziale di creazione di nuovi posti di lavoro da parte delle attività imprenditoriali ai primi stadi (Total Entrepreneurial Activity, TEA) leggermente inferiore rispetto agli anni scorsi. Come per i passati rilevamenti, il tasso di attività imprenditoriale (7.3%) rimane inferiore nel confronto con la media dei paesi guidati dall'innovazione (8.2%). Sebbene il TEA svizzero continui ad essere più elevato rispetto ai paesi limitrofi come l'Italia o la Germania, nel gruppo di confronto solo il Canada (14.7%) l'Australia (12.8%) gli Stati Uniti (11.9%) e Israele (11.8%) differiscono in modo considerevole.

Con l'eccezione del 2010, negli ultimi 10 anni il TEA svizzero oscilla tra il sei e l'otto per cento. Anche se l'aspetto quantitativo del TEA è di grande interesse per i decisori politici, maggiore attenzione deve essere rivolta agli aspetti qualitativi (ad esempio basse, rispettivamente alte, aspettative di posti di lavoro), così come al comportamento imprenditoriale dei dipendenti. I risultati per la Svizzera nel campo dell'attività imprenditoriale dei dipendenti (intraprenditorialità) si situano al di sopra dei livelli medi riscontrati per le economie guidate dall'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 d'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.

Per quanto concerne i settori economici, è evidente per l'Europa e gli Stati Uniti la forte enfasi sui servizi basati sulla conoscenza, mentre per la Svizzera questo settore rappresenta solo il 5.4%. In Svizzera, i settori più importanti nei quali sono costituite nuove imprese risultano quelli della salute, dell'istruzione e dei servizi sociali. Mentre la finanza e le ICT sono praticamente di dominio dei maschi, le femmine sono prevalentemente attive nei servizi alle persone, nella vendita al dettaglio e nella ristorazione.

Il GEM rileva anche il numero di persone che hanno interrotto un'attività negli ultimi 12 mesi. Si evidenzia come in Svizzera la percentuale di persone che abbandonano la propria attività sia la più bassa (1.7%) nel confronto con le

economie guidate dall'innovazione. Un dato è tuttavia degno di nota: il 50.2% di tutte le attività interrotte è dovuto alla burocrazia. Regolamenti e normative sempre più complessi in fase di avvio e di cessazione dell'attività possono produrre barriere sia all'entrata sia all'uscita, disincentivando le persone ad avventurarsi sulla via imprenditoriale.

L'impatto del comportamento imprenditoriale misurato attraverso le aspettative di crescita in termini di occupazione, innovazione (per lo più di prodotto e servizio) e l'orientamento internazionale sono generalmente positivi per quest'ultimi due fattori, ma meno per quanto attiene l'occupazione.

### Differenze tra le regioni linguistiche

A livello internazionale è stato dimostrato che una minore paura del fallimento non contribuisce necessariamente ad una maggiore attività imprenditoriale. In questo senso, l'analisi delle attitudini imprenditoriali per regioni linguistiche mostra dei risultati interessanti. La paura del fallimento nella Svizzera tedesca (D-CH) è particolarmente bassa. Nella Svizzera romanda (F-CH) vi sono più persone che denotano un'attitudine imprenditoriale, anche se la paura del fallimento è più alta. Per contro, lo status correlato al successo degli imprenditori è considerato particolarmente positivo e la carriera imprenditoriale è giudicata attraente. La Svizzera italiana (I-CH) non sembrerebbe trasferire e concretizzare gli effetti dell'elevato status sociale associato all'attività imprenditoriale nelle intenzioni di avviare un'impresa.

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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 2015, 60 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.

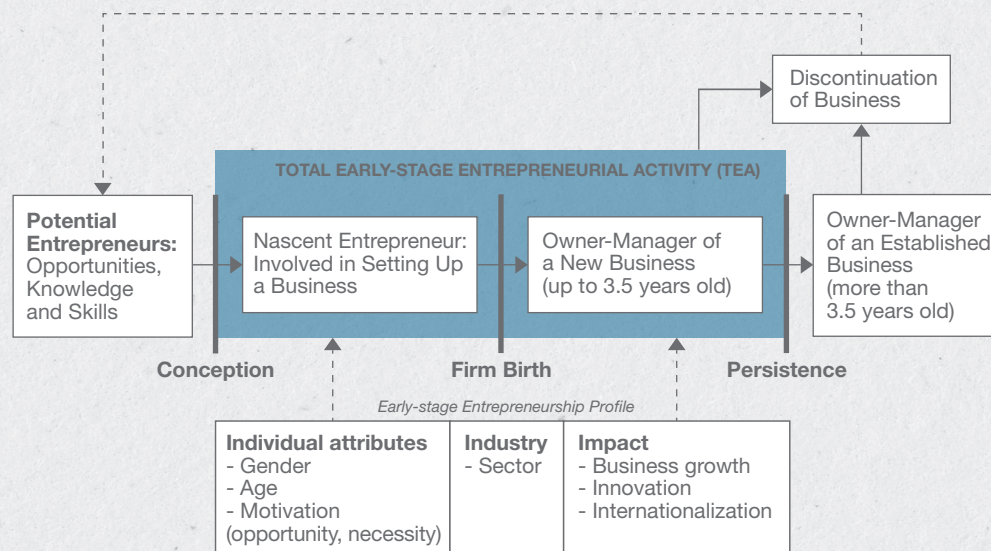
Given that the context and conditions that affect entrepreneurship in different economies are diverse and complex, it is not possible to conclude that one phase inevitably leads to the next. The entrepreneurship process and GEM's operational definitions are illustrated in Figure 1. GEM's conceptualization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

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

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

### 1.3 The GEM Conceptual Framework and Methodology

**Figure 1:**  
The Entrepreneurship Process

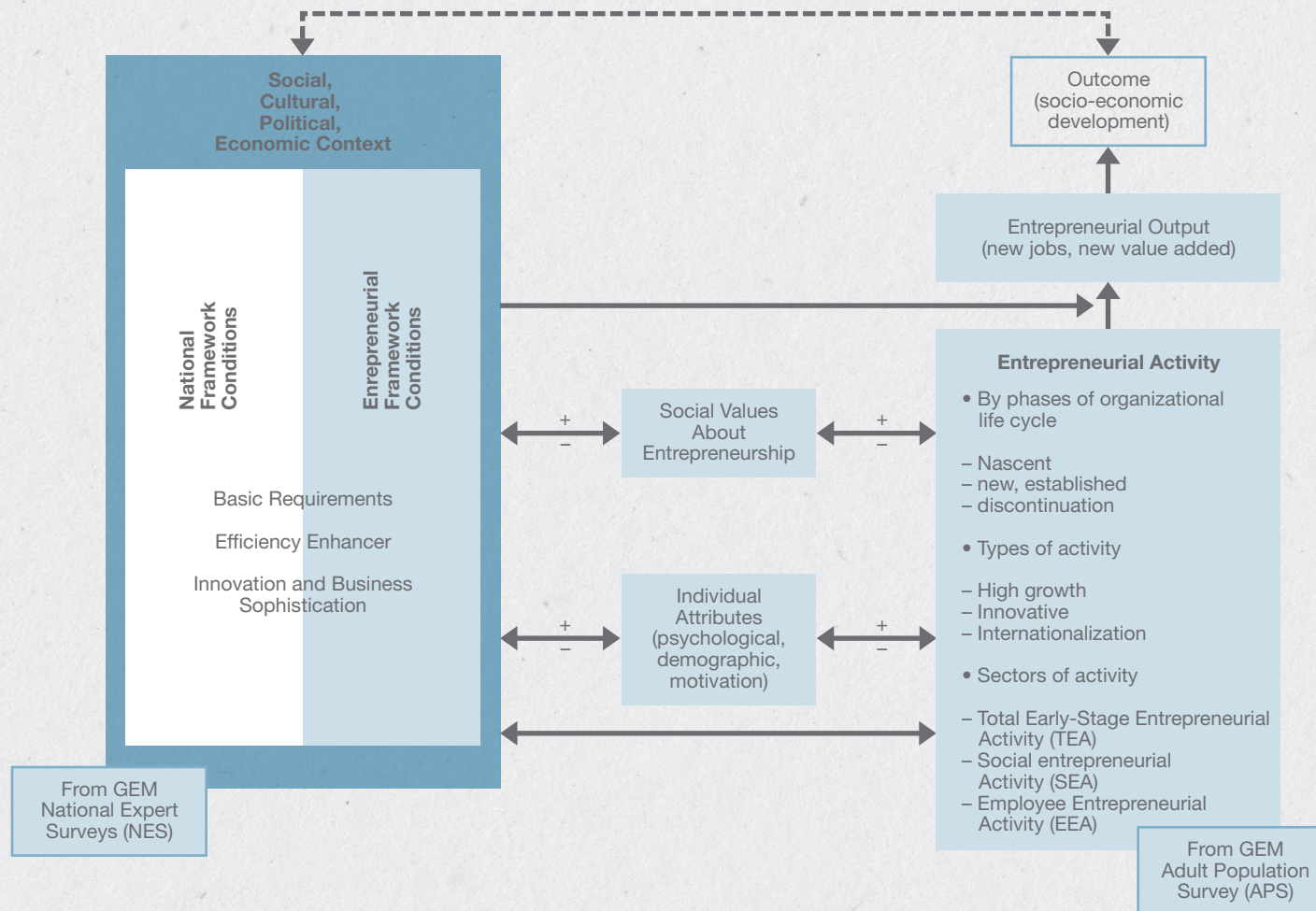


The GEM model shown in Figure 1 sets out key elements of the relationship between entrepreneurship and economic growth and the way in which the elements interact. At the same time, it acknowledges that the contribution entrepreneurs make to an economy varies according to that economy's phase of economic 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 entrepreneurial framework conditions using the national expert survey, and the entrepreneurship profiles, encompassing entrepreneurial attitudes, activity and aspirations using the adult population survey.

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

### ***Adult Population Survey (APS)***

Each participating economy conducts a survey of a random representative sample of at least 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)***

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

- financing
- governmental policies
- governmental programs
- education and training
- research and development transfer
- commercial infrastructure
- internal market openness
- physical infrastructure
- cultural and social norms

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 (Singer et al. 2015, 20).

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

## **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 countries. 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, discontinuations of entrepreneurial activity (and the reasons

for doing so) are estimated, 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 excellent options available to individuals. Bearing this in mind, we can see in Table 1 how Switzerland compares in terms of entrepreneurial perceptions and attitudes to other innovation-driven economies in general and to the comparison group in particular.

<b>Innovation-driven Economies</b>	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	48.9	48.2	41.7	14.4	56.4	70.1	72.3
Belgium	40.3	31.9	48.5	10.9	54.2	54.5	54.7
Canada	53.2	50.5	39.5	11.6	-	-	-
Finland	48.6	37.4	32.6	10.9	33.2	84.9	68.1
Germany	38.3	36.2	42.3	7.2	50.8	75.7	49.8
Israel	55.5	41.6	47.8	21.6	64.5	86.2	54.8
Italy	25.7	30.5	57.5	8.2	60.9	69.0	48.5
Korea	14.4	27.4	38.1	6.6	38.0	53.5	61.5
Netherlands	48.4	40.6	33.2	9.4	79.2	64.5	57.7
Norway	68.9	30.8	33.4	4.8	-	-	-
Portugal	28.1	48.9	40.8	16.2	63.4	62.9	71.6
Spain	26.0	45.3	39.2	5.6	53.2	48.4	46.9
Sweden	70.2	36.7	36.5	8.4	52.7	69.8	61.3
<b>Switzerland</b>	<b>41.8</b>	<b>44.0</b>	<b>33.8</b>	<b>7.0</b>	<b>40.0</b>	<b>66.5</b>	<b>59.5</b>
United Kingdom	41.6	43.6	34.9	8.2	57.8	79.2	61.1
United States	46.6	55.7	29.4	12.4	-	-	-
<b>Average (Innovation-driven Economies)</b>	<b>39.8</b>	<b>41.4</b>	<b>39.5</b>	<b>11.4</b>	<b>54.7</b>	<b>68.4</b>	<b>58.8</b>

► **Table 1:**  
Percentage of People with Specific Entrepreneurial Perceptions, Intentions and Societal Attitudes in selected Innovation-Driven Economies, 2015

\* fear of failure assessed among those seeing opportunities

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

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) only applies 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.

In the 2015 census the **perceived opportunities** (41.8%) to start a business are lower in Switzerland than in 2014 (43.7%), but above the average (39.8%) for innovation-driven economies. The average in the innovation driven countries increased in 2015 (in 2014, 38.8%). Nordic countries (such as Sweden, Norway, Finland), Israel, Canada, Australia, Netherlands and the United States remain at the top when it comes to available opportunities.

Switzerland shows, as in previous years, a rather **high perception of capabilities** (44.0%) paired with a low fear of failure (33.8%). While Switzerland's perception of capabilities is at least as good as, or even better than, the European benchmark, it still lags behind the United States inhabitants' very strong belief in their own capacity to start a business. The findings regarding opportunities and capabilities 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 (7.0%) are on the same level as 2014 but under the average (11.4%) for innovation-driven countries. Most remarkable are the differences between Switzerland, the United States, Norway, Israel, Portugal and Australia. While in Norway only 4.8% of the individuals expect to start a business in the next three years, almost 21.6% of the individuals in Israel, 16.2% in Portugal, 14.4% in Australia and 12.4% in the United States are thinking about setting up a new business.

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, 54.8% have this belief. Only 33.2% in Finland and 40.0% in Switzerland see entrepreneurship as good career choice compared to 79.2% in the Netherlands, 64.5% in Israel and 63.4% in Portugal. It seems that the entrepreneurial career is still not established well enough in Swiss society. **Media attention** for entrepreneurship increased in Switzerland (2014: 50.4%) and is, at 59.5%, now on the same level as the average for innovation-driven economies.

Two countries from innovation-driven countries (Australia, Taiwan), exhibit high levels on all three indicators, with three-fourths or more of people stating that entrepreneurs receive high status, are represented positively in the media, and that entrepreneurship is a good career choice.

## 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). Furthermore, the table offers insights regarding the motivation of an entrepreneurial activity (necessity versus improvement opportunity).

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.

<b>Innovation-driven Economies</b>	Nascent entrepreneurship rate	New business ownership rate	Early-stage entrepreneurial activity (TEA)	Entrepreneurial Employee Activity (EEA)	Established business ownership rate	Discontinuation of businesses
Australia	7.3	5.8	12.8	8.5	8.7	4.5
Belgium	4.5	2.0	6.2	6.1	3.8	1.9
Canada	9.7	5.5	14.7	7.1	8.8	5.0
Finland	4.0	2.8	6.6	5.8	10.2	2.7
Germany	2.8	1.9	4.7	4.5	4.8	1.8
Israel	8.4	3.7	11.8	6.5	3.9	4.6
Italy	3.2	1.7	4.9	1.4	4.5	1.9
Korea	5.0	4.3	9.3	2.4	7.0	2.0
Netherlands	4.3	3.0	7.2	6.3	9.9	2.1
Norway	2.3	3.3	5.7	9.9	6.5	1.6
Portugal	5.6	4.0	9.5	4.0	7.0	3.2
Spain	2.1	3.6	5.7	1.1	7.7	1.6
Sweden	4.8	2.6	7.2	6.4	5.2	2.7
<b>Switzerland</b>	<b>4.6</b>	<b>2.8</b>	<b>7.3</b>	<b>6.5</b>	<b>11.3</b>	<b>1.7</b>
United Kingdom	4.0	2.9	6.9	4.1	5.3	2.3
United States	8.3	4.0	11.9	7.0	7.3	3.6
<b>Average (Innovation-driven Economies)</b>	<b>5.0</b>	<b>3.4</b>	<b>8.2</b>	<b>5.2</b>	<b>7.0</b>	<b>2.9</b>

**Table 2:**  
Percentages of Entrepreneurial Activity in  
selected Innovation-Driven Economies, 2015



### 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:**  
Early-Stage Entrepreneurial Activity (TEA) in selected Innovation-Driven Economies, 2015

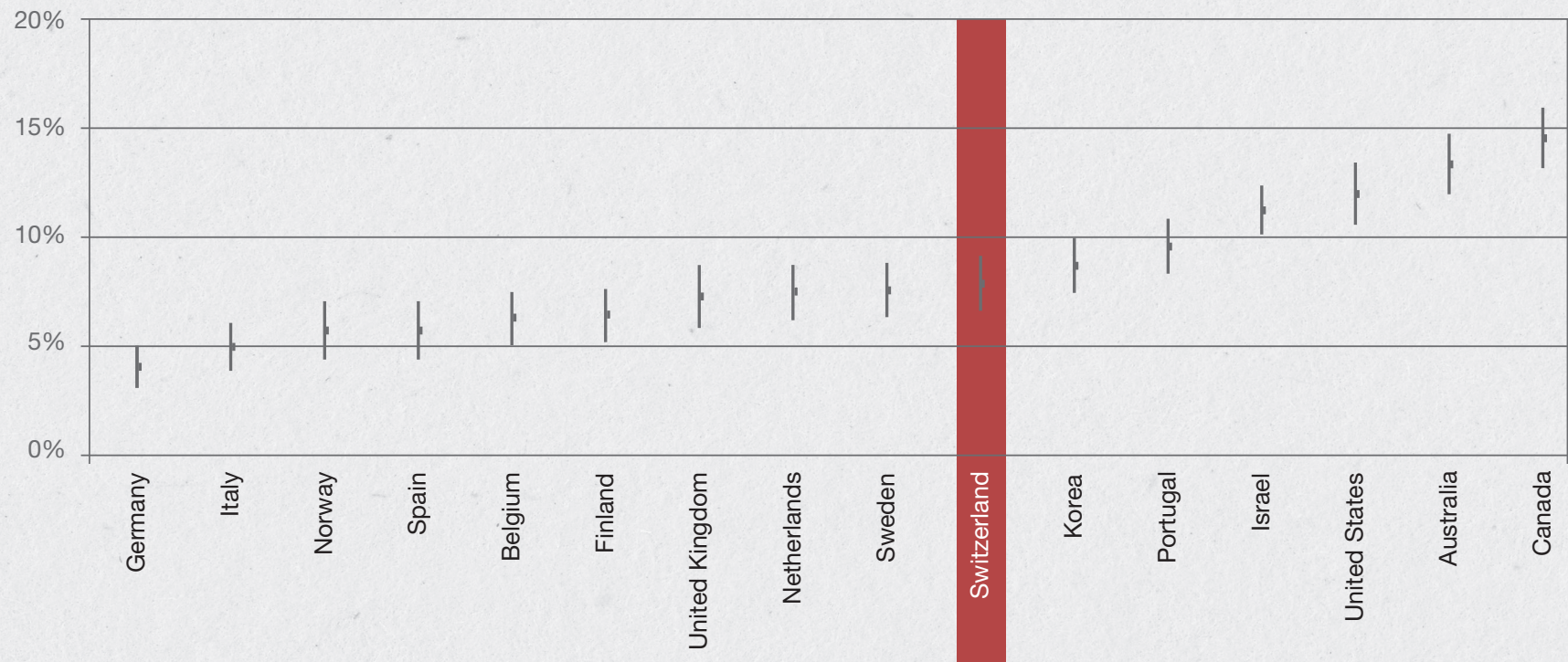


Figure 3 presents the TEA rates for innovation-driven economies. The 95% confidence intervals help to interpret the differences between countries. Although the Swiss TEA rate tends to be higher than in neighboring countries such as Italy or Germany, adopting the 95% certainty, TEA rates of these countries are not statistically different from their Swiss counterpart. Among the comparison group, only Canada (14.75), Australia (12.8%), the United States (11.9%) and Israel (11.8%) differ considerably. 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 in 2010 of only 5%, the most important indicator for entrepreneurial activity once more reaches a normal level (7.3%) but below average for innovation-driven economies.

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

**Figure 4:**  
Total Early-Stage Entrepreneurial Activity (TEA) in Switzerland by Age, 2009-2015



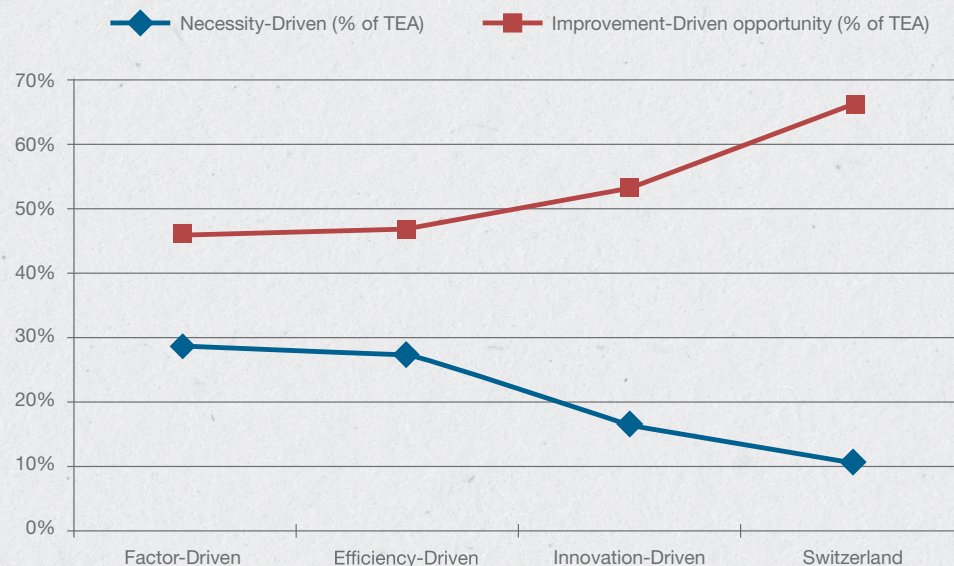
Entrepreneurial activity among the adult population older than 35 is high at 9.7%, whereas the TEA rate of younger Swiss inhabitants still lags considerably behind the 2009 peak. Compared to other innovation-driven countries, the TEA rate for the 18-24 age group is, at 3.1%, the lowest and is clearly below average (6.6%). The rate for entrepreneurs between 25-34 years 8.8% is below the average of innovation-driven economies (10.1%). The TEA rate for people older than 55 years (so-called senior entrepreneurs) is, at 4.9 %, also above the average of innovation-driven countries (5.5%). 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 entrepreneurship 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 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 countries and has remained rather stable over the last three 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.



◀ **Figure 5:** Percentage of Entrepreneurs motivated by Necessity and Opportunity by Phase of Economic Development and Switzerland

Among entrepreneurs with opportunity-driven motives, a portion of these seek 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. Or, they may simply endeavor to make this improvement. On this measure, the factor-driven economies report the lowest proportion of IDO at 43% of all entrepreneurs, and this proportion increases with economic development level.

To assess the relative prevalence of improvement-driven opportunity entrepreneurs 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 three times as many IDO as necessity-motivated entrepreneurs. Australia and four European economies – Switzerland, Norway, Sweden and Luxembourg – have over 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.

**Table 3:**  
Motivational Index in selected  
Innovation-Driven Economies

	Improvement-driven opportunity (% of TEA)	Necessity-driven (% of TEA)	Motivational Index (IDO/ND)
Australia	66.0	12.7	5.2
Belgium	44.3	27.5	1.6
Canada	55.9	13.5	4.1
Finland	63.0	15.0	4.2
Germany	64.2	17.1	3.7
Israel	40.9	12.4	3.3
Italy	30.0	18.7	1.6
Korea	62.1	24.4	2.6
Netherlands	65.3	14.7	4.5
Norway	66.4	10.6	6.3
Portugal	35.9	24.5	1.5
Spain	44.5	24.8	1.8
Sweden	52.6	9.2	5.7
Switzerland	65.8	10.1	6.5
United Kingdom	51.2	23.9	2.1
United States	69.0	14.3	4.8
<b>Average (unweighted)</b>	<b>54.8</b>	<b>17.1</b>	<b>3.7</b>

### 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.

Together with the TEA, the Swiss rate for established business (11.3%) is higher in 2015 (Figure 6) than in previous years. It is notable that the proportion of early entrepreneurial activity and established business remained below the average for innovation-driven economies (6.9%). 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 (Finland, and Netherlands), shows comparatively high-established business ownership.

Compared with the 2014 data, it's notable that the importance of retirement decreased and was replaced by bureaucracy as a factor in deciding to stop the business.



◀ **Figure 6:**

TEA Rates and Established Business Rates from 2003-2015 in Switzerland

### **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.

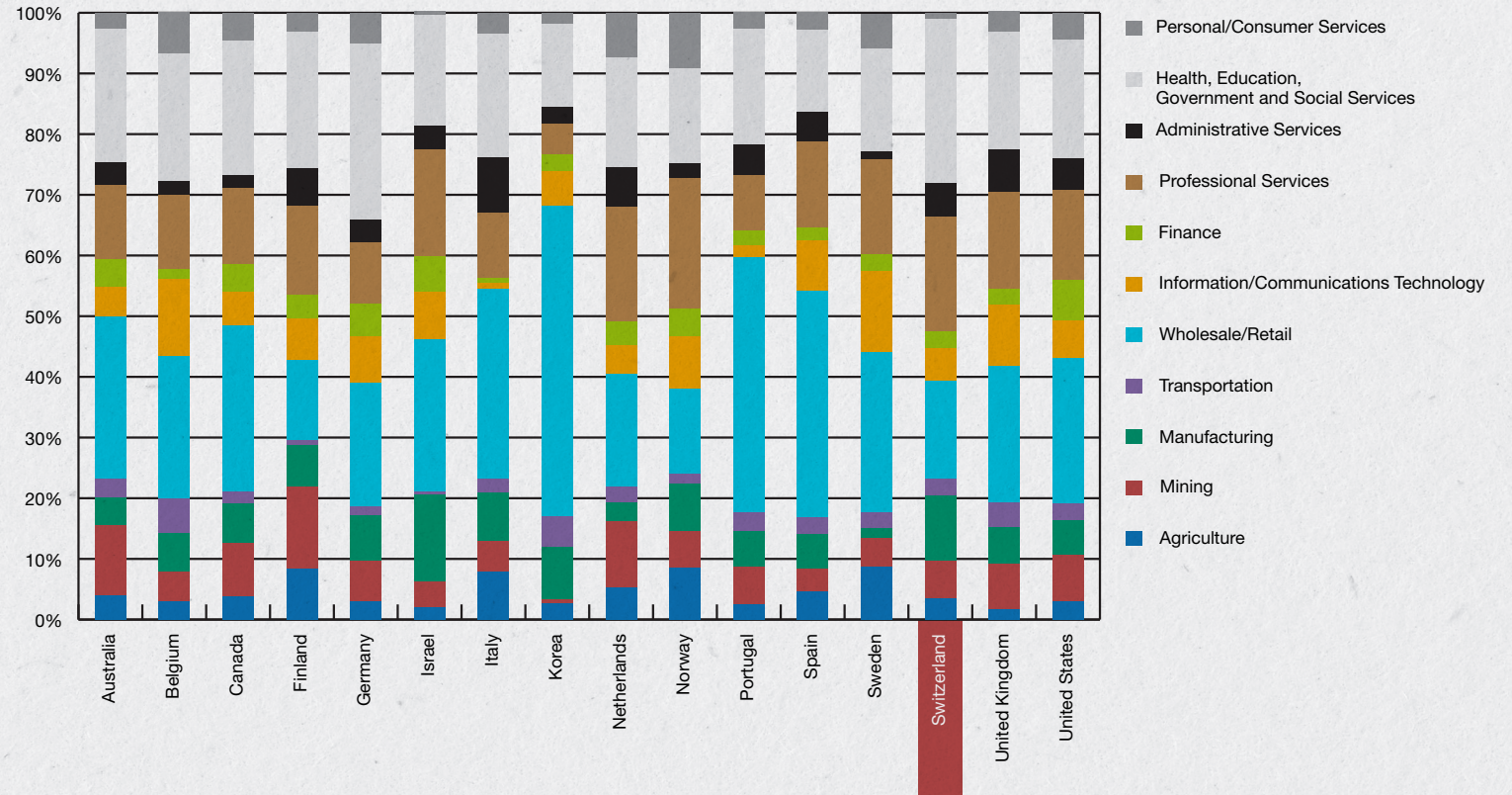
In contrast, information and communications, financial, professional, health, education and other services represent over half the entrepreneurs in North America and nearly half of those in Europe. However, less than one-fourth of entrepreneurs in the other two regions appear in the industry sector by economy and region.

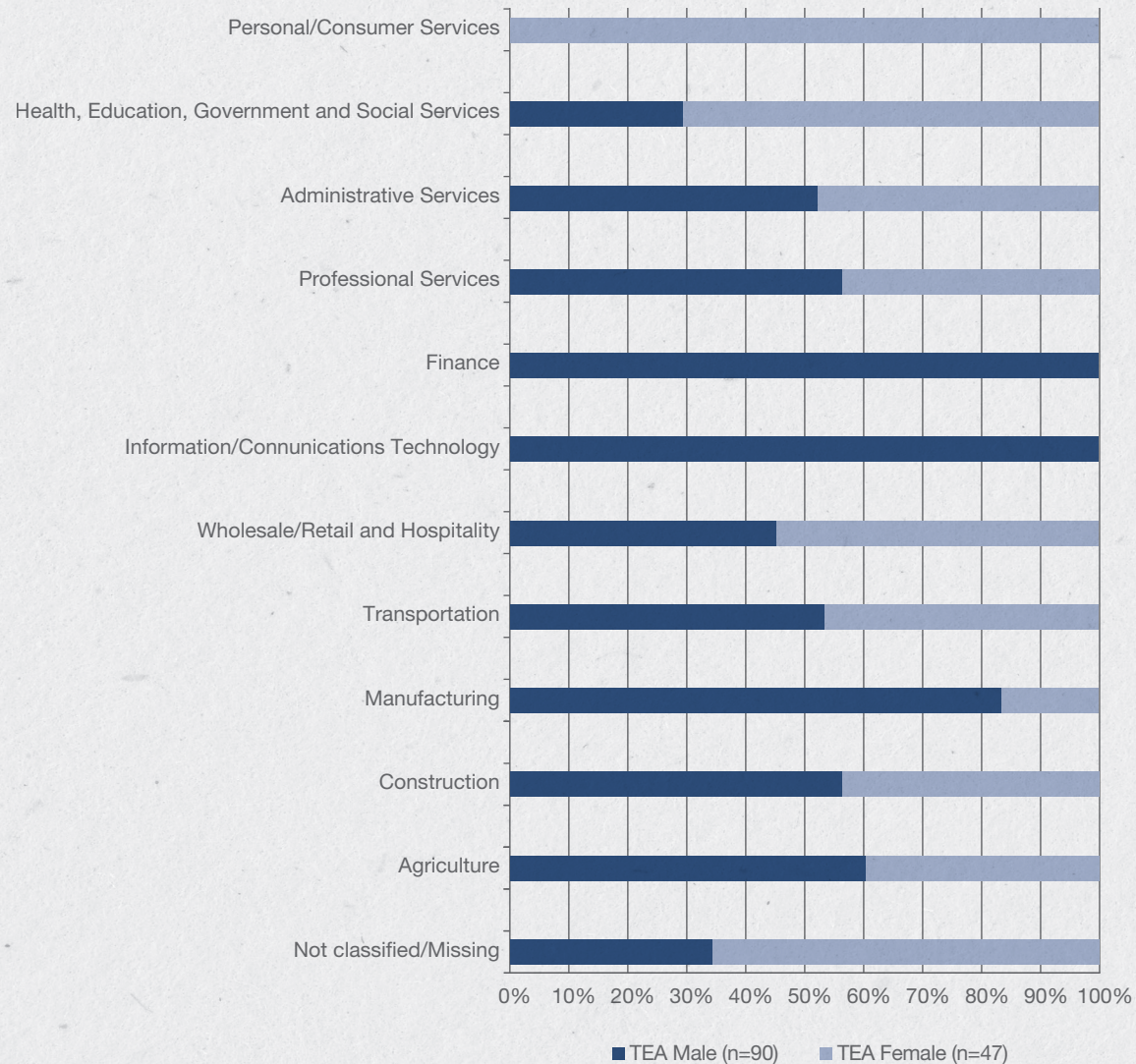
A look into the industry profile across the individual economies illustrates the diversity of entrepreneurship around the world. The emphasis on knowledge and service-based industries in Europe and North America is obvious. In innovation-driven economies, technology and service activities are most common among entrepreneurs. Sweden and Belgium report the highest level of information and communications technology (ICT) entrepreneurs (13% for both) whereas only 5.4% are in this industry in Switzerland.

More than 15% of entrepreneurs operate professional services businesses in Israel and a number of European countries (Norway, the Netherlands, Switzerland, Luxembourg, United Kingdom and Sweden). Finance is most predominant among entrepreneurs in Slovakia and Luxembourg (11% and 9%, respectively).



**Figure 7:**  
Industry Distribution of TEA in  
selected Innovation-Driven  
Countries, 2015





Finally, over one-fourth of entrepreneurs in Germany and Switzerland operate service businesses in health, education, government and social concerns. The most important part of new ventures is created in Switzerland in health, education, government and social services (27.2%). This is after Germany (29%) showing the highest percentage and followed by Finland (22.4%) and Canada (22.2%).

Whereas finance and ICT and manufacturing are fully male dominated, women’s activities refer principally to Personal/Consumer Services, Retail and Restoration.

◀ **Figure 8:**  
Industry Distribution  
of TEA Male and TEA Female, 2015

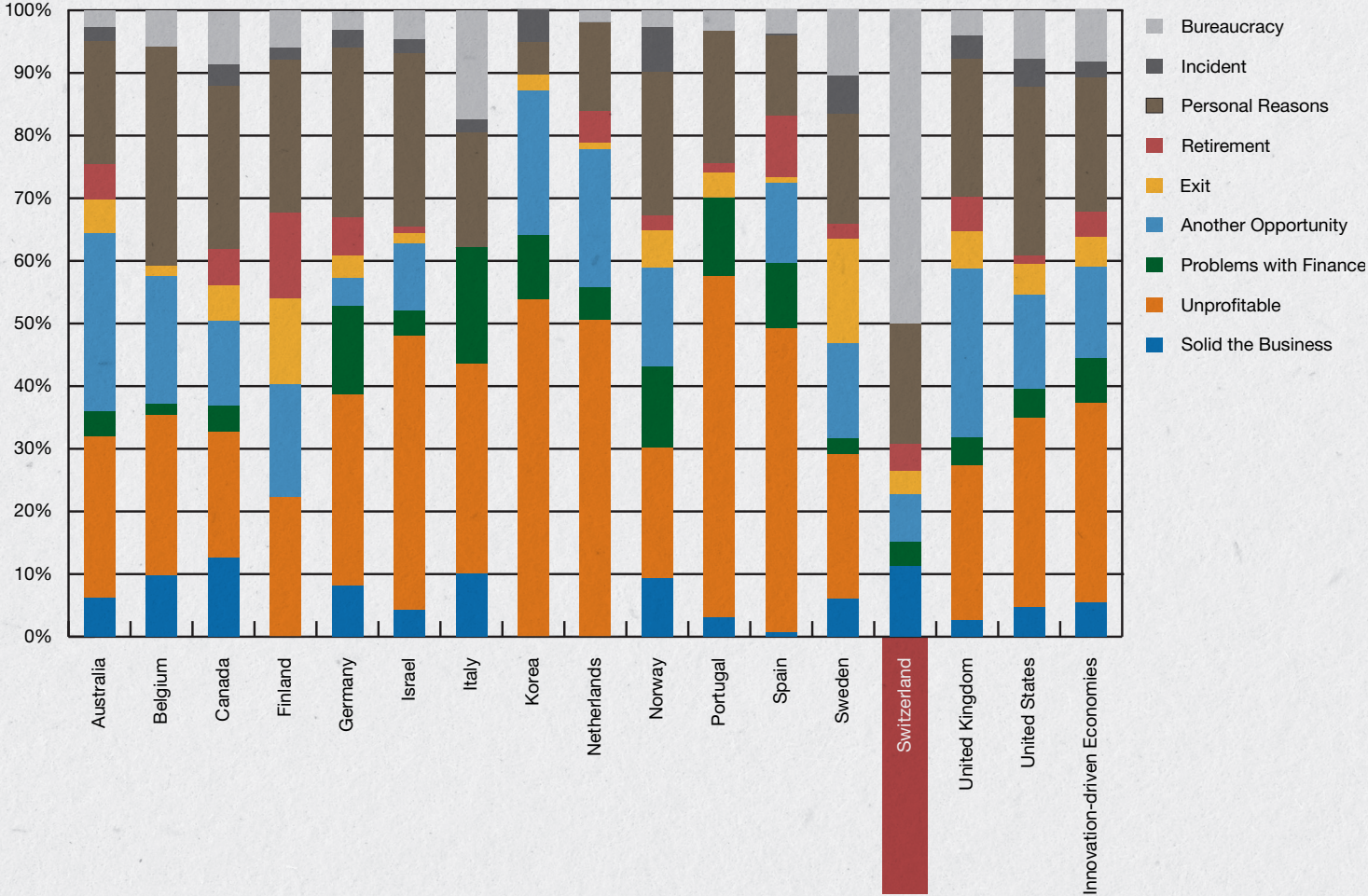
### 2.2.5 *Discontinuance*

As new businesses emerge, others close. Those 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. Discontinuance may be considered – along with TEA and established businesses – as 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 the lowest (1.7%) compared to their peers of innovation-driven economies.

But one fact is remarkable: 50.2% of all businesses stopped in Switzerland is due to bureaucracy. Issues such as complicated regulatory systems that increase the bureaucracy of starting and exiting businesses may produce barriers to entry, as well as barriers to exit, reducing people's willingness to venture into starting a business. Figure 9 shows that the average for innovation-driven countries is lower in all countries and in Finland, Norway, and Sweden finances are a less important reason for stopping a business.

For a substantial portion of entrepreneurs, discontinuance was already planned in advance (meaning that the business start-up was merely considered a 'project'), or resulted from another job or business opportunity or even from the opportunity to sell the business. These 'positive' reasons for discontinuing businesses explain 16.1% (compared to 40% in 2013) of all discontinuations in Switzerland. The opportunity to sell the business as reason to discontinue with the business merits attention. In 2015, 11.2% of businesses that ceased trading were sold (Figure 9).

**Figure 9:**  
Reasons for Discontinuing a Business in selected Innovation-Driven Countries, 2015



Retirement is an issue in innovation-driven economies, for example, especially in several European countries and Japan — countries that are facing challenges with their ageing societies. The Swiss data for 2015 reveals that retirement isn't an important reason why 4.3 % of all businesses were stopped in the last 12 months. On average one in five entrepreneurs stopped their business due to personal reasons.

### **3 *Impact – Growth, Innovation, and Internationalization***

Over the years, the issue of the outcome and impact of entrepreneurship has been attracting increasing attention (Wennekers & Thurik, 1999) (Rocha, 2004). It is generally acknowledged that entrepreneurship produces notable social benefits and contributes to economic growth (Audtretsch & Keilbach, 2008). It does so, for example, by creating new jobs and boosting competitiveness (van Stel, Wennekers, & Scholman, 2014), as well as by ramping up productivity and setting up clusters (Li, de Zubielqui, & O'Connor, 2015). Entrepreneurs who wish to remain competitive and to respond to the challenges of an ever more complex, dynamic, and multi-disciplinary market, create and disseminate new technologies, develop and manufacture new products or innovative processes, adopt new organisational structures, open new markets (be they geographical and/or sectoral) and, not least, apply new business models (Audtretsch, 2002). By creating new enterprises, entrepreneurs fuel the existing competition, and that is no less useful to consumers, since they are given access not only to a much wider choice – and quality – of supply, but also to lower prices.

The GEM measures the impact of entrepreneurship through the aspirations of entrepreneurs; namely, it measures their growth expectations in terms of jobs, innovation (mostly product- and services-oriented innovation) and international orientation. These forms of entrepreneurial aspiration have indeed been positively associated with the economic development of a nation or a region (Bosma & Schutjens, 2011)

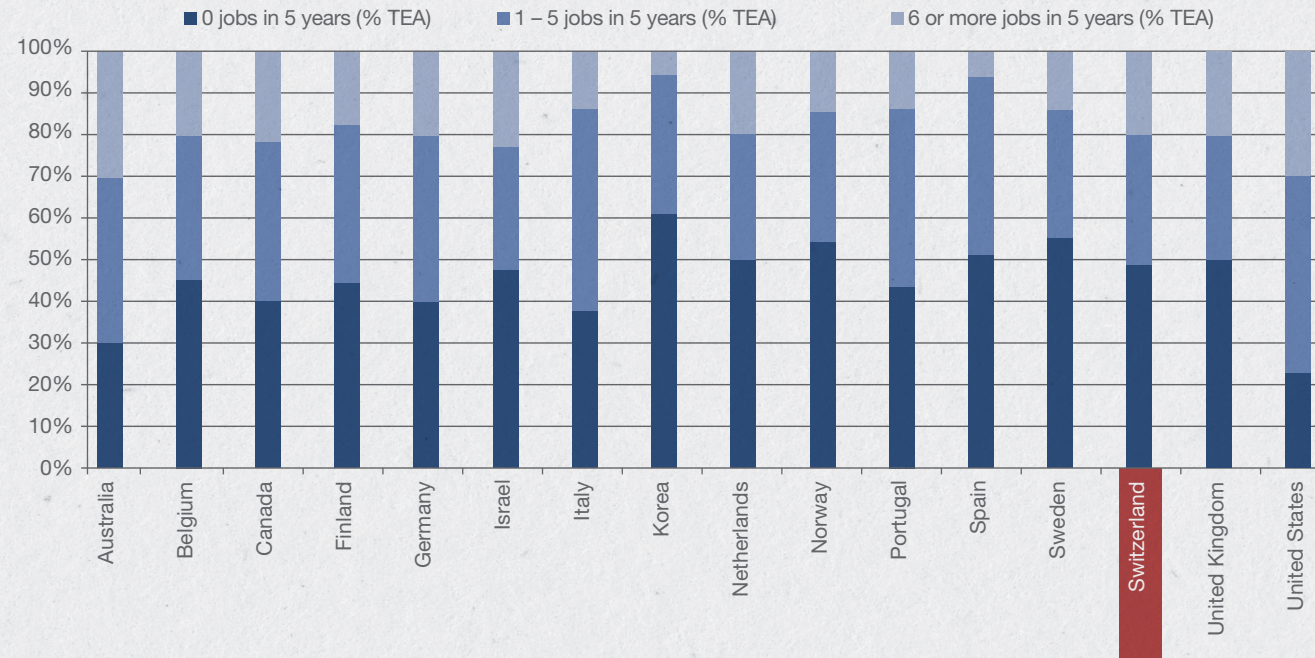
### 3.1 *Growth Orientation*

As may be deduced from the Green Book on entrepreneurship, published by the European Commission in 2003, entrepreneurship contributes significantly to job creation and growth. The creation of new jobs tends increasingly to depend on newly-created and small-sized firms, rather than on large firms. In countries where entrepreneurial activity has been considerably stepped up, unemployment rates have tended to go down. In many countries, the issue of job creation is very heartfelt, definitely in the wake of the economic crisis, which undeniably and inevitably cut employment levels. For this reason, a relevant indicator for entrepreneurship is its capacity to produce new jobs, inasmuch as it can act as **proxy** for business growth expectations and for the potential impact of newly-established firms on the dynamics of the job market.

Entrepreneurs, defined according to GEM's criteria, were, at the time of the survey, asked the numbers currently on their payroll and the payroll numbers expected five years on. Figure 10 illustrates the TEA (divided according to growth expectations in terms of payrolls).

Overall, and this also applies in countries with high TEA figures, there are relatively few new entrepreneurs who expect to recruit six or more new staff in the next five years. This is also the case in Switzerland. In fact, just under 49% of entrepreneurs declared that they were not predicting an expansion in staff numbers over the next five years; 32% anticipated an increase of 1 to 5 staff members and 19% of over 6, the last percentage figure being slightly lower than the average for innovation-driven economies.

**Figure 10:**  
Job Growth Expectations for  
Early-Stage Entrepreneurship  
Activity (in selected Innovation-  
Driven Economies)



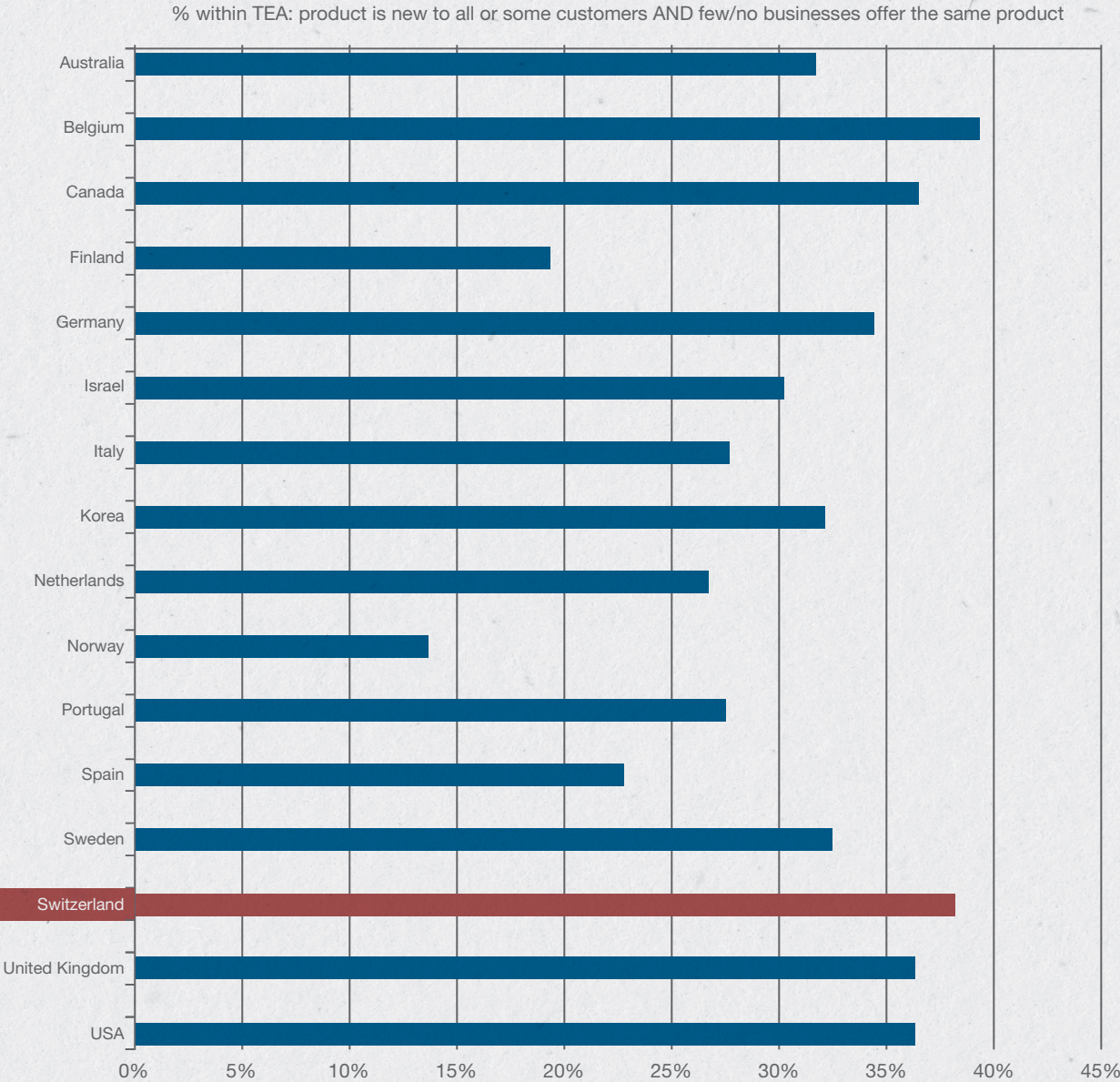


### **3.2 *Innovative Orientation***

Those entrepreneurs who engage in innovation, in all its forms, facets, and typologies make a substantial contribution to economic growth. Compared to consolidated firms, which might be suffering from organisational inertia and so be limited in their capacity to react to market changes, and to some possible cannibalisation of their portfolio of products and/or services, new businesses are usually more active in pursuing entrepreneurial opportunities. Figure 11 shows the percentage of early-stage entrepreneurs that are innovation-driven, their innovative potential being defined by the launch of new products for some or all of their clients, as well as by the uniqueness of their product.

The results recorded by Switzerland for 2015, with a percentage of 38.5%, were higher than the average of innovation-driven countries, set at 31%. In the overall ranking, which includes other nations that have joined the GEM project, our country comes 7th, behind Chile and India – which top the list – and, when compared to countries closer to us: Luxemburg, Ireland, and Belgium.

**Figure 11:**  
Innovation Levels of TEA  
(product is new to all or some  
customers AND few/no  
businesses offer the same  
product), in selected  
Innovation-Driven Economies

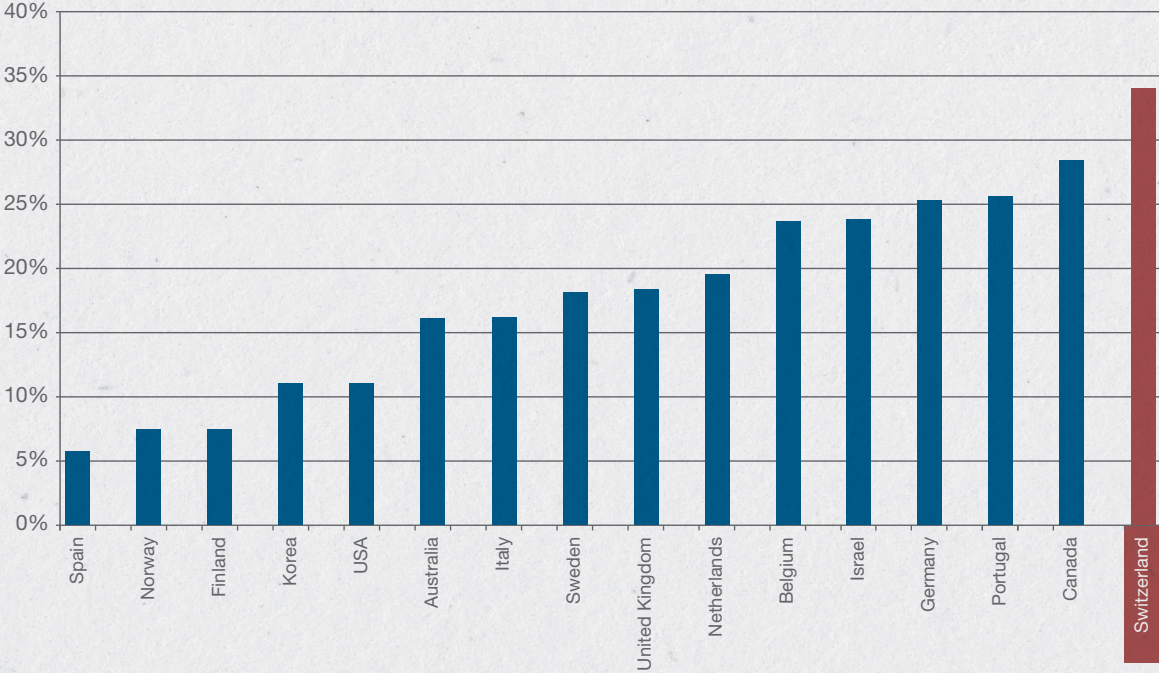


### 3.3 *International Orientation*

In recent years, the number of theoretical and empirical research papers on the international orientation of entrepreneurial phenomena has risen exponentially. As fields of study, entrepreneurship and internationalization are very much inter-connected. Foreign-market entry and international entrepreneurship may be seen as two sides of the same coin or process, i.e. the growth of enterprise (Zahra & George, 2002). International entrepreneurship may be defined as a combination of innovation, proactive attitude, and risk-taking, across national borders, set to create corporate value (Oviatt & McDougall, 2000). The GEM measures the extent of internationalization based on the number of customers outside the country of origin. With regard to the nations compared, as we deduce from the following Figure, the international orientation of Swiss early-stage firms appears rather high.

The proportion of early-stage entrepreneurs having at least 25% of foreign clients, is 38.6%, revealing an increase of 8 percentage points over the figure recorded in 2014, and one of the highest of all innovation-driven countries, with an extra 19 percentage points above the average. Compared to innovation-driven countries, therefore, Switzerland reasserts its position among countries with a clear international orientation (Baldegger, 2013). It is worth stressing, however, that as a rule, an economy with a small domestic market tends to focus much more on internationalization than economies with a large domestic market.

**Figure 12:**  
Percentage of TEA with more than 25% of customers from abroad (in selected Innovation-Driven Economies)



## 4 *Entrepreneurial Framework Conditions*

The GEM model illustrates the relevant national conditions that impact economic development and activity in general and also those that facilitate innovation and entrepreneurship in particular. The National Experts' Survey (NES) data provides insights into the Entrepreneurial Framework Conditions (EFCs) that assess the climate defining inputs and outputs of entrepreneurial activity. This set of framework conditions is expected to concern public and policy makers in all economies. The features that are expected to have a significant impact on the entrepreneurial sector are captured in the 9 EFC total that are illustrated and described in Table 4 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 experts completed a closed questionnaire on factors relating to our entrepreneurial environment. In contrast to last year, this year's experts' responses were measured on a 9-point instead of a 5-point Likert scale to achieve greater accuracy and sensitivity. (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)

► **Table 4:**  
Entrepreneurial framework conditions

- 
- 1. Entrepreneurial Finance.** The availability of financial resources—equity and debt—for small and medium enterprises (SMEs) (including grants and subsidies).
  - 2. Government Policy.** The extent to which public policies support entrepreneurship. This EFC has two components:
    - 2a.** Entrepreneurship as a relevant economic issue and
    - 2b.** Taxes or regulations are either size-neutral or encourage new firms and SMEs.
  - 3. Government Entrepreneurship Programs.** The presence and quality of programs directly assisting SMEs at all levels of government (national, regional, municipal).
  - 4. Entrepreneurship Education.** The extent to which training in creating or managing SMEs is incorporated within the education and training system at all levels. This EFC has two components:
    - 4a.** Entrepreneurship Education at the basic school level (primary and secondary) and,
    - 4b.** Entrepreneurship Education at post-secondary levels (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. Entry Regulation.** This EFC contains two components:
    - 7a.** Market Dynamics: the level of change in markets from year to year, and
    - 7b.** Market Openness: the extent to which new firms are free 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.** The extent to which social and cultural norms encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income.
-

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 5 would indicate that the expert regarded the factor as somewhat negative for entrepreneurship. Table 5 displays the assessed values of the nine EFCs in Switzerland as well as the values of selected innovation-driven countries (benchmark economies) that serve as a comparison group to make more sense of our data.

The financial support framework condition describes the supply and demand of financial resources, especially for new and expanding businesses. Experts evaluate Switzerland's financial environment for entrepreneurship and innovation slightly positively (5.3/9), higher than the average of innovation-driven economies. Netherlands (5.7/9), U.S. (5.4/9) and U.K. (5.4/9) offer a slightly better financial framework. As room for further improvement, experts strongly emphasize the areas of increasing the funding opportunities in each maturity stage, from seed capital to series financing. An example is the scope of banking services in Switzerland, which could extend more to the entrepreneurial community.

The government policy condition 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 frame-

work requirement is valued positively in Switzerland. This year Switzerland also lies clearly above the average of all innovation-driven economies; however, local experts see the potential for improvement, especially in fiscal incentives for startup investments and adjusted taxation for startups.

The government entrepreneurship programs condition relates to the presence of programs (at national and regional levels) and other initiatives to support new and growing firms. Experts in Switzerland rate the presence of government programs to support new and growing firms positively (5.9/9), whereas the average of innovation-driven economies is (4.6/9). One further area of improvement could be achieved with regard to female entrepreneurship, especially supporting re-integration programs after maternity leaves.

The entrepreneurial framework condition education and training relates to the extent to which entrepreneurship and entrepreneurial qualities receive attention in all phases of the educational and training system. Here, Switzerland is ranked above the average of innovation-driven economies; however, this is one of the EFCs where experts see major potential for improvement. Experts criticize the lack of attention that is given to competency development in leadership, creativity, innovation & entrepreneurship in primary and secondary school levels of education. On the other hand, Swiss experts evaluate the post-secondary education (colleges, university and

professional education) more positively. Here, Switzerland is rated above all other benchmark economies with (6.2/9) where the average is (4.6/9)

The R&D transfer condition 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 quite positively (6.2/9), especially, when compared to the benchmark economies; all other innovation-driven economies are rated lower. Local experts have special words of praise for the ease of founding spin-offs and the availability of techno parks and incubators/accelerators.

The commercial and legal infrastructure framework conditions relate to the presence of property rights, commercial, accounting, and other legal and assessment services and institutions that support or promote SMEs. In this framework requirement, the Swiss value is not topped by any other country. Experts see areas of improvement in startup advisory services (possibly at cantonal level) especially in affordability of such services by young firms/entrepreneurs rather than their availability.

The entry regulation condition has two components; internal market dynamics and market openness. Internal market dynamics refers to the level of dramatic change in markets from

year to year. This has an inverse scaling: hence, smaller values are regarded more positively. On the other hand, internal market openness relates to the extent to which new firms are free to enter existing markets. With respect to the average of all innovation-driven economies, the Swiss economy was stable in 2015 without many drastic changes in goods & services in B2B and B2C markets. Moreover, local experts rated market openness as favorable, where Switzerland tops all the benchmark economies.

The physical infrastructure refers to the presence of and access to available physical resources, e.g. communication, utilities, transportation, land or space, at a price that does not discriminate against new, small, or growing firms. In 2015, Switzerland ranked highest for physical infrastructure of all assessed countries.

The cultural and social norms are the extent to which norms encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income. In this EFC, Switzerland ranks among the highest of the benchmark economies (5.8/), just below Israel (7.4/9), U.S (6.8/9) and Canada (5.9/). To achieve a desirable place, local experts emphasize the change in mindset towards becoming more failure tolerant and less risk averse in entrepreneurial ventures.

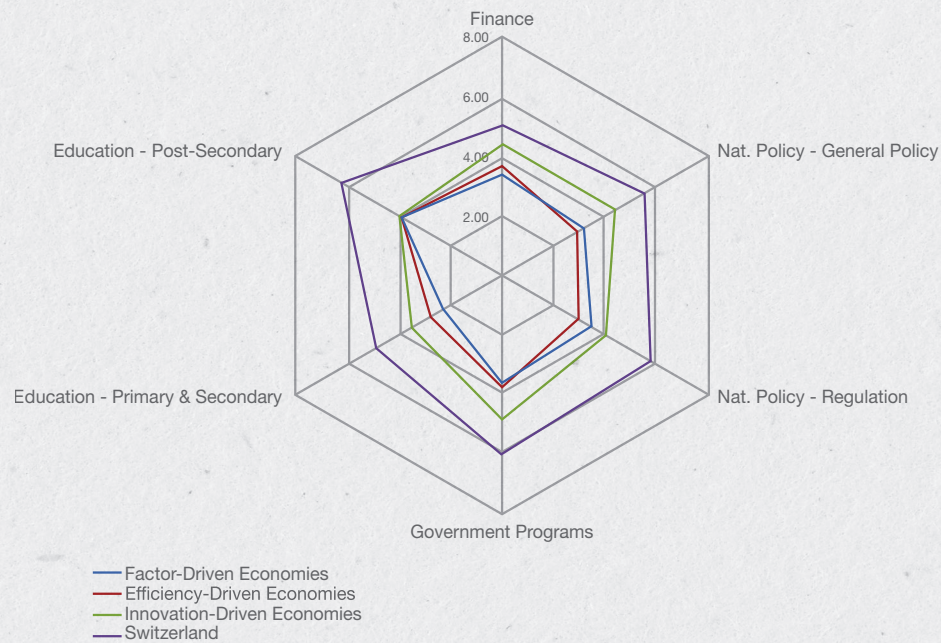


**Table 5:**  
Entrepreneurial Framework Conditions in selected Innovation-Driven Countries

	1 Financial environment related to entrepreneurship	2a Concrete government policies, priority and support	2b Government policies, bureaucracy, taxes	3 Government programs	4a Entrepreneurial education at primary and secondary levels	4b Entrepreneurial education at vocational and professional levels
Australia	4	3.7	4.2	4.2	3.7	4.2
Belgium	5.3	6.5	3.2	4.8	3.1	5.4
Canada	5.2	4.7	5.2	5	4.1	5.3
Finland	4.3	5.4	4.9	4.6	3.9	4.2
Germany	4.3	4.3	3.9	5.6	2.7	4.1
Israel	5.1	3.7	2.5	3.9	3	4.3
Italy	4	3.1	2.4	3.3	3	4.3
Japan	4.2	5	3.7	4.1	2.3	4.2
Korea	3.9	5.8	4.6	5	2.8	4
Netherlands	5.7	5.4	5.8	5.8	4.9	5.6
Norway	4.2	3.7	4.3	4.4	4.1	4.1
Portugal	4.7	5	5.8	4.7	5.6	4.7
Spain	4	4	3.8	4.8	3.5	4.2
Sweden	4.7	4	3.9	4.6	3.8	3.9
<b>Switzerland</b>	<b>5.3</b>	<b>5.7</b>	<b>5.8</b>	<b>5.9</b>	<b>4.9</b>	<b>6.2</b>
United Kingdom	5.4	4.6	4.4	4.5	4	5
United States	5.4	4.4	4.6	4.1	3.5	4.4
<b>Average of all innovation-driven economies</b>	<b>4.6</b>	<b>4.5</b>	<b>4.2</b>	<b>4.6</b>	<b>3.5</b>	<b>4.6</b>

Average scores from Likert scales of 9 points (1 = highly insufficient, 9 = highly sufficient).

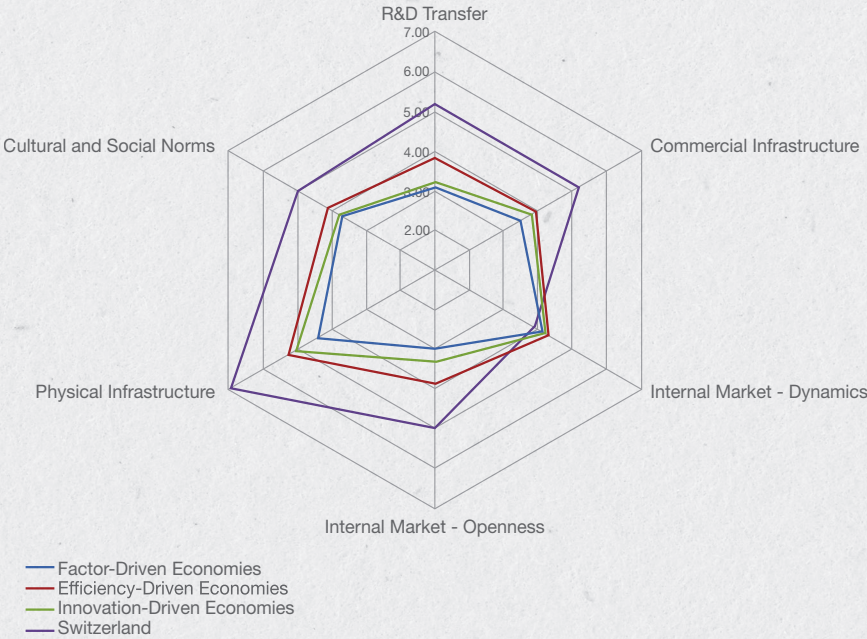
	5	6	7a	7b	8	9
	R&D level of transfer	Access to professional and commercial infrastructure	Internal market dynamics	Internal market burdens	Access to physical infrastructure and services	Cultural and social norms, social support
Australia	3.7	5.1	4.7	4.7	6.5	4.8
Belgium	4.6	6.2	4.8	5.1	6.4	4.1
Canada	4.3	6.3	3.8	4.9	7	5.9
Finland	3.9	5.7	5.4	4.6	7.6	4.5
Germany	4	5.9	4.5	5.2	6.4	4.2
Israel	4.4	5.6	4.1	3.5	6.4	7.4
Italy	3.9	4.3	4.3	4.2	5.1	3.5
Japan	4.5	3.5	6.5	4.3	6.9	3.8
Korea	3.6	4	7.3	3.3	7	4.9
Netherlands	5.1	5.9	5	6	7.4	5.7
Norway	4.2	5.5	5.2	4.2	6.8	4.7
Portugal	5.3	4.6	5.4	5	3.5	5.2
Spain	3.9	4.4	4.4	4.3	5.1	4.4
Sweden	4	5.1	5.7	4.5	7.5	5
<b>Switzerland</b>	<b>6.2</b>	<b>6.3</b>	<b>4.5</b>	<b>5.7</b>	<b>7.9</b>	<b>5.8</b>
United Kingdom	4.2	5	5	4.7	5.9	5.3
United States	4.2	5.4	5.6	4.4	7.1	6.8
<b>Average of all innovation-driven economies</b>	<b>4.3</b>	<b>5.2</b>	<b>5</b>	<b>4.6</b>	<b>6.5</b>	<b>4.9</b>



Overall, Figure 13 clearly shows that, when compared to all three groups of economies, local experts emphasise primary & secondary education, and the importance of starting as early as possible in instilling the entrepreneurial culture. On the other hand, Figure 14 shows the clear edge Switzerland enjoys in the EFC of physical infrastructure and especially research & development. Here Switzerland could build on this to achieve its true potential by adopting a more failure-tolerant stance on entrepreneurial activities.

**Figure 13:** Composite indicators on Entrepreneurship Framework Conditions, by stage of development compared to Switzerland

**Figure 14:**  
Composite indicators on  
Entrepreneurship Framework  
Conditions, by stage  
of development compared  
to Switzerland



<sup>1</sup>Note: Internal market – dynamics is an inversely scaled indicator.

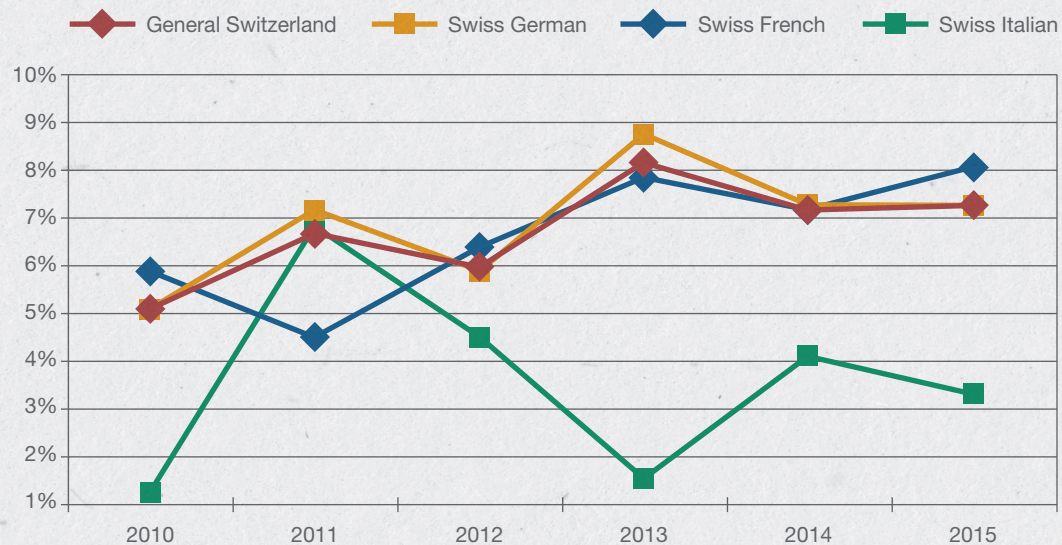
## 5 *GEM Highlights in Switzerland*

Among the various different characteristics of the entrepreneurial landscape in Switzerland, the following topics are of particular interest to the local GEM team. On one hand, Switzerland has a very diverse ethnic population with three major ethnic groups and their own official languages. This particular situation leads to distinct situations among each of the surveyed language regions regarding societal values towards entrepreneurship as well as entrepreneurial ambitions and activities. On the other hand, the Swiss economy is known as one of the most competitive in the world (Schwab et al, 2016) and unemployment rates are uniquely low compared to most of the other European economies. Nevertheless, while middle- and senior-age categories in Switzerland have a relatively high entrepreneurial activity among innovation-driven economies, Swiss youth show one of the lowest TEA rates among innovation-driven economies. Therefore, these topics have been the subject of some closer analyses.

### 5.1 Regional Differences in Switzerland

The entrepreneurial behavior of individuals, their decision-making and success rate are influenced, besides others, by factors related to the region where the start-up funders and their initial employees are located. This kind of regional impact is often stronger than the national or even continental impact (Acs et al., 2008). Within the global community of GEM researchers, several efforts have already been made to shift from a simple country comparison to a more regional approach. Some studies with GEM data on regional dimensions have been interregional, such as the GEM Euroace Report, composed of the regions Alentejo and

Center in Portugal and Extremadura in Spain. Other efforts have been made to compare entrepreneurship in global cities and their related hinterlands (Acs et al., 2008) or a specific region within a country (e.g. specific due to the spoken language and the related culture) such as Quebec, British Columbia and Ontario reports in Canada. In Switzerland, a federalist country with three major ethnic groups and language regions, where cantons and communities dispose of a high autonomy, a comparative analysis of these different regions is reasonable despite the rather small size of the population.



◀ **Figure 15:**  
TEA rates in Switzerland and the three Swiss regions, 2010 – 2015  
(18-64 age population)

Among the population involved in early-stage entrepreneurial activities (TEA), the Swiss-French region shows with 8.1% a slightly higher percentage of entrepreneurial activity than their Swiss-German neighbors. These are, with a percentage of 7.3, equal to the national rate (see Figure 15). Nevertheless, both regions stay way above the low activity of the Italian-speaking Swiss community of 3.3%. Considering the data of the past five years, the discrepancy between the Italian region to both the Swiss-French and German regions becomes even more apparent. Whereas the French- and German-speaking parts correlate well with the national TEA level, Ticino, the single Italian speaking canton of Switzerland, shows a significantly different situation. Since the 2014 study, Ticino is a subject of special GEM research where more insights are gained through an oversampling of an additional 410 interviews. Among the official adult population of 6.5 million Swiss, 4.7 million belong to the Swiss-German part, whereas 1.5 million are French-speaking. Only roughly 300'000 adults are Italian-speaking. In the following chapter 5.2, the GEM Ticino data is analyzed in more detail.

**Table 6:**  
Individual Attributes  
and Perceptions of Social  
Values toward Entre-  
preneurship in selected  
Innovation-Driven  
Economies and the  
three Swiss regions  
in 2015 (% of population  
aged 18-64).

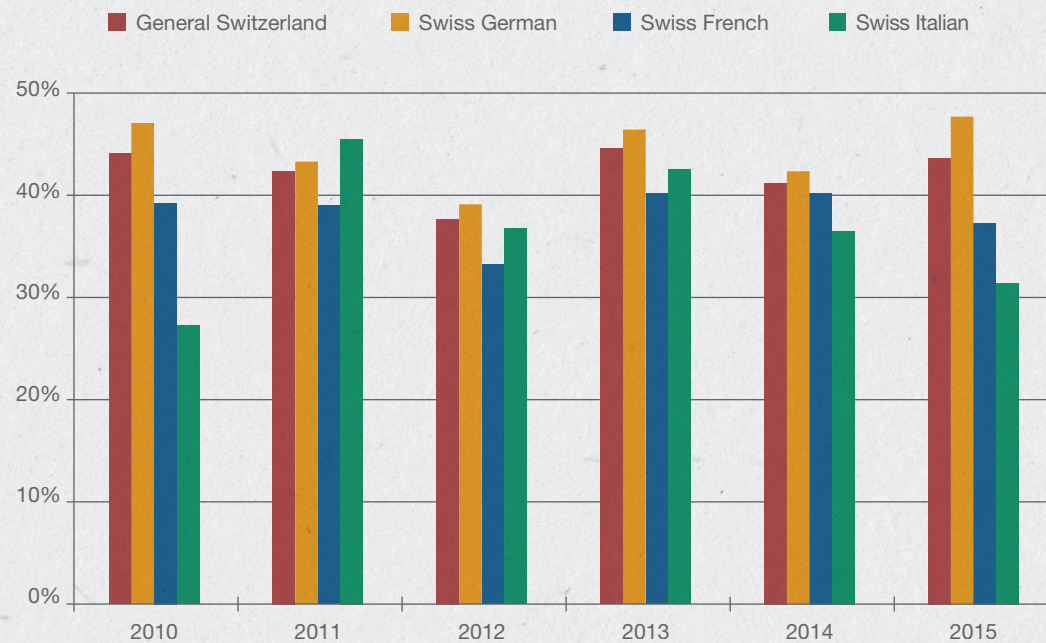
Innovation-Driven Economies	Perceived opportunities	Perceived capabilities	Fear of failure*	Entrepreneurial intentions **	Entrepreneurship as a good career choice	High status to successful entrepreneurs	Media attention for entrepreneurship
Australia	48.9	48.2	41.7	14.4	56.4	70.1	72.3
Belgium	40.3	31.9	48.5	10.9	54.2	54.5	54.7
Canada	53.2	50.5	39.5	11.6	–	–	–
Finland	48.6	37.4	32.6	10.9	33.2	84.9	68.1
Germany	38.3	36.2	42.3	7.2	50.8	75.7	49.8
Israel	55.5	41.6	47.8	21.6	64.5	86.2	54.8
Italy	25.7	30.5	57.5	8.2	60.9	69.0	48.5
Korea	14.4	27.4	38.1	6.6	38.0	53.5	61.5
Netherlands	48.4	40.6	33.2	9.4	79.2	64.5	57.7
Norway	68.9	30.8	33.4	4.8	–	–	–
Portugal	28.1	48.9	40.8	16.2	63.4	62.9	71.6
Spain	26.0	45.3	39.2	5.6	53.2	48.4	46.9
Sweden	70.2	36.7	36.5	8.4	52.7	69.8	61.3
<b>Switzerland</b>	<b>41.8</b>	<b>44.0</b>	<b>33.8</b>	<b>7.0</b>	<b>40.0</b>	<b>66.5</b>	<b>59.5</b>
<b>Swiss German Region</b>	<b>46.4</b>	<b>47.0</b>	<b>31.8</b>	<b>6.7</b>	<b>32.9</b>	<b>63.8</b>	<b>60.9</b>
<b>Swiss French Region</b>	<b>29.0</b>	<b>36.5</b>	<b>36.2</b>	<b>8.8</b>	<b>55.1</b>	<b>72.5</b>	<b>53.2</b>
<b>Swiss Italian Region</b>	<b>39.8</b>	<b>31.7</b>	<b>49.0</b>	<b>2.3</b>	<b>79.2</b>	<b>78.8</b>	<b>70.4</b>
United Kingdom	41.6	43.6	34.9	8.2	57.8	79.2	61.1
United States	46.6	55.7	29.4	12.4	–	–	–
<b>Average Innovation Driven Economies (unweighted and without CH regions)</b>	<b>43.0</b>	<b>39.9</b>	<b>39.7</b>	<b>11.3</b>	<b>54.8</b>	<b>67.8</b>	<b>59.8</b>



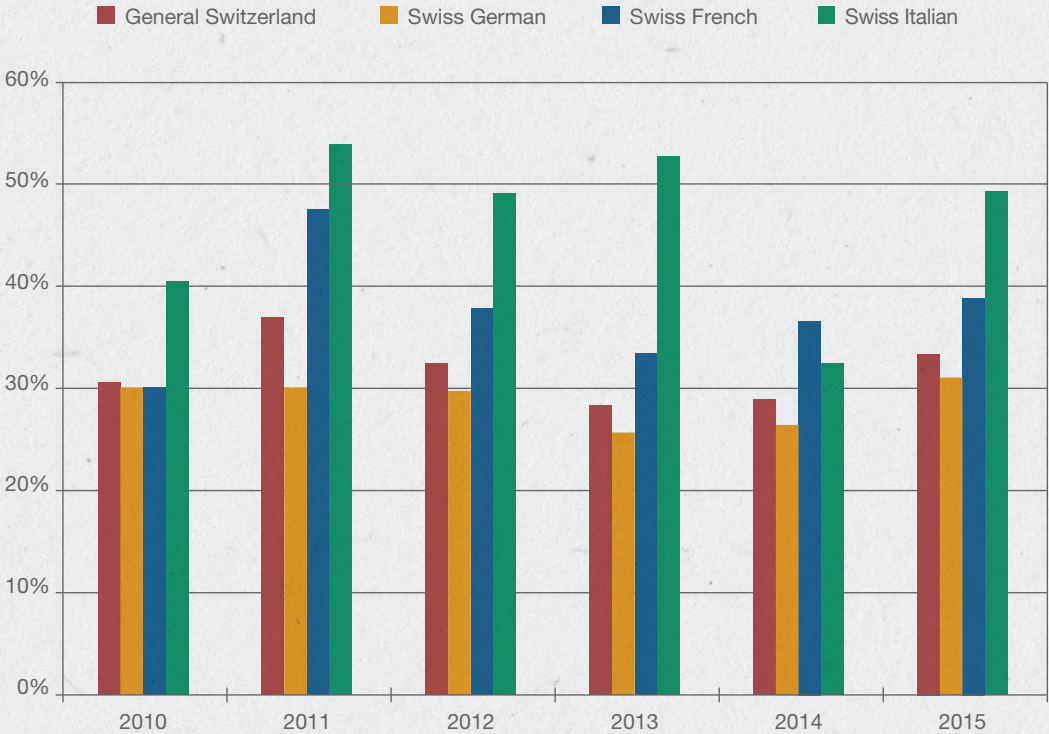
Entrepreneurial ambitions are affected by a society's values with regard to entrepreneurship as well as the individual's self-perceptions such as whether one sees opportunities around him, whether he believes that he would be capable of starting such a business, or if the fear of a possible failure would prevent him from starting such an undertaking (Kelley, D. et al, 2016). Perceived opportunities und capabilities are higher in the Swiss-German region than in the other Swiss regions. Concurrently, Swiss-Germans also indicate a lower fear of failure than the rest of Switzerland. Considering data from the past five years, the Swiss-Germans consequently indicate the highest perceived capability – and the lowest fear of failure rates among the three regions (see graphs 2 and 3).

Paradoxically, when asking for societal values with regard to entrepreneurship, the outcomes show a different picture of the three Swiss regions. The culture, history, business environment and many other societal factors can influence the view of a population toward entrepreneurship and, in turn, affect ambitions and support for entrepreneurship (Kelley, D. et al, 2016). Both populations in the French and

Italian parts of Switzerland state that they consider entrepreneurship to be a good career choice. Furthermore, they think that successful entrepreneurs have a high status in their society, much higher than their Swiss-German counterparts. These higher societal values in French- and Italian-speaking parts can be observed at least since 2012 (detailed 2011 data on this question are not available). Only the question of whether individuals often see stories about successful new businesses in the media does not show any explicit trend over the past couple of years.

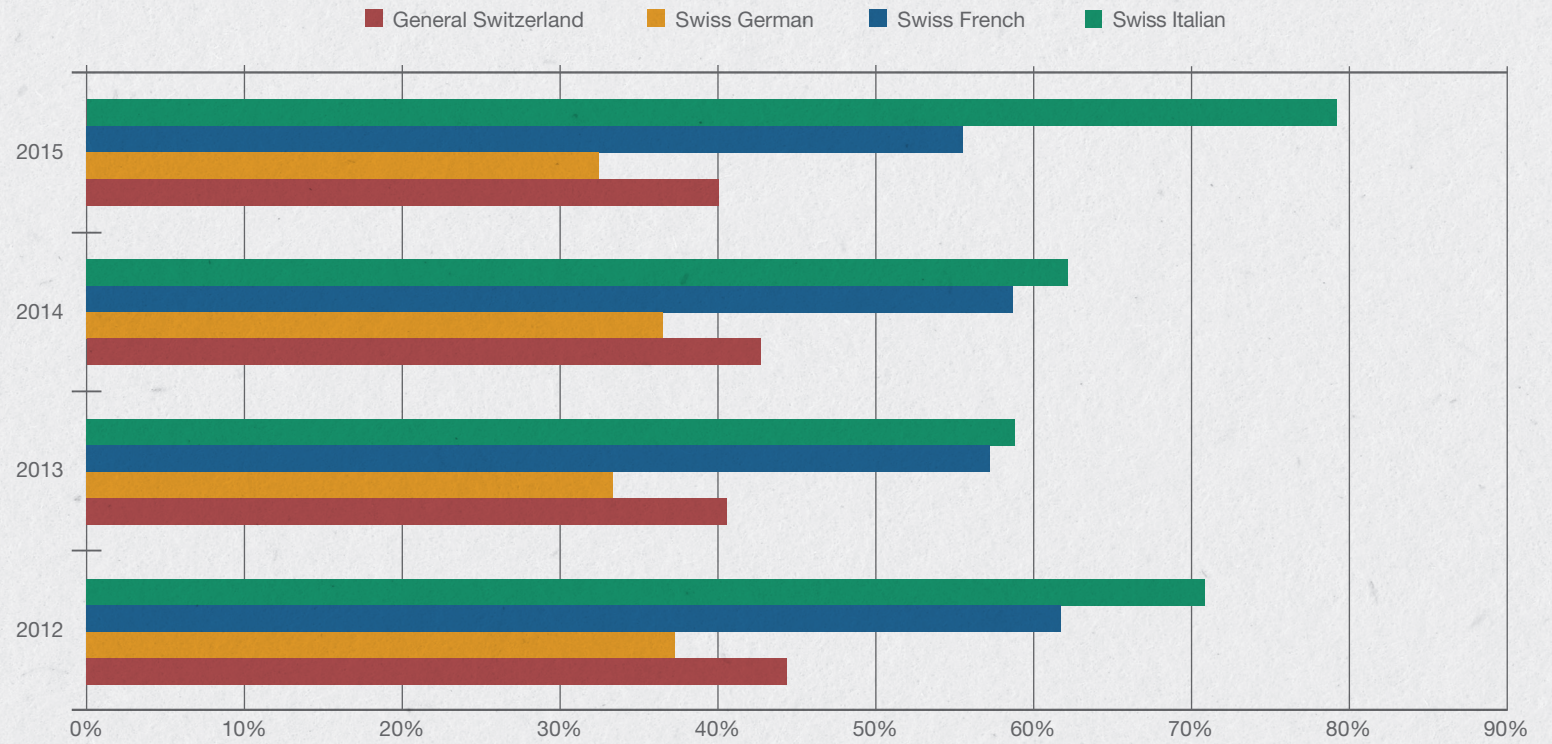


◀ **Figure 16:** Perceived Capabilities in Switzerland and the three Swiss regions, 2010 – 2015 (18-64 age population)

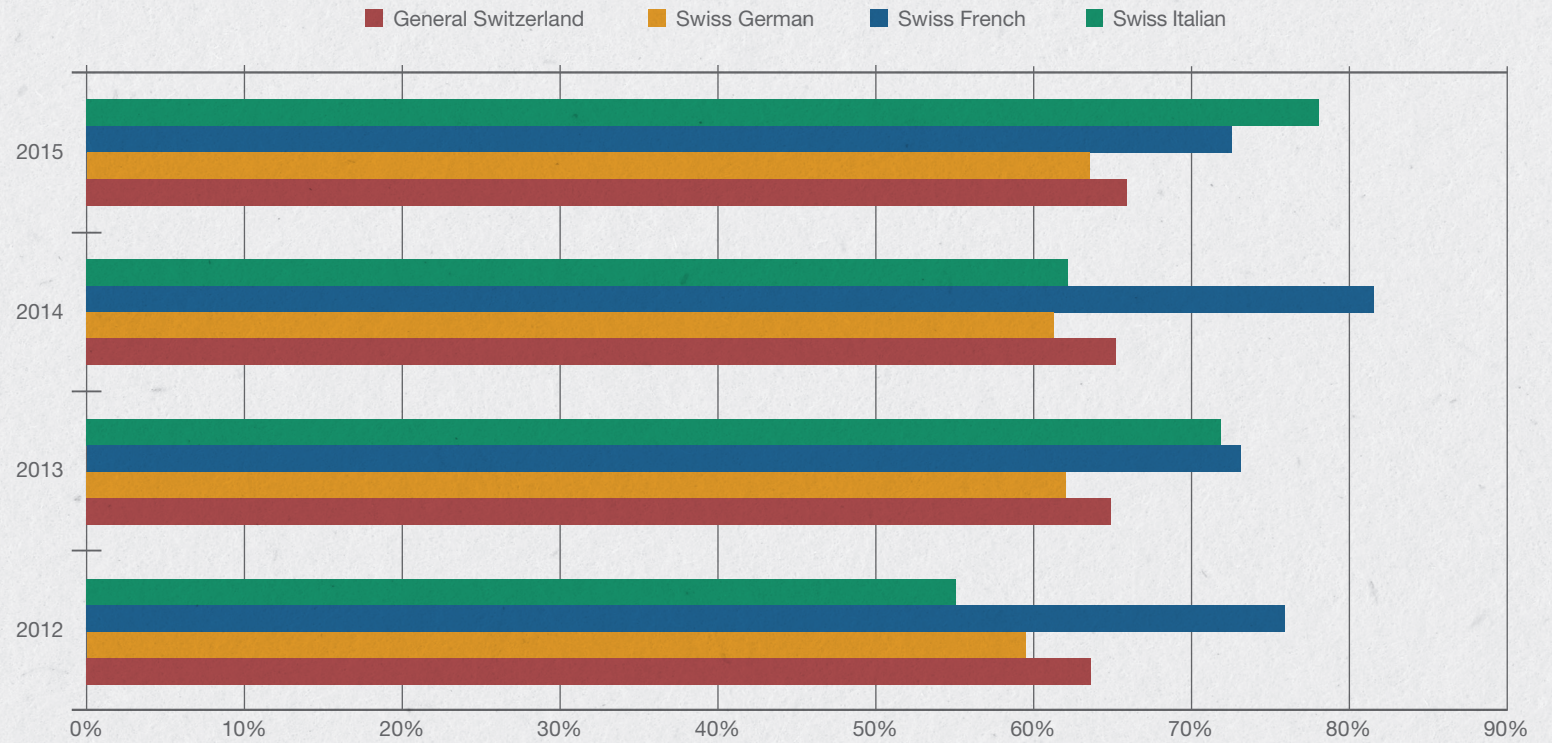


◀ **Figure 17:**  
Fear of Failure in Switzerland and the three Swiss regions, 2010 – 2015  
(18-64 age population)

**Figure 18:**  
18-64 age population indicating entrepreneurship as a good career choice in Switzerland and the three Swiss regions, 2012 – 2015.

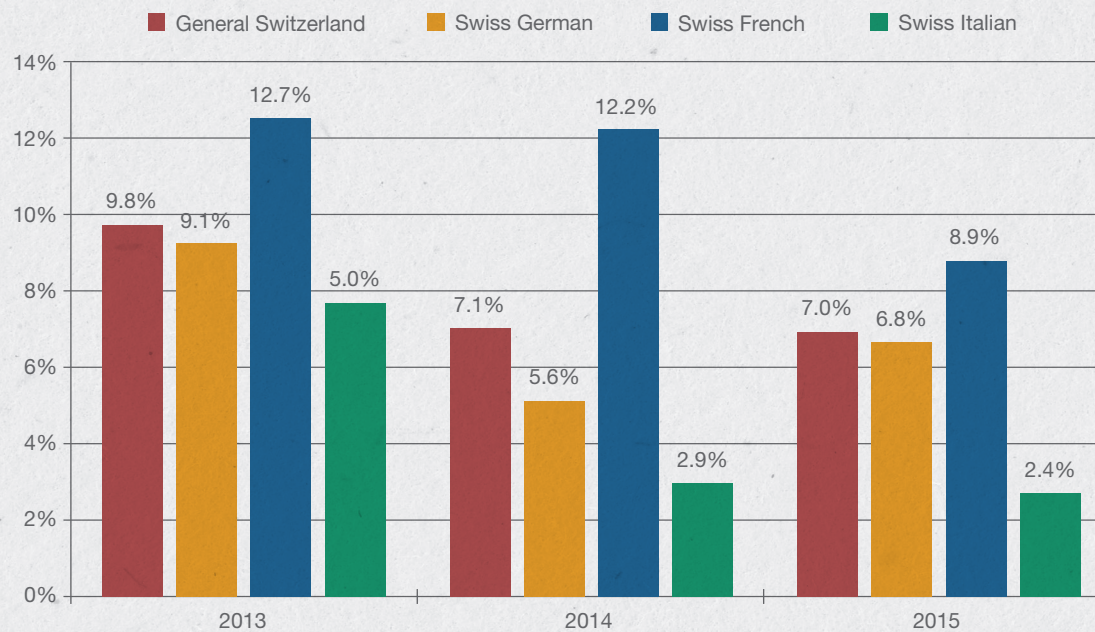


**Figure 19:**  
18-64 age population acknowledging a high status to successful entrepreneurs in Switzerland and the three Swiss regions, 2012 – 2015.



Hence, 8.9% of the French-speaking population indicates that they are expecting to start a new business within the next three years. This indicator, called Entrepreneurial Intentions, was implemented for the first time in the 2013 study. Since its beginning, the value measured in the French region has always been above that in the German and Italian regions. This is probably influenced by the relatively

high societal values towards entrepreneurship in the «Romandie», or French-speaking part of Switzerland. These much higher intentions could be a possible explanation for the relatively high TEA rates in French-speaking Switzerland despite the region's low individual self-perceptions about opportunities and their own capabilities.



◀ **Figure 20:**

Entrepreneurial Intentions in Switzerland and the three Swiss regions, 2013 – 2015 (18-64 age population).

## 5.2 *GEM Ticino*

As one of the six regional systems of innovation (RSI) recognised by the Confederation, Canton Ticino provides support services for economic development, more particularly knowledge and technology transfer (TST) and promotion of entrepreneurship (Dipartimento delle finanze edell'economia, 2016). 'System Ticino' is operative in several areas: information and promotion of innovation, assistance in the preliminary stages of innovation projects; technology and knowledge transfer; assistance in protecting intellectual property; but also coaching, mentoring, and making innovative entrepreneurial initiatives available on line. Ticino is also active in other underpinning areas, such as basic and lifelong training of the workforce, as well as funding and logistical hosting (incubator centres and techno pols) of innovative entrepreneurial projects.

The Federal Statistical Office's «Structural Statistics of Enterprises» 2013 tells us that the rise of new enterprises in Ticino accounted for nearly 10% of all businesses set up in Switzerland. At the same time, a comparison between cantons reveals that Ticino has the highest number of businesses failures. The net balance is nonetheless positive, with an increase of 774 firms.

The GEM survey conducted in 2015 on a sample of about 500 Canton Ticino residents highlighted a ratio of entrepre-

neurial activities in their early stages (Total Early-stage entrepreneurial Activity, TEA) of 3.3%. This is as much as four percentage points lower than the national level and almost one percentage point lower than the figure recorded for 2014. It is one of the lowest figures recorded since Ticino was first regionalised – an outcome that should give us pause, as already highlighted in the latest GEM report. Once again, Ticino excels in the figure relating to 'entrepreneurship as a good career choice'. Based on just under 80% of respondents, the figure is nearly twice the Swiss average. Moreover, on the social status associated with the figure of the entrepreneur, Ticino – with a 78.8% response – scores well above the national average of 66.5%. This context would seem to be favourable to doing business. Yet, it is not reflected either in the launch of new entrepreneurial initiatives, or even in entrepreneurial intentions. On the one hand – when regions are compared – fear of failing remains the highest figure; on the other hand, the business skills perceived in the respondents are among the lowest measured so far. This may be due to structural or context-based factors. Remember that 'critical mass' is still very much lacking, hence a problem for our canton. In this regard, the legislative instruments brought up to date in recent years could help by driving people to embark on an entrepreneurial career. Alone, however, they may well not be enough.

### ***A new building block in Ticino's regional system of Innovation***

In mid-December 2015, Canton Ticino adopted a new law for economic innovation, to replace the earlier one, which came into force in 1997. The new legislation entails a genuine paradigm shift: from a typical logic of «rewards» to a system of «incentives». A positive outcome should be a culture of entrepreneurship and innovation promoted across the whole region. An assessment of the previous law brought to light that a great number of (subsidized) firms would have invested even without government funding, or even if with smaller subsidies. The new law, which is essentially based on incentives, has set definite eligibility criteria: the entrepreneurship project must be tested both for its soundness – i.e. it must prove sustainable and innovative – and for the value it expects to generate not only for the firm itself, but also for the whole region. As to the former (micro-level), the assessment must show the project's growth potential, fiscal impact, degree of innovation and export-orientation. At the macro-level, on the other hand, the assessment of the project will be based on a sort of regional Return on Investment (ROI). Thus, it will define the benefits accruing to the territory, namely: quality and remuneration of the workforce, technologies implemented, support and promotion of training, creating an on-line presence, and environmental impact.

Inspired by the approach to entrepreneurship of inno3, SUPSI's Competence Centre, the new law for economic innovation distinguishes between forms of entrepreneurship based on their life cycles. Accordingly, it defines **neo-entrepreneurship**, i.e., firms in the process of being set up, or just set up (for instance, start-ups and spin-offs); **intra-preneurship**, i.e., entrepreneurial activities and forms of behaviour inside existing organisations; and **repreneurship**, i.e., firms faced with a process of succession and transfer of management and of company ownership. That being said, it is advisable to adjust instruments and measures specifically to the various forms of entrepreneurship. For example, mentoring a start-up requires an essentially different contribution – in the nature and size of the contribution, but also in the goal pursued – from that envisaged for an existing firm. The measures and instruments must be tailored to the real needs of the various forms of entrepreneurship. Different demands will require different responses. So, some cases will need to step up the training; others, mentoring or advisory support; in others still, it may be a matter of facilitating access to loans, or backing the innovation or the internationalization process; or again running informative events. With some instruments and measures, the impact will be immediate. It will take much more time, however, to actually see the benefits for society and the economy as a whole. Nothing unusual in this, since what we are facing is a cultural change.



### *Some food for thought*

It is important to provide the right breeding ground for enterprises to be born and to grow. But equally important, if not more so, is to sow the seeds of the culture of entrepreneurship and innovation that underpins a dynamic economy. Furthering entrepreneurship in adults is a policy option that is as appropriate as it is inadequate. The framework conditions to do business in Switzerland – and it applies to Canton Ticino, too – are considered to be good. Yet, there is clearly room for improvement when it comes to promoting entrepreneurship in primary and secondary education. According to this view, a view reinforced by several studies, while entrepreneurial attitudes and behaviour evolve over time, suddenly there comes a drop in creativity and entrepreneurship, somewhere between year 11 and year 18 (Robinson, 2013). Those are the school years when mere factual knowledge prevails over a taste for discovery, curiosity, initiative, the possibility to make mistakes, experimentation and the proactive capacity – all of which characterize the primary or early stages of education (nursery and primary schools) and, subsequently, those of higher education (university and university of applied sciences). We are not saying that the so-called MINT subjects (mathematics, informatics, natural and technical sciences) should be replaced with more artistic, cultural, humanistic, or physical subjects. Nor is it a question of lecturing on entrepreneur-

ship. Rather, the point should be to define a series of activities (regardless of subject or disciplinary area) designed to keep alive in our younger generations (the young and the very young) those qualities of enterprise and initiative that have been ours from birth, but which need to be constantly nurtured and improved. The **Harmos** agreement, and Ticino's project known as «La scuola che verrà» («The school of the future»), has opened up interesting, new windows of opportunity for experimenting and integrated training paths which have already produced positive results in many countries, in Europe and elsewhere (OECD, 2015).

School rooms and training centres are not the only grounds in which to practise entrepreneurial skills, attitudes and behaviour. Undoubtedly, enterprises play a central role, here. By inspiring, promoting, and steadily putting into practice entrepreneurial attitudes within the company, one ends up developing and implementing a strategy that consists of participation, sharing, motivation, incentives, experimentation, continuous in-house training, delegating and empowering. Taking advantage of these strategic strong points, through a series of measures and activities, we can anticipate major effects on productivity, on profitability, and innovation: in sum, on the creation and development of business value. There is, of course, a cost involved in measures and activities. However, at times «not doing» may cost you more than «doing».

Classrooms and firms are essential training grounds for life, in which one can grow personally and professionally. These are the conduits through which we promote, develop, and exercise our entrepreneurial skills, attitudes and expertise during all of our studies and professional life. Only thus will it be possible to expand that «critical mass» – for structural reasons rather stunted in Canton Ticino. This is the foundation on which to build, in Audretsch's words, «the entrepreneurial society». The «comfort zone» will continue to prevail as long as the necessary zest is missing; an innovative and entrepreneurial mood must also be instilled and constantly, day by day, fed into the system, if we do not want the actors to be dejected and demotivated. In Ticino, opportunities do exist, and the entrepreneurial activity is, indeed, seen as a good career choice. Unfortunately, there does seem to be a certain lack of confidence and fear to jump into the fray. The legislative tools can help, but they are by no means enough. Without an adequate «critical mass» acting as an entrepreneurship generator, it will be rather difficult to achieve the desired results.

### 5.3 *Youth Entrepreneurship*

Switzerland has an inglorious third last place considering the TEA rate for the 18-24-year-old population among the innovation-driven economies, leaving just Greece, Slovenia and Korea behind. This very low TEA rate increases with the age categories and reaches its peak at the 35 – 44 age category, where the Swiss population indicates a good 8th place out of 22 innovation-driven economies (Table 7). Hence, the TEA rate triples between the first and the third age category before it decreases again slightly to 7.8% (45-54 age category, 11th place) and 4,9% (55-64 age category, 13th place). It seems that for most young adults in Switzerland, an extensive education, probably followed by a relatively well paid first job experience seems to be more attractive than launching an entrepreneurial career. The unemployment rate for young 15 to 24-year-old adults in Switzerland is with 3.4% (Swiss Statistics, 2010) outstandingly low. Even Germany, the country with the lowest unemployment rates within the European Union registered, with 7,1% in 2015 (Statistical Office of the European Communities, 2015), a youth unemployment rate that was almost twice as high as that of Switzerland.

**Table 7:**

Ranking of TEA for 18-24 age category, 25-34 age category and 35-44 age category in Innovation-Driven Economies (22 countries)

TEA 18-24 age category			TEA 25-34 age category			TEA 35-44 age category		
Rank	Country	%	Rank	Country	%	Rank	Country	%
1	Canada	18.19	1	Canada	16.60	1	USA	16.70
2	Slovakia	12.08	2	Australia	15.29	2	Australia	16.38
3	Australia	10.16	3	USA	13.80	3	Canada	15.85
4	USA	10.16	4	Israel	13.78	4	Israel	15.70
5	Taiwan	10.07	5	Slovakia	12.74	5	Slovakia	12.81
6	Luxembourg	9.01	6	Portugal	12.23	6	Luxembourg	11.43
7	Ireland	8.98	7	Luxembourg	12.07	7	Portugal	11.38
8	Israel	7.74	8	Taiwan	11.99	8	Switzerland	9.72
9	Portugal	7.53	9	Slovenia	11.42	9	Finland	9.70
10	Netherlands	7.26	10	Belgium	9.94	10	Ireland	9.05
(...) 18	Switzerland	3.14	(...) 13	Switzerland	8.80	11	Belgium	8.96

Nevertheless, by comparing social values, entrepreneurial ambitions and self-perceptions of the 18-24 age groups with the remaining age groups, one can see that the low TEA rate may be more an issue due to a lack of knowledge than missing intentions. Almost half, namely 43.9%, of the Swiss youth perceives entrepreneurship as a desirable career choice. Entrepreneurial intentions among the population that are not already involved in early-stage entrepreneurial activities are three times higher in this young age category than for every later age category. Furthermore, the fear of failure is at its lowest point in that specific age group (see Figure 21).

However, the capability to detect business opportunities and the perceived skills, knowledge and experience for starting a business in that age is rated significantly lower compared to every other age group. Especially the perceived capabilities seem to rise and remain at much higher levels after that initial age category (see Figure 21). But also ones' perception to have good opportunities for starting a business within the next six months (perceived opportunities) rise by more than 15% between the first – and the following age groups. A fourth of the 18-24-year-old population state that fear of failure would prevent them from starting a business. This rate is much higher in the 25-34 and 35-44 age categories, where family- and career planning may be prioritized. It returns to a similar level after the age of 45.

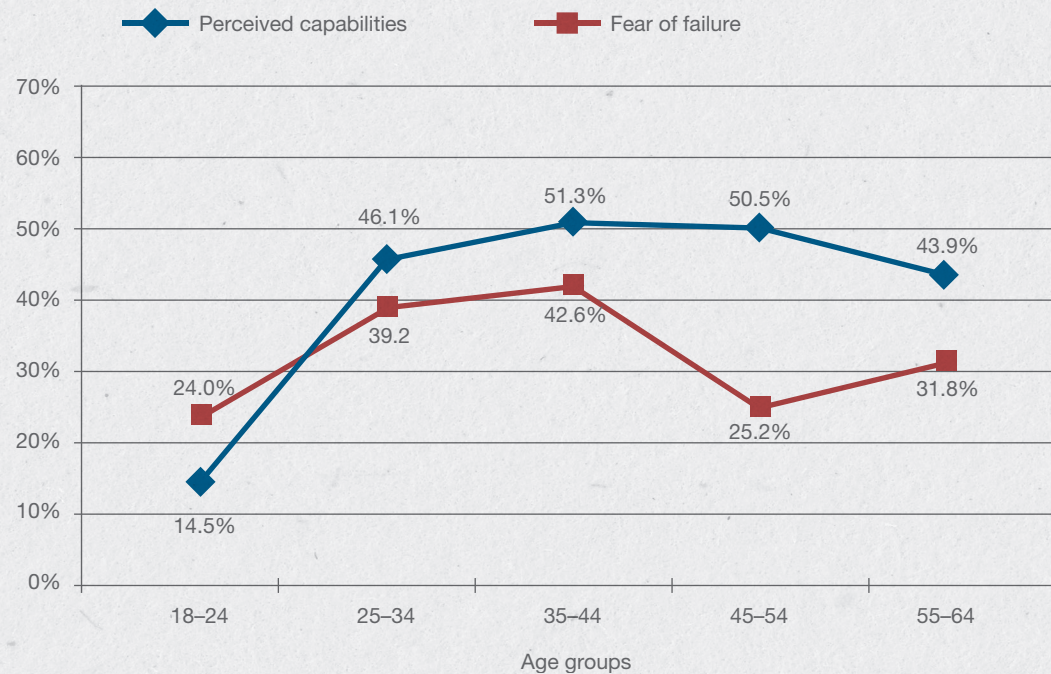
**Table 8:**

selected variables and their values for the 18-24 age category, compared to the remaining age categories and the overall value.

	Age groups		
	18-24	25-64	Overall
Perceived opportunities	28.29%	43.76%	41.79%
Perceived capabilities	14.31%	48.25%	44.00%
Entrepreneurship as a desirable career choice	43.92%	39.42%	39.99%
Fear of failure	24.68%	34.66%	33.80%
Entrepreneurial intentions	24.68%	7.27%	7.04%
TEA	3.14%	7.93%	7.31%

Summing it up, it can be stated that the low entrepreneurial activity rate among the 18 – 24 year old Swiss citizens is related more to self-estimated capacities rather than entrepreneurial ambitions and fears of failing. In a country with such a high level of competitiveness and a remarkably good job situation, a lot of effort needs to be spent in teaching

young people entrepreneurship in order to raise entrepreneurial activities among the youth. Entrepreneurship skills and knowledge need to be trained from a much younger age, probably before the individuals attain full age at 18, in order to assure stories of future entrepreneurial success.



◀ **Figure 21:** Perceived capabilities and development of fear of failure compared among the five age groups in 2015

## 6 *Conclusions and Recommendations for Policy and Practice*

GEM findings can contribute to the design of national policy interventions as well as enable assessment of progress toward the policy priorities identified by the United Nations Conference on Trade and Development (UNCTAD), which are: formulating national entrepreneurship strategy, optimizing the regulatory environment, enhancing entrepreneurship education and skills, facilitating technology exchange and innovation, improving access to finance, and promoting awareness and networking.

Policy interventions should consider such priorities in providing efficient and coordinated activities that constitute more supportive entrepreneurship ecosystems. Below are some recommendations that can serve as a basis for further consideration and discussion:

Reform the regulatory environment to make it easy for new businesses to register and operate by cutting costs and reducing the amount of regulations. Ensure that policies, legislation and by-laws are subjected to regulatory impact assessment before being passed. Develop tax laws to encourage angel investors and venture capitalists to invest in new start-ups.

Through education systems at all levels, introduce concepts associated with different types of entrepreneurial activities (self employment, employer firms, growing ventures, entrepreneurship in organizations, social entrepreneurship, etc.), which may coexist in various structures in different economies, and which may be influenced by particular cultural, political and economic settings. Introduction of entrepreneurship programs in primary and secondary school with a focus on age 11 – 16 and establish incubators that are accessible for young potential entrepreneurs and intrapreneurs. Ideally the incubators and accelerators will have an interdisciplinary approach and are wrong encourage cooperation between companies and schools.

Work with local & national media to increase awareness and positive perceptions of entrepreneurship as a potential career path. Raise awareness about various types of entrepreneurship (self-employment, employer, entrepreneurial employee) and different entrepreneurship profiles (women, youth, seniors, ethnic groups, etc.). Showcase entrepreneurial role models that are accessible, to whom specific communities can relate.



Maximize the untapped potential of women. When participating at lower rates than men in an economy, this suggests missed opportunities. Policy makers can design specific interventions to encourage females to enter the world of entrepreneurship. A Swiss-wide policy approach is needed to equalize women in the entrepreneurship arena: for example, the provision of adequate child/elderly care.

Promote entrepreneurship in high value-added industries. Policy makers and practitioners can assess the current industry environment and encourage entrepreneurs to go into industries that match the strengths of a particular economy or region and address the future direction of manufacturing and other high growth industries.

## 7 *Literature*

**Acs, Z., Bosma, N., and Sternberg, R. (2008).**

The Entrepreneurial Advantage of World Cities. Evidence from Global Entrepreneurship Monitor Data. SCALES-initiative (Scientific Analysis of Entrepreneurship and SME).

**Audretsch, D. (2002).**

The dynamic role of small firms – Evidence from the US. Small Business economics, 13-40.

**Audretsch, D., & Keilbach, M. (2008).**

Resolving the knowledge paradox: Knowledge-spillover entrepreneurship and economic growth. Research Policy, 37(10), 1697-1705.

**Baldegger, R. (2013).**

Swiss International Entrepreneurship Survey 2013: Internationalization efforts of Swiss small and medium-sized enterprises (SMEs). Freiburg/Bern.

**Bosma, N., & Schutjens, V. (2011).**

Understanding regional variation in entrepreneurial activity and entrepreneurial attitude in Europe. The Annals of Regional Science, 711-742.

**Dipartimento delle finanze e dell'economia. (2016).**

Sistema regionale d'innovazione Ticino. Tratto da <http://www4.ti.ch/dfe/de/sri/chi-siamo/>

**Kelley, D., Singer, S. and Herrington, M. (2015).**

The Global Entrepreneurship Monitor 2015/16 Global Report. Boston: Babson College.

**Li, H., de Zubieta, G., & O'Connor, A. (2015).**

Entrepreneurial networking capacity of cluster firms: a social network perspective on how shared resources enhance firm performance. Small Business Economics, 45(3), 523-541.

**OECD. (2015).**

Entrepreneurship360. Tratto da <https://www.oecd.org/site/entrepreneurship360/home/>

**Oviatt, B., & McDougall, P. (2000).**

International Entrepreneurship: The Intersection of Two Research Paths. Academy of Management Journal, 902-908.

**Robinson, K. (2013, April).**

How to escape education's death valley. (TED, Intervistatore)

**Rocha, H. (2004).**

Entrepreneurship and development: the role of clusters. *Small Business Economics*, 23(5), 363-400.

**Schøtt, Th., Kew, P., Cheraghi, M. (2015).**

Future Potential: A GEM perspective on youth entrepreneurship 2015,

**Schwab, K., Sala-i-Martin, X., Samans, R. and Blanke, J. (2016).**

Insight Report. The Global Competitiveness Report 2015-2016. Geneva: World Economic Forum.

**Statistical Office of the European Communities (2015).**

Eurostat. Unemployment rates in the European Union. Luxembourg: Eurostat.

**Swiss Statistics (2010).**

Erwerbsleben und Arbeitslosigkeit – Jugendarbeitslosigkeit.

**van Stel, A., Wennekers, S., & Scholman, G. (2014).**

Solo self-employed versus employer entrepreneurs: determinants and macro-economic effects in OECD countries. *Eurasian Business Review*, 4(1), 107-136.

**Wennekers, S., & Thurik, R. (1999).**

Linking Entrepreneurship and Economic Growth. *Small Business Economics*, 27-55.

**Zahra, S., & George, G. (2002).**

International Entrepreneurship: The current status of the field and future research agenda. In M. Hitt, D. Ireland, D. Sexton, & M. Camp, *Strategic Entrepreneurship: Creating an Integrated Mindset* (pp. 255-288). Oxford: Blackwell Publishers.

## Glossary

Measure	Description
<b>Entrepreneurial Attitudes and Perceptions</b>	
Perceived Opportunities	Percentage of 18-64 age groups who see good opportunities to start a firm in the area where they live
Perceived Capabilities	Percentage of 18-64 age groups who believe they have the required skills and knowledge to start a business
Entrepreneurial Intention	Percentage of 18-64 age groups (individuals involved in any stage of entrepreneurial activity excluded) who intend to start a business within three years
Fear of Failure Rate	Percentage of 18-64 age groups with positive perceived opportunities who indicate that fear of failure would prevent them from setting up a business
Entrepreneurship as Desirable Career Choice	Percentage of 18-64 age groups who agree with the statement that in their country, most people consider starting a business as a desirable career choice
High-Status Successful Entrepreneurship	Percentage of 18-64 age groups who agree with the statement that in their country, successful entrepreneurs enjoy high status
Media Attention for Entrepreneurship	Percentage of 18-64 age groups who agree with the statement that in their country, they will often see stories in the public media about successful new businesses

**Entrepreneurial Activity**

Nascent Entrepreneurship Rate	Percentage of 18-64 age groups who are currently nascent entrepreneurs, i.e., actively involved in setting up a business they will own or co-own; this business has not paid salaries, wages or any other payments to the owners for more than three months
New Business Ownership Rate	Percentage of 18-64 age groups who are currently an owner-manager of a new business, i.e. owning and managing a running business that has paid salaries, wages or any other payments to the owners for more than three months, but not more than 42 months
Total Early-Stage Entrepreneurial Activity (TEA)	Percentage of 18-64 age groups who are either a nascent entrepreneur or owner-manager of a new business (as defined above)
Established Business Ownership Rate	Percentage of 18-64 age groups who are currently 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 18-64 age groups 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. Note: This is not a measure of business failure rates.
Necessity-Driven Entrepreneurial Activity: Relative Prevalence	Percentage of those involved in total early-stage entrepreneurial activity (as defined above ) who are involved in entrepreneurship because they had no other option for work
Improvement-Driven Opportunity Entrepreneurial Activity: Relative Prevalence	Percentage of those involved in total early-stage entrepreneurial activity (as defined above) who (i) claim to be driven by opportunity, as opposed to finding no other option for work; and (ii) who indicate the main driver for being involved in this opportunity is being independent or increasing their income, rather than just maintaining their income

**Entrepreneurial Aspirations**

Solo/Low Job Expectation early-stage Entrepreneurial Activity (SLEA)	Percentage of 18-64 age groups who are either a nascent entrepreneur or owner-manager of a new business (as defined above) AND expect to provide fewer than 5 jobs five years from now. Based on 2009-2011 data.
Medium/High Job Expectation early-stage Entrepreneurial Activity (MHEA)	Percentage of 18-64 age groups who are either a nascent entrepreneur or owner-manager of a new business (as defined above) AND expect to provide 5 or more jobs five years from now. Based on 2009-2011 data.
New Product-Market Oriented Early-Stage Entrepreneurial Activity: Relative Prevalence	Percentage of total early-stage entrepreneurs (as defined above) who indicate that product or service is new to at least some customers and indicate that not many businesses offer the same product or service. Based on 2009-2011 data.
International Orientation early-stage Entrepreneurial Activity	Percentage of total early-stage entrepreneurs (as defined above) with more than 25 % of the customers coming from other countries. Based on 2009-2011 data.

**Entrepreneurial Employee Activity**

Entrepreneurial Employee Activity (EEA)	Percentage of 18-64 age groups who are currently involved in developing new entrepreneurial activities for their employer and fulfill a leading role in this activity.
Private Sector Entrepreneurial Employee Activity (PEEA)	Percentage of 18-64 age groups who are currently involved in developing new entrepreneurial activities for their employer, active in the private sector, and fulfill a leading role in this activity. Hence the PEEA measure constitutes a subset of the EEA measure.
Employers' Support for Entrepreneurial Employee Activity	Percentage of 18-64 employees indicating that their employer provides at least some support when employees come up with new ideas

## Country List

### Country / Intcode

Argentina	AR	Greece	GR	Netherlands	NL	Turkey	TR
Australia	AU	Guatemala	GT	Norway	NO	United Kingdom	UK
Barbados	BB	Hungary	HU	Panama	PA	United States	US
Belgium	BE	India	IN	Peru	PE	Uruguay	UY
Botswana	BW	Indonesia	ID	Philippines	PH	Vietnam	VN
Brazil	BR	Iran	IR	Poland	PL		
Bulgaria	BG	Ireland	IE	Portugal	PT		
Burkina Faso	BF	Israel	IL	Puerto Rico	PR		
Cameroon	CM	Italy	IT	Romania	RO		
Canada	CA	Japan	JP	Senegal	SN		
Chile	CL	Kazakhstan	KZ	Slovakia	SK		
China	CN	Korea Republic	KR	Slovenia	SI		
Colombia	CO	Latvia	LV	South Africa	ZA		
Croatia	HR	Lebanon	LB	Spain	ES		
Ecuador	EC	Luxembourg	LU	Sweden	SE		
Egypt	EG	Macedonia	MK	Switzerland	SW		
Estonia	EE	Malaysia	MY	Taiwan	TW		
Finland	FI	Marocco	MA	Thailand	TH		
Germany	DE	Mexico	MX	Tunisia	TN		

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