Global Entrepreneurship Monitor 2013

— Report on Switzerland

HAUTE ÉCOLE DE GESTION FRIBOURG
HOCHSCHULE FÜR WIRTSCHAFT FREIBURG
SCHOOL OF MANAGEMENT FRIBOURG

ETH

Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

University of Applied Sciences and Arts
of Southern Switzerland

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All data used in this report are collected and processed centrally by the GEM consortium. The authors have exclusive responsibility for evaluation and interpretation of the data.

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Management Summary (EN)

The Global Entrepreneurship Monitor Report 2013 on Switzerland illustrates national differences in entrepreneurial attitudes, activity, and aspirations 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 complement already existing indicators of competitiveness and innovation.

In the 2013 census, perceived opportunities to start a business were higher in Switzerland than in previous years. Switzerland ranks above the average of innovation-based countries. What is particularly noticeable is the fact that Fear of Failure has clearly lessened in the past few years, and in 2013 was even lower than in the USA.

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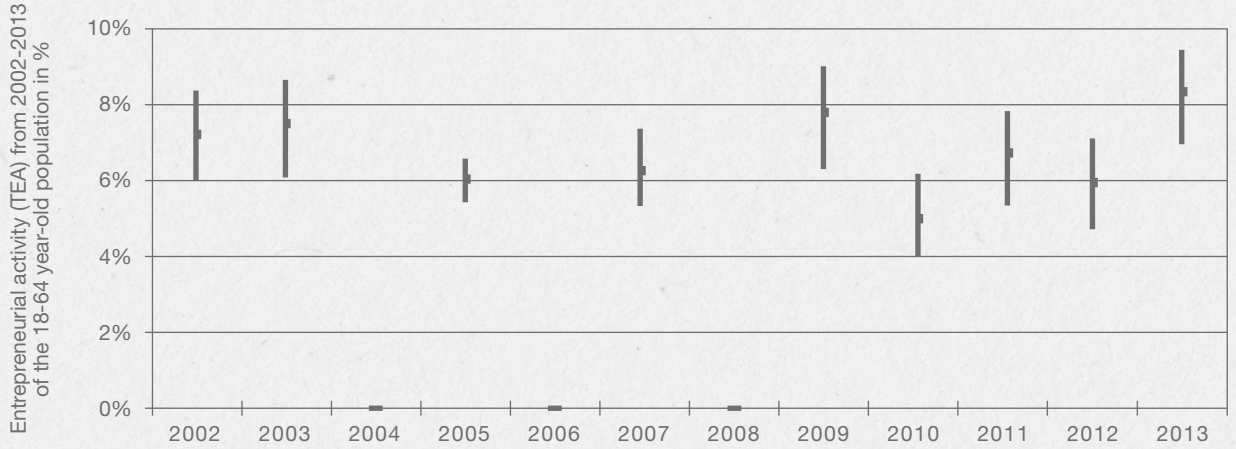
*Please see glossary for definitions and references
**Average Innovation-driven Economies

Entrepreneurial Profile

Switzerland shows a higher potential in 2013 with regard to creating new jobs via young companies (Total Entrepreneurial Activity, TEA). On the other hand, a clear orientation on (combined product-market) innovation and orientation to international markets is clear. In these areas, Switzerland ranks 13th and 5th respectively, which, in the long term, reaps positive results: it is known that product innovation and a company`s orientation to international markets are closely related to an increase in global demand. This, in turn, creates new jobs and economic growth.
With the exception of 2010, the entrepreneurial activity rate (TEA) fluctuated between six and eight percent. Although the quantitative aspect of entrepreneurial activity (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 below average compared with other innovation-driven economies. In contrast, Switzerland enjoys one of the best positions in terms of women`s entrepreneurial activity rates (TEA) (a practically equal woman-to-man ratio). In 2013, like in the previous year, Switzerland ranked in first place of all innovation-based economies.
The age structure of entrepreneurial activity in Switzerland is noteworthy. Entrepreneurial activity among the young in Switzerland (18-24) is the lowest of all comparable countries, whereas the 35-44 age group shows the highest entrepreneurial activity. Data collected for the first time on entrepreneurship and well-being shows that entrepreneurs in Switzerland rate their level of subjective well-being distinctively high when compared to entrepreneurs in other innovation-driven countries. An interesting finding is that Switzerland also holds the highest satisfaction rates among the groups who have been involved in entrepreneurial activities (both early stage and established business owners); however, what is more impressive is Switzerland’s distinct position when compared to similar economies such as Norway, Netherlands and Singapore.

Development of Entrepreneurial Activity in Switzerland (TEA)

The overall entrepreneurial framework conditions in Switzerland — along with those in Singapore — 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 stable internal market dynamics.



Management Summary (DE)

Die Hochschule für Wirtschaft (HSW) Freiburg hat in Zusammenarbeit mit der ETH Zürich und dem SUPSI Manno in der Schweiz auch 2013 die Datenerhebung 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 2013 dokumentiert nationale Unterschiede bezüglich unternehmerischer Einstellungen, Aktivitäten und Ambitionen. Im Weiteren werden die Einflussfaktoren erhoben, die unternehmerische Tätigkeiten eines Landes beschreiben. Zudem kann dank des GEM das politische Engagement für Unternehmertum analysiert werden.

Die GEM-Daten ergänzen bereits bestehende Daten in den Bereichen Wettbewerbsfähigkeit und Innovation.

In der Erhebung von 2013 wurden in der Schweiz mehr Möglichkeiten zur Unternehmensgründung wahrgenommen als in den Jahren zuvor. Die Schweiz liegt mit der Gründungsrate über dem Durchschnitt der innovationsbasierten Länder. Auffallend ist, dass die Angst vor Scheitern in den letzten Jahren eindeutig gesunken ist und 2013 tiefer ausfällt als in den USA. Die Schweiz nimmt mit den USA sogar die Spitzenposition aller innovationsbasierten Volkswirtschaften ein.

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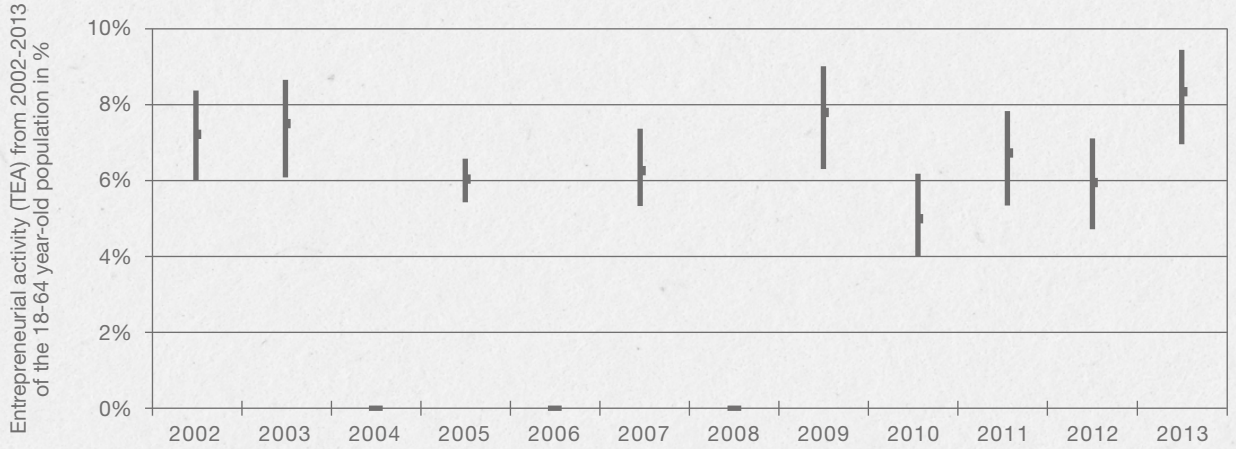
* Für Definitionen und Quellenangaben siehe Glossar
** Durchschnitt der innovationsbasierten Volkswirtschaften

Unternehmerisches Profil

Die Schweiz zeigte 2013 ein grösseres Potential bezüglich der erwarteten Schaffung neuer Arbeitsstellen durch Jungunternehmen (Total Entrepreneurial Activity, TEA). Im Weiteren ist eine Konzentration auf (kombinierte Produkt-Markt-) Innovationen und auf eine internationale Ausrichtung unbestritten. In diesen Bereichen belegt die Schweiz Platz dreizehn resp. fünf, was langfristig einen positiven Effekt hat: Es ist bekannt, dass Produktinnovationen und die internationale Ausrichtung von Unternehmen eng mit der globalen Nachfragesteigerung gekoppelt sind. Diese generiert wiederum wirtschaftliches Wachstum sowie neue Arbeitsstellen.
Abgesehen vom Jahr 2010 bewegte sich die Quote der Gründungsaktivität (TEA) jeweils zwischen sechs und acht Prozent. Interessiert der quantitative Aspekt vor allem politische Entscheidungsträger, sollte den qualitativen Aspekten (bspw. tiefe vs. hohe Joberwartungen) sowie dem unternehmerischen Verhalten nichtsdestoweniger vermehrt Aufmerksamkeit geschenkt werden. Die Schweizer Ergebnisse im Bereich unternehmerischer Mitarbeiteraktivität liegen unter dem Durchschnitt der innovationsbasierten Volkswirtschaften. Hingegen rangiert die Schweiz auf einer der besten Positionen, wenn es um Gründungsaktivität (TEA) von Frauen geht (praktisch ausgeglichene Frau-Mann-Ratio). 2013 hielt die Schweiz diesbezüglich sogar die Spitzenposition aller innovationsbasierten Volkswirtschaften inne.
Beachtenswert ist in der Schweiz u. a. die Altersstruktur der Gründungsaktivität. Bei den Jüngeren (18-24 Jahre) ist die tiefste Gründungsaktivität aller vergleichbaren Länder feststellbar, hingegen weist die Altersklasse der 35-44-jährigen Personen die höchste Gründungsaktivität auf. Die zum ersten Mal erhobenen Zahlen bezüglich Wohlergehen und unternehmerisches Verhalten verdeutlichen, dass Unternehmer in der Schweiz das subjektiv empfundene Wohlergehen auf einen sehr hohen Level setzen. Interessant ist zu vermerken, dass der höchste Befriedigungsgrad für Jungunternehmer wie auch etablierte Unternehmer zu verzeichnen ist. Die Unterschiede sind markant auch im Vergleich zu Unternehmern aus Ländern wie Norwegen, Niederlande und Singapur.

Entwicklung der Gründungsaktivität in der Schweiz (TEA)

Die generellen Rahmenbedingungen der Schweiz und Singapurs 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 in der Stabilität der inländischen Marktdynamik.



Management Summary (FR)

En Suisse, la Haute école de gestion Fribourg (HEG) a mené l'enquête 2013 pour l'international Global Entrepreneurship Monitor (GEM) en collaboration avec l'ETH Zürich et le SUPSI Manno. Environ 2'000 entretiens téléphoniques et interviews d'experts ont été effectués pour 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 2013 pour la Suisse illustre les différences entre les économies dans les attitudes, l'activité et les aspirations entrepreneuriales. Il relève les facteurs déterminant 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.

Dans l'enquête 2013, les opportunités perçues pour créer une entreprise se révèlent plus élevées par rapport aux dernières années. En Suisse, le taux de création se situe en-dessus de la moyenne des pays basés sur l'innovation. Ces dernières années, il est intéressant de constater que la crainte de l'échec a chuté pour se situer à un niveau aussi bas que celui des Etats-Unis. Avec ce dernier pays, la Suisse se situe donc à la pointe de toutes les économies basées sur l'innovation.

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*Voir le glossaire pour les définitions et sources des indicateurs
** La moyenne des économies basées sur l'innovation

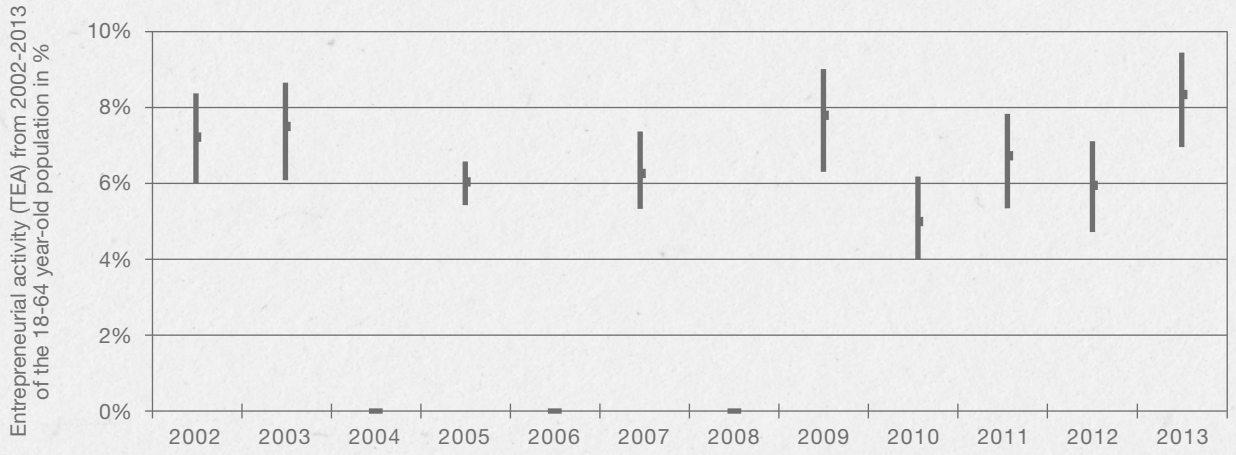
Profil Entrepreneurial

Pour 2013, la Suisse présente un grand potentiel par rapport à la création d'emplois attendus par le biais de nouvelles entreprises (Total Entrepreneurial Activity, TEA). De plus, une concentration sur les innovations (combinaisons produit-marché) et sur une orientation internationale est incontestée. Dans ce domaine, la Suisse occupe le 13ème rang, respectivement le 5ème rang. Cette position représente un effet positif à long terme. Il est connu, que les innovations au niveau produit et l'orientation internationale sont étroitement liées à la croissance de la demande globale. Cette dernière génère, à son tour, une croissance économique ainsi que de nouveaux emplois.
A l'exception des résultats de l'enquête menée en 2010, le taux de TEA suisse fluctue généralement entre 6 et 8 pour cent. Bien que l'aspect quantitatif de l'activité entrepreneuriale (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 au comportement entrepreneurial.
Les résultats suisses liés à l'activité entrepreneuriale des employés se situent en dessous de la moyenne des pays basés sur l'innovation. Par contre, la Suisse jouit de l'une des meilleures positions relative à l'entrepreneuriat féminin (dans le sens du rapport hommes-femmes pondéré).
En 2013, la Suisse occupait même la première place de toutes les économies basées sur l'innovation.

La structure des âges relative à la création d'entreprise en Suisse présente la particularité suivante : les jeunes entrepreneurs (18-24 ans) affichent le plus faible taux de création d'entreprise par rapport aux pays comparables, alors que la classe d'âge des 35-44 ans présente le taux le plus élevé de création d'entreprise. Pour la première fois, les chiffres recueillis concernant le bien-être et le comportement entrepreneurial explicitent, que les entrepreneurs suisses situent le niveau de bien-être ressenti à un niveau très élevé. Il est intéressant de remarquer, que le plus haut niveau de satisfaction est recensé auprès des jeunes entrepreneurs, mais aussi auprès des entrepreneurs établis. Les différences sont également marquantes en comparant les entrepreneurs des pays, comme la Norvège, les Pays-Bas et Singapour.

Evolution de l'Activité Entrepreneuriale Nouvelle (TEA)

Les conditions-cadres globales du réseau entrepreneurial en Suisse – comme celles de Singapour – se développent généralement mieux que celles des autres économies basées sur l'innovation incluses dans cette étude.
La Suisse atteint d'excellents résultats dans les domaines de la finance, de l'infrastructure économique, de la formation tertiaire ainsi que du transfert de connaissances et technologique, tout en affichant des dynamiques de marché interne stables.



Management Summary (IT)

Il rapporto per la Svizzera del GEM 2013 (Global Entrepreneurship Monitor) mostra notevoli differenze per quanto concerne gli atteggiamenti, le attività e le aspirazioni imprenditoriali dei diversi paesi che partecipano al rilevamento. Come ogni anno, sono stati rilevati ed analizzati anche per il 2013 i fattori che influenzano e determinano la natura e la dimensione delle attività imprenditoriali in Svizzera, come pure l'impegno politico a sostegno e promozione dello spirito imprenditoriale. Questi dati completano gli indicatori internazionali già esistenti in materia di competitività e d'innovazione.

Il rapporto mostra come in Svizzera nel 2013, rispetto agli anni precedenti, siano state percepite maggiori opportunità per avviare una nuova attività. La Svizzera si situa al di sopra della media dei paesi basati sull'innovazione. Colpisce il fatto che, negli ultimi anni, la paura del fallimento sia chiaramente diminuita, tanto che nel 2013 si attesta un livello persino più basso di quello rilevato negli Stati Uniti. Nel confronto internazionale, la Svizzera si colloca, con gli Stati Uniti, al primo posto fra tutte le economie basate sull'innovazione.

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*Per le definizioni e le fonti si veda il Glossario
**Media dell'economie guidate dall'innovazione

Profilo Imprenditoriale

La Svizzera, almeno nel breve periodo, non mostra un grande potenziale per la creazione di nuovi posti di lavoro nelle nuove imprese (Tasso di attività imprenditoriale, TEA). Questa mancanza di potenziale, ad eccezione degli Stati Uniti, vale anche per le economie degli altri paesi del gruppo di confronto della Svizzera. Ciononostante, si denota per il nostro paese un chiaro orientamento all'innovazione (nella combinazione prodotto mercato) e all'internazionalizzazione. Su queste dimensioni, la Svizzera si situa al ottavo posto, rispettivamente al sesto. In termini di effetti sul lungo termine questo posizionamento è sicuramente di buon auspicio. È noto, infatti, che l'innovazione di prodotto e l'internazionalizzazione delle imprese sono strettamente connesse con l'aumento della domanda globale, con la creazione di nuovi posti di lavoro e, quindi, con la crescita economica.
Ad eccezione del 2010, il tasso di attività imprenditoriale (TEA) in Svizzera si è mosso tra il sei e l'otto per cento. Anche se i decisori politici guardano soprattutto gli aspetti quantitativi del fenomeno, particolarmente interessanti e degni di nota sono pure gli elementi qualitativi del fenomeno, segnatamente, per esempio, le aspettative, più o meno elevate, in termini di creazione di posti di lavoro, oppure le attitudini ed i comportamenti imprenditoriali.

I risultati per la Svizzera riguardanti le attività imprenditoriali dei collaboratori (la cosiddetta intraprenditorialità) sono al di sotto della media delle economie basate, come il nostro paese, sull'innovazione. Tuttavia, la Svizzera gode di una delle migliori posizioni per quanto concerne il tasso d'attività imprenditoriale (TEA) delle donne che, nel 2012, ha ormai raggiunto un rapporto d'equilibrio (praticamente 1 :1) con gli uomini, posizionando la Svizzera al primo posto tra tutte le economie basate sull'innovazione.
Degna di nota, inoltre, per la Svizzera, è pure la struttura per età dell'attività imprenditoriale. Tra i giovani (18-24 anni), si constata il tasso più basso tra tutti i paesi comparabili con il nostro. Al contrario, la fascia di età compresa tra i 35 e i 44 anni presenta, nel confronto, una più alta attività imprenditoriale. I dati raccolti per la prima volta su imprenditorialità e benessere mostrano che gli imprenditori in Svizzera valutano il loro livello di benessere soggettivo in modo relativamente alto se comparato agli altri imprenditori nei paesi basati sull'innovazione. E 'interessante notare che la Svizzera detiene i tassi di soddisfazione più alti tra i giovani imprenditori, come pure tra gli imprenditori affermati. Le differenze sono sorprendenti anche rispetto a paesi simili economicamente, come la Norvegia, i Paesi Bassi e Singapore.

Andamento del Tasso di Attività Imprenditoriale Early-Stage (TEA)

In Svizzera, così come a Singapore, le condizioni quadro sono generalmente migliori rispetto a quelle degli altri paesi orientati all'innovazione che hanno partecipato allo studio. La Svizzera ha raggiunto ottimi risultati nei campi della finanza, delle infrastrutture economiche, nel trasferimento delle conoscenze e delle tecnologie, nonché nel campo della stabilità delle dinamiche interne del mercato.

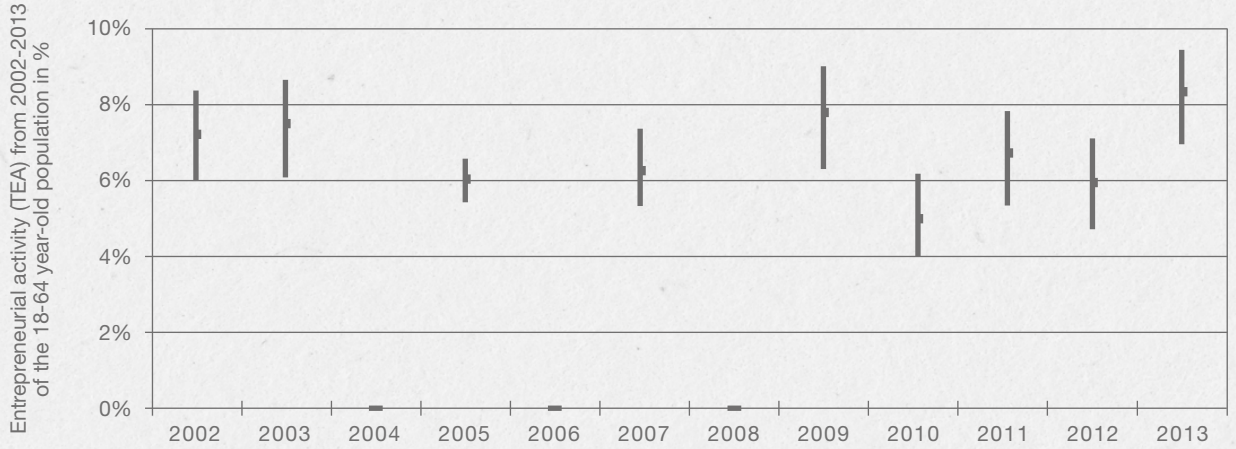

TABLE OF CONTENTS

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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 well-being of society. Since its beginning, GEM (Global Entrepreneurship Monitor) has had as one of its core principles, the objective 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.

For its 15 years of existence, GEM has measured entrepreneurship in 104 economies, and has gained widespread recognition as the most authoritative longitudinal study of entrepreneurship in the world. In 2013, more than 197,000 individuals have been surveyed and approximately 3,800 country experts on entrepreneurship participated in the study across 70 economies, collectively representing all regions of the world and a broad range of economic development levels. The samples in the GEM study covered an estimated 75% of the world's population and 90% of the world's total GDP.

GEM contributes to the understanding of the role played by new and small businesses in the economy by focusing on the following objectives:

- 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; and
- to guide the formulation of effective and targeted policies aimed at stimulating entrepreneurship.

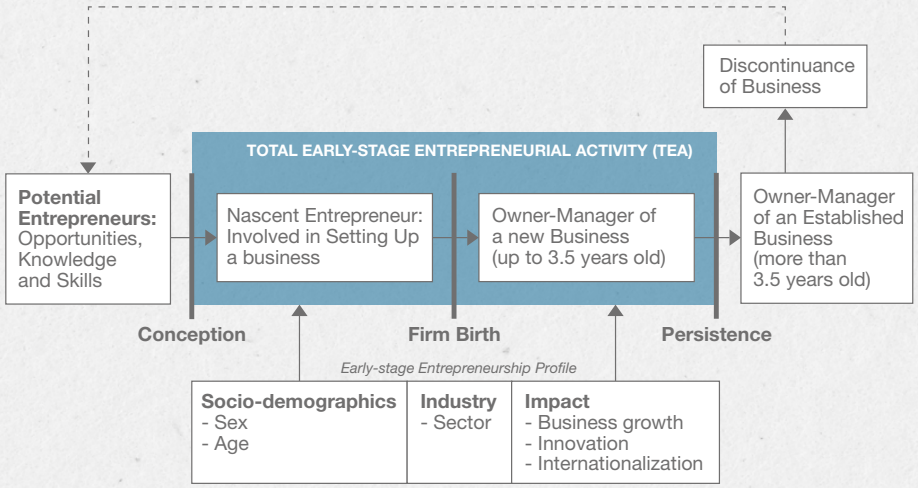
GEM provides a comprehensive view of entrepreneurship across the globe by measuring the attitudes of a population, and the activities and characteristics of individuals involved in various phases and types of entrepreneurial activity.

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.

Figure 1:
The Entrepreneurship Process

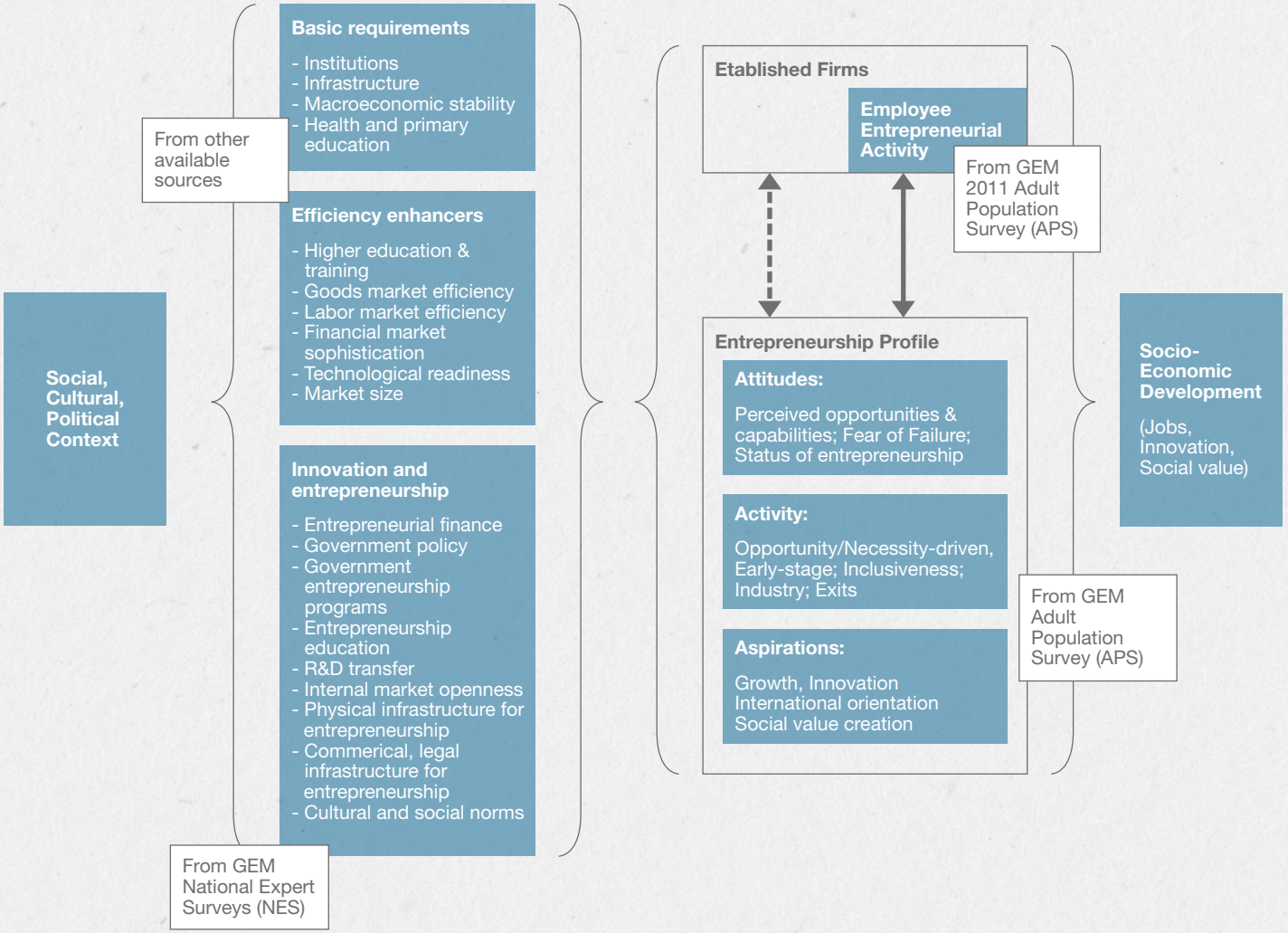


1.3 *The GEM Conceptual Framework and Methodology*

The current GEM model, shown in Figure 2, 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.

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

Figure 2:
The GEM Conceptual Model



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 two main sources, namely:

Adult Population Survey (APS)
Each participating economy conducts a survey of a random representative sample of at least 2,000 adults (aged 18 years old). 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 startup 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.

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), those running established businesses, and 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.

▸ **Table 1:**
Entrepreneurial Perceptions, Intentions and Societal Attitudes in Innovation-Driven Economies, 2013

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 +
Belgium	31.5	33.8	46.6	7.8	54.8	52.2	43.9
Canada	57.4	48.5	35.2	13.5	60.6	70.1	69.6
Czech Republic	23.1	42.6	35.8	13.7		47.8	
Finland	43.8	33.3	36.7	8.3	44.3	85.5	68.5
France	22.9	33.2	41.1	12.6	55.3	70.0	41.4
Germany	31.3	37.7	38.6	6.8	49.4	75.2	49.9
Greece	13.5	46.0	49.3	8.8	60.1	65.1	32.4
Ireland	28.3	43.1	40.4	12.6	49.6	81.2	59.9
Israel	46.5	36.2	51.8	24.0	60.6	80.3	49.1
Italy	17.3	29.1	48.6	9.8	65.6	72.4	48.1
Japan	7.7	12.9	49.4	4.1	31.3	52.8	57.6
Korea	12.7	28.1	42.3	12.1	51.3	67.8	67.6
Luxembourg	45.6	43.3	42.9	14.1	39.4	70.6	36.3
Netherlands	32.7	42.4	36.8	9.1	79.5	66.2	55.2
Norway	63.7	34.2	35.3	5.2	49.3	75.5	56.9
Portugal	20.2	48.7	40.1	13.2			
Puerto Rico	28.3	53.0	24.6	13.1	17.9	50.1	68.8
Singapore	22.2	24.8	39.8	15.1	50.9	59.4	75.3
Slovenia	16.1	51.5	29.6	12.4	57.4	68.1	50.5
Spain	16.0	48.4	36.3	8.4	54.3	52.3	45.6
Sweden	64.4	38.8	36.6	9.5	52.0	71.5	58.5
Switzerland	41.5	44.7	28.2	9.8	40.5	65.0	47.8
Taiwan	42.0	27.2	40.7	27.8	73.0	64.5	87.1
Trinidad & Tobago	58.0	75.3	19.8	28.7	79.5	72.0	61.0
United Kingdom	35.5	43.8	36.4	7.2	54.1	79.3	49.6
United States	47.2	55.7	31.1	12.2			
average (unweighted)	**33.4**	**40.6**	**38.2**	**12.3**	**53.5**	**67.3**	**55.7**

* fear of failure assessed among those seeing opportunities
** intentions assessed in non-entrepreneur (non-TEA) population
+ These questions were optional and therefore not included by all economies

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. Table 1 reflects the percentage of individuals who believe there are opportunities to start a business in the area they live in. Perceived capabilities reflect the percentages of individuals who believe they have the required skills and knowledge to start a new business. The measure of fear of failure (when it comes to starting your own business) applies to these individuals only. 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 we should consider that cultural differences and business-cycle patterns are an important explanation for the differences in perceptions across countries.

In the 2013 census the perceived opportunities (41.5%) to start a business are higher in Switzerland than in 2012 and higher than the average (33.4%) for innovation-driven economies. Nordic countries, such as Finland, Sweden, and Norway, remain at the top when it comes to available opportunities.

Switzerland shows, as in previous years, a rather high perception of capabilities paired with a very low fear of failure. 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 entrepreneurial intentions of Swiss inhabitants (9.8%) are higher than in 2012 (7.3%) and under the average (12.3%) for innovation-driven countries. Most remarkable are the differences between Switzerland, Singapore, Germany, and France. While in Germany only 6.8% of the individuals expect to start a business in the next three years, almost one-sixth of the individuals in Singapore and 12.6% in France are thinking about setting up a new business.

2.2 *Entrepreneurial Activities*

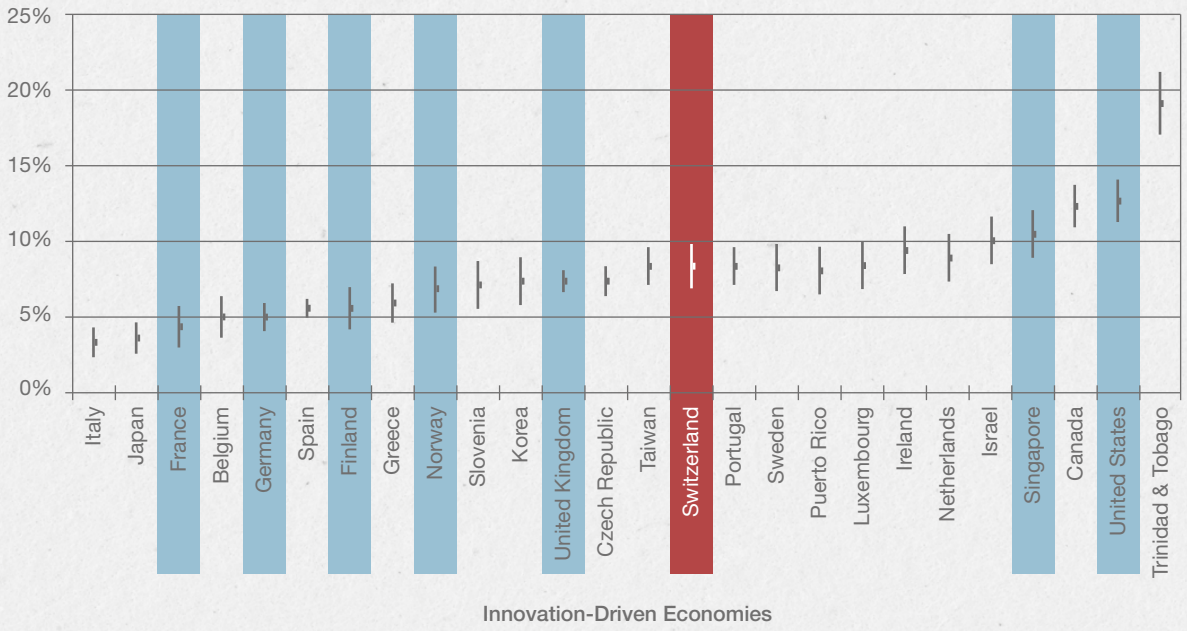
GEM conceptualizes entrepreneurship as a continuous process that includes nascent entrepreneurs involved in setting up a business, entrepreneurs who own and manage a new business, and entrepreneurs who own and manage an established business. In addition, GEM assesses the rate and nature of business discontinuations. As a result, indicators for several phases of the entrepreneurial process are available. Table 2 shows these entrepreneurial activity prevalence rates per phase of economic development. Taken together, these prevalence rates form a first glance of the entrepreneurial dynamics for each of the economies. In the remainder of this section, we elaborate on these phases of entrepreneurial activity. Most attention is paid to the situation in Switzerland, its development over the last years, and the comparison with innovation-driven economies.

▸ **Table 2:** Entrepreneurial Activity in Innovation-Driven Economies, 2013

Innovation-Driven Economies	Nascent entrepreneurship rate	New business ownership rate	Early-stage entrepreneurial activity (TEA)	Established business ownership rate	Discontinuation of businesses	Necessity-driven (% of TEA)	Improvement-driven opportunity (% of TEA)
Belgium	3.1	1.9	4.9	5.9	1.9	29.0	43.9
Canada	7.8	4.7	12.2	8.4	4.4	15.1	66.9
Czech Republic	4.9	2.7	7.3	5.3	3.4	22.7	60.3
Finland	2.7	2.7	5.3	6.6	2.0	17.9	66.0
France	2.7	1.8	4.6	4.1	1.9	15.7	60.9
Germany	3.1	2.0	5.0	5.1	1.5	18.7	55.7
Greece	3.3	2.3	5.5	12.6	5.0	23.5	35.8
Ireland	5.5	3.8	9.2	7.5	2.5	18.0	43.8
Israel	5.3	4.8	10.0	5.9	4.8	17.4	49.2
Italy	2.4	1.1	3.4	3.7	1.9	18.7	18.4
Japan	2.2	1.5	3.7	5.7	1.5	25.0	59.6
Korea	2.7	4.2	6.9	9.0	2.5	36.5	51.1
Luxembourg	6.0	2.8	8.7	2.4	2.8	5.6	56.6
Netherlands	4.7	4.8	9.3	8.7	2.1	8.0	67.1
Norway	2.9	3.4	6.3	6.2	1.6	4.0	60.8
Portugal	4.2	4.2	8.2	7.7	2.8	21.4	50.7
Puerto Rico	6.6	1.8	8.3	2.0	1.8	21.5	42.9
Singapore	6.4	4.4	10.7	4.2	3.3	8.4	68.8
Slovenia	3.6	2.9	6.5	5.7	2.6	24.1	53.4
Spain	3.1	2.2	5.2	8.4	1.9	29.2	33.2
Sweden	5.9	2.5	8.2	6.0	2.4	9.7	58.4
Switzerland	4.5	3.7	8.2	10.0	2.3	7.5	67.2
Taiwan	3.3	5.0	8.2	8.3	5.0	28.7	45.8
Trinidad & Tobago	11.4	8.5	19.5	11.4	4.1	11.2	76.0
United Kingdom	3.6	3.6	7.1	6.6	1.9	16.1	45.2
United States	9.2	3.7	12.7	7.5	3.8	21.2	57.4
average (unweighted)	**4.7**	**3.3**	**7.9**	**6.7**	**2.8**	**18.3**	**53.7**

2.2.1 Total Early-Stage Entrepreneurial Activity (TEA)

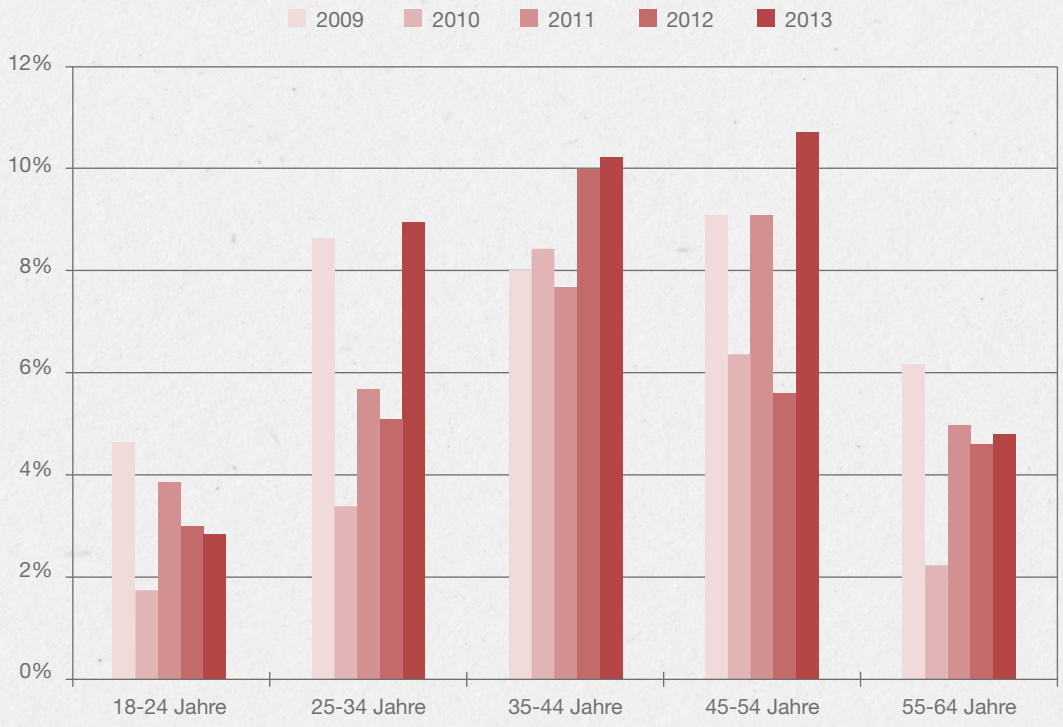
Figure 3:
Total Early-Stage Entrepreneurial Activity (TEA) in Innovation-Driven Economies, 2013



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 shows the TEA rates for innovation-driven economies. The 95% confidence intervals help to interpret the differences between countries. They measure the probability that the average value will fall within a certain range. Although the Swiss TEA rate tends to be higher than in neighboring countries such as France or Germany, adopting the 95% certainty, TEA rates of these countries are not statistically different from their Swiss counterpart. Among the comparison group, only the United States (12.7%) and Singapore (10.7%) 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 (8.2%).

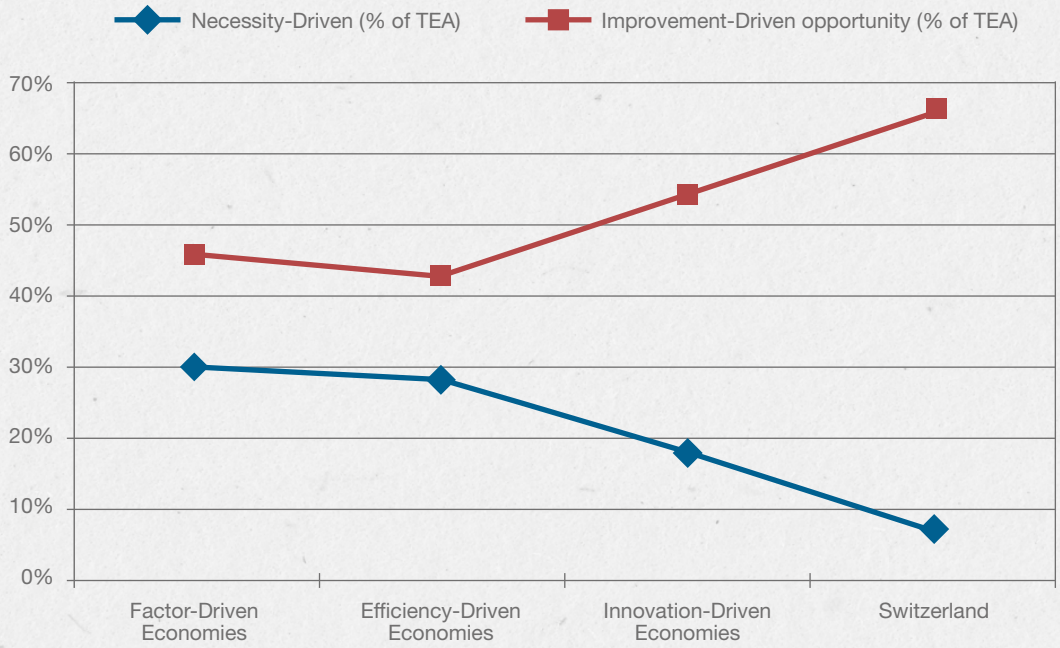
Figure 4:
Total Early-Stage Entrepreneurial Activity (TEA) in Switzerland by age, 2009-2013



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.
Entrepreneurial activity among the adult population older than 35 is high at 10.4%, 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 2.6%, the lowest and is clearly below average (6.3%) and 10.4% for entrepreneurs between 35-44 years (9.8% innovation-driven economies). 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 (4.3%).

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 setting out necessity-driven entrepreneurship and opportunity-driven entrepreneurship.
A necessity-driven entrepreneur 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 opportunity-driven entrepreneurs who indicate that the opportunity be linked to either earning more money or being more independent, as opposed to maintaining income.
As figure 5 and 6 illustrate, entrepreneurs in factor-driven economies tend to be driven equally by necessity and improvement-driven opportunity (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 Early-Stage Entrepreneurs (TEA) Motivated by Necessity and Improvement-Driven, 2013

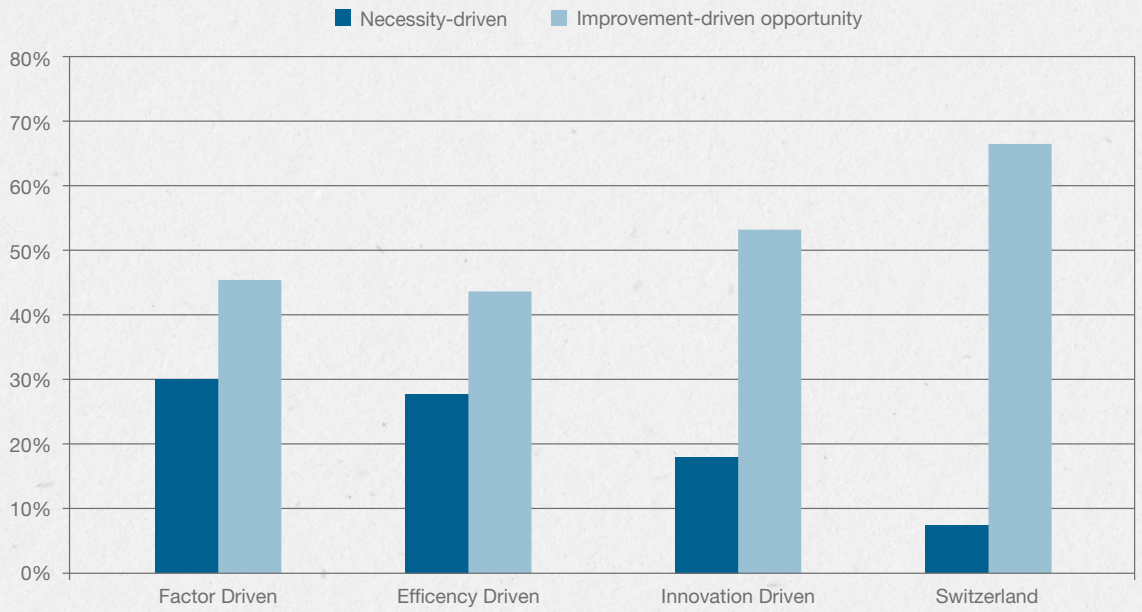
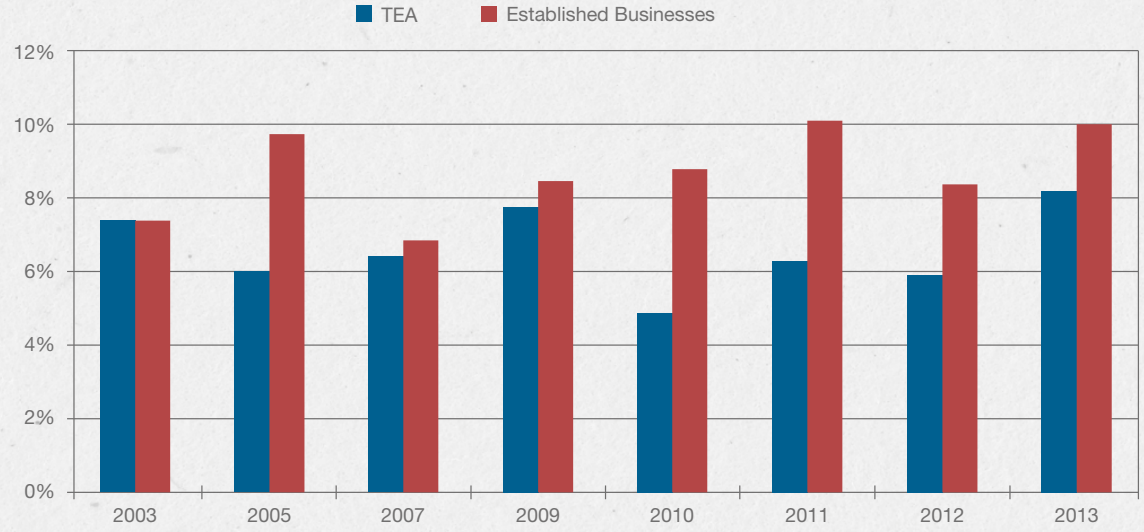


Figure 6:
Percentage of Entrepreneurs Motivated by Necessity and Opportunity, by Phase of Economic Development and Switzerland



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 provides some indication of the sustainability of entrepreneurship in a society.

Together with the TEA, the Swiss rate for established business is lower in 2012 (Figure 7). It is notable that the proportion of early entrepreneurial activity and established business remained almost the same as in 2012 and 2010. However, in 2007 and 2009 the two rates were much closer. 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 (Sweden, Japan, Finland, and Spain), shows comparatively high established business ownership.

◂ **Figure 7:**
TEA rates and established business rates from 2003 to 2013

2.2.4 Discontinuance

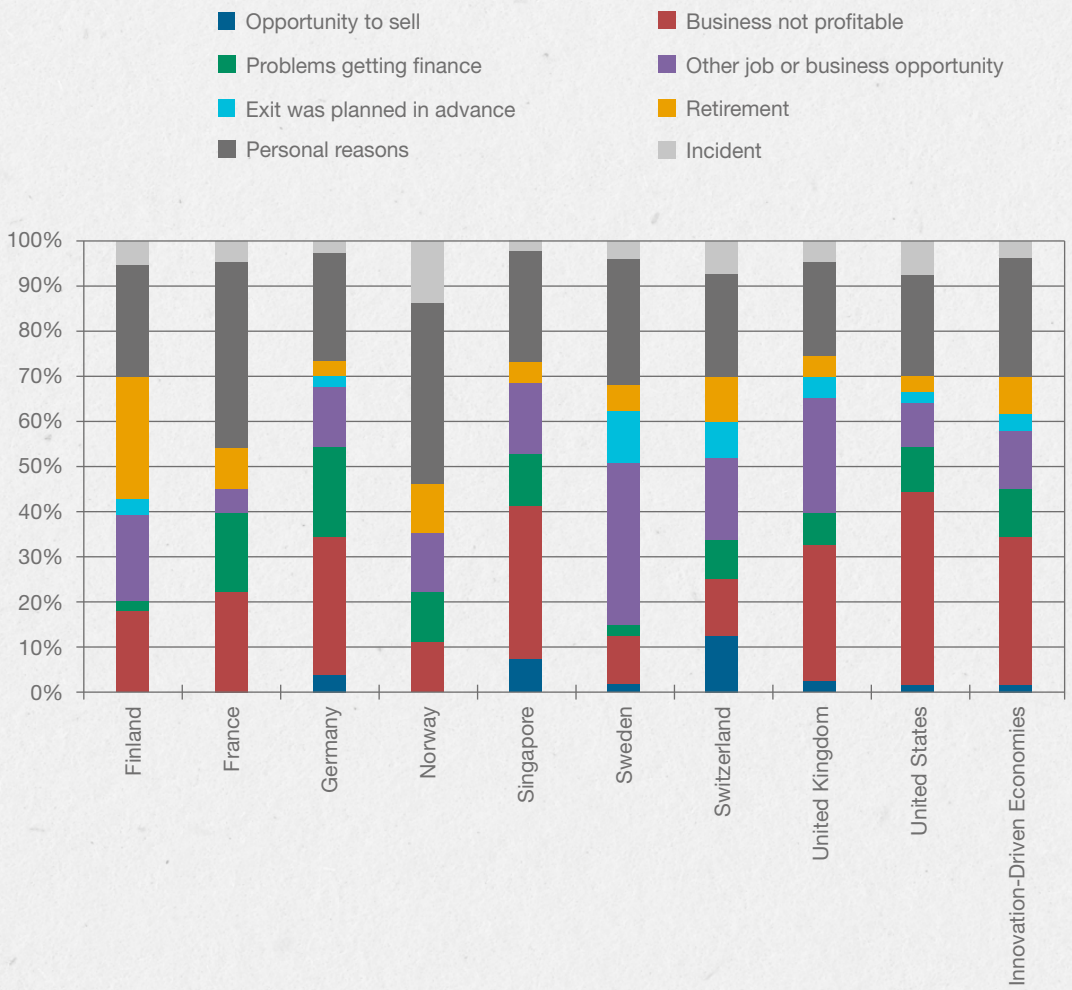
As new businesses emerge, others close. Those individuals selling or closing their businesses may once again benefit their societies by re-entering the entrepreneurship process. Recognizing the importance of this measure, GEM tracks the number of individuals who have discontinued a business in the last 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.

Financial difficulties and unprofitable businesses are considered "negative" reasons for abandoning a business. In Switzerland, these two reasons account for 18.8% of business discontinuance. 8.6% of all businesses were stopped due to financial reasons in Switzerland. Figure 8 shows that the average for innovation-driven countries is higher and in Finland, Sweden, UK and the USA finances are less important reasons 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 40% (compared to 2012: 20%) of all discontinuations in Switzerland. The opportunity to sell the business as the reason to discontinue merits attention. In 2013, 14% of businesses that ceased trading were sold (Figure 8), compared to 9% in 2011 and 12% in 2012. Among innovation-driven economies, Switzerland has the highest number.

Retirement is an issue in innovation-driven economies, for example, especially in several European countries and also in Japan — countries that are facing challenges with their ageing societies. The Swiss data for 2013 reveals that retirement is the reason why 8.7 % of all businesses were stopped in the last 12 months. On average one of four entrepreneurs stopped their business due to personal reasons. Personal reasons have higher importance in France (39%) and Norway (41%).

Figure 8:
Reasons for discontinuing a Business, Selected Countries and Switzerland, 2013

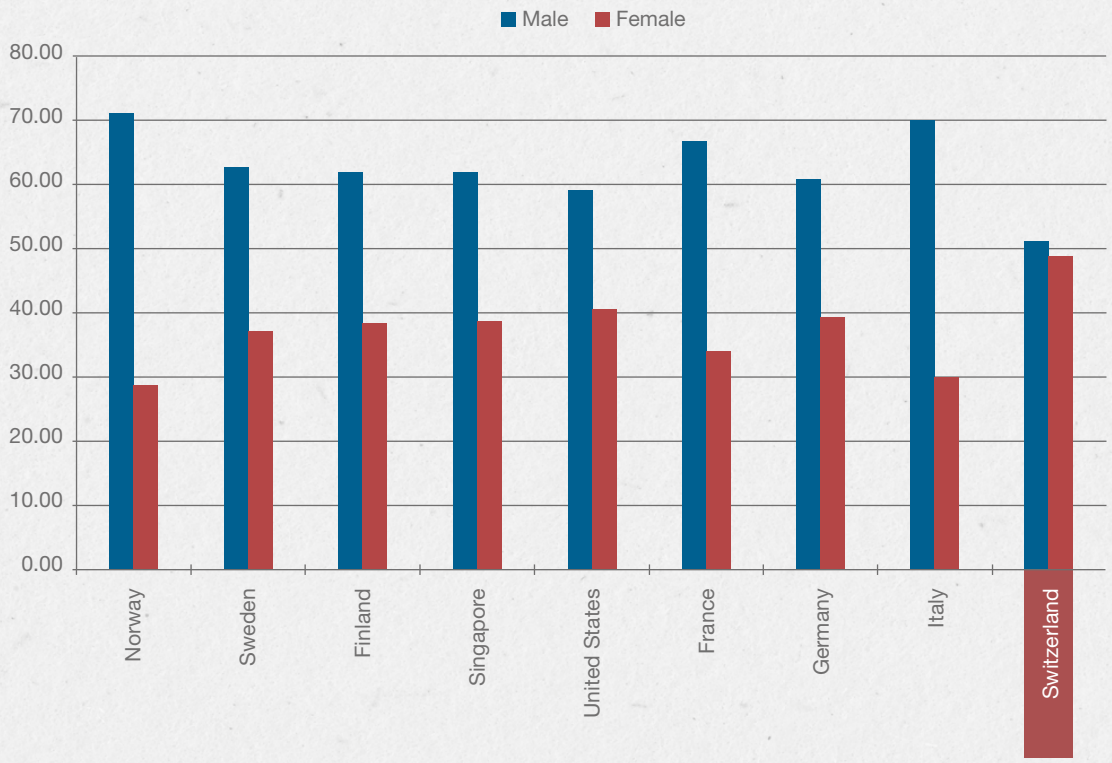


2.2.5 Women's Participation in Entrepreneurship

Not only do structure and nature of entrepreneurial activities vary across countries or over time, but gender, too, plays a determining role in such activities (Acs et al., 2008). Demographically, Switzerland has an equal proportion of men and women in the 15-64 age groups, which is also the case in most of the other nations in the world (CIA World Fact Book, 2013). However, as a global trend, the number of females engaged in entrepreneurial activity is in most countries historically lower than for their male counterparts, which may well be explained by various social, cultural, or economic factors. In some countries, the number of males participating in entrepreneurial activities can be dramatically higher and the male preponderance is obvious.
There also exist a few "outlier" nations where exactly the opposite scenario can be observed, that is, where female entrepreneurs outnumber male entrepreneurs; these include a few countries in Southeast Asia, Northern Europe and the USA. In addition to these extreme cases, however, there are economies where the female and male ratio of early-stage entrepreneurial activity is balanced. Female and male numbers that remain in equilibrium may sound like a desirable scenario since women's entrepreneurship brings about additional contributions to economic growth, such as job creation and the increased GDP that the global economy urgently needs (OECD Report, 2004). This category also includes Switzerland, which is very good news for this innovation-driven economy.
Actually, in terms of early-stage entrepreneurial activity, Switzerland enjoys the best position (meaning the equalized female-to-male ratio) when compared with other innovation-driven economies such as those in the Scandinavian countries or the French, German, Austrian and even U.S. economies (Figure 9 and 10). In other words, whereas the female-to-male ratio in Norway is 2 : 5, and in France 1 : 2, the ratio in Switzerland is 1 : 1.

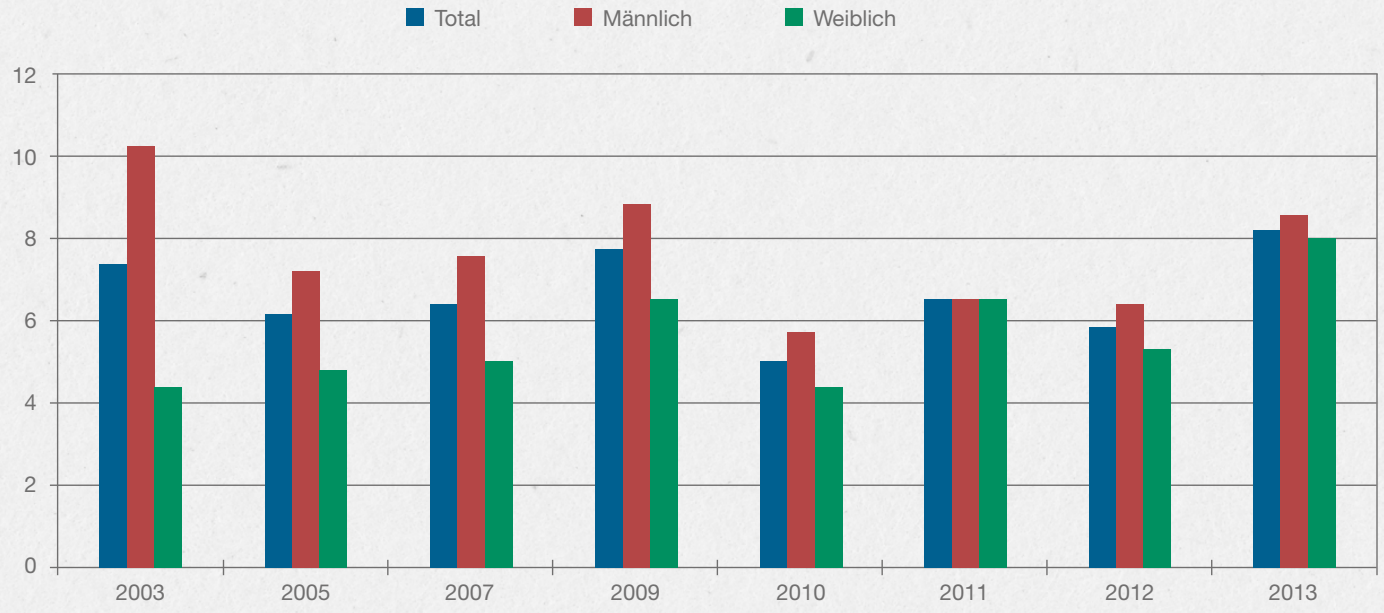
In 2003 founding activity was still predominantly male, but this has become increasingly balanced over the last four years. In 2013 development was stabilised, with efforts made to set up companies by men and women at almost the same level. If one analyses female entrepreneurship in Switzerland, it is striking that the portion of companies set up out of necessity is significantly lower than in other countries. This can be interpreted, on one hand, as a sign of women's strong position in economic activities combined with growing self-confidence, and on the other, as an indication of Switzerland'positive overall economic situation.

Figure 9:
Male and Female Early-Stage Entrepreneurial Activity 2013, by Country and Phase of Economic Development



A further reason could lie – according to Eurostat – in the above-average quota of working women (79.1%) and the high proportion of part-time work (60%) on an international scale. To maintain or raise the level of entrepreneurial activities carried out by women as far as possible, it is absolutely crucial to expand social support systems and force acceptance and promotion of women as entrepreneurs. Efforts of this kind require a change in society, and therefore much endurance in all respects.

Figure 10:
Relation Male and Female Early-Stage Entrepreneurial Activity 2003 -2013 in Switzerland



3 *Impact – Growth, Innovation, and Internationalization*

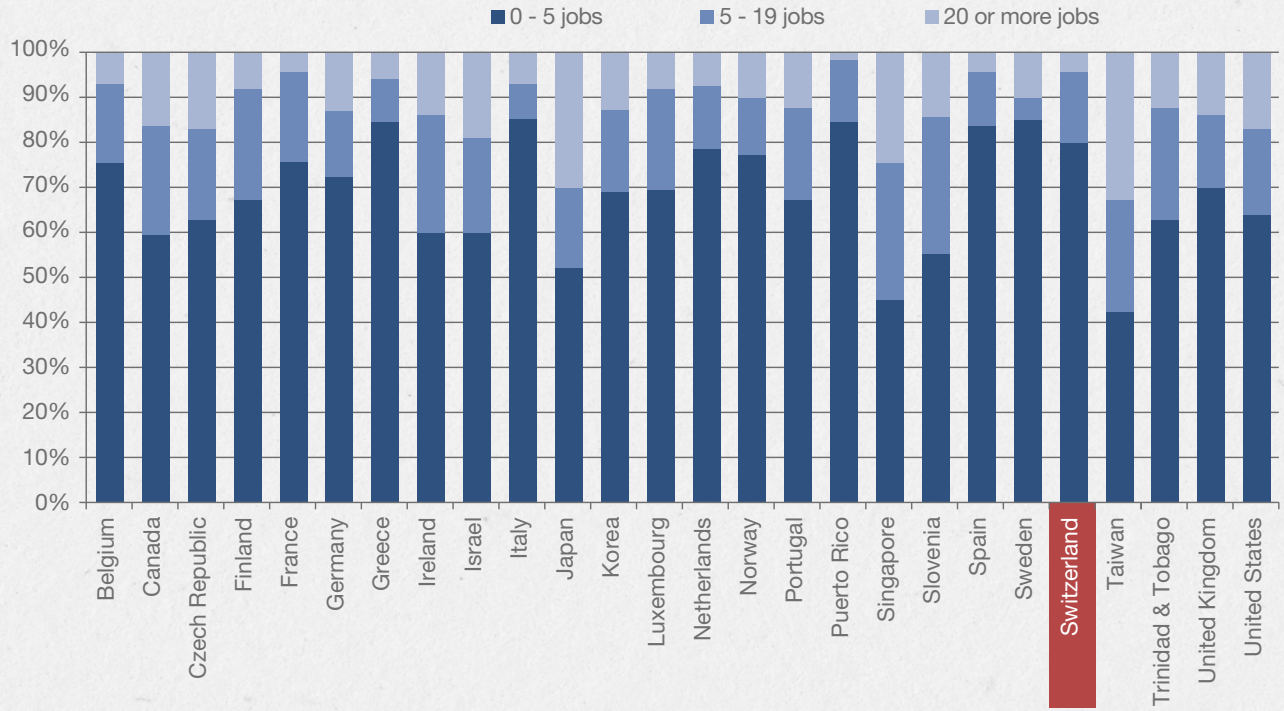
Ever since Schumpeter's day (Schumpeter, 1934) scholars and researchers, and others too, have concurred with the opinion that entrepreneurs make, in more ways than one, a significant contribution to economic development. Entrepreneurial activity, in fact, can boost the welfare of a nation (or a region) and produce a range of economic benefits, including: job creation, greater innovative capacity, and knowledge spill-over, to mention but a few (Ács, Autio, & Szerb, 2014). Audretsch (2007) argues that a region's welfare depends on its entrepreneurial capital. However, there is no simple or easy way of measuring the impacts of a given phenomenon; and this is mostly due to the time factor, since any appreciable results may take long to emerge. Also, the impact indicators tend to be circumscribed to the economic sphere (Glassey, Leresche, & Moeschler, 2013). To assess the overall effect of entrepreneurship across an economic system we would need to extend the current indicators to incorporate further dimensions. Bear in mind that, besides its economic and technological components, entrepreneurship is first and foremost a social process. The present chapter analyses entrepreneurial aspirations, namely the will of individuals to achieve the highest possible economic and social value (Farmer, Yao, & Kung-Mcintyre, 2011). Aspirations refer to some desire, a yearning, for something that we do not possess yet. As such, they reflect not only our attitudes, but also the way we want to see ourselves and, consequently, they are closely connected with the way we act and behave, or want to act and behave. The Global Entrepreneurship Monitor (GEM) measures the effects of the entrepreneurial phenomenon based on entrepreneurs' aspirations, particularly growth expectations (in terms of jobs), innovation (mostly as applied to products and services and markets) and, finally, international orientation. These indicators of entrepreneurial ambition have indeed been convincingly associated to the economic development of a nation or region (Bosma & Schutjens, 2011).

3.1 Growth Orientation

The latest available data on company demographics tell us that in 2011 over 11,500 firms were created in Switzerland, generating 20,500 jobs (Swiss Federal Statistical Office, 2011). A dip can be noticed in these figures compared to the previous year, which was characterised by strong economic growth. New firms continue nonetheless to represent a major source of new employment. An average of two jobs are created during the first year of a firm's activity; after five years the number of new jobs settles at 3.7 (Swiss Federal Statistical Office, 2013). In addition, some enterprises exhibit high growth trajectories, with annual payroll increasing on average by more than 20%, and turnover growing exponentially. These firms are often known as 'gazelles' (Birch, 1987). In the international context, Switzerland registers a relatively high rate of gazelles, approximately 0.5% of all enterprises (OECD, 2012). Generally speaking, growth aspirations, whether expressed by payroll figures or by turnover, account for a good deal of the impact of any entrepreneurial activity. In the survey entrepreneurs, defined according to Global Entrepreneurship Monitor criteria, were required to indicate their current number of employees and the number of employees expected in five years' time.

Figure 11 illustrates Total early-stage Entrepreneurial Activity (TEA) subdivided by growth expectations reflected in payroll numbers. The TEA index for Switzerland, at 8.2% in 2013, is made up of 80% of entrepreneurial activity with low growth expectations, where permanent staff is anticipated to increase by a maximum of 4 over the next five years. About 15% represents medium-growth activity (5 - 19 jobs) and the remaining 5.4% is made up of activities where staff is expected to increase by more than 20, over 10 percentage points less than in the United States and approximately 8 percentage points lower than the European Union average. This last figure is influenced mostly by Eastern-European economies, where activities with high growth-expectations hit a percentage of over 15% of their TEA. Even admitting that entrepreneurs with a high growth potential tend to overestimate the number of jobs they hope to generate, there is no denying that their activities will nonetheless influence job creation to a considerable degree (GEM, 2011).

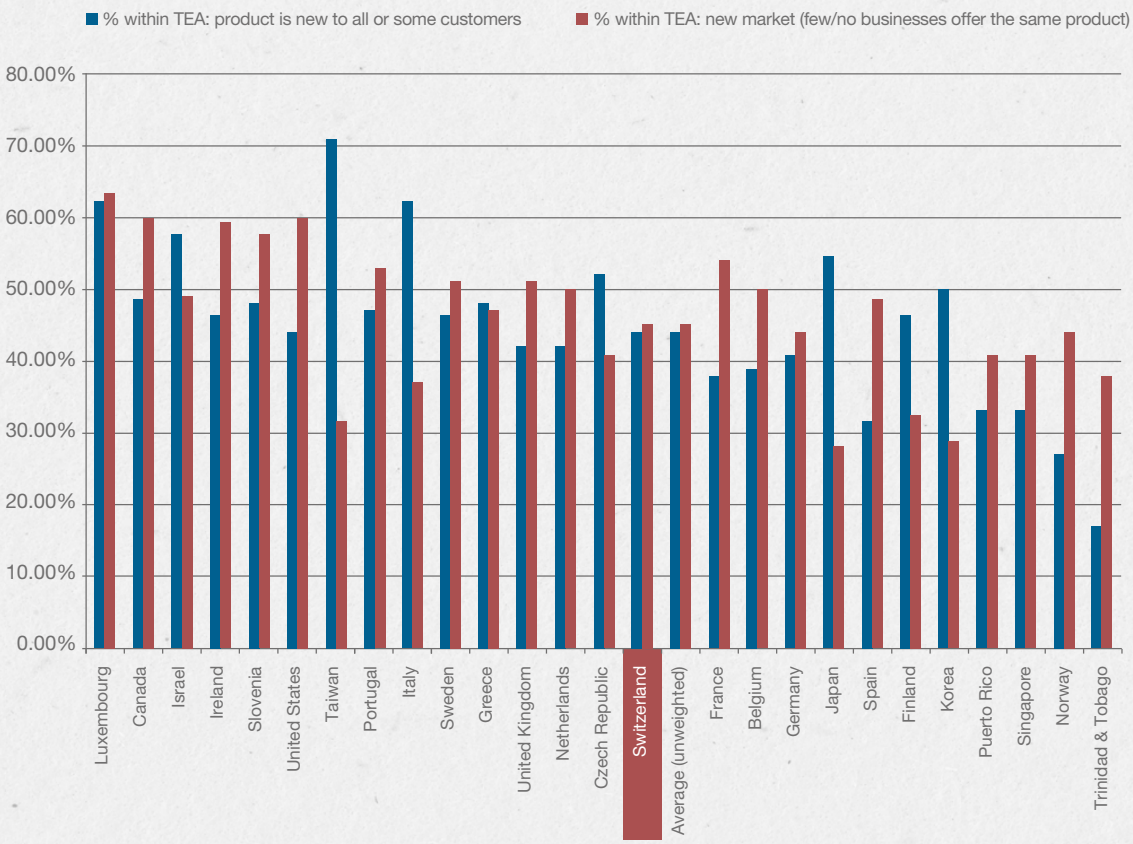
Figure 11:
Job Growth Expectations for Early-Stage Entrepreneurship Activity



3.2 Innovative Orientation

Entrepreneurship may be defined as an activity that involves discovering, assessing, and making the most of opportunities for launching new goods and services, new productive processes, new organisation models and new raw materials by husbanding resources and efforts that had hitherto been unavailable, or otherwise organised (Shane, 2003). Thus, the entrepreneurial process is closely associated to the promotion and launch of some kind of innovation. These innovations need not necessarily be related to Schumpeter's concept of creative destruction. They may also be classified as incremental or as disruptive. Recent data published by KOF (the Swiss Economic Institute of the Federal Institute of Technology Zurich) revealed that 40% of Swiss firms launched one product or process innovation over the 2009-2011 period (SECO, 2013). This was based on a three-year study on innovation commissioned by SECO and surveying 6,500 Swiss enterprises. According to the firms that responded to the survey, the main barriers to innovations include the high costs of the innovation projects, the long amortization periods, the risk of imitations and, last but not least, financial aspects, such as the fact that they do not have enough of their own money to support innovative projects. If, on the one hand, well-established, successful firms are usually rather risk-averse, on the other start-ups in their early stages have little to lose, inasmuch as they have no customers yet, no reputation and no turnover. Figure 12 shows the percentage of early-stage entrepreneurs with a propensity to innovate. Two measurements have been used: the percentage of TEA who declare they have introduced a new product or service for some or all of their clients, and the percentage of TEA with a market innovation.

Figure 12:
Percentage of Total Early-Stage Entrepreneurial Activity, new product market combination



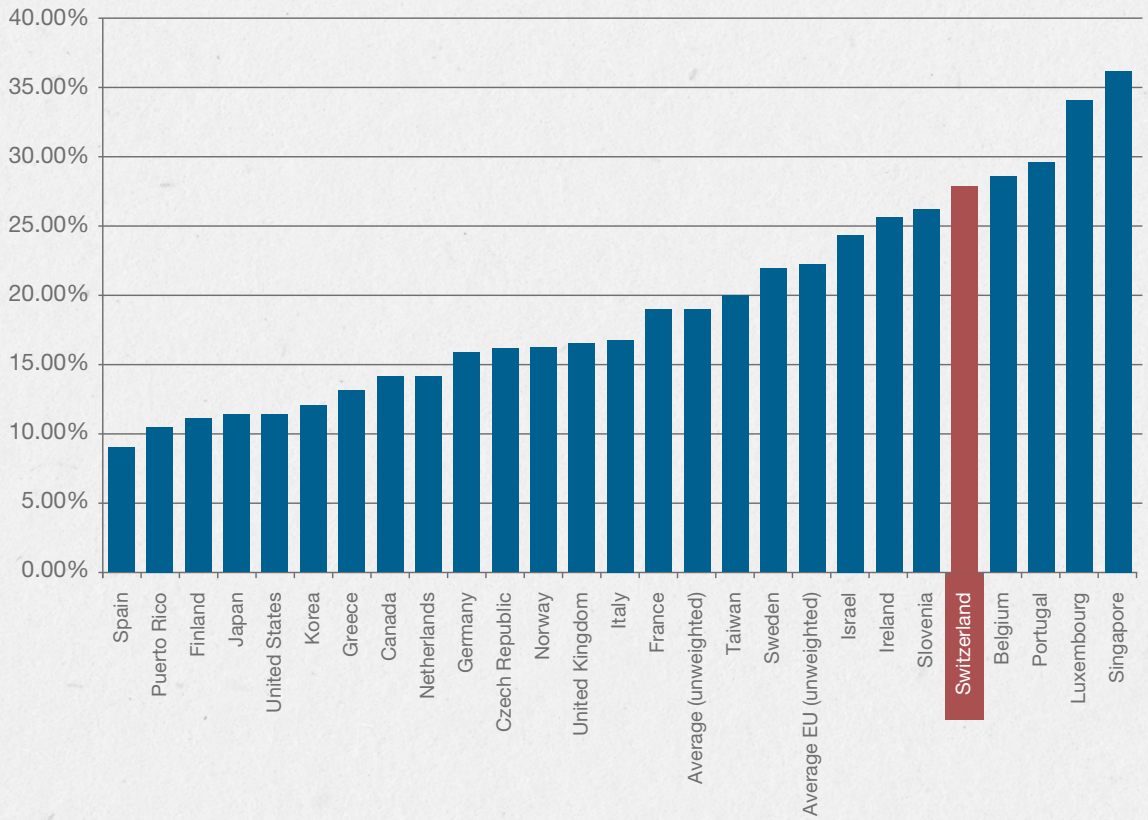
Switzerland's results appear to be in line with the average of the European Union countries. With regard to TEA, the percentage of firms which have launched a product or service innovation is situated just above 45% (with the average for EU countries at 46%), respectively just under 47% for firms with a market innovation, which exactly matches the EU countries` average. Switzerland went up by some percentage points compared to the previous year. We infer from the 2012 Activity Report of the Commission for Technology and Innovation that Switzerland is pursuing a valid innovation programme: its dual education system, the close cooperation between public and private, an attractive working environment, the efficiency of its labour market, well protected intellectual property rights, the presence of academic research institutes and of poles of excellence are but some of the contributing factors underpinning Switzerland's international ranking for innovation and competitiveness. Finally, it is worth pointing out that, for the 2013-2016 period, the Federal government has pledged investments to promote teaching, research and innovation, amounting to 26 billion francs, with an average annual growth of 3.7%.

3.3 International Orientation

Internationalisation is seen as one of the major drivers of growth for a company (Sapienza, Autio, George, & Zahra, 2006). These days, large enterprises are not alone in operating at the global level. Although a considerable number of small and medium-sized enterprises continue to be operative on a local, regional or national market, there is a steadily growing number of micro-firms and small, dynamic and innovative organisations operating worldwide or planning to launch an international activity (Baldegger, 2013). Broadly speaking, entrepreneurs in economies characterised by small domestic markets tend to emphasize internationalisation to a greater degree than economies with big domestic markets, in particular the BRIC countries and the United States. GEM measures the extent of internationalisation through the number of clients outside the country of origin.

Compared to the rest of the world, the International positioning of Swiss enterprises appears to be medium-high.
The proportion of early-stage entrepreneurs with at least 25% of foreign customers is 28%, more than 5 percentage points higher compared to the average of the EU countries, and one of the highest among innovation-driven countries. Compared with the year before, Switzerland registered a slight rise, equivalent to 3 percentage points. In most cases, opening to internationalisation calls for an initial expansion towards the markets of neighbouring countries, followed by an interest in the markets of new continents.

Figure 13:
Percentage of Total Early-Stage Entrepreneurial Activity, more than 25% of Customers from Abroad



4 *Institutional Context (Entrepreneurship Framework Conditions)*

Entrepreneurial activity is shaped by a distinct set of factors called Entrepreneurial Framework Conditions (EFCs). These EFCs define the climate which defines inputs and outputs of Entrepreneurship. The GEM model (Figure 2) illustrates the relevant national conditions that impact on economic development and activity more generally, and those facilitating innovation and entrepreneurship more specifically in a society.

The third set of framework conditions is expected to concern public and policy makers in innovation-driven economies. The features that are expected to have a significant impact on the entrepreneurial sector are captured in the nine Entrepreneurial Framework Conditions (EFCs) and are illustrated and described in Table 3. The National Experts' Survey (NES) provides insights into the ways in which these EFCs either foster or constrain an 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. The responses are measured on a 5-point Likert scale where a score of 1=completely false and 5=completely true. The statements are phrased so that a score above 3 would indicate that the expert regarded the factor as rather positive for entrepreneurship, while a score below 3 would indicate that the expert regarded the factor as somewhat negative for entrepreneurship.

Table 4: displays the assessed values of the nine EFCs in Switzerland as well as the values of other innovation-driven countries that serve as a comparison group.

The financial support framework condition describes the supply and demand of financial resources, especially for new and expanding businesses. Swiss experts evaluate the financial environment for entrepreneurship and innovation positively. This is in line with the results of previous years. However, the lack of debt finance, venture capital and funding through IPOs for new and growing firms is perceived as suboptimal. Only Singapore, among the comparison group, offers a better financial support framework.

The national policy (general policy and regulation) entrepreneurial framework condition relates to the extent to which government policies, as a whole, influence 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 small business sector. Again, this framework requirement is valued positively in Switzerland and lies clearly above the average of all innovation-driven economies. However, Swiss experts see a bigger potential for improvement regarding the administrative processes for the incorporation of an enterprise, i.e.

Table 3:
The GEM 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 give support to 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 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 basic school (primary and secondary) level and,
   4b. Entrepreneurship Education at post school levels (such as vocational, college, business schools).
5. *R&D Transfer*. The extent to which national research and development will lead to new commercial opportunities and is 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*. 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.

reducing the time required to get permits and licenses.
The government programs framework condition relates to the presence of programs and other initiatives to support new and growing firms. Experts in Switzerland rate the presence of programs and other initiatives (science parks, business incubators, support organizations etc.) to support new and growing firms throughout positively, i.e. an average score of 3.5.
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. The variable primary and secondary education is assessed negatively (below 3) in Switzerland (2.4). Experts criticize the lack of attention that is given to creativity, self-sufficiency, and personal initiative, instruction in market economic principles and entrepre neurship in primary and secondary education. Again, the Netherlands (3.1) is the only country with a score above 3 for this item and thus might serve as an example for an entrepreneurship-friendly primary and secondary education. On the other hand, Swiss experts estimate that in post-secondary education (colleges, university and professional education) enough appropriate preparation is provided for new starting-up and growing firms. 3.4 is the peak value of the comparison group and virtually identical with the value of the Netherlands (3.3).

The research and development framework 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. Switzerland has the highest score for that building block of the entrepreneurial ecosystem.
The commercial and legal infrastructure framework conditions relate to the presence of property right, commercial, accounting, and other legal and assessment services and institutions that support or promote SMEs. In Switzerland, this framework requirement has always been assessed positively. The Swiss value is only topped by the Netherlands. On the negative side, Swiss experts deplore the high costs for new and growing firms through the use of subcontractors, suppliers, and consultants.
Internal market dynamics refers to the level of change in markets from year to year. The Swiss value for market dynamics is 2.7, i.e. in the eyes of the experts it tends to be wrong that both the markets for B2C and for B2B goods and services change dramatically from year to year. This component of the EFCs has always been valued negatively in Switzerland. However a confirmed tendency over the last 5 years towards a more dynamic domestic market can be observed. Internal market openness relates to the extent to which new firms are free to enter existing markets and is valued positively for Switzerland.

Table 4:
Entrepreneurial Framework Conditions in selected innovation-driven countries

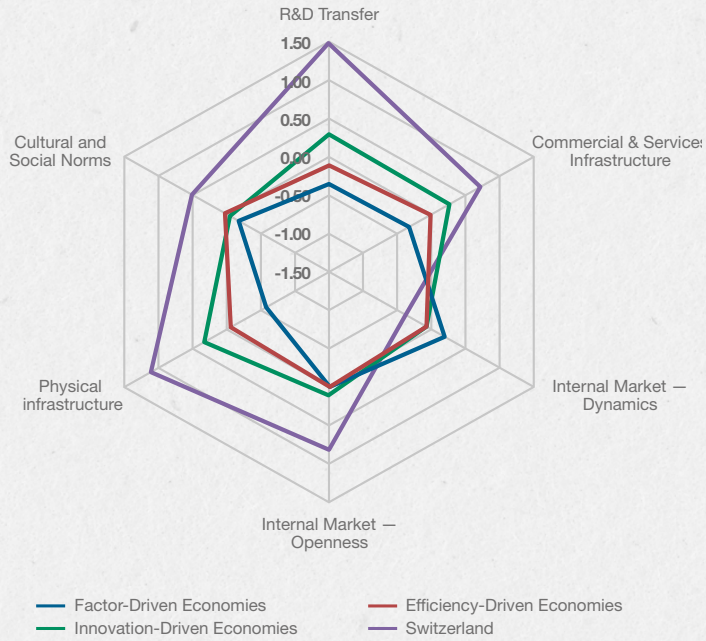
	Finance	National Policy - General Policy	National Policy - Regulation	Government Programs	Education - Prim. and Second.	Education - Post-School
Belgium	2.6	2.6	2.2	3.3	2.0	3.1
Finland	2.8	3.3	3.1	2.9	2.7	2.9
France	2.9	3.3	3.0	3.2	1.7	2.7
Germany	2.8	2.6	2.6	3.4	1.9	2.6
Italy	2.5	2.0	1.5	2.1	1.7	2.6
Netherlands	2.8	3.0	3.2	3.0	3.1	3.3
Singapore	3.5	3.7	4.1	3.7	2.8	3.2
Sweden	2.3	2.7	2.5	2.7	2.3	2.4
Switzerland	**3.0**	**3.4**	**3.7**	**3.5**	**2.4**	**3.4**
United Kingdom	2.7	3.0	2.6	2.7	2.2	2.6
United States	2.6	2.8	2.2	2.6	2.2	3.1

	R&D Transfer	Commercial Infrastructure	Internal Market – Dynamics*	Internal Market – Openness	Physical Infrastructure	Cultural and Social Norms
Belgium	2.6	3.3	2.8	2.7	3.7	2.2
Finland	3.0	3.5	2.8	2.9	4.3	2.9
France	2.5	3.0	3.2	2.4	4.2	2.2
Germany	2.8	3.3	3.2	2.8	3.7	2.8
Italy	2.5	3.1	3.5	2.5	3.3	2.1
Netherlands	2.8	3.8	2.9	3.3	4.6	3.1
Singapore	3.2	3.5	3.5	3.4	4.5	3.2
Sweden	2.4	3.0	3.4	2.6	4.2	3.2
Switzerland	**3.5**	**3.6**	**2.7**	**3.3**	**4.7**	**3.3**
United Kingdom	2.5	3.1	2.8	2.7	3.9	3.1
United States	2.4	3.2	3.2	2.9	4.2	3.9

The EFC 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 2013, Switzerland had again the highest ranking for physical infrastructure (4.7) of all assessed countries. The cultural and social norms, which describe the encouraging or restraining environment regarding new business activities, are positively assessed in Switzerland (3.3). However, Swiss experts notice that the Swiss culture doesn't encourage entrepreneurial risk-taking. This EFC seems to be significantly better than in the countries of the comparison group, especially our neighboring countries (Italy, France and Germany). But it is still considerably lower than the value of the United States, to which we like to compare. Figures 3 and 4 show standardized Z-scores for each EFC. Both illustrations visualize that many EFCs differ by economic development phase. The clearest differences in the 2013 NES results are government programs, national policy regulation and physical infrastructure and R&D transfer. However, some other EFCs do not present such clear differences; for example, cultural and social norms. In addition to that, both spider charts underline to what extent the Swiss entrepreneurial ecosystem is perceived as highly favorable, new and growing firms.

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

Figure 15:
Composite indicators on Entrepreneurship Framework Conditions, by stage of development compared to Switzerland



5 *Fifteen Years of GEM – Indicators and Trends for Switzerland*

In 1997, when the first efforts were made to establish the GEM Project, entrepreneurship was a topic of growing interest for scholars from around the world. Many studies revealed the importance of entrepreneurship for economic development. On the other hand, the lack of worldwide comparable data about new venture creation became apparent. Even though company registers exist in many countries, the data collection has often not been carried out systematically and the requirements to be subscribed to such a register can vary from one country to another (Reynolds, Storey and Westhead, 1994). The main aim of the Global Entrepreneurship Monitor was therefore to determine differences in the level of entrepreneurial activities between economies and to identify the relationship between entrepreneurship and economic well-being (Amorós, J. E. and Bosma, N., 2014). With the launch of the first GEM executive report two years later, namely in 1999, 10 national teams from across the world were participating. Since its beginning, the GEM is conceived as a long term project that implies the participation of as many nations as possible from across the globe in order to cover all the regions of the world economy. Meanwhile, the GEM study has gained more and more importance. The GEM adult population survey database has grown to nearly two million observations in 104 economies.

The focus of the study developed from an indicator based view to a more encompassed view on entrepreneurship (Amorós, J. E. and Bosma, N., 2014). In addition to this, the survey has been enriched through special topics, of which some new questions have found their way into the permanent questionnaire.

The first Swiss team, constituted by members of the University of St. Gall, started in 2002 to conduct the national survey and released a total of four country reports in the years of 2002, 03, 05 and 07. In 2009 the Institute for Entrepreneurship from the School of Management in Fribourg took the lead in the GEM Switzerland Project. Since then, Switzerland has been participating on an annual basis and five additional country reports have been released. Thus, scholars, the media and other interested parties have been able to get a more and more pronounced and distinctive idea on entrepreneurial activities and the entrepreneurial framework conditions in Switzerland. Thanks to the GEM survey, many particularities have already been identified for Switzerland: as one of only a few countries in the world, Switzerland has, since 2011, a virtually identical distribution of entrepreneurs among the genders (cf. Box: Women's Participation in Entrepreneurship). In addition to this, the number of entrepreneurs that start with their activities after the age of 45, so-called "senior entrepre-

neurs", a distinctive characteristic of innovation based economies, is particularly high in Switzerland. Last but not least, the special topic on immigrant entrepreneurship in 2012 revealed that in our country, immigrants tend to be involved in entrepreneurial activities twice as often as the Swiss (Baldegger, R. et al., 2013).

Figure 16 shows the entrepreneurial profile of Switzerland compared with the average profile of the three country groups. In order to get more statistical precision, the profile is merged on the data of the past three studies (2011-2013). The average across all economies is set at zero and the standard deviation across all economies equals one.

By applying this method we can consider any difference between the countries, the economies or from the mean zero as substantial. According to this graph, innovation driven economies show a lower entrepreneurial profile in every aspect than factor and efficiency based economies and are thereby also below the overall average. The biggest differences among the stages of development can be observed via the estimated high job creation of new ventures. In order to measure this variable, the respondents of the adult population survey that are involved in early-stage activities were asked if they expect to grow their business to more than 20 employees within the next five years. Whereas new ventures in efficiency driven economies very often estimate such a high job growth for their near future, factor based and innovation based economies are together at a much lower level in this aspect. Considering the entrepreneurial profile for Switzerland, we can observe that this high job growth expectation is at a particularly low level. In this aspect, we even observe the largest negative deviation from the average of innovation driven economies and Switzerland. On the other hand, we can state that the perceived opportunity rate across the population is at a very high level, and above the average of innovation based economies. Many people see good opportunities to start a business in the area they live in within the next 6 months. Out of our comparison group, only the United States are at an equally high level. This characteristic is not very surprising considering the relatively high number of technical universities and very competitive global companies that house research and development centers in Switzerland. The patent application per capita is the highest in Europe and one of the highest in the world . On the other hand, Switzerland lacks in implementing these recognized opportunities into actions. Since the beginning of the survey in 2002, the TEA rate has moved between 5 and 8 per cent. Even though our neighboring countries, Germany and France, are at an equal level regarding early-stage activities, the average of innovation driven economies is

slightly higher and other innovation driven economies such as Singapore and the United States, two economies we like to compare with, are characterized by much higher entrepreneurial activities (cf. figure 17). The strongest deficit for Switzerland, however, remains in the low rate of entrepreneurial activities with a high growth job expectation. A large gap between economies such as Singapore and the United States and middle European countries can be observed therefore. Future efforts in the Swiss economy must be geared towards the transfer of business opportunities into high growing ventures that create many new jobs and thus strengthen the national economy.

Nevertheless, the Swiss economy is characterized by a pronounced stability. Most of the new ventures arise from recognized business opportunities that are put into action. The opportunity costs for these entrepreneurs are, in general, quite high. Necessity-driven entrepreneurship, i.e. entrepreneurial activities undertaken from individuals that have no better choice for work, is rather rare. On a global level, the GEM research has discovered some interesting interactions between an economic indicator by country and GEM data. Initial input was provided by the recent economic crisis, regarded as the worst since the great depression, and some growing evidence that in a recession, small firms may

Figure 16:
The entrepreneurial profile compiled by 2011-2013 data, by stage of development compared to Switzerland

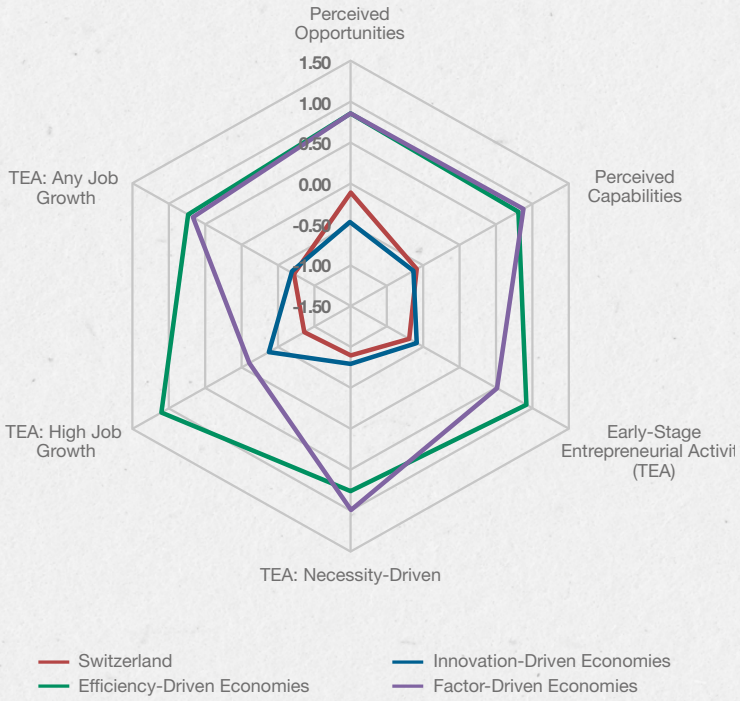
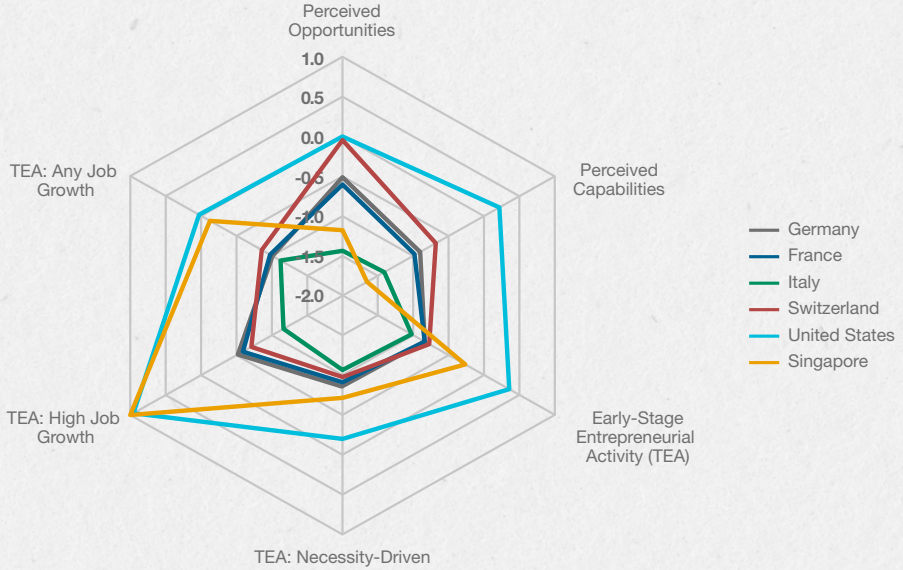


Figure 17:
The entrepreneurial profile compiled by 2011-2013 data, in selected innovation-driven countries



react differently to large, established firms (cf. Moscarini and Postel-Vinay, 2012 ; Amorós, J. E. and Bosma, N., 2014). In the United States, nascent entrepreneurship rates tend to follow annual rates of GDP. The descending annual GDP rates between 2005 and 2009 in the US were accompanied by a declining rate of nascent entrepreneurship in the same period while necessity-driven entrepreneurship, with a delay of a year, dramatically increased.
In Argentina, a country that was hit hard during their major crisis in 2000-2002 and that also struggled between 2009 and 2010, we can observe that rates of necessity-driven entrepreneurship increased together with unemployment rates and declining GDP growth rates without any time lag. As an immediate reaction to a recession, the number of entrepreneurial activities in Argentina that result because they have no better option for work increases (Amorós, J. E. and Bosma, N. 2014).
In Switzerland, even though unemployment rates remained on a remarkably low level during the past decade, GDP growth rates fluctuated widely from an annual growth of almost 4% during 2006 and 2007 to zero growth in the beginning of the century, namely 2002 and 2003, and even a negative growth in 2009. As we can see in figure 3, these wide fluctuations of GDP growth are not accompanied by drastic changes in necessity entrepreneurship rates. Necessity entrepreneurship in Switzerland varied only between 0.5 and 1.1 percent during the last 11 years. However the number of nascent entrepreneurs seems to increase simultaneously to a decreasing GDP growth. Considering the total entrepreneurial activities during the same period we can observe the same trend : entrepreneurial activities are related negatively to economic growth (see figure 19). This means that in times of declining economic growth the general entrepreneurial activities tend to increase and vice versa. Nevertheless we have to consider that we are looking back at a still relatively short period of GEM data collection. Increasing and decreasing TEA and necessity rates could also represent a time delayed reaction on economic changes. However, such a conclusion could only be drawn in a longer-term view.

Figure 18:
GEM indicators
and economic indicators
for Switzerland, 2002-2013

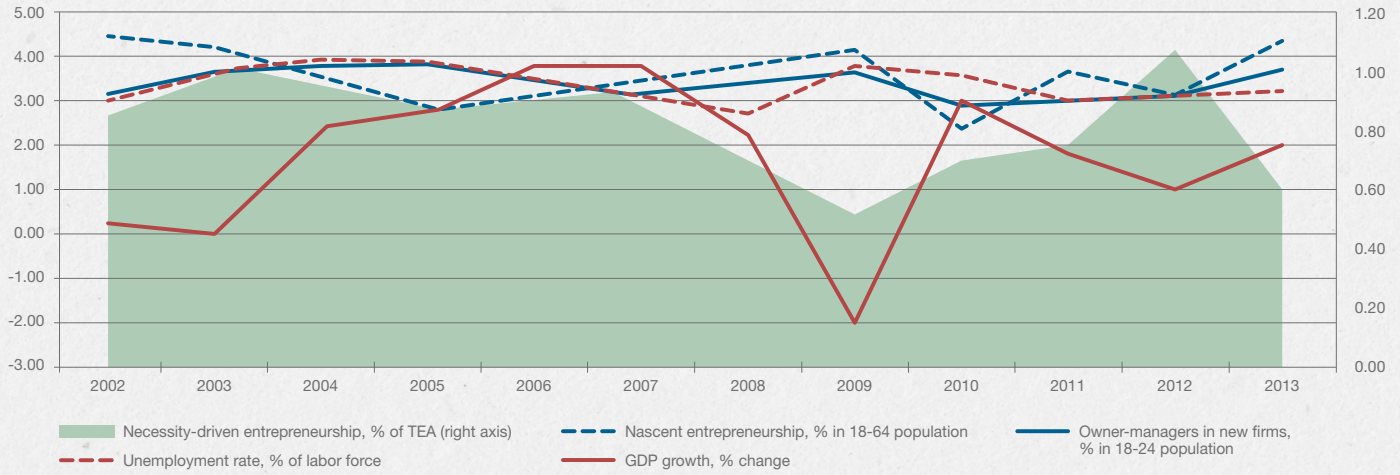
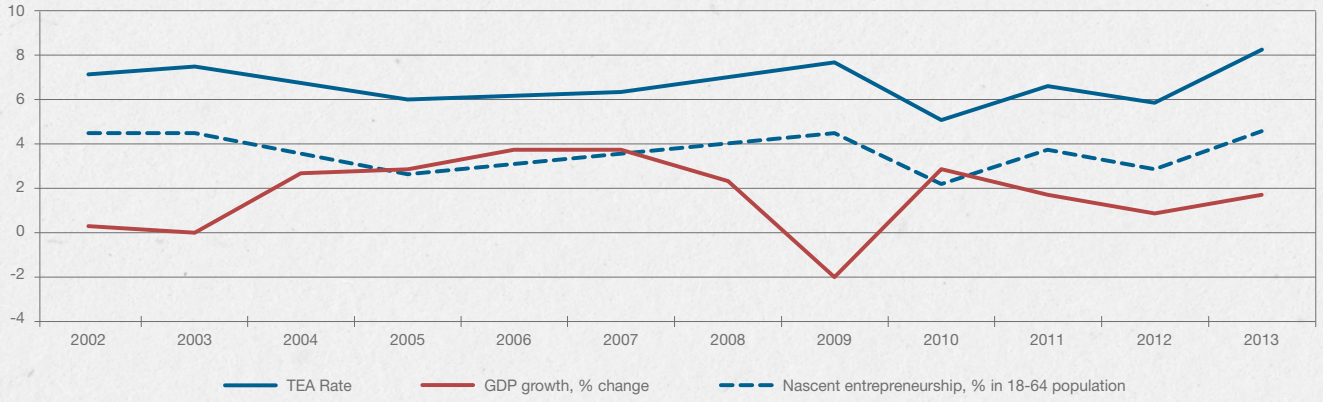
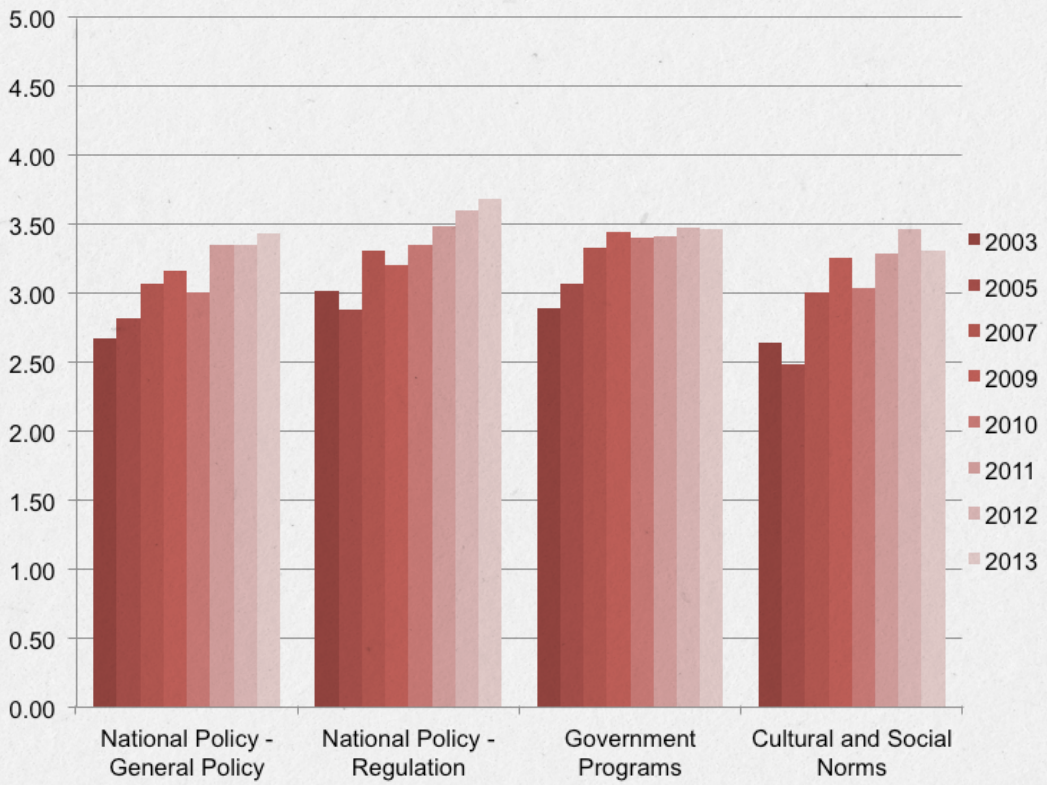


Figure 19:
GEM indicators
and economic indicators
for Switzerland, 2002-2013



By looking back to over 10 years of GEM research in Switzerland we are not only able to illustrate the trends and highlights in entrepreneurial activities across the population, we can also observe changes in the entrepreneurial framework conditions. The entrepreneurship framework conditions (EFC), treated in detail in chapter 4 : Institutional Context, are rated each year by 36 selected experts from various fields such as financing, policy-makers, journalists etc. Many of them are entrepreneurs themselves. Every expert responds to a closed questionnaire on factors relating to our entrepreneurial environment. The questionnaire consists of statements that have to be rated on a five-point Likert scale from 1 for completely false to 5 for completely true. Out of nine groups of EFC (cf. chapter 4 : Institutional Context) we can clearly identify 4 general conditions for entrepreneurs that have been rated increasingly better over the last ten years. By looking at figure 20 we can observe that national policy-makers seem to have steadily improved the conditions for entrepreneurship, by conditions that were rated rather negatively in the beginning of this century to positive or rather positive conditions by the end of last year. Policies such as tax regime, labor market regulations or social security regulations influence new and growing firms in a positive way and are above the average of innovation-driven countries in Switzerland, especially the regulation policy. Government programs to support new and growing firms (i.e. incubators, start-up support, science parks etc.) have also been improved over the last decade and are, today, rated positively by the experts. Nevertheless the rating has stagnated over the past five years with a value of 3.4. The strongest positive change can be observed with regard to the extent to which cultural and social norms in Switzerland are encouraging entrepreneurial activities. Whereas in the first half of the last decade, the cultural and social norms have been considered to restrain new business activities, the awareness of entrepreneurship as a real career opportunity and the very image of entrepreneurs have increased considerably in the last few years.

Figure 20:
Developments of selected economic framework conditions in Switzerland (EFCs), 2003-2013



6 *Entrepreneurship and Well-Being*

Entrepreneurship is a multi-faceted phenomenon and since the turn of the century, it has been closely monitored by GEM for a wide range of economies through its various aspects, such as attitudes, activities and aspirations. Yet, there are several important dimensions of entrepreneurship that are underexplored and the GEM special topics[3] contribute to the efforts of broadening the scope of entrepreneurship in this sense. Having said that, this year's attention is on a topic that has attracted growing interest by both academics and policy makers, i.e. the linkages between entrepreneurship and the well-being of people engaged in entrepreneurial activities.

Subjective well-being (SWB), defined as the degree of satisfaction with work- and private-life, is acknowledged to be an essential but neglected dimension in measuring a country's development (Naudé et al., 2014). Historically, both micro- and macro-level performance measurement tools have been predominantly finance-oriented (e.g: GDP), reflecting a single dimension of more complex socio-economical structures (GEM Global Report, 2013). Metrics such as GDP have been highly criticized by the popular press[4] (see footnote) and scholars, such as Layard (2003) who labeled it a "hopeless measure of welfare" (Layard, 2003, p. 3). Starting towards the end of the 20th century, the traditional material component of metrics has been complemented by non-financial dimensions with the intention of a holistic and "balanced" performance view of individuals, organizations and economies (e.g: Balanced Scorecards in for-profit institutions, Happiness and Satisfaction Indices for countries, etc.). This holistic view has also had implications for the GEM such that, although the social context has always played a critical role in the GEM conceptual framework as an input factor, the social component as an output factor was introduced only in the GEM 2009 assessment (Bosma and Levie, 2010). Against this background, the relationship between entrepreneurship and GDP could only explain a portion of human development. Therefore, the following questions naturally arise: How may entrepreneurship matter for happiness ? And vice-versa, how may happiness matter for entrepreneurship? Scholars such as Naudé et al. (2014) found evidence that the relationship between entrepre-

[3] Special topics conducted so far included for example an assessment of education and training for entrepreneurs, social entrepreneurship, entrepreneurial employee activity, immigrant entrepreneurship (GEM Global Report, 2013).

[4] http://www.psychologytoday.com/blog/wired-success/201309/why-the-gdp-is-not-good-measure-nations-well-being (accessed February, 2014)

neurship and happiness is bi-directional in causality, such that higher levels of life satisfaction increase entrepreneurial activities and entrepreneurship may contribute to overall life satisfaction and happiness. This, in turn, contributes to the broadening focus of studies on entrepreneurship and development. In the light of the aforementioned motivations to investigate this topic, the GEM data collection process included a module in APS to capture the global cognitive judgments of satisfaction with one's life. Moreover, to corroborate the opinions provided by the adult population, NES included four questions that inquire whether the national (or regional) conditions help the work-life balance of individuals and measure the perception that entrepreneurs have, in general, on work and life satisfaction (GEM Global Report, 2013).

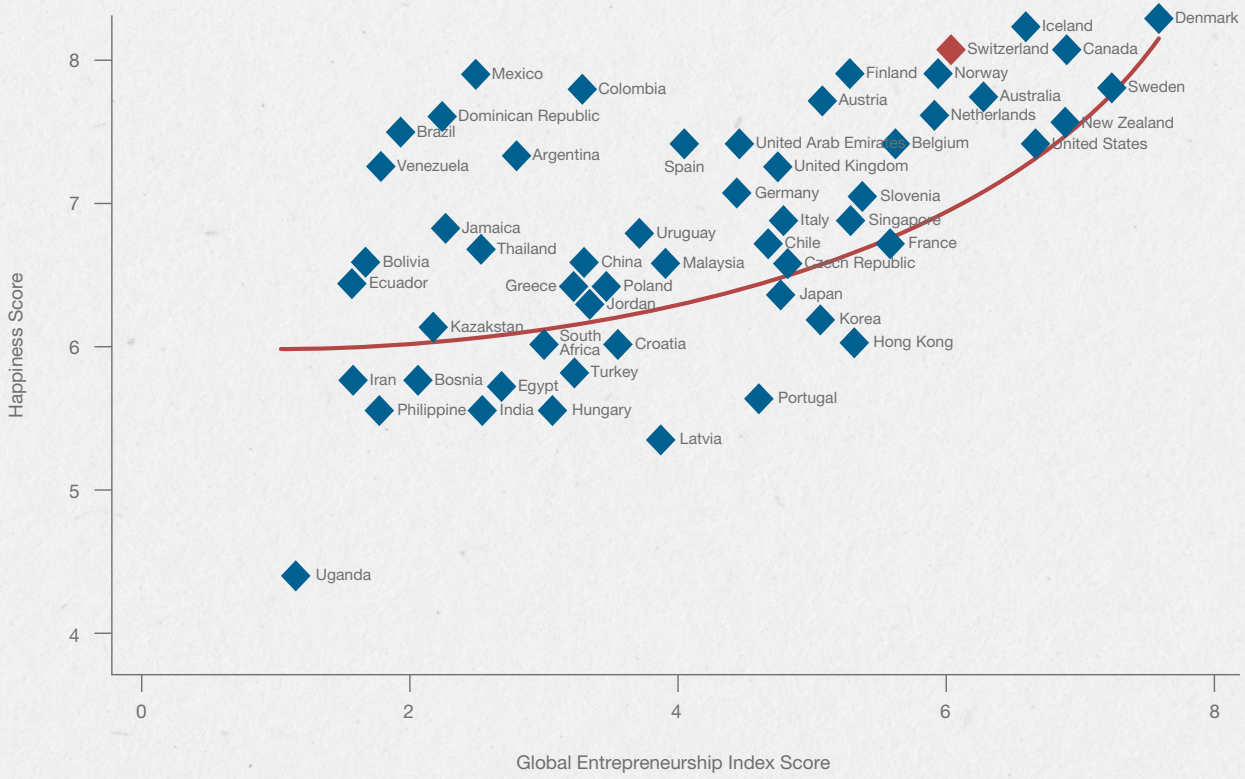
6.1 GEM 2013 Highlights on Switzerland

The notion of "well-being" is not as simple a term as it may sound. Empirical studies have been struggling to establish proxies for this theoretical construct with various measures and a clear consensus has not yet been achieved on how to measure it (Conceição and Bandura, 2008). That being said, Switzerland enjoys a strong position in terms of well-being and this has been investigated by both academic publications and the popular press. For example, according to a recent report by Forbes Magazine[5], Switzerland was ranked 2nd (behind Norway) among World's Happiest Countries in a study by London-based Legatum Institute. Likewise, in a similar report, Switzerland was ranked 3rd (behind Denmark and Norway) in overall happiness by the World Happiness Report, a publication prepared by Sustainable Development Solutions Network (SDSN)[6] and Columbia University (Helliwell et al., 2013). Henceforth, it is tempting to explore Switzerland's status quo within the dimension of entrepreneurial activities and its relationship to subjective well-being. Besides the popular press, the relationship between well-being and entrepreneurship has also raised a growing interest in Academia. A recent publication by Naudé et al. (2014) has tested the relationship between the strength of an entrepreneurial economy versus the happiness score of the overall population of that respective economy (See Figure 21).

[5] http://www.forbes.com/sites/christopherhelman/2013/10/29/the-worlds-happiest-and-saddest-countries-2013/ (accessed February, 2014)

[6] http://unsdsn.org/resources/publications/world-happiness-report-2013/ (accessed February, 2014)

Figure 21:
Relationship between Happiness and the Global Entrepreneurship Index
Source: Adapted from Naudé et al. (2014, p. 525) where authors based their calculations on the Gallup World Poll 2005 and the GEINDEX[7] of Acs and Szerb (2009).



[7] Global Entrepreneurship Index measures the "entrepreneurial economy" as reflected in entrepreneurial attitudes, actions, and aspirations rather than entrepreneurship itself. Hence, it strongly captures the institutional quality (Naudé et al., 2014, p. 524)

The figure displays a curvilinear relationship[8] with increasing returns between the strength of entrepreneurial economy and the overall well-being of the population. Switzerland (denoted by the red circle) lies above the curve in the upper right corner of the figure. Here, it could be argued that, given the strength of entrepreneurial framework conditions, Switzerland enjoys a status of well-being that is above the predicted value by the model. Scandinavian economies, such as Norway, Finland, and Iceland, also follow a similar pattern, except for Sweden, which is slightly below the curve. Within the benchmark countries, Switzerland exhibits a better standing especially when compared to the other innovation-driven economies such as the U.S., France, Singapore and Japan. However, an important caveat is that, this figure does not identify the independent effect of entrepreneurship in the national happiness level. As the authors assert, the relationship between entrepreneurship and national happiness is bi-directional rather than unidirectional. Studies of a descriptive or comparative nature could be more vigorous by exploring the linkage between entrepreneurship and happiness provided the fact that strong causality claims between the two may not be conclusive to infer the potential effect that entrepreneurship exerts on subjective well-being. Therefore, it is essential to demonstrate the diverse indicators of entrepreneurial activity and subjective wel-being in various economies in comparison. Table 5 presents the prevalence indicators of Satisfaction With Life Scale (SWLS)[9] in innovation-driven economies. Each column deals with the scores for individuals involved in typical phases and types of entrepreneurship (such as TEA and owner-managers of established businesses, motivation and gender) and those of employees who are not involved in such entrepreneurship activities.

[8] N.B.: This has been the preliminary part of a more comprehensive study which is published in the authors' same article.

[9] As mentioned initially, subjective well-being is a complex construct by nature. SWLS was developed by Pavot and Diener (2008) to act as a proxy for subjective well-being. SWLS is a five-item instrument designed to measure global cognitive judgments of satisfaction with one's life. This scale is standardized and has the hypothetical range of -1.7 (less subjective well-being at country-level) to 1.7 (higher rate of subjective well- being).

Table 5 :
Subjective well-being results within innovation-driven economies (the most satisfied populations are in green and the less satisfied populations are in red.)

	18-64 population	Early-stage entrepreneurial activity (TEA)	Established business ownership	Non TEA or Established
Italy	0.02	-0.01	0.19	0.02
Japan	-0.23	-0.31	-0.08	-0.23
France	-0.03	0.09	0.08	-0.03
Belgium	0.16	0.16	0.27	0.16
Germany	0.12	0.06	0.27	0.12
Spain	0.08	0.15	0.15	0.08
Finland	0.40	0.39	0.58	0.40
Greece	-0.50	-0.30	-0.48	-0.50
Norway	0.61	0.53	0.70	0.61
Slovenia	0.08	0.16	0.19	0.08
Korea Sr	-0.42	-0.42	-0.47	-0.42
United Kingdom	0.30	0.11	0.32	0.29
Czech Republic	-0.03	0.00	0.10	-0.03
Taiwan	-0.12	-0.08	-0.05	-0.12
Portugal	-0.14	0.11	0.07	-0.14
Sweden	0.24	0.31	0.30	0.24
Luxembourg	0.36	0.23	0.08	0.36
Ireland	0.24	0.31	0.43	0.24
Netherlands	0.29	0.47	0.42	0.28
Israel	0.07	0.16	0.24	0.08
Singapore	0.18	0.25	0.23	0.18
Canada	0.33	0.32	0.51	0.33
United States	0.22	0.14	0.54	0.22
Switzerland	**0.62**	**0.74**	**0.85**	**0.62**
AVERAGE	0.10	0.12	0.20	0.10

As easily noted, Switzerland stands out with the highest satisfaction rates for all groups. The first group (18-64 population) is yet another confirmatory indicator of results that has taken place previously in various studies on overall happiness. Being a general trend in all economies, established business owners have greater satisfaction rates compared to other groups. An interesting finding is that Switzerland also holds the highest satisfaction rates among the groups who have been involved in entrepreneurial activities (both early stage and established business owners); however, what is more impressive is Switzerland's distinct position when compared to similar economies such as Norway, Netherlands and Singapore. For example, the subjective well-being rates for TEA in Switzerland is roughly 50% higher than in Norway and Netherlands and almost three-fold of Singapore's.
A similar pattern is visible also in the satisfaction rates of established business owners for these economies.

Owner-managers in established firms tend to rate their level of subjective well-being higher than early-stage entrepreneurs, who may have to deal with more uncertainty and pressure to develop the firm into a sustainable situation (exceptions include France, Sweden and Singapore).
This also seems to be the case in Switzerland. Here the main takeaway is arguably as follows: entrepreneurs in Switzerland rate their level of subjective well-being distinctively high when compared to entrepreneurs in their own league. This is the major good news about entrepreneurial activities in Switzerland, even though these results are exploratory in nature and need to be treated in that manner.
One important distinction to be made when interpreting early-stage entrepreneurial activities (TEA) is the motivation behind these activities. GEM framework contrasts entrepreneurship driven by necessity and improvement-driven entrepreneurship as the motivation behind the early-stage entrepreneurial activities. The following table provides a comparison of subjective well-being rates among the innovation-driven economies.

Table 6 :
Comparison of gender and motivation with subjective well-being results within innovation-driven economies (the most satisfied populations are in green and the less satisfied populations are in red.)

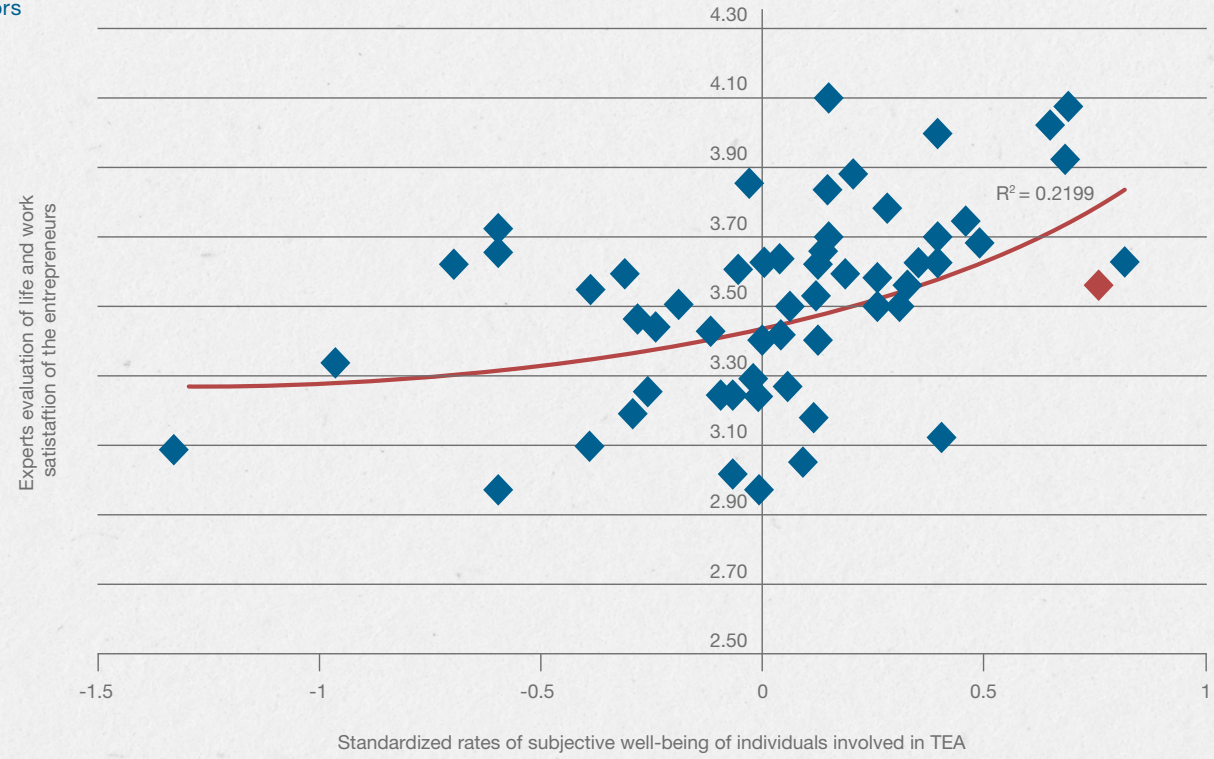
	TEA Opportunity	TEA Necessity	TEA male	TEA female
Italy	0.13	-0.64	0.01	-0.06
Japan	-0.26	-0.43	-0.55	0.14
France	0.17	-0.62	-0.01	0.30
Belgium	0.18	0.17	0.12	0.25
Germany	0.18	-0.40	-0.04	0.22
Spain	0.23	0.01	0.13	0.19
Finland	0.42	0.21	0.36	0.44
Greece	-0.25	-0.46	-0.23	-0.50
Norway	0.51	0.44	0.49	0.63
Slovenia	0.23	-0.09	0.16	0.16
Korea Sr	-0.27	-0.69	-0.49	-0.24
United Kingdom	0.22	-0.45	0.22	-0.03
Czech Republic	0.05	-0.15	-0.02	0.05
Taiwan	0.01	-0.31	-0.11	-0.03
Portugal	0.20	-0.13	0.10	0.13
Sweden	0.40	-0.34	0.15	0.59
Luxembourg	0.21	-0.51	0.16	0.37
Ireland	0.31	0.36	0.30	0.34
Netherlands	0.50	0.26	0.55	0.35
Israel	0.23	-0.08	0.04	0.41
Singapore	0.25	0.26	0.17	0.39
Canada	0.41	-0.22	0.22	0.46
United States	0.26	-0.38	0.14	0.14
Switzerland	**0.78**	**0.06**	**0.63**	**0.85**
AVERAGE	0.19	-0.18	0.08	0.20

Here, TEA-opportunity rates exhibit that early stage entrepreneurs in Switzerland who are motivated by starting up as an opportunity (rather than no other options for work), rated their well-being considerably higher than other benchmark economies. The other end in the dichotomy of motivations in starting a business, i.e. necessity-driven entrepreneurship, portrays rather a dissatisfaction as a general trend in innovation-driven economies. The early stage entrepreneurs in Switzerland who start up out of necessity still rate their well-being as somehow satisfied (0.06/1.7). Although this rating is above most of the other benchmark economies, economies such as Singapore, Ireland, Belgium and the "traditional" welfare states such as Norway and Finland display higher rates. Given the high ratings of subjective well-being of the overall population in Switzerland, there seems to be a strong potential in bridging the existing gap. It is also noteworthy to refer to the low percentage of necessity-driven motivations within TEA (7.5%) in Switzerland.

Another point that deserves attention is the role of gender difference in subjective well-being of entrepreneurs among the innovation-driven economies. This is also another group where Switzerland exhibits remarkable ratings among all innovation driven economies. The female early stage entrepreneur ratings for subjective well-being is higher than their male counterparts as a general trend. This is also the case in Switzerland and within the benchmark countries, only the Netherlands have male early stage entrepreneurs with a higher rating of well-being than females.

Finally, it is essential to corroborate the opinions provided by the adult population with NES which included questions that inquire whether the national (or regional) conditions help the work-life balance of individuals and measure the perception that entrepreneurs have, in general, more work and life satisfaction. Figure 2 depicts the brief analysis that correlates SWLS involved in TEA with the NES variables related to well-being among all economies. There is a weak but positive curvilinear relationship between both variables. Switzerland (denoted by the red circle) lies below the curve to the right end of the figure. Experts' view on life and work satisfaction of entrepreneurs in Switzerland indicate that there is some potential in this perception. One possible factor could be the effect of the relatively lower well-being rating of the necessity driven entrepreneurs. Another possibility is the relatively higher rate of discontinuation of business compared to the other high-end innovation driven economies. Yet, a significant share of entrepreneurs who discontinued owning and managing their business did so for "positive" reasons such as being able to sell the business, or the opportunity to get a good job, and for some an improvement in their personal situation (GEM Global Report, 2013). Hence, further studies could be beneficial to identify the potentials that possibly remain under expert ratings for Switzerland.

Figure 22 :
Experts opinions versus subjective well-being indicators of individuals involved in TEA



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GLOSSARY

Table 7:
Main GEM measures used in this Report

Measure	Description
Entrepreneurial Attitudes and Perceptions	
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 to 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 a nascent entrepreneur, 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.

Measure	Description
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.

Table 8:
Measures from other Data Sources used in this Report

Measure	Source	Description
Economic Freedom Index	Heritage Foundation	The Economic Freedom index uses 10 specific freedoms, some as composites of even further detailed and quantifiable components. Each of these freedoms is weighted equally and turned into an index ranging from 0 to 100, where 100 represents the maximum economic freedom. Cross section data 2002.
Employment protection deters employees from starting business	GEM National Expert Survey	Statement assessed by experts in the 2011 GEM National Expert Survey (mean values per economy; based on the likert scale 1-5).
Entrepreneurs have much lower access to social security than employees	GEM National Expert Survey	Statement assessed by experts in the 2011 GEM National Expert Survey (mean values per economy; based on the likert scale 1-5).
GDP Per Capita (PPP)	IMF World Development Indicators, October 2011.	GDP per capita in Purchasing Power Parities (PPP), US Dollars, 2011
Gender Gap Index	World Economic Forum Gender Gap 2011 Report	All scores are reported on a scale of 0 to 1, with 1 representing maximum gender equality. The study measures the extent to which women have achieved full equality with men in five critical areas: economic participation, economic opportunity, political empowerment, educational attainment and health & well-being.
Global Entrepreneurship Index (GEI):	Acs, Z., Szerb, L. (2012) Global Entrepreneurship & Development Index	The GEI combines measures of activity, aspiration, and attitudes with relevant measures of the favorability of the environment for entrepreneurship. The GEI is simply the average of three sub-indices: one for attitudes, one for activity, and one for aspiration. Similarly, each sub-index is the average of four or five normalized indicator scores, after adjustment for "bottlenecks", or the weakest indicator in a country.
Income inequality (Gini index)	World Bank World Development Indicators	Gini measure of economic inequality, where greater values represent greater inequality. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments. Data for high-income economies are from the Luxembourg Income Study database.
Informal investment prevalence rate	GEM Adult Population Survey	Percentage of 18-64 groups who have personally invested funds in business start-ups in the past three years
Investment Freedom Index	Heritage Foundation	This factor scrutinizes each country's policies toward foreign investment, as well as its policies toward capital flows internally, in order to determine its overall investment climate. The county's investment freedom ranges between 0 and 100, where 100 represents the maximum degree of investment freedom. Cross section data 2002.

Measure	Source	Description
Old age, disability and death benefit index	Botero, Djankov, La Porta, López-de-Silanes & Shleifer (2004) Regulation of Labor Data	Measures the level of old age, disability and death benefits as the average of the following four normalized variables: (1) the difference between retirement age and life expectancy at birth, (2) the number of months of contributions or employment required for normal retirement by law, (3) the percentage of the worker's monthly salary deducted by law to cover old-age, disability, and death benefits, and (4) the percentage of the net pre-retirement salary covered by the net old - age cash-benefit pension. Cross section data covering the 1997-2002 period.
Political Stability	World Bank Governance Indicators	Political Stability combines several indicators which measure perceptions of the likelihood that the government in power will be destabilized or overthrown by possibly unconstitutional and/or violent means, including domestic violence and terrorism. Cross section data covering 2002-2006.
Secular-rational (versus traditional) values	World Value Survey; Inglehart and Baker (2000)	Principal components factor index based on religiousness, autonomy, abortion attitudes, respect for authority and national pride.
Social security laws index	Botero, Djankov, La Porta, López-de-Silanes & Shleifer (2004) Regulation of Labor Data	Measures social benefits as the average of the three variables: Old Age, Disability and Death Benefit Index; and Unemployment Benefits Index. Cross section data covering 1997-2002.
Unemployment benefits index	Botero, Djankov, La Porta, López-de-Silanes & Shleifer (2004) Regulation of Labor Data	Measures the level of unemployment benefits as the average of the following four normalized variables: (1) the number of months of contributions or employment required to qualify for unemployment benefits by law, (2) the percentage of the worker's monthly salary deducted by law to cover unemployment benefits, (3) the waiting period for unemployment benefits, and (4) the percentage of a one-year unemployment spell. Cross section data covering the 1997-2002 period.

Country List

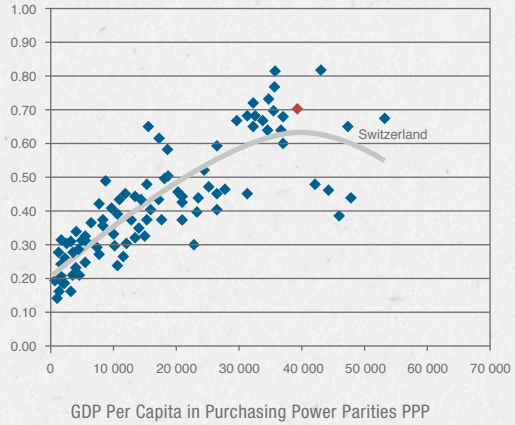
Country / ***Intcode***							
Algeria	*DZ*	Germany	*DE*	Luxembourg	*LU*	Slovakia	*SK*
Angola	*AO*	Ghana	*GH*	Macedonia	*MK*	Slovenia	*SI*
Argentina	*AR*	Greece	*GR*	Malawi	*MW*	South Africa	*ZA*
Belgium	*BE*	Guatemala	*GT*	Malaysia	*MY*	Spain	*ES*
Bosnia	*BA*	Hungary	*HU*	Mexico	*MX*	Suriname	*SR*
Botswana	*BW*	India	*IN*	Netherlands	*NL*	Sweden	*SE*
Brazil	*BR*	Indonesia	*ID*	Nigeria	*NG*	Switzerland	*SW*
Canada	*CA*	Iran	*IR*	Norway	*NO*	Taiwan	*TW*
Chile	*CL*	Ireland	*IE*	Panama	*PA*	Thailand	*TH*
China	*CN*	Israel	*IL*	Peru	*PE*	Trinidad & Tobago	*TT*
Colombia	*CO*	Italy	*IT*	Philippines	*PH*	Uganda	*UG*
Croatia	*HR*	Jamaica	*JM*	Poland	*PL*	United Kingdom	*UK*
Czech Republic	*CZ*	Japan	*JP*	Portugal	*PT*	Uruguay	*UY*
Ecuador	*EC*	Korea	*KR*	Puerto Rico	*PR*	United States	*US*
Estonia	*EE*	Latvia	*LV*	Romania	*RO*	Vietnam	*VN*
Finland	*FI*	Libya	*LY*	Russia	*RU*	Zambia	*ZM*
France	*FR*	Lithuania	*LT*	Singapore	*SG*		

Global Entrepreneurship Index (GEDI) and Switzerland

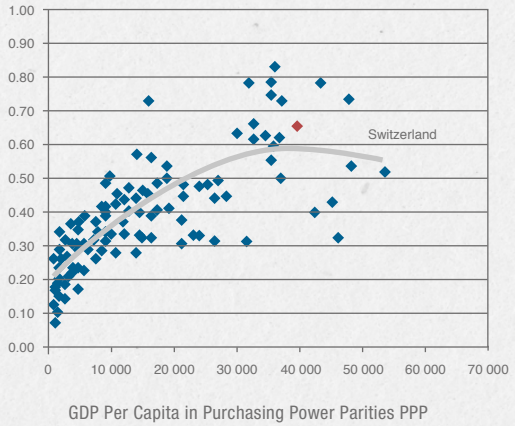
Size of population 2013 (in million)	8.0
Per capita GDP in international US$ 2013 (PPP, World Bank)	39'344
Cluster membership	???
Rank in Doing Business Index 2011-2012	29/189
Rank in Global Competitiveness Index 2011-2012	1/148
Rank in Economic Freedom index 2011-2012	4/178
Global Entrepreneurship and Development Index rank (point)	5 (70.9)
Entrepreneurial Attitudes sub-index rank (point)	5 (66.0)
Entrepreneurial Ability sub-index rank (point)	9 (75.0)
Entrepreneurial Aspirations sub-index rank (point)	7 (71.7)
Weakest pillar to improve (value)	High Growth (0.41)
Weakest variable to improve (value)	Gazelle (0.44)

The relative position of Switzerland in the Global Entrepreneurship and Development Index and in the sub-index level

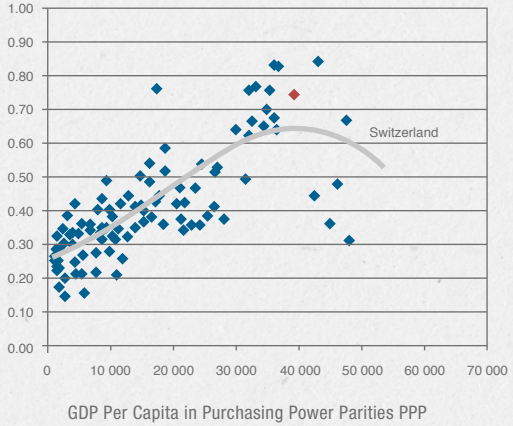
Global Entrepreneurship and Development Index



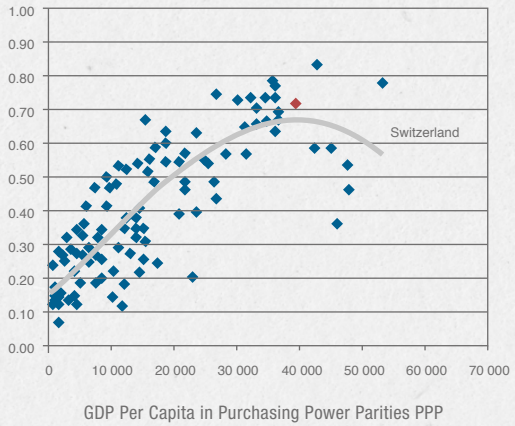
Entrepreneurial Attitudes Sub-index



Entrepreneurial Abilities Sub-index



Entrepreneurial Aspiration Sub-Index



The relative position of Switzerland in the variable level

Entrepreneurial Attitudes

Institutional variables		Individual variables		Pillars	
Market Agglomeration	0,71	Opportunity Recognition	0,65	Opportunity Perception	0,60
Tertiary Education	0,72	Skill Perception	0,48	Start-up Skills	0,47
Business Risk	1,00	Risk Acceptance	0,67	Nonfear of Failure	0,93
Internet Usage	0,98	Know Entrepreneurs	0,44	Networking	0,70
Corruption	0,96	Career Status	0,48	Cultural Support	0,87
				Entrepreneurial Attitudes	**66,0**

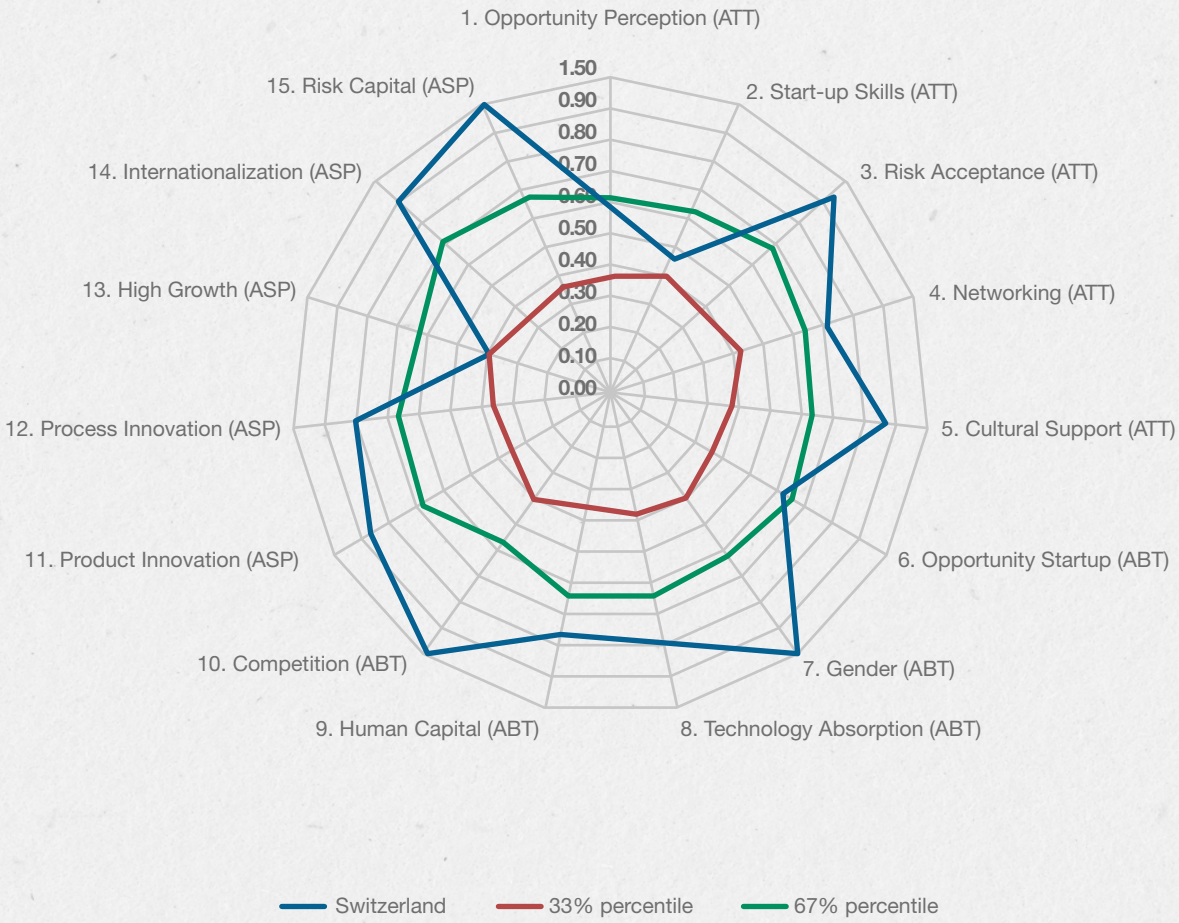
Entrepreneurial Abilities

Institutional variables		Individual variables		Pillars	
Economic Freedom	0,69	Opportunity Motivation	0,79	Opportunity Startup	0,62
Gender Equality	0,94	TEA Female	1,00	Gender	1,00
Tech Absorption	1,00	Technology Level	0,79	Technology Absorption	0,80
Staff Training	1,00	Educational Level	0,71	Human Capital	0,77
Market Dominance	1,00	Competitors	0,92	Competition	1,00
				Entrepreneurial Abilities	**75,0**

Entrepreneurial Aspirations

Institutional variables		Individual variables		Pillars	
Technology Transfer	1,00	New Product	0,63	Product Innovation	0,88
GERD	0,96	New Tech	0,47	Process Innovation	0,81
Business Strategy	1,00	Gazelle	0,44	High Growth	0,41
Globalization	0,78	Export	0,94	Internationalization	0,91
Capital Market	0,94	Informal Investment	1,00	Risk Capital	1,00
				Entrepreneurial Aspirations	**71,7**
Institutional	0.80	Individual	0.50	GEDI	0.56

The position of Switzerland in the pillar level



The position of Switzerland in the pillar level

Pillar	Pillar score	Percentage of total new effort for a 10 point improvement in GEDI score
High Growth	0.41	43%
Start-up Skills	0.47	35%
Opportunity Perception	0.60	13%
Opportunity Startup	0.62	10%
Networking	0.70	0%
Quality of Human Resources	0.77	0%
Tech Sector	0.80	0%
Process Innovation	0.81	0%
Cultural Support	0.87	0%
Product Innovation	0.88	0%
Internationalization	0.91	0%
Nonfear of Failure	0.93	0%
Competition	1.00	0%
Risk Capital	1.00	0%
Gender	1.00	0%

List of Experts

Urs Gauch
Head of SME Business, Credit Suisse
Pascale Vonmont
Delegate at the pre-seed-fund Venture Kick, member of the jury of the Venture Leader program
Fabio Casati
Head Corporate Finance and Development, BSI AG
Steffen Wagner
CEO and co-founder, Verve Capital Partners AG
Valesko Wild
Head of the Economic Development Office, Canton of Ticino
Stefano Modenini
Director of the Industrial Association of the Canton of Ticino
Philippe Monnier
General Director of the Greater Geneva Berne Area Development Agency
Rudolf Minsch
Chairman of the Executive Board, Economiesuisse (Swiss Business Federation)
Bendict Stalder
Managing Director at BST Management Consulting
Lorenzo Leoni
Director at the Innovation Agency of the Canton of Ticino
Marco Cavadini
Business Development Partner at Commission for Technology and Innovation CTI
Fabian Dieziger
Co-Founder and Managing Partner at Supertext.ch (a top 100 start-up from 2005)
Jerome Schaufeld
Professor of Practice at WPI Worcester Polytechnics Institute in Boston, Former Entrepreneur in Switzerland
Giambattista Ravano
Director of the Department of Innovative Technologies at SUPSI (University of Applied Sciences Southern Switzerland)
Marc Gruber
Chair of Entrepreneurship and Technology Commercialization, ETH Zurich
Dietmar Grichnik
Professor of Entrepreneurship and Technology Management, University of St. Gallen
Markus Schneider
Serial Entrepreneur and Consultant
Stephan Kocher
CEO Saab Bofors Dynamics Switzerland

Pascal Dutheil de la Rochère
Independant Advisor to Entrepreneurs and Investors, Business Coach at the Commission for Technology and Innovation (CTI)
Lesley Spiegel
Founder and CEO Spiegel Ventures, Lecturer, Advisory Board Member
Gerhard Roth
Lawyer, Founder and Partner of GHR Law Office
Robert Rudolph
Member of the Executive Board / Education & Innovation at Swissmem (association of the Swiss mechanical and e lectrical engineering industry)
Daniel Bloch
Director of Chocolates Camille Bloch, a third-generation family business
Ralph Siegl
CEO Läderach Chocolatier Suisse
Kurt Schaer
Managing Director Biketec AG
Enzo Lucibello
Managing Director Media Markt Grancia
Sebastien Jeanneret
Founder and CEO Delafee
Martin Waeber
Chief Marketing Officer at Eny Finance (Start-up)
Raphael Waeber
Managing Director Westiform AG
Charles Merkle President and CEO CBC Marketing Research
Charles Merkle
President and CEO CBC Marketing Research
Vincent Bardy
International Sales, Export and Team-Sponsoring Manager at Wild Duck SA
Sven Bleicher
Co-Founder and CEO of mySwissChocolate AG
Mariana Christen
Managing Partner and Founder of SEIF (Social Entrepreneurship Initiative and Foundation)
Paola Ghillani
Entrepreneur for sustainable development and ethics, Founder of Paola Ghillani & Friends Ltd.
Thomas Minder
Owner and Managing Director of Trybol AG and Politician
Annette Heimlicher
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Siegfried Alberton

Rico J. Baldegger

Andreas Brülhart

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