GEM

GLOBAL ENTREPRENEURSHIP MONITOR

2011 Extended Report:
Entrepreneurs and Entrepreneurial Employees Across the Globe

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2011 EXTENDED REPORT:

Entrepreneurs and Entrepreneurial Employees Across the Globe

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Although GEM data were used in the preparation of this report, their interpretation and use are the sole responsibility of the authors.

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1. INTRODUCTION: ENTREPRENEURS, ENTREPRENEURIAL EMPLOYEES AND THE GLOBAL ECONOMY

All over the globe policymakers and academics agree that entrepreneurship plays a critical role for the development and well-being of society. At the same time what one understands entrepreneurship to be is not always viewed equally and this hinders making fact-based policy. Many people will align with the ´Schumpeterian´ view that entrepreneurs spur innovation, speeding up structural changes in the economy (Schumpeter, 1942). By introducing new competition, they contribute to productivity in the long run (Calléjon and Segarra, 1999; Audretsch and Keilbach, 2004, Aghion et al. 2004; Aghion et al. 2009; Bosma et al. 2011a). This perspective assumes an ambitious type of entrepreneurship to serve as a catalyst for economic growth, job creation and national competitiveness.

For some, including Joseph Schumpeter himself, this is what entrepreneurship is about, full stop. However, many also consider the less ambitious types of entrepreneurship, i.e. (new) business activities with limited or no growth-, innovation- or international orientation, as relevant types of entrepreneurship. The reasons for doing so can be summarized in a social component and an economic component. The social component argues that people pursue their need for independence or have no alternative options for work; by having the option to engage in self-employment they take care of themselves and their families[1]. The economic component acknowledges that some self-employed contribute to the flexibility and productivity of the overall economy, even though others could possibly be more productive by working as an employee.

Increasingly, entrepreneurship researchers look beyond entrepreneurship as an occupation and consider entrepreneurial employee activity (also known as ´intrapreneurship' or 'corporate entrepreneurship') also to be part of entrepreneurship. In sofar as these entrepreneurial employees initiate ambitious ventures, this view is in full accordance with the Schumpeterian perspective. In this respect Shane and Venkataraman (2000) consider exploitation by existing organizations, i.e. (ambitious) entrepreneurial employee activity, and exploitation by 'de novo start-ups', i.e. independent entrepreneurship, as two alternative modes of exploitation of entrepreneurial opportunities. In studies comparing entrepreneurship across countries these distinctions are especially relevant as differences in level of economic development and differences in national culture and institutions may lead to varying balances between independent (ambitious and non-ambitious) entrepreneurship and entrepreneurial employee activity. This view is also in accordance with a literature stating that entrepreneurship is an omnipresent aspect of human action, but that its manifestation depends upon the institutional environment (Baumol, 1990; Boettke and Coyne, 2003).

In this extended edition of the 2011 GEM Global Report, we look at all three types of entrepreneurship, i.e. ambitious entrepreneurship in the sense of medium/high job growth expectation early-stage entrepreneurial activity (MHEA), less ambitious entrepreneurship in the sense of solo / low job expectation early-stage entrepreneurial activity (SLEA) and entrepreneurial employee activity (EEA)[2], in order to give a more comprehensive profile of entrepreneurship for each of the 52 countries that have participated in both the regular 2011 GEM cycle and the special topic on

[1] The event in Tunisia that triggered the Arab Spring of 2011 was a fruit-seller called Muhammad Al Bouazizi setting himself on fire; his last-resort way of earning a living for his family was practically made impossible by the local regime.

[2] See Chapter 4 and Annex I for more extensive definitions.

entrepreneurial employee activity. In this year, GEM has for the first time assessed the degree of entrepreneurial employee activity in (almost) all participating countries[3], by including special sets of questions in the GEM Adult Population Survey (APS) and the GEM National Expert Survey (NES). Given the need for economic recovery in many countries across the globe, providing a more complete picture of entrepreneurship, including the role of entrepreneurial employees, is even more relevant today.

1.1. THE GEM PROJECT

The Global Entrepreneurship Monitor was conceived in 1997 by Michael Hay of London Business School (LBS) and Bill Bygrave of Babson College. LBS and Babson funded a prototype study that year. Ten national teams conducted the first GEM Global study in 1999 with Paul Reynolds as the principal investigator. The Global Entrepreneurship Research Association (GERA) was formed in 2004 to serve as the oversight body for GEM. GERA is a not-for-profit organization governed by representatives of the national teams, the two founding institutions and sponsoring institutions.

GERA's mission is to contribute to global economic development through entrepreneurship. To achieve this, GERA seeks to increase worldwide knowledge about entrepreneurship by conducting and disseminating world-class research that:

- Uncovers and measures factors impacting the level of entrepreneurial activity among economies,
- Aids in identifying policies that may lead to appropriate levels of entrepreneurial activity, and
- Increases the influence of education in supporting successful entrepreneurship.

GEM focuses on three main objectives:

- To measure differences in entrepreneurial attitudes, activity and aspirations among economies.
- To uncover factors determining the nature and level of national entrepreneurial activity.
- To identify policy implications for enhancing entrepreneurship in an economy.

GEM is based on the following premises. First, an economy's prosperity is highly dependent on a dynamic entrepreneurship sector. This is true across all stages of development. Yet the nature of this activity can vary in character and impact. Necessity-driven entrepreneurship, particularly in less developed regions or those experiencing declines in employment, can help an economy benefit from self-employment initiatives when there are fewer work options available. More developed economies, on the other hand, generate entrepreneurial opportunities as a result of their wealth and innovation capacity, yet they also offer more wage employment options to attract those that might otherwise become independent entrepreneurs. If these opportunities for entrepreneurship and innovation are to be captured, such economies need to instill opportunity-based motives and entrepreneurial incentives.

Second, an economy's entrepreneurial capacity is based on individuals with the ability and motivation to start businesses, and may be strengthened by positive societal perceptions about entrepreneurship. Entrepreneurship benefits from participation by all groups in society, including women, a range of age groups and education levels and disadvantaged minorities. Finally, high-

[3] In 2008, several GEM national teams conducted a pilot study on entrepreneurial employee activity in 11 countries (Bosma et al. 2011).

growth entrepreneurship is a key contributor to new employment in an economy, and national competitiveness depends on innovative and cross-border entrepreneurial ventures.

1.2. GEM METHODOLOGY: KEY ISSUES

While entrepreneurship is a multifaceted phenomenon with many different meanings and definitions, GEM operationalizes entrepreneurship as: "Any attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business." Thus, while GEM defines entrepreneurship rather narrowly as new business activity, it takes a broad view of what it recognizes (new) business activity to be. For example, unlike many official records of new business activity, GEM's definition is not restricted to newly registered businesses. GEM thus adopts the behavioral perspective of entrepreneurship, looking further than individuals officially registered as self-employed, for example by identifying employees within organizations who behave entrepreneurially. These are discussed in chapter 4.

For years GEM has focused on the phase that combines the stage in advance of the start of a new firm (nascent entrepreneurship) and the stage directly after the start of a new firm (owning-managing a *new* firm). Taken together this phase is denoted as "total early-stage entrepreneurial activity" (TEA)[4]. In addition, individuals with entrepreneurial attitudes - potentially leading to entrepreneurial activity – and individuals involved as owner-managers in *established* firms are identified. These categories discerning *phases* of entrepreneurship are derived from the raw GEM data using a complex filter procedure. Annex II shows how individuals that take part in the adult population survey are labeled as nascent entrepreneurs, owner-managers of new firms and owner-managers of established firms, dependent on the answers of particular GEM questions that are of recurring nature.

Figure 1.1 shows some details of the processes individuals may go through, as conceptualized by the GEM research framework. In addition to the above phases, entrepreneurial attitudes as potential prerequisites of entrepreneurial activity are identified. Discontinuation of activities in owning and managing a business are also important aspects of entrepreneurship. Some recurring GEM questions capture discontinuation and the reasons for it. In many cases, the reasons appear to be rather positive. Indeed, many of the individuals that discontinue their business start again (Bosma and Levie 2010; Hessels et al. 2010)[5].

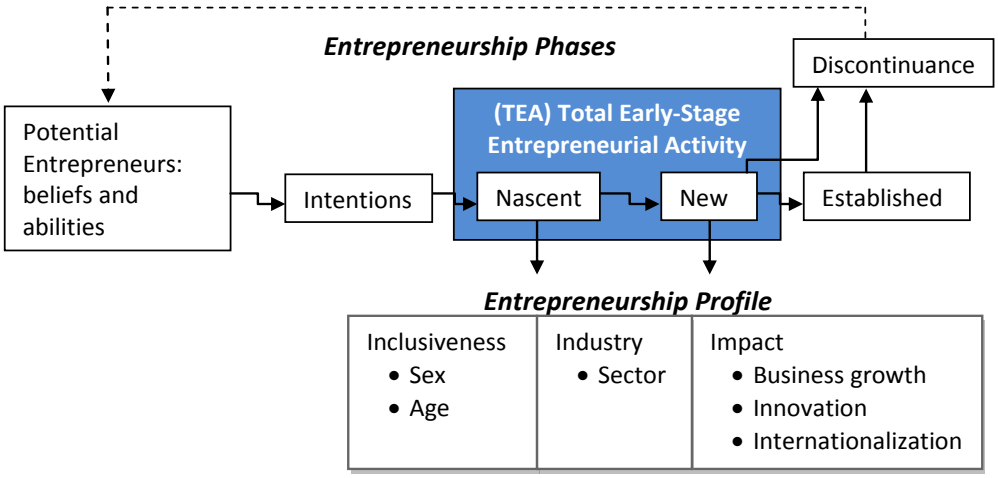
GEM's focus on individuals as units of observation enables collection of information on the entrepreneurial motivations, aspirations and other characteristics of individuals. Using this information enables researchers to employ units of analysis and adopt definitions of entrepreneurship most appropriate to their research objectives. For example, the GEM database allows the exploration of individual or business characteristics, as well as the causes and consequences of new venture creation. This is also what makes the country comparisons particularly interesting; it is not only about 'how many' people are involved in entrepreneurship; it is also about

[4] The acronym TEA originally expressed "total entrepreneurial activity". Here, the word 'total' was meant to capture the 'total' collection of new firm activities, including agriculture. This led to some confusion (see e.g. Hindle 2006) as the suggestion was made that, for instance, also entrepreneurial activities in established firms were captured in the measure. Hence, the words 'early-stage' are usually included in describing the TEA acronym that has been retained as the measure itself has not been altered since 2001.

[5] In Chapter 4 the role of entrepreneurial employees is further conceptualized.

exploring differences in types and phases of the entrepreneurship process. As a result, a wide range of entrepreneurial initiatives has been uncovered. For example, a group of high growth-expectation entrepreneurs has been defined and studied (Autio, 2007) and gender issues have been explored in GEM reports on women and entrepreneurship (e.g. Allen et al., 2007; Kelley et al., 2011b).

FIGURE 1.1 THE ENTREPRENEURSHIP PROCESS AND GEM OPERATIONAL DEFINTIONS



1.3. THE GEM MODEL

GEM employs a comprehensive socio-economic approach and considers the degree of involvement in entrepreneurial activity within a country, identifying different types and phases of entrepreneurship[6]. This approach, and especially the focus on the individual as the embodiment of entrepreneurship, differentiates GEM measures from other data sets that measure new business registrations[7]. Figure 1.2 visualizes the model that drives GEM research[8]. The GEM model documents how entrepreneurship is affected by national conditions. It also shows that GEM considers three major components of entrepreneurship: attitudes, activity and aspirations. GEM monitors entrepreneurial framework conditions in each country through harmonized surveys of experts in the field of entrepreneurship[9]. The components of entrepreneurship are tracked using the adult population surveys. Thus GEM generates both original macro data on institutional framework conditions for entrepreneurship and original micro data on entrepreneurial attitudes, activity and aspirations by using its own methodology that is harmonized across countries.

Since its inception, GEM has sought to explore the two-way link between entrepreneurship and economic development (Wennekers and Thurik, 1999; Carree and Thurik, 2003; Acs, 2006; Audretsch 2007). The first GEM report explained: "The central focus was to bring together the world's best scholars in entrepreneurship to study the complex relationship between entrepreneurship and

[6] See e.g. Shane (2009) for the importance of identifying differences in types and phases of entrepreneurship.

[7] For an explanation about these differences see Bosma et al., 2009 p. 12 "Main distinctions between GEM Adult population Survey Data and Business Registration Data".

[8] See Levie and Autio (2008) for a theoretical grounding.

[9] The National Experts Survey provides qualitative and subjective information on the state of several framework conditions whose evaluation is not measured by objective and quantitative variables. For the rest of contextual variables, GEM collects each year, objective information from the most reputed sources offering it: World Bank, United Nations, OECD, World Economic Forum and many others.

economic growth" (Reynolds, Hay and Camp, 1999 p.3). To understand this central aim GEM developed a conceptual model that sets out key elements of the relationship between entrepreneurship and economic growth and the way in which the elements interact. It took as its starting point the recognition that while other scholars had defined the general national framework conditions for established enterprise to thrive (Schwab and Sachs, 1997, 1998), a different set of "entrepreneurial framework conditions" (EFCs) and both entrepreneurial capacities and entrepreneurial opportunities were needed to enable new business activity. The generation of the first set of nine EFCs drew on an extensive literature review of entrepreneurship and economic growth, but also on the collective inputs of a group of scholars who were based at the London Business School in 1997/1998. This emergent phase of GEM is described by Reynolds et al. (2005) and the first model is discussed in detail by Levie and Autio (2008).

After ten years of collecting empirical evidence, and continuous improvements in the measures adopted, GEM researchers revised the GEM model to reflect the complexity of the causal relationships between entrepreneurship and economic development globally (Bosma et al., 2009; Bosma and Levie, 2010). This revised model is founded on the concept that the contribution of entrepreneurs to an economy varies according to its phase of economic development (Wennekers et al., 2005; Gries and Naude, 2008), which to certain extent drives the institutional setting. It was also reflecting the evolvement of the conceptual model behind the Global Competitiveness Index, on which the GEM model drew for its General National Framework Conditions. The revised model introduced a more 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 recognized that GEM's unique contribution was to describe and measure, in detail, the conditions under which entrepreneurship and innovation can thrive.

The revised model also incorporates the three main components that capture the multi-faceted nature of entrepreneurship: entrepreneurial attitudes, entrepreneurial activity, and entrepreneurial aspirations. They are included in the model 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. This ambiguity was deliberate; it reflected the view that all three elements may affect each other rather than being components of a linear process and it was expected that further theoretical and empirical work would open up this black box. While the first model included capability and opportunity, it was never clear – and scholars still dispute – whether these are objective realities or subjective constructs, and aspiration was notably absent from the model. Aspiration or ambition is relevant because researchers increasingly realize that all entrepreneurial activity does not equally contribute to development. For example, in many countries, much employment creation comes from a small number of ambitious, fast-growing new businesses (Autio, 2007). Furthermore, potentially ambitious entrepreneurs react differently to different regulatory and legal regimes than those who are less ambitious (Levie and Autio, 2011). Finally, the revised GEM model highlights the contributions of entrepreneurial employees as well as their role as potential future independent entrepreneurs. The current GEM conceptual model is shown in Figure 1.2[10].

Based on an understanding of how economies change as they develop, the revised GEM model incorporates the changing nature and contribution of entrepreneurship across subsequent stages of development (Porter et al., 2002). The appropriate government emphasis for each stage of development is described in Figure 1.3. At the so-called *factor-driven stag*e, production is based upon

[10] While formally distinguishing between three stages of development, GEM acknowledges that some countries are in fact in a transition phase, see footnote Table 2.1 for more details.

the mobilization of primary factors of production: land, primary commodities and unskilled labor. For factor-driven economies, economic development is primarily driven by improvements of basic requirements: development of institutions, infrastructure, macroeconomic stability and health and primary education. In *efficiency-driven economies*, at the next stage, government focus is (or should be) on getting labor and capital markets working more properly, attracting foreign direct investment and educating the workforce to successfully adopt technologies developed elsewhere. The key processes in moving from the first to the second stage are capital accumulation and technological diffusion (Wennekers et al., 2005). Even though these conditions are not directly related to entrepreneurship in the Schumpeterian sense of "creative destruction", they are indirectly related since the development of markets will also attract and enable more opportunity-based entrepreneurship. Finally, countries whose economic development is primarily *innovation-driven*, innovate at the global technological frontier in at least some sectors (Porter et al., 2002). This stage also implies higher per capita income. The transition to this stage requires a country to develop its ability to generate as well as commercialize new knowledge (Wennekers et al., 2005). As countries develop economically, entrepreneurial framework conditions become more important to further economic development.

The outcome of the model is national economic growth, innovation and job creation. The GEM data collection efforts allow for an exploration of the role of entrepreneurship in national economic development. GEM's ability to map this territory grows with each annual cycle as combined sample sizes grow and as trends over time become apparent.

FIGURE 1.2 THE GEM CONCEPTUAL MODEL

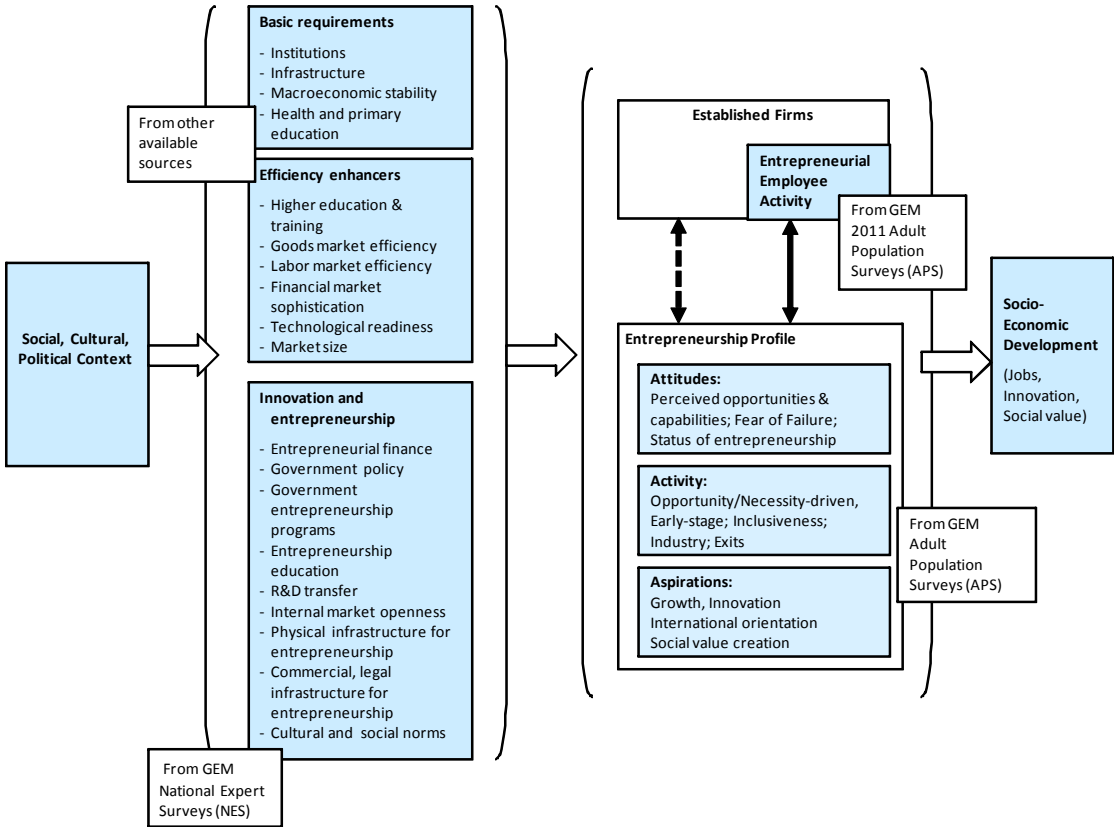
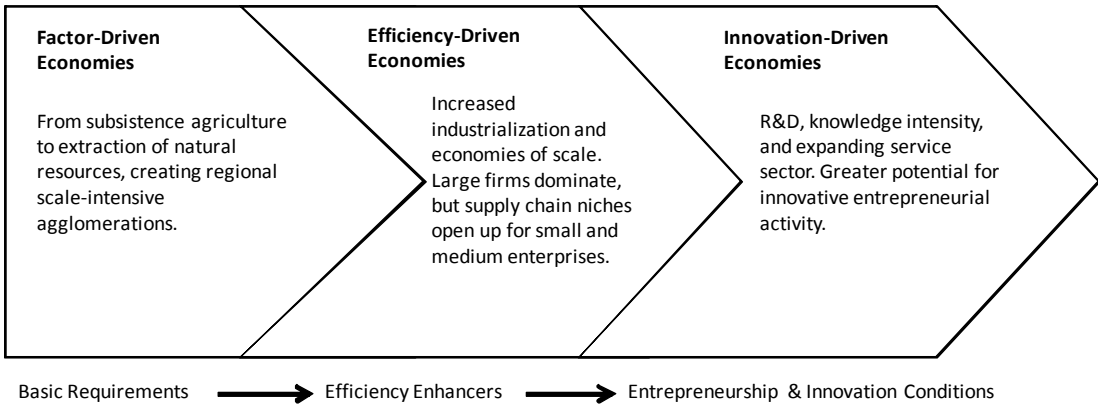


FIGURE 1.3 CHARACTERISTICS OF ECONOMIC GROUPS AND KEY DEVELOPMENT FOCUS



1.4. PATTERNS OF ENTREPRENEURSHIP: A COUNTRY CLASSIFICATION

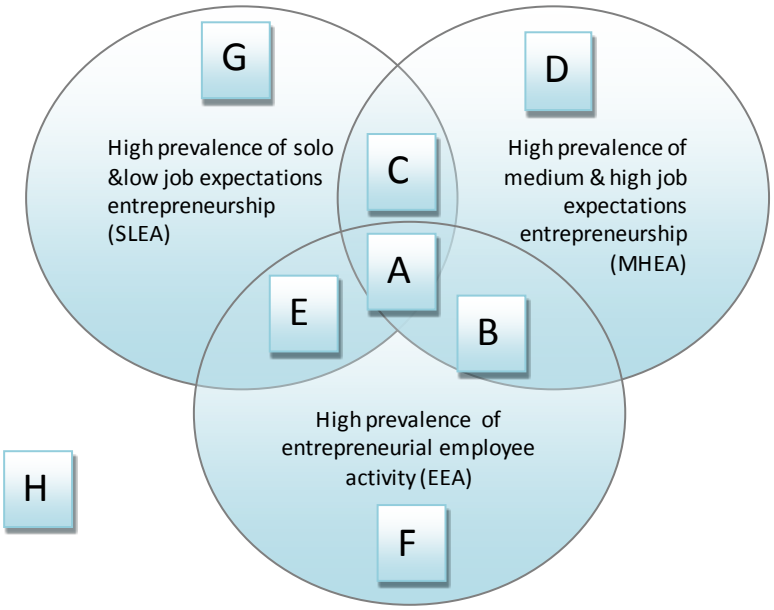
In section 1.1 it was already highlighted that, when taking a broad view of entrepreneurship, economies can be classified along three main dimensions:

- Medium/high job expectation early-stage entrepreneurial activity (MHEA), as a reflection of ambitious entrepreneurship
- Solo/low job expectation early-stage entrepreneurial activity (SLEA), as a reflection of less ambitious entrepreneurship. This dimension represents two aspects or components:
    - Social component (people pursue their need for independence or have no alternative options for work)
    - Economic component (some self-employed contribute to the flexibility of the overall economy, but others could be more productive by working as an employee)
- Entrepreneurial employee activity (EEA)

A classification of different types of economies may be based on country prevalence rates in these three entrepreneurship dimensions, i.e. the prevalence of medium/high job expectation early-stage entrepreneurial activity MHEA, the prevalence of solo/low job expectation early-stage entrepreneurial activity SLEA and the prevalence of entrepreneurial employee activity EEA. In the present report, as a first attempt to designing a typology, countries are classified as having high prevalence in a dimension if the corresponding rate is above the median score and as having low prevalence if the corresponding rate is below this score. The resulting eight possible combinations of these three dimensions then range from high/high/high to low/low/low. These combinations or types of economies may be numbered A through H, as is visualized in Figure 1.4.

Type A, for example, harbors the countries with a high prevalence in all three types of entrepreneurship, while countries with high prevalence in both solo/low job expectations entrepreneurship (SLEA) and medium/high job expectations entrepreneurship (MHEA) but a low rate of entrepreneurial employee activity (EEA) are in group Type C, countries with high prevalence in EEA but low rates of MHEA and SLEA are Type F, and countries with a low prevalence in all three types of entrepreneurship are Type H.

FIGURE 1.4 TYPOLOGY OF ECONOMIES BASED ON THREE DIMENSIONS OF ENTREPRENEURSHIP



With:

Type A: high prevalence of three types of entrepreneurial activity (SLEA, MHEA and EEA)

Type B: high prevalence of medium/high job expectation entrepreneurship (MHEA) and high prevalence of entrepreneurial employee activity (EEA)

Type C: high prevalence of solo/low job expectation entrepreneurship (SLEA) and high prevalence of medium/high job expectation entrepreneurship (MHEA)

Type D: high prevalence of medium/high job expectation entrepreneurship (MHEA) only

Type E: high prevalence of solo/low job expectation entrepreneurship (SLEA) and high prevalence of entrepreneurial employee activity (EEA)

Type F: high prevalence of entrepreneurial employee activity (EEA) only

Type G: high prevalence of solo/low job expectation entrepreneurship (SLEA) only

Type H: low prevalence of three types of entrepreneurial activity (SLEA, MHEA and EEA)

2. THE 'STATE OF ENTREPRENEURSHIP' IN 2011

2.1 INTRODUCTION

The GEM data collection offers entrepreneurial profiles of countries along thee important dimensions. *Entrepreneurial attitudes and perceptions* reflect the degree to which individuals in economies 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 refrain from exploiting such opportunities through fear of failure? *Entrepreneurial activity* measures the observed involvement of individuals in different phases of entrepreneurial activity. It also tracks the degree to which entrepreneurial activities are driven by opportunity and/or necessity. Discontinuations of entrepreneurial activity (and the reasons for doing so) are also estimated from GEM Adult population Surveys. Finally, *entrepreneurial aspirations* are of key importance in addressing the (socio) economic impact of entrepreneurial behavior. Entrepreneurs that expect to create jobs, to be involved in international trade and/or to contribute to society by offering new products and services are of particular interest. This chapter deals with each of these components based on the results of the GEM 2011 adult population survey. In section 2.4, GEM data from 2009 and 2010 are also included in the analysis as this yields more precise assessments on the relatively rare occasion of high-aspiration entrepreneurial activity.

2.2 ENTREPRENEURIAL ATTITUDES AND PERCEPTIONS

Fostering entrepreneurial awareness and positive attitudes towards entrepreneurship are high on the policy agenda of several economies[11]. The idea is that, for individuals, evolving attitudes and perceptions towards entrepreneurship could affect those venturing into entrepreneurship. However, the perception of opportunities for startups and that of (matching) personal capabilities do not necessarily represent the key determinant of making the step to entrepreneurial activity. McMullen and Shepherd (2006) for instance, argue that individuals first react to opportunities when they see them – only after this, considerations about desirability and feasibility are made. Fear of failure when it comes to starting a business (and the consequences of failure) could also deter an individual from exploiting perceived entrepreneurial opportunities. In addition to these individual characteristics, elements of the context, such as the availability of (good) job alternatives in an economy and the perceptions of others can make a difference for those perceiving market opportunities and having confidence in their own entrepreneurial capabilities to actually engage in independent entrepreneurial activity[12]. In an empirical study explaining and linking entrepreneurial attitudes and activities for European regions using GEM data, Bosma and Schutjens (2009; 2011) find (only) a weak positive association between regional variations in entrepreneurial attitudes on the one hand and in entrepreneurial activity on the other. This supports the notion that there is much in between attitudes and activities and that a mixture of individual, social and contextual factors impact on the individual decision making process when it comes to venturing into entrepreneurial activity. Table 2.1 shows how countries compare to each other in terms of entrepreneurial perceptions and attitudes as measured through the 2011 GEM Adult Population Survey. The countries are grouped according to the phase of economic development. While positive attitudes and perceptions towards

[11] See e.g. OECD (2010, p.76).

[12] Those who prefer to be working as an employee in this setting may particularly be inclined to opt for entrepreneurial employee activity, see Chapter 4.

entrepreneurship may be instrumental in achieving new (high-value) entrepreneurial activities in some societies, in others, they seem to matter less. One reason may be that excellent alternatives are available to individuals.

Individuals' Perceptions: Opportunities, Capabilities and Fear of Failure

The 'perception of entrepreneurial opportunities' measure in Table 2.1 reflects the percentage of individuals who believe there are opportunities to start a business in the area they live in. The measure of fear of failure (when it comes to starting your own business) applies to those who perceive opportunities only. Perceived capabilities reflect the percentages of individuals who believe they have the required skills, knowledge and experience to start a new business. For all three measures, individuals in countries at different stages of economic development are likely to have different kinds of business in mind. The results show high variations across as well within each phase of economic development. High prevalence rates of perceived opportunities are not always associated with high prevalence rates of perceived capabilities.

Among economies in the factor-driven phase, Bangladesh and Venezuela demonstrate different patterns in terms of perceptions to entrepreneurship. Bangladesh pairs positive perceptions of opportunities to start a business with low perceived capabilities and high fear of failure. Seven out of ten individuals see good opportunities to start a business while at the same time most of these individuals argue that fear of failure would prevent them to set up a business. Venezuela matches relatively modest opportunity perceptions with relatively high perceived capabilities and low fear of failure.

Different combinations of attitudes are also found in both efficiency-driven economies and innovation-driven economies. Japan consistently shows very low rates of (self) perceived entrepreneurial opportunities and capabilities. While in general the differences in perceptions across economies tend to be quite stable, as cultural differences are a strong underlying force, there are also business cycle patterns at play. This is most prominently shown in Greece, Hungary, Portugal and Spain, where opportunity perception rates were – next to those of Japan and Korea – among the lowest of all countries included in the GEM 2011 survey. Another remarkable observation is the high fear of failure rate reported in the United Arab Emirates, which is substantially higher than in previous years. American respondents show, like in previous years, a rather modest perception of opportunities paired with a very strong confidence in their own capabilities to start a business.

Entrepreneurial Intentions

Entrepreneurial intentions, 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 measure presented in Table 2.1) differ widely across the economies in each stage of economic development. On average they tend to be highest in factor-driven economies where fewer good job alternatives are available and more necessity-based entrepreneurship can be expected. In efficiency-driven economies and especially in innovation-driven economies, entrepreneurial intentions are typically lower. Russia and the United Arab Emirates, countries with high emphasis on primary resources, exhibit lowest entrepreneurial intention rates, while expectations to start a business are extremely high in some other emerging economies like China, Chile and Brazil. For these countries it should be noted that economic disparities are high and that the entrepreneurial intentions cover a wide range from substantial amounts of local, necessity-based self-employment to relatively scarce high aspiration and internationally oriented entrepreneurship.

TABLE 2.1 ENTREPRENEURIAL ATTITUDES AND PERCEPTIONS IN THE GEM COUNTRIES IN 2011 BY PHASE OF ECONOMIC DEVELOPMENT (% OF POPULATION AGED18-64)

	Perceived Opportu-nities	Perceived capabilities	Fear of failure*	Entrepre-neurial intentions **	Entrepre-neurship as a good career choice	High Status to successful entrepre-neurs***	Media attention for entre-preneur-ship***
Factor-driven economies							
Algeria +	54	60	43	42	80	82	51
Bangladesh	64	24	72	25	73		49
Guatemala +	55	71	25	26	85	68	62
Iran +	32	46	33	30	61	73	58
Jamaica +	49	79	29	19	81	82	76
Pakistan	40	43	35	23	74	73	48
Venezuela +	48	67	24	20	83	77	63
average (unweighted)	49	56	37	26	77	79	58
Efficiency-driven economies							
Argentina +	56	64	28	30	76	69	66
Barbados +	44	67	19	11	60	64	50
Bosnia and Herzegovina	21	49	30	17	82	71	43
Brazil +	43	53	31	28	86	86	82
Chile +	57	62	27	46	73	69	65
China	49	44	36	43	73	73	76
Colombia	73	61	29	56	89	79	67
Croatia +	18	49	34	18	65	47	41
Hungary +	14	40	35	20	54	78	34
Latvia +	24	47	41	25			
Lithuania +	23	35	40	17			
Malaysia	37	31	30	9	52	51	73
Mexico +	43	61	27	24	57	58	48
Panama	46	64	14	21			
Peru	70	73	41	38	85	82	78
Poland +	33	52	43	23	73	64	58
Romania	36	42	36	25	68	69	57
Russia +	27	33	43	4	65	65	55
Slovakia	23	53	32	18	55	64	55
South Africa	41	43	24	14	73	72	74
Thailand	40	43	55	26	77	79	84
Trinidad & Tobago +	62	81	17	35	84	82	61
Turkey +	32	42	22	9			
Uruguay +	54	61	34	38	58	59	33
average (unweighted)	40	52	32	25	70	69	60
Innovation-driven economies							
Australia	48	47	43	12	54	68	70
Belgium	43	44	41	11	64	55	47
Czech Republic	24	39	35	14		49	
Denmark	47	35	41	7			
Finland	61	37	32	7	46	83	67
France	35	38	37	18	66	68	47
Germany	35	37	42	5	55	78	50
Greece	11	50	38	10	61	69	32
Ireland	26	46	33	6	46	83	56
Japan	6	14	42	4	26	55	57
Korea Rep.	11	27	45	16	61	67	62
Netherlands	48	42	35	9	83	67	62
Norway	67	33	41	9	53	80	60
Portugal	17	47	40	12			
Singapore	21	24	39	12	54	63	77
Slovenia	18	51	31	9	54	70	45
Spain	14	51	39	8	65	66	45
Sweden	71	40	35	10	52	71	62
Switzerland	47	42	31	10			
Taiwan	39	29	40	28	69	63	86
United Arab Emirates	44	62	51	2	71	73	63
United Kingdom	33	42	36	9	52	81	47
United States	36	56	31	11			
average (unweighted)	35	41	38	10	57	69	58

* Denominator: 18-64 age group perceiving good opportunities to start a business

** Respondent expects to start a business within three years. Denominator: 18-64 age group that is currently *not* involved in entrepreneurial activity (including involvement in early-stage and established entrepreneurship)

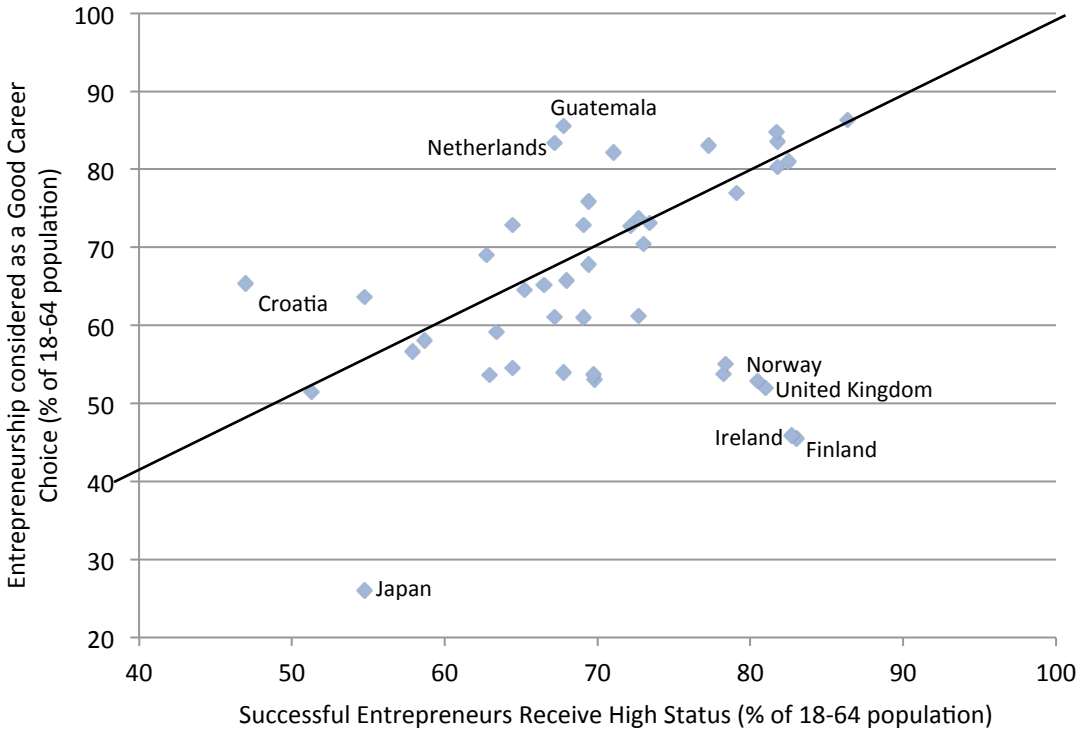
*** This is an optional item in the GEM 2011 Adult population Survey

\+ Country in transition to next phase according to WEF Global Competitiveness Report 2011-2012

NATIONAL ATTITUDES: STATUS AND MEDIA ATTENTION

When asked about their judgment of the degree to which entrepreneurship is accepted as a good career choice, individuals around the globe tend to be overwhelmingly positive, but on average the percentage of positive assessments is lower in innovation-driven economies than in the other two groups. In all economies analyzed (except for Japan, Finland and Ireland) more than half of the inhabitants believe that entrepreneurship is considered to be a good career choice. When we consider the status of *successful* entrepreneurs the average judgment appears to be similar in efficiency-driven economies and innovation-driven economies, while it is somewhat higher in factor - driven economies. Figure 2.1 sets out the two measures and shows that the correlation at the level of economies is positive, however not very strong. The figure shows that economically more developed countries are predominantly under the straight line, indicating that for these countries *successful* entrepreneurs are particularly well-regarded in comparison to the appreciation of entrepreneurship as a good career choice in general. At the other extreme, above the trend line, countries like Croatia, Netherlands and Guatemala have a relatively low appreciation of successful entrepreneurship when considering their attitudes towards entrepreneurship as a good career choice.

FIGURE 2.1 ATTITUDES TOWARDS ENTREPRENEURSHIP AS A CAREER CHOICE VERSUS STATUS OF SUCCESSFUL ENTREPRENEURS



Media attention for entrepreneurship is assessed by asking the individuals whether they believe that there are plenty of items on new and growing firms in the news and other media. Economies from several global regions and covering all three economic phases score high on this item, including Jamaica, Brazil, China, Thailand, Singapore and Taiwan – all with at least three affirmative responses out of four. Lowest scores are observed for Greece, Hungary and Uruguay where only one third of responses were affirmative.

2.3 Entrepreneurial Activities

Phases of Entrepreneurial Activity

As shown in Figure 1.1 earlier in this report, 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[13]. In addition, GEM assesses the rate and nature of business discontinuations. As a result, indicators on several phases of the entrepreneurial process are available. Table 2.2 shows these entrepreneurial activity prevalence rates per phase of economic development. Taken together, these prevalence rates form a first glance of entrepreneurial dynamics for each of the economies. In the remainder of this section, we elaborate on these phases of entrepreneurial activity. As usual, most attention is paid to the phase of early-stage entrepreneurial activity. This is the phase that is crucial for most entrepreneurs, while at the macro level, most dynamism, future job creation and innovation can be expected from this group of entrepreneurs.

[13] For a more detailed explanation of these measures, see Annex II.

TABLE 2.2 PHASES OF ENTREPRENEURIAL ACTIVITY IN THE GEM COUNTRIES IN 2011, BY PHASE OF ECONOMIC DEVELOPMENT

	Nascent entrepreneur-ship rate	*New business ownership rate*	*Early-stage entrepreneurial activity (TEA)*	*Established business ownership rate*	*Discontinuation of businesses*
Factor-driven economies					
Algeria	5.3	4.0	9.3	3.1	9.5
Bangladesh	7.1	7.1	12.8	11.6	2.5
Guatemala	11.8	9.1	19.3	2.5	3.8
Iran	10.8	3.9	14.5	11.2	6.4
Jamaica	9.0	5.0	13.7	5.1	12.7
Pakistan	7.5	1.7	9.1	4.1	1.6
Venezuela	13.1	2.6	15.4	1.6	3.2
average (unweighted)	9.2	4.8	13.4	5.6	5.7
Efficiency-driven economies					
Argentina	11.8	9.2	20.8	11.8	4.3
Barbados	10.8	1.8	12.6	4.2	5.5
Bosnia and Herzegovina	5.4	2.8	8.1	5.0	6.7
Brazil	4.1	11.0	14.9	12.2	3.8
Chile	14.6	9.6	23.7	7.0	6.8
China	10.1	14.2	24.0	12.7	5.3
Colombia	15.2	6.7	21.4	7.5	6.0
Croatia	5.3	2.1	7.3	4.2	3.6
Hungary	4.8	1.6	6.3	2.0	2.3
Latvia	6.8	5.3	11.9	5.7	3.0
Lithuania	6.4	5.0	11.3	6.3	2.9
Malaysia	2.5	2.5	4.9	5.2	2.6
Mexico	5.7	4.0	9.6	3.0	5.0
Panama	12.0	9.1	20.8	6.0	2.1
Peru	17.9	5.4	22.9	5.7	5.1
Poland	6.0	3.1	9.0	5.0	4.2
Romania	5.6	4.5	9.9	4.6	3.9
Russia	2.4	2.3	4.6	2.8	1.5
Slovakia	9.2	5.3	14.2	9.6	7.0
South Africa	5.2	4.0	9.1	2.3	5.6
Thailand	8.3	12.2	19.5	30.1	4.5
Trinidad & Tobago	13.9	9.3	22.7	6.9	3.9
Turkey	6.3	6.0	11.9	8.0	3.9
Uruguay	11.0	6.0	16.7	5.9	4.3
average (unweighted)	8.4	5.9	14.1	7.2	4.3
Innovation-driven economies					
Australia	6.0	4.7	10.5	9.1	4.3
Belgium	2.7	3.0	5.7	6.8	1.4
Czech Republic	5.1	2.7	7.6	5.2	2.7
Denmark	3.1	1.6	4.6	4.9	2.3
Finland	3.0	3.3	6.3	8.8	2.0
France	4.1	1.7	5.7	2.4	2.2
Germany	3.4	2.4	5.6	5.6	1.8
Greece	4.4	3.7	8.0	15.8	3.0
Ireland	4.3	3.1	7.2	8.0	3.4
Japan	3.3	2.0	5.2	8.3	0.7
Korea Rep.	2.9	5.1	7.8	10.9	3.2
Netherlands	4.3	4.1	8.2	8.7	2.0
Norway	3.7	3.3	6.9	6.6	2.5
Portugal	4.6	3.0	7.5	5.7	2.9
Singapore	3.8	2.8	6.6	3.3	2.1
Slovenia	1.9	1.7	3.7	4.8	1.5
Spain	3.3	2.5	5.8	8.9	2.2
Sweden	3.5	2.3	5.8	7.0	3.2
Switzerland	3.7	2.9	6.6	10.1	2.9
Taiwan	3.6	4.4	7.9	6.3	4.9
United Arab Emirates	3.7	2.6	6.2	2.7	4.8
United Kingdom	4.7	2.6	7.3	7.2	2.0
United States	8.3	4.3	12.3	9.1	4.4
average (unweighted)	4.0	3.0	6.9	7.2	2.7

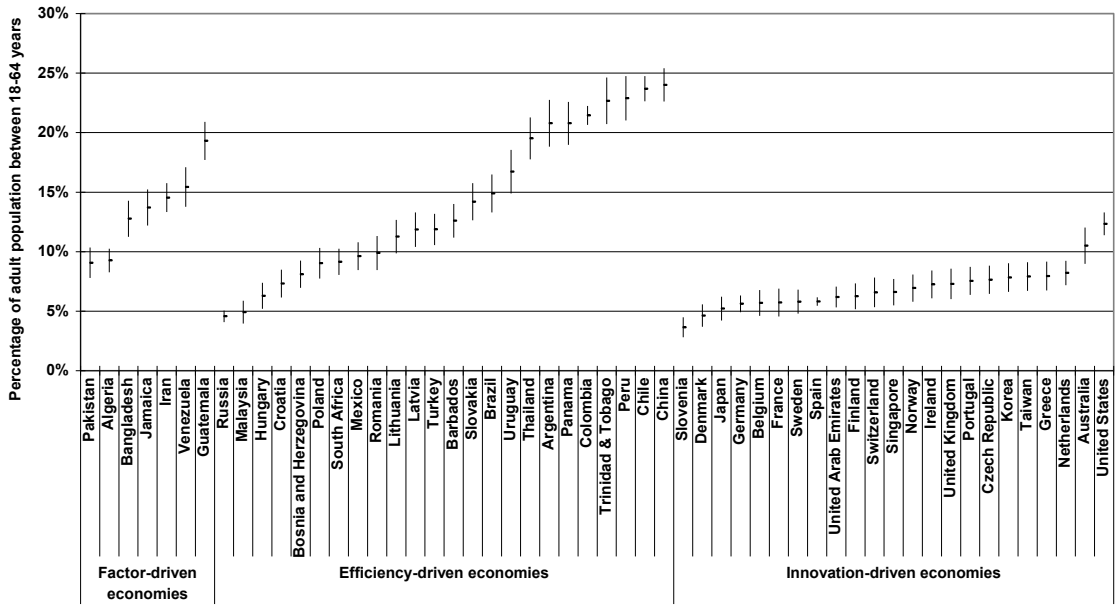
Source: Global Entrepreneurship Monitor 2011

TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY

An economy's 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. Several other definitions for what constitutes the birth of a firm have been put forward in the entrepreneurship literature, using different perspectives. The payment of wages proved to be the best approach for making international comparisons. Individuals who are actively committing resources to start a business (that they expect to own or co-own) but for whom the business has not yet yielded wages or salaries are labeled *nascent entrepreneurs*. The individuals who did pass this 'birth event' but are operational for less than 42 months are labeled as *owner-managers in new firms*. The cut-off point of 42 months has been made on a combination of theoretical and practical considerations[14].

Figure 2.2 shows the point estimates of the TEA rates for each of the 54 economies in 2011 by phase of economic development. The confidence intervals facilitate in interpreting differences between countries. They constitute the range within which the average value of 95 out of 100 replications of the survey would be expected to lie. Thus, where the vertical bars do not overlap, as is for example the case comparing Venezuela and Guatemala, the TEA rates are statistically different adopting 95% certainty, also denoted as statistically different at the 0.05 level.

FIGURE 2.2 TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA) 2011, BY PHASE OF ECONOMIC DEVELOPMENT, SHOWING 95 PERCENT CONFIDENCE INTERVALS



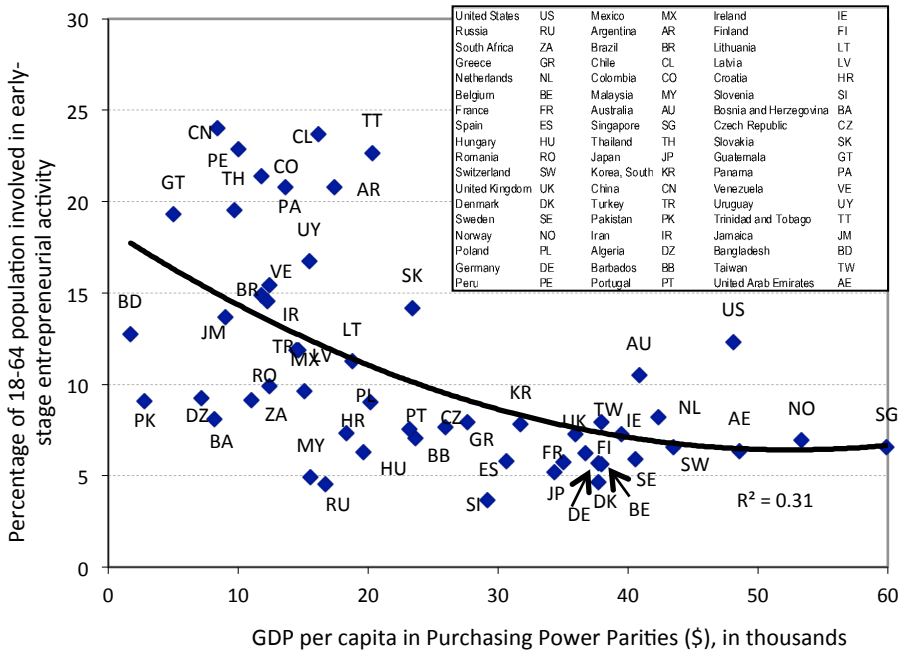
Source: Global Entrepreneurship Monitor 2011
Note: Vertical bars represent 95% confidence intervals for the point estimates of TEA

From Figure 2.2 it is clear that higher rates of TEA are not necessarily positively related with economic development. Indeed, TEA rates should not be linked to economic development directly. What matters more is the particular profile and context of entrepreneurship as indicated with Figure 1.1 in

[14] This is explained in Annex II. See also Reynolds et al. (2005)

this report; the profiles and (institutional) contexts are discussed in the remainder of this report[15]. Previous GEM reports have reported TEA rates (in general) to *decline* with increasing levels of GDP per capita, up to some point (see e.g. Kelley et al. 2011a). The decline follows the increasing availability of job opportunities as economies progress and develop institutions accordingly.[16] When economies are in the innovation-driven stage, the relationship with GDP per capita is less pronounced, even though most GEM Global Reports showed a mild positive correlation between TEA rates and GDP per capita at the right hand tail. This mild positive correlation for innovation-driven economies is not observed in the 2011 edition, as can be seen in Figure 2.3[17]. Instead the downward slope now appears to flatten out. This corresponds to earlier observations for business ownership rates in 23 OECD countries (Wennekers et al. 2010)[18].

FIGURE 2.3 EARLY-STAGE ENTREPRENEURIAL ACTIVITY AND LEVELS OF GDP PER CAPITA



Source: Global Entrepreneurship Monitor 2011

In section 2.2 we discussed the potential association between entrepreneurial perceptions and intentions to start businesses at the macro level. Entrepreneurial behavior is one step further in the process of entrepreneurship. In Figure 2.4 we set out intentions to start businesses (for that part of the population not active in entrepreneurship at the time of the survey) against observed early-stage entrepreneurial activity. The solid line represents the average trend among the 54 GEM 2011 countries and shows a rather strong positive correlation with over 60 percent of the variation explained by this linear trend. Several reasons might explain why some economies are well above this

[15] Profiles of the individual economies are included at the end of this report.

[16] See Bosma et al. (2009) and Acs and Szerb (2011) for a more extensive assessment on the relation between entrepreneurship and stages of economic development.

[17] Wennekers et al. (2010) report a statistically significant U-shaped relationship between Total early-stage Entrepreneurial Activity (TEA) and per capita income using GEM data for 2007.

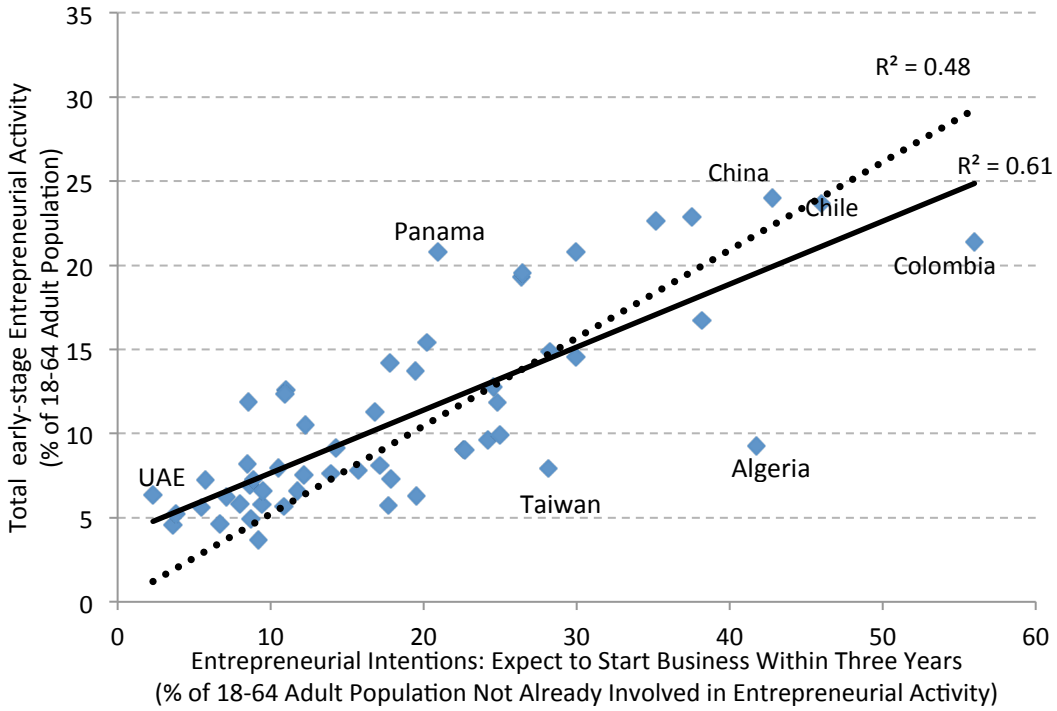
[18] The pattern shown in Figure 2.3 is a snapshot of the observed pattern across economies in 2011. For individual economies, time series data may still point at U-shaped patterns between TEA rates and GDP per capita.

line, such as those of Panama, China and the United Arab Emirates. First, the most obvious explanation is that there is a high 'conversion rate' at the individual level: individuals with intentions to start a business tend to move to the activity stage more quickly. Second, it may be the case that – even when assuming similar conversion rates - businesses tend to be started relatively swiftly (a short average of elapsed time between having intentions and pursuing the intentions). A third explanation takes this argument a bit further; it could be that in these economies relatively many individuals are starting businesses whereas they did not intend to do so in the years before. This last argument highlights that the relationships we may observe at the macro (economy) level do not necessarily map one-to-one with the micro level.

Opposite arguments apply for countries below the trend, such as Algeria and Taiwan. In these economies relatively few people may move from intentions to activity. This may for instance be caused by institutional settings that deter people with entrepreneurial intentions from actually pursuing these intentions. An alternative explanation is that for many people with intentions to start businesses, the attractiveness of their current job (or another job) is too high to make the step to entrepreneurship, with more risks involved. The dotted line represents the trend if one were to assume an average 'conversion rate' from entrepreneurial intentions to early-stage entrepreneurial activity. The resulting linear trend still explains over half of the variation across countries and the implied average conversion rate is slightly higher than 0.5. However, it should be considered that some will engage in entrepreneurship without having had the explicit intention to start a business, as argued above.

As the above demonstrates that multiple interpretations may be possible when examining the interplay between entrepreneurial attitudes & perceptions, intentions and actual involvement in entrepreneurial activity at the macro level, several academic articles based on GEM data at the level of individuals focus on particular mechanisms and hence offer useful information. For example, zooming in on the perceived capabilities indicator, Arenius and Kovelainen (2006) establish that self-confidence in one's entrepreneurial capabilities predicts involvement in innovative types of entrepreneurial activity even more than in non-innovative types of entrepreneurial activity. Koellinger et al. (2007) relate the same confidence measure to proxies of future survival chances for nascent entrepreneurship and find a negative relationship: confidence may point at over-confidence in some cases. Arenius and Minniti (2005) and Langowitz and Minniti (2007) moreover confirm the importance of self-confidence for women entrepreneurship.

FIGURE 2.4 ENTREPRENEURIAL INTENTIONS AND EARLY-STAGE ENTREPRENEURIAL ACTIVITY



Source: Global Entrepreneurship Monitor 2011

INDIVIDUAL DRIVERS: MOTIVATIONS TO START BUSINESSES

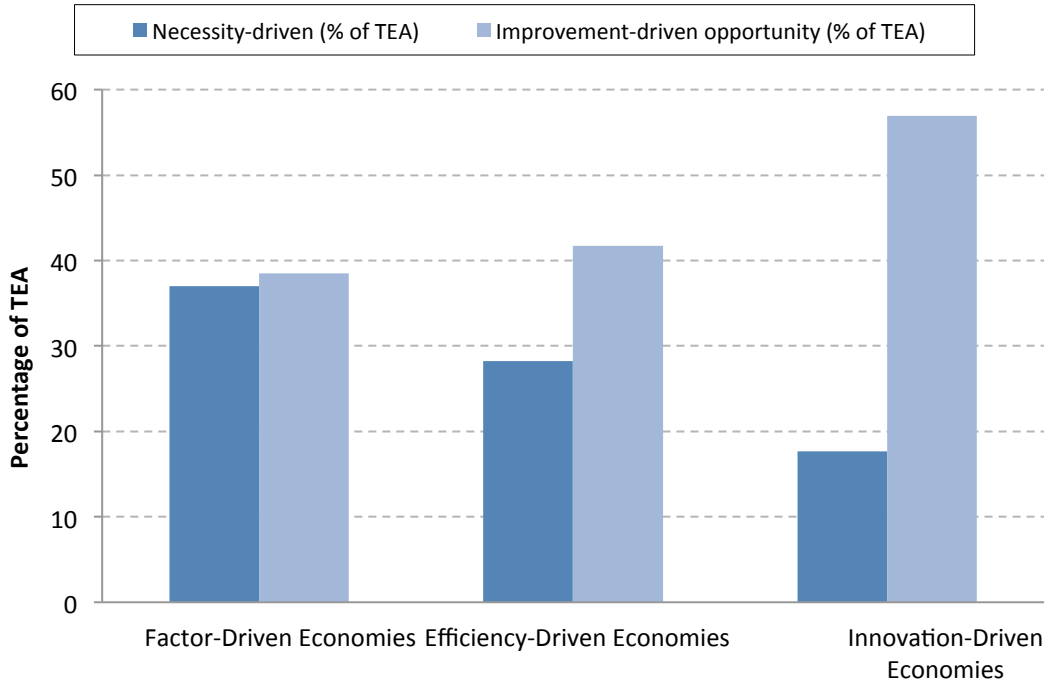
Motivations to start businesses differ vastly across the globe. Individual drivers are traditionally captured within the GEM framework with a simple contrast between necessity-driven motives and opportunity-driven motives. A necessity-driven entrepreneur is one who indicates in the GEM Adult Population Survey that s/he started the business because there were no better options for work, rather than that s/he saw the startup as an opportunity. For those who did see the startup 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 sought to either *earn more money* or *be more independent*, as opposed to *maintain* income. As Figure 2.5 shows, entrepreneurs in factor-driven economies tend to be equally driven by necessity and improvement-driven opportunity (IDO) motives. With higher economic development levels, necessity gradually falls off as a motivator, while IDO motives increase.

Necessity motives can be impacted by economic conditions. For example, people in early development-stage economies may start businesses because there is an insufficient supply of jobs and a low level of social security entitlements, and they are pushed into creating a source of income. As economies develop the supply of jobs generally increase, so fewer people are pushed into entrepreneurship. Business cycle fluctuations, however, such as during the 2008-9 economic downturns, can cause temporary shifts in necessity-motivated entrepreneurship.

Table 2.3 shows for instance that in 2011 more than one out of every four early-stage entrepreneurs was driven by necessity in Greece, Ireland and Spain (all three are European countries that have been highly affected by the economic crisis) while for Scandinavian countries Norway, Sweden and Denmark just about one in fifteen early-stage entrepreneurs were necessity-driven. In some countries, these differences in motivations are especially apparent for female entrepreneurs.

Improvement-driven opportunity motives may be less dependent on the economic environment and of more intrinsic nature, as the individual opts for pursuing an opportunity that is believed to increase income and/or independence. One could question whether this can be stimulated by, for example, greater exposure to entrepreneurial opportunities in one's environment. While on average improvement-driven opportunity motives tend to be more prevalent among early-stage entrepreneurs as the economy develops (Figure 2.5). Table 2.3 demonstrates that there is also plenty variation among countries within the same stage of economic development. In Bosnia and Herzegovina for example, as much as six out of every ten early-stage entrepreneurs reports to be starting or to have started the new business for necessity motivations. In contrast, the same holds for just one in every ten early-stage entrepreneurs in Malaysia and Uruguay

FIGURE 2.5 PERCENTAGE OF ENTREPRENEURS MOTIVATED BY NECESSITY AND OPPORTUNITY, BY PHASE OF ECONOMIC DEVELOPMENT, 2011



Source: Global Entrepreneurship Monitor 2011

TABLE 2.3 NECESSITY AND IMPROVEMENT-DRIVEN OPPORTUNITY EARLY-STAGE ENTREPRENEURIAL ACTIVITY RATES, BY COUNTRY AND PHASE OF ECONOMIC DEVELOPMENT, 2011

	Female Necessity-driven (% of Female TEA)	Male Necessity-driven (% of Male TEA)		Female Improvement-driven opportunity (% of Female TEA)	Male Improvement-driven opportunity (% of Male TEA)	
Factor-Driven Economies						
Algeria	41	36		42	47	
Bangladesh	34	26		46	51	
Guatemala	37	29	*	31	37	
Iran	24	56	*	42	30	
Jamaica	34	32		35	44	
Pakistan	81	43	*	0	27	*
Venezuela	32	25		41	45	
Unweighted average	41	35		34	40	
Efficiency--Driven Economies						
Argentina	40	28	*	39	49	*
Barbados	8	3		60	57	
Bosnia and Herzegovina	70	57		13	26	*
Brazil	30	31		44	46	
Chile	36	21	*	45	62	*
China	39	42		31	27	
Colombia	31	22	*	29	31	
Croatia	38	34		33	30	
Hungary	35	29		28	30	
Latvia	30	24		42	49	
Lithuania	27	29		44	49	
Malaysia	12	9		68	74	
Mexico	24	16		51	57	
Panama	34	21	*	38	43	
Peru	31	16	*	47	56	*
Poland	52	46		30	32	
Romania	40	42		37	33	
Russia	26	28		42	42	
Slovakia	34	25		35	34	
South Africa	32	36		39	40	
Thailand	21	16		64	70	
Trinidad & Tobago	20	11	*	38	48	*
Turkey	34	31		40	47	
Uruguay	15	8		12	8	
Unweighted average	32	26		40	43	
Innovation-Driven Economies						
Australia	15	15		75	72	
Belgium	12	9		66	76	
Czech Republic	28	27		57	56	
Denmark	8	7		60	66	
Finland	20	17		61	59	
France	22	12		68	71	
Germany	21	17		55	55	
Greece	26	25		33	39	
Ireland	30	29		40	36	
Japan	27	24		55	67	
Korea	34	44		41	35	
Netherlands	6	11		69	59	
Norway	2	5		71	70	
Portugal	27	13	*	48	63	
Singapore	15	18		52	53	
Slovenia	3	17		54	50	
Spain	30	23	*	37	41	
Sweden	6	6		65	69	
Switzerland	9	13		57	66	
Taiwan	16	18		42	54	
United Arab Emirates	12	15		65	68	
United Kingdom	27	12	*	45	47	
United States	22	21		57	61	
Unweighted average	18	17		55	58	

Source: Global Entrepreneurship Monitor 2011

* Significant difference between female and male rates, based on one sided Chi-squared test statistic, $p<0.05$.

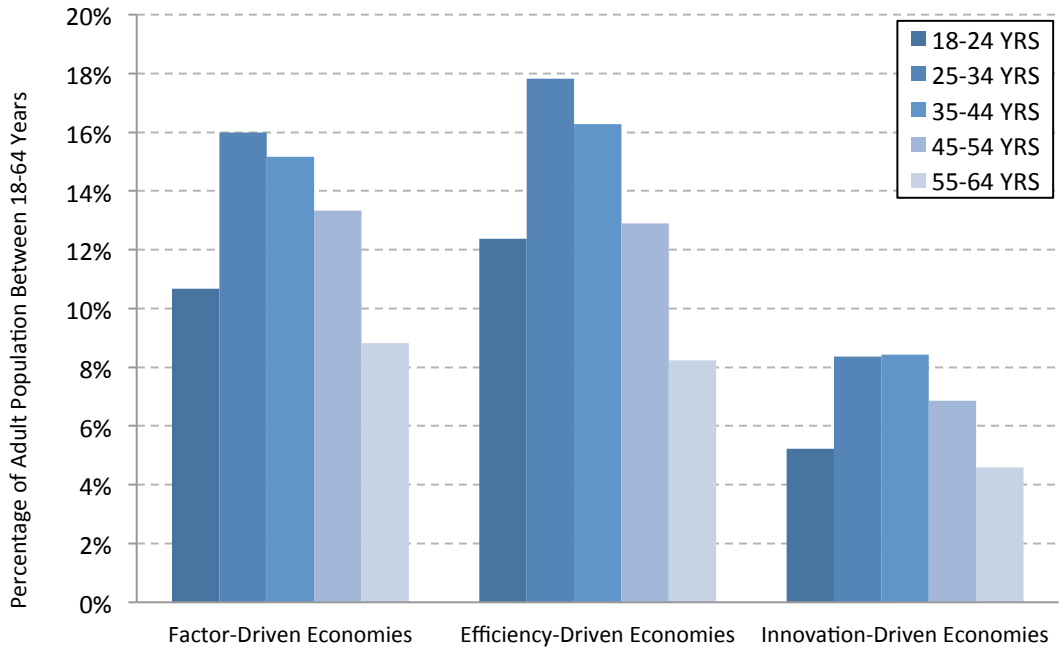
SOCIAL INCLUSION: DEMOGRAPHICS AND EARLY-STAGE ENTREPRENEURIAL ACTIVITY

Youth and Senior Entrepreneurship

A society can benefit from entrepreneurs of all ages. On one extreme, young people are relatively likely to have fresh ideas, to be "born-digitals" and in some societies to have received more education than their parents. They are less likely to have responsibilities like mortgages and families, which could make them more cautious and risk-averse. At the other extreme, older people may be less open to new experiences and change but they have relevant experience, contacts and capital built over long careers. Moreover, the 50+ age group in many economies is now also familiar with information and communication technologies, making home-based start-ups an interesting option for this group. While entrepreneurship is often more prevalent in the age groups in between, policy makers might look to harness the entrepreneurial potential on either side of these seemingly more likely prospects.

Figure 2.6 shows that the distribution of early-stage entrepreneurship is roughly similar for the three distinguished phases of economic development, with highest prevalence rates in the 25-34 and 25-44 years across age groups. Again, some differences between countries should be noted. For example, younger early-stage entrepreneurs (18-24 year olds) were particularly often observed in the efficiency-driven economies of Lithuania, Bosnia & Herzegovina, and Panama. Similar patterns can be seen in the innovation-driven economies of Czech Republic and Germany. In contrast, Switzerland and Japan have the highest proportion of older early-stage entrepreneurs in the 44-54 age range.

FIGURE 2.6 EARLY-STAGE ENTREPRENEURIAL ACTIVITY RATES WITHIN AGE GROUPS, BY ECONOMIC PHASE OF DEVELOPMENT



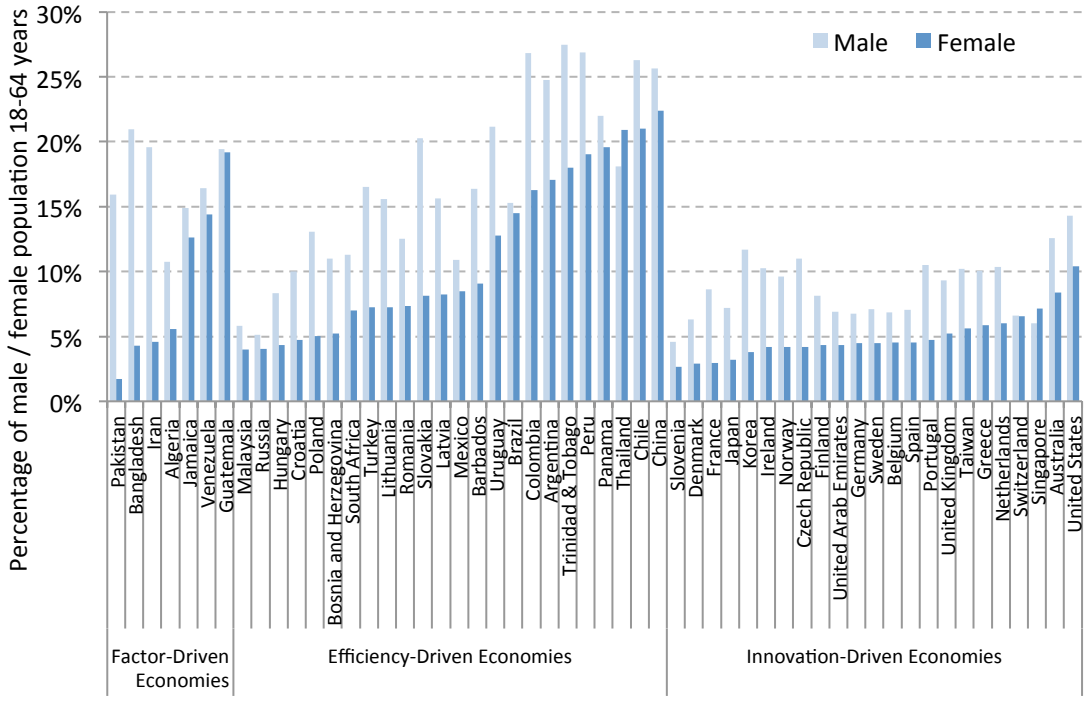
Source: Global Entrepreneurship Monitor 2011

Women and Entrepreneurship

Women's involvement in early-stage entrepreneurship varies greatly across the globe, as can be seen in Figure 2.7. In just eight of the 54 economies surveyed, the rates of female early-stage entrepreneurship are comparable to their male equivalents. These eight—Panama, Venezuela, Jamaica, Guatemala, Brazil, Thailand, Switzerland and Singapore—come from various global regions and represent every phase of economic development. In the rest of the sample, entrepreneurship rates are lower among women relative to men.[19]

When we look more closely at relative rates between the sexes, some notable results in a few economies emerge. Thailand and Brazil, as mentioned above, have high women participation rates relative to men. On the other side, the lowest relative rates of involvement in entrepreneurship by women can be found in several Eastern European economies, most prominently in Poland and Slovakia where less than 30% of the early-stage entrepreneurs are women. Such shares seem to be out of balance when compared to female and male labor activity rates in these economies[20].

FIGURE 2.7 MALE AND FEMALE EARLY-STAGE ENTREPRENEURIAL ACTIVITY 2011, BY COUNTRY AND PHASE OF ECONOMIC DEVELOPMENT



Source: Global Entrepreneurship Monitor 2011

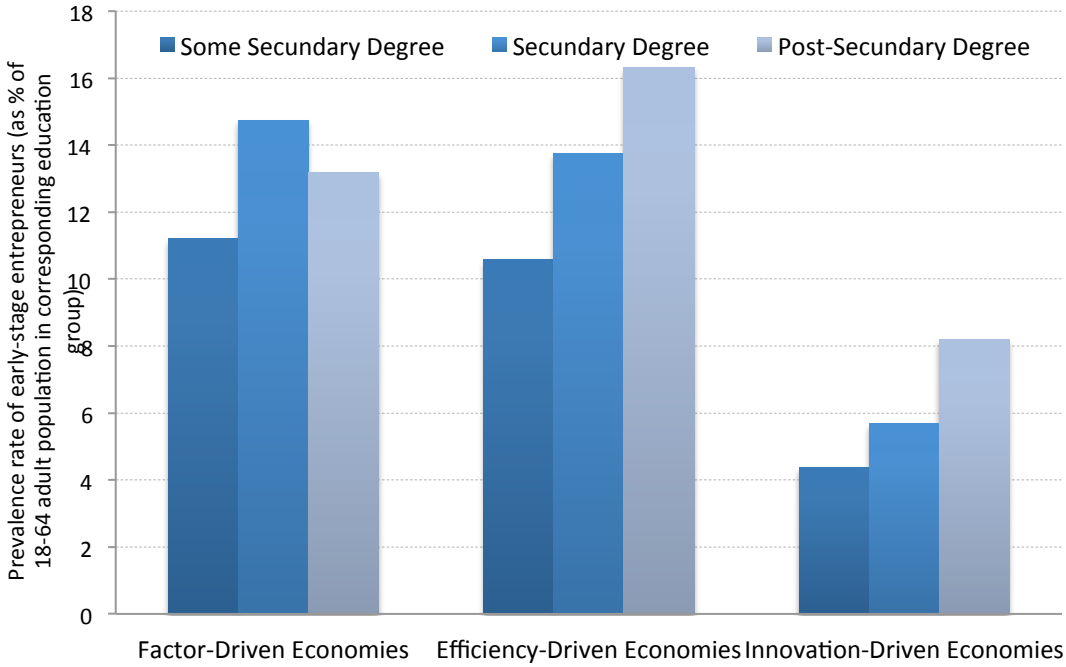
[19] This difference is inferred from Chi-square test results. Individual cases have been weighted to offset imbalances in age and gender structures that emerge from the national samples.

[20] ILO's labor statistics (www.ilo.org) report a female activity rate of 51% and a male activity rate of 68% for Slovakia in 2008 (population aged 15 and more). The rates are respectively 47% and 63% for Poland.

Education

While the likelihood for an individual to be involved in early-stage entrepreneurial activity generally increases with the educational attainment level in efficiency-driven and innovation-driven economies, people with post-secondary degrees in factor-driven economies actually tend to witness lower prevalence rates of early-stage entrepreneurial activity than those with a secondary degree (but not a post-secondary degree), as Figure 2.8 indicates. This may possibly be explained by the scarcity of well-educated individuals in factor-driven economies and the need of large employers, such as government, for such individuals.

FIGURE 2.8 EARLY-STAGE ENTREPRENEURIAL ACTIVITY RATES WITHIN EDUCATION GROUPS, BY ECONOMIC PHASE OF DEVELOPMENT



Source: Global Entrepreneurship Monitor 2011

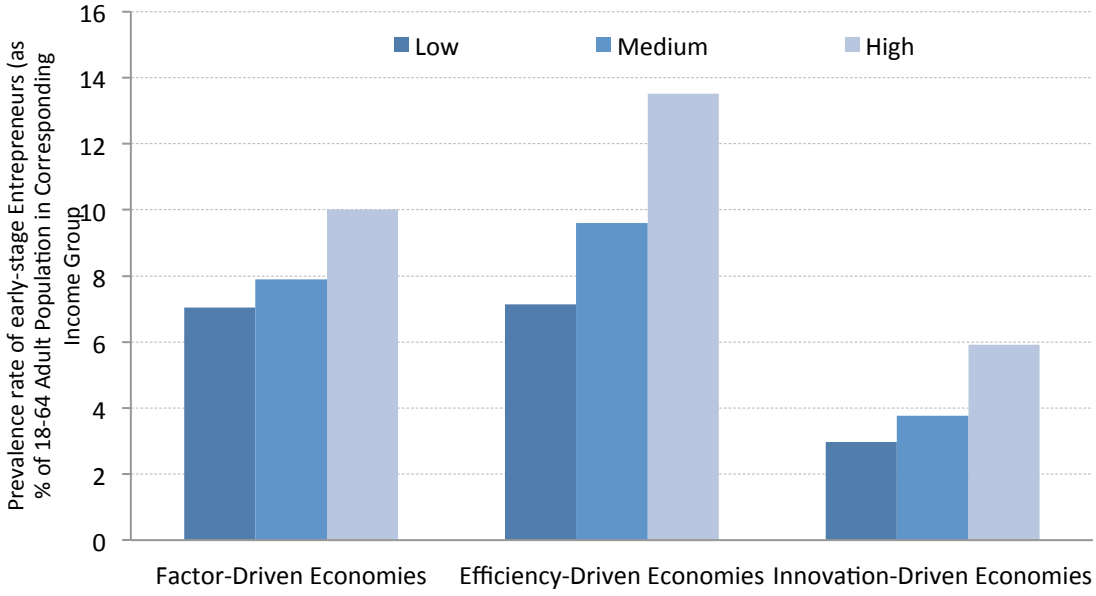
Household Income

Figure 2.9 shows that, on average, the wealthier the household of an individual, the higher the probability that the individual is involved in entrepreneurial activity. Even though this pattern emerges consistently over the years, it does not mean that the pattern is the same for every single economy. The GEM National Reports, which can be downloaded from www.gemconsortium.org, provide more detailed information on individual characteristics of entrepreneurship at the country level. In addition, academic publications based on GEM data offer some nuanced findings on individual characteristics of entrepreneurial activity[21]. These findings amongst others indicate that educational attainment is linked differently to different *types* of entrepreneurship. For example, Koellinger (2008) finds high educational attainment to be especially linked to innovative types of entrepreneurial activity. Levie and Lerner (2009) investigate the joint impact of human, financial and

[21] An excellent state of the art collection of GEM-based studies is provided by Minniti (2011).

social capital in their study of owner-managers of family businesses and conclude that a higher amount of social capital in family businesses compensates for the relatively low amounts of human and financial capital. Access to finance, measured by the number of bank branches, is positively associated with early-stage entrepreneurial activity in the South-African context (Naudé et al., 2008). Brixy et al. (2011) focus on different individual characteristics along different phases of entrepreneurial activity.

FIGURE 2.9 EARLY-STAGE ENTREPRENEURIAL ACTIVITY RATES WITHIN HOUSEHOLD INCOME GROUPS, BY ECONOMIC PHASE OF DEVELOPMENT



Source: Global Entrepreneurship Monitor 2011

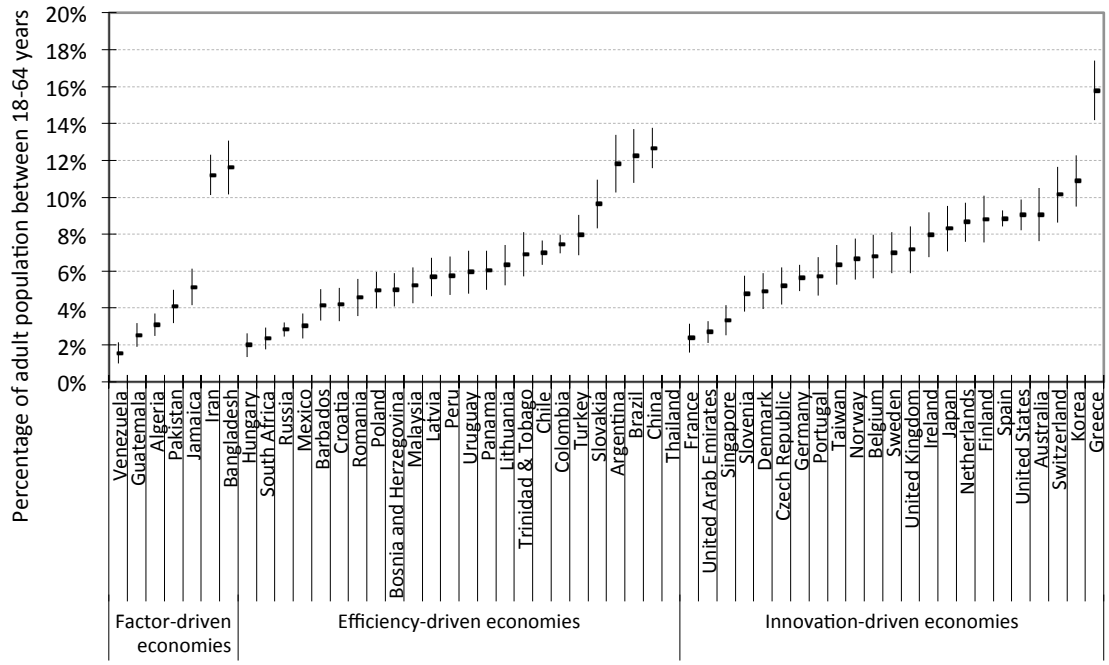
ESTABLISHED BUSINESS OWNERSHIP

While early-stage entrepreneurs particularly contribute to dynamism and innovation in an economy, established businesses and their owner-managers often provide stable employment and exploit the knowledge and social capital accumulated in past experiences. Established businesses are also an important source of new businesses. As such owner-managers of established businesses may contribute greatly to their societies – also if they are small or even solo entrepreneurs.

Figure 2.10 shows the rate of established business ownership rates for each economy. Established business ownership rates are on average in par across the three stages of development. Also here, substantial variations exist among countries in the same phase of economic development.

Figure 2.11 sets out the rates of established business ownership against early-stage entrepreneurial activity for all countries, by phase of economic development. The economies are ranked by rate of established business ownership within each economic group. This figure clearly illustrates the low established business ownership rate relative to TEA in the factor-driven group, with Bangladesh the only economy where established business ownership almost reaches the TEA rate. In the factor-driven economies, there are on average two and a half times as many early-stage entrepreneurs as owner-managers of established businesses.

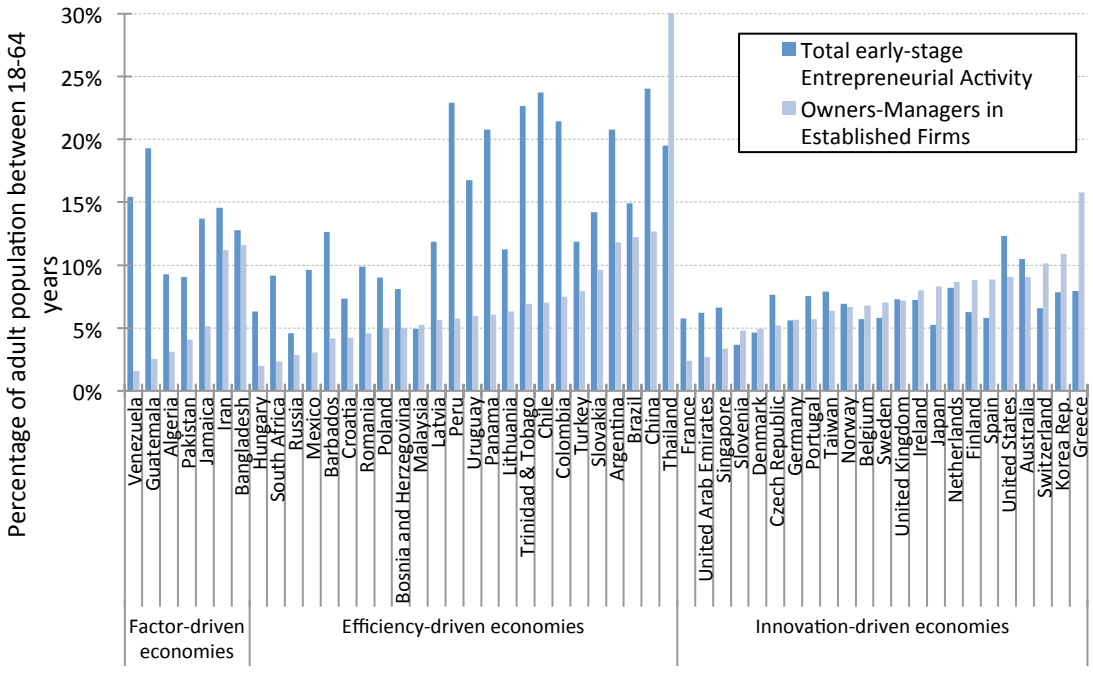
FIGURE 2.10 ESTABLISHED ENTREPRENEURIAL ACTIVITY (TEA) 2011, BY PHASE OF ECONOMIC DEVELOPMENT, SHOWING 95 PERENT CONFIDENCE INTERVALS



Source: Global Entrepreneurship Monitor 2011

Note: Thailand, with an estimate of 30.1% of established entrepreneurs in the 18-64 adult population, is excluded from this figure

FIGURE 2.11 EARLY-STAGE ENTREPRENEURIAL ACTIVITY AND ESTABLISHED BUSINESS OWWNERSHIP RATES 2011, BY COUNTRY AND PHASE OF ECONOMIC DEVELOPMENT



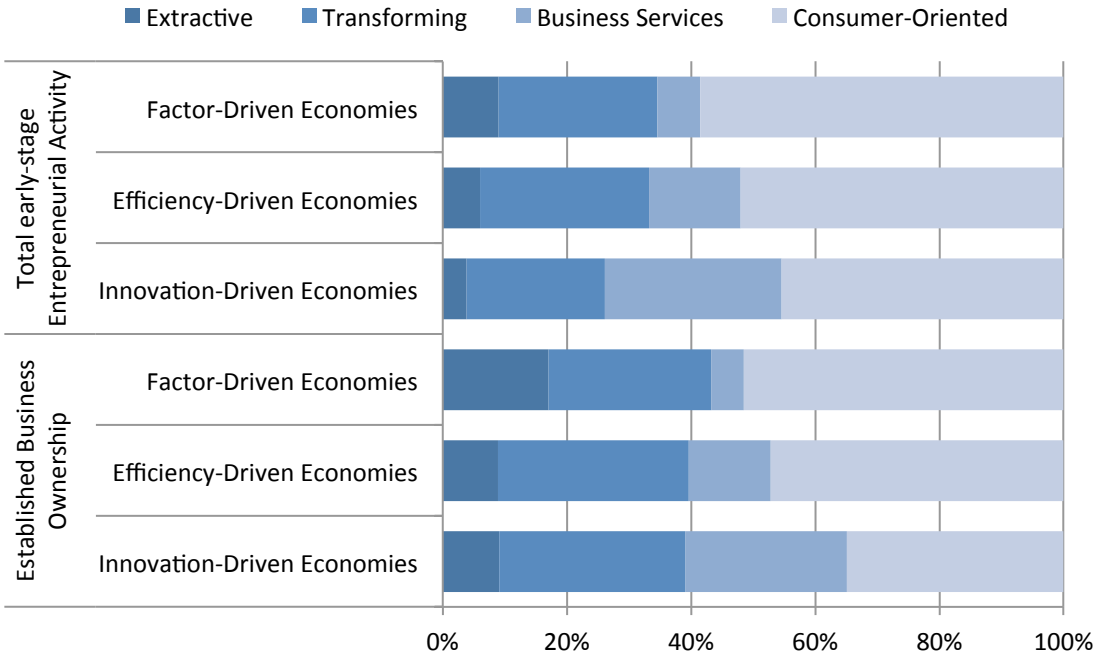
Source: Global Entrepreneurship Monitor 2011

A similar pattern, although less prominent, can be seen in the efficiency-driven group. With the exception of two economies, all show a higher TEA rate. Malaysia's TEA and established business ownership rates are similar, but both are relatively low. Thailand, on the other hand, reports a comparatively high TEA rate, but an even higher established business rate—the highest in the entire sample. Among the greatest discrepancies between a high TEA rate relative to business ownership can be seen in China and some Latin American & Caribbean economies (Peru, Panama, Trinidad and Tobago, and Chile). One possible explanation is that there may be a current boom in new business startups (for example because opportunities are abundant and/or some groups of individuals have no other options for making a living). Another explanation, that may very well align with such a boom in new business startups, is that there may be limited long-term sustainability in most of these new businesses.

In the innovation-driven group, Greece stands out as having a very high level of established business ownership. Having so many people involved as established business owners in comparison to not just other innovation-driven economies but also to Greece's own early-stage entrepreneurial activity points at limited degree of dynamism. Several countries with lower than average TEA rates (Sweden, Japan, Finland, Spain, and Switzerland) show comparatively high established business ownership, which may, together with entrepreneurial employee activity (see Chapter 4) substitute early-stage entrepreneurship to some degree. The U.S. and Australia, on the other hand, report high levels of both early-stage entrepreneurial activity and entrepreneurial employee activity.

Finally, Figure 2.12 shows the main patterns of established business ownership vis-à-vis early-stage entrepreneurial activity in terms of sectors of industry. In general, early-stage entrepreneurial activity appears to be more oriented towards services, and less towards extractive sector activities (including agriculture). For innovation-driven economies, the relatively high share of business services stands out.

FIGURE 2.12 SECTOR DISTRIBUTION FOR TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY AND ESTABLISHED BUSINESS OWNERSHIIP, BY PHASE OF ECONOMIC DEVELOPMENT



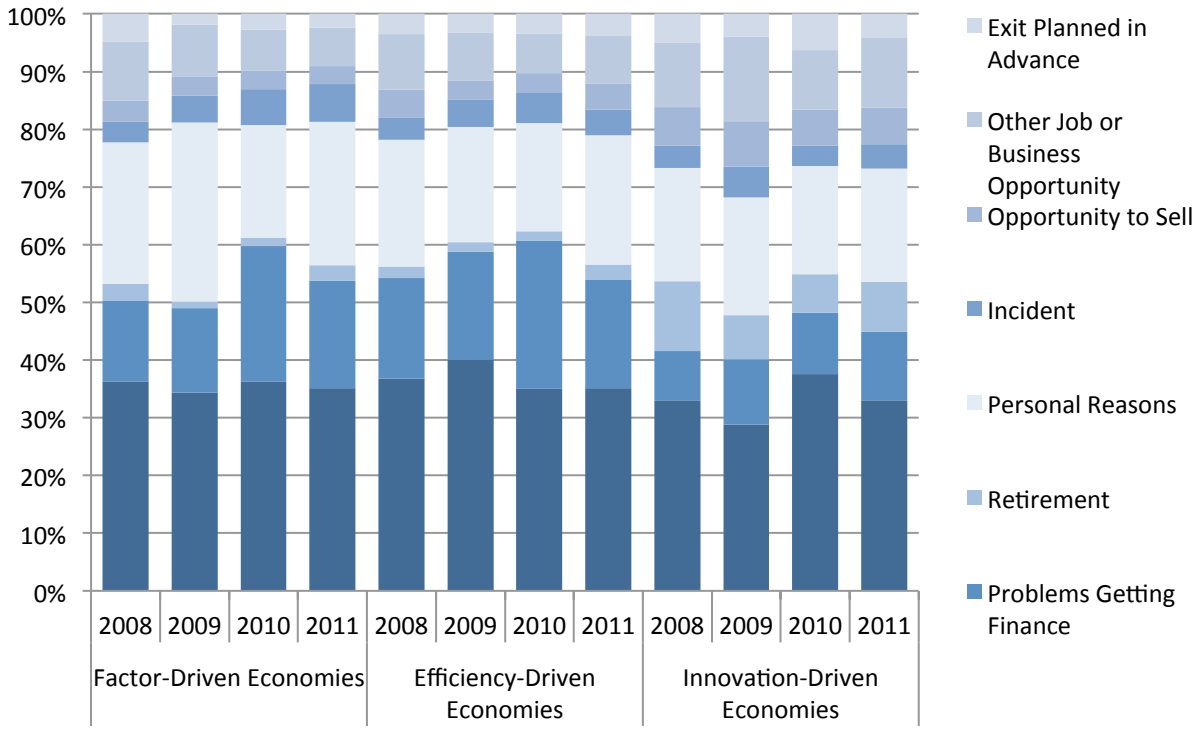
Source: Global Entrepreneurship Monitor 2011

BUSINESS DISCONTINUATIONS

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, such as having an unprofitable business or problems getting finance, are mentioned frequently as the reason for discontinuing a business. However, taken together, these 'negative' reasons for discontinuing only explain on average 40-60% of all discontinuations (see Figure 2.13). For a substantial share of entrepreneurs, the discontinuance was already planned in advance, resulted from pursuit of another job or business opportunity, or even from the opportunity to sell the business. These are all fairly 'positive' reasons for discontinuing businesses. The remaining reasons can be seen as more neutral. Undefined personal reasons (such as illness, bereavement, civil unrest and other reasons associated with relatively unfavorable basic requirements in the personal and regional environment) tend to be put forward by 20-30% of those who discontinued leading a business in the 12 months preceding the moment of survey. Retirement is more of an issue in innovation-driven economies - especially in several European countries and Japan, countries that are facing challenges with their ageing societies. Figure 2.13 also points out changes in the structure of reasons for discontinuing over time. Even though substantial changes are not observed, the pattern does reveal a mild trend towards fewer positive reasons being mentioned in innovation-driven economies.

FIGURE 2.13 REASONS FOR DISCONTINUING A BUSINESS, 2008-2011, BY PHASE OF ECONOMIC DEVELOPMENT



Source: Global Entrepreneurship Monitor 2011

2.4 ENTREPRENEURIAL ASPIRATIONS

GEM measures the job (growth) expectation, innovation, and internationalization profiles of entrepreneurs, which may all three be viewed as impact factors. These forms of entrepreneurial aspirations have been positively associated with economic development (see e.g. Wong et al. 2005; Wennekers et al., 2010; Bosma, 2011)[22]. In this section, these impact profiles are assessed for early-stage entrepreneurs. The results shown in this section are based on pooling the GEM data for the period 2009-2011. This ensures that the estimates of the various indicators of entrepreneurial aspirations are made with higher precision[23].

GROWTH ORIENTATION

Growth aspirations constitute a key dimension of the impact profiles by early-stage entrepreneurs. It is the clearest manifestation of entrepreneurship that can directly be linked to the number one objective of most governments: to create more jobs. Most studies on entrepreneurial aspirations, also denoted as ambitious entrepreneurship (Stam et al., 2012) or high-impact entrepreneurship (Acs, 2008), involve analyses focused on job creation. These analyses evolve around entrepreneurial attitudes, ambitions, expectations, and realizations in terms of job creation (see e.g. Davidsson, 1991; Wiklund and Shepherd, 2003; Wiklund et al., 2009; Levie and Autio, 2011).

The typical GEM-based measures in the domain of growth aspirations are linked to job (growth) *expectations.* It should therefore be acknowledged that early-stage entrepreneurs may be optimistic in their expectations and that expectations for job creation certainly not always lead to realizations. At the same time, it is also well established that growth realization is seldom achieved without having expectations or ambitions for growth (Stam et al., 2012). Thus, building on these findings, country variations in the degree of (high) job growth expectations can be assumed to approximate variations in realized job creation.

Entrepreneurs who are 'identified' as such by means of the GEM Adult Population Survey are asked about the number of jobs provided at the moment of the survey as well as their expected number of jobs five years ahead. For this report we categorized the expected number of jobs five years ahead (irrespective of the current amount of jobs) for early-stage entrepreneurs as follows:

- Solo early-stage entrepreneurial activity (SEA): expects no jobs (i.e. outside the entrepreneur);
- Low job expectation early-stage entrepreneurial activity (LEA): expects between 1-4 jobs;
- Medium job expectation early-stage entrepreneurial activity (MEA): expects between 5-19 jobs;
- High job expectation early-stage entrepreneurial activity (HEA): expects 20 jobs or more.

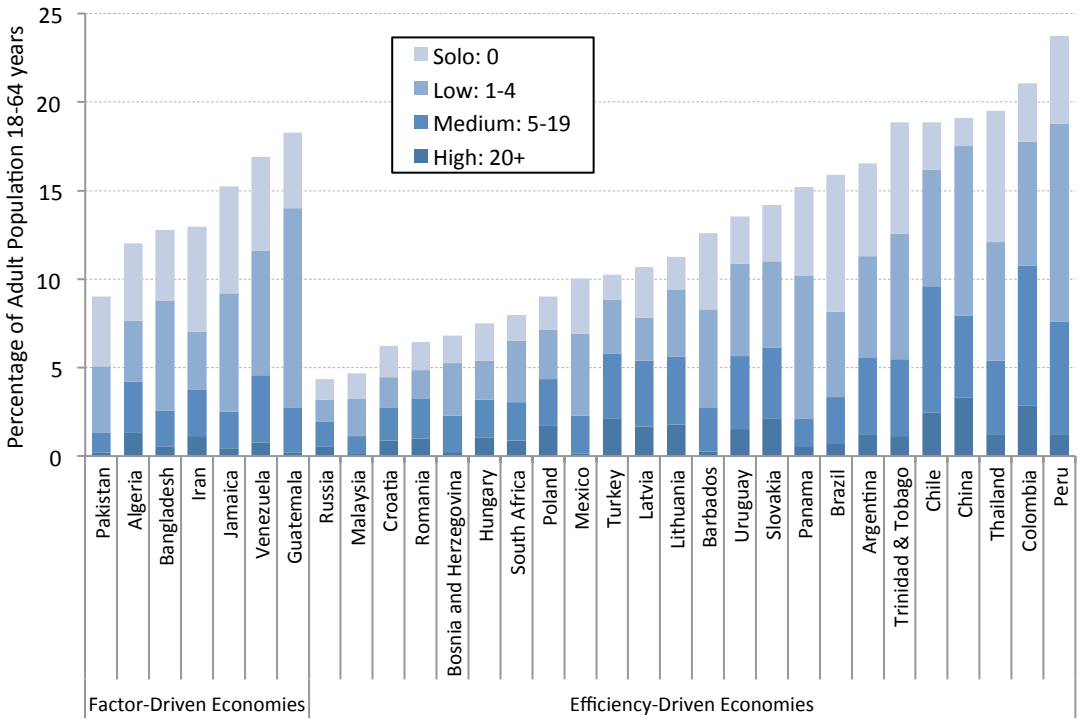
The distinction between these four categories is relevant, because there are essential differences between the characteristics of these groups and the underlying reasons for job creation. The first group consists of entrepreneurs who are self-employed and do not aim at creating any employment (SEA). This group includes both necessity-driven entrepreneurs as well as those who are very satisfied working as an independent professional. The low job expectation early-stage entrepreneurs are modest job creators and often employ people from their own personal network (such as family members and friends). Medium job expectation entrepreneurs are keen to employ people, however some of them may want to keep their business manageable and do not desire further growth. The

[22] See also Hessels et al. (2008) for an analysis on the determinants of these three distinctive entrepreneurial impact factors.

[23] The assumption made here is that during 2009-2011 the general aspirations profiles within economies have not substantially changed.

high job expectation measure corresponds to the measure that features in the two GEM Special Reports on High-Expectations Entrepreneurship (Autio, 2005, 2007) and in several academic publications (e.g. Wong et al., 2005; Levie and Autio, 2011). These entrepreneurs are very ambitious; even if they overestimate the number of jobs they expect to generate, as a group their impact on job creation will probably be substantial. Figure 2.14 shows the breakdown of total early-stage entrepreneurial activity into these four categories for factor-driven economies and innovation-driven economies.[24] The same measures for innovation-driven economies are shown in Figure 2.14.[25]

FIGURE 2.14 TEA BY JOB-EXPECTATION 2009-2011, FACTOR- AND EFFICIENCY DRIVEN ECONOMIES, 2011 COUNTRIES



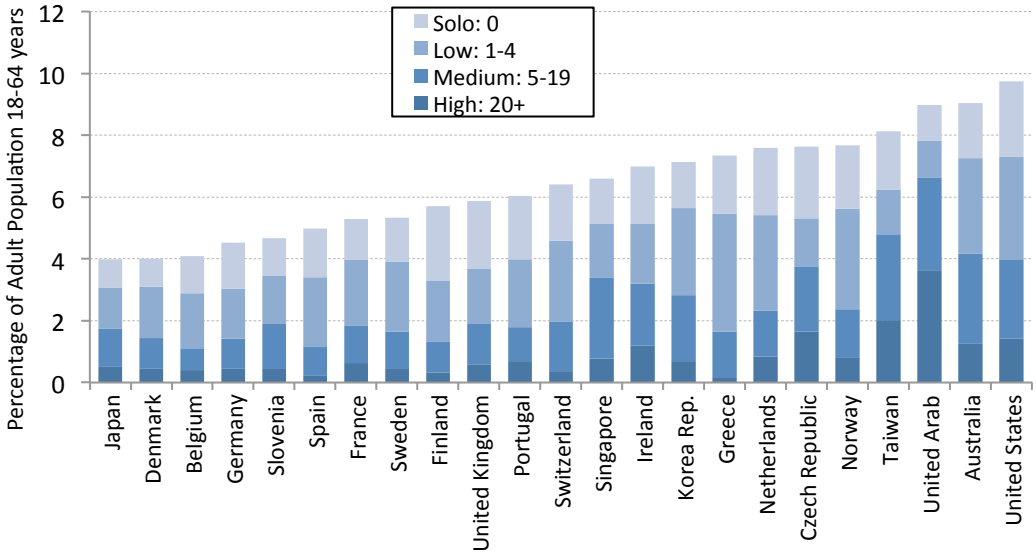
Source: Global Entrepreneurship Monitor 2009-2011

When we define medium-to-high job expectation early-stage entrepreneurship (MHEA) as the prevalence rate of individuals who are involved in early-stage entrepreneurial activity while expecting to have at least five employees five years from the moment of being surveyed, we observe that there is no clear empirical relationship with levels of GDP Per Capita (see Figure 2.16). Only among the set of most wealthy economies in terms of GDP per capita a weak positive correlation is observed. In contrast, a (curvilinear) negative relationship between solo and low growth early-stage entrepreneurial activity (SLEA) and GDP per capita is observed in Figure 2.17.

[24] As these growth expectation indicators are based on 2009-2011, the sum of the components in Figure 2.14 do not add up to the TEA rate published in Table 2.2.

[25] These rates are presented in a separate graph in order to better show differences in growth-expectation profiles for innovation-driven economies; maximum TEA rates for innovation-driven economies are about half those of factor- and efficiency driven economies.

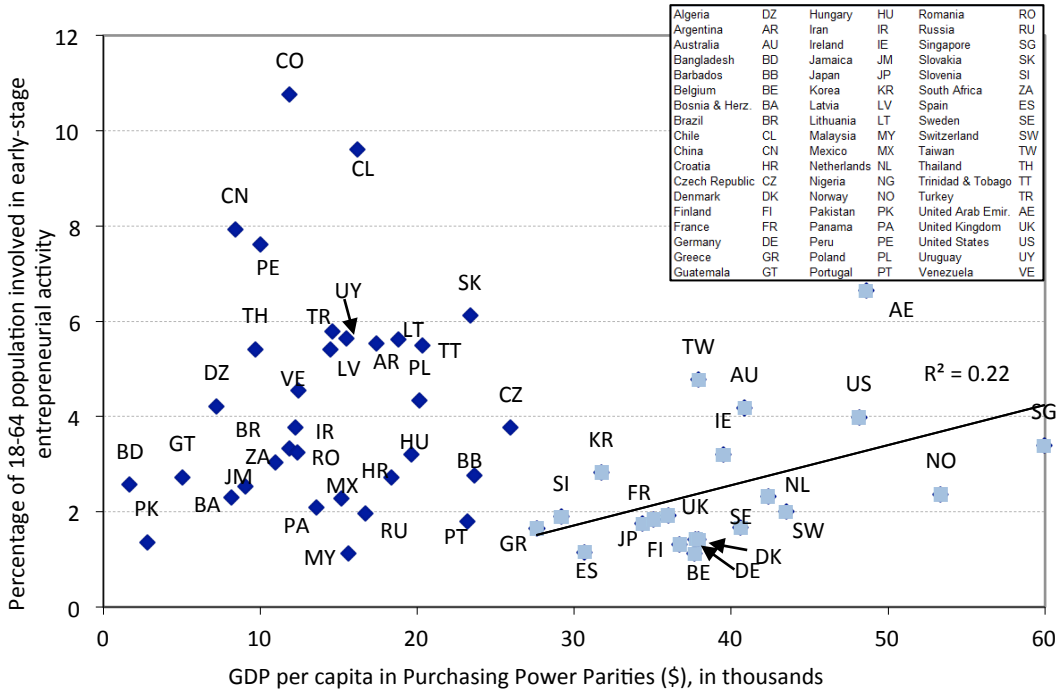
FIGURE 2.15 TEA BY JOB-EXPECTATION 2009-2011, INNOVATION- DRIVEN ECONOMIES, 2011 COUNTRIES



Source: Global Entrepreneurship Monitor 2009-2011

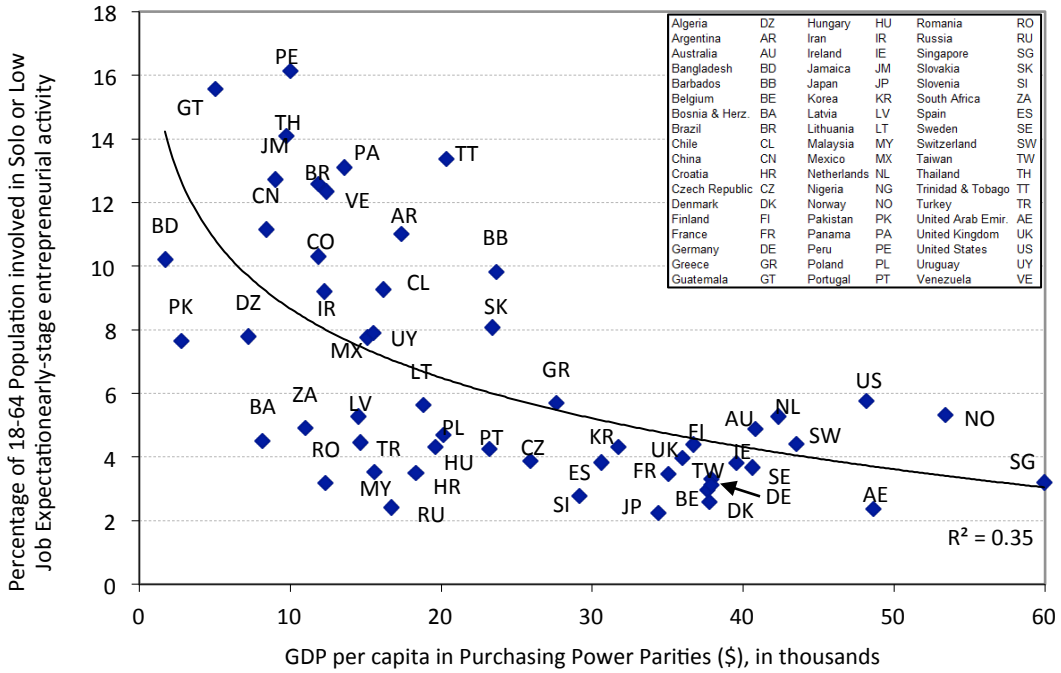
As Figure 2.16 confirms that ambitious entrepreneurship (in terms of job expectations) is not easily to be predicted by simple economic indicators, other contextual explanations may be sought. Stam et al. (2012), in their review on ambitious entrepreneurship, suggested that such contextual explanations may not only be found in the macro-economic sphere; also the regional (cluster) context may be playing an important role, as well as specific institutional settings. Institutional settings may refer to basic formal ones (e.g. rule of law, property rights, contract law, regulatory burdens for entrepreneurship) and more informal ones that emphasize the cultural aspect. Several recent GEM-based studies have tapped into this interesting area of research. For instance, Bowen and DeClercq (2008) and Estrin et al. (2011) show that high levels of corruption in a society hamper ambitious types of entrepreneurship. Autio et al. (2011) have examined the role of the cultural trait of uncertainty avoidance and found this to be negatively related to entrepreneurial entry, without finding an association with growth expectations of entrepreneurs. Stephan and Uhlaner (2010) perform a cross-country study involving 40 countries and identify two higher-order dimensions of culture – socially supportive culture (SSC) and performance-based culture (PBC). They find entrepreneurship in general to be more influenced by a socially supportive culture. Autio et al. (2011), in a more refined multilevel analysis but essentially adopting the same constructs, find that social institutional collectivism is associated negatively with entrepreneurial entry in general but positively with (individual-level) entrepreneurial growth aspirations. The GEM data, now capturing information on individuals for over 80 economies and for more than 10 years, is increasingly fit for relevant analysis appreciating the contextual situation while acknowledging the importance of individual-level characteristics.

FIGURE 2.16 MEDIUM/HIGH JOB EXPECTATION TEA AND GDP, GEM 2011 COUNTRIES



Source: Global Entrepreneurship Monitor and IMF
Note: entrepreneurship rates based on GEM 2009-2011 data

FIGURE 2.17 SOLO/LOW GROWTH EXPECTATION TEA AND GDP, GEM 2011 COUNTRIES



Source: Global Entrepreneurship Monitor and IMF
Note: entrepreneurship rates based on GEM 2009-2011 data

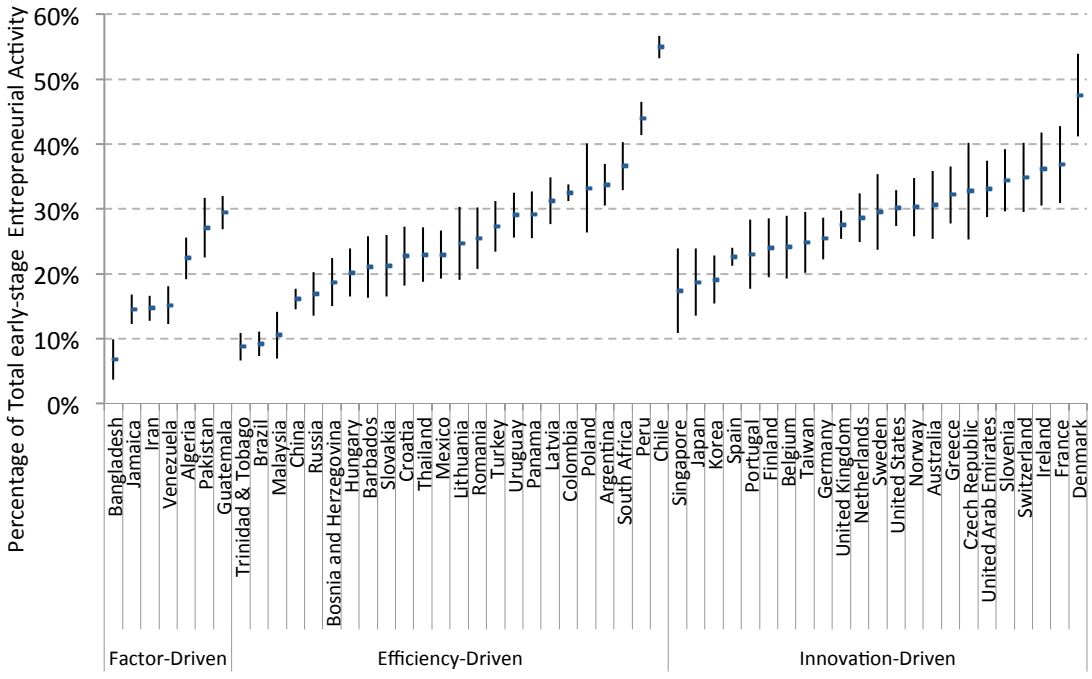
INNOVATIVE ORIENTATION

While job growth expectations and realizations arguably constitute the most visible medium term impact of entrepreneurship, innovative orientation impacts structural renewal in the long term. Innovation is viewed from the perspective of the market and industry, in line with Schumpeter's view of innovative entrepreneurship as new product-market combinations destructing older, obsolete products and services and pushing the production frontier forwards (Schumpeter 1942). It represents the perceived extent to which an entrepreneur's product or service is new to some or all customers *and* where few or no other businesses offer the same product. When comparing countries, it must be kept in mind that what may seem new to customers in one economy may already be familiar to customers in other ones. Nevertheless, a high degree of innovative orientation in the former economy is still expected to have a positive impact on economic development. Innovative orientation as measure in the GEM framework is therefore a context-dependent measure.

Figure 2.18 shows the percentage of early-stage entrepreneurs with innovative orientations. The average level of innovativeness in each economic group increases with the level of economic development. In the factor-driven economies, the highest levels on this measure can be seen in Guatemala, which also reports a high TEA rate. In the efficiency-driven group, high innovation rates can be seen among those with both high (Chile, Peru) and low (South Africa, Poland) TEA rates.

Among innovation-driven economies, Denmark shows the highest percentage of early-stage entrepreneurs with innovative products and services. France, Ireland and Switzerland follow and lead a large group of economies with fairly similar shares of innovative orientations among early-stage entrepreneurs. For some economies, like those of Denmark and France, the observations in Figure 2.18 suggests that although there may be fewer early-stage entrepreneurs, the higher proportion of innovativeness is a quality dimension that should also be considered.

FIGURE 2.18 INNOVATIVE ORIENTATION OF EARLY-STAGE ENTREPRENEURS, BY PHASE OF ECONOMIC DEVELOPMENT AND COUNTRY



Source: Global Entrepreneurship Monitor 2011

INTERNATIONAL ORIENTATION

In an ever more globalizing economy, economies' global trade becomes increasingly important. Not only multinational enterprises have international orientations; new and smaller firms are, using the latest technologies, increasingly well equipped to broaden the scope of their business. It is obvious that entrepreneurs in economies with small internal markets place even more emphasis on this than economies with large internal markets such as Brazil, China, Argentina, Russia and the United States. A specific GEM measure assesses the extent to which entrepreneurs sell to customers outside their economies. Figure 2.19 shows the proportion of early-stage entrepreneurs with at least 25% foreign customers.[26] Internationalization is – on average - lowest in the factor-driven economies, increasing with economic development level. There is very little international trade in Bangladesh, for example, and only slightly more in Guatemala. In addition, the international orientation of early-stage entrepreneurial activity may be related to the sectors of industry in which they are active.

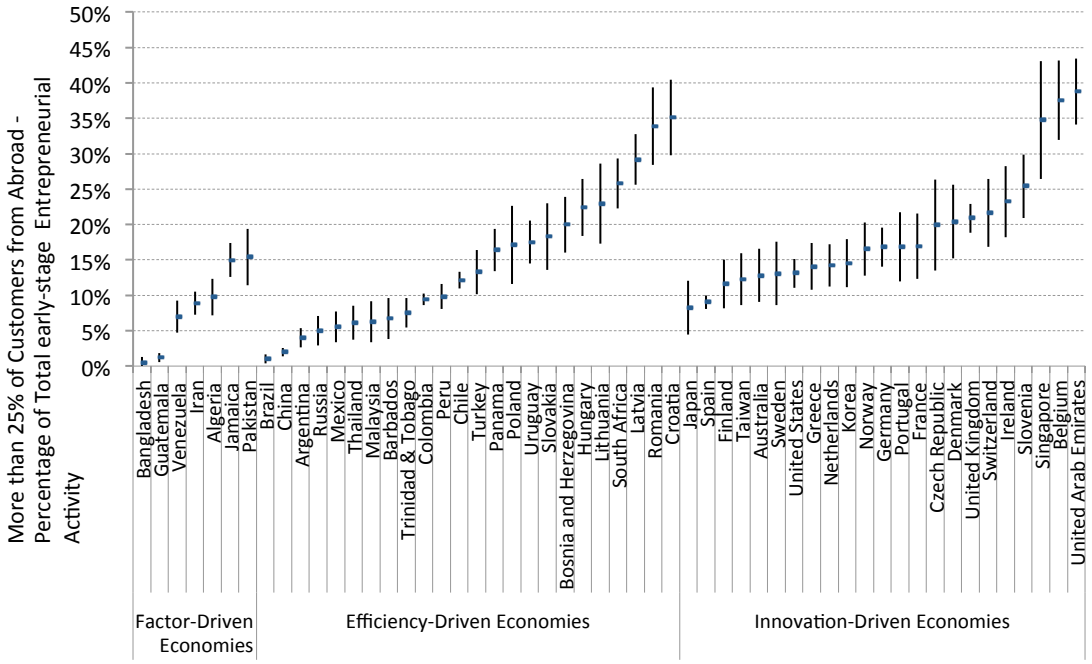
There are two key observations relating to groups that stand out on either end of the internationalization spectrum. First, there is a group of efficiency-driven countries with large populations and large land mass showing very low rates of internationalization of early-stage entrepreneurial activity: Brazil, China, Argentina and Russia. In the innovation-driven group, early-stage entrepreneurs in the United States exhibit medium internationalization rates, although still higher than the four large efficiency-driven economies. Entrepreneurs in the U.S. have a large and diverse market with relatively high disposable income, but also high competitive intensity.

Second, there are economies that stand out in both of these groups for their high levels of international trade by early-stage entrepreneurs. For about half of early-stage entrepreneurs in Romania and Croatia, over 25% of customers come from abroad[27]. High levels of international orientation also apply to Singapore, Belgium, and UAE in the innovation-driven group, all small countries with great needs to, and histories of, international trade.

[26] One should realize that this measure includes sales to business travelers and tourists, as well as cross-country Internet transactions.

[27] It is worth noting that borders in Eastern Europe have changed many times over the past 100 years, as empires and trading blocs have waxed and waned.

FIGURE 2.19 INTERNATIONAL ORIENTATION OF EARLY-STAGE ENTREPRENEURS, BY PHASE OF ECONOMIC DEVELOPMENT AND COUNTRY



Source: Global Entrepreneurship Monitor 2011

2.5 TRENDS IN ENTREPRENEURSHIP

While the first GEM assessment was published in 1999, definitions of most GEM-indicators have been stable from 2001 onwards. Time series analyses are thus increasingly possible; see e.g. Koellinger and Thurik (2012) for an example using GEM data to assess the relationship between entrepreneurship and business cycles. This section presents developments of some of the entrepreneurship indicators discussed above over time, in a straightforward fashion. To this end two selections have been made in order to enable meaningful comparisons. First, adopting a broad selection, countries were identified that have participated at least seven times in the past eleven editions. Factor-driven economies were not among this selection, as these have in general joined GEM at a later stage. Second, a narrow selection was made where the requirement was participation in all of the past 10 editions. Only for the innovation-driven economies did this result in a set of countries sufficiently large for analysis.

Table 2.4 therefore includes three sets of indicators, corresponding to the broad selections of efficiency-driven and innovation-driven economies, and the narrow selection of innovation-driven economies. It should be noted that these developments represent unweighted averages of the economies' observations; country developments of individual economies may deviate from the general pattern[28]. For both types of economies, the indicator of perceived opportunities exhibits a clear business cycle pattern, with lower values in 2008 and 2009. For innovation-driven economies the dip in perceived opportunities to start a business coincided with a (small) drop in intentions to start businesses and in early-stage entrepreneurial activity (TEA). Such a drop in TEA was, in general,

[28] See also the GEM 2011 Country Summary Sheets included at the end of this report. Several of these sheets show the trends in Total early-stage Entrepreneurial Activity over time.

not observed in efficiency-driven economies. Here entrepreneurial intentions and early-stage entrepreneurial activity remained rather stable, before taking off to an overall high in 2011.

The general increase in total early-stage entrepreneurial activity as witnessed in efficiency-driven countries seems, adopting this very simple descriptive type of analysis, to be carried by both less ambitious types of entrepreneurship (SLEA) and ambitious types of entrepreneurship (MHEA). On the contrary, the exercise for innovation-driven countries, in particular the second one that includes only those countries that have successfully participated in all years, points at a rather stable percentage of ambitious entrepreneurship (MHEA) and a gradually increasing rate of non-ambitious entrepreneurship (SLEA).

As this narrow selection of economies is best fit for time series analysis, Figure 2.20 and Figure 2.21 further highlight the general pattern for innovation-driven economies by applying moving averages and standardizing the indicators at 100 for 2006, the year just before the crisis first started to impact many economies. Figure 2.20 expresses the trends in entrepreneurial attitudes and entrepreneurial intentions. Clearly, the most volatile indicator is the one that measures perceived opportunities to start a business. This indicator reached a high already in 2005 and 2006. The measure on beliefs with respect to the status of successful entrepreneurs is more stable and seems to be slowly increasing over time. Entrepreneurial intentions have increased in recent years, perhaps as a mixture of those who now see opportunities (again) after some years of economic slowdown and those who are currently experiencing the consequences of the downturn and may be forced into entrepreneurship.

TABLE 2.4 DEVELOPMENT IN SEVERAL ENTREPRENEURSHIP INDICATORS, 2001-2011

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Efficiency-driven economies, broad selection (participated at least 7 out of 11 years; N=11) [(a)]											
Perceived opportunities	26	25	39	37	38	38	41	37	34	43	40
Status for successful entrepreneurs			63	64	66	67	65	66	69	69	70
Entrepreneurial intentions		21.0	27.7	25.0	20.6	19.0	21.4	20.8	20.2	24.4	29.3
Total early-stage Entrepreneurial Activity (TEA)	9.8	9.7	11.3	13.3	8.7	11.2	11.6	11.2	12.0	12.3	14.1
Solo / Low Job Expectation TEA (SLEA)*		7.1	7.7	7.3	7.2	6.6	7.2	7.4	7.7	8.0	
Medium / High Job Expectation TEA (MHEA)*		3.1	3.7	3.8	3.9	3.9	4.1	4.1	4.2	4.8	
Innovation-driven economies, broad selection (participated at least 7 out of 11 years; N=21) [(b)]											
Perceived opportunities	36	34	32	36	38	39	43	33	30	35	38
Status for successful entrepreneurs			65	68	66	69	70	72	71	71	73
Entrepreneurial intentions		10.7	10.4	11.2	10.7	9.7	10.5	10.0	9.2	9.2	10.1
Total early-stage Entrepreneurial Activity (TEA)	6.2	6.2	6.3	6.1	6.4	6.1	6.3	6.4	5.8	5.5	6.3
Solo / Low Job Expectation TEA (SLEA)*		3.9	3.8	3.9	3.9	3.9	3.9	3.8	3.7	3.7	
Medium / High Job Expectation TEA (MHEA)*		2.3	2.4	2.4	2.3	2.4	2.4	2.4	2.2	2.2	
Innovation-driven economies, narrow selection (Participated all 11 years; N=10) [(c)]											
Perceived opportunities	31	31	27	35	36	34	35	32	26	33	35
Status for successful entrepreneurs			61	67	63	63	63	67	66	67	68
Entrepreneurial intentions		8.0	8.2	8.9	9.0	8.6	9.1	9.2	8.7	8.9	11.4
Total early-stage Entrepreneurial Activity (TEA)	5.1	5.3	5.4	5.3	5.8	5.7	5.5	6.2	5.5	5.4	6.6
Solo / Low Job Expectation TEA (SLEA)*		3.3	3.3	3.5	3.7	3.7	3.7	3.6	3.7	3.9	
Medium / High Job Expectation TEA (MHEA)*		1.9	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	

Source: Global Entrepreneurship Monitor 2001-2011

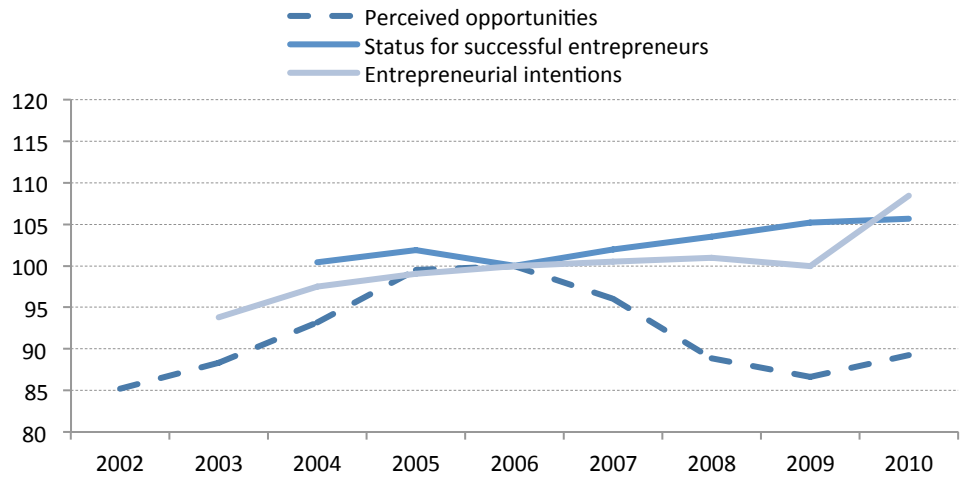
* Note: SLEA and MHEA measures are based on moving averages including the current year, the previous year and the next year

(a) Argentina, Brazil, Chile, China, Croatia, Hungary, Latvia, Mexico, Peru, Russia and South Africa

(b) Australia, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Japan, Netherlands, Norway, Singapore, Slovenia, Spain, Sweden, Switzerland, United Kingdom and United States

(c) Belgium, Denmark, France, Japan, Netherlands, Norway, Slovenia, Spain, United Kingdom and United States,

FIGURE 2.20 DEVELOPMENT IN ENTREPRENEURIAL ATTITUDES AND ENTREPRENEURIAL INTENTIONS, 2002-2010 FOR A SELECTION OF INNOVATION-DRIVEN ECONOMIES

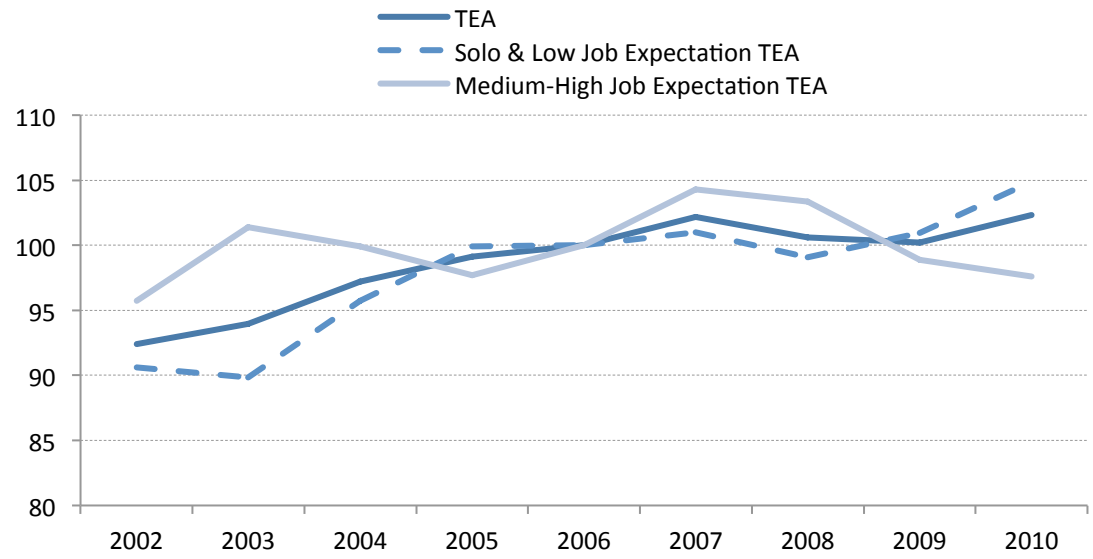


Source: Global Entrepreneurship Monitor

Note: the ten selected economies are those that have participated in GEM every year throughout 2002-2010. Entries in the figure are simple country averages. The values for each country are based on simple moving averages including the current year, the previous year and the next year. Base year is 2006 (set at 100 for each indicator).

Figure 2.21 demonstrates the corresponding developments for total early-stage entrepreneurial activity (TEA) as well as for the two types of TEA that discern low- and high ambitions (SLEA and MHEA). While TEA rates are generally increasing, and in fact TEA rates during 2006-2009 only express a temporarily pause in this increasing trend, it is interesting to see that solo/low job expectation TEA (SLEA) largely seems to drive this increase of TEA over time. Medium/high job expectation TEA (MHEA) is more stable over time and tends to follow the business cycle, be it with some lag in comparison to the indicator of perceived opportunities. More sophisticated analyses are required to grasp these patterns over time in detail, including the time lags involved.

FIGURE 2.21 DEVELOPMENT IN ENTREPRENEURIAL ACTIVITIES AND JOB EXPECTATIONS, 2002-2010 FOR A SELECTION OF INNOVATION-DRIVEN ECONOMIES



Source: Global Entrepreneurship Monitor

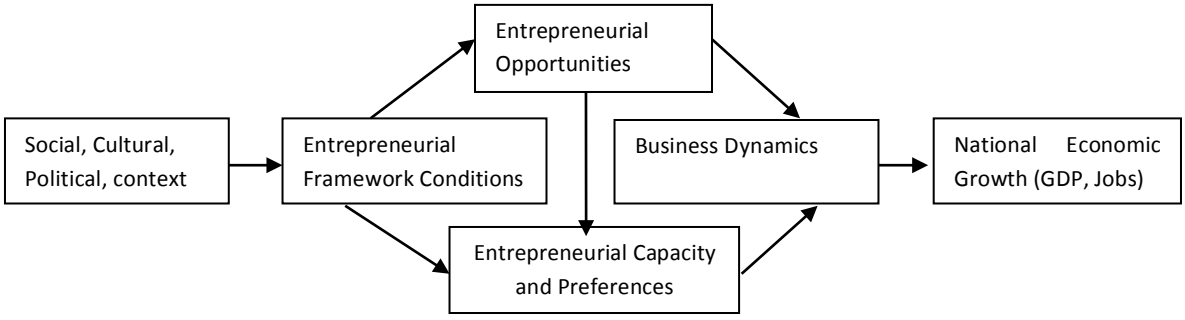
Note: the ten selected economies are those that have participated in GEM every year throughout 2002-2010. Entries in the figure are simple country averages. The values for each country are based on simple moving averages including the current year, the previous year and the next year. Base year is 2006 (set at 100 for each indicator).

3. CONDITIONS FOR ENTREPRENEURSHIP

3.1. INTRODUCTION

Since its inception, the GEM project has proposed that entrepreneurial activity is shaped by a distinct set of factors called *Entrepreneurial Framework Conditions* (EFCs). These EFCs are "the necessary oxygen of resources, incentives, markets, and supporting institutions to the growth of new firms" (Bosma et al., 2008: 40). These EFCs could be related to Baumol´s concept of 'rules of the game' that determine to what extent entrepreneurial activity in a given society is productive (Baumol, 1990). Hence, it is expected that different countries and regions have different EFCs or different 'rules of the game', and that these affect the inputs and outputs of entrepreneurial activity. The original and revised GEM models established a clear relationship between the EFCs, entrepreneurship dynamics and economic growth (see Figure 3.1). In the 1999 Executive Report, Paul D. Reynolds, Michael Hay and S. Michael Camp stated: "the model captures a number of things ignored in the conventional framework. First is the recognition that entrepreneurial activity is shaped by a distinct set of factors (referred to as Entrepreneurial Framework Conditions). Such factors include training in entrepreneurship and the availability of start up financing among others" (p. 10) [29].

FIGURE 3.1 MODEL OF ENTREPRENEURIAL PROCESSES AFFECTING NATIONAL ECONOMIC GROWTH



The EFCs can be considered a critical part of the puzzle in understanding business creation. The state of these conditions directly influences the existence of entrepreneurial opportunities and entrepreneurial capacity and preferences, which in turn determine the business dynamics. That is why, since the beginning, the GEM project needed a source of information to assess the state of entrepreneurial framework conditions. This source of information is the National Experts Survey.

3.2. THE GEM NATIONAL EXPERTS SURVEY

The National Experts Survey (NES) is part of the standard GEM methodology and assesses different entrepreneurial framework conditions defined in the GEM Model (Levie and Autio, 2008). The NES was instituted because of the lack of national-harmonized indices or measures that could be utilized as indices of specific entrepreneurial framework conditions (Reynolds et al., 2005). While other sources provide alternative measures for some EFCs[30], the NES is the sole source of harmonized, comparable data for all of them.

The NES survey was carefully designed and refined to capture informed judgments of national and in some cases regional, experts regarding the status of entrepreneurship framework conditions in their

[29] For more information about the original GEM Model see Reynolds, Hay and Camp (1999).
[30] For NES results and linkage of EFCs with other international measurements see Bosma et al. (2008).

own countries and/or regions. National and regional experts are selected on the basis of reputation and experience (a convenience sample approach). Because "(…) there is no available list of entrepreneurial experts for any GEM country representative samples were not feasible. However, an effort was made to ensure that experts with a substantial range of background and knowledge were chosen in each country. National teams were responsible for using their own networks and contacts within the country to select four individuals that were experts for each of the nine entrepreneurial framework conditions"— (Reynolds et al., 2005: 223).

The NES is similar to other surveys that capture expert judgments to evaluate specific national conditions. For example the WEF´s GCI uses similar surveys to construct its indexes (Sala-i- Martin et al., 2010). In this case the main methodological difference between the GCI and the NES is that the latter focuses only on entrepreneurial framework conditions, rather than general economic factors[31].

NES METHODOLOGY

The NES questionnaire extracts the views of experts on a wide set of items, each of which was designed to capture a different dimension of a specific EFC. The information they hold on expert opinions can be summarized using factor analysis. Appropriate tests show that these new summary factors are technically reliable and stable measures of specific entrepreneurial framework conditions (Levie and Autio, 2008; Bowen and DeClercq, 2008; Amorós et al., 2011).

Table 3.1 summarises the main EFCs. For the first condition (finance for entrepreneurs), there is a block of six items that includes information on access to different sources of finance, including equity, government funding, debt, business angels and IPOs. The same logic is applied to the rest of conditions. The responses of the items follow a five-point Likert scale where 1 means the statement is completely false according to the expert and 5 means the statement is completely true. The statements form the core of the questionnaire. However, experts are also asked to mention the most important institutional successes and constraints for fostering entrepreneurship in their country in their view. They also provide some key recommendations for fostering entrepreneurship in their country. Finally, some background information on the experts is recorded[32].

Experts also give valuations on other topics such as: existence of opportunities to start up, population's skills and knowledge to start up, social image of the entrepreneur, intellectual property rights, women entrepreneurship support, high growth business encouragement, interest in innovation from consumers' and enterprises' point of view and any special topic included in a GEM cycle (e.g. entrepreneurial employees in 2011). See Annex II for more information on the composite measures.

Each year at least 36 experts are personally interviewed or surveyed in each GEM economy and asked to complete the NES self-administered questionnaire[33]. These experts are selected following a strict protocol: National and/or Regional GEM Teams are instructed to select at least four experts considered particularly knowledgeable in each of the general EFCs (9 EFCs x 4 Experts = 36 respondents): at least one entrepreneur, at least two "suppliers" of the EFC, for example

[31] As the first GEM theoretical model stated, the general national conditions influence the entrepreneurial conditions, so there is room to argue that these two sources of information are related but not exactly the same.

[32] NES questionnaires are copyrighted; they are available at the GEM Website: www.gemconsortium.org

[33] Since 2010 a standardized on-line survey is available in English and Spanish using the web-based survey tool, Qualtrics®. Some National Teams also implement their own systems in their languages.

policymakers involved in shaping the EFCs, and at least one observer, such as an academic with specific expertise in the area. The typical rotation is around of 25% of new experts each year.

TABLE 3.1 GEM'S KEY 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) and,
   4b Entrepreneurship Education at post-secondary levels (higher education such vocational, college, business schools, etc.).
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.

When all data are collected, the national and regional files are harmonized centrally. The harmonization process includes an internal quality control and the calculation of composite variables that summarize each of the blocks of questions designed to measure a certain aspect of the entrepreneurial framework conditions (see Annex II). Cronbach Alphas are calculated on each of the blocks in order to assess their reliability. Once reliability measures come out satisfactory, a principal component analysis is applied to the consolidated file including the responses of all surveyed experts in the economies. The principal components summarize each block in one or two variables that can be used as indicators of the state of each key framework condition. Individual values are assigned thanks to this methodology to each expert in each country, and so that international comparisons can be made.

3.3. THE STATE OF ENTREPRENEURSHIP INSTITUTIONS IN 2011

Table 3.1 and Table 3.3 provide a general overview of the results on each EFC for the 49[34] economies participating in the NES in 2011, by the three phases of economic development adopted throughout this report[35]. The table was split into two parts to facilitate the visualization of the results; those EFCs related to public institutional issues, and those related to market-social institutional issues. The tables show the main rates and the standard errors for each economy and all EFCs.

[34] Some countries that are involved in the project and completed the APS, could not participate in the NES process for several reasons.

[35] Nigeria completed the GEM 2011 National Expert Survey; however Nigeria's submitted GEM 2011 Adult Population Survey data did not meet GEM's standard quality requirements. Hence Nigeria does not feature in the tables and figures in Chapters 2 and 4.

TABLE 3.2 - ENTREPRENEURSHIP FRAMEWORK CONDITIONS MAIN INDICATORS, 1/2

1 Finance 3 Government Programs	2a Nat. Policy — General Policy 4a Education — Prim. and Second.		2b Nat. Policy — Regulation 4b Education — Post-School	

	1		2a		2b		3		4a		4b	
Factor-driven economies												
Algeria	2.9	(0.1)	3.2	(0.2)	2.6	(0.2)	3.1	(0.2)	2.2	(0.2)	2.7	(0.2)
Bangladesh	2.9	(0.2)	3.0	(0.2)	2.5	(0.2)	2.5	(0.2)	2.1	(0.2)	3.2	(0.2)
Guatemala	2.2	(0.1)	1.7	(0.1)	2.2	(0.1)	2.2	(0.1)	1.8	(0.1)	3.3	(0.1)
Iran	1.7	(0.1)	1.7	(0.1)	1.8	(0.1)	1.6	(0.1)	1.4	(0.1)	2.4	(0.1)
Jamaica	2.5	(0.1)	2.4	(0.2)	1.8	(0.1)	2.3	(0.1)	2.1	(0.2)	2.7	(0.2)
Nigeria	1.9	(0.1)	1.9	(0.1)	1.7	(0.1)	2.0	(0.1)	2.1	(0.2)	3.0	(0.1)
Pakistan	2.1	(0.1)	2.2	(0.2)	2.1	(0.2)	1.8	(0.2)	2.0	(0.2)	2.8	(0.1)
Venezuela	2.0	(0.1)	1.9	(0.2)	1.6	(0.1)	1.8	(0.1)	1.7	(0.2)	3.2	(0.1)
Average	**2.3**		**2.2**		**2.0**		**2.2**		**1.9**		**2.9**	
Efficiency-driven economies												
Argentina	2.1	(0.1)	1.9	(0.1)	1.7	(0.1)	2.3	(0.1)	2.0	(0.2)	2.9	(0.1)
Barbados	2.1	(0.1)	2.5	(0.2)	2.3	(0.2)	2.3	(0.1)	1.9	(0.2)	2.7	(0.1)
Bosnia & Herzegovina	2.3	(0.1)	2.0	(0.1)	1.8	(0.1)	2.2	(0.1)	2.1	(0.1)	2.4	(0.1)
Brazil	2.4	(0.2)	2.2	(0.1)	1.5	(0.1)	2.4	(0.1)	1.6	(0.2)	2.6	(0.1)
Chile	2.4	(0.1)	3.1	(0.1)	2.8	(0.1)	2.8	(0.1)	1.8	(0.1)	2.7	(0.1)
Colombia	2.0	(0.1)	2.7	(0.2)	2.1	(0.1)	2.5	(0.2)	2.1	(0.2)	3.2	(0.1)
Croatia	2.3	(0.1)	2.1	(0.1)	1.8	(0.1)	2.4	(0.1)	1.9	(0.1)	2.7	(0.1)
Hungary	2.3	(0.1)	1.9	(0.1)	1.8	(0.1)	2.1	(0.1)	1.4	(0.1)	2.7	(0.1)
Latvia	2.2	(0.2)	2.6	(0.1)	2.5	(0.1)	2.8	(0.2)	2.3	(0.2)	2.7	(0.1)
Lithuania	2.6	(0.2)	2.2	(0.2)	2.1	(0.2)	2.3	(0.1)	2.0	(0.2)	2.8	(0.1)
Malaysia	3.0	(0.2)	2.8	(0.2)	2.5	(0.2)	2.7	(0.2)	2.0	(0.2)	2.7	(0.2)
Mexico	2.3	(0.1)	2.7	(0.2)	2.4	(0.2)	2.9	(0.1)	1.9	(0.2)	3.1	(0.2)
Panama	2.2	(0.1)	2.4	(0.2)	3.0	(0.2)	3.0	(0.1)	1.4	(0.1)	2.5	(0.1)
Peru	2.3	(0.1)	2.3	(0.1)	2.5	(0.1)	2.4	(0.1)	2.1	(0.1)	3.1	(0.1)
Poland	2.5	(0.1)	2.9	(0.2)	1.9	(0.1)	2.6	(0.1)	2.0	(0.1)	2.5	(0.1)
Russia	2.0	(0.1)	2.4	(0.2)	1.8	(0.1)	2.2	(0.1)	2.1	(0.2)	2.9	(0.1)
Slovakia	2.1	(0.1)	2.2	(0.1)	2.4	(0.1)	2.0	(0.1)	2.0	(0.1)	2.6	(0.1)
South Africa	2.5	(0.2)	2.6	(0.1)	2.3	(0.1)	2.1	(0.2)	2.0	(0.2)	2.5	(0.1)
Thailand	2.9	(0.1)	2.9	(0.2)	2.8	(0.2)	2.6	(0.1)	2.2	(0.1)	3.2	(0.1)
Trinidad & Tobago	2.5	(0.1)	2.3	(0.1)	2.3	(0.1)	2.1	(0.2)	1.9	(0.1)	2.6	(0.1)
Turkey	2.4	(0.1)	2.7	(0.1)	2.3	(0.1)	2.3	(0.1)	2.2	(0.1)	2.6	(0.1)
Uruguay	2.3	(0.1)	2.2	(0.1)	2.4	(0.1)	2.9	(0.1)	1.8	(0.1)	2.8	(0.1)
Average	**2.4**		**2.4**		**2.2**		**2.4**		**2.0**		**2.8**	
Innovation-driven economies												
Australia	2.3	(0.2)	2.2	(0.1)	2.3	(0.2)	2.6	(0.2)	2.3	(0.2)	2.9	(0.2)
Czech Republic	2.1	(0.1)	1.8	(0.1)	2.1	(0.1)	2.2	(0.1)	1.7	(0.1)	2.6	(0.1)
Finland	2.6	(0.1)	3.2	(0.1)	2.9	(0.2)	2.7	(0.1)	2.3	(0.1)	2.8	(0.1)
France	2.5	(0.2)	3.1	(0.2)	2.9	(0.2)	3.2	(0.1)	1.6	(0.2)	3.0	(0.1)
Germany	3.0	(0.1)	2.9	(0.1)	2.9	(0.1)	3.6	(0.1)	1.9	(0.1)	2.7	(0.1)
Greece	1.9	(0.1)	1.9	(0.1)	1.8	(0.1)	2.0	(0.2)	1.9	(0.1)	2.6	(0.1)
Ireland	2.4	(0.2)	2.7	(0.2)	2.6	(0.2)	3.2	(0.1)	2.0	(0.2)	2.9	(0.1)
Korea	2.3	(0.1)	2.9	(0.1)	2.7	(0.1)	2.7	(0.1)	2.1	(0.1)	2.4	(0.1)
Netherlands	2.9	(0.2)	2.5	(0.2)	2.6	(0.2)	3.1	(0.2)	2.9	(0.2)	3.2	(0.2)
Norway	2.8	(0.1)	2.3	(0.2)	2.8	(0.2)	2.9	(0.1)	2.5	(0.1)	2.6	(0.1)
Portugal	2.9	(0.2)	2.5	(0.2)	2.1	(0.3)	2.9	(0.3)	1.9	(0.2)	2.9	(0.2)
Singapore	3.0	(0.1)	3.5	(0.2)	4.0	(0.1)	3.5	(0.2)	2.5	(0.2)	3.2	(0.2)
Slovenia	2.4	(0.1)	2.4	(0.2)	2.1	(0.1)	2.7	(0.1)	1.8	(0.2)	2.6	(0.2)
Spain	2.1	(0.2)	2.1	(0.2)	2.2	(0.1)	2.7	(0.1)	1.6	(0.2)	2.3	(0.2)
Sweden	2.7	(0.2)	2.6	(0.1)	2.6	(0.2)	2.8	(0.2)	2.3	(0.2)	2.8	(0.1)
Switzerland	3.5	(0.1)	3.4	(0.1)	3.5	(0.2)	3.4	(0.2)	2.6	(0.2)	3.5	(0.1)
Taiwan	3.2	(0.1)	2.6	(0.2)	3.2	(0.2)	3.1	(0.1)	2.5	(0.1)	3.1	(0.1)
UAE	3.1	(0.2)	3.3	(0.2)	3.2	(0.2)	3.1	(0.2)	2.6	(0.2)	3.3	(0.2)
UK	2.3	(0.2)	2.6	(0.1)	3.0	(0.2)	2.3	(0.1)	2.2	(0.2)	2.6	(0.1)
Average	**2.6**		**2.7**		**2.7**		**2.9**		**2.2**		**2.8**	

Source: Global Entrepreneurship Monitor 2011

Note: Standard errors in parentheses

TABLE 3.3 - ENTREPRENEURSHIP FRAMEWORK CONDITIONS MAIN INDICATORS, 2/2.

5 R&D Transfer 7b Internal Market - Openness			6 Commercial Infrastructure 8 Physical Infrastructure		7		7a Internal Market - Dynamics 9 Cultural and Social Norms					
	5		6		7		7a		8		9	
Factor-driven economies												
Algeria	2.7	(0.1)	3.1	(0.1)	3.4	(0.2)	2.6	(0.2)	3.2	(0.2)	2.9	(0.2)
Bangladesh	2.6	(0.2)	3.3	(0.1)	3.1	(0.2)	2.6	(0.2)	3.4	(0.1)	3.2	(0.2)
Guatemala	2.0	(0.1)	3.3	(0.1)	2.5	(0.2)	2.6	(0.1)	4.0	(0.2)	2.7	(0.2)
Iran	2.0	(0.1)	2.6	(0.1)	3.3	(0.1)	1.6	(0.1)	3.1	(0.1)	2.2	(0.1)
Jamaica	2.0	(0.1)	2.9	(0.1)	2.5	(0.2)	2.6	(0.2)	3.3	(0.2)	3.2	(0.2)
Nigeria	1.8	(0.1)	2.7	(0.1)	3.3	(0.2)	2.3	(0.2)	2.7	(0.2)	3.2	(0.1)
Pakistan	1.9	(0.1)	3.1	(0.2)	2.9	(0.2)	2.6	(0.2)	3.5	(0.1)	2.7	(0.2)
Venezuela	2.0	(0.1)	2.9	(0.1)	3.5	(0.2)	2.4	(0.1)	3.2	(0.1)	2.9	(0.2)
Average	**2.1**		**3.0**		**3.1**		**2.4**		**3.3**		**2.9**	
Efficiency-driven economies												
Argentina	2.3	(0.1)	2.8	(0.1)	2.9	(0.2)	2.5	(0.1)	3.7	(0.1)	2.7	(0.1)
Barbados	1.8	(0.1)	3.1	(0.1)	2.4	(0.2)	2.3	(0.2)	3.5	(0.1)	2.6	(0.1)
Bosnia & Herzegovina	2.0	(0.1)	2.9	(0.1)	3.2	(0.2)	2.0	(0.1)	3.4	(0.1)	2.2	(0.1)
Brazil	2.2	(0.1)	2.6	(0.1)	3.5	(0.2)	2.3	(0.1)	3.2	(0.1)	2.6	(0.1)
Chile	2.3	(0.1)	2.9	(0.1)	2.4	(0.1)	2.5	(0.1)	4.1	(0.1)	2.9	(0.1)
Colombia	2.1	(0.1)	2.4	(0.1)	2.6	(0.2)	2.1	(0.1)	3.0	(0.2)	2.8	(0.2)
Croatia	2.2	(0.1)	2.8	(0.1)	3.3	(0.1)	2.2	(0.1)	3.7	(0.2)	2.3	(0.1)
Hungary	2.0	(0.1)	3.0	(0.1)	3.0	(0.1)	2.2	(0.2)	3.8	(0.1)	2.1	(0.1)
Latvia	2.1	(0.1)	3.5	(0.1)	2.9	(0.2)	2.7	(0.2)	3.7	(0.1)	2.6	(0.1)
Lithuania	2.2	(0.1)	3.0	(0.2)	3.7	(0.2)	2.3	(0.1)	4.0	(0.1)	2.5	(0.1)
Malaysia	2.4	(0.2)	3.1	(0.2)	3.1	(0.2)	2.4	(0.2)	4.0	(0.1)	2.8	(0.2)
Mexico	2.3	(0.1)	2.5	(0.1)	2.7	(0.1)	2.2	(0.1)	3.5	(0.1)	3.0	(0.2)
Panama	2.2	(0.1)	2.6	(0.1)	2.4	(0.2)	2.7	(0.1)	4.0	(0.1)	2.9	(0.1)
Peru	2.1	(0.1)	2.8	(0.1)	2.7	(0.1)	2.7	(0.1)	3.4	(0.1)	3.2	(0.1)
Poland	2.2	(0.1)	2.9	(0.1)	4.2	(0.1)	2.9	(0.1)	3.4	(0.1)	2.8	(0.1)
Russia	1.9	(0.1)	2.8	(0.1)	3.2	(0.1)	2.0	(0.1)	3.1	(0.1)	2.3	(0.2)
Slovakia	1.9	(0.1)	3.3	(0.1)	2.7	(0.1)	2.6	(0.2)	4.0	(0.1)	2.3	(0.1)
South Africa	2.3	(0.1)	3.0	(0.1)	2.5	(0.2)	2.5	(0.1)	3.1	(0.2)	2.5	(0.2)
Thailand	2.4	(0.1)	3.2	(0.1)	3.5	(0.1)	2.6	(0.1)	3.9	(0.1)	3.3	(0.1)
Trinidad & Tobago	2.1	(0.2)	3.2	(0.1)	2.7	(0.1)	2.3	(0.2)	3.7	(0.1)	2.6	(0.1)
Turkey	2.3	(0.1)	3.0	(0.1)	3.6	(0.2)	2.3	(0.1)	3.5	(0.2)	2.7	(0.1)
Uruguay	2.6	(0.1)	3.2	(0.1)	1.9	(0.1)	2.4	(0.1)	3.7	(0.1)	2.2	(0.1)
Average	**2.2**		**2.9**		**3.0**		**2.4**		**3.6**		**2.6**	
Innovation-driven economies												
Australia	2.5	(0.2)	3.2	(0.1)	3.0	(0.2)	2.9	(0.2)	4.1	(0.2)	3.3	(0.2)
Czech Republic	2.2	(0.1)	3.0	(0.1)	3.0	(0.2)	2.8	(0.1)	3.9	(0.1)	2.2	(0.1)
Finland	2.6	(0.1)	3.3	(0.1)	2.9	(0.2)	2.6	(0.1)	4.0	(0.2)	2.7	(0.1)
France	2.4	(0.2)	3.0	(0.2)	3.2	(0.2)	2.1	(0.2)	4.2	(0.2)	2.4	(0.1)
Germany	2.9	(0.1)	3.3	(0.1)	2.9	(0.1)	3.0	(0.1)	3.8	(0.1)	2.6	(0.1)
Greece	2.1	(0.1)	2.9	(0.2)	3.1	(0.2)	2.2	(0.2)	3.5	(0.2)	2.4	(0.2)
Ireland	2.8	(0.1)	3.3	(0.1)	3.1	(0.2)	2.9	(0.2)	3.5	(0.1)	3.2	(0.2)
Korea	2.4	(0.1)	2.2	(0.1)	3.9	(0.1)	2.2	(0.1)	4.0	(0.1)	3.0	(0.1)
Netherlands	2.9	(0.2)	3.6	(0.2)	2.6	(0.2)	3.3	(0.2)	4.6	(0.1)	3.0	(0.2)
Norway	2.7	(0.1)	3.4	(0.1)	2.8	(0.2)	2.3	(0.1)	4.3	(0.1)	2.6	(0.1)
Portugal	2.6	(0.3)	3.1	(0.3)	2.9	(0.2)	2.4	(0.2)	4.1	(0.2)	1.9	(0.2)
Singapore	2.9	(0.1)	3.2	(0.1)	2.8	(0.1)	3.1	(0.2)	4.7	(0.1)	3.2	(0.2)
Slovenia	2.5	(0.1)	2.9	(0.1)	3.0	(0.2)	2.5	(0.1)	4.0	(0.2)	2.2	(0.2)
Spain	2.1	(0.1)	2.6	(0.1)	2.7	(0.2)	2.2	(0.1)	3.5	(0.1)	2.2	(0.1)
Sweden	2.6	(0.2)	3.1	(0.1)	3.2	(0.2)	2.5	(0.2)	4.4	(0.1)	2.9	(0.2)
Switzerland	3.5	(0.1)	3.9	(0.1)	2.5	(0.2)	3.1	(0.2)	4.6	(0.1)	3.3	(0.2)
Taiwan	2.9	(0.1)	2.9	(0.1)	3.9	(0.2)	3.3	(0.1)	4.1	(0.1)	3.7	(0.1)
UAE	2.6	(0.2)	3.5	(0.2)	3.6	(0.2)	2.9	(0.2)	4.1	(0.1)	3.4	(0.2)
UK	2.2	(0.1)	3.3	(0.1)	3.0	(0.2)	3.0	(0.2)	3.9	(0.1)	3.1	(0.1)
Average	**2.6**		**3.1**		**3.1**		**2.7**		**4.1**		**2.8**	

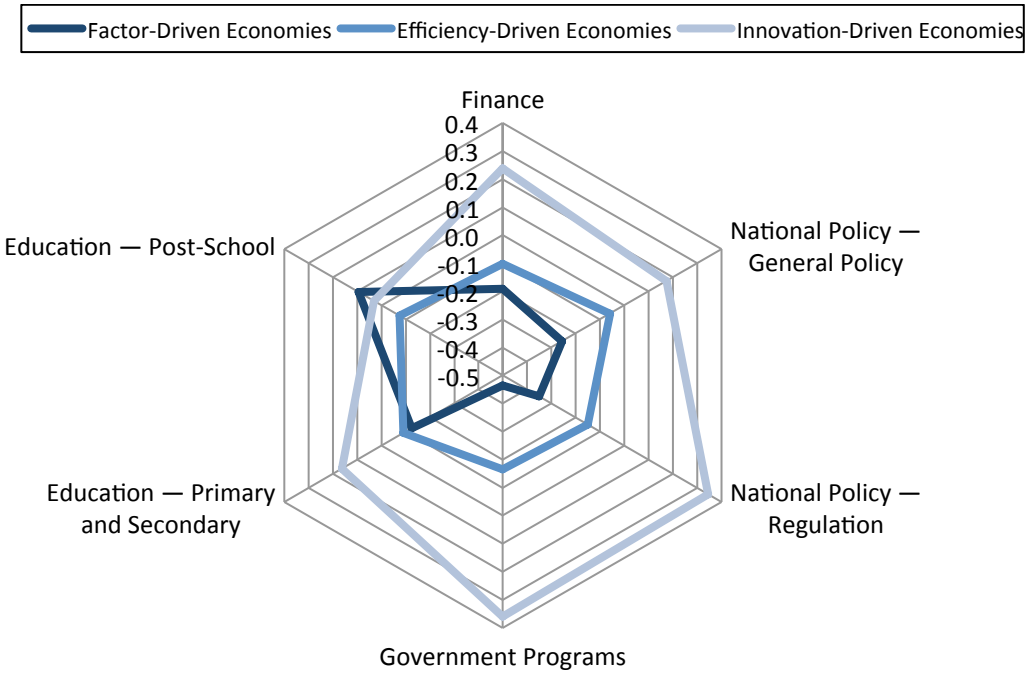
Source: Global Entrepreneurship Monitor 2011

Note: Standard errors in parentheses

The tables also show the highest rated EFCs in each country in green and the lowest rated EFCs in red. Even though clear patterns among country-groups are not easy to discern, the averages presented in the tables reflect for example that education of entrepreneurship at basic levels (primary and secondary school) is judged rather unfavorably in several countries. In contrast, physical infrastructure tends to have the highest evaluations in experts' judgments; as could be expected, virtually all innovation-driven economies' experts indicated that this EFC is one that enhances entrepreneurship activities in their countries.

In general, experts in more economically developed countries gave higher ratings to the EFCs. In some sense higher rates in innovation-driven economies are consistent with the GEM model and the notion that EFCs have higher priorities among more economically developed countries. At the same time, it should be noted that reference points may differ across economies: what is perceived to be good in one country may perceived to be poor in others. To visualize the differences that exist, standardized mean Z-scores are shown for each EFC in Figure 3.2 and Figure 3.3. These figures show that many EFCs do differ by economic development phase. Examples include national policy-regulation, government programs, physical infrastructure and R&D transfer, all of which tend to be more highly rated in innovation-driven economies. On the other hand some EFCs do not present clear differences; for example entrepreneurship education post-school, the dynamics of internal markets and cultural and social norms[36].

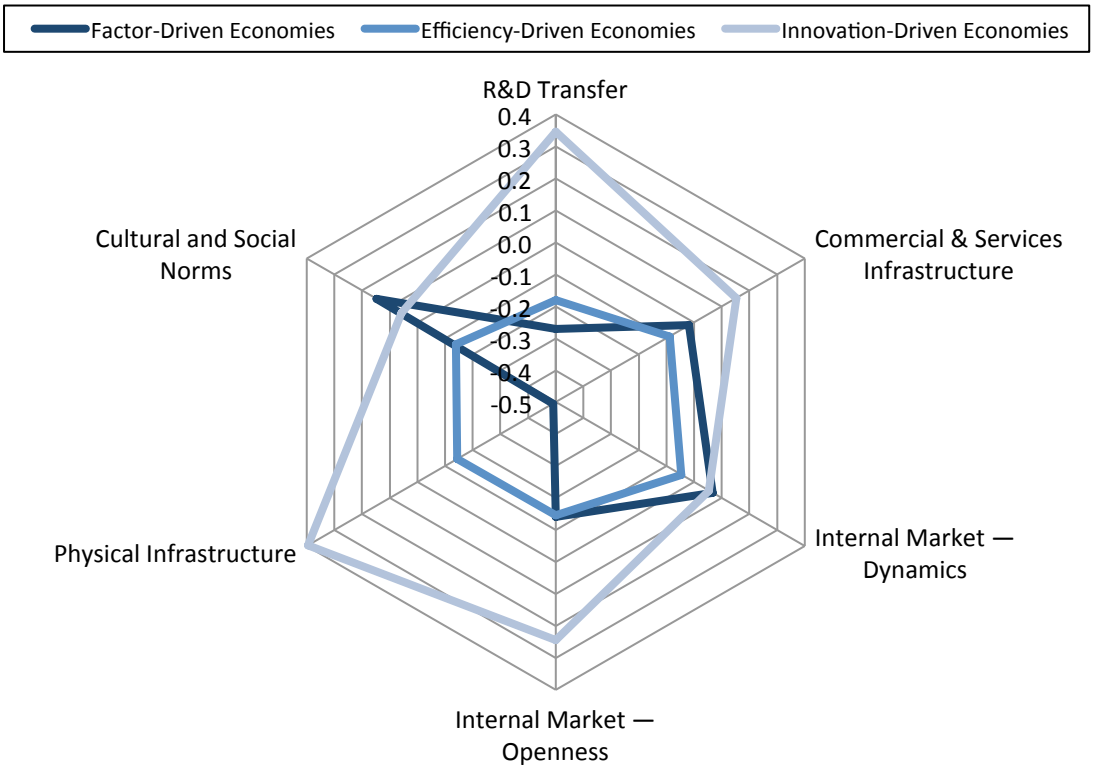
FIGURE 3.2 COMPOSITE INDICATORS ON ENTREPRENEURSHIP INSTITUTIONS, BY STAGE OF DEVELOPMENT (1/2)



Source: Global Entrepreneurship Monitor 2011, National Expert Surveys
Note: Values of indicators are based on averaging the Z-scores (standardized values) for the economies in each of the three phases of economic development.

[36] In the Country Summary Sheets included in this report, economy-level scores on the EFCs are compared with two benchmark (group) scores: the average of the economies in the same phase of economic development and the average of the benchmark group based on a exploratory classification related to patterns of entrepreneurship, presented in Chapter 4.

FIGURE 3.3 COMPOSITE INDICATORS ON ENTREPRENEURSHIP INSTITUTIONS, BY STAGE OF DEVELOPMENT (2/2)



Source: Global Entrepreneurship Monitor 2011, National Expert Surveys
Note: Values of indicators are based on averaging the Z-scores (standardized values) for the economies in each of the three phases of economic development.

To test if there are statistical differences among the 12 EFCs and the three phases of economic development an ANOVA analysis was conducted. Table 3.4 shows that 8 of 12 EFCs have significant differences across the three phases. As Figures 3.2 and 3.3 already hinted at, the entrepreneurship education at post-secondary school (vocational and higher education); professional and commercial infrastructure; cultural, social norms and society support and internal market dynamics do not present differences that are statistically significant between the three phases of economic development.

TABLE 3.4. ANOVA FOR COMPOSITE ENTREPRENEURSHIP INSTITUTION INDICATORS AND PHASE OF ECONOMIC DEVELOPMENT.

		Square Sum.	Square mean	F	Sig.
1. Financial environment related with entrepreneurship	Inter-groups	1.01	.50	3.762	**.03**
	Intra-groups	6.19	.13		
	Total	7.20			
2a. Government concrete policies, priority and support	Inter-groups	1.12	.56	2.888	**.06**
	Intra-groups	8.93	.19		
	Total	10.06			
2b. Government policies bureaucracy, taxes	Inter-groups	3.41	1.70	8.045	**.00**
	Intra-groups	9.77	0.21		
	Total	13.19			
3. Government programs	Inter-groups	3.57	1.78	12.043	**.00**
	Intra-groups	6.83	0.14		
	Total	10.40			
4a. Entrepreneurial level of education at Primary and Secondary	Inter-groups	0.58	.29	3.140	**.05**
	Intra-groups	4.29	.09		
	Total	4.88			
4b. Entrepreneurial level of education at Vocational, Professional, College and University	Inter-groups	.17	.08	1.179	.31
	Intra-groups	3.42	.07		
	Total	3.601			
5. R&D level of transference	Inter-groups	2.19	1.09	14.380	**.00**
	Intra-groups	3.51	.076		
	Total	5.71			
6. Professional and commercial infrastructure access	Inter-groups	0.40	0.20	2.17	.12
	Intra-groups	4.31	0.09		
	Total	4.72			
7a. Internal market dynamics	Inter-groups	0.14	0.07	0.34	.71
	Intra-groups	9.46	0.20		
	Total	9.60			
7b. Internal market burdens	Inter-groups	1.18	.59	5.73	**.01**
	Intra-groups	4.76	.10		
	Total	5.95			
8. Physical infrastructures and services access	Inter-groups	3.96	1.98	16.82	**.00**
	Intra-groups	5.42	0.12		
	Total	9.39			
9. Cultural, social norms and society support	Inter-groups	0.57	0.28	1.75	.18
	Intra-groups	7.46	0.16		
	Total	8.03			

Note: p< 0.1 in bold.

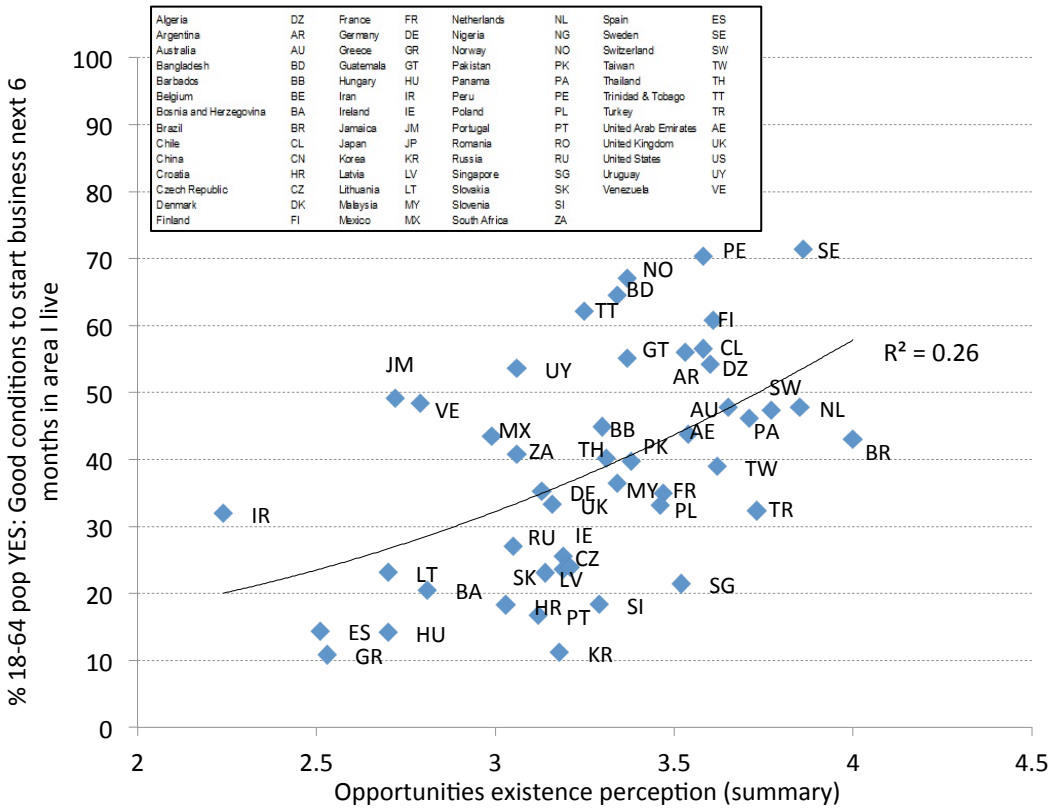
3.4. ENTREPRENEURSHIP CONDITIONS AND OTHER INDICATORS

This section links entrepreneurship framework conditions to measures from the GEM Adult Population Survey (APS) and to indicators from other sources. As shown above, EFCs may differ according to the economic development of each country; and so may entrepreneurial attitudes, activities and aspirations. A brief analysis that correlates some NES´ variables with other indicators will serve to illustrate the relevance of EFCs to national entrepreneurship ecosystems. The purpose here is not to examine in depth all the EFCs or to test relationships (see Levie and Autio, 2008, 2011 for examples of this).

The first example compares data on the recognition of opportunities by individuals (from the GEM APS) against similar evaluations made by experts in each participating economy in 2011 (from the GEM NES). Figure 3.4 shows that there is a weak but positive relationship between both variables. As

was highlighted in Section 2.2, the perceived opportunities for countries like Greece, Hungary or Spain are among the lowest of all countries included in the GEM 2011 survey. And the counterpart of experts' opinions could reflect the financial respectively political crisis in those countries.

FIGURE 3.4 ADULT POPULATION OPPORTUNITIES RECOGNITION AND EXPERTS PERCEPTIONS ON OPPORTUNITIES FOR ENTREPRENEURSHIP, 2011



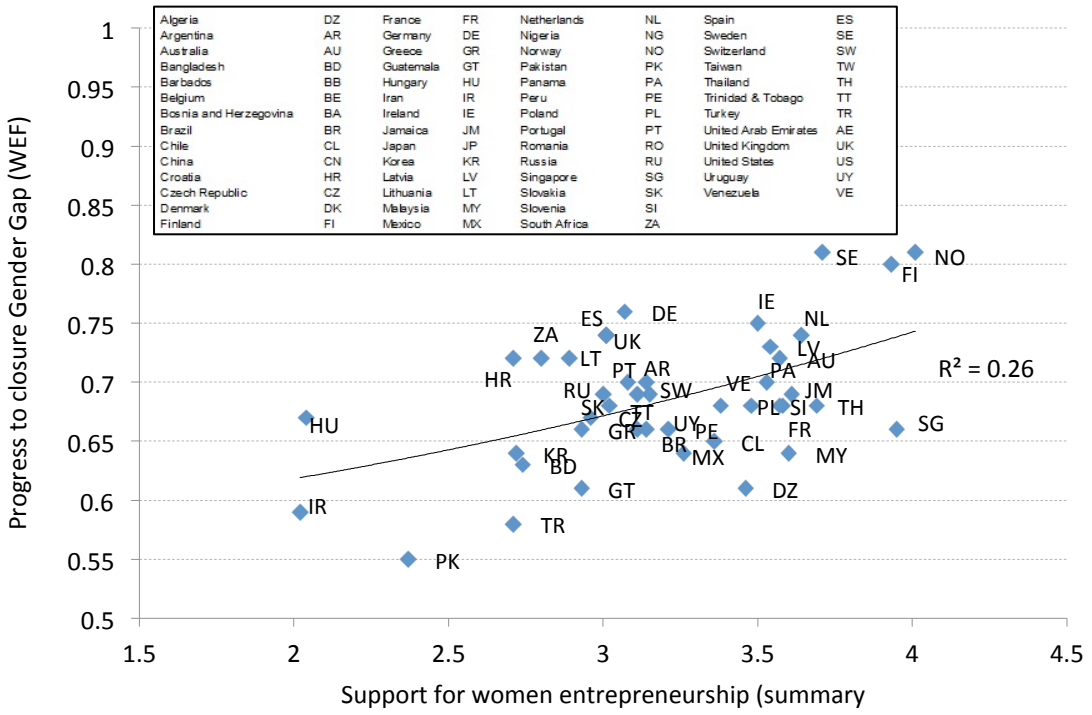
Source: Global Entrepreneurship Monitor 2011, National Expert Survey (NES) and Adult Population Survey (APS)

The second example is related to support for women entrepreneurship. For this example we use the Global Gender Gap Index, taken from the World Economic Forum´s Global Gender Gap Report. This index measures the extent to which the gap between men and women has closed along four different dimensions: economic participation and opportunity, educational attainment, health and survival and political empowerment[37]. The NES women entrepreneurship questions are related to the availability of social services that would facilitate women entrepreneurs, the social acceptance of women entrepreneurs, if women are encouraged to become entrepreneurs and if women and men have the same opportunities and, knowledge and skills to be entrepreneurs. The relationship between both rates is showed in Figure 3.5 We find a positive, though weak, relationship, meaning that for some economies a relative strength of women entrepreneurs may contribute to reducing the general gender gap, while for other countries gender gaps are relatively large in the domain of entrepreneurship The position of Finland, Norway and Sweden in the top right hand corner is particularly noticeable.

[37] For more information see http://reports.weforum.org/global-gender-gap-2011/

In Chapter 4, sections 4.5 and 4.6, additional descriptive analyses are provided that link indicators of entrepreneurial activity from the GEM adult population survey with NES items that assess conditions that may impact entrepreneurial employee activity.

FIGURE 3.5 WORLD ECONOMIC FORUM GENDER GAP AND GEM EXPERTS' PERCEPTIONS ABOUT WOMEN ENTREPRENEURSHIP FACILITIES.



Source: WEF Gender Gap 2011 Report and GEM National Expert Survey (NES)

4. ENTREPRENEURIAL EMPLOYEE ACTIVITY

4.1. INTRODUCTION

A major distinction in the entrepreneurship domain is between 'independent entrepreneurship' and 'entrepreneurship within existing organizations'. Both fields are large research areas, employing a wide range of definitions and perspectives. So far GEM has mainly focused on various aspects of the independent entrepreneurship field. This year's special topic zooms in on one particular facet of entrepreneurship within existing organizations, i.e. entrepreneurial activities of individual employees. As mentioned in chapter 1, entrepreneurial employee activity (EEA) is increasingly viewed as a special type of entrepreneurship in the sense that it aims at new venture creation. It also shares many behavioral characteristics with the overall concept of entrepreneurship, such as taking initiative, pursuit of opportunities and innovativeness.

The 'entrepreneurship within existing organizations' field employs a wide-ranging terminology, including corporate entrepreneurship, corporate venturing, strategic renewal, and intrapreneurship (Sharma and Chrisman, 1999). The first three of these concepts primarily refer to the level of organizations and often concern top-down processes and management strategies "to foster workforce initiatives and efforts to innovate and develop new business" (Bosma et al., 2011b, p. 6). Intrapreneurship on the other hand mostly relates to bottom-up, proactive initiatives of individual employees. The term 'intrapreneurship' is usually attributed to Pinchot (1985). This chapter focuses on this individual level of entrepreneurial employees who have a leading role in the creation and development of new business activities for the organization in which they work[38]. These entrepreneurial initiatives include both top-down and bottom-up activities. This chapter addresses the hitherto largely unanswered question as to who are the individuals behind these entrepreneurial activities (Hamman, 2006). Throughout this chapter, these individuals will usually be called entrepreneurial employees.

Until recently internationally comparable data on EEA were not available. Following an earlier GEM pilot study in 2008 based on data for eleven economies, this chapter provides cross-national evidence on the prevalence of entrepreneurial employee activity for 52 economies participating in GEM 2011.

4.2. DEFINITIONS

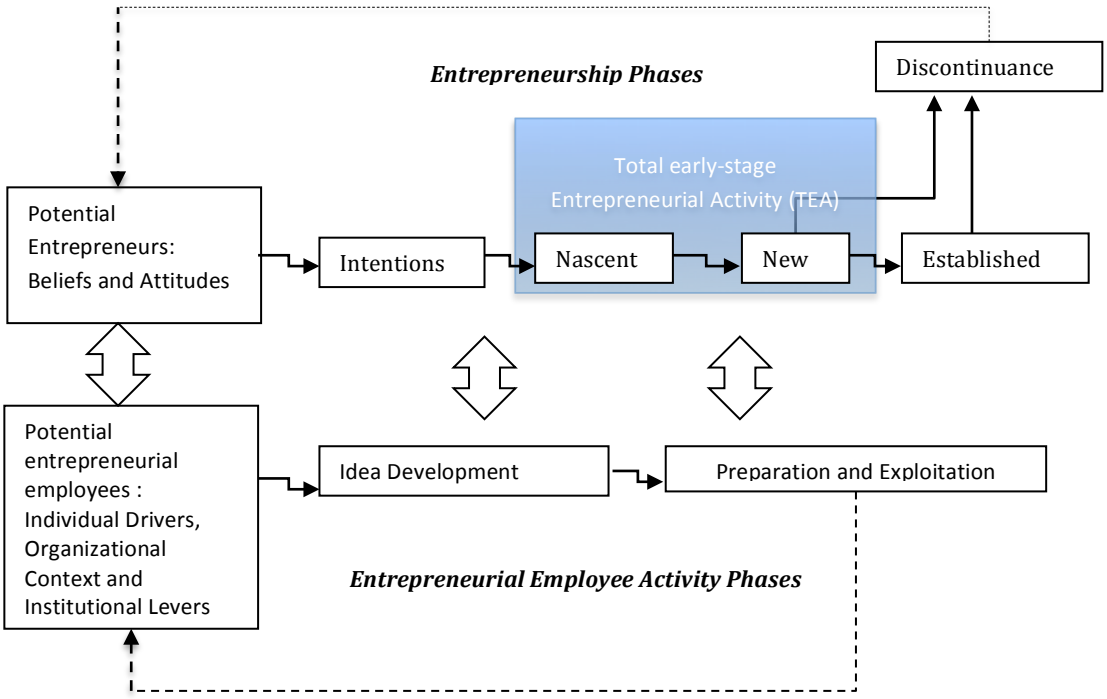
In this report, we operationalize entrepreneurial employee activity as 'employees developing new activities for their main employer, such as developing or launching new goods or services, or setting up a new business unit, a new establishment or subsidiary'. This definition is wider than new organization creation, but it excludes employee initiatives that mainly aim at optimizing internal work processes. Furthermore, this report distinguishes between two phases of entrepreneurial employee activity, i.e. 'idea development for a new activity' and 'preparation and implementation of a new activity'. Idea development includes for example active information search, brainstorming and submitting ideas for new activities to the management of the business. Preparation and implementation of a new activity refers to promoting an idea for a new activity, preparing a business plan, marketing the new activity, finding financial resources and acquiring a team of workers for the new activity.

[38] For an operational definition, see section 4.2. See also Annex IV.

This report measures the prevalence of entrepreneurial employee activity according to a broad and a narrow definition. Following the *broad* definition entrepreneurial employee activity refers to employees who, *in the past three years*, were actively involved in and had a leading role in at least one of these phases (i.e., 'idea development for a new activity' and/or 'preparation and implementation of a new activity'). The *narrow* definition refers to the entrepreneurial employees who are *currently* involved in the development of such new activities. The entrepreneurial employees according to the narrow definition are thus a subgroup of those according to the broad definition. The prevalence of entrepreneurial employee activity can be defined as the number of entrepreneurial employees, according to either definition, as a percentage of either the total number of employees or the adult population (between 18-64 years of age)[39].

In all 52 countries for which data were collected on entrepreneurial employee activity, all employees classified as entrepreneurial employees were asked two further questions about their 'most significant new activity' in the past three years. These questions referred to a brief description of the new activity and to the expected number of people working on the new activity five years after its introduction. In addition, in 32 economies the employees classified as entrepreneurial employees were asked some additional questions about the new business activity.

FIGURE 4.1 ENTREPRENEURSHIP PROCESS AND GEM OPERATIONAL DEFINITIONS, INCLUDING ENTREPRENEURIAL EMPLOYEE ACTIVITY



Note: For more details of the research design applied to measure entrepreneurial employee activity, see Annex IV.

[39] In this chapter, if not otherwise indicated, EEA has been defined as the number of entrepreneurial employees according to the narrow definition as a % of the adult population.

4.3. THE PREVALENCE OF ENTREPRENEURIAL EMPLOYEE ACTIVITY

presents the main results regarding the prevalence of entrepreneurial employee activity across 52 countries according to both definitions, as percentage of the adult population between 18 and 64 years of age and as percentage of the number of employees. A first glance at Table 4.1 reveals that entrepreneurial employee activity, as defined here, is not a very wide-spread phenomenon. On average, only about 3% of the adult population and 5% of the employees in our sample is currently involved in EEA. And the percentage of the adult population that was involved in entrepreneurial employee activity in the past three years is on average only slightly higher.

A second observation is that entrepreneurial employee activity is more prevalent in innovation-driven economies than in efficiency-driven economies. The differences in prevalence between innovation-driven economies and factor-driven economies are even larger. More precisely, the prevalence of entrepreneurial employee activity (according to the narrow definition) as a percentage of the adult population in innovation-driven economies is more than ten times as high as in factor-driven economies and more than twice as high as in efficiency-driven economies.

The differences in the rate of EEA across the stages of economic development are partly due to a higher rate of wage-employment in the innovation-driven economies, but to a large extent these differences are also visible for the prevalence of entrepreneurial employee activity as a percentage of employees (between 18-64 years). Accordingly, the prevalence of entrepreneurial employee activity as a percentage of employees in innovation-driven economies is almost five times as high as in factor-driven economies and almost twice as high as in efficiency-driven economies.

TABLE 4.1 PREVALENCE OF ENTREPRENEURIAL EMPLOYEE ACTIVITY

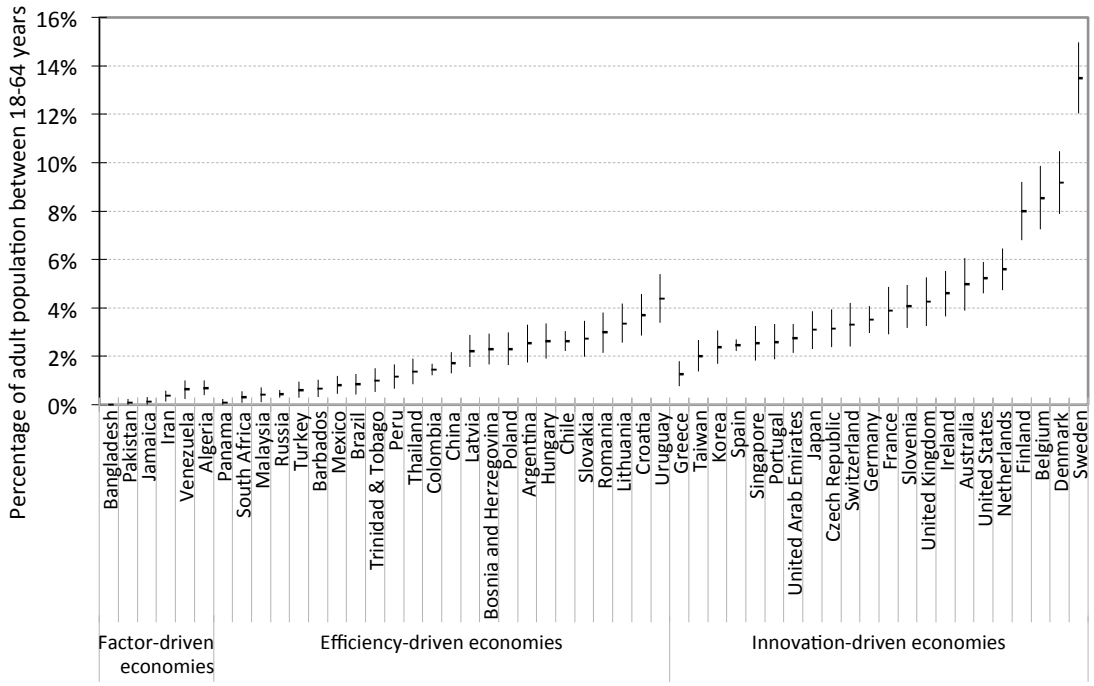
	Broad definition: Involved in entrepreneurial employee activity in past three years in % of		Narrow definition: Currently involved in entrepreneurial employee activity in % of	
	adult population	employees	adult population	employees
Factor-Driven economies				
Algeria	0.8	3.9	0.7	3.3
Bangladesh	0.0	0.0	0.0	0.0
Iran	0.4	2.4	0.4	2.4
Jamaica	0.2	0.7	0.1	0.5
Pakistan	0.2	1.1	0.1	0.4
Venezuela	0.6	2.3	0.6	2.3
unweighted average	0.4	1.7	0.3	1.5
Efficiency-Driven economies				
Argentina	3.2	7.3	2.5	5.8
Barbados	0.7	1.5	0.7	1.4
Bosnia and Herzegovina	3.1	9.8	2.3	7.2
Brazil	1.0	3.1	0.8	2.6
Chile	3.5	12.9	2.6	9.9
China	2.1	4.8	1.7	4.0
Colombia	1.7	4.9	1.5	4.3
Croatia	4.4	9.0	3.7	7.5
Hungary	3.9	7.8	2.6	5.2
Latvia	3.0	5.0	2.2	3.6
Lithuania	4.9	8.1	3.4	5.6
Malaysia	0.4	0.9	0.4	0.9
Mexico	0.9	2.3	0.8	2.0
Panama	0.2	0.3	0.1	0.2
Peru	1.4	7.3	1.2	6.1
Poland	2.8	5.7	2.3	4.7
Romania	3.9	7.6	3.0	5.8
Russia	0.6	1.0	0.4	0.7
Slovakia	3.4	6.5	2.7	5.2
South Africa	0.4	2.0	0.3	1.6
Thailand	1.4	4.9	1.4	4.9
Trinidad & Tobago	1.2	2.6	1.0	2.3
Turkey	0.7	2.1	0.6	1.8
Uruguay	5.2	9.8	4.4	8.3
unweighted average	2.3	5.3	1.8	4.2
Innovation-Driven economies				
Australia	6.2	9.0	5.0	7.3
Belgium	9.4	13.5	8.6	12.3
Czech Republic	3.8	6.3	3.2	5.2
Denmark	15.1	20.7	9.2	12.6
Finland	9.4	13.4	8.0	11.4
France	4.7	7.5	3.9	6.1
Germany	4.8	7.6	3.5	5.5
Greece	1.6	4.9	1.3	3.8
Ireland	5.9	10.4	4.6	8.1
Japan	3.4	5.7	3.1	5.2
Korea Rep.	2.6	6.7	2.4	6.1
Netherlands	7.8	11.1	5.6	7.9
Portugal	4.0	6.0	2.6	3.9
Singapore	3.3	6.2	2.6	4.8
Slovenia	5.1	9.3	4.1	7.4
Spain	2.7	6.1	2.5	5.5
Sweden	16.2	22.2	13.5	18.4
Switzerland	4.6	7.2	3.3	5.1
Taiwan	2.0	3.9	2.0	3.9
United Arab Emirates	3.6	4.9	2.7	3.7
United Kingdom	5.3	8.1	4.3	6.6
United States	6.6	10.5	5.3	8.4
unweighted average	5.8	9.1	4.6	7.2
Total unweighted average	3.5	6.5	2.8	5.2

Source: Global Entrepreneurship Monitor 2011

Figure 4.2 shows the point estimates of the EEA rates for each of the 52 economies in 2011 by phase of economic development. The confidence intervals constitute the range within which the average value of 95 out of 100 replications of the survey would be expected to lie. Thus, where the vertical bars do not overlap, as is for example the case comparing Japan and the United States, the EEA rates are statistically different adopting 95% certainty, also denoted as statistically different at the 0.05 level.

On average the incidence of entrepreneurial employee activity in the adult population is by either definition substantially lower than that of total early-stage entrepreneurial activity as presented in chapter 2 of this report. In the factor-driven economies entrepreneurial employee activity is extremely scarce while, on the contrary, early-stage self-employment is abundant. In the efficiency-driven economies the differences are smaller, but early-stage entrepreneurial activity is still several times as prevalent as entrepreneurial employee activity. Only in the innovation-driven economies is the incidence of entrepreneurial employee activity in the adult population in the same order of magnitude as that of total early-stage entrepreneurial activity. However, in some countries, such as Belgium and Denmark, EEA is even higher than TEA, i.e. the sum of MHEA and SLEA (see Table 4.2).

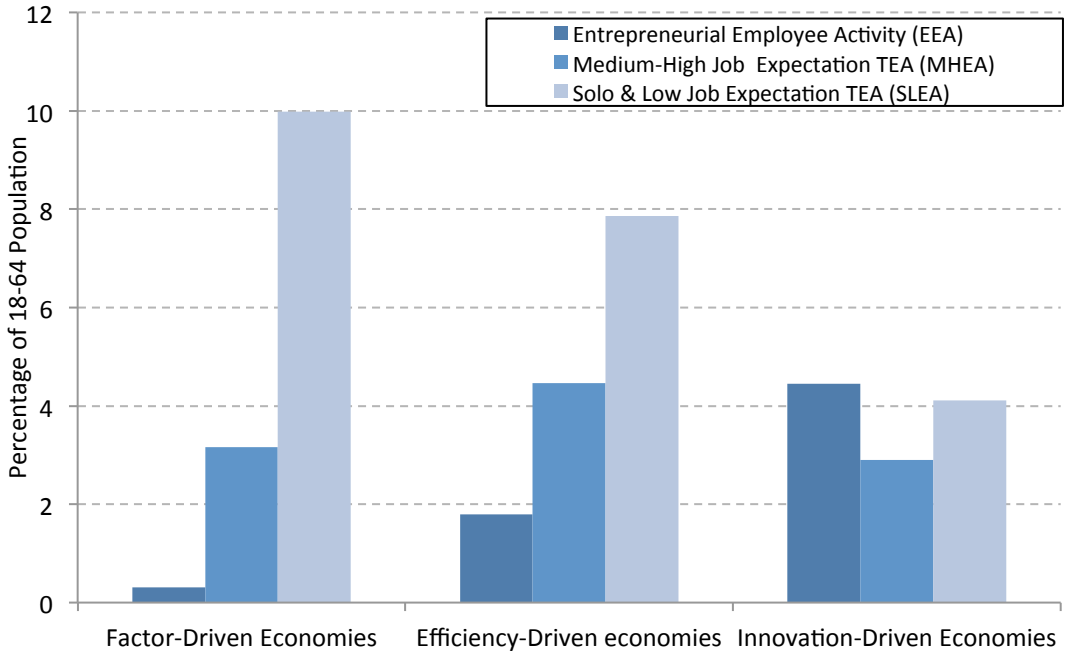
FIGURE 4.2 PREVALENCE RATES OF EMPLOYEE ENTREPRENEURIAL ACTIVITY (EEA) IN THE 18-64 POPULATION



Source: Global Entrepreneurship Monitor 2001.
Note: The narrow definition was adopted for this figure.

The pattern of entrepreneurial employee activity across the stages of economic development is thus the reverse of that for early-stage entrepreneurial activity, as discussed in chapter 2. Finally, Figure 4.3 illustrates these patterns, while taking account of the distinction between medium/high job expectation early-stage entrepreneurial activity (MHEA) and solo / low job expectation early-stage entrepreneurial activity (SLEA) as defined in section 1.2 of this report. This figure also shows that the latter is the most prevalent type of *independent* entrepreneurship, even in the innovation-driven economies. In addition, it is an intriguing observation that the sum of these three measures (EEA, MHEA and SLEA) is in the same order of magnitude for all three stages of development. However, as can be seen from Table 4.2 the latter observation does not hold at the level of individual economies.

FIGURE 4.3 PREVALENCE OF THREE DISTINCT TYPES OF ENTREPRENEURIAL ACTIVITY IN % OF ADULT POPULATION, FOR THREE STAGES OF ECONOMIC DEVELOPMENT.



Source: Global Entrepreneurship Monitor 2011
Note: MHEA (5 or more jobs) and SLEA (up to 4 jobs) based on job expectations five years ahead, averages 2009-2011; EEA averages 2011. In this figure, other than in table 4.2, all three indicators are calculated for 52 economies.

Table 4.2 summarizes these key indicators for 52 economies (EEA) respectively 54 economies (SLEA and MHEA) participating in GEM 2011, while adding country data for private sector entrepreneurial employee activity (PEEA) in 52 economies as well as the degree of employer support for employees who come up with ideas for new goods or services in 32 economies.

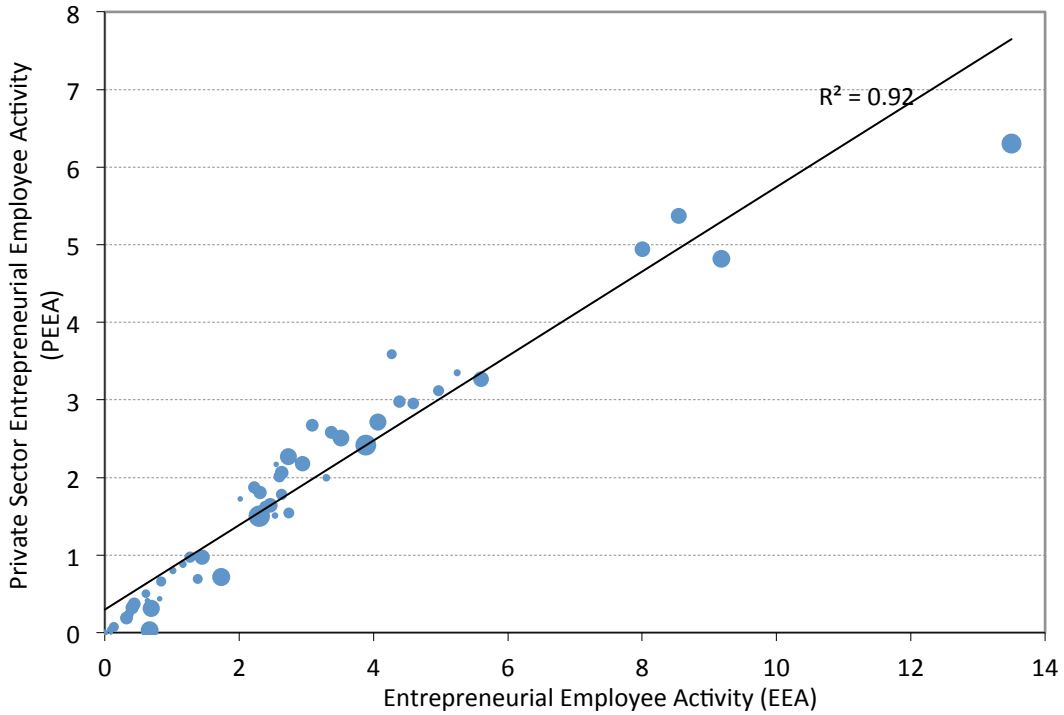
On average across all 52 economies almost two-thirds of entrepreneurial employee activity takes place in the private for-profit sector. However, as can be seen in Table 4.2, there are substantial differences across individual countries. For example, in the Scandinavian countries as well as in Belgium and the Netherlands, private sector entrepreneurial employee activity has a relatively modest share, while it has a relatively large share in Hungary, Japan, Peru, Portugal, Singapore, Taiwan and the United Kingdom. Nonetheless, the scatter plot in Figure 4.4 shows a strong positive correlation between the rates of overall entrepreneurial employee activity (EEA) and private sector entrepreneurial employee activity (PEEA) in 52 countries, while also highlighting some conspicuous outliers.

TABLE 4.2 SOME KEY INDICATORS OF ENTREPRENEURIAL ACTIVITY, AND THE RATE OF EMPLOYERS' SUPPORT FOR EMPLOYEE INITIATIVES FOR NEW GOODS AND SERVICES

	Entrepreneurial Employee Activity (EEA) in 52 economies	*Private Sector Entrepreneurial Employee Activity (PEEA) in 52 economies*	*Employers' support for EEA in 32 economies*	*Medium/High Job Expectation TEA (MHEA) in 54 economies*	*Solo / Low Job Expectation TEA (SLEA) in 54 economies*
Factor-Driven Economies					
Algeria	0.7	0.3	52	4.2	7.8
Bangladesh	0.0	0.0	77	2.6	10.2
Guatemala				2.7	15.6
Iran	0.4	0.2	46	3.8	9.2
Jamaica	0.1	0.1	66	2.5	12.7
Pakistan	0.1	0.0	66	1.4	7.7
Venezuela	0.6	0.4	56	4.6	12.3
unweighted average	*0.3*	*0.2*	*61*	*3.1*	*10.8*
Efficiency-Driven Economies					
Argentina	2.5	1.5	65	5.5	11.0
Barbados	0.7	0.0	66	2.8	9.8
Bosnia and Herzegovina	2.3	1.5	75	2.3	4.5
Brazil	0.8	0.7	55	3.3	12.6
Chile	2.6	1.8	73	9.6	9.3
China	1.7	0.7	77	7.9	11.2
Colombia	1.5	1.0		10.8	10.3
Croatia	3.7	2.2	65	2.7	3.5
Hungary	2.6	2.1	68	3.2	4.3
Latvia	2.2	1.9		5.4	5.3
Lithuania	3.4	2.6		5.6	5.6
Malaysia	0.4	0.3	50	1.1	3.5
Mexico	0.8	0.4	51	2.3	7.8
Panama	0.1	0.0		2.1	13.1
Peru	1.2	0.9	61	7.6	16.1
Poland	2.3	1.8	56	4.3	4.7
Romania	2.9	2.2	68	3.3	3.2
Russia	0.4	0.4		2.0	2.4
Slovakia	2.7	2.3	68	6.1	8.1
South Africa	0.3	0.2	52	3.0	4.9
Thailand	1.4	0.7	50	5.4	14.1
Trinidad & Tobago	1.0	0.8	67	5.5	13.4
Turkey	0.6	0.5	75	5.8	4.5
Uruguay	4.4	3.0	83	5.7	7.9
unweighted average	*1.8*	*1.2*	*64*	*4.7*	*8.0*
Innovation-Driven Economies					
Australia	5.0	3.1	73	4.2	4.9
Belgium	8.6	5.4		1.1	3.0
Czech Republic	3.2	2.6		3.8	3.9
Denmark	9.2	4.8		1.4	2.6
Finland	8.0	4.9		1.3	4.4
France	3.9	2.4		1.8	3.5
Germany	3.5	2.5	64	1.4	3.1
Greece	1.3	1.0	41	1.7	5.7
Ireland	4.6	3.0		3.2	3.8
Japan	3.1	2.7		1.8	2.2
Korea Rep.	2.4	1.6	62	2.8	4.3
Netherlands	5.6	3.3	74	2.3	5.3
Norway	0.0	0.0		2.4	5.3
Portugal	2.6	2.0		1.8	4.3
Singapore	2.6	2.2		3.4	3.2
Slovenia	4.1	2.7	77	1.9	2.8
Spain	2.5	1.6		1.2	3.8
Sweden	13.5	6.3		1.7	3.7
Switzerland	3.3	2.0		2.0	4.4
Taiwan	2.0	1.7		4.8	3.3
United Arab Emirates	2.7	1.5		6.6	2.4
United Kingdom	4.3	3.6	75	1.9	4.0
United States	5.3	3.4		4.0	5.8
unweighted average	*4.6*	*2.9*	*67*	*2.5*	*3.9*

Note: Medium/High Job Expectation (MHEA) and Solo / Low Job Expectation TEA (SLEA) are averages 2009-2011. Other indicators are based on GEM 2011 data.

FIGURE 4.4 OVERALL ENTREPRENEURIAL EMPLOYEE ACTIVITY (EEA) VERSUS PRIVATE SECTOR ENTREPRENEURIAL EMPLOYEE ACTIVITY (PEEA)

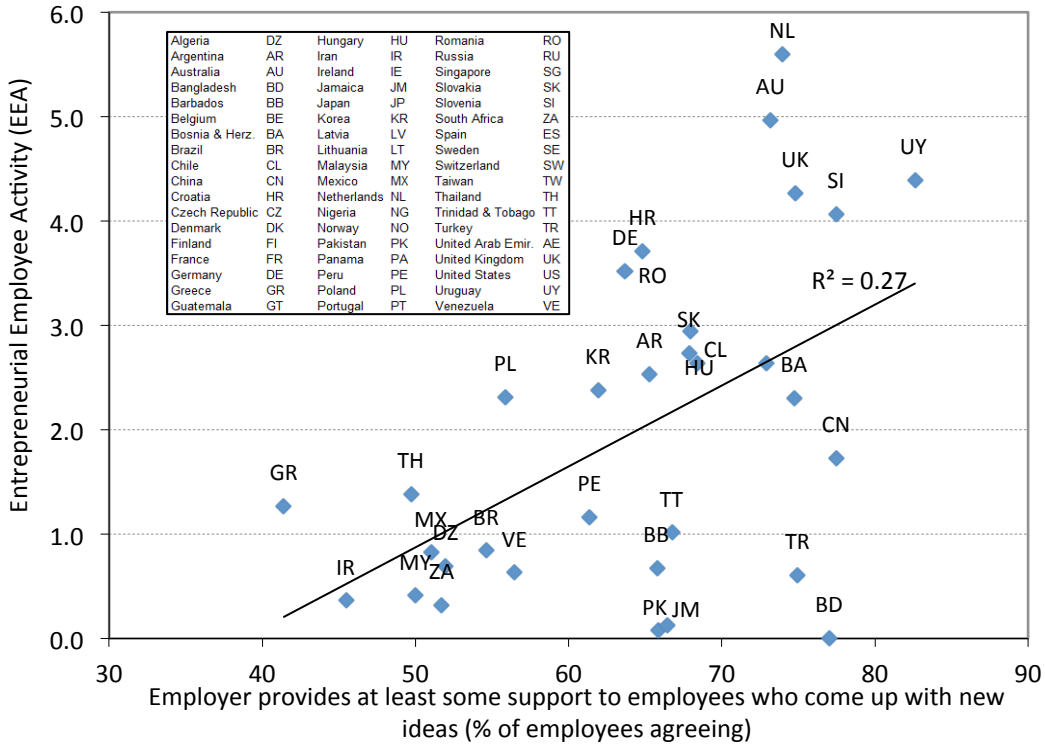


Source: Global Entrepreneurship Monitor 2011, Fraser Institute
Note: Size of bubble indicates the size of the government (2002 values). Reverse values of the Fraser Institute 'Size of Government' have been taken so that 0 corresponds to 'small general government consumption', 'small transfer sector', 'few government enterprises', and 'low marginal tax rates and high income thresholds', and 10 to 'large general government consumption', 'large transfer sector', 'many government enterprises', and 'high marginal tax rates and low income thresholds'.

Table 4.2 also suggests that there is a positive association between the rate of entrepreneurial employee activity in a country and the incidence of employers' support for employees who come up with ideas for new goods and services. This loose correlation is also shown in Figure 4.5.

Additionally, Table 4.2 presents the dispersion of the three key indicators of entrepreneurial activity, i.e. EEA, MHEA and SLEA, across the 52 economies in our sample. The table testifies to large differences across individual countries, with for example Brazil, Jamaica and Turkey at one extreme and Belgium, Denmark and Sweden at another. Quite distinct other patterns are shown by Australia and the US on the one hand and by Malaysia and Russia on the other. Thus, while the dispersion of our entrepreneurship indicators at the level of individual economies to some extent corresponds with the pattern across three stages of economic development presented in Figure 4.3, multiple patterns apparently exist at this level. However, the dispersion of the three categories of entrepreneurial activity across individual economies does not appear to be random. As an exploratory descriptive empirical analysis carried out in section 4.6 will show, the 52 countries in our dataset can in fact be classified in six distinct types of economies.

FIGURE 4.5 THE INCIDENCE OF EMPLOYERS' SUPPORT FOR EMPLOYEES WITH NEW IDEAS AND OBSERVED EMPLOYEE ENTREPRENEURIAL ACTIVITY



Finally, Table 4.3 presents the distribution of entrepreneurial employee activity, according to our narrow definition, across size classes (based on 52 countries). Apparently, entrepreneurial employee activity occurs in organizations of all sizes. In absolute terms EEA is most prevalent in medium-sized organizations. In innovation-driven economies it is also abundant in large organizations, while in efficiency-driven economies it is relatively frequent in small organizations. Of course, these differences can be partly explained by differences in the size class distribution across stages of economic development.

TABLE 4.3 DISTRIBUTION OF ENTREPRENEURIAL EMPLOYEE ACTIVITY (CURRENT YEAR) ACROSS ORGANIZATION SIZE CLASSES

	Efficiency-Driven Economies	Innovation-Driven Economies	All Economies
Organization size class			
< 10 employees	28	15	22
10–249 employees	41	44	43
> 250 employees	21	34	27
Unknown firm size	10	7	8

Source: Global Entrepreneurship Monitor 2011

4.4. SOME CHARACTERISTICS OF ENTREPRENEURIAL EMPLOYEES

Table 4.4 presents the entrepreneurial employee activity prevalence rates, according to our narrow definition, broken down into age, gender, education and household income (based on 52 countries). As for the age distribution, entrepreneurial employee activity follows an inverted U-shape pattern, with highest prevalence rates in the age groups between 25 and 54 years of age. This pattern is broadly similar to that of early-stage entrepreneurs. However, within the age range 25-54 years entrepreneurial employee activity generally peaks at higher ages than early-stage entrepreneurship. De Jong et al. (2011) reason that age proxies both motivation and perceived capability to engage in entrepreneurial employee activity. First, openness to new experiences and change decreases with age, implying a negative relationship between age and motivation for entrepreneurial employee activity. Second, perceived capability as indicated by experience in the workplace increases with age. Assuming that both factors have threshold values below which no amount of the other can compensate, employees in the middle age range are consequently most likely to engage in entrepreneurial employee activity.

Secondly, we find significant gender differences, with male employees being on average almost twice as likely to be involved in entrepreneurial employee activity as female employees. The overall pattern is broadly similar to that of early-stage entrepreneurs. An analysis of gender gap differences in entrepreneurial employee activity at the level of individual countries is a subject for further research, but differences in female labor participation are likely to play a role.

Thirdly, entrepreneurial employee activity seems to be an activity that is particularly suitable for higher educated employees. This finding is partly related to the human capital requirements of innovation activity. In addition, higher job levels offer more autonomy to employees and provide better opportunities to develop social networks, which are both conducive to entrepreneurial employee activity (De Jong et al., 2011). Finally, and in accordance with our findings on education, Table 4.4 shows that entrepreneurial employee activity is most prevalent at higher income levels.

TABLE 4.4 PREVALENCE OF ENTREPRENEURIAL EMPLOYEE ACTIVITY ACROSS AGE, GENDER, EDUCATION AND HOUSEHOLD INCOME, IN % OF ADULT POPULATION 18-64 YRS

	Efficiency-driven economies	Innovation-driven economies	All economies
Age structure			
18-24 years	1.1	1.4	1.2
25-34 years	2.5	4.9	3.7
35-44 years	2.3	6.2	4.2
45-54 years	1.5	5.4	3.4
55-64 years	1.1	3.0	2.0
Gender			
Male	2.3	5.7	4.0
Female	1.3	3.1	2.2
Education			
Low	0.3	0.8	0.5
Medium	1.4	3.1	2.2
High	4.2	8.1	6.1
Income			
Low	0.5	1.3	0.9
Medium	1.0	3.0	2.0
High	3.2	8.2	5.7
Unknown / Not Reported	2.0	2.6	2.4

Source: Global Entrepreneurship Monitor 2011
Note: based on simple averages across individuals in each phase of economic development

ENTREPRENEURIAL PERCEPTIONS AND INTENTIONS OF ENTREPRENEURIAL EMPLOYEES

At the micro level there are good grounds to expect entrepreneurial employee activity to be positively related to subsequent independent entrepreneurship. This expectation is partly based on the reasoning that entrepreneurial employees to a large extent share various entrepreneurial traits with independent entrepreneurs, such as risk attitudes, internal locus of control, extraversion and openness to experience (Caliendo et al., 2011; De Jong et al., 2011). Although we do not have data on these traits in our sample, the GEM adult population survey does give some information about the entrepreneurial perceptions of all respondents. Based on this, Table 4.5 shows how, on average for efficiency-driven and innovation driven economies, some important entrepreneurial perceptions vary among entrepreneurial employees, other employees and self-employed individuals. The table does not include the factor-driven economies because of the low prevalence rates of entrepreneurial employee activity in these countries.

The results in Table 4.5 show that entrepreneurial employees have higher levels of entrepreneurial perceptions than other employees. In almost all cases the perceptions of entrepreneurial employees and the self-employed are remarkably similar. Major exceptions are that entrepreneurial employees in the efficiency-driven economies more often know an entrepreneur who recently started a business, while entrepreneurial employees in the innovation driven economies are more positive about the available opportunities to start a business than the self-employed but are less likely to feel they have the required skills and knowledge. The observations in Table 4.5 provide further confirmation of our basic assumption that entrepreneurial employee activity can be considered as a special type of entrepreneurship.

TABLE 4.5 ENTREPRENEURIAL PERCEPTIONS OF ENTREPRENEURIAL EMPLOYEES, OTHER EMPLOYEES AND SELF-EMPLOYED

	Efficiency-driven economies % of			Innovation-driven economies % of		
	Entrepre-neurial employees	Other employees	Self-employed	Entrepre-neurial employees	Other employees	Self-employed
You personally know an entrepreneur who recently started a business	62	37	48	50	29	45
There are good opportunities for starting a business in the area where you live	54	43	58	52	30	33
You have the required skills and knowledge to start a business	80	50	74	66	40	79
Fear of failure would prevent you from starting a business	32	39	29	35	47	34

Source: Global Entrepreneurship Monitor 2011

Whereas some entrepreneurial employees deliberately opt for entrepreneurial employee activity instead of self-employment in order to limit their risks or to receive material support from their employer for developing their idea, it also seems likely that entrepreneurial employee activity can be a stepping stone towards founding one's own business. Indeed, as shown in Table 4.6, the incidence of nascent entrepreneurship is substantially higher for entrepreneurial employees than for other employees. In the efficiency-driven economies entrepreneurial employees are twice as likely as other employees to be actively involved in setting up a new business, while in innovation-driven economies this likelihood is even three times as high. In addition, entrepreneurial employees on average also have higher intentions to start a new business in the next three years. Taking nascent entrepreneurs and individuals with start-up intentions together (and assuming no double counts), it appears that in efficiency-driven economies about 50% of the entrepreneurial employees find themselves somewhere near or on the threshold towards self-employment. In the innovation-driven economies this share of entrepreneurial employees amounts to 25%.

TABLE 4.6 NASCENT ENTREPRENEURSHIP AND BUSINESS START-UP INTENTIONS, ENTREPRENEURIAL EMPLOYEES VERSUS OTHER EMPLOYEES

	Nascent entrepreneurship		Entrepreneurial intentions (excl. nascent entrepreneurs)	
	% of entrepreneurial employees	% of other employees	% of entrepreneurial employees	% of other employees
All economies	11	5	21	16
Efficiency-driven economies	17	8	35	24
Innovation-driven economies	9	3	16	8

Source: Global Entrepreneurship Monitor 2011

OPERATIONAL CHARACTERISTICS

This section deals with some operational characteristics of entrepreneurial employee activity. The tables in this section are based on the answers to some questions in the optional module in which 32 countries participated.

First, Table 4.7 shows that personal risk taking applies to about 40% of all entrepreneurial employees. The corresponding figure is 50% of the entrepreneurial employees in the efficiency-driven economies and about 30% of the entrepreneurial employees in the innovation-driven economies. This suggests that entrepreneurial employee activity is a more risky activity in lower-income countries compared to the higher-income countries.

TABLE 4.7 RISK TAKING BY ENTREPRENEURIAL EMPLOYEES

	Efficiency-driven economies	Innovation-driven economies	All economies
Risk taking by entrepreneurial employees (% yes)	50	32	42
Type of risk taken (% of entrepreneurial employees with risks)			
- loss of status	36	46	40
- damage to career	44	42	43
- loss of job	36	27	33
- loss of own money	46	35	42

Source: Global Entrepreneurship Monitor 2011

To examine risk taking by entrepreneurial employees in more detail, four types of risk were distinguished: loss of status, damage to career, loss of employment and loss of own money invested in the new activity. Damage to career is mentioned about equally in efficiency-driven and innovation-driven economies. Loss of status is mentioned more often in innovation-driven economies, whereas loss of job and loss of own money are mentioned more often in efficiency-driven economies. As for the latter finding, Table 4.7 suggests that in efficiency-driven economies possibly almost 25% of the entrepreneurial employees invest, in some way, money of their own in the new activity, whereas only about 10% of entrepreneurial employees in innovation-driven economies do so[40].

Table 4.8 deals with the relationship between the new activity and the incumbent organization in which the activity was initiated. First, the table shows that in a large majority of cases (70%) new business activities remain within the organization at which the entrepreneurial employee is employed. This holds most conspicuously for innovation-driven economies (80%). In the remaining cases a new legal entity has been or will be created. Secondly, the table shows that the technology of a new activity developed by entrepreneurial employees is most often (in almost 60% of cases) closely related to the core technologies of the employer. In one-third of the cases the technologies are partially related, and in only just over 10% of cases the technologies are not related.

[40] This can be seen by multiplying the figures in the first and last row of the table.

TABLE 4.8 RELATIONSHIP BETWEEN NEW ACTIVITY AND INCUMBENT ORGANIZATION

	Efficiency-driven economies	Innovation-driven economies	All economies
Business activity remains within organization	61	80	70
Legal entity new activity:			
- New legal entity has been created	24	12	18
- New legal entity will be created	16	8	12
Relatedness technology of activity (to core technologies employer)			
- closely related	57	59	58
- partially related	32	26	29
- not related	11	15	13

Source: Global Entrepreneurship Monitor 2011

Finally, Table 4.9 displays the level of support entrepreneurial employees receive from their employer when they come up with ideas for new goods or services. This question was asked to all employees in the 32 countries that participated in the optional special topic section of the adult population survey. Hence, this question enables us to compare the answers of the identified entrepreneurial employees and other employees. As is apparent from the table, the experiences of the entrepreneurial employees differ quite substantially from the perceptions or earlier experiences of other employees. In 40% of the cases entrepreneurial employees report that their employer is willing to provide some support, while more than 50% report a large extent of support. There are no significant differences between efficiency-driven and innovation-driven economies in this respect. These high levels of employer support may be one of the reasons why only 42% of the entrepreneurial employees report that they personally took any risks in getting involved in the new activity, as indicated in an earlier table. Finally, as is shown in the bottom half of the table, other employees (who are not entrepreneurial employees) report substantially lower levels of support from their employer than entrepreneurial employees.

TABLE 4.9 EXTENT TO WHICH EMPLOYER IS WILLING TO PROVIDE SUPPORT WHEN EMPLOYEES COME UP WITH IDEAS FOR NEW GOODS OR SERVICES

	Efficiency-driven economies	Innovation-driven economies	All economies
Employers of entrepreneurial employees			
- To large extent	53	53	53
- To some extent	38	40	39
- Not at all	9	7	8
Employers of other employees			
- To large extent	21	24	22
- To some extent	43	43	43
- Not at all	36	33	35

Source: Global Entrepreneurship Monitor 2011

ASPIRATIONS OF ENTREPRENEURIAL EMPLOYEE ACTIVITY

This section deals with the aspirations of entrepreneurial employee activity. First, Table 4.10, which is based on data for 52 economies, shows that entrepreneurial employees have substantially higher job expectations for their new business activity than nascent entrepreneurs and owner-managers of young businesses have for their new business. This observation holds for both efficiency-driven and innovation-driven economies. These job expectations may be related to relatively high aspiration levels and/or competence levels of entrepreneurial employees, as suggested by their high levels of education and income, and to better access to resources for achieving growth, as suggested by the high levels of employer support reported in the previous section.

TABLE 4.10 DISTRIBUTION OF FIVE-YEAR JOB EXPECTATION OF ENTREPRENEURIAL EMPLOYEES, NASCENT ENTREPRENEURS AND OWNER-MANAGERS OF YOUNG FIRMS, BY COUNTRY GROUP (IN %)

	No jobs/ employees	1-5 employees	6-19 employees	20 or more employees
Efficiency-driven economies				
Entrepreneurial employees	1	25	27	47
nascent entrepreneurs	6	49	28	18
owner-managers of young business	13	47	24	16
Innovation-driven economies				
Entrepreneurial employees	5	26	25	44
nascent entrepreneurs	16	47	21	17
owner-managers of young business	22	48	16	15

Source: Global Entrepreneurship Monitor 2011

In addition, we have asked all entrepreneurial employees in 32 countries to what extent the new activity involves a good or service that is new and unfamiliar to the customers of the entrepreneurial employee's organization. The answers are summarized in Table 4.11. Again, the answers of the entrepreneurial employees are compared with the answers of nascent entrepreneurs and owner-managers of young firms. The results suggest that, both in efficiency-driven and in innovation-driven economies, about 70% of the entrepreneurial employees introduce goods or services that are new to at least some of the organization's customers. In this respect entrepreneurial employees appear to be even more innovative than early-stage entrepreneurs, particularly in the innovation-driven economies.

TABLE 4.11 DISTRIBUTION OF NEWNESS OF PRODUCT/SERVICE TO CUSTOMERS, FOR ENTREPRENEURIAL EMPLOYEES, NASCENT ENTREPRENEURS AND OWNER-MANAGERS OF YOUNG FIRMS, BY COUNTRY GROUP (IN %)

	all	some	none
Efficiency-driven economies			
Entrepreneurial employees	28	43	29
nascent entrepreneurs	27	36	37
owner-managers of young business	24	33	42
Innovation-driven economies			
Entrepreneurial employees	30	38	32
nascent entrepreneurs	18	29	53
owner-managers of young business	14	27	59
All economies			
Entrepreneurial employees	29	41	30
nascent entrepreneurs	21	31	48
owner-managers of young business	19	31	50

Source: Global Entrepreneurship Monitor 2011

Finally, Table 4.12 takes another look at the innovativeness of entrepreneurial employees vis-à-vis early-stage entrepreneurs, again in 32 economies, by showing their perceptions of how many competitors are offering the same product or service to customers. Apparently, also in this sense the uniqueness of the products developed by entrepreneurial employees appears to be higher than the exclusiveness of the products offered by early-stage entrepreneurs. Again, this is particularly the case in innovation-driven economies. In these economies only one-third of entrepreneurial employees assess that many competitors are offering the same product or service to customers, while this holds for 44% of nascent entrepreneurs and for 58% of owner-managers of young businesses.

TABLE 4.12 DISTRIBUTION OF PERCEIVED COMPETITION OF PRODUCT/SERVICE, FOR ENTREPRENEURIAL EMPLOYEES, NASCENT ENTREPRENEURS AND OWNER-MANAGERS OF YOUNG FIRMS, BY COUNTRY GROUP (IN %)

	Many competitors	Few competitors	No competitors
Efficiency-driven economies			
Entrepreneurial employees	42	41	17
nascent entrepreneurs	50	40	11
owner-managers of young business	59	33	7
Innovation-driven economies			
entrepreneurial employees	34	48	18
nascent entrepreneurs	44	42	14
owner-managers of young business	58	34	8
All economies			
entrepreneurial employees	38	45	18
nascent entrepreneurs	51	38	10
owner-managers of young business	59	34	7

Source: Global Entrepreneurship Monitor 2011

4.5. National level correlations

Underlying mechanisms

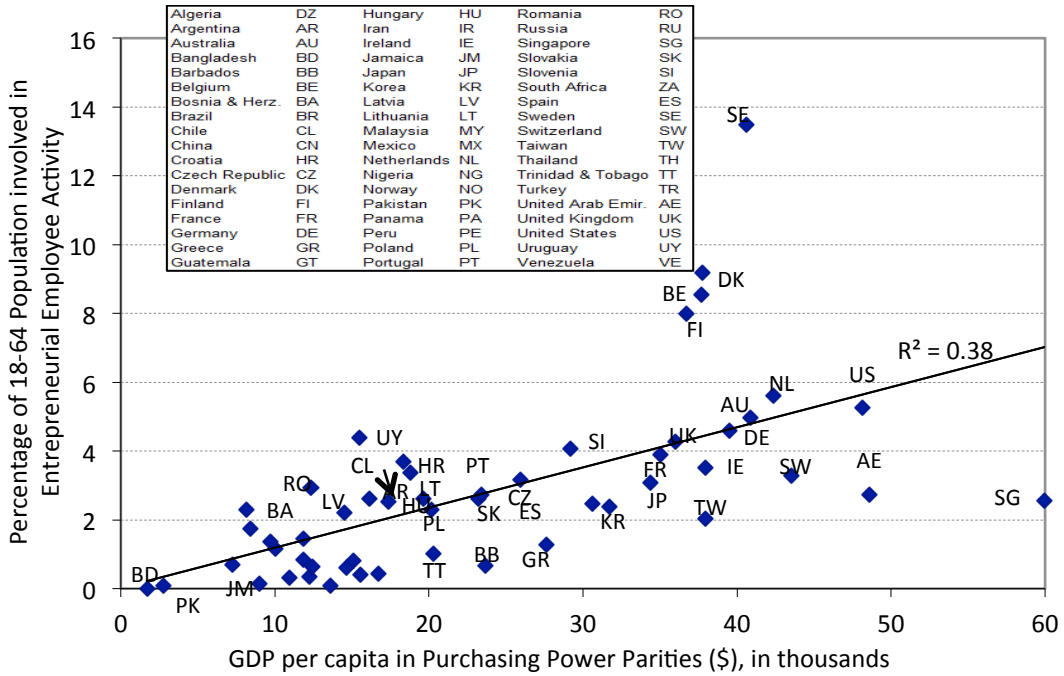
There is a literature claiming that entrepreneurship is an omnipresent aspect of human behavior, but that its manifestation depends upon the institutional environment (Baumol, 1990; Boettke and Coyne, 2003). This context includes institutions such as the rule of law, market infrastructure, employment regulation and the educational system, and is partly related to the level of economic development. The institutional environment also includes cultural aspects. In this view, the macro environment may influence individual choices towards one type of entrepreneurial behavior in favor of another through a number of channels. These channels include incentive structures driving individual decision-making and macro conditions facilitating or hampering individual choices. Against this background, entrepreneurial employee activity on the one hand and early-stage entrepreneurship, solo/low growth entrepreneurship and/or medium/high growth entrepreneurship on the other may sometimes be substitutes at the macro level. This expectation is to a large extent based on the contrasting patterns of entrepreneurial employee activity and independent early-stage entrepreneurship across the stages of economic development, as discussed in section 4.3. In addition it is based on possible contrary effects of specific institutions on the various types of entrepreneurship.

Correlation between entrepreneurial employee activity and per capita income

A recent paper (Bosma, Stam and Wennekers, 2011) hypothesizes the following underlying mechanisms related to the level of economic development. First, due to the relatively high share of adults formally employed in multi-person organizations in higher income countries (OECD, 2009), entrepreneurial employee activity may be more prevalent in these countries than in other economies. Additionally, the higher presence of larger firms associated with a higher level of economic development (Ghoshal et al., 1999) will have a negative effect on the prevalence of independent entrepreneurship in an economy (Choi and Phan, 2006; Parker, 2009). Secondly, the prevalence of entrepreneurial employee activity may positively correlate with a higher level of economic development due to a higher level of education in an economy. Indeed, in an empirical study of 179 employees and their peers, De Jong et al. (2011) find a significant positive correlation of higher education with a newly developed measure of “intrapreneurial behavior”. A third mechanism is the well-known positive effect of per capita income on the opportunity cost of independent entrepreneurship (Lucas, 1978). Due to rising real wages, ‘marginal’ entrepreneurs will increasingly opt for a wage job. This mechanism may also have a positive effect on entrepreneurial employee activity.

Against this conceptual background, a scatter plot in Figure 4.6 explores the empirical relationship between the national level incidence of entrepreneurial employee activity according to our narrow definition (EEA) and the level of economic development as measured by GDP per capita. The scatter plot suggests a positive empirical relationship between per capita income levels and entrepreneurial employee activity at the macro level, as discussed before. The correlation coefficient between EEA and GDP per capita is 0.61 and is highly significant. The correlation between private sector entrepreneurial employee activity (PEEA) and GDP per capita is even higher at 0.67. Descriptive statistical analysis also reconfirms the well-known negative correlation between independent entrepreneurship and per capita income levels at the macro level, as was also illustrated by Figure 2.3. The correlation coefficient between TEA and GDP per capita is -0.54, while between SLEA and GDP per capita it is -0.60 (both significant). On the other hand, the correlation between MHEA and GDP per capita is only slightly negative and is not significant. Other economic variables as well as institutional factors may also be correlated with national patterns of entrepreneurship, as we will see in the next section.

FIGURE 4.6 ENTREPRENEURIAL EMPLOYEE ACTIVITY AS A PERCENTAGE OF THE ADULT POPULATION (18-64 YEARS OF AGE) VERSUS GDP PER CAPITA



Source: GEM 2011 Adult Population Survey and IMF Economic Outlook Indicators (Version September 2011)

CORRELATIONS BETWEEN ENTREPRENEURIAL EMPLOYEE ACTIVITY AND OTHER VARIABLES

Apart from the level of economic development, specific institutions may also have contrasting correlations with independent entrepreneurship on the one hand and entrepreneurial employee activity on the other. In particular, a high level of employment protection and a high level of social security entitlements will add to the opportunity cost of independent entrepreneurship and might also enhance the prevalence of larger firms. Employees with safe jobs in existing firms will often think twice before starting a risky independent new business venture and may instead choose to exploit entrepreneurial opportunities as part of their activities as employees. While these institutional arrangements are somewhat positively linked to the level of economic development, they may also differ among countries with the same per capita income. In this respect economies on the European continent differ from Anglo-Saxon countries.

In addition, we expect that higher job autonomy for employees will correlate positively with the prevalence of entrepreneurial employee activity. We use the World Value Survey index for secular-rational (versus traditional) values as a proxy for a culture of autonomy (Ingelhart and Baker 2000)[41]. On the other hand, the effect of cultural traits on the rate of independent early-stage entrepreneurship seems to be quite complex. One view, the 'aggregate psychological traits explanation' for entrepreneurship, is based on the idea that if a society contains more people with 'entrepreneurial values', more people will be entrepreneurs (Davidsson, 1995; Shane, 1993). Another view, the 'push explanation' for entrepreneurship, assumes that variation in entrepreneurship is based upon differences in values and beliefs between the population as whole and potential entrepreneurs. It argues that, in a predominantly non-entrepreneurial culture, a clash of values between these groups may drive the latter away from the average (non-entrepreneurial) organization and into self-employment. In this vein, Baum et al. (1993) argue that not high but low individualism may stimulate self-employment. Correlations with cultural dimensions are therefore never obvious or trivial.

In Table 4.13 we present the correlation coefficients for EEA, PEEA, TEA, SLEA and MHEA with several social safety net indicators on the one hand and with various cultural dimensions on the other. The latter include the WVS-index for secular-rational values as well as specific perceptions and attitudes with respect to entrepreneurship derived from the GEM 2011 adult population survey.

As expected, entrepreneurial employee activity has a positive correlation with (perceived) employment protection and with several indicators of social security entitlements. This is in agreement with the view that high opportunity cost of independent entrepreneurship may stimulate enterprising employees to engage in their entrepreneurial behavior within an existing business. Correspondingly, we find a negative correlation between these social safety net indicators and TEA, although it is only significant for the old age, disability and death benefit index. In fact the correlations with most of these variables are only prominent for SLEA.

As for the influence of culture, Table 4.13 suggests that a culture of autonomy as measured by the index for secular-rational (versus traditional) values is positively related to entrepreneurial employee activity and negatively related to independent entrepreneurship. This latter finding confirms earlier results reported by Reynolds (2011: 369). Another interesting observation is that an attitude of 'Starting a business is a good career choice' as measured in the GEM adult population survey correlates negatively with entrepreneurial employee activity and positively with all three indicators of early-stage entrepreneurial activity.

[41] See www.wvs.org

TABLE 4.13 CORRELATION COEFFICIENTS BETWEEN INDICES OF ENTREPRENEURSHIP (IN % OF ADULT POPULATION), SOCIAL SAFETY NET INDICATORS AND CULTURAL DIMENSIONS *

	Entrepreneurial Employee Activity (EEA)	Private Sector Entrepreneurial Employee Activity (PEEA)	Total early-stage Entrepreneurial Activity (TEA)	Solo/Low Job Expectation early-stage entrepreneurial activity (SLEA)	Medium/High Job Expectation early-stage entrepreneurial activity (MHEA)
Social safety net indicators					
Social security laws index	0.44***	0.45***	-0.14	-0.33**	0.02
Old age, disability and death benefit index	0.38**	0.32**	-0.34**	-0.28*	-0.33**
Unemployment benefits index	0.39***	0.45***	-0.18	-0.39***	-0.01
Employment protection deters employees to start business (NES)	0.39***	0.37**	-0.15	-0.22	-0.15
Cultural dimensions					
Secular-rational (versus traditional) values	0.60***	0.64***	-0.57***	-0.64***	-0.38***
Perceived opportunities to start business	0.13	0.00	0.5***	0.53***	0.34**
Perceived skills to start business	-0.24*	-0.3**	0.62***	0.66***	0.39***
Fear of failure	0.14	0.22	-0.39***	-0.37***	-0.15
Starting business is good career choice	-0.41***	-0.49***	0.59***	0.64***	0.44***
High status to successful entrepreneurs	-0.17	-0.22	0.29**	0.43***	0.15

For definitions and sources of the measures, see Annex I
Note: * denotes p<.10, ** p<.05, *** p<.01

Next, Table 4.14 investigates the possible correlations between overall EEA, private sector EEA, TEA, SLEA and MHEA on the one hand, and various other economic and/or institutional variables on the other. First, income inequality was found to have a negative correlation with entrepreneurial employee activity and a positive correlation with all three measures of early-stage entrepreneurial activity. The possible underlying relationships are probably quite complex and causalities may run either way.

Next, there appears to be a clear pattern of positive association between EEA and political stability, economic freedom and investment freedom, while these latter variables tend to correlate negatively (or not at all) with the indices of independent entrepreneurship. In addition, the availability of informal investment shows a well-known positive correlation with independent entrepreneurship but has no apparent empirical relationship with EEA. Finally, perceived employer support for employees who come up with new ideas and a perception that entrepreneurs have much lower access to social security than employees both clearly and understandably associate positively with a higher prevalence of entrepreneurial employee activity.

TABLE 4.14 CORRELATION COEFFICIENTS BETWEEN INDICES OF ENTREPRENEURSHIP (IN % OF ADULT POPULATION) AND VARIOUS OTHER VARIABLES

	Entrepreneurial Employee Activity (EEA)	Private Sector Entrepreneurial Employee Activity (PEEA)	Total early-stage Entrepreneurial Activity (TEA)	Solo/Low Job Expectation early-stage entrepreneurial activity (SLEA)	Medium/High Job Expectation early-stage entrepreneurial activity (MHEA)
Income inequality (Gini index)	-0.48***	-0.52***	0.72***	0.69***	0.48***
Political Stability	0.67***	0.76***	-0.45***	-0.57***	-0.25*
Economic Freedom	0.47***	0.52***	-0.16	-0.21	-0.07
Investment Freedom	0.49***	0.52***	-0.07	-0.11	-0.02
Informal investment prevalence rate (GEM 2011 APS)	0.05	0.01	0.49***	0.29**	0.68***
Employer support for employees to come up with new ideas (NES; N=32)	0.52***	0.5***	0.1	-0.15	0.22
Entrepreneurs have much lower access to social security than employees (NES; N=32)	0.49***	0.46***	-0.12	-0.12	-0.18

For definitions and sources of the measures, see Annex I
Note: * denotes p<.10, ** p<.05, *** p<.01

Correlations between entrepreneurial employee activity and independent early-stage entrepreneurial activity

Table 4.15 presents the correlation coefficients between overall entrepreneurial employee activity (EEA), private sector entrepreneurial employee activity (PEEA), TEA, SLEA and MHEA. First, EEA and PEEA are very strongly and positively correlated as was already shown in Figure 4.4. Likewise, the two types of early-stage entrepreneurial activity (SLEA and MHEA) are positively correlated with each other, and they are both very strongly correlated with total early-stage entrepreneurial activity (TEA). Second, it turns out that entrepreneurial employee activity is negatively and quite significantly correlated with TEA and with solo/low job expectation early-stage entrepreneurial activity (SLEA), and negatively but only mildly significantly with medium/high job expectation early-stage entrepreneurial activity (MHEA). These patterns seem to match well with the contrasting correlations for entrepreneurial employee activity and independent entrepreneurial activity reported in Tables 4.13 and 4.14. At the macro level these patterns and correlations certainly support the notion that entrepreneurship in organizations may, to some extent, replace independent entrepreneurial activity as an alternative mode of exploitation of entrepreneurial opportunities. On the other hand, some of these correlations are rather loose and leave ample room for other distinct patterns at the level of individual countries. Accordingly, as we will discuss in section 4.6, there are also several examples of economies where high or low rates of entrepreneurial activity go together in several forms.

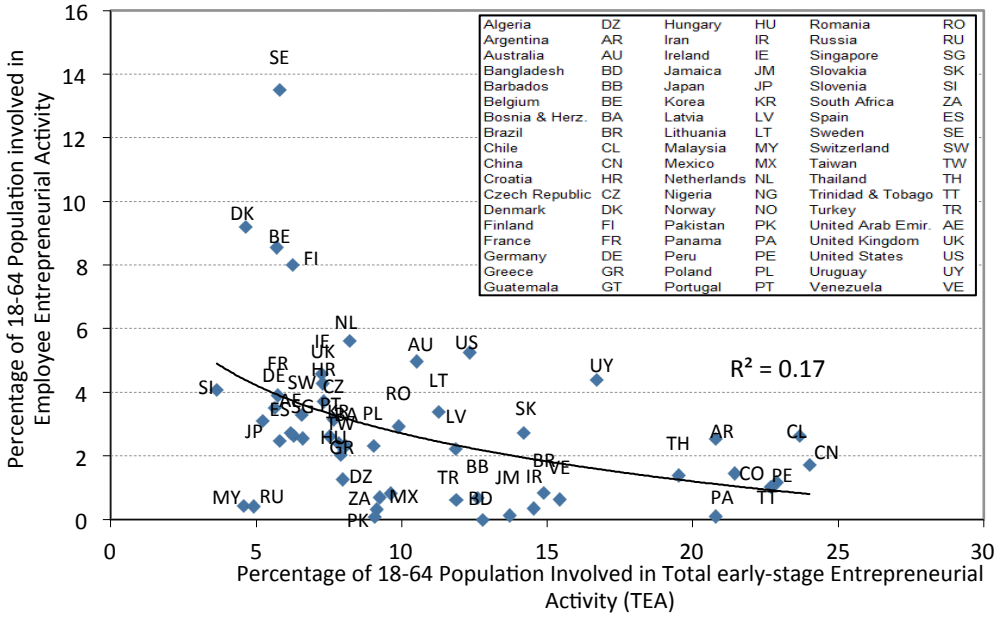
TABLE 4.15 CORRELATION COEFFICIENTS BETWEEN FIVE INDICES OF ENTREPRENEURSHIP

	Private Sector Entrepreneurial Employee Activity (PEEA)	Total early-stage Entrepreneurial Activity (TEA)	Solo/Low Job Expectation early-stage entrepreneurial activity (SLEA)	Medium/High Job Expectation early-stage entrepreneurial activity (MHEA)
Entrepreneurial employee activity (EEA)	0.97***	-0.37***	-0.46***	-0.24*
Private Sector Entrepreneurial Employee Activity (PEEA)		-0.42***	-0.54***	-0.24*
Total early-stage Entrepreneurial Activity (TEA)			0.88***	0.72***
Solo/Low Job Expectation early-stage entrepreneurial activity (SLEA)				0.43***

Source: Global Entrepreneurship Monitor 2011
Note: * denotes p<.10, ** p<.05, *** p<.01

Finally, Figure 4.7 plots the incidence of entrepreneurial employee activity (EEA) against the prevalence of independent early-stage entrepreneurial activity (TEA). The figure again suggests that at the macro-level entrepreneurial employee activity and independent entrepreneurship appear to be substitutes rather than complements. Overall, the correlations and scatter diagrams reported in this section once more confirm that given a 'supply of entrepreneurial inclination/behavior', it may depend on various contextual determinants, such as the level of economic development, the institutional framework and management styles within organizations (possibly related to national culture), whether entrepreneurial individuals pursue their aspirations within a business or choose to start up for themselves (cf. Dew et al. 2004). However, at the same time Figure 4.7 indicates once more that in 2011 there were also some countries that have a relatively low or relatively high rate of *both* entrepreneurial employee activity and independent early-stage entrepreneurship. These and other patterns will be discussed in the next section.

FIGURE 4.7 THE PREVALENCE OF EEA AND TEA, PERCENTAGE OF THE ADULT POPULATION (18-64 YEARS OF AGE)



Source: Global Entrepreneurship Monitor 2011

4.6 A TYPOLOGY OF ECONOMIES BASED ON ENTREPRENEURSHIP PATTERNS

Table 4.16 shows how the 52 countries for which sufficient data are available can be distributed across the eight types of economies (numbered A through H) introduced in section 1.4. This typology is based on the country scores for three dimensions, i.e. medium/high job expectation early-stage entrepreneurial activity MHEA, as a reflection of ambitious entrepreneurship (based on medium/high five-year job expectations of five or more jobs, averages 2009-2011), solo/ low job expectation early-stage entrepreneurial activity SLEA, as a reflection of less ambitious entrepreneurship (based on five-year job expectations of 0-4 jobs, averages 2009-2011), and entrepreneurial employee activity EEA (in 2011). The choice to opt for job-expectations has been made on two grounds: first, this is the most objective impact indicator that is available from the GEM surveys and hence most reliable for international comparisons. Additionally, many studies of ambitious entrepreneurship focus on job growth expectations or realizations (Levie and Autio, 2011; Stam et al., 2012).

For each of the three dimensions we distinguish, as a first attempt towards a meaningful typology, between scores below the median ('low') and above the median ('high'). Medium/high job expectation (early-stage) entrepreneurial activity (MHEA) ranges from 1.1 to 10.8 %, with a median of 3.0. Solo/low job expectation (early-stage) entrepreneurial activity (SLEA) ranges from 2.2 to 16.1 %, with a median value of 4.7 %. Entrepreneurial employee activity (EEA) ranges from slightly more than zero to 13.5 %, with a median value of 2.5.

TABLE 4.16 TYPES OF ECONOMIES BASED ON PREVALENCE RATES OF THREE DIMENSIONS OF ENTREPRENEURIAL ACTIVITY, I.E. MEDIUM/HIGH JOB EXPECTATION EARLY-STAGE ENTREPRENEURIAL ACTIVITY (MHEA), SOLO/LOW JOB EXPECTATION EARLY-STAGE ENTREPRENEURIAL ACTIVITY (SLEA) AND ENTREPRENEURIAL EMPLOYEE ACTIVITY (EEA)

	SLEA: high prevalence	SLEA: low prevalence
MHEA: high prevalence EEA: high prevalence	Type A Argentina (c) Australia (b) Chile (c) Lithuania (b) Netherlands* (a) Slovakia (c) United States Uruguay	Type B Czech Republic (a,b,c) Hungary (a,c) Ireland (a) Romania (c) Singapore (a,c) Taiwan* (c) UAE (c)
MHEA: high prevalence EEA: low prevalence	Type C Algeria (a) Brazil (a) China Colombia Iran Latvia (b,c) Peru Poland (b) South Africa (b) Thailand Trinidad & Tobago Turkey* (b) Venezuela (a)	Type D
MHEA: low prevalence EEA: high prevalence	Type E	Type F Belgium (b) Croatia (a) Denmark Finland (b) France Germany Japan (c) Portugal (a,b,c) Slovenia Sweden (b) Switzerland (b,c) UK (a,b)
MHEA: low prevalence EEA: low prevalence	Type G Bangladesh (a) Barbados (a) Greece Jamaica Mexico (a) Pakistan Panama	Type H Bosnia & Herzegovina (a,b,c) Korea Rep. (a,b,c) Malaysia Russia Spain (c)

Source: Global Entrepreneurship Monitor 2011

Notes: (a) indicates border case MHEA, (b) indicates border case SLEA, (c) indicates border case EEA;
* The Netherlands was originally placed in Type E, while Taiwan and Turkey were originally placed in Type D (also see footnote on next page).

The resulting eight possible combinations range from high/high/high to low/low/low. These combinations or types of economies are summarized below.

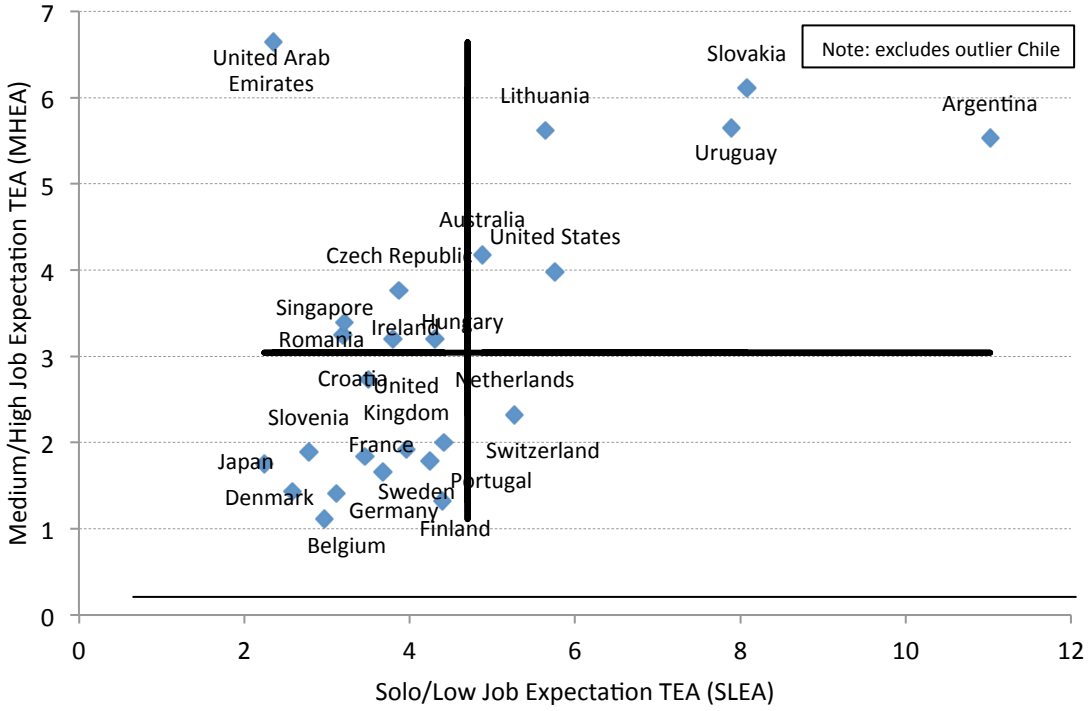
Type A: high prevalence of three types of entrepreneurial activity (SLEA, MHEA and EEA)
Type B: high prevalence of medium/high job expectation entrepreneurship (MHEA) and high prevalence of entrepreneurial employee activity (EEA)
Type C: high prevalence of solo/low job expectation entrepreneurship (SLEA) and high prevalence of medium/high job expectation entrepreneurship (MHEA)
Type D: high prevalence of medium/high job expectation entrepreneurship (MHEA) only
Type E: high prevalence of solo/low job expectation entrepreneurship (SLEA) and high prevalence of entrepreneurial employee activity (EEA)
Type F: high prevalence of entrepreneurial employee activity (EEA) only
Type G: high prevalence of solo/low job expectation entrepreneurship (SLEA) only
Type H: low prevalence of three types of entrepreneurial activity (SLEA, MHEA and EEA)

For six of these eight types we found five or more economies in our dataset that fit the definition[42]. We first discuss the high EEA countries in Type A, B and F (See Figure 4.8). Category F (high entrepreneurial employee activity only) includes eleven (mainly Western) European countries plus Japan, of which all but one are innovation-driven economies. Apparently a low MHEA - high EEA combination is a typically European phenomenon that also matches well with low SLEA but not easily with high SLEA (Type E). Some underlying distinct characteristics, including high per capita income, high social security entitlements and a secular-rational culture, will be discussed below. Eight economies have a high prevalence in all three dimensions of entrepreneurship (Type A). These include Argentina, Australia and the US. Another seven countries (Type B) combine a high rate of EEA with a high rate for MHEA and a low rate for SLEA. They include Czech Republic, Singapore and UAE. The countries in both Types A and B are all either efficiency-driven or innovation-driven economies.

The low entrepreneurial employee activity countries are distributed across the Types C, G and H (see Figure 4.9). Type C is the most abundant of all types and counts 13 countries which are all high in both SLEA and MHEA. These are mostly efficiency-driven economies but also include three factor-driven economies. Geographically this category is quite dispersed, particularly including several countries in Asia and Latin America. Below we will investigate which underlying social and/or economic characteristics these economies may have in common. Type G combines low MHEA and low entrepreneurial employee activity with high SLEA. This group consists of four Latin American countries, plus Pakistan, Bangladesh and one European country (Greece). Finally, Type H represents the five countries with low scores for all three entrepreneurship types. These are Bosnia & Herzegovina, Korea, Malaysia, Russia and Spain. Just like the countries Type G, these are both economically and geographically quite dispersed.

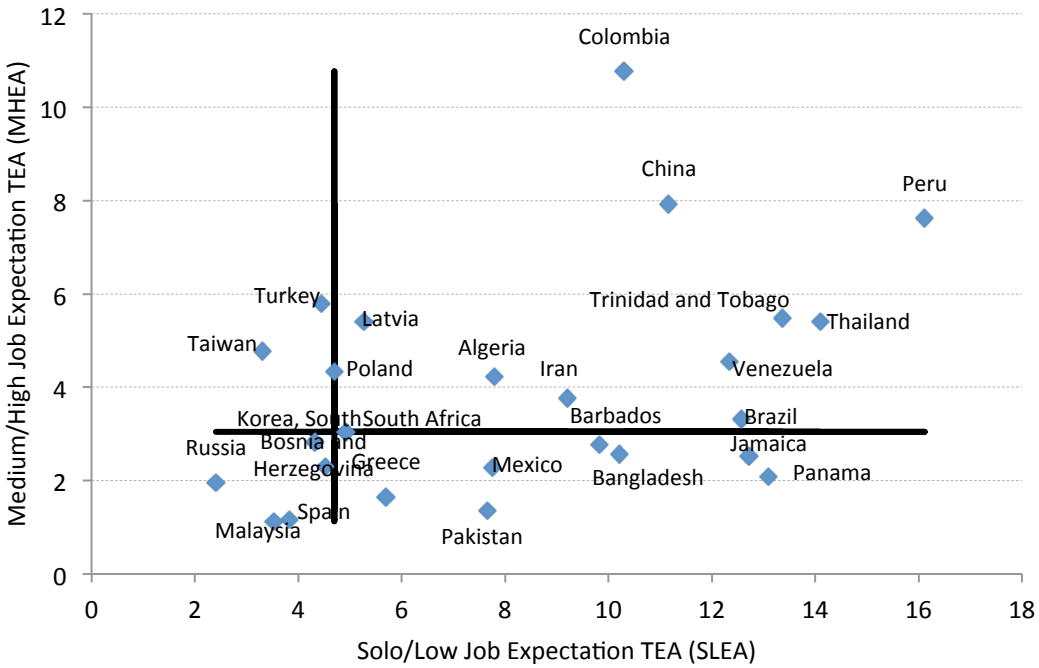
[42] In order to avoid near-empty categories, three of the countries that did not differ significantly from another group in at least one dimension (so-called border cases) were classified in the most nearby group. This concerns Netherlands (originally placed in E but classified in A), Taiwan (originally placed in D but classified in B) and Turkey (originally placed in D but classified in C).

FIGURE 4.8 HIGH EEA COUNTRIES: PATTERNS OF AMBITIOUS AND UNAMBITIOUS ENTREPRENEURSHIP



Source: Global Entrepreneurship Monitor 2009-2011

FIGURE 4.9 LOW EEA COUNTRIES: PATTERNS OF AMBITIOUS AND UNAMBITIOUS ENTREPRENEURSHIP



Source: Global Entrepreneurship Monitor 2009-2011

DISTINCT CHARACTERISTICS OF THE TYPES OF ECONOMIES

In this subsection we will have a more in-depth look at the six types of economies discussed above, based on various indicators including GDP per capita, income inequality, social security index, secular-rational cultural values, employer support for new ideas proposed by employees, and some other indicators. See Table 4.17.

1. Type F (high EEA*, low MHEA and low SLEA).*

This group, consisting of 11 European countries plus Japan, has on average several characteristics that as a whole set them clearly apart from the other groups. First, they combine a high average per capita income with the most secular-rational values (a proxy for job autonomy) of all groups, which helps to explain their high entrepreneurial employee activity rate as well as their low rate of independent entrepreneurship. They also have the lowest income differences and the highest social security index, which further contributes to explaining their patterns of entrepreneurship. These influences are consistent with the correlations in section 4.5. Further evidence can be found in a large emphasis on education in innovative behavior (a GEM NES-based measure) and a medium/high degree of employer support for bottom-up initiatives. Two other typical aspects of the countries in this group are a high fear of failure preventing people to start their own business and a low rate of informal investment provided for new. While on average group F thus appears to be a very clear and economically, institutionally and culturally deeply rooted typology, it is important to point out that the group is in some aspects also quite heterogeneous. For one thing per capita income ranges from $ 18,300 to 43,500 (on a scale from 1,700 to 59,900 for the whole sample). Another example is some variety in secular-rational values.

2./3. Type A (high on all three types of entrepreneurship) and type B (high EEA and high MHEA)

Type A and B have high rates of entrepreneurial employee activity and ambitious entrepreneurship (MHEA) in common. They differ in their degree of SLEA (high for type A and low for type B). Both groups are in the upper half of the GDP per capita spectrum, have a relatively high social security index and a relatively high degree of employer support for bottom-up initiatives, which helps to explain their high rate of entrepreneurial employee activity. On the other hand, type A combines a (comparatively) lower per capita income with higher income differences than type B. This finding is consistent with their differing degrees of SLEA. Finally, Type A has a higher rate of informal investment provided for new business as compared to Type B, and a slightly lower fear of failure preventing people to start their own business.

4./5./6.The low entrepreneurial employee activity *country Types C, G and H.*

These three country types share several underlying characteristics which set them apart from the high EEA countries in A, B and F. These are a relatively low per capita income, a low social security index, a high number of procedures to start an incorporated business, a high rate of necessity entrepreneurship, a low degree of employer support for bottom-up initiatives and little emphasis in education on innovative behavior. Nonetheless, each of these country types also has some idiosyncrasies. Type C, which has high ambitious and non-ambitious entrepreneurship, shows a high rate of informal investment provided for new business and emphasizes traditional values. Type G, which has high non-ambitious but low ambitious entrepreneurship, has the lowest social security index, a strong emphasis on traditional values, a relatively low fear of failure and a relatively low rate of informal investment provided for new business. Finally, Type H, which is low in all types of entrepreneurship, has the following distinctive characteristics. Compared with Types C and G, it has a relatively high per capita income, a relatively low-income inequality, a relatively high emphasis on

secular-rational values, a very low rate of informal investment provided for new business and a high rate of necessity entrepreneurship.

TABLE 4.17 DISTINCT CHARACTERISTICS: MEAN VALUES FOR 16 VARIABLES IN 6 GROUPS

	Group A	Group B	Group C	Group F	Group G	Group H
GDP Per Capita in Purchasing Power Parities (IMF 2011)	27,811	34,845	12,333	34,192	13,351	20,563
GiniIndex	40	32	46	31	42	34
Economic Freedom Index	70	70	58	69	62	57
Social Security Laws Index	0.70	0.68	0.61	0.74	0.53	0.62
Secular-rational values	0.00	0.20	-0.49	0.73	-0.46	0.34
Provided funds for new business in past 3 years excl stocks & funds (% 18-64 pop)	8.7	4.9	6.2	3.8	4.0	3.3
Financial Freedom	70	73	53	67	61	46
World Bank Doing Business: number of procedures to start	5.0	5.1	8.7	5.0	7.5	8.0
TEA: necessity (% in sample of early-stage entrepreneurs)	22	25	32	16	26	33
TEA and Improvement Driven Opportunity Motive (% 18-64 pop)	48	47	42	58	43	42
Owns-manages business with income>3.5 years (% 18-64 pop)	8.4	4.6	8.6	6.3	7.1	6.6
Fear of failure would prevent starting a business (% 18-64 pop)	39	42	36	43	37	42
NES: Employers provide support to employees who come up with new ideas	3.1	3.3	2.8	3.1	3.0	3.1
Employer gives at least SOME support when employees come with new ideas	73	68	59	70	61	62
NES: The education system emphasizes innovative and pro-active behavior of individuals in general	2.3	2.7	2.1	2.4	2.2	2.3
NES: Physical infrastructures and services access (summary)	4.0	4.0	3.4	4.1	3.5	3.6

5. CONCLUSIONS

This extended edition of the 2011 Global Entrepreneurship Monitor (GEM) Report gives a detailed account of the state of entrepreneurship in 54 economies across the globe, identifying different types and multiple phases of entrepreneurial activity. Two major types are necessity and improvement-driven opportunity entrepreneurship. Other types are related to differences in growth expectation, innovativeness and international orientation. Phases of entrepreneurial activity covered by GEM are entrepreneurial intentions, nascent entrepreneurship, new business ownership, established business ownership and discontinuation of businesses. The report also pictures a wide variety of profiles exhibited by individuals participating in entrepreneurial activity. Individual characteristics discussed in this report include age, gender and education, as well as relevant attitudes and perceptions. Additionally, at the macro level this report assesses a large set of relevant entrepreneurial framework conditions for all countries participating in GEM. By adopting a harmonized data collection approach to assess individuals' attitudes, activity and aspirations and the state of entrepreneurial framework conditions in the participating economies, GEM offers unique information that can be used to compare economies across the globe and to observe changes in the economies' entrepreneurial profiles over time.

The special topic chosen for GEM in 2011 was entrepreneurial employee activity[43], and 52 of the 54 economies participating in the 2011 GEM cycle also adopted the special topic. This exploratory investigation represents a modern view that considers entrepreneurial exploitation by existing organizations and by new business start-ups as two alternative modes of entrepreneurship. We have operationalized entrepreneurial employee activity (EEA) as 'employees developing new activities for their main employer, such as developing or launching new goods or services, or setting up a new business unit, a new establishment or subsidiary'. The focus is on individuals who have a leading role in the creation and/or implementation of these new business activities, while including activities initiated by the organizations' top levels as well as those emerging from the bottom levels and up. This definition of entrepreneurial employee activity is wider than new organization creation, but excludes employee initiatives that mainly aim at optimizing internal work processes. The report acknowledges entrepreneurial employee activity as a separate type of entrepreneurship in its own right.

The investigations carried out for this 2011 cycle show that differences in level of economic development across countries as well as differences in national culture and institutions are often associated with varying balances between the types and phases of entrepreneurial activity identified in this report. The major conclusions of these investigations are summarized below.

PATTERNS OF ENTREPRENEURIAL ACTIVITY ARE NOT RANDOM

This report compared three different types of entrepreneurship: ambitious early-stage entrepreneurial activity in the sense of medium / high job expectations (MHEA), solo / low job expectation early-stage entrepreneurial activity (SLEA) and entrepreneurial employee activity (EEA) in each of the 52 countries that have participated in both the regular GEM cycle and the special topic study.

[43] Entrepreneurial employee activity is loosely related to but not synonymous with the concepts intrapreneurship or corporate entrepreneurship. See section 4.1.

Solo / low job expectation early-stage entrepreneurial activity (SLEA) tends to be lower at higher levels of economic development. Nonetheless, it is the most prevalent type of independent entrepreneurial activity even in the innovation-driven economies, ranging between an average incidence of 10.8% in the adult population of factor-driven countries and 3.9% in innovation-driven economies. Ambitious early-stage entrepreneurial activity in the sense of medium / high job expectation (MHEA) is substantially less prevalent at an average of 3 to 4% of the adult population and displays a less clearly delineated pattern across stages of economic development. The correlation between SLEA and GDP per capita is -0.60 and significant, while the correlation between MHEA and GDP per capita is only slightly negative and is not significant.

EEA is not a very widespread phenomenon. On average, only about 3% of the adult population and 5% of the employees in the sample are currently involved in this activity, but its prevalence differs markedly across individual countries, from slightly more than zero to almost 14%. EEA is most prevalent in the innovation-driven economies and least prevalent in the factor-driven economies. In addition, a descriptive statistical analysis shows a highly significant correlation coefficient of 0.61 between EEA and per capita income. The correlation with private sector EEA is even higher at 0.67. The pattern of entrepreneurial employee activity across the stages of economic development is thus the reverse of the negative correlation between GDP per capita and the prevalence of early-stage entrepreneurial activity (correlation coefficient -0.54 and significant), which was also observed in earlier GEM reports.

In addition, entrepreneurial employee activity was observed to have a positive correlation with (perceived) employment protection and with several indicators of social security entitlements. This is in agreement with the view that high opportunity cost of independent entrepreneurship may stimulate enterprising employees to engage in their entrepreneurial behavior within an existing business. A national culture that could be expected to promote job autonomy was also found to be positively related to entrepreneurial employee activity. Finally, EEA was observed to correlate positively with perceived employer support for employees who come up with new ideas.

Entrepreneurial employee activity EEA was found to be negatively and significantly correlated with TEA (correlation coefficient -0.37), with SLEA (correlation coefficient -0.46) and with MHEA (correlation coefficient -0.24). These patterns and correlations suggest that entrepreneurship in organizations may, to some extent, replace independent entrepreneurial activity as an alternative mode of exploitation of entrepreneurial opportunities. On the other hand, as discussed below, there are also many examples that high or low rates of entrepreneurial activity may go together in several forms.

A TYPOLOGY OF ECONOMIES BASED ON ENTREPRENEURSHIP PATTERNS

This report has also classified the 52 countries by distinguishing between scores below the median ('low') and above the median ('high') for EEA, SLEA and MHEA. The resulting eight possible combinations range from high/high/high to low/low/low. For six of these eight types five or more economies were found in our dataset. Eight economies including Argentina, Australia and the US have high scores on all three types of entrepreneurship. Seven countries, including Czech Republic, Singapore and the UAE, combine a high rate of EEA with a high rate for MHEA and a low rate for SLEA. The category with high entrepreneurial employee activity but low rates of both SLEA and MHEA includes eleven (mainly Western) European countries plus Japan. Apparently a combination of high EEA with low SLEA and MHEA is a typically European phenomenon. Next, the countries with low entrepreneurial employee activity are distributed across three types depending on their scores for SLEA and MHEA. On the whole these three types share several underlying characteristics which set

them apart from the high EEA countries, including a relatively low per capita income, a low social security index, a high number of procedures to start an incorporated business, a high rate of necessity entrepreneurship, a low degree of employer support for bottom-up initiatives and little emphasis in education on innovative behavior. In addition, each of these three types also has some idiosyncratic characteristics. More research is needed to understand these idiosyncrasies.

Finally, with respect to the innovation-driven economies it is interesting to note that the countries with the highest levels of EEA in their adult populations are among those with the lowest TEA rates: Denmark, Belgium, and Sweden. This is in line with the notion that entrepreneurship in organizations may, to some extent, replace independent entrepreneurial activity. However, at the same time, the three innovation-driven economies with the highest TEA rates—the United States, Australia and the Netherlands—also have high entrepreneurial employee activity, indicating that high rates of entrepreneurial activity may also coexist in both forms. Our descriptive correlation analysis suggests that these varying patterns may be partly related to the degree of social security in a country, to the prevailing attitudes towards entrepreneurship as a career choice, to the degree of employer support for employees who come up with new ideas, and to other economic and institutional characteristics.

THE STATE OF ENTREPRENEURSHIP AT THE NATIONAL LEVEL

The GEM 2011 Adult Population Survey (APS) enables assessments of entrepreneurial attitudes, activities and aspirations, by discerning several types and phases of entrepreneurship. One interesting finding relative to phases is the high, then steeply dropping, TEA level that occurs in moving from low to high economic development levels while established business ownership remains relatively stable. This suggests that, in the early development stage economies, there are many individuals starting businesses but fewer sustaining them. Conversely, the developed economies have an equivalent number of established business owners with relatively few starting up.

An examination of reasons for discontinuation may shed some additional light on the above finding. Individuals discontinuing businesses in the factor and efficiency-driven economies most often cited negative reasons (lack of profitability and trouble obtaining finance). Alternatively, people in innovation-driven economies were more likely than those in the other two development levels to have positive explanations for leaving their businesses (retirement, sale or another opportunity).

GEM's emphasis on the concept of entrepreneurship profile illustrates the diversity of entrepreneurial activity operating within and across economies. This report showed considerable variation in early-stage entrepreneurship participation rates of women compared to men, for example. Both high and low participation rates among women relative to men could be found in all three economic development levels and across many geographic locales. The reasons for these wide swings are likely complex and context specific. The indicators related to entrepreneurial aspirations clearly illustrate the importance of focusing beyond numbers of entrepreneurs toward the contribution they make in their societies.

For efficiency-driven and innovation-driven economies that have participated regularly in GEM in the past ten years, some trends were explored by analyzing time developments in GEM indicators on entrepreneurial attitudes, activities and aspirations. For both types of economies, the indicator of perceived opportunities exhibits a clear business cycle pattern, with lower values in 2008 and 2009. For innovation-driven economies the dip in perceived opportunities to start a business coincided with a drop in intentions to start businesses and in early-stage entrepreneurial activity. Such a drop was, in general, not observed in efficiency-driven economies. Here entrepreneurial intentions and early-stage entrepreneurial activity remained rather stable, before taking off to an overall high in 2011.

The general increase in early-stage entrepreneurial activity as witnessed in efficiency-driven countries seems, adopting this very simple descriptive type of analysis, to be carried by both less ambitious types of entrepreneurship (SLEA) and ambitious types of entrepreneurship. On the contrary, the exercise for innovation-driven countries, in particular the second one that includes only those countries that have successfully participated, points at a rather stable percentage of ambitious entrepreneurship (MHEA) and a slowly increasing rate of non-ambitious entrepreneurship (SLEA).

Finally, the analysis shows that employees who are involved in EEA have substantially higher job growth expectations for their new business activity than independent nascent and new entrepreneurs. In addition, about 70% of the entrepreneurial employees introduce goods or services that are new to at least some of the organization's customers. In this respect, EEA appears to be more innovative than early-stage entrepreneurial activity.

CONDITIONS FOR ENTREPRENEURSHIP

The GEM National Expert Survey (NES) provides detailed information on the institutional framework that shapes the entrepreneurship activities around the word. The GEM model posits that different institutional environments (economic, political and social) create different Entrepreneurial Framework Conditions (EFCs) that may vary among different types of economies and may evolve along with economic development. The GEM model defines 12 basic EFCs shaping entrepreneurship dynamics in economies. Even though patterns vary considerably across economies, in general experts in more economically developed countries gave higher ratings to EFCs. This is consistent with the notion underlying the GEM model that EFCs have higher priorities among more developed countries. In particular national policy-regulation, government programs and physical infrastructure are assessed most favorably in innovation driven economies. For other EFCs, such as post-school entrepreneurship education, the dynamics of internal market, and cultural and social norms, the observed pattern is a rather mixed one.

This report also shows that the EFCs may help to better understand some attitudes, activities and aspirations indicators. Correlation analyses show that higher rates on specific EFCs are loosely related with higher rates of entrepreneurship indicators based on the GEM Adult Population Survey. For example, there appears to be a positive and significant association between adult population recognition of opportunities and the experts opinions about opportunities existence in the economy. Also, gender gaps related to entrepreneurship as observed by the experts are positively correlated with general indicators of gender gaps. Still, the correlation is far from 100 percent, meaning that for some economies a relative strength of women entrepreneurs may contribute to reducing the general gender gap, while for other countries gender gaps are relatively large in the area of entrepreneurship.

More specific analyses using the extended NES database – also allowing observation of changes over time – could be useful for policy makers and will also have important implications for entrepreneurship education. In particular, time series analysis opens interesting lines for future research.

CHARACTERISTICS OF ENTREPRENEURIAL INDIVIDUALS

As in earlier GEM reports, the age distribution of early-stage entrepreneurs was found to follow an inverted U-shape pattern. The pattern is roughly similar for the three phases of economic development, although some differences between individual countries should be noted. The age distribution of entrepreneurial employees follows a broadly similar inverted U-shape pattern, with highest prevalence rates in the age groups between 25 and 54 years of age. However, within this

latter age range entrepreneurial employee activity generally peaks at higher ages than early-stage entrepreneurship.

Women's involvement in early-stage entrepreneurship varies greatly across the globe. In most of the 54 economies surveyed entrepreneurship rates are lower among women relative to men, while in eight countries in our sample the rates of female early-stage entrepreneurship are comparable to their male equivalents. Likewise, entrepreneurial employee activity is also more prevalent among men than among women.

The probability of being involved in early-stage independent entrepreneurial activity increases with levels of educational attainment for efficiency- and innovation-driven economies. For factor-driven economies, the highest education levels show, on average, somewhat lower prevalence rates in TEA. Entrepreneurial employee activity seems to be an activity that is even more suitable for higher educated employees. This finding is partly related to the human capital requirements of innovation activity. In addition, higher job levels offer more autonomy to employees and provide better opportunities to develop social networks, which may both be conducive to entrepreneurial employee activity.

Next, this report addressed the question to what extent employees who are actively involved in new business activity may be regarded as 'entrepreneurial'. Compared with other employees, individuals who are involved in EEA are significantly more likely to perceive entrepreneurial opportunities and believe they have the capabilities for starting a business, and they are less likely to state that fear of failure would prevent them from starting a business. On the whole the entrepreneurial perceptions of entrepreneurial employees are remarkably similar to those of early-stage independent entrepreneurs. Entrepreneurial employees are also far more likely than other employees to be actively involved in setting up a new independent business which they will own and manage. Thus, while some entrepreneurial employees opt for entrepreneurial employee activity instead of self-employment in order to limit their risks or to receive material support from their employer for developing their idea, it appears that entrepreneurial employee activity can also be a stepping stone towards founding one's own business at a later stage.

Overall, it can be concluded that, on average, employees who are actively involved in new business activities for their employer share many characteristics with early-stage independent entrepreneurs. This pertains to some major demographic characteristics as well as to the entrepreneurial attitudes and perceptions reviewed in this study. With respect to these latter variables, entrepreneurial employees also differ significantly from other employees. Of course these observations do not preclude that entrepreneurial entrepreneurs may differ from independent entrepreneurs in other respects. For one thing, entrepreneurial employees have substantially higher job expectations for their new activity than nascent entrepreneurs and owner-managers of young businesses have for their new business. Entrepreneurial employees also appear to be more innovative than early-stage entrepreneurs, particularly in the innovation-driven economies.

IMPLICATIONS

Policymakers and academics around the globe may want to assess the entrepreneurial profile of their country against the background of the various overall patterns observed in this report. This holds for many aspects, including the inclusiveness of the entrepreneurial ecosystem, the shares of necessity and improvement-driven opportunity entrepreneurship, the degree of innovativeness and international orientation of early-stage entrepreneurs and the rate of business discontinuation. In particular, responsible authorities may also want to take a closer look at the balance in their country between the prevalence of medium/high job growth expectations entrepreneurial activity (MHEA),

solo/low job growth expectations early-stage entrepreneurial activity (SLEA) and entrepreneurial employee activity (EEA), and view it from the perspective provided in this report. Some initial indications of such comparative entrepreneurial profiles are provided in the 54 country summary sheets, included in this report and available for download at www.gemconsortium.org.

Policymakers may also want to benchmark the entrepreneurial framework conditions in their country vis-a-vis the conditions in other countries in their geographical region or at a comparable level of economic development as reported in chapter 3. In addition, and given that entrepreneurship exists in multiple phases, policy makers, practitioners, and academics may turn their attention to the unique needs of individuals at particular points in the entrepreneurial process. Initiatives may address how to identify, develop or motivate potential entrepreneurs and generate societal-wide attitudes to support these individuals. Programs may focus on the specific needs of those in the process of starting a business versus those running new or established businesses. There may be key considerations regarding entrepreneurs' ability to close their businesses when they are no longer viable and to enable these individuals to use their experience and resources to venture out again or to assist other entrepreneurs.

Specifically, the observations presented in the special topic study in this report point to a key message for policy makers and corporate leaders: organizations can also better serve their stakeholders' needs (owners, employees and the community) through their entrepreneurial employee initiatives. This capability can therefore serve as an enormous hidden asset, but requires an entrepreneurial corporate culture and an appropriate institutional framework. Obviously, it is not feasible for this Global Report to offer specific policy recommendations that can be applied broadly across multiple economies. For the formulation of policy conclusions at the level of individual countries, further analysis of specific context is required. To that purpose each participating GEM team publishes a national report[44] that covers more specific economy-level considerations. For detailed policy implications at the national level the reader is therefore referred to the national GEM reports that will be published in the coming months.

[44] National reports for participating GEM economies can be downloaded at www.gemconsortium.org.

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GEM 2011 COUNTRY SUMMARIES

This Annex presents, for all economies that participated in the GEM 2011 cycle, a summary that highlights the entrepreneurial profiles and general characteristics. The sheets consist of

- A table with general characteristics of the economy and GEM-based entrepreneurship indicators
- Some of the main entrepreneurship indicators presented in the Global Entrepreneurship Monitor 2011 Extended Report, based on the GEM Adult Population Survey. The resulting profile for the national economy is benchmarked against the average of the economies in the same phase of economic development ant to the average of the reference group as presented in Table 4.16 of the GEM 2011 Extended Report.
- An overview of the 'entrepreneurship institutions profile', based on the assessments made by experts in the GEM National Expert Surveys. The resulting profile for the national economy is benchmarked against the average of the economies in the same phase of economic development ant to the average of the reference group as presented in Table 4.16 of the GEM 2011 Extended Report.
- A chart presenting the trend in Total early-stage Entrepreneurial Activity (TEA) for those economies that have participated several times in GEM; for the other economies a chart presenting the structure of business activities (sectors of industry) for early-stage entrepreneurs versus established entrepreneurs is presented.

The tables and figures are accompanied with texts provided by the GEM National Teams. The following table list the sources of the general characteristics included in the report. The GEM-based indicators are presented in the GEM 2011 Extended Report, descriptions are provided in Annex II.

General Characteristics	Source	Webpage
Population (x 1,000):	United Nations World Population Prospects, 2010 Revison	http://esa.un.org/wpp/unpp/panel_population.htm
Area (x 1,000 km^2):	World Bank	http://data.worldbank.org/data-catalog/
Density (persons / km^2):	United Nations World Population Prospects, 2010 Revison	http://esa.un.org/wpp/unpp/panel_population.htm
GDP Per Capita (PPP):	IMF World Development Indicators, September 2011 Edition	http://www.imf.org/external/ns/cs.aspx?id=28
Global Happiness Index:	World Database of Global Happiness	http://www1.eur.nl/fsw/happiness/
Human Development Index:	United Nations Human Development Report 2011	http://hdr.undp.org/en/statistics/hdi/
Global Competitiveness Index:	World Economic Forum Global Competitiveness Report 2011-2012	http://gcr.weforum.org/gcr2011/
Global Innovation Index:	INSEAD Global Innovation Index 2011	http://www.globalinnovationindex.org/gii/
Doing Business Index:	World Bank Doing Business 2012 Edition	www.doingbusiness.org
GEDI Index:	Global Entrepreneurship and Development Index, 2010-2011 Values	www.gedi.org; http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1857985

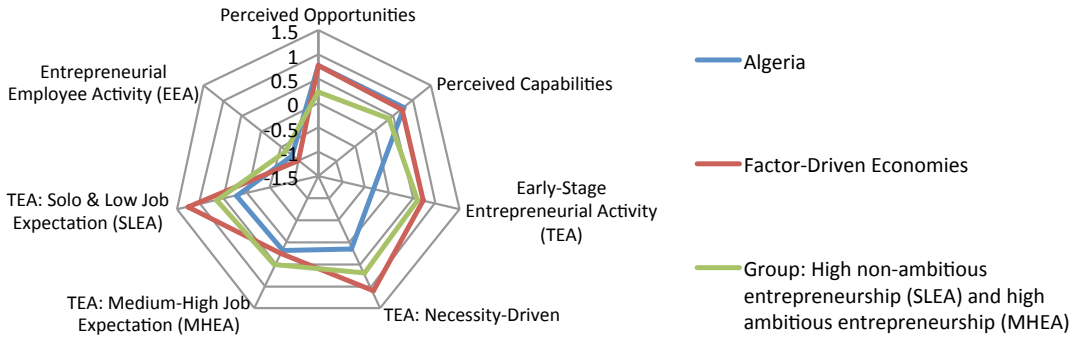
GEM 2011 National Summary Sheet

Algeria

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	35,468	Perceived Opportunities	54
Area (x 1,000 km^2):	2,382	Perceived Capabilities	60
Density (persons / km^2):	14.9	Fear of Failure	39
GDP Per Capita (PPP) (USD):	7,210		
		Nascent Entrepreneurship Rate:	5.3
Global Happiness Index:	5.4 (92/149)	Owner-Managers in New Businesses Rate:	4.0
Human Development Index:	0.7 (96/187)	Owner-Managers in Established Businesses Rates:	3.1
		Total early-stage Entrepreneurial Activity Rate (TEA):	9.3
Global Competitiveness Index:	4 (87/142)	- Necessity-Driven TEA Rate:	3.3
Global Innovation Index:	20 (125/125)	- Medium-High Job Expectation Rate: (MHEA)	4.2
Doing Business Index:	(148/183)	Entrepreneurial Employee Activity Rate (EEA):	0.7
GEDI Index:	0.2 (59/79)	- Private Sector EEA Rate (PEEA):	0.3
Classification Phase of Economic Development:		Factor-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



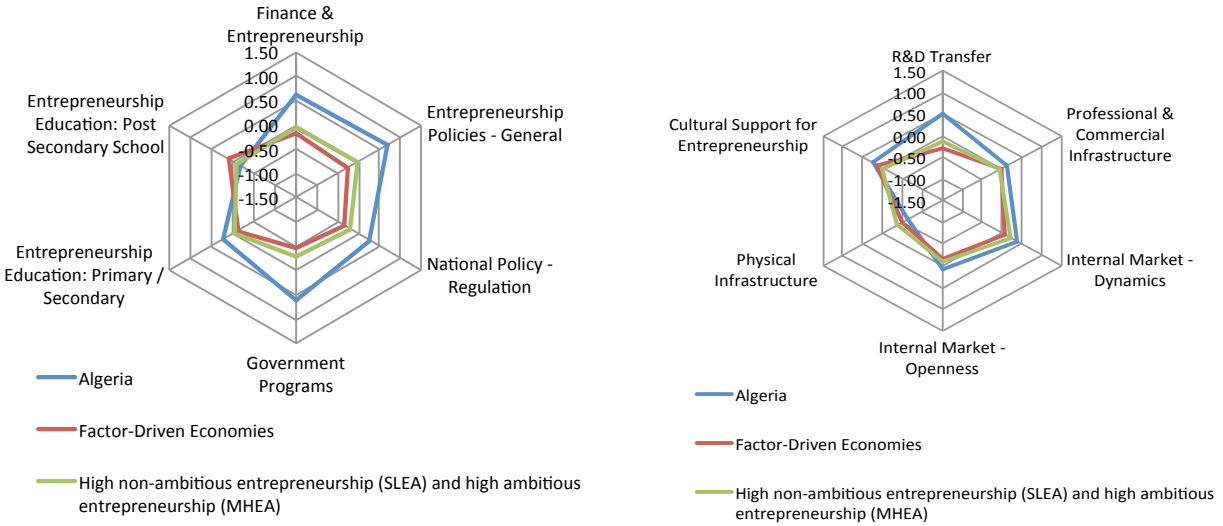
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Algeria shows a positive perception to entrepreneurship activities. Many entrepreneurial Attitudes indicators are higher than the comparative countries average; 60% of Algerian adult population believe that they have capabilities to start business and 54% perceive an opportunities in their area. However, the country exhibits a low rate of Total Early-Stage Entrepreneurial Activity (9.3%) with one of the lowest rate of nascent entrepreneurship among factor driven economies and also on the reference countries group. This explains the low rate of Algeria's SLEA. In the same way of the comparative countries group, Algeria shows a very low EEA rate as well.

GEM 2011 National Summary Sheet

Algeria

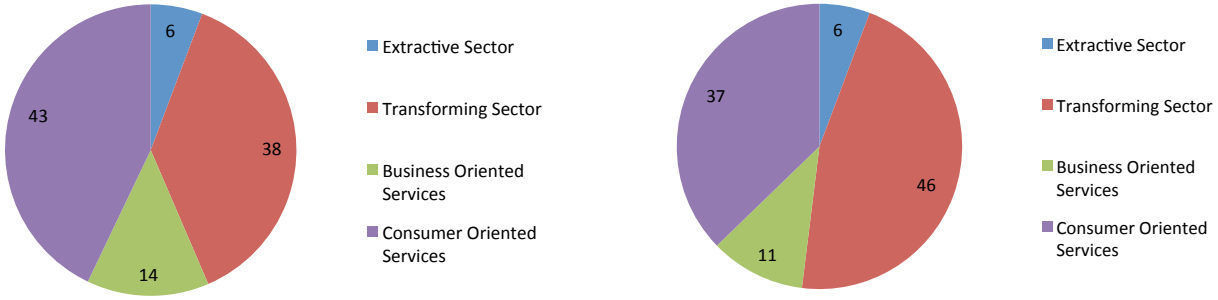
Entrepreneurship Institution Profile



Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Algeria's Entrepreneurship Framework Conditions are globally encouraging the entrepreneurial activities compared to the other factor- driven economies and also the reference countries group. Several policies and programs are implemented in this last decade for this purpose. However, the country shows a deficit in Entrepreneurship Education: Post School and physical infrastructure, which can help the durability of the new business.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity



The distribution of early-stage entrepreneurial activity and established business owner-managers by industry sector shows that in Algeria there is a dominance of two main sectors: consumer-oriented businesses and transforming sector. On the other hand, there is less frequent participation in extractive sector or business oriented services which require more knowledge and technology.

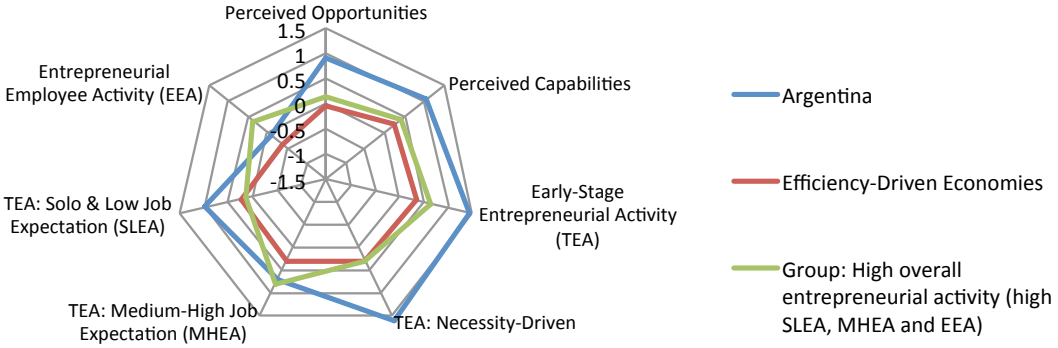
GEM 2011 National Summary Sheet

Argentina

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	40,412	Perceived Opportunities	56
Area (x 1,000 km^2):	2,737	Perceived Capabilities	64
Density (persons / km^2):	14.5	Fear of Failure	31
GDP Per Capita (PPP) (USD):	17,376		
		Nascent Entrepreneurship Rate:	11.8
Global Happiness Index:	7.3 (22/149)	Owner-Managers in New Businesses Rate:	9.2
Human Development Index:	0.8 (45/187)	Owner-Managers in Established Businesses Rate:	11.8
		Total early-stage Entrepreneurial Activity Rate (TEA):	20.8
Global Competitiveness Index:	4 (85/142)	- Necessity-Driven TEA Rate:	6.9
Global Innovation Index:	35 (58/125)	- Medium-High Job Expectation Rate: (MHEA)	5.5
Doing Business Index:	(113/183)	Entrepreneurial Employee Activity Rate (EEA):	2.5
GEDI Index:	0.24 (46/79)	- Private Sector EEA Rate (PEEA):	1.5
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High overall entrepreneurial activity (high SLEA, MHEA and EEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

The 2011 GEM cycle in Argentina shows a significant increase in the Total early stage entrepreneurial activity, following the trend that started in 2009. Over the last GEM cycles we observe that entrepreneurship by opportunity is growing over entrepreneurship by necessity, a phenomenon that is particularly clear in 2011. This growing entrepreneurial culture and activity among Argentinean occurs in a context where fear of failure increased lightly and the perception of capabilities and opportunities didn´t change significantly.

GEM 2011 National Summary Sheet

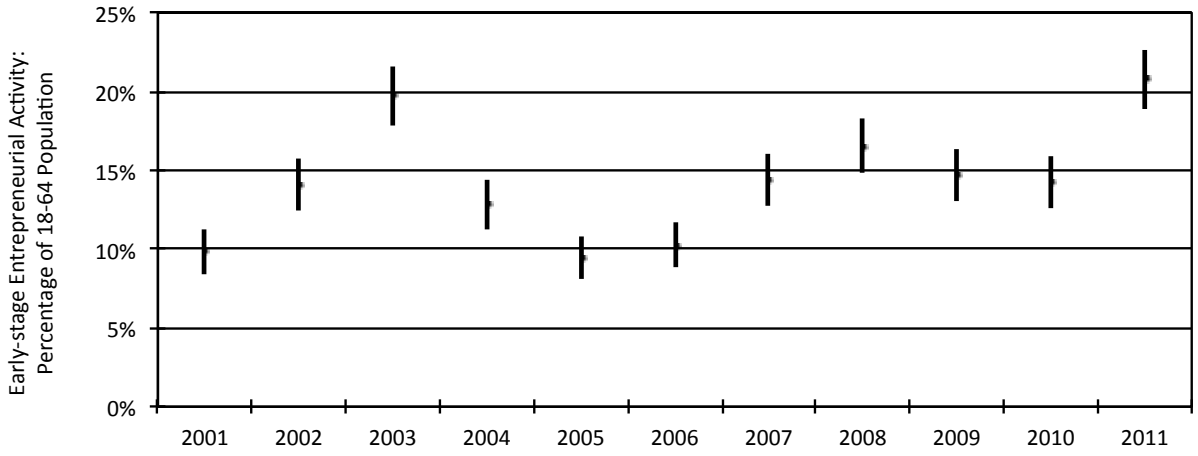
Argentina

Entrepreneurship Institution Profile

Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

The entrepreneurial ecosystem in Argentina has been consolidating over the last few years. Universities, nonprofit organizations, and some local governments have been promoting entrepreneurship, offering training, business plan competition, mentoring, and incubation for startups. Public policy towards the promotion of entrepreneurship as a key driver of future economic and social development is starting to be implemented at a national and local level; with some more seed funding and technical assistance programs emerging.

Trend in Total early-stage Entrepreneurial Activity (TEA)



TEA (Total early stage entrepreneurial activity) has been on a positive growth trend since 2009, showing a more that substantial increase in 2011. This might be a result of the combination of different reasons: on the positive side: a more consolidated entrepreneurial ecosystem, more Argentineans considering entrepreneurship as a good career choice, opportunity perception growing over the last years in all Latin America, on the negative one: a relative unstable institutional, political and economic situation.

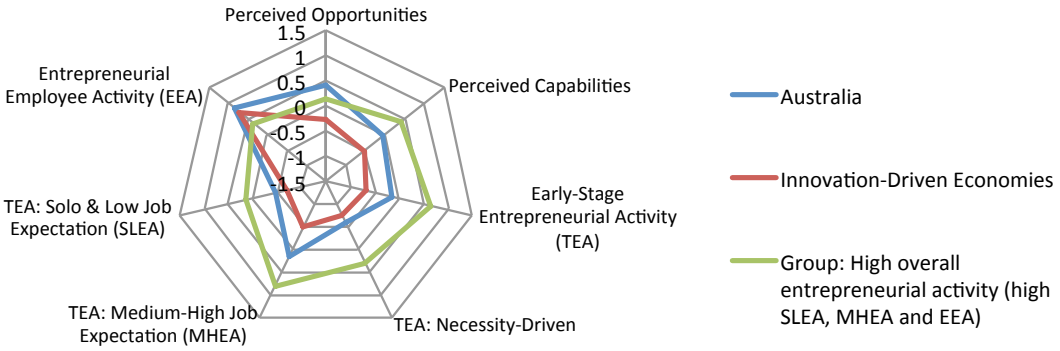
GEM 2011 National Summary Sheet

Australia

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	22,268	Perceived Opportunities	48
Area (x 1,000 km^2):	7,682	Perceived Capabilities	47
Density (persons / km^2):	2.9	Fear of Failure	44
GDP Per Capita (PPP) (USD):	40,836		
		Nascent Entrepreneurship Rate:	6.0
Global Happiness Index:	7.7 (11/149)	Owner-Managers in New Businesses Rate:	4.7
Human Development Index:	0.93 (2/187)	Owner-Managers in Established Businesses Rate:	9.1
		Total early-stage Entrepreneurial Activity Rate (TEA):	10.5
Global Competitiveness Index:	5.1 (20/142)	- Necessity-Driven TEA Rate:	1.6
Global Innovation Index:	50 (21/125)	- Medium-High Job Expectation Rate: (MHEA)	4.2
Doing Business Index:	(15/183)	Entrepreneurial Employee Activity Rate (EEA):	5.0
GEDI Index:	0.56 (3/79)	- Private Sector EEA Rate (PEEA):	3.1
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High overall entrepreneurial activity (high SLEA, MHEA and EEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



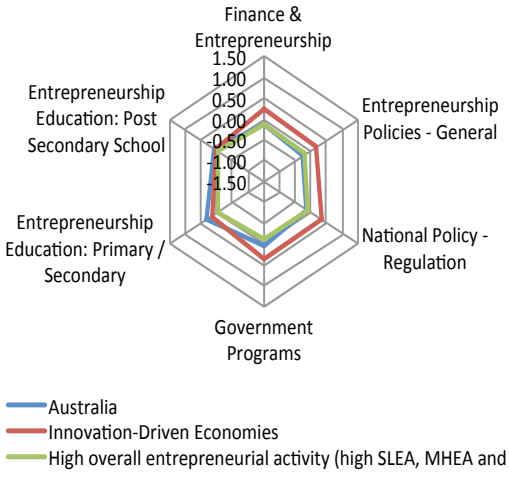
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

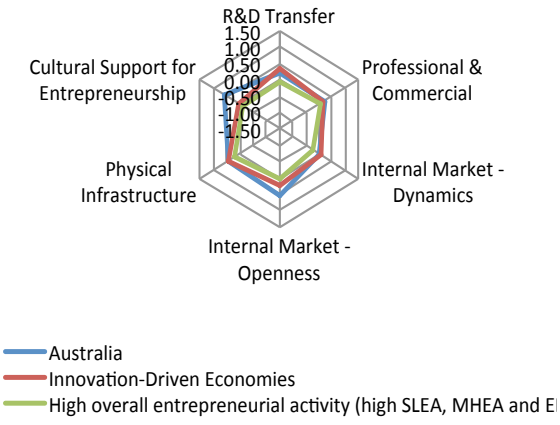
With 12.6% of the adult population involved in setting up a new business or owning a newly founded business (TEA rate), Australia ranks second only to the United States among the innovation-driven economies. The GEM data clearly show that Australia also compares well with other major economies in terms of the "quality" of entrepreneurial activities being pursued. Most importantly approximately three out of four businesses are started by individuals want to take advantage of a lucrative business opportunity rather than out of perceived necessity.

GEM 2011 National Summary Sheet

Australia

Entrepreneurship Institution Profile

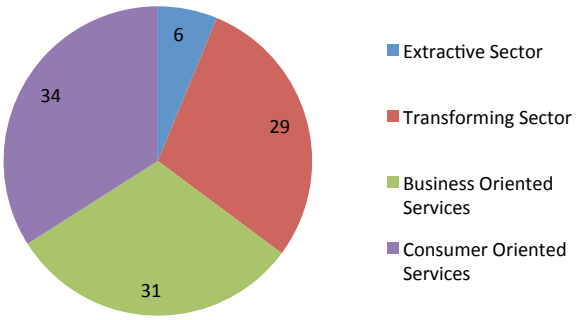


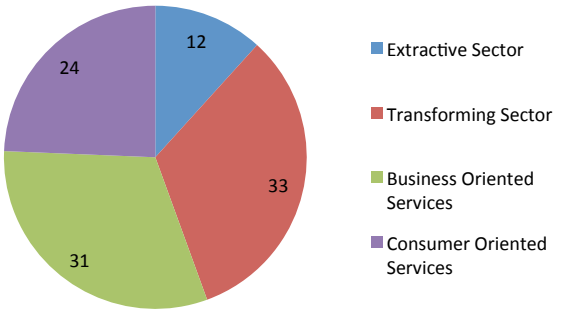


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

A survey of selected national experts reveals that Australia scores high in entrepreneurship education, cultural support for entrepreneurship and internal market-openness when compared with other innovation-driven economies.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity

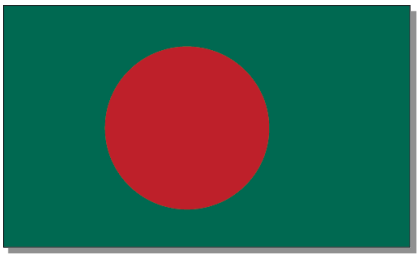




The sectoral structure of total early-stage entrepreneurial activity (TEA) and established business activity in Australia is comparable with other innovation-driven economies.

GEM 2011 National Summary Sheet

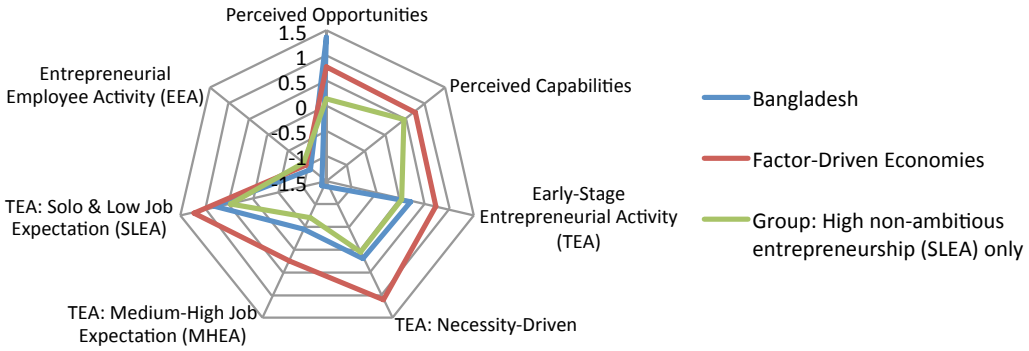
Bangladesh



General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	148,692	Perceived Opportunities	64
Area (x 1,000 km^2):	130	Perceived Capabilities	24
Density (persons / km^2):	1,032.6	Fear of Failure	63
GDP Per Capita (PPP) (USD):	1,697		
		Nascent Entrepreneurship Rate:	7.1
Global Happiness Index:	5.3 (99/149)	Owner-Managers in New Businesses Rate:	7.1
Human Development Index:	0.5 (146/187)	Owner-Managers in Established Businesses Rate:	11.6
		Total early-stage Entrepreneurial Activity Rate (TEA):	12.8
Global Competitiveness Index:	3.7 (108/142)	- Necessity-Driven TEA Rate:	3.5
Global Innovation Index:	28 (97/125)	- Medium-High Job Expectation Rate: (MHEA)	2.6
Doing Business Index:	(122/183)	Entrepreneurial Employee Activity Rate (EEA):	0.0
GEDI Index:	no data	- Private Sector EEA Rate (PEEA):	0.0
Classification Phase of Economic Development:		Factor-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile

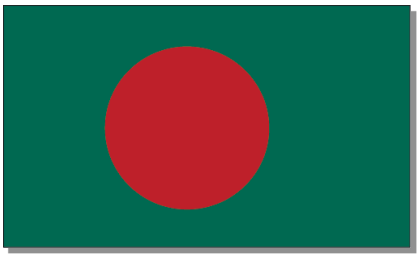


Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

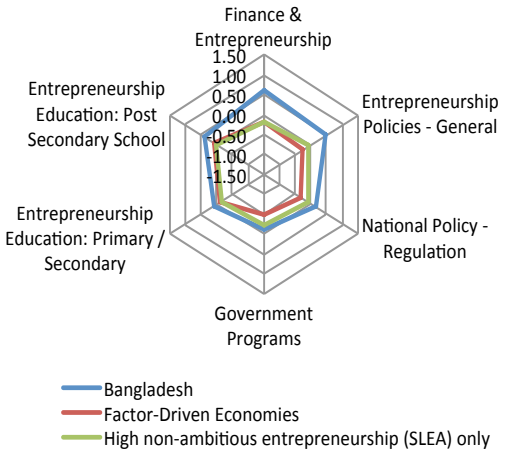
During 2011, early-stage entrepreneurial activity was 12.8% in Bangladesh, while the average for the comparative economies was 13.4%. The entrepreneurial attitude indicators showed that opportunity perception in Bangladesh is the highest among the comparative economies and third globally. However, the rate of perceived capabilities was the second lowest and the fear of failure was the highest in Bangladesh in global comparison.

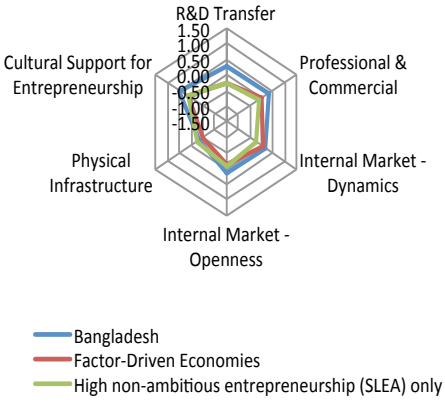
GEM 2011 NATIONAL SUMMARY SHEET

BANGLADESH



Entrepreneurship Institution Profile

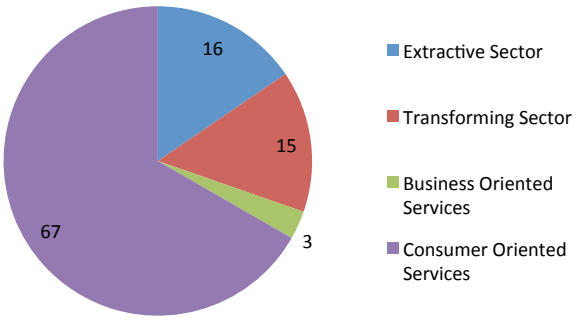


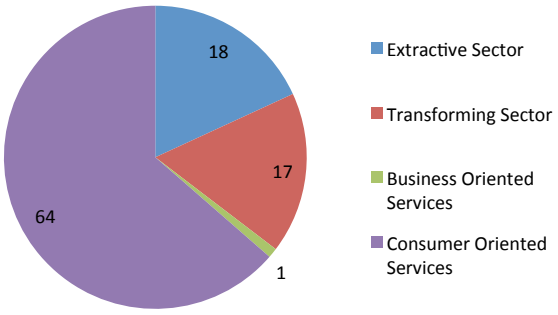


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

In comparison to similar economies, Bangladesh is in a better position with regards to the entrepreneurship institution profile – especially, in financing and cultural support. However, the country exhibits the same conditions in physical infrastructure and internal market dynamics when compare to similar economies.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Industry activities pattern in Bangladesh showed that compare to the established business activity early stage entrepreneurial activity was more service oriented and less extractive oriented. However, service sector is playing more roles in Bangladesh in both TEA and EBA in comparison to similar economies.

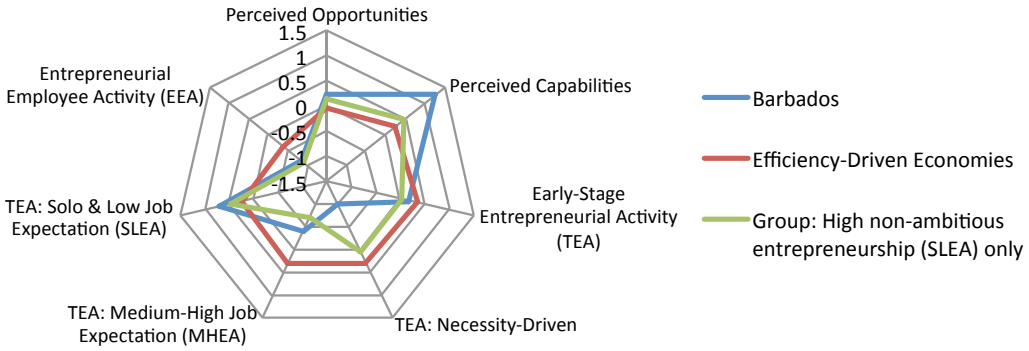
GEM 2011 National Summary Sheet

Barbados

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	273	Perceived Opportunities	44
Area (x 1,000 km^2):	0	Perceived Capabilities	67
Density (persons / km^2):	635.7	Fear of Failure	20
GDP Per Capita (PPP) (USD):	23,625		
		Nascent Entrepreneurship Rate:	10.9
Global Happiness Index:	no data	Owner-Managers in New Businesses Rate:	1.8
Human Development Index:	0.79 (47/187)	Owner-Managers in Established Businesses Rate:	4.2
		Total early-stage Entrepreneurial Activity Rate (TEA):	12.6
Global Competitiveness Index:	4.4 (42/142)	- Necessity-Driven TEA Rate:	0.6
Global Innovation Index:	no data	- Medium-High Job Expectation Rate: (MHEA)	2.8
Doing Business Index:	no data	Entrepreneurial Employee Activity Rate (EEA):	0.7
GEDI Index:	no data	- Private Sector EEA Rate (PEEA):	0.0
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



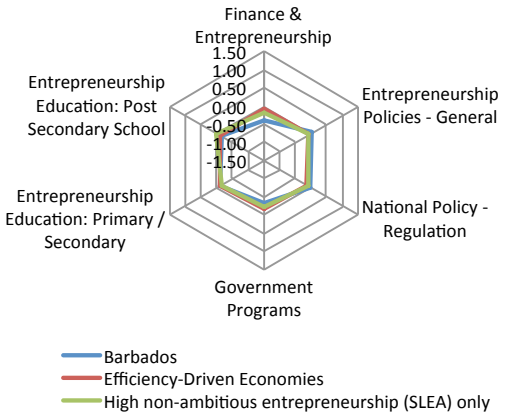
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

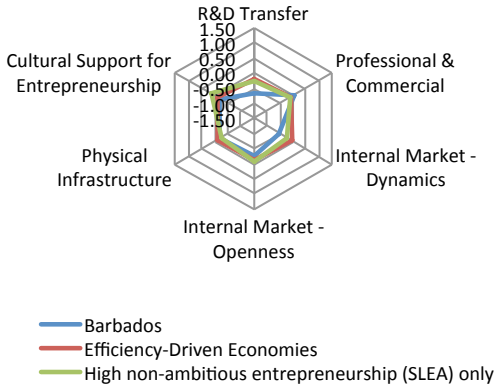
In this first reported cycle for Barbados, whereas perceived opportunities and perceived capabilities ranked higher than composite average for efficiency driven economies coupled with a low fear of failure, entrepreneurial intentions were below average. Although the nascent entrepreneurship rate (10.9) was higher than average, the new business ownership rate (1.8), TEA (12.6) and established business ownership rate (4.2) were lower than their respective composite rates. Finally in this cycle, the Medium-High Job expectation rate for Barbados is quite low (2.6) accompanied by a very small portion of TEA by necessity (5%).

GEM 2011 National Summary Sheet

Barbados

Entrepreneurship Institution Profile

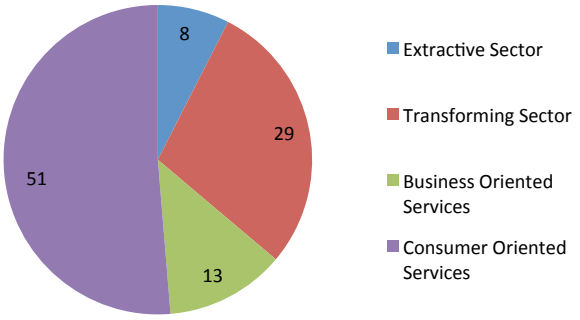


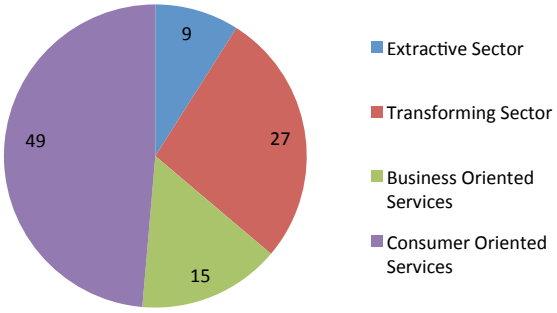


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Barbados continues to provide the infrastructure for the creation and development of entrepreneurial ventures and small business initiatives. During the last ten years, a number of programmes have been developed and state run agencies created to facilitate further development of the entrepreneurship ecosystem.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Barbados demonstrates relatively similar proportions of total early stage entrepreneurship activity across sectors, with consumer oriented services attracting the highest activity, that are consistent with that of the efficiency driven economies. In relation to the established business activity the sectoral distribution mirrors that of the total early stage entrepreneurship activity in Barbados.

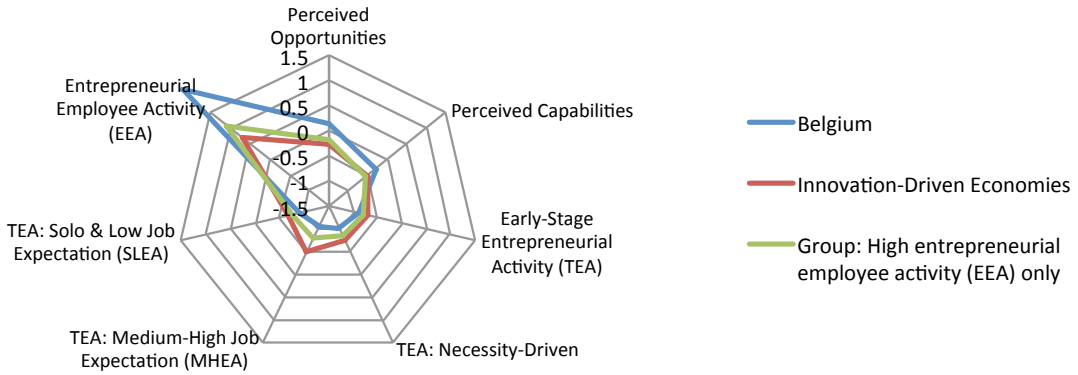
GEM 2011 National Summary Sheet

Belgium

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	10,712	Perceived Opportunities	43
Area (x 1,000 km^2):	30	Perceived Capabilities	44
Density (persons / km^2):	350.9	Fear of Failure	42
GDP Per Capita (PPP) (USD):	37,677		
		Nascent Entrepreneurship Rate:	2.7
Global Happiness Index:	7.3 (23/149)	Owner-Managers in New Businesses Rate:	3.0
Human Development Index:	0.89 (18/187)	Owner-Managers in Established Businesses Rate:	6.8
		Total early-stage Entrepreneurial Activity Rate (TEA):	5.7
Global Competitiveness Index:	5.2 (15/142)	- Necessity-Driven TEA Rate:	0.6
Global Innovation Index:	49 (24/125)	- Medium-High Job Expectation Rate: (MHEA)	1.1
Doing Business Index:	(28/183)	Entrepreneurial Employee Activity Rate (EEA):	8.6
GEDI Index:	0.5 (8/79)	- Private Sector EEA Rate (PEEA):	5.4
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



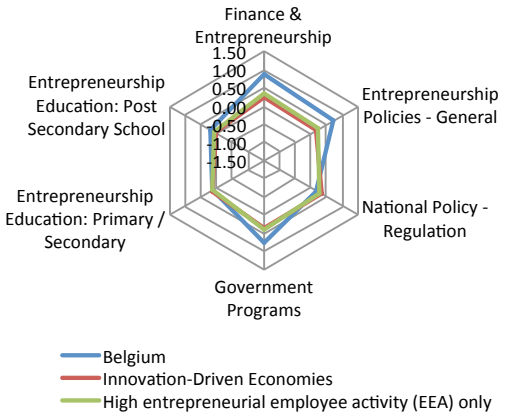
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

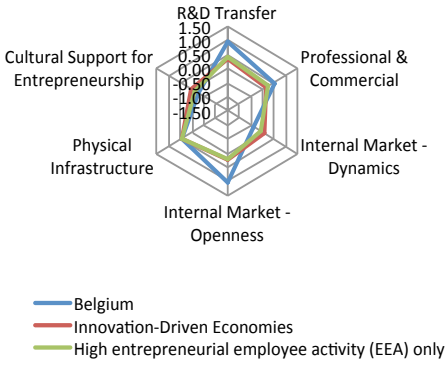
In 2011, the number of people in the population that perceive good opportunities to start a business has continued to grow. While the perception of having the capability to set up a business has remained stable in the population, it seems that more people feel that a fear of failure is preventing from setting up a business. At the same time, however, it seems that more people are actually bringing their intention into reality, as the significant growth in TEA can mostly be attributed to a growth in new businesses. In addition to these results, the intrapreneurship numbers indicate that entrepreneurial people in the Belgian population are mostly active in the employee role.

GEM 2011 National Summary Sheet

Belgium

Entrepreneurship Institution Profile

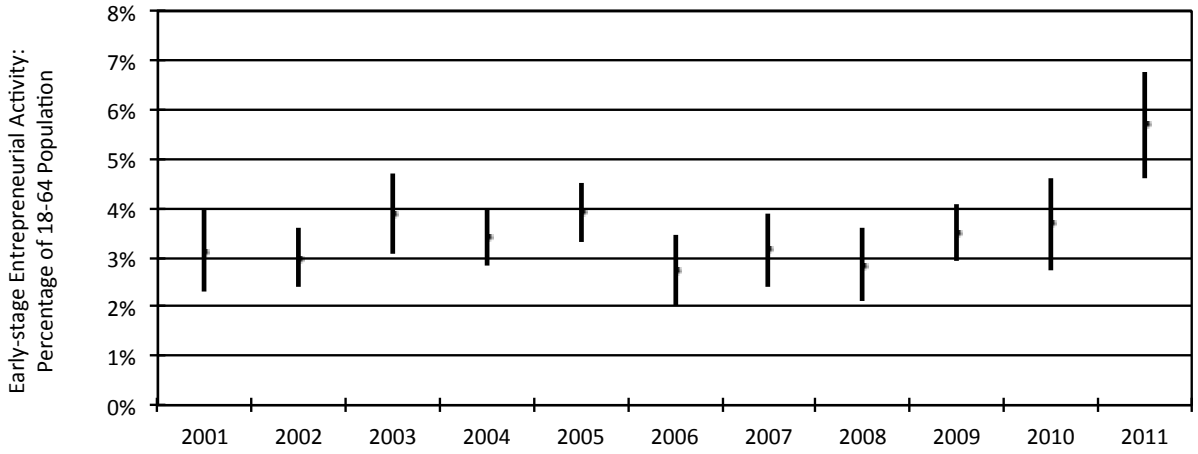




Note: Groups values based on GEM 2011 NES data; Belgium values based on 2009 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

National experts in Belgium are quite positive about the conditions for entrepreneurship in Belgium, especially with regard to R&D transfer, the availability of financial resources, government programs and internal market openness. Experts, however, consider the cultural support for entrepreneurship lower than experts in other countries.

Trend in Total early-stage Entrepreneurial Activity (TEA)



The Total-Early Stage Entrepreneurial Activity in Belgium has made a significant leap forward in 2011, to the highest level it has had since the beginning of the GEM project. As it seems, this growth can be especially attributed to the growth in new businesses, while nascent entrepreneurship remains stable.

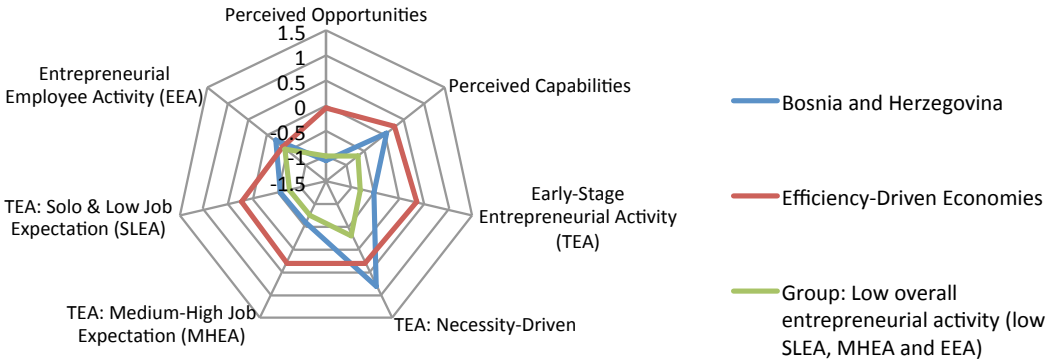
GEM 2011 National Summary Sheet

Bosnia and Herzegovina

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	3,760	Perceived Opportunities	21
Area (x 1,000 km^2):	51	Perceived Capabilities	49
Density (persons / km^2):	73.4	Fear of Failure	38
GDP Per Capita (PPP) (USD):	8,174		
		Nascent Entrepreneurship Rate:	5.4
Global Happiness Index:	no data	Owner-Managers in New Businesses Rate:	2.8
Human Development Index:	0.73 (74/187)	Owner-Managers in Established Businesses Rate:	5.0
		Total early-stage Entrepreneurial Activity Rate (TEA):	8.1
Global Competitiveness Index:	3.8 (100/142)	- Necessity-Driven TEA Rate:	5.0
Global Innovation Index:	31 (76/125)	- Medium-High Job Expectation Rate: (MHEA)	2.3
Doing Business Index:	(125/183)	Entrepreneurial Employee Activity Rate (EEA):	2.3
GEDI Index:	0.16 (70/79)	- Private Sector EEA Rate (PEEA):	1.5
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		Low overall entrepreneurial activity (low SLEA, MHEA and EEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



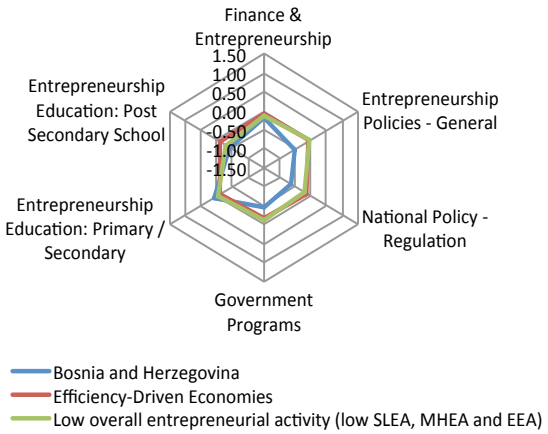
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

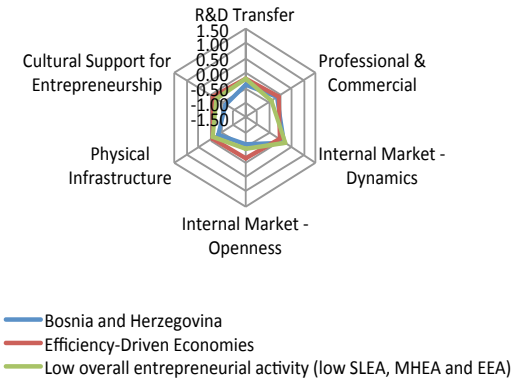
In 2011, Bosnia and Herzegovina experienced improvement of the Total early-stage Entrepreneurial Activity Rate – TEA (5,2% in relation to 2010, and 84,1% in relation to 2009). However, Bosnia and Herzegovina experienced the drop of the most of other indicators related to the entrepreneurial activity in 2011, with significant decrease of 24,9% for the Established Businesses Rate in relation to the 2010. Certain indicators of entrepreneurial attitudes and entrepreneurial activity in Bosnia and Herzegovina are improved in relation to previous year, but country still stays in the group of countries with low level of entrepreneurial activity.

GEM 2011 National Summary Sheet

Bosnia and Herzegovina

Entrepreneurship Institution Profile

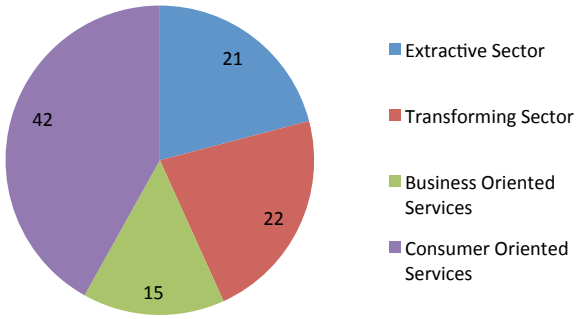


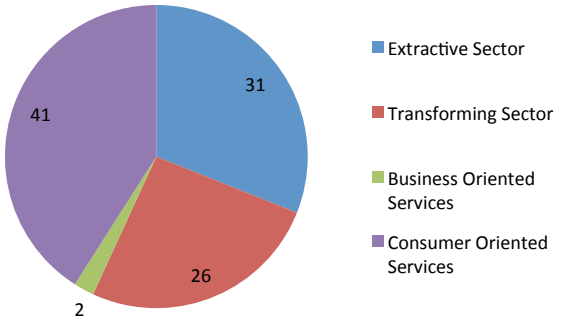


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

According to the NES data values, the most stimulative components of entrepreneurship environment in Bosnia and Herzegovina in 2011 are Physical infrastructure and Dynamics of internal market. As in previous years, Governmental programs, National policies and Transfer of research and development are still unsupportive for entrepreneurship development in the country.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Bosnia and Herzegovina is typical country of the Eastern Europe, which is confirmed through unchanged sector structure that is in great scope leaned on the consumer-oriented services. The most early stage entrepreneurial activity and established business activity in Bosnia and Herzegovina is operative in consumer oriented services sectors, while the least number of entrepreneurial activities is registered in the business oriented services sector.

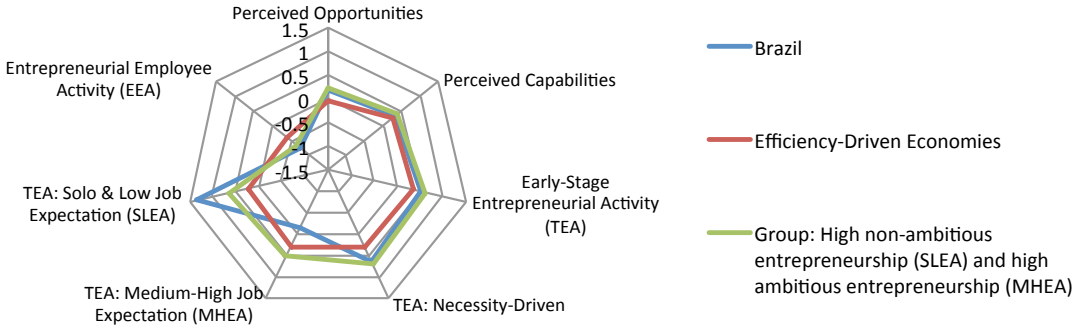
GEM 2011 National Summary Sheet

Brazil

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	194,946	Perceived Opportunities	43
Area (x 1,000 km^2):	8,459	Perceived Capabilities	53
Density (persons / km^2):	22.9	Fear of Failure	35
GDP Per Capita (PPP) (USD):	11,846		
		Nascent Entrepreneurship Rate:	4.1
Global Happiness Index:	7.5 (18/149)	Owner-Managers in New Businesses Rate:	11.0
Human Development Index:	0.72 (84/187)	Owner-Managers in Established Businesses Rate:	12.2
		Total early-stage Entrepreneurial Activity Rate (TEA):	14.9
Global Competitiveness Index:	4.3 (53/142)	- Necessity-Driven TEA Rate:	4.6
Global Innovation Index:	38 (47/125)	- Medium-High Job Expectation Rate: (MHEA)	3.3
Doing Business Index:	(126/183)	Entrepreneurial Employee Activity Rate (EEA):	0.8
GEDI Index:	0.2 (56/79)	- Private Sector EEA Rate (PEEA):	0.7
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



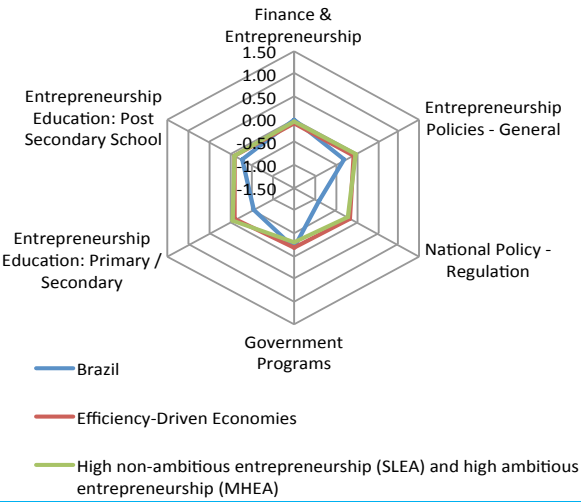
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

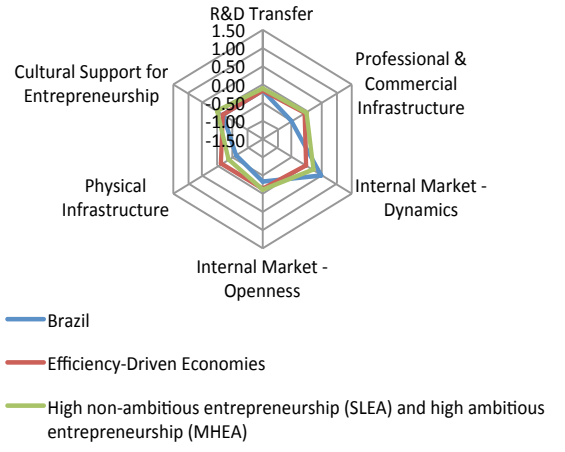
Brazil has the 12th highest TEA rate and presents TEA by opportunity equivalent to 69%. Although the necessity rate is still high, if compared with innovation-driven economies, this rate has improved a lot. In fact, eleven years ago, when Brazil has started GEM Research, the rate of TEA by necessity was 50%. Brazil shows the MHEA rate lower than the average rate presented by efficiency-driven economies and a SLEA rate significantly higher than the average rate. These results can be explained by Brazilian tax structure, since MHEA and SLEA rates are measured by the job growth expectation. In Brazil, due to high tax of hiring people, entrepreneurs avoid to hire them unless they are absolutely necessary. The rates of Brazilian Global Innovation Index and Brazilian Competitiveness Index are in line with the entrepreneurship indicators founded by GEM.

GEM 2011 National Summary Sheet

Brazil

Entrepreneurship Institution Profile

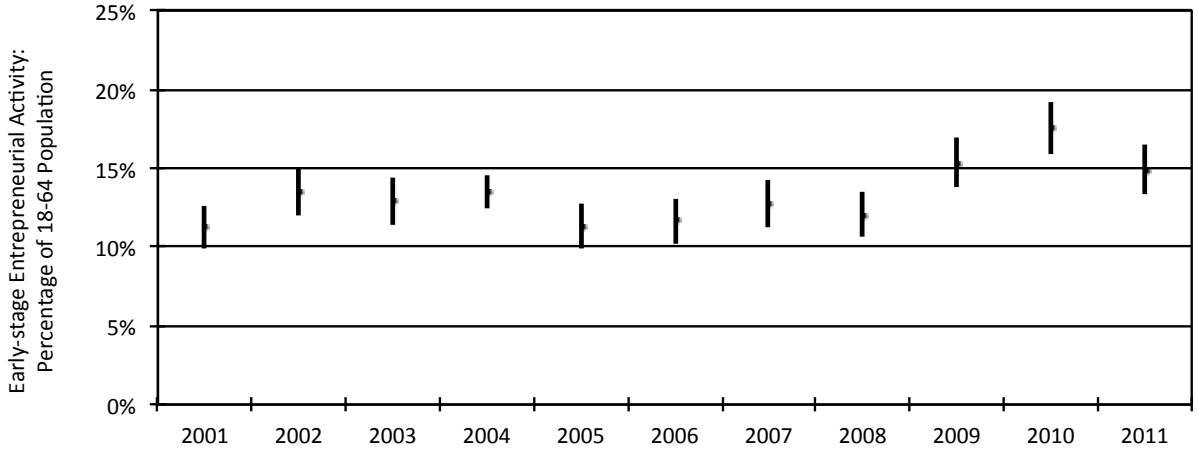




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

In the last 5 years, Brazil has implemented several programs and policies to help entrepreneurs and small businesses and these actions are reflected in the high rate of the internal market dynamic. However, the research with the experts suggested that the country needs to show some improvement in its infrastructure – physical, professional and commercial – and its national policy regulation.

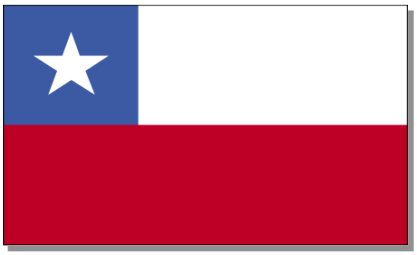
Trend in Total early-stage Entrepreneurial Activity (TEA)



Brazil´s TEA seems to obey a three year cycle of raise and fall. However, although the TEA´s rate in 2011 is lower than in 2010, it is still higher than the TEA rates from 2001 to 2008. Indeed, the stabilization and the growth of the Brazilian economy have encouraged a high number of Brazilians to choose entrepreneurship as their first career option.

GEM 2011 National Summary Sheet

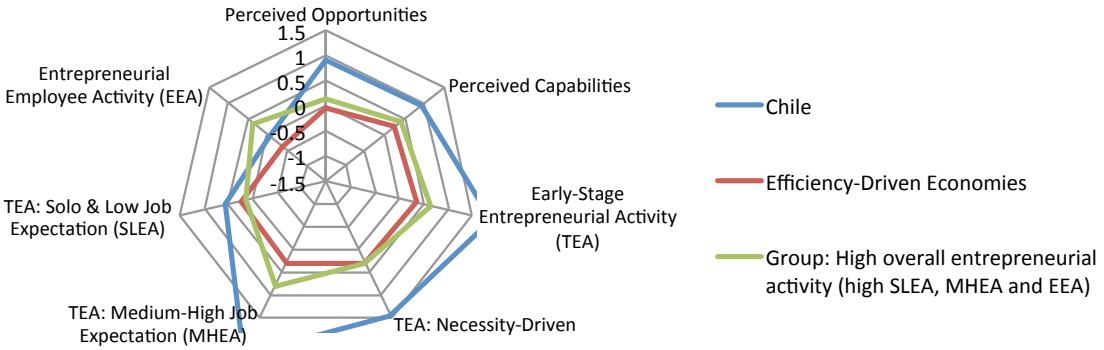
Chile



General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	17,114	Perceived Opportunities	57
Area (x 1,000 km^2):	744	Perceived Capabilities	62
Density (persons / km^2):	22.6	Fear of Failure	31
GDP Per Capita (PPP) (USD):	16,172		
		Nascent Entrepreneurship Rate:	14.6
Global Happiness Index:	6.6 (46/149)	Owner-Managers in New Businesses Rate:	9.6
Human Development Index:	0.81 (44/187)	Owner-Managers in Established Businesses Rate:	7.0
		Total early-stage Entrepreneurial Activity Rate (TEA):	23.7
Global Competitiveness Index:	4.7 (31/142)	- Necessity-Driven TEA Rate:	6.5
Global Innovation Index:	39 (38/125)	- Medium-High Job Expectation Rate: (MHEA)	9.6
Doing Business Index:	(39/183)	Entrepreneurial Employee Activity Rate (EEA):	2.6
GEDI Index:	0.42 (22/79)	- Private Sector EEA Rate (PEEA):	1.8
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High overall entrepreneurial activity (high SLEA, MHEA and EEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile

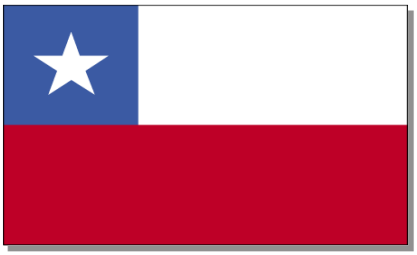


Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

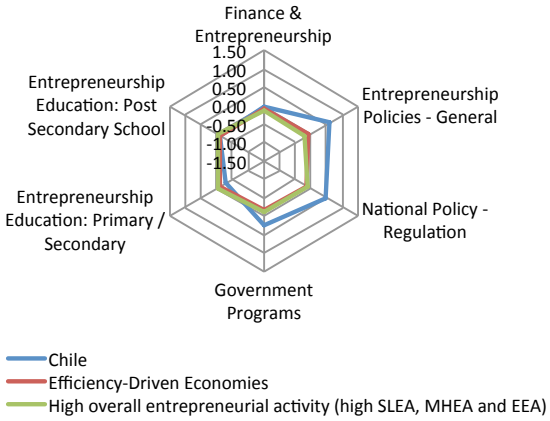
In this cycle Chile shows an important increase many entrepreneurship activity indicators. Entrepreneurial Attitudes indicators are higher than the comparative countries average. The country continues to exhibit a substantial proportion of TEA by Necessity (27%); many of the early-stage (and established) entrepreneurs are self-employment initiatives and the growth on nascent entrepreneurs basically explains this behavior. Chile's MHEA rate is one of the highest among efficiency-driven economies but also on the reference countries group.

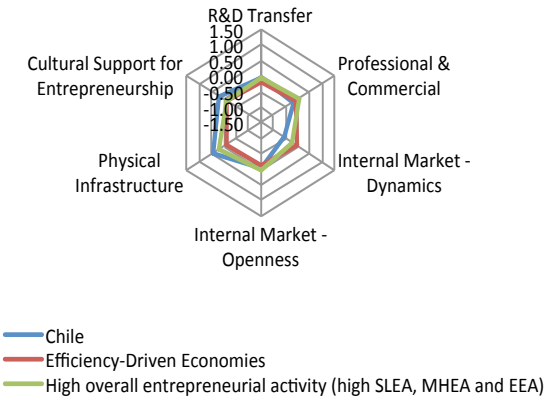
GEM 2011 NATIONAL SUMMARY SHEET

CHILE



Entrepreneurship Institution Profile

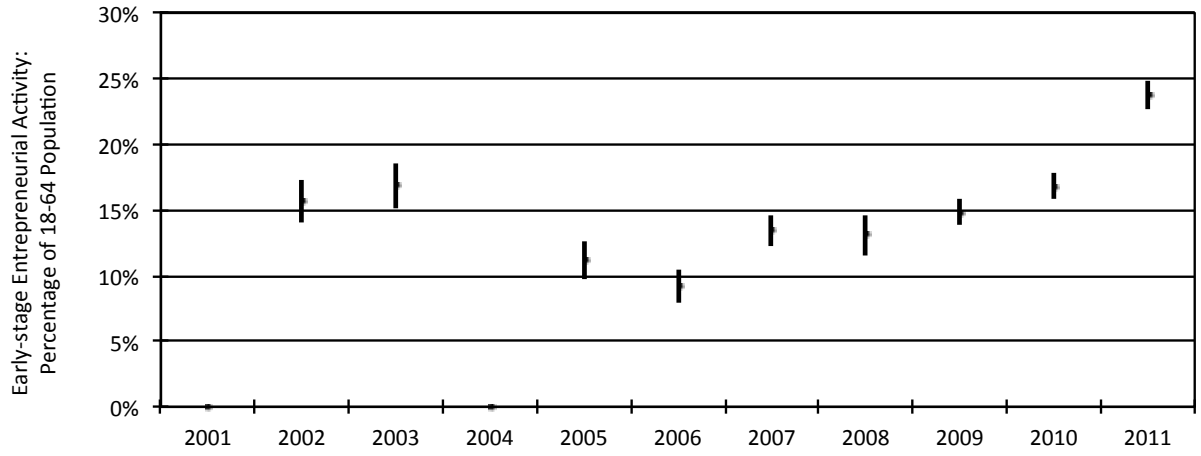




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Chile has been improving its entrepreneurship ecosystem in the last five years with several policies and programs that are helping the new business creation. At the same time the country exhibits a relative deficit related to internal market dynamics in comparison to other similar economies. Cultural and social support to entrepreneurship activities have enhanced in the past few years.

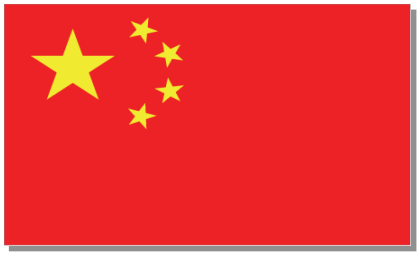
Trend in Total early-stage Entrepreneurial Activity (TEA)



Since 2006, Chile's TEA rate has increased gradually but in 2011 there is a clear inflection point with a significant growth compared to 2010. This year's TEA rate is the highest of the past ten years when Chile participated in the Global Entrepreneurship Monitor. Indeed a significant proportion of the population is being incorporated into entrepreneurial activity in Chile

GEM 2011 National Summary Sheet

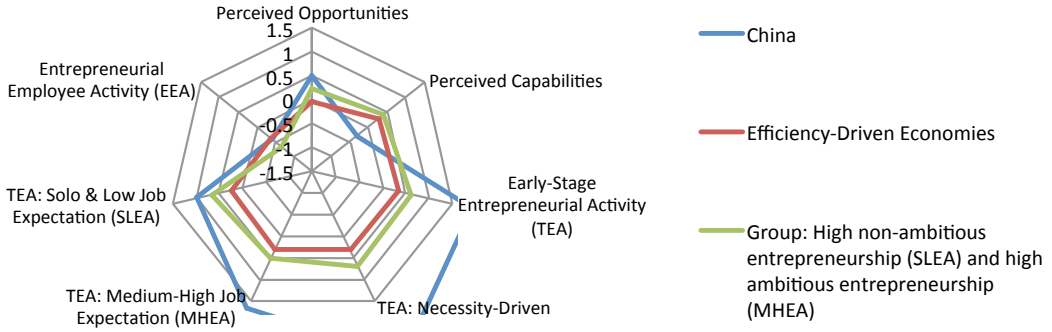
China



General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	1,341,335	Perceived Opportunities	49
Area (x 1,000 km^2):	9,327	Perceived Capabilities	44
Density (persons / km^2):	139.8	Fear of Failure	35
GDP Per Capita (PPP) (USD):	8,394		
		Nascent Entrepreneurship Rate:	10.1
Global Happiness Index:	6.3 (59/149)	Owner-Managers in New Businesses Rate:	14.2
Human Development Index:	0.69	Owner-Managers in Established Businesses Rate:	12.7
		Total early-stage Entrepreneurial Activity Rate (TEA):	24.0
Global Competitiveness Index:	4.9 (26/142)	- Necessity-Driven TEA Rate:	9.7
Global Innovation Index:	46 (29/125)	- Medium-High Job Expectation Rate: (MHEA)	7.9
Doing Business Index:	(91/183)	Entrepreneurial Employee Activity Rate (EEA):	1.7
GEDI Index:	0.2 (58/79)	- Private Sector EEA Rate (PEEA):	0.7
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile

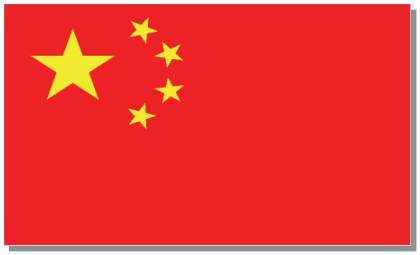


Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

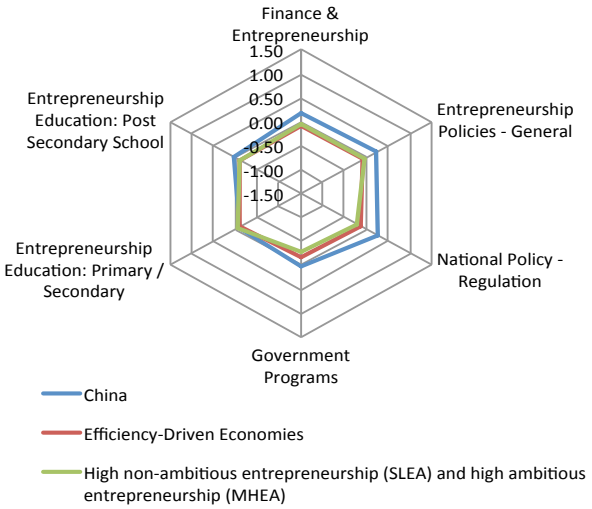
The Chinese adult population is relatively modest in terms of perceived capabilities to start a new business. However, early-stage entrepreneurial activity is high, with both high representation of necessity-based entrepreneurs and entrepreneurs with medium-high growth orientation. Entrepreneurial employee activity is rather low, at similar levels of the two reference groups.

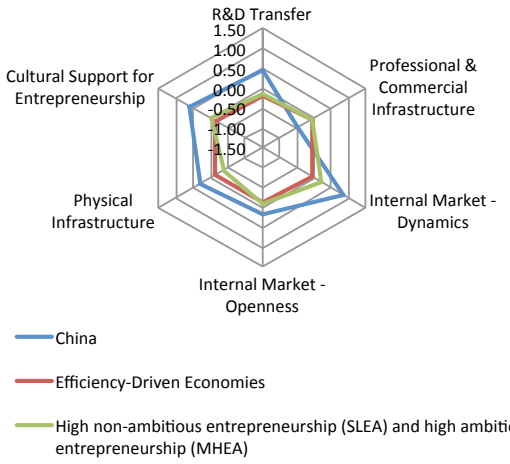
GEM 2011 National Summary Sheet

China



Entrepreneurship Institution Profile

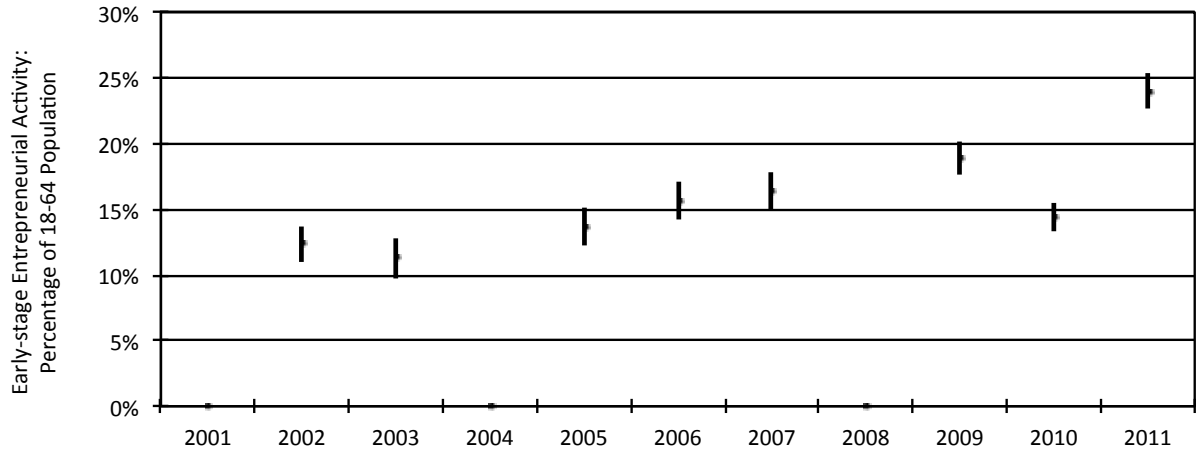




Note: Groups values based on GEM 2011 NES data; China values based on 2010 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Chinese experts rate the entrepreneurial ecosystem relatively high in comparison to the reference groups. Cultural support, R&D transfer and internal market dynamics are assessed particularly well. The professional and commercial infrastructure is values lower than the reference groups.

Trend in Total early-stage Entrepreneurial Activity (TEA)



The overall trend of early-stage entrepreneurial activity is an increasing one for China, seemingly with a temporarily dip in 2011. As noted before, the GEM indicators show that both necessity-driven entrepreneurship and medium-high job expectation are important components of the Chinese TEA measure.

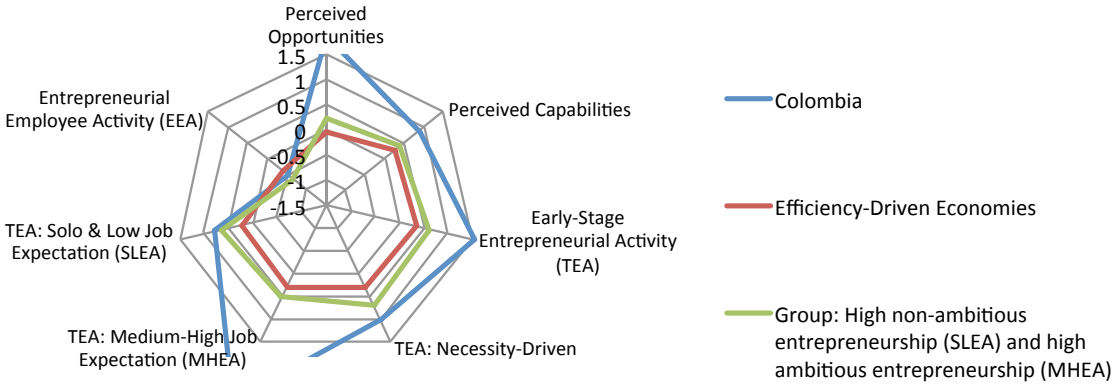
GEM 2011 National Summary Sheet

Colombia

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	46,295	Perceived Opportunities	73
Area (x 1,000 km^2):	1,110	Perceived Capabilities	61
Density (persons / km^2):	40.6	Fear of Failure	33
GDP Per Capita (PPP) (USD):	10,155		
		Nascent Entrepreneurship Rate:	15.2
Global Happiness Index:	7.7 (12/149)	Owner-Managers in New Businesses Rate:	6.7
Human Development Index:	0.71 (87/187)	Owner-Managers in Established Businesses Rate:	7.5
		Total early-stage Entrepreneurial Activity Rate (TEA):	21.4
Global Competitiveness Index:	4.2 (68/142)	- Necessity-Driven TEA Rate:	5.4
Global Innovation Index:	32 (71/125)	- Medium-High Job Expectation Rate: (MHEA)	10.8
Doing Business Index:	(42/183)	Entrepreneurial Employee Activity Rate (EEA):	1.5
GEDI Index:	0.27 (39/79)	- Private Sector EEA Rate (PEEA):	1.0
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



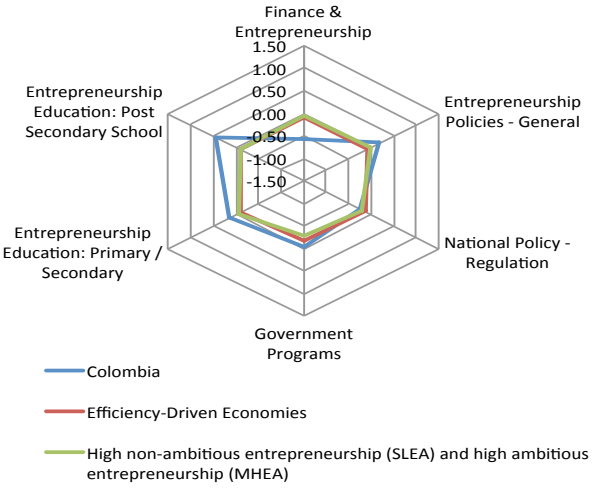
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

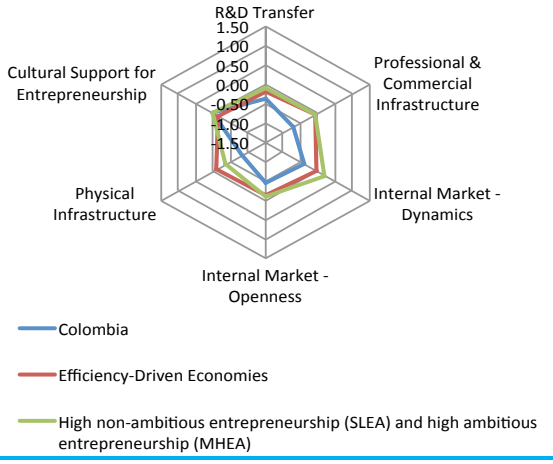
In the 2011 cycle, Colombia´s high MHEA rate, consistent with a steady and solid grow of all the entrepreneurship activity indicators, reflects that it is one of the economies less affected by the world economic crisis. Several factors support this favorable entrepreneurial context, a growing FDI with several FTA on process with USA, EU and Korea among others, have reinforce the high positive perception of new entrepreneurial opportunities.

GEM 2011 NATIONAL SUMMARY SHEET

COLOMBIA

Entrepreneurship Institution Profile

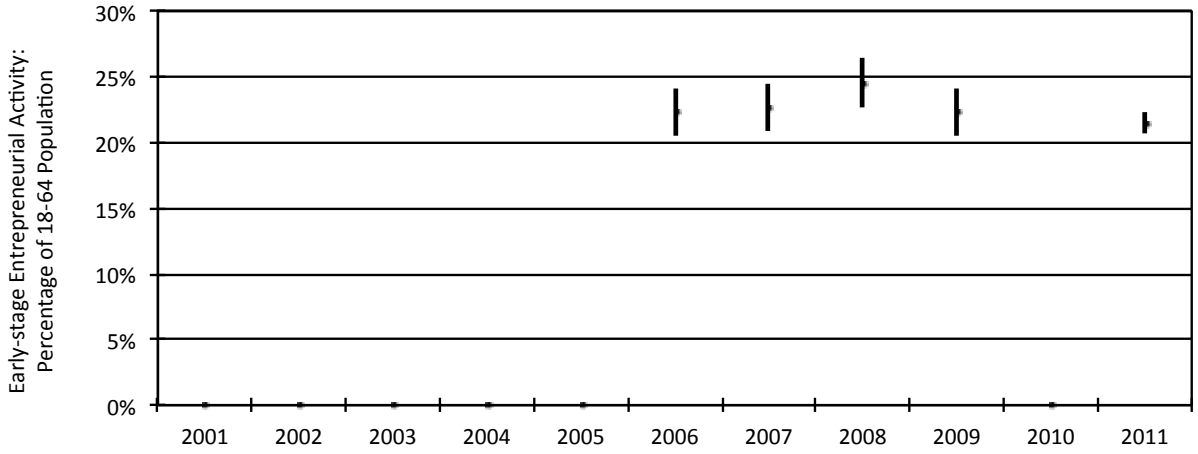




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Colombia is one of the most advanced Latin American countries on having an entrepreneurship national policy, that supports integrated efforts such as the SENA and the Ministry of Education. Both institutions, as key actors for educating young potentials entrepreneurs, are interested to enhance the good results at post school formation, and to change the not so good results at primary and secondary level.

Trend in Total early-stage Entrepreneurial Activity (TEA)



Colombian TEA shows a stable high index during the last 6 years, explained by a favorable context given by a national entrepreneurship policy centered on educating future generations and on a regional development level. Growing national media exposure of national new entrepreneurs helps to consolidate a favorable recognition of entrepreneurship as a desirable career.

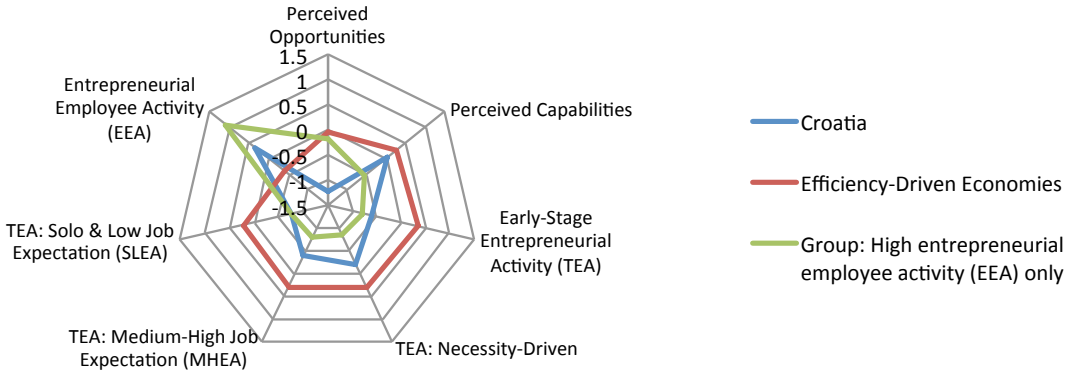
GEM 2011 National Summary Sheet

Croatia

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	4,403	Perceived Opportunities	18
Area (x 1,000 km^2):	56	Perceived Capabilities	49
Density (persons / km^2):	77.9	Fear of Failure	46
GDP Per Capita (PPP) (USD):	18,339		
		Nascent Entrepreneurship Rate:	5.3
Global Happiness Index:	6 (67/149)	Owner-Managers in New Businesses Rate:	2.1
Human Development Index:	0.8 (46/187)	Owner-Managers in Established Businesses Rate:	4.2
		Total early-stage Entrepreneurial Activity Rate (TEA):	7.3
Global Competitiveness Index:	4.1 (76/142)	- Necessity-Driven TEA Rate:	2.6
Global Innovation Index:	38 (44/125)	- Medium-High Job Expectation Rate: (MHEA)	2.7
Doing Business Index:	(80/183)	Entrepreneurial Employee Activity Rate (EEA):	3.7
GEDI Index:	0.29 (37/79)	- Private Sector EEA Rate (PEEA):	2.2
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



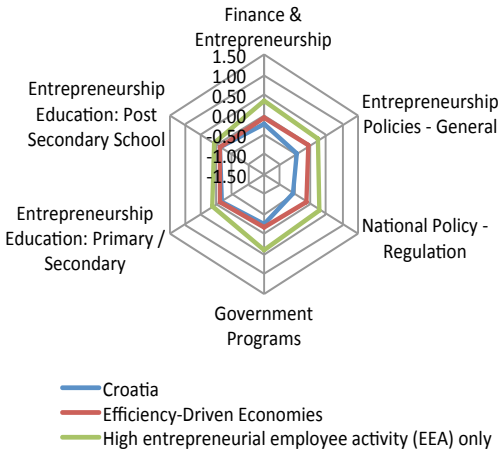
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

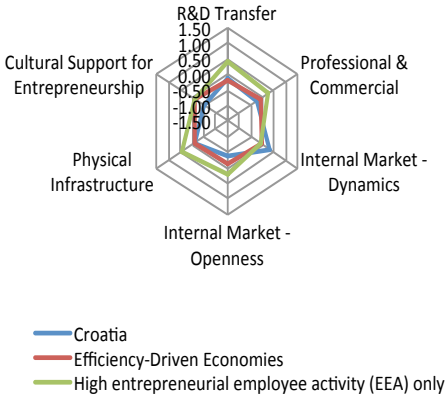
Perceived opportunities to start a business are particularly low in Croatia, in comparison to the reference groups. Entrepreneurial activity rates are also relatively low, except for entrepreneurial employee activity.

GEM 2011 National Summary Sheet

Croatia

Entrepreneurship Institution Profile

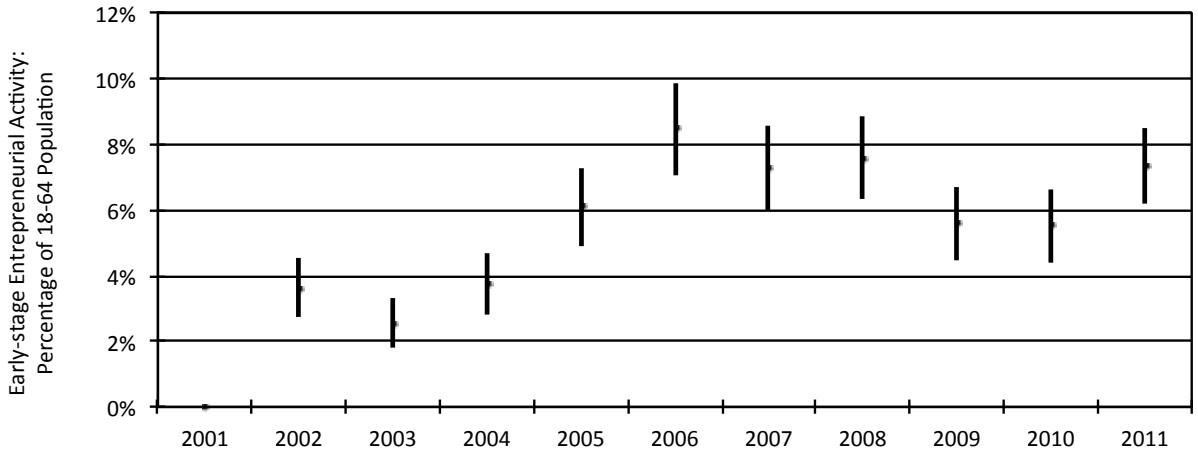




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Overall the entrepreneurial framework conditions are not well rated by the experts in Croatia. Experts are particularly concerned about policies and regulations related to entrepreneurship. They are relatively positive about the state of internal market dynamics.

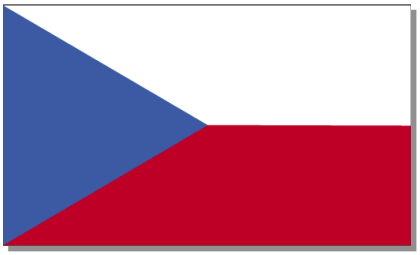
Trend in Total early-stage Entrepreneurial Activity (TEA)



The trend in TEA rates shows a cyclical pattern; whereas the rate decreased during 2006-2009, it now tends to increase again.

GEM 2011 National Summary Sheet

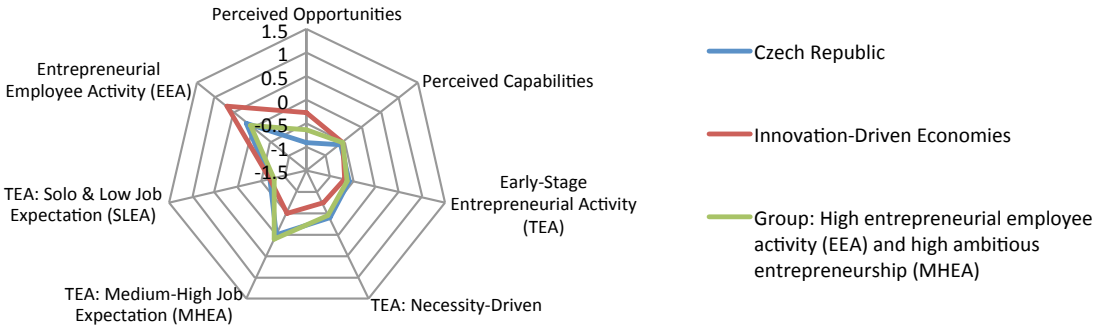
Czech Republic



General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	10,493	Perceived Opportunities	24
Area (x 1,000 km^2):	77	Perceived Capabilities	39
Density (persons / km^2):	133.0	Fear of Failure	40
GDP Per Capita (PPP) (USD):	25,934		
		Nascent Entrepreneurship Rate:	5.1
Global Happiness Index:	6.5 (51/149)	Owner-Managers in New Businesses Rate:	2.7
Human Development Index:	0.87 (27/187)	Owner-Managers in Established Businesses Rate:	5.2
		Total early-stage Entrepreneurial Activity Rate (TEA):	7.6
Global Competitiveness Index:	4.5 (38/142)	- Necessity-Driven TEA Rate:	2.1
Global Innovation Index:	47 (27/125)	- Medium-High Job Expectation Rate: (MHEA)	3.8
Doing Business Index:	(64/183)	Entrepreneurial Employee Activity Rate (EEA):	3.2
GEDI Index:	0.4 (24/79)	- Private Sector EEA Rate (PEEA):	2.6
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) and high ambitious entrepreneurship (MHEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile

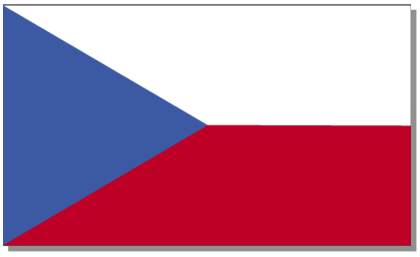


Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

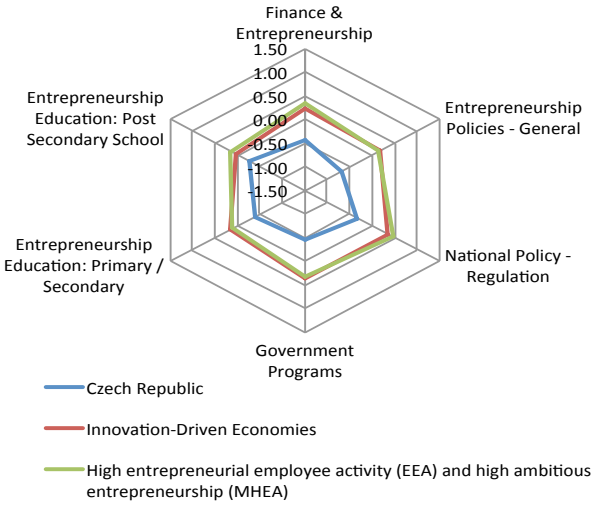
When compared to other European countries, there is a high proportion of Czech start-up entrepreneurs who are export-oriented, growth-oriented and focus on innovative products. Early stage entrepreneurial activity is characterized by relatively high proportion of males, nascent and necessity-driven entrepreneurs. Only 24 percent of Czech population perceives good opportunities for starting a business.

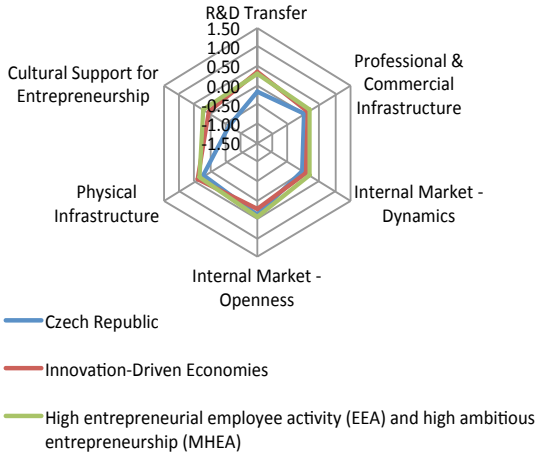
GEM 2011 National Summary Sheet

Czech Republic



Entrepreneurship Institution Profile

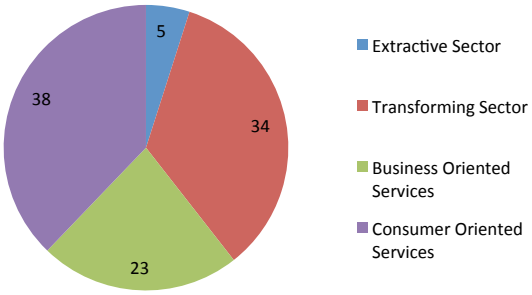


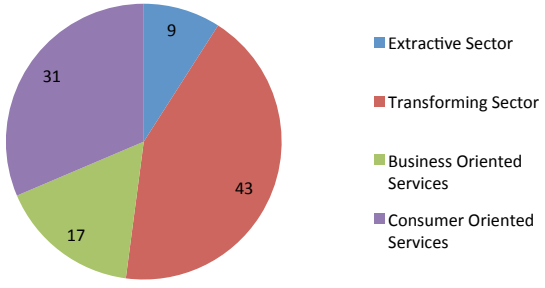


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Despite some recent progress, political and institutional context related to entrepreneurship is perceived negatively due to bureaucratic barriers, problematic law enforcement, corruption, frequent changes of legislation and high labor tax. Education does not encourage the development of entrepreneurial skills and attitudes and entrepreneurs are seen ambivalently. On the other hand, market is developing, open for new firms, and physical, professional and commercial infrastructure provide good support for entrepreneurial activities.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity

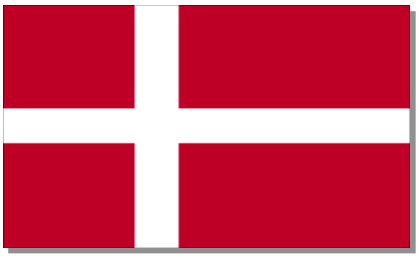




The Czech Republic has a long history in manufacturing and is very strong in automotive sector. This feature is illustrated by the dominant position of transforming sector in established business activities. However, as the economy develops, more and more companies are founded that offer services both to businesses and final consumers. Sector distribution becomes more similar to other developed economies and the importance of business oriented services grows.

GEM 2011 National Summary Sheet

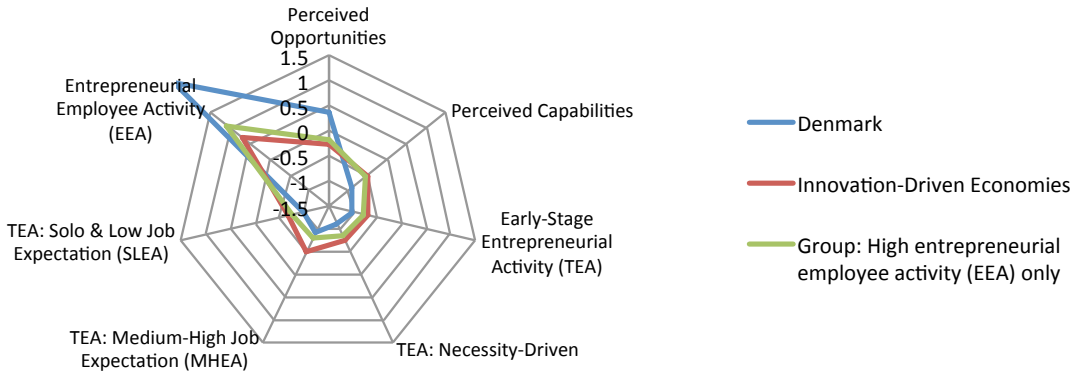
Denmark



General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	5,550	Perceived Opportunities	47
Area (x 1,000 km^2):	42	Perceived Capabilities	35
Density (persons / km^2):	128.8	Fear of Failure	42
GDP Per Capita (PPP) (USD):	37,742		
		Nascent Entrepreneurship Rate:	3.1
Global Happiness Index:	8.3 (2/149)	Owner-Managers in New Businesses Rate:	1.6
Human Development Index:	0.9 (16/187)	Owner-Managers in Established Businesses Rate:	4.9
		Total early-stage Entrepreneurial Activity Rate (TEA):	4.6
Global Competitiveness Index:	5.4 (8/142)	- Necessity-Driven TEA Rate:	0.3
Global Innovation Index:	57 (6/125)	- Medium-High Job Expectation Rate: (MHEA)	1.4
Doing Business Index:	(5/183)	Entrepreneurial Employee Activity Rate (EEA):	9.2
GEDI Index:	0.55 (5/79)	- Private Sector EEA Rate (PEEA):	4.8
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile

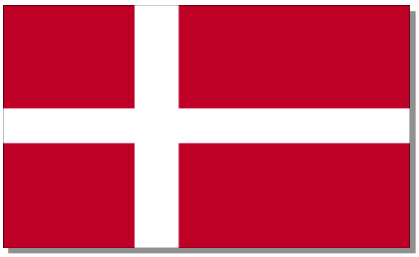


Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

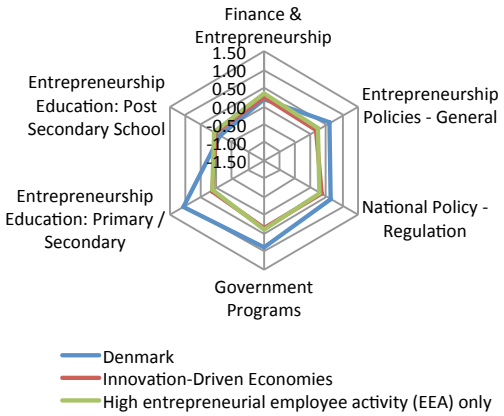
Entrepreneurial activity in the form of starting own business is an activity that in Denmark attracts rather few people, fewer than in the other innovation-driven economies. Few people start new firms alone and with low expectations for growth and few people start new firms with higher expectations for growth. Conversely, however, activity in the form of employees pursuing entrepreneurial activity on their jobs is high in Denmark and in other Nordic countries, seemingly the highest in the world. The Nordic countries are welfare societies where work-places are organized so as to encourage employees to take initiative and the distance between employees and their superiors is smaller than elsewhere around the world (T.Schott, book, March 2012).

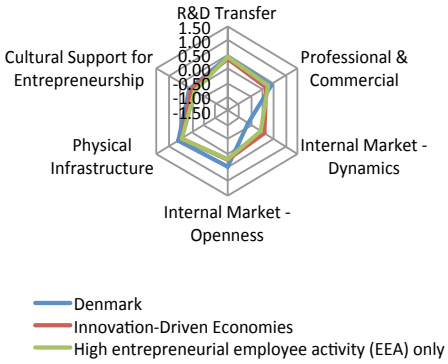
GEM 2011 National Summary Sheet

Denmark



Entrepreneurship Institution Profile

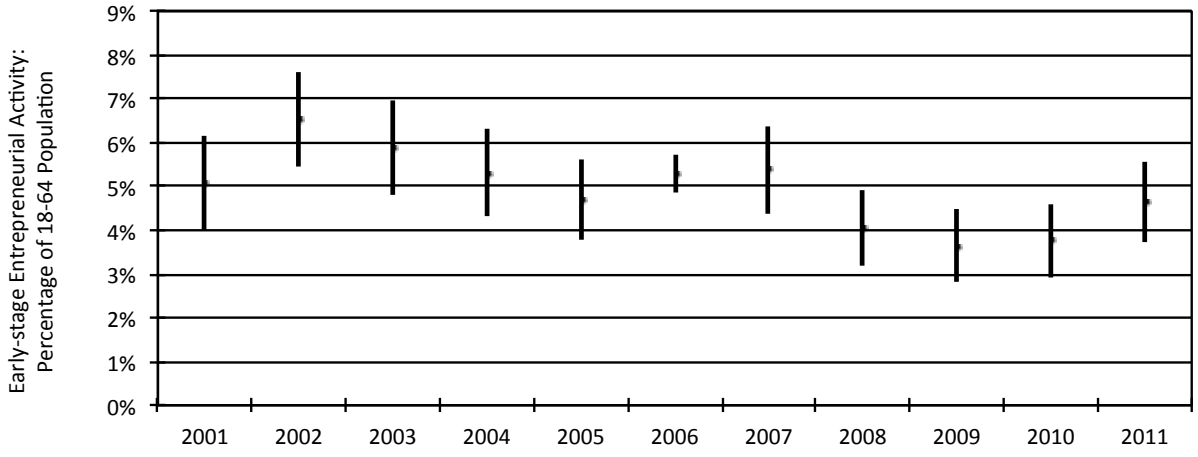




Note: Groups values based on GEM 2011 NES data; Denmark values based on 2009 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

The institutional and cultural framework conditions for starting businesses in Denmark have been improved over the years, by much political initiative, slowly and steadily like in many other countries, but remain as is typical for the innovation-driven economies. Accordingly, also the rate in the adult population of starting new businesses (TEA) remains as is typical for the innovation-driven economies. (T.Schott, Training and Network Organization in Entrepreneurship; University of Southern Denmark 2011; downloadable from GEM-website).

Trend in Total early-stage Entrepreneurial Activity (TEA)



The Danish rate in the adult population of starting new businesses has remained fairly constant over the last decade, with some fluctuations. The major change was a considerable decline in starting new businesses after 2007, when the global economic crisis hit harder in Denmark than in most other countries (T.Schott, Social and Commercial Entrepreneurship in Denmark in 2009 – studied via the Global Entrepreneurship Monitor; University of Southern Denmark 2010; downloadable from GEM-website).

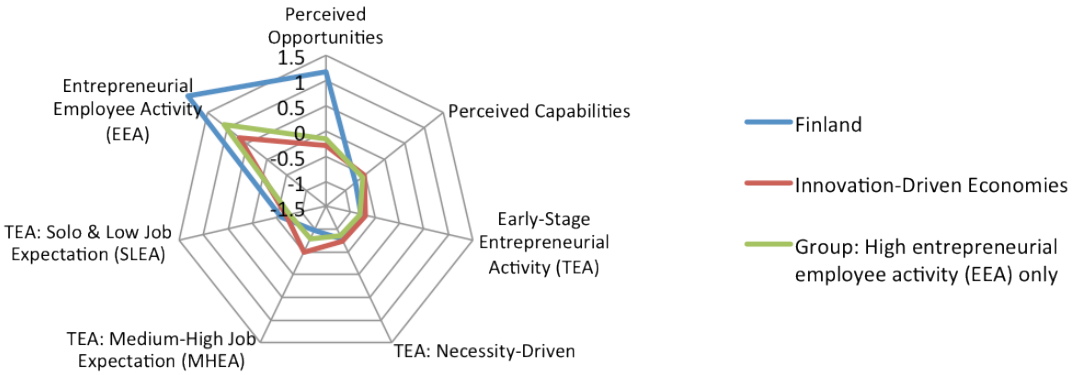
GEM 2011 National Summary Sheet

Finland

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	5,365	Perceived Opportunities	61
Area (x 1,000 km^2):	304	Perceived Capabilities	37
Density (persons / km^2):	15.9	Fear of Failure	36
GDP Per Capita (PPP) (USD):	36,723		
		Nascent Entrepreneurship Rate:	3.0
Global Happiness Index:	7.9 (5/149)	Owner-Managers in New Businesses Rate:	3.3
Human Development Index:	0.88 (22/187)	Owner-Managers in Established Businesses Rate:	8.8
		Total early-stage Entrepreneurial Activity Rate (TEA):	6.3
Global Competitiveness Index:	5.5 (4/142)	- Necessity-Driven TEA Rate:	1.1
Global Innovation Index:	58 (5/125)	- Medium-High Job Expectation Rate: (MHEA)	1.3
Doing Business Index:	(11/183)	Entrepreneurial Employee Activity Rate (EEA):	8.0
GEDI Index:	0.45 (17/79)	- Private Sector EEA Rate (PEEA):	4.9
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



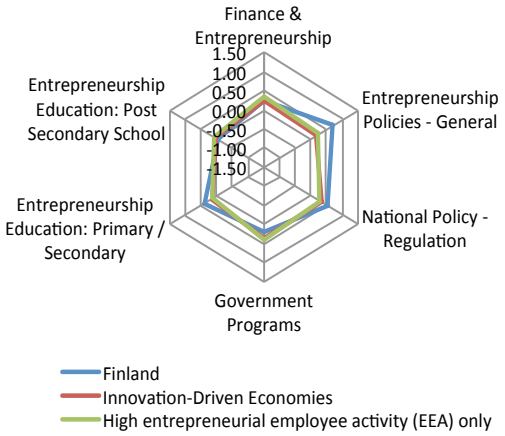
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

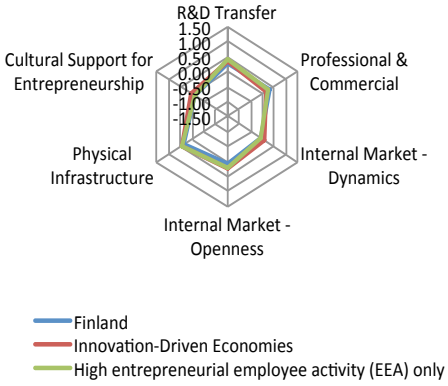
The perceived problems within the Eurozone and the stagnation of the Eurozone economies which started in 2010 are not visible in the APS data as over 60% of the Finnish adult population recognizes business opportunities. Finland scores high in employment entrepreneurship activity (EEA) which is above the average across Nordic countries. In Finland it is related to relatively high prevalence of highly educated employees. The share of growth-oriented early-stage entrepreneurial activity is continuously lower than in the reference countries' group.

GEM 2011 National Summary Sheet

Finland

Entrepreneurship Institution Profile

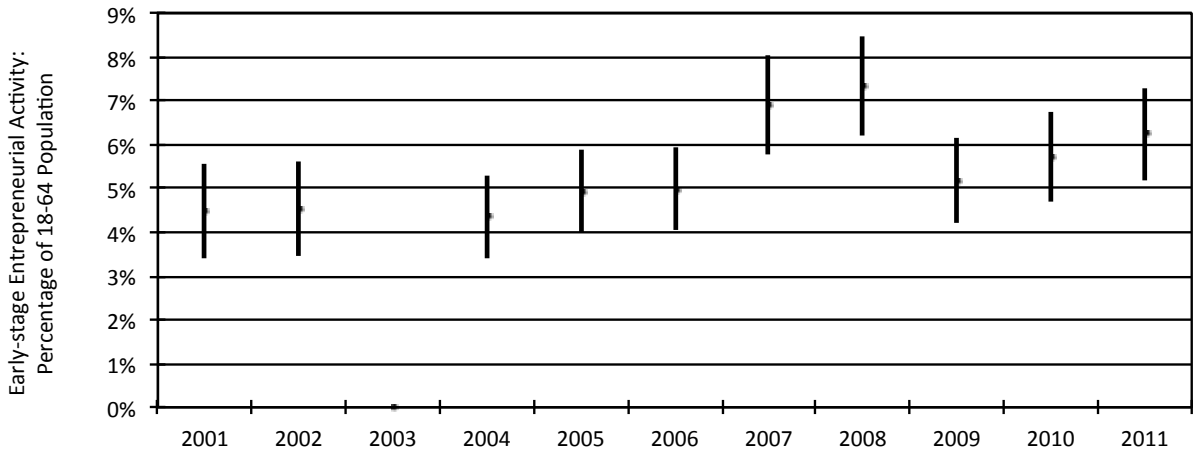




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

In Finland, as in all innovation-driven economies the entrepreneurship ecosystem is rather stable, but Finland scoring higher both in entrepreneurship education and in general entrepreneurship policies in comparison to its peers. Similarly, the institutional regulations in relation to entrepreneurship are positive. Moreover, even if the entrepreneurship education at primary and secondary levels is nationally perceived as an area in need for improvement, the score is higher than in the other innovation-driven economies.

Trend in Total early-stage Entrepreneurial Activity (TEA)



Even if the early-stage entrepreneurial activity is now higher than during the latest economic downturn, it has not quite reached the prevalence of years before the downturn. The latest ratio of 6.3% suggests that every month on average roughly 17.500 Finnish adults are engaged in early-stage entrepreneurship.

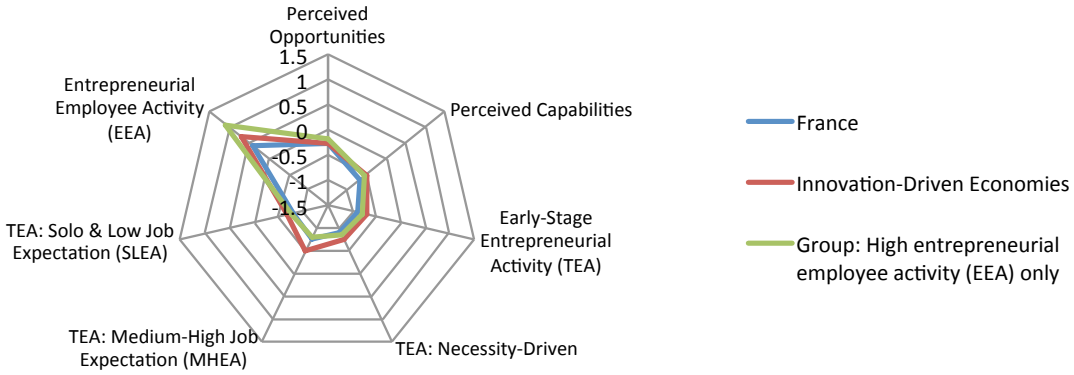
GEM 2011 National Summary Sheet

France

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	62,787	Perceived Opportunities	35
Area (x 1,000 km^2):	548	Perceived Capabilities	38
Density (persons / km^2):	113.8	Fear of Failure	44
GDP Per Capita (PPP) (USD):	35,049		
		Nascent Entrepreneurship Rate:	4.1
Global Happiness Index:	6.6 (47/149)	Owner-Managers in New Businesses Rate:	1.7
Human Development Index:	0.88 (20/187)	Owner-Managers in Established Businesses Rate:	2.4
		Total early-stage Entrepreneurial Activity Rate (TEA):	5.7
Global Competitiveness Index:	5.1 (18/142)	- Necessity-Driven TEA Rate:	0.9
Global Innovation Index:	49 (22/125)	- Medium-High Job Expectation Rate: (MHEA)	1.8
Doing Business Index:	(29/183)	Entrepreneurial Employee Activity Rate (EEA):	3.9
GEDI Index:	0.45 (18/79)	- Private Sector EEA Rate (PEEA):	2.4
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



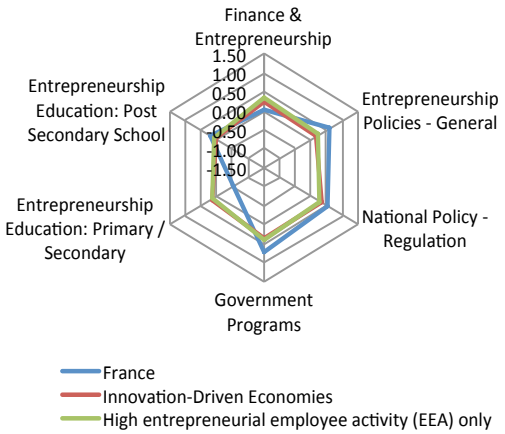
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

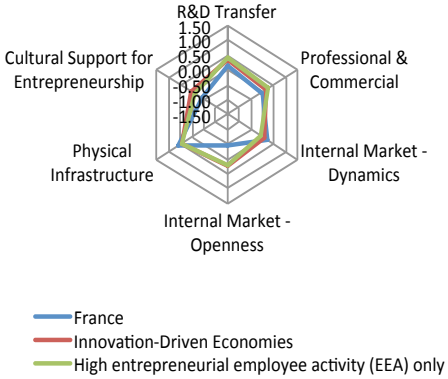
For France, the balance of the entrepreneurial profile especially appears to lean towards entrepreneurial employee activity.

GEM 2011 National Summary Sheet

France

Entrepreneurship Institution Profile

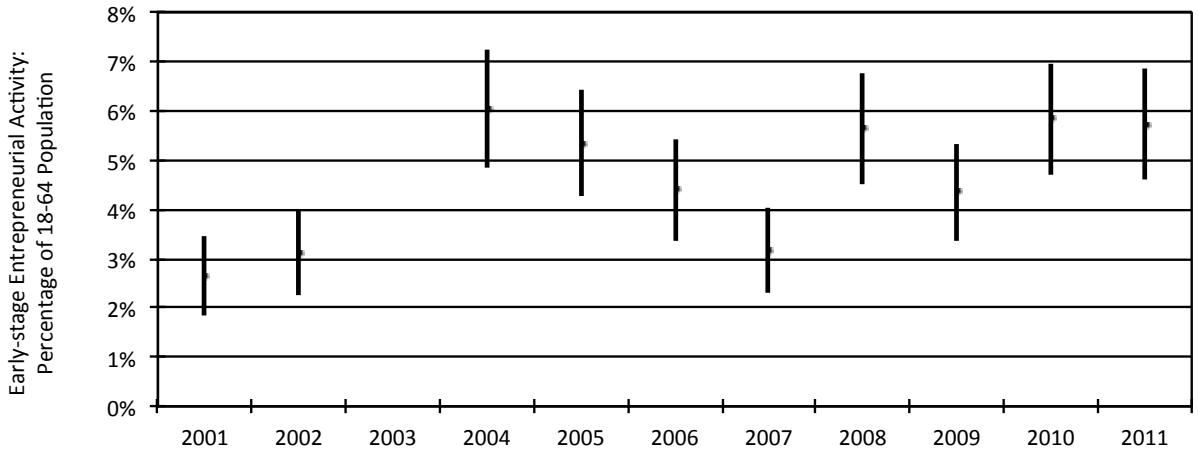




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

French experts are positive about entrepreneurship policies and government programs but have concerns with primary & secondary education related to entrepreneurship. Cultural support for entrepreneurship and internal market openness are other concerns, witness the assessment of the French experts in comparison to those in the reference groups.

Trend in Total early-stage Entrepreneurial Activity (TEA)



Note: 2003 values removed.

The French TEA rate has fluctuated between 3% and 6% over the past seven years.

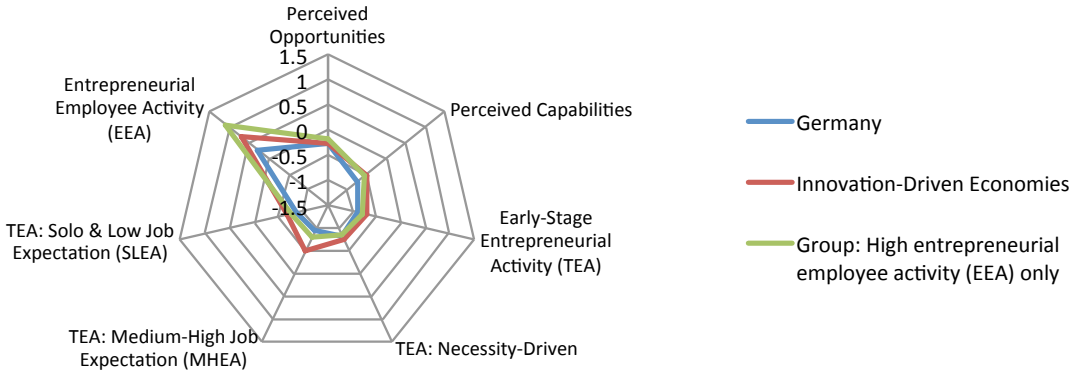
GEM 2011 National Summary Sheet

Germany

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	82,302	Perceived Opportunities	35
Area (x 1,000 km^2):	349	Perceived Capabilities	37
Density (persons / km^2):	230.5	Fear of Failure	50
GDP Per Capita (PPP) (USD):	37,936		
		Nascent Entrepreneurship Rate:	3.4
Global Happiness Index:	7.1 (29/149)	Owner-Managers in New Businesses Rate:	2.4
Human Development Index:	0.91 (9/187)	Owner-Managers in Established Businesses Rate:	5.6
		Total early-stage Entrepreneurial Activity Rate (TEA):	5.6
Global Competitiveness Index:	5.4 (6/142)	- Necessity-Driven TEA Rate:	1.0
Global Innovation Index:	55 (12/125)	- Medium-High Job Expectation Rate: (MHEA)	1.4
Doing Business Index:	(19/183)	Entrepreneurial Employee Activity Rate (EEA):	3.5
GEDI Index:	0.46 (16/79)	- Private Sector EEA Rate (PEEA):	2.5
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



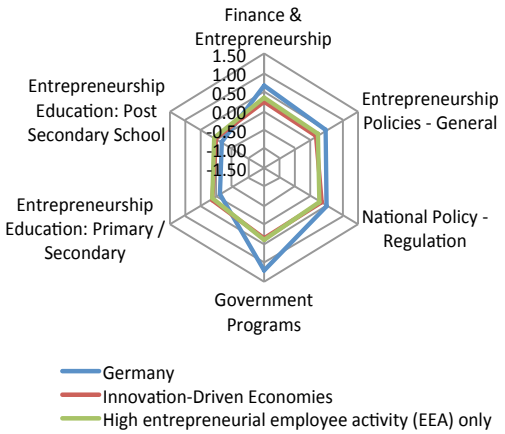
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

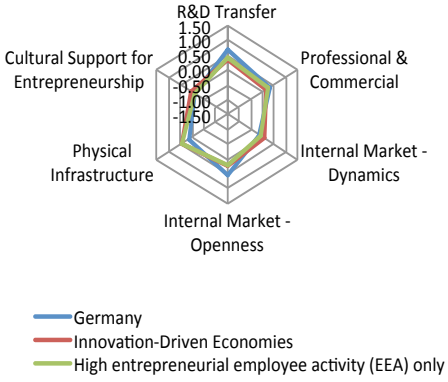
Germany, traditionally, is a country with a rather low level of entrepreneurial activity as measured by GEM indicators if compared with other innovation-driven countries. Furthermore, opportunity perception as well as perceived capabilities show less positive results than for comparable countries. Germany is an example of a country characterized by low entrepreneurial activities, but favorable entrepreneurial framework conditions at least for several of the indicators considered (see next figure).

GEM 2011 National Summary Sheet

Germany

Entrepreneurship Institution Profile

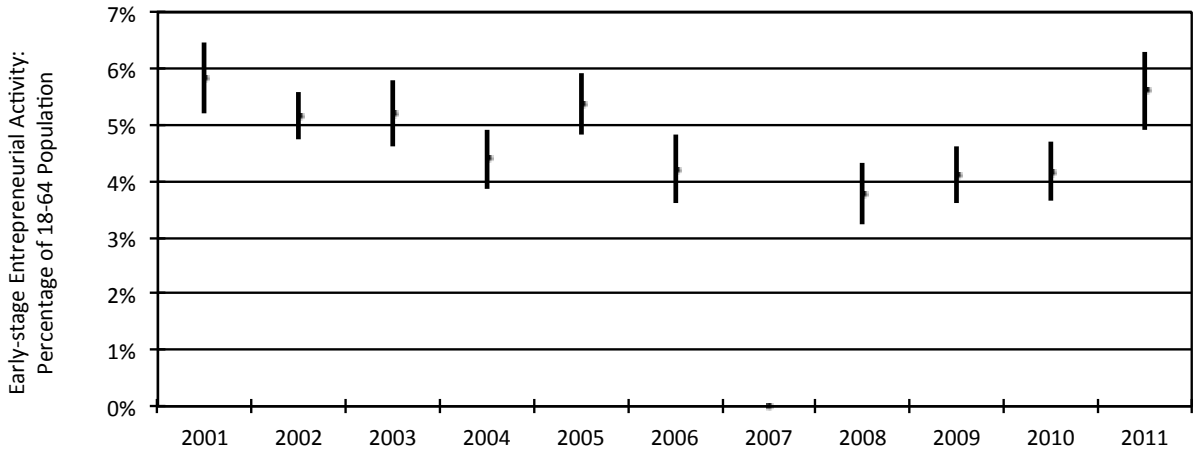




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Germany's comparative strengths include its government support schemes, national policies (regulation etc.) and R&D transfer. In contrast, the German experts interviewed assess as rather negative the school-based preparation for self-employment and the social values and norms. Irrespective of how the experts judge the framework conditions (good vs. poor), the latter are important in very different ways. In Germany the majority of the framework conditions that are regarded as particularly important are those for which Germany is given comparably poor marks, there is a need for political action in the latter areas.

Trend in Total early-stage Entrepreneurial Activity (TEA)



While TEA rate was rather stable in recent years, the value has increase statistically significant between 2010 and 2011 (as in many other comparable countries). It is now at a very similar level the country had reached during the new economy and .com boom a decade ago when numerous start-ups appeared in Germany. Obviously the financial and economic crisis of the recent years had at least not led to decrease of start-ups in this country.

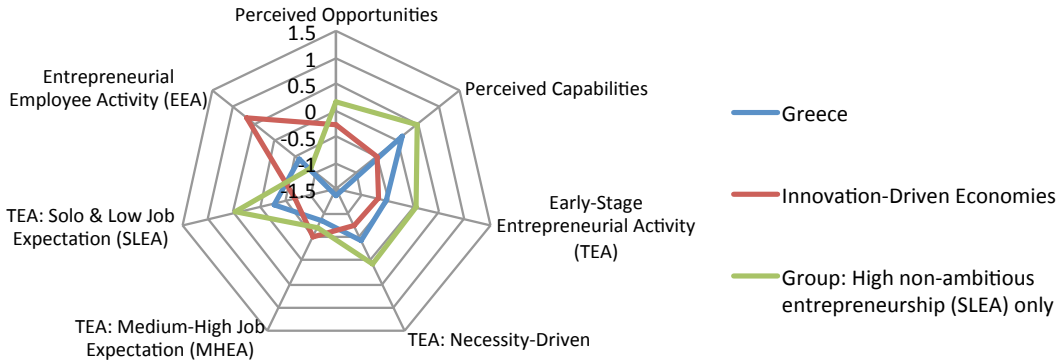
GEM 2011 National Summary Sheet

Greece

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	11,359	Perceived Opportunities	11
Area (x 1,000 km^2):	129	Perceived Capabilities	50
Density (persons / km^2):	86.1	Fear of Failure	68
GDP Per Capita (PPP) (USD):	27,624		
		Nascent Entrepreneurship Rate:	4.4
Global Happiness Index:	6.4 (57/149)	Owner-Managers in New Businesses Rate:	3.7
Human Development Index:	0.86 (29/187)	Owner-Managers in Established Businesses Rate:	15.8
		Total early-stage Entrepreneurial Activity Rate (TEA):	8.0
Global Competitiveness Index:	3.9 (90/142)	- Necessity-Driven TEA Rate:	2.0
Global Innovation Index:	34 (63/125)	- Medium-High Job Expectation Rate: (MHEA)	1.7
Doing Business Index:	(100/183)	Entrepreneurial Employee Activity Rate (EEA):	1.3
GEDI Index:	0.29 (38/79)	- Private Sector EEA Rate (PEEA):	1.0
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



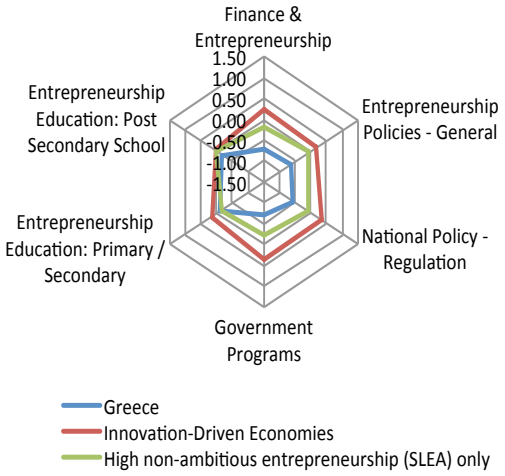
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

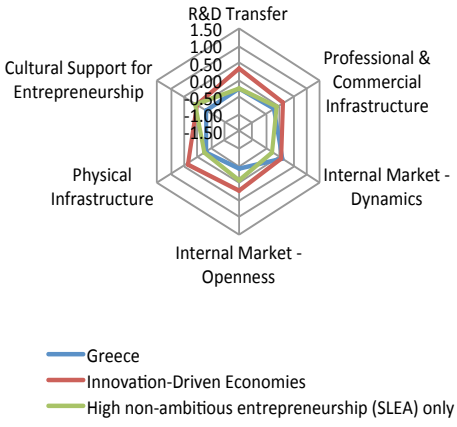
Despite the adverse economic situation and the uncertainty even for short-term developments, the entrepreneurial activity bounced back to 8.0% in 2011. However, necessity motivated a smaller percentage of the total population (2.0% vs. 2.3%) and of TEA (25.4% vs. 27.4%) compared to 2010. This underlines an interesting change in people's definition of opportunity, probably stemming from increasing unemployment, first identified in 2010.

GEM 2011 National Summary Sheet

Greece

Entrepreneurship Institution Profile

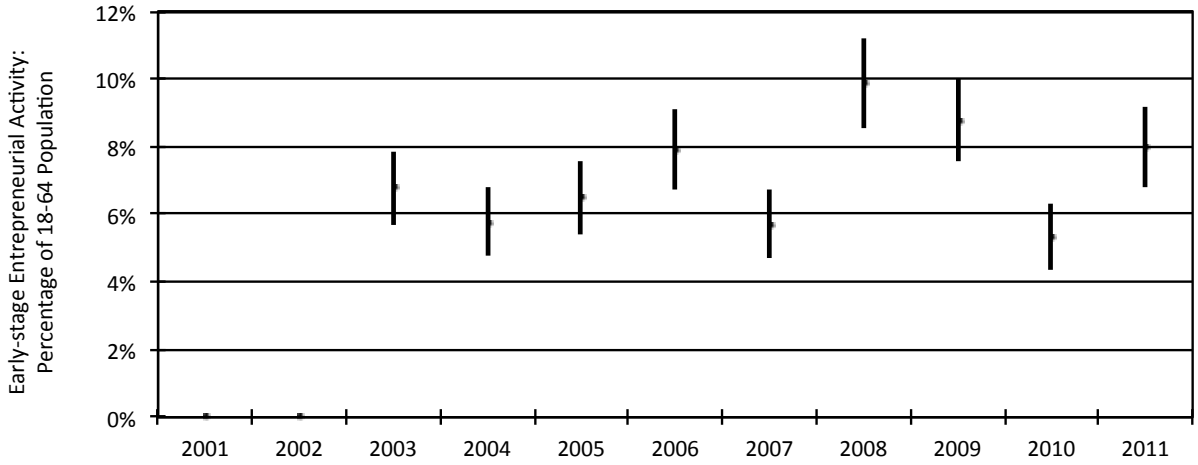




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Except from physical and commercial infrastructure, as well as cultural support for entrepreneurship, all other elements constituting the entrepreneurship framework conditions are assessed negatively for another year, since no significant restructuring or reform has taken place over the past few years.

Trend in Total early-stage Entrepreneurial Activity (TEA)



From 2003 to 2008 TEA index demonstrates mild fluctuations. This is not true for the following three years: 9.9% in 2009 vs. 5.3% in 2010 and a rebound to 8.0% in 2011. One can argue that the Greeks used entrepreneurship as a refuge from the crisis, not always judging correctly though, which is why TEA rate plummets in 2010. But the deepening of the recession drives TEA back upwards, since employment perspectives deteriorate further.

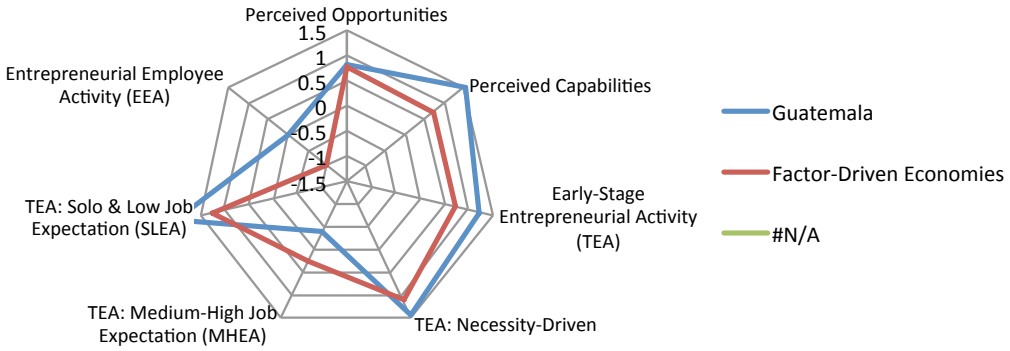
GEM 2011 National Summary Sheet

Guatemala

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	14,389	Perceived Opportunities	55
Area (x 1,000 km^2):	107	Perceived Capabilities	71
Density (persons / km^2):	132.1	Fear of Failure	30
GDP Per Capita (PPP) (USD):	5,033		
		Nascent Entrepreneurship Rate:	11.8
Global Happiness Index:	7.2 (25/149)	Owner-Managers in New Businesses Rate:	9.1
Human Development Index:	0.57 (131/187)	Owner-Managers in Established Businesses Rate:	2.5
		Total early-stage Entrepreneurial Activity Rate (TEA):	19.3
Global Competitiveness Index:	4 (84/142)	- Necessity-Driven TEA Rate:	6.5
Global Innovation Index:	29 (86/125)	- Medium-High Job Expectation Rate: (MHEA)	2.7
Doing Business Index:	(97/183)	Entrepreneurial Employee Activity Rate (EEA):	0.0
GEDI Index:	0.13 (75/79)	- Private Sector EEA Rate (PEEA):	0.0
Classification Phase of Economic Development:		Factor-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		N/A	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



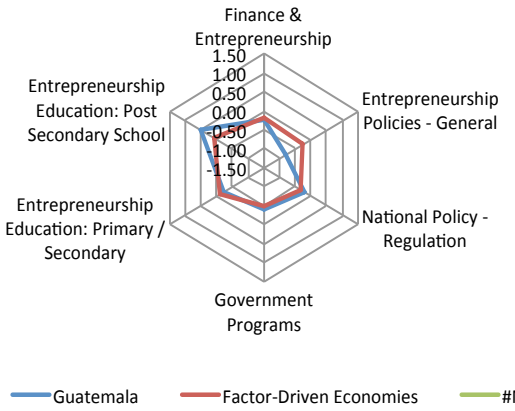
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

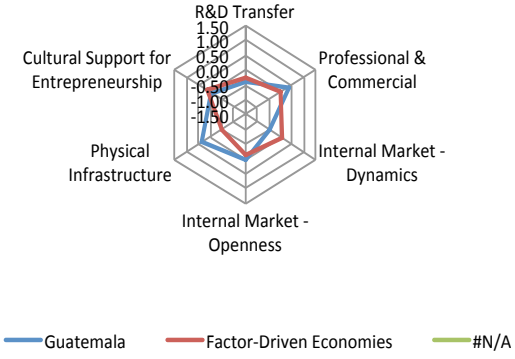
In this cycle Guatemala shows an increase in many activity indicators. However expectation about job creation and business growth remains equal or lower than the previous years. Many elements of the business climate should improve before observing a change in this indicator, the government ending in 2012 paid no attention to the business environment and job creation.

GEM 2011 NATIONAL SUMMARY SHEET

GUATEMALA

Entrepreneurship Institution Profile

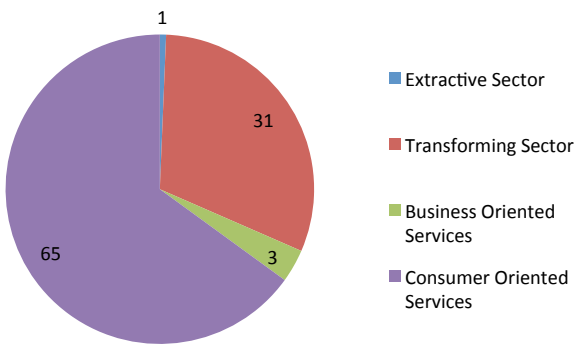


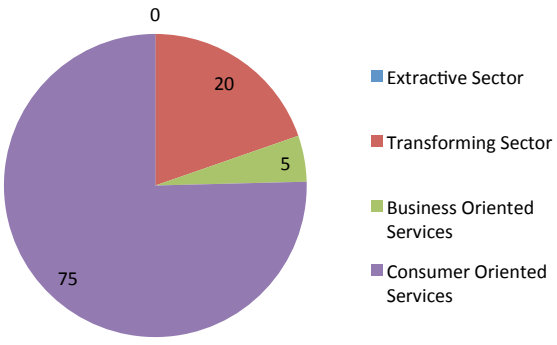


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Despite that for many Guatemalan families entrepreneurship is the only option to generate income, entrepreneurial policies has not been a priority in the economic and political agenda of any elected government. This explains the pattern of answers reflected in the information collected by the NES. Despite Guatemala has similar results as the average of Factor Driven Economies, it is still far from the level reached by countries like Chile and Colombia which are the reference point of the ideal conditions.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Guatemalan entrepreneurs face several constraints to the type of business they can start: low access and quality in education and the lack of financial markets for small business are the most important factors that determine the particular activity of any entrepreneur. More than half of the early entrepreneurship and established business are on the consumer oriented services. Business activity that requires low investments and little educational skills by their owners.

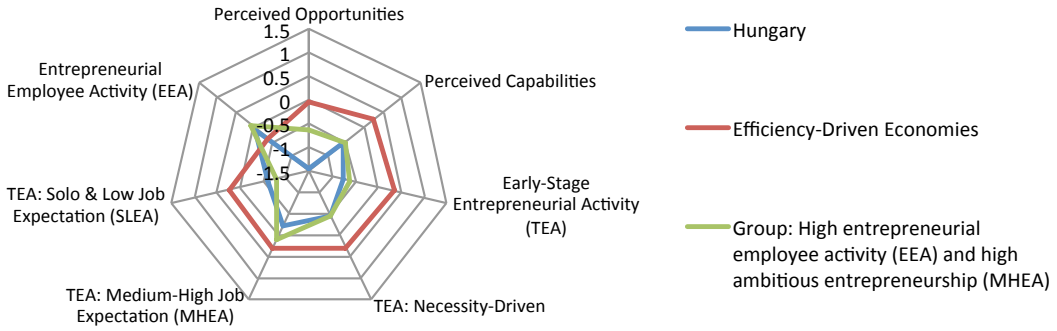
GEM 2011 National Summary Sheet

Hungary

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	9,984	Perceived Opportunities	14
Area (x 1,000 km^2):	91	Perceived Capabilities	40
Density (persons / km^2):	107.3	Fear of Failure	45
GDP Per Capita (PPP) (USD):	19,647		
		Nascent Entrepreneurship Rate:	4.8
Global Happiness Index:	5.5 (87/149)	Owner-Managers in New Businesses Rate:	1.6
Human Development Index:	0.82 (38/187)	Owner-Managers in Established Businesses Rate:	2.0
		Total early-stage Entrepreneurial Activity Rate (TEA):	6.3
Global Competitiveness Index:	4.4 (48/142)	- Necessity-Driven TEA Rate:	2.0
Global Innovation Index:	48 (25/125)	- Medium-High Job Expectation Rate: (MHEA)	3.2
Doing Business Index:	(51/183)	Entrepreneurial Employee Activity Rate (EEA):	2.6
GEDI Index:	0.29 (34/79)	- Private Sector EEA Rate (PEEA):	2.1
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



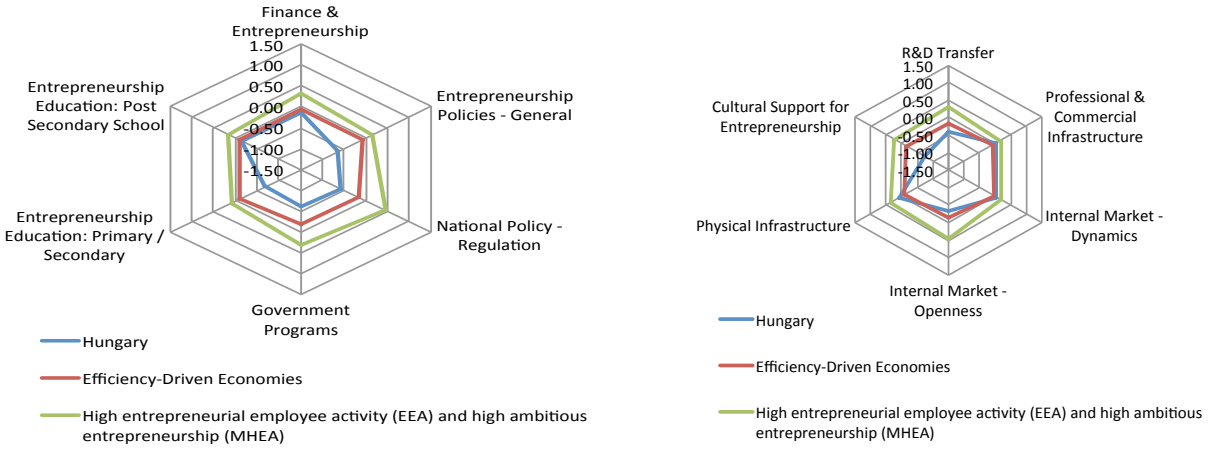
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Hungary's overall performance is below to the similarly developed efficiency driven economies and to the EEA and MHEA country groups. The most problematic factor, for many years, has been the extremely low value of the perceived opportunities pulling back entrepreneurial attitudes. At the same time, job expectations are also below the average. While the TEA index value of Hungary is short to the EEA and MHEA countries, the entrepreneurial Employee Activity is higher than the average.

GEM 2011 NATIONAL SUMMARY SHEET

HUNGARY

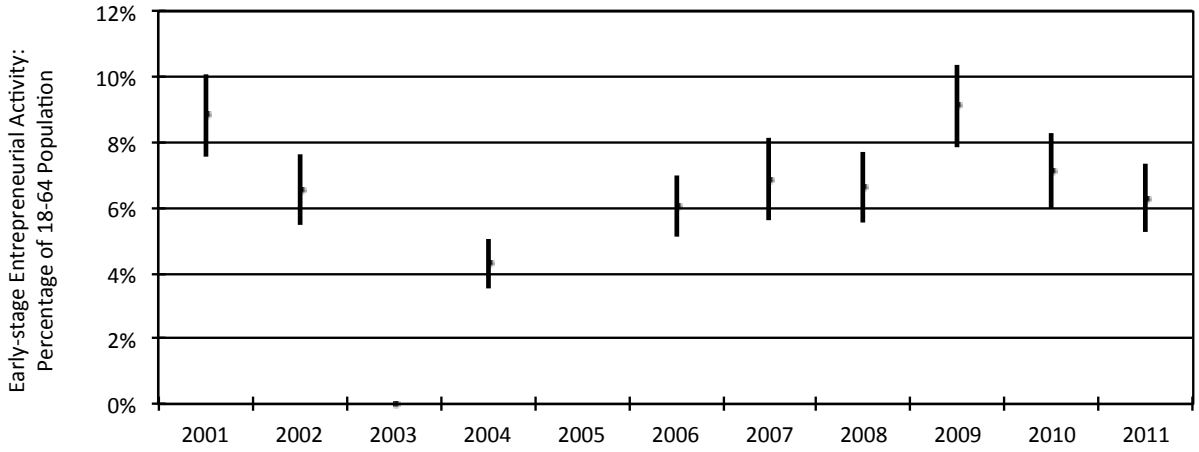
Entrepreneurship Institution Profile



Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

According to the expert's opinion, out of the twelve institutional categories, Hungary is about the average in Finance, Entrepreneurship education in post secondary schools, Professional and commercial infrastructure, Internal market dynamics and Physical infrastructure. However, Hungary is poorly performs in entrepreneurship and public policy related categories like General entrepreneurship policy, Regulation and Government programs. The cultural support for entrepreneurship is traditionally extremely low.

Trend in Total early-stage Entrepreneurial Activity (TEA)



Note: 2005 values removed.

Over the years the TEA index is about 6.5 percent in Hungary on the average that fits to the country's development. Since 2006 there was only one year, 2009 when the TEA exceeded the 9 percent. By 2011 the TEA went back to around 6.2 percent. The relatively high TEA rates were neither the sign of the increased growth nor the clearing of the market but the re-establishment of the previously terminated businesses with cleaned balance sheets.

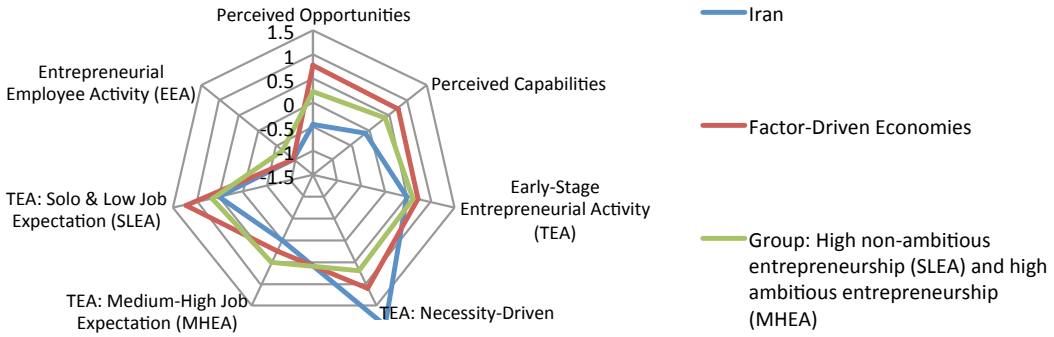
GEM 2011 National Summary Sheet

Iran

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	73,974	Perceived Opportunities	32
Area (x 1,000 km^2):	1,629	Perceived Capabilities	46
Density (persons / km^2):	44.9	Fear of Failure	25
GDP Per Capita (PPP) (USD):	12,258		
		Nascent Entrepreneurship Rate:	10.8
Global Happiness Index:	5.9 (72/149)	Owner-Managers in New Businesses Rate:	3.9
Human Development Index:	0.71 (88/187)	Owner-Managers in Established Businesses Rate:	11.2
		Total early-stage Entrepreneurial Activity Rate (TEA):	14.5
Global Competitiveness Index:	4.3 (62/142)	- Necessity-Driven TEA Rate:	7.7
Global Innovation Index:	28 (95/125)	- Medium-High Job Expectation Rate: (MHEA)	3.8
Doing Business Index:	(144/183)	Entrepreneurial Employee Activity Rate (EEA):	0.4
GEDI Index:	0.17 (67/79)	- Private Sector EEA Rate (PEEA):	0.2
Classification Phase of Economic Development:		Factor-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



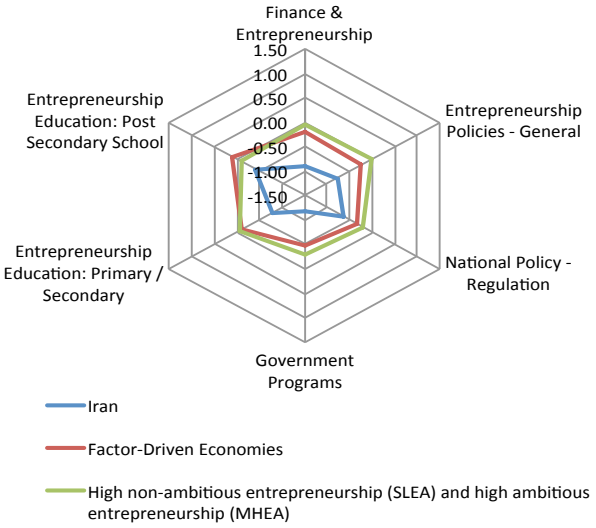
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

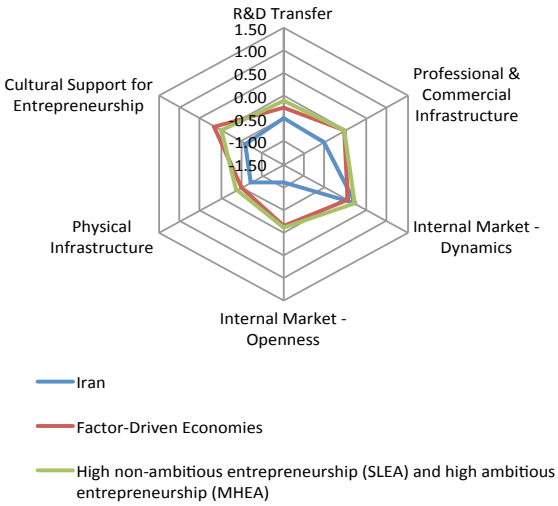
Iran is characterized particularly by low perceptions of opportunities and capabilities, and a high rate of necessity-driven early-stage entrepreneurship, in comparison to the two reference groups.

GEM 2011 National Summary Sheet

Iran

Entrepreneurship Institution Profile

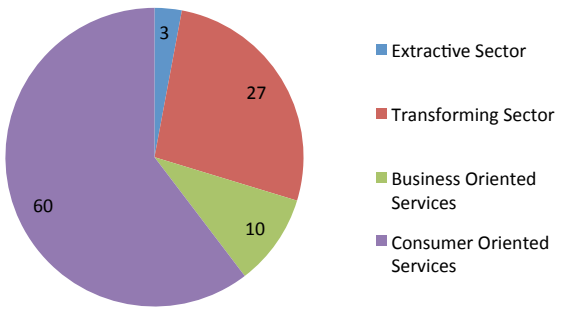


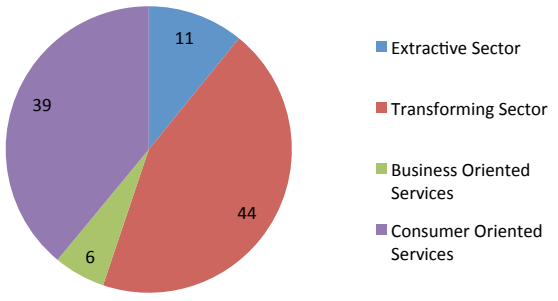


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

All entrepreneurship framework conditions are relatively weakly assessed by experts in Iran, except for internal market dynamics.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Early-stage entrepreneurs in Iran tend to be more involved in consumer oriented services and less in the extractive and transforming sectors.

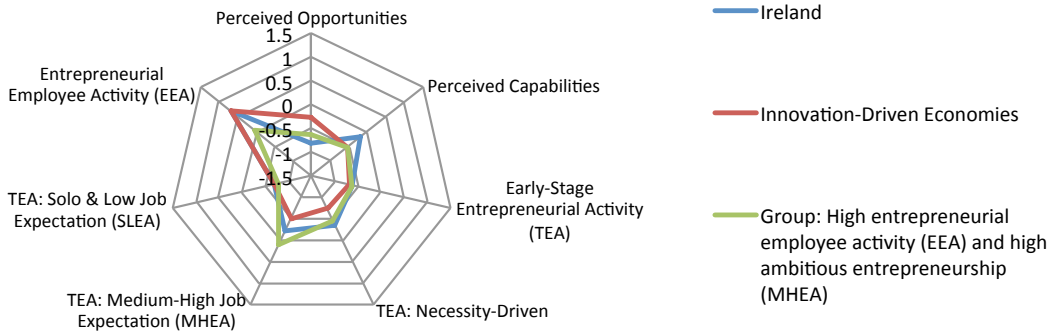
GEM 2011 National Summary Sheet

Ireland

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	4,470	Perceived Opportunities	26
Area (x 1,000 km^2):	69	Perceived Capabilities	46
Density (persons / km^2):	63.6	Fear of Failure	41
GDP Per Capita (PPP) (USD):	39,508		
		Nascent Entrepreneurship Rate:	4.3
Global Happiness Index:	7.6 (16/149)	Owner-Managers in New Businesses Rate:	3.1
Human Development Index:	0.91 (7/187)	Owner-Managers in Established Businesses Rate:	8.0
		Total early-stage Entrepreneurial Activity Rate (TEA):	7.3
Global Competitiveness Index:	4.8 (29/142)	- Necessity-Driven TEA Rate:	2.1
Global Innovation Index:	54 (13/125)	- Medium-High Job Expectation Rate: (MHEA)	3.2
Doing Business Index:	(10/183)	Entrepreneurial Employee Activity Rate (EEA):	4.6
GEDI Index:	0.46 (15/79)	- Private Sector EEA Rate (PEEA):	3.0
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile

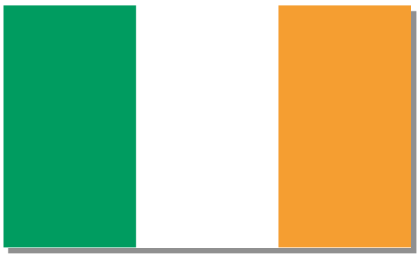


Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

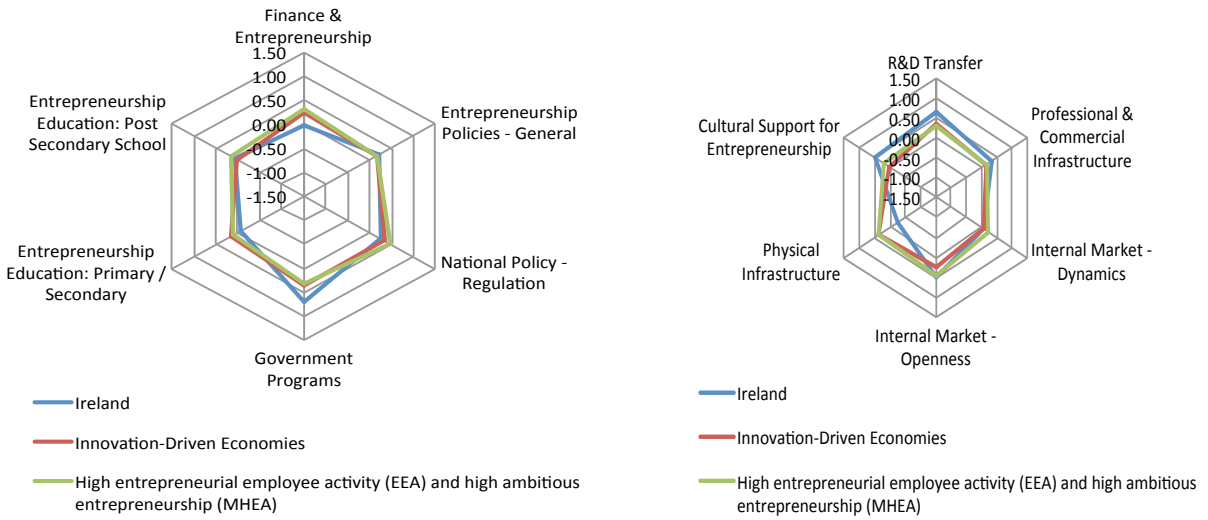
Of particular note in Ireland is the very low level of perceived opportunities. This may reflect the lack of consumer spending and the general lack of confidence which is associated with the recent financial crises and the current recession. However, Ireland is also characterised by a relatively high level of perceived ability to successfully start and run a new business.

GEM 2011 NATIONAL SUMMARY SHEET

IRELAND



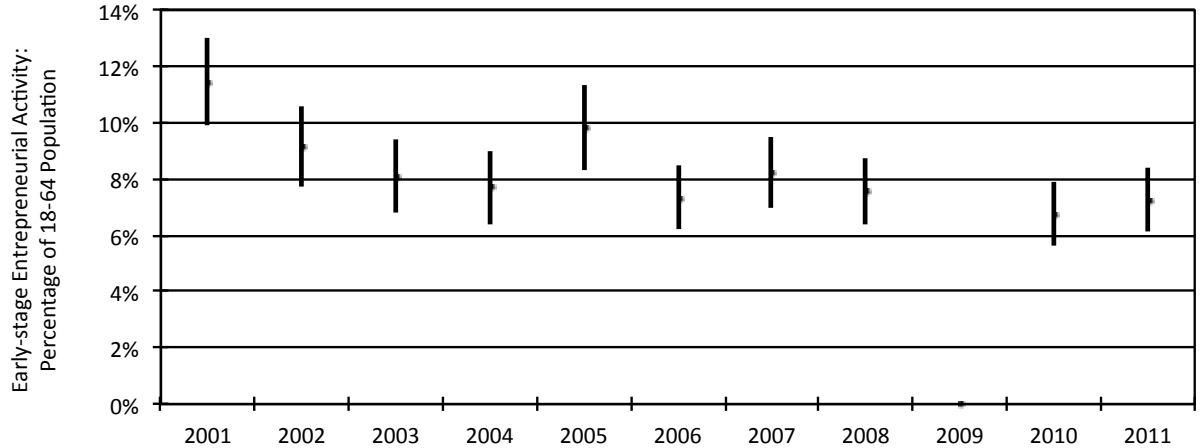
Entrepreneurship Institution Profile



Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Ireland is characterised by a very supportive Government sentiment towards entrepreneurship. Government policy and the support programme offered by the agencies, in particular Enterprise Ireland and the County Enterprise Boards are held in high regard. Cultural support for entrepreneurs continues high in that entrepreneurs are considered to have high status. The perception of entrepreneurship as a good career option, however, has decreased significantly in recent years. Access and availability of finance are major issues and are much more so in Ireland than in comparable countries.

Trend in Total early-stage Entrepreneurial Activity (TEA)



Levels of entrepreneurial activity have remained relatively constant over recent years. However, as reported in 2010 and 2011, there has been a significant increase in the percentage of entrepreneurs that are 'necessity' rather than 'opportunity' driven.

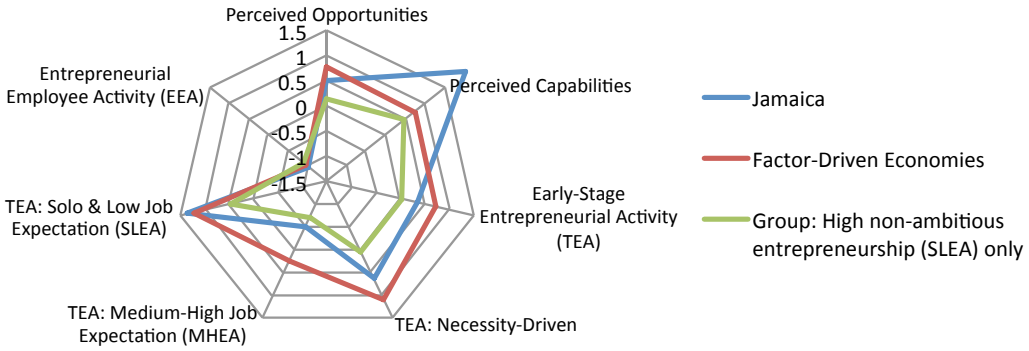
GEM 2011 National Summary Sheet

Jamaica

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	2,741	Perceived Opportunities	49
Area (x 1,000 km^2):	11	Perceived Capabilities	79
Density (persons / km^2):	249.4	Fear of Failure	32
GDP Per Capita (PPP) (USD):	9,004		
		Nascent Entrepreneurship Rate:	9.0
Global Happiness Index:	6.7 (44/149)	Owner-Managers in New Businesses Rate:	5.0
Human Development Index:	0.73 (79/187)	Owner-Managers in Established Businesses Rate:	5.1
		Total early-stage Entrepreneurial Activity Rate (TEA):	13.7
Global Competitiveness Index:	3.8 (107/142)	- Necessity-Driven TEA Rate:	4.5
Global Innovation Index:	29 (92/125)	- Medium-High Job Expectation Rate: (MHEA)	2.5
Doing Business Index:	(88/183)	Entrepreneurial Employee Activity Rate (EEA):	0.1
GEDI Index:	0.22 (50/79)	- Private Sector EEA Rate (PEEA):	0.1
Classification Phase of Economic Development:		Factor-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



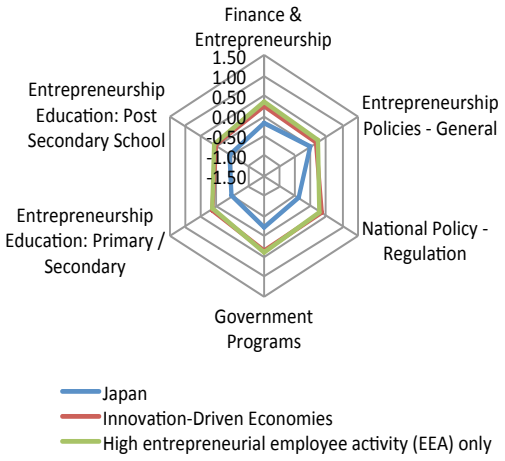
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

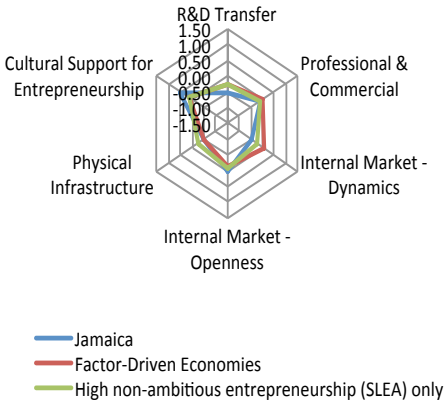
Nascent entrepreneurship increased from 6% in 2010 to 9% in 2011 while the TEA rate moved marginally from 10.5% in 2010 to 13.7% in 2011. The Statistical Institute of Jamaica reported that the unemployment rate increased from 11.6% in July 2010 to 12.9% in January 2011, and to 12.3% in July 2011. Perceived opportunities declined from 56% in 2010 to 49% in 2011.

GEM 2011 National Summary Sheet

Jamaica

Entrepreneurship Institution Profile

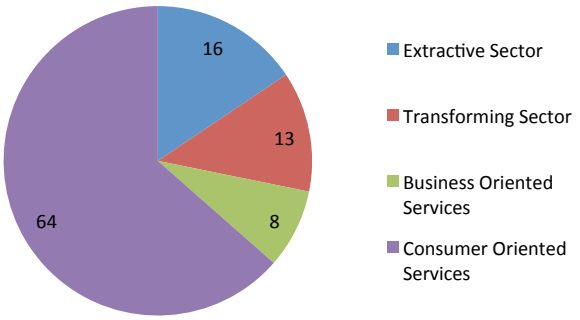


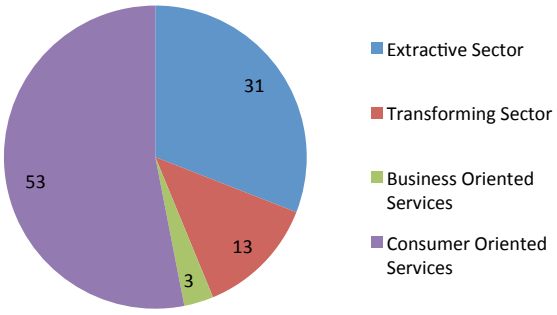


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

The government has increasingly been advancing entrepreneurship as one of the means of job- creation and also as a strategy for inducing growth in the economy. It is heartening that in 2011 the Caribbean Examinations Council (CXC) introduced Entrepreneurship Education as a course in the Caribbean Advanced Proficiency Examination (CAPE) curricula. This bold initiative may hopefully support resourcefulness, self-sufficiency and initiative in teaching, and may lead to more entrepreneurial thinking at the secondary level of education.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity

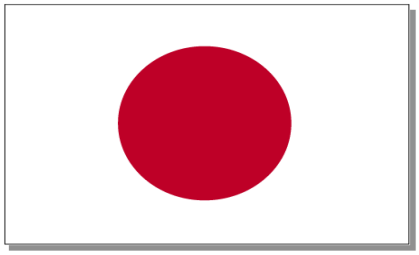




Statistical economic indicators showed that the country has been performing poorly over the past several years. The established business ownership rate for 2011 was 5.1%, falling from 7.91% in 2010. It is hoped that the comparatively higher proportions of business oriented and consumer oriented services in TEA versus established businesses, would eventually lead to a strengthening of these sectors.

GEM 2011 National Summary Sheet

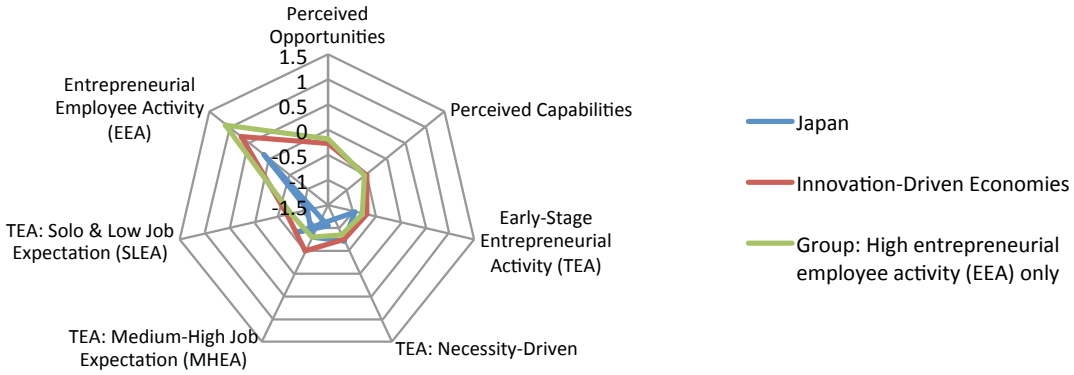
Japan



General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	126,536	Perceived Opportunities	6
Area (x 1,000 km^2):	365	Perceived Capabilities	14
Density (persons / km^2):	334.9	Fear of Failure	47
GDP Per Capita (PPP) (USD):	34,362		
		Nascent Entrepreneurship Rate:	3.3
Global Happiness Index:	6.5 (53/149)	Owner-Managers in New Businesses Rate:	2.0
Human Development Index:	0.9 (12/187)	Owner-Managers in Established Businesses Rate:	8.3
		Total early-stage Entrepreneurial Activity Rate (TEA):	5.2
Global Competitiveness Index:	5.4 (9/142)	- Necessity-Driven TEA Rate:	1.3
Global Innovation Index:	50 (20/125)	- Medium-High Job Expectation Rate: (MHEA)	1.8
Doing Business Index:	(20/183)	Entrepreneurial Employee Activity Rate (EEA):	3.1
GEDI Index:	0.34 (28/79)	- Private Sector EEA Rate (PEEA):	2.7
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile

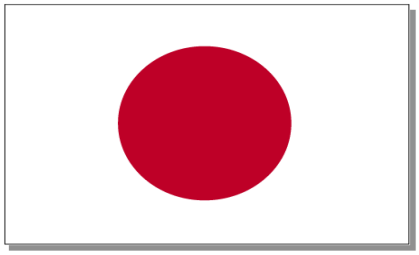


Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

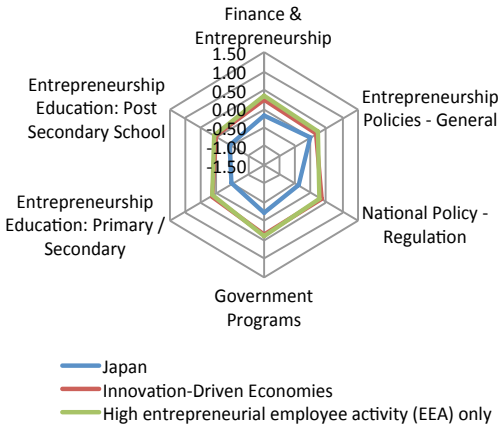
Japan demonstrates very low levels of perceived opportunities and capabilities in comparison to the reference groups, whereas activity rates, including entrepreneurial employee activity are more in par with the reference groups.

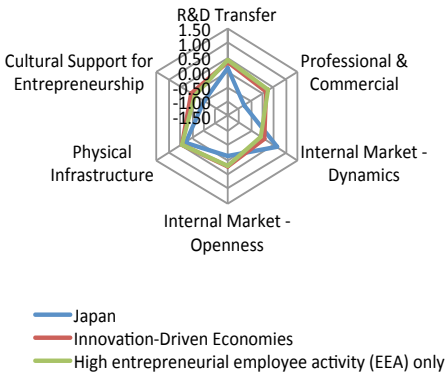
GEM 2011 National Summary Sheet

Japan



Entrepreneurship Institution Profile

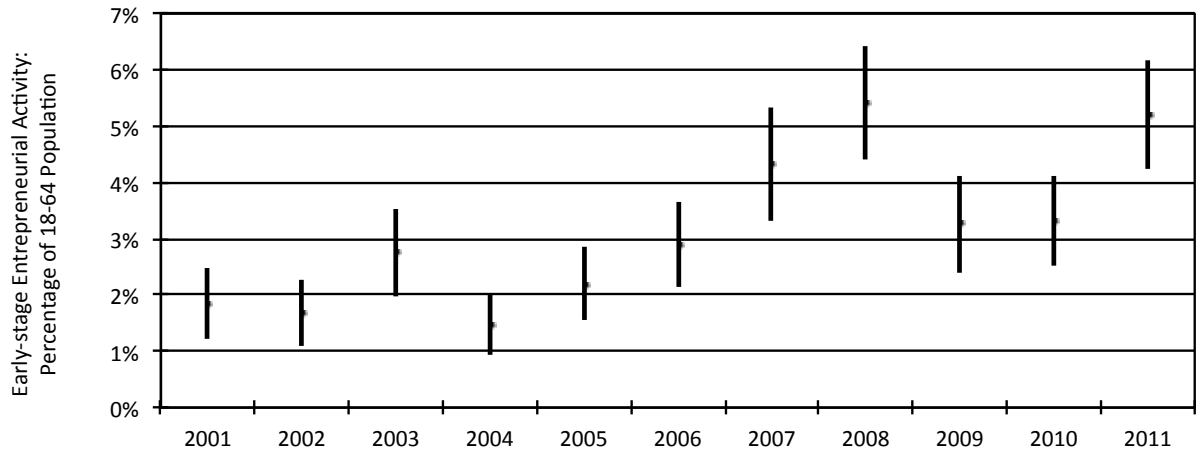




Note: Groups values based on GEM 2011 NES data; Japan values based on 2010 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Most framework conditions are assessed rather negatively in comparison to those of the economies in the reference groups. Cultural support for entrepreneurship appears to be the biggest concern, while internal market dynamics are assessed relatively favorably.

Trend in Total early-stage Entrepreneurial Activity (TEA)



The Japanese TEA rate seems to have increased substantially since 2004, when it was among the lowest of all GEM economies. A temporarily dip was observed in 2009 and 2010, as with many other economies.

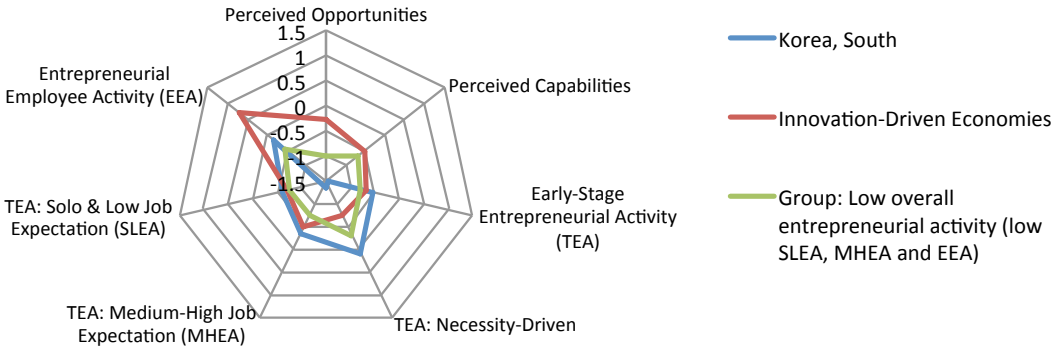
GEM 2011 National Summary Sheet

Republic of Korea

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	48,184	Perceived Opportunities	11
Area (x 1,000 km^2):	97	Perceived Capabilities	27
Density (persons / km^2):	484.1	Fear of Failure	40
GDP Per Capita (PPP) (USD):	31,754		
		Nascent Entrepreneurship Rate:	2.9
Global Happiness Index:	6 (70/149)	Owner-Managers in New Businesses Rate:	5.1
Human Development Index:	0.9 (15/187)	Owner-Managers in Established Businesses Rate:	10.9
		Total early-stage Entrepreneurial Activity Rate (TEA):	7.8
Global Competitiveness Index:	5 (24/142)	- Necessity-Driven TEA Rate:	3.2
Global Innovation Index:	54 (16/125)	- Medium-High Job Expectation Rate: (MHEA)	2.8
Doing Business Index:	(8/183)	Entrepreneurial Employee Activity Rate (EEA):	2.4
GEDI Index:	0.35 (26/79)	- Private Sector EEA Rate (PEEA):	1.6
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		Low overall entrepreneurial activity (low SLEA, MHEA and EEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



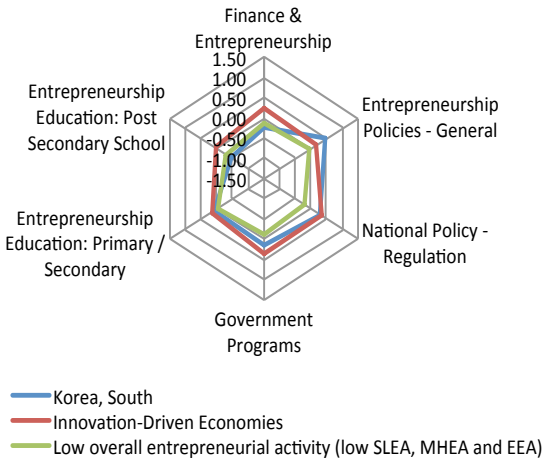
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

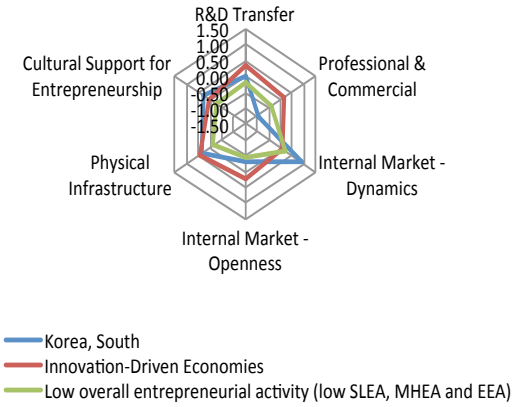
Entrepreneurial profile of Republic of Korea has different outlook with innovation-driven economies and the reference group especially in terms of perceived opportunities, perceived capabilities and necessity-driven TEA rate. Perceived opportunities and perceived capabilities are much lower than the comparative groups, and necessity-driven TEA is much higher than the groups. Any other aspects except those three things are similar with other comparative groups: TEA, MHEA, and SLEA are the same level. It is noteworthy that TEA rate is a little higher than the comparative groups despite the low entrepreneurial attitudes.

GEM 2011 National Summary Sheet

Republic of Korea

Entrepreneurship Institution Profile

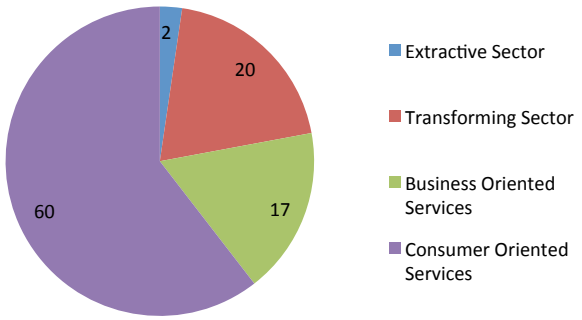


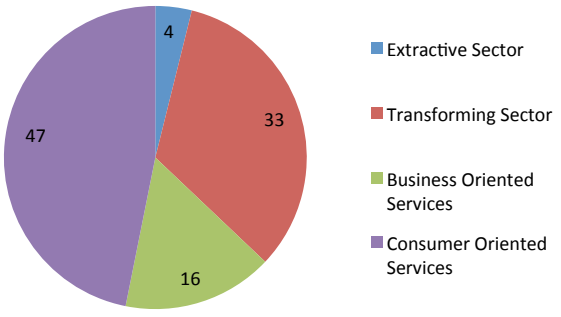


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Republic of Korea has an outstanding physical infrastructure and internal market dynamics in the entrepreneurial environment. In contrast, the professional & commercial sector has been weak in the past few years. Both national policy regulations and government programs support entrepreneurial activity relatively well. Specifically, entrepreneurship policies have enhanced entrepreneurial activity.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Looking into the TEA sector structure of Republic of Korea, consumer oriented services comprise the most part, and transforming sector and business oriented services follow. Extractive sector comprises the least. You can observe the similar pattern with established business sector structure. In established business activity, transforming sector is much bigger than the TEA and consumer oriented services are smaller than the TEA.

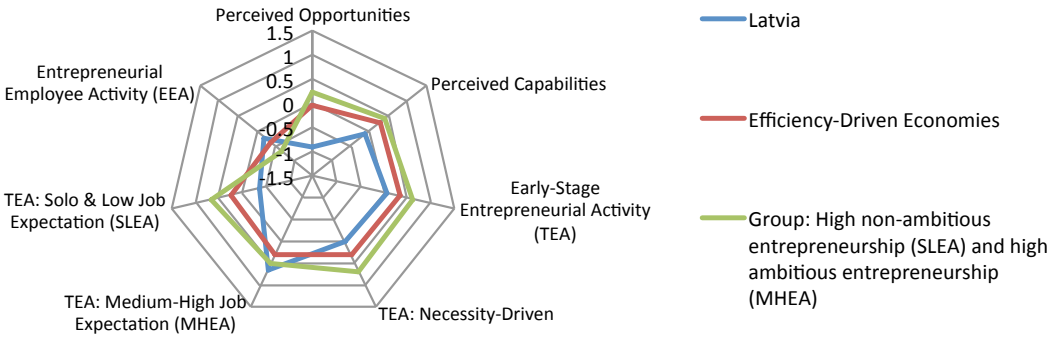
GEM 2011 National Summary Sheet

Latvia

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	2,252	Perceived Opportunities	24
Area (x 1,000 km^2):	62	Perceived Capabilities	47
Density (persons / km^2):	34.9	Fear of Failure	45
GDP Per Capita (PPP) (USD):	15,448		
		Nascent Entrepreneurship Rate:	6.8
Global Happiness Index:	5.4 (95/149)	Owner-Managers in New Businesses Rate:	5.3
Human Development Index:	0.81 (43/187)	Owner-Managers in Established Businesses Rate:	5.7
		Total early-stage Entrepreneurial Activity Rate (TEA):	11.9
Global Competitiveness Index:	4.2 (64/142)	- Necessity-Driven TEA Rate:	3.1
Global Innovation Index:	40 (36/125)	- Medium-High Job Expectation Rate: (MHEA)	5.4
Doing Business Index:	(21/183)	Entrepreneurial Employee Activity Rate (EEA):	2.2
GEDI Index:	0.31 (32/79)	- Private Sector EEA Rate (PEEA):	1.9
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



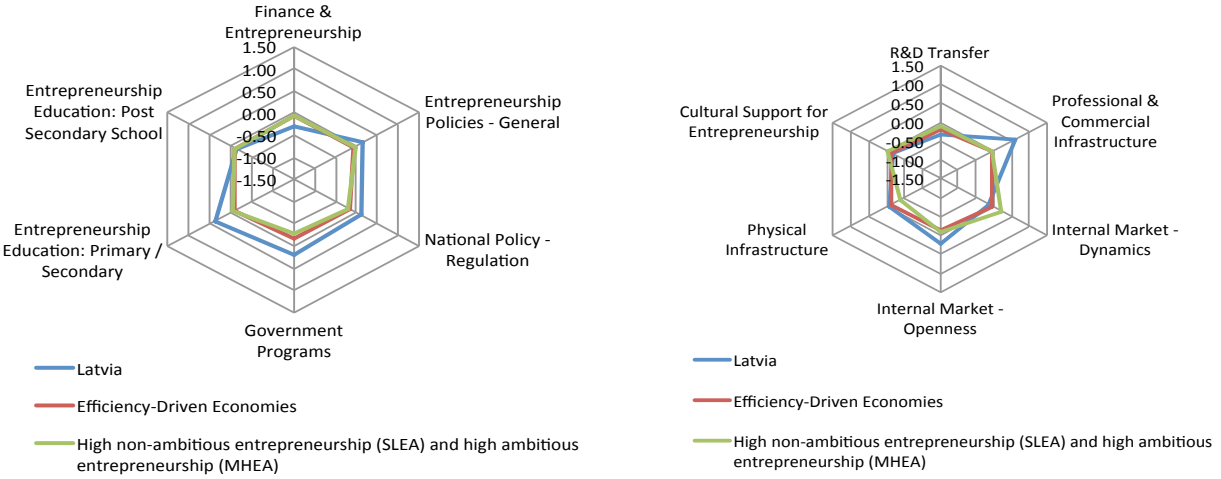
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Most of the indicators for Latvia are lower than Efficiency-Driven Economies average and comparative Group average. Noticeably smaller are Perceived Opportunities indicator and SLEA rate. The level of Perceived Opportunities in 2011 also decreased if compared to its level in 2010. The two exemptions, the two indicators for which Latvia has a little bit higher results than comparative countries average are Latvia's MHEA rate and EEA rate.

GEM 2011 NATIONAL SUMMARY SHEET

LATVIA

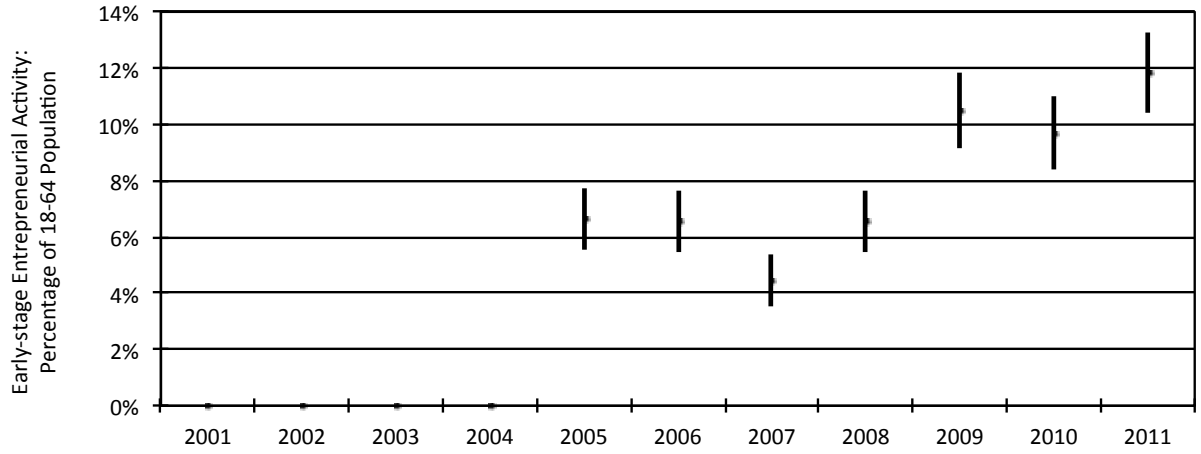
Entrepreneurship Institution Profile



Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Latvia's overall performance regarding entrepreneurship framework conditions is quite similar to what is observed on average in other Efficiency-Driven Economies and countries with high non-ambitious and high ambitious entrepreneurship. Latvia is doing particularly well in dimensions like National policy, Entrepreneurship Education; Primary/Secondary, Internal Market – Openness and Professional & Commercial Infrastructure.

Trend in Total early-stage Entrepreneurial Activity (TEA)



The Latvian experience shows that entrepreneurship seems to be counter-cyclical, i.e. it decreases in the years of economic growth, but increases during the recession. Latvia's TEA rate was rather constant over 2005 and 2006. In the following five years TEA rate was unstable and fluctuated a lot. A noticeable drop happened in 2007. TEA rate returned to its previous levels in 2008 and then a sharp increase has followed in 2009. Latvia's TEA rate has decreased in 2010 and started to increase again in 2011.

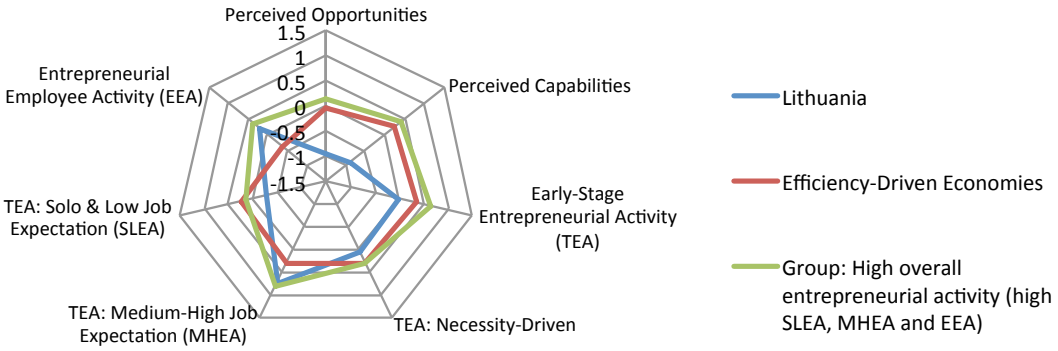
GEM 2011 National Summary Sheet

Lithuania

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	3,324	Perceived Opportunities	23
Area (x 1,000 km^2):	63	Perceived Capabilities	35
Density (persons / km^2):	50.9	Fear of Failure	48
GDP Per Capita (PPP) (USD):	18,770		
		Nascent Entrepreneurship Rate:	6.4
Global Happiness Index:	5.5 (90/149)	Owner-Managers in New Businesses Rate:	5.0
Human Development Index:	0.81 (40/187)	Owner-Managers in Established Businesses Rate:	6.3
		Total early-stage Entrepreneurial Activity Rate (TEA):	11.3
Global Competitiveness Index:	4.4 (44/142)	- Necessity-Driven TEA Rate:	3.2
Global Innovation Index:	38 (40/125)	- Medium-High Job Expectation Rate: (MHEA)	5.6
Doing Business Index:	(27/183)	Entrepreneurial Employee Activity Rate (EEA):	3.4
GEDI Index:	no data	- Private Sector EEA Rate (PEEA):	2.6
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High overall entrepreneurial activity (high SLEA, MHEA and EEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



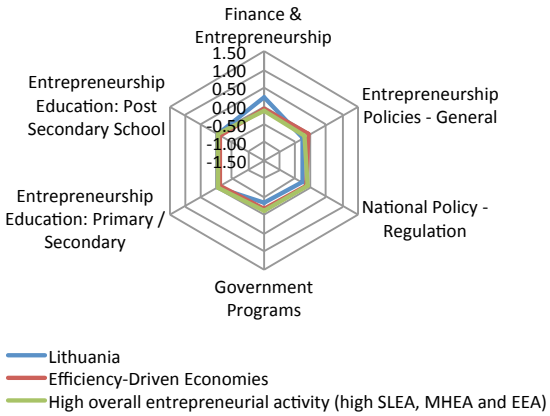
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

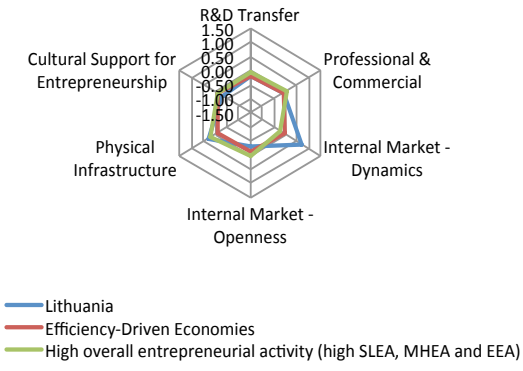
Being globally ranked at the 40th place, based on the Human Development Index and the Global Innovation Index (2011), and reaching the 27th position regarding the Doing Business Index, main strengths of the Lithuanian entrepreneurial performance are the total early-stage entrepreneurial activity, as a medium-high job expectation, and the entrepreneurial employee activity (EEA). A relatively low global ranking, according to the Global Happiness Index (90/149), is accompanied by low figures of perceived opportunities and capabilities.

GEM 2011 National Summary Sheet

Lithuania

Entrepreneurship Institution Profile

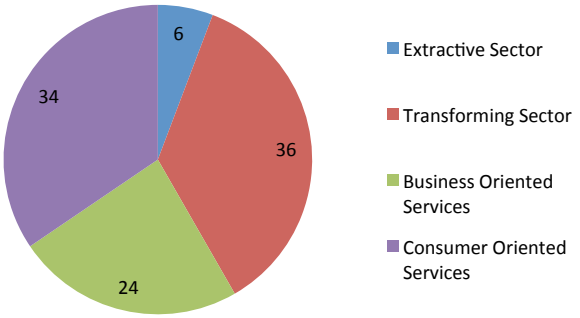


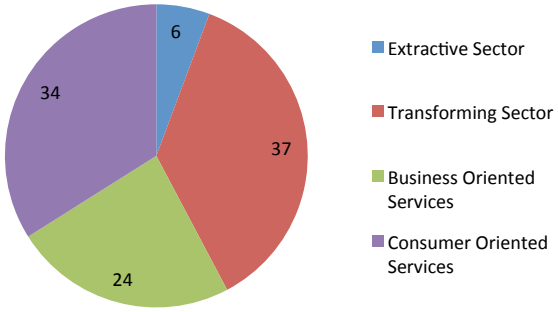


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Driven by the internal market dynamics and a well-developed physical infrastructure, the role of finance in strengthening the entrepreneurship performance emerges as the factor of significant importance in Lithuania. According to other indicators, the Lithuanian entrepreneurship institution profile matches general global trends.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity

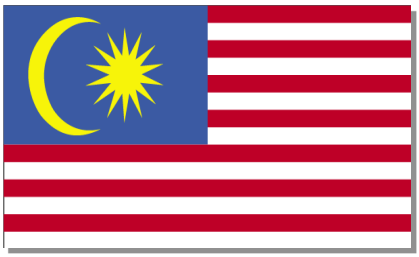




Transforming sector and consumer oriented services occupy the largest parts in the structure of the total early-stage entrepreneurial activities and the established business activities, based on the type of sector; while business oriented services with the share of 24 % is another sector of significant importance in Lithuania.

GEM 2011 National Summary Sheet

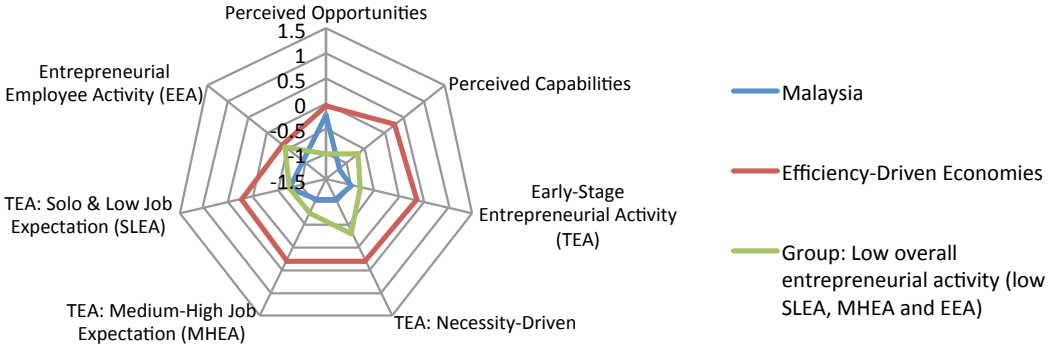
Malaysia



General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	28,401	Perceived Opportunities	37
Area (x 1,000 km^2):	329	Perceived Capabilities	31
Density (persons / km^2):	86.1	Fear of Failure	36
GDP Per Capita (PPP) (USD):	15,579		
		Nascent Entrepreneurship Rate:	2.5
Global Happiness Index:	6.5 (54/149)	Owner-Managers in New Businesses Rate:	2.5
Human Development Index:	0.76 (61/187)	Owner-Managers in Established Businesses Rate:	5.2
		Total early-stage Entrepreneurial Activity Rate (TEA):	4.9
Global Competitiveness Index:	5.1 (21/142)	- Necessity-Driven TEA Rate:	0.5
Global Innovation Index:	44 (31/125)	- Medium-High Job Expectation Rate: (MHEA)	1.1
Doing Business Index:	(18/183)	Entrepreneurial Employee Activity Rate (EEA):	0.4
GEDI Index:	0.25 (44/79)	- Private Sector EEA Rate (PEEA):	0.3
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		Low overall entrepreneurial activity (low SLEA, MHEA and EEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile

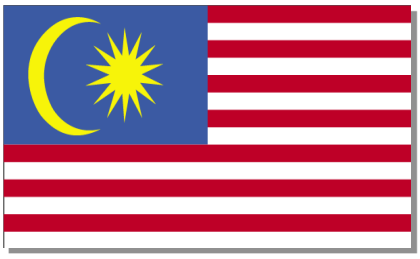


Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

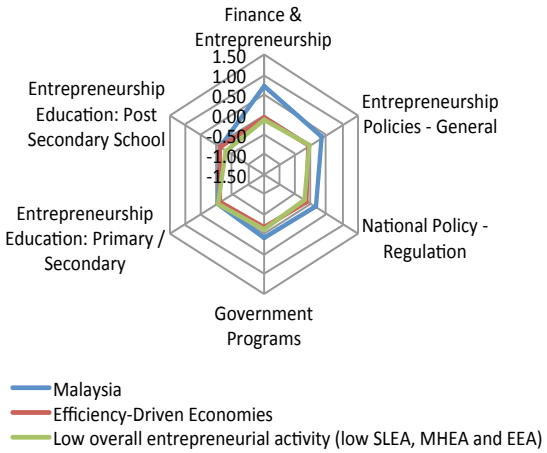
Overall the key entrepreneurial measure applied show a marginal decrease in entrepreneurial activity. This may be attributed to Malaysia's economic growth spurt after the recent economic crisis slowdown. The job opportunities come partly from a vigorous private sector and the largely private sector funded Government Transformation Programme (GTP) and Economic Transformation Programme (ETP) initiatives. This is indicated in the reduction of necessity-type entrepreneurship from 0.62% to 0.5%. The low levels of entrepreneurial propensity as well as activity as compared to other Efficiency-Driven Economies is indicative that the entrepreneurial programmes initiated has yet to bear fruit and will require greater efforts in the short term.

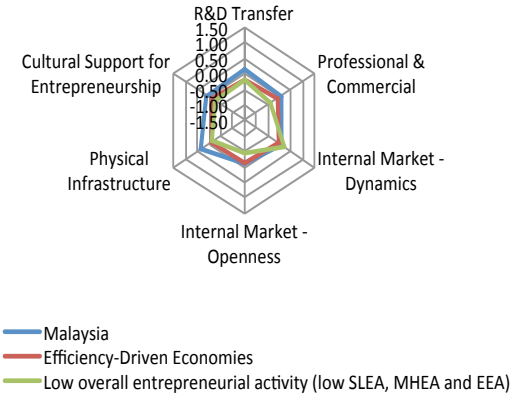
GEM 2011 National Summary Sheet

Malaysia



Entrepreneurship Institution Profile

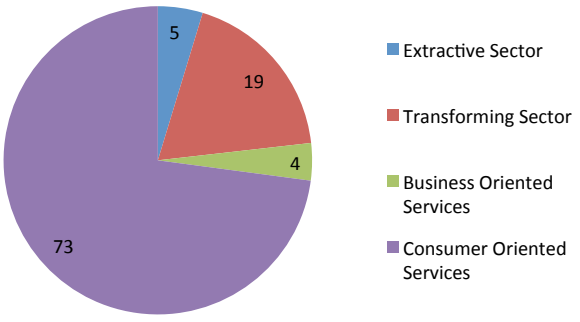


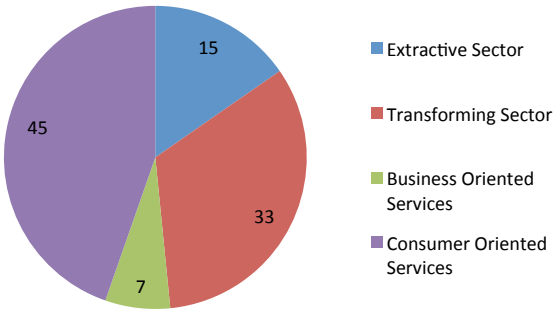


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

The institutional profiling clearly shows Malaysia matching if not leading when compared to other Efficiency-Driven Economies. Malaysia's make-up for entrepreneurial activity has been right in most areas as seen in its policies, regulations, programs and financial support for entrepreneurship. However the take-up is less than satisfactory. The data allows us to recognize that entrepreneurship education, which is slowly being introduced, will need to be accelerated, its quality improved and importance stressed.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Malaysia is gearing itself to move from a Resources-Led economy to an Innovation-Led economy. A key imperative is the growing competition within this region and the above TEA sector emphasis is a reflection of this.

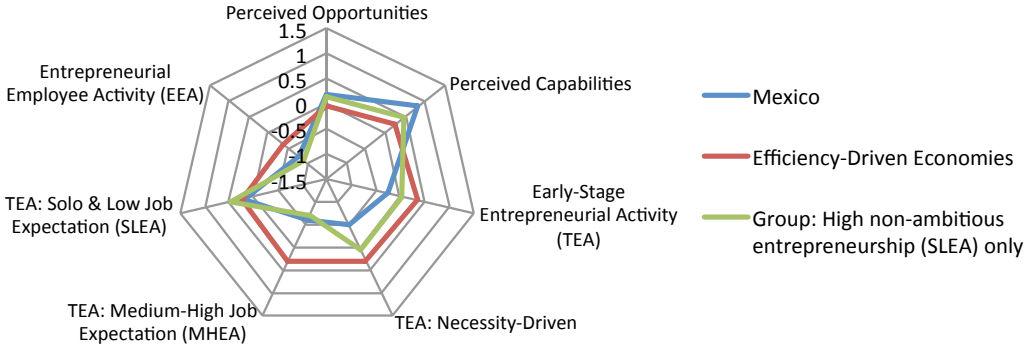
GEM 2011 National Summary Sheet

Mexico

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	113,423	Perceived Opportunities	43
Area (x 1,000 km^2):	1,944	Perceived Capabilities	61
Density (persons / km^2):	57.9	Fear of Failure	33
GDP Per Capita (PPP) (USD):	15,121		
		Nascent Entrepreneurship Rate:	5.7
Global Happiness Index:	7.9 (6/149)	Owner-Managers in New Businesses Rate:	4.0
Human Development Index:	0.73 (80/187)	Owner-Managers in Established Businesses Rate:	3.0
		Total early-stage Entrepreneurial Activity Rate (TEA):	9.6
Global Competitiveness Index:	4.3 (58/142)	- Necessity-Driven TEA Rate:	1.9
Global Innovation Index:	30 (81/125)	- Medium-High Job Expectation Rate: (MHEA)	2.3
Doing Business Index:	(53/183)	Entrepreneurial Employee Activity Rate (EEA):	0.8
GEDI Index:	0.25 (43/79)	- Private Sector EEA Rate (PEEA):	0.4
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



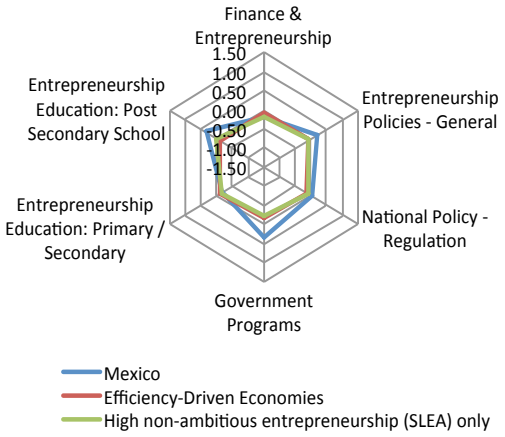
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

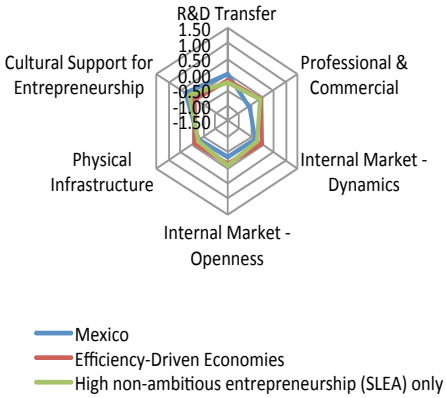
In this cycle Mexico shows an increase of the perceived capabilities and a decrease in some entrepreneurship activity indicators. The entrepreneurial attitudes indicators are lower than the comparative countries average. The country exhibits a high non-ambitious entrepreneurship (SLEA) and the expectations of medium-high job and the entrepreneurial employee activity (EEA) are lower than the efficiency-driven economies but almost the same of the reference countries group. This period Mexico also shows a decrease in the early-stage entrepreneurial activity (TEA) among the group of reference and the efficiency-driven economies.

GEM 2011 National Summary Sheet

Mexico

Entrepreneurship Institution Profile

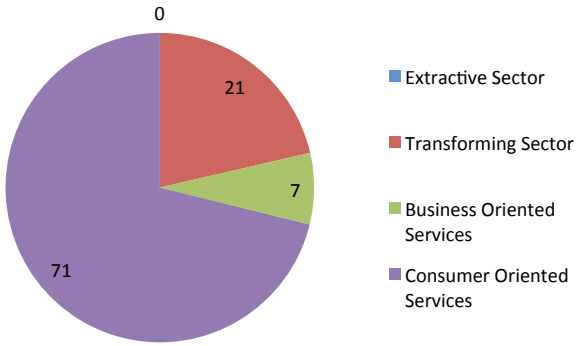


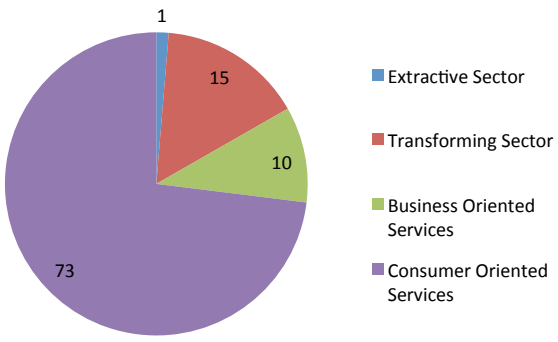


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Mexico has been improving some factors of its entrepreneurship ecosystem such as the government programs, and entrepreneurial education (post-school) and is working in the national policy-regulation. At the same time the country exhibits a deficit related to internal market dynamics, internal market openness and professional and commercial elements in comparison to other similar economies.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Mexico has almost the same behavior in the total early-stage entrepreneurial activity (TEA) and established business activity for example the main sector is related to the consumer oriented services in both sets. Otherwise the proportion of the transforming sector is higher in the TEA than in the established business activity. The study also shows that this cycle there was not early stage entrepreneurial activity in the extractive sector.

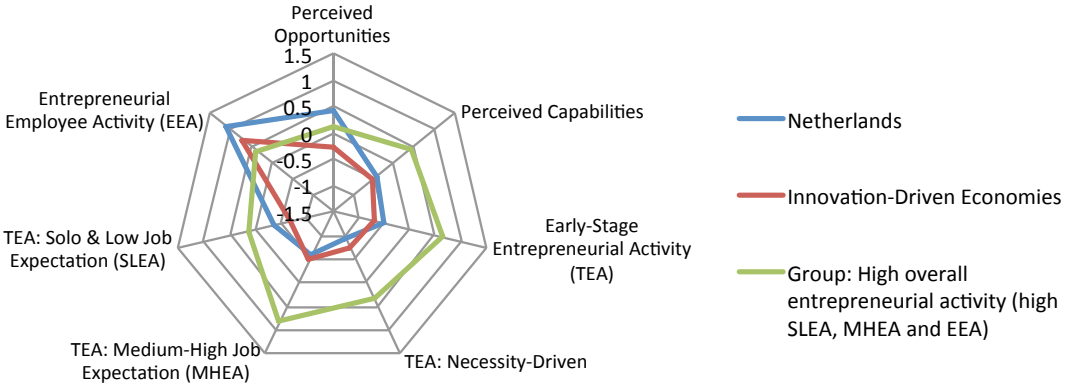
GEM 2011 National Summary Sheet

Netherlands

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	16,613	Perceived Opportunities	48
Area (x 1,000 km^2):	34	Perceived Capabilities	42
Density (persons / km^2):	400.0	Fear of Failure	37
GDP Per Capita (PPP) (USD):	42,331		
		Nascent Entrepreneurship Rate:	4.3
Global Happiness Index:	7.6 (17/149)	Owner-Managers in New Businesses Rate:	4.1
Human Development Index:	0.91 (3/187)	Owner-Managers in Established Businesses Rate:	8.7
		Total early-stage Entrepreneurial Activity Rate (TEA):	8.2
Global Competitiveness Index:	5.4 (7/142)	- Necessity-Driven TEA Rate:	0.8
Global Innovation Index:	56 (9/125)	- Medium-High Job Expectation Rate: (MHEA)	2.3
Doing Business Index:	(31/183)	Entrepreneurial Employee Acitivity Rate (EEA):	5.6
GEDI Index:	0.48 (10/79)	- Private Sector EEA Rate (PEEA):	3.3
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High overall entrepreneurial activity (high SLEA, MHEA and EEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



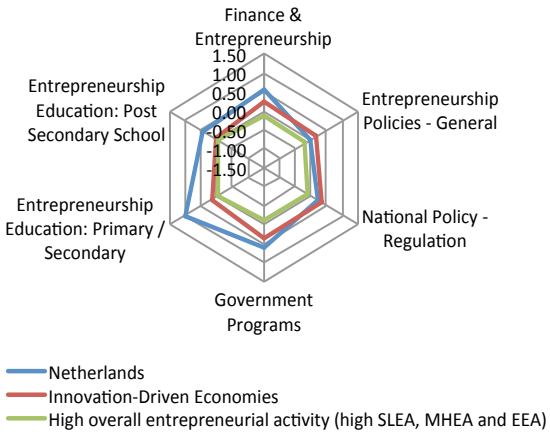
Note: Job-Aspiration early-stage Entrepreneurial Activity and Self-Supporting early-stage Entrepreneurial Activity are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data.

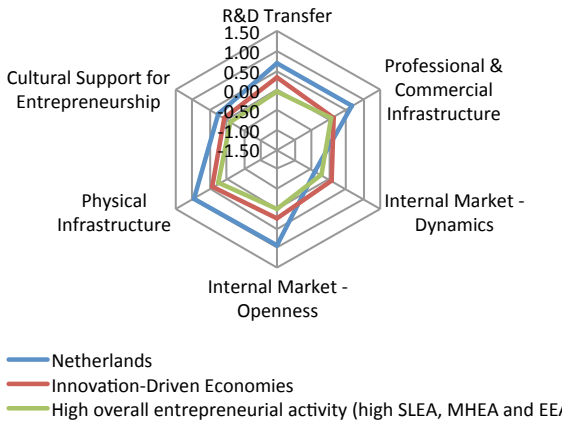
In 2011, 8.2% of the Dutch adult population (between 18 and 64 years old) is involved in early-stage entrepreneurial activity (TEA). This number is higher than the EU-average (7.6%). The majority of early-stage entrepreneurs take advantage of a business opportunity (7.0% against 5.5% in 2010), whereas only 0.8% (0.6% in 2010) has no other available options for work. Compared to other innovation-driven economies, The Netherlands stands out when it comes to perceived opportunities and entrepreneurial employee activity (EEA). Medium and high job expectations are modest among early-stage entrepreneurs in the Netherlands.

GEM 2011 NATIONAL SUMMARY SHEET

NETHERLANDS

Entrepreneurship Institution Profile

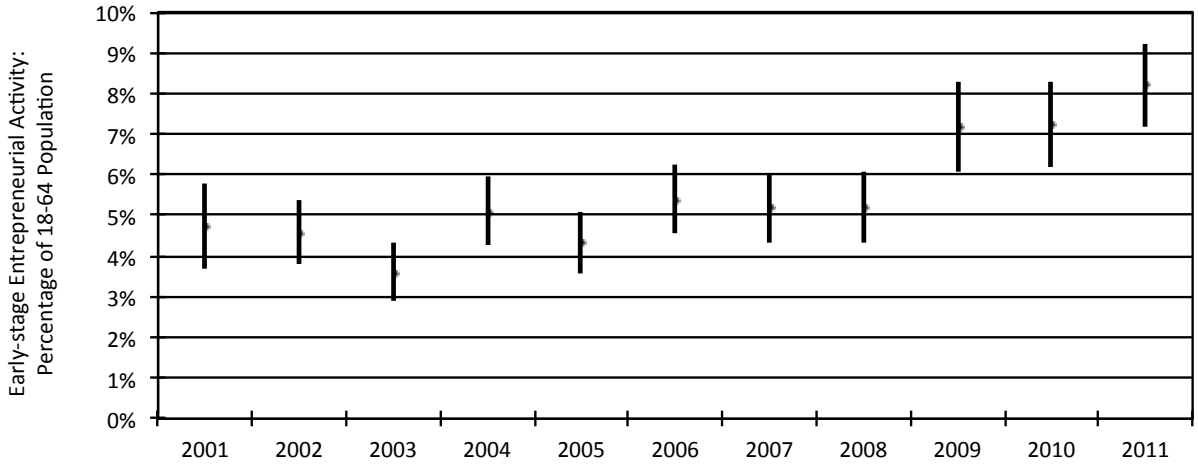




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

The institutional profile in the Netherlands regarding entrepreneurship is well developed in many respects as compared to the average for innovation-driven economies and countries with high overall entrepreneurial activity. In recent years entrepreneurship has become integrated in education at all levels, including in the curricula of various universities.

Trend in Total early-stage Entrepreneurial Activity (TEA)



In the period 2001-2008 TEA rates in the Netherlands were rather stable around 4-5%. In the years after 2008, however, when the economic crisis hit the Dutch economy, a clear rise in the TEA rates can be observed, from 5.2% in 2008, 7.2% in 2009 and 2010, to 8.2% in 2011. In the last three years the TEA rates have been significantly higher than in the previous period.

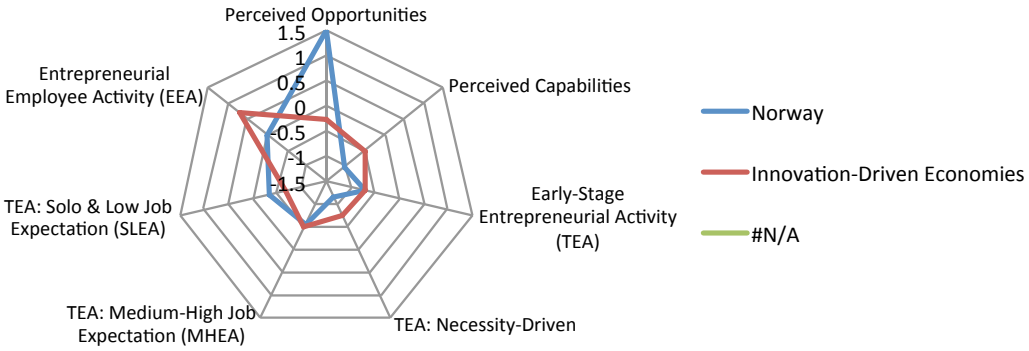
GEM 2011 National Summary Sheet

Norway

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	4,883	Perceived Opportunities	67
Area (x 1,000 km^2):	305	Perceived Capabilities	33
Density (persons / km^2):	12.7	Fear of Failure	38
GDP Per Capita (PPP) (USD):	53,376		
		Nascent Entrepreneurship Rate:	3.8
Global Happiness Index:	7.9 (7/149)	Owner-Managers in New Businesses Rate:	3.4
Human Development Index:	0.94 (1/187)	Owner-Managers in Established Businesses Rate:	6.7
		Total early-stage Entrepreneurial Activity Rate (TEA):	6.9
Global Competitiveness Index:	5.2 (16/142)	- Necessity-Driven TEA Rate:	0.3
Global Innovation Index:	53 (18/125)	- Medium-High Job Expectation Rate: (MHEA)	2.4
Doing Business Index:	(6/183)	Entrepreneurial Employee Activity Rate (EEA):	0.0
GEDI Index:	0.49 (9/79)	- Private Sector EEA Rate (PEEA):	0.0
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		N/A	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



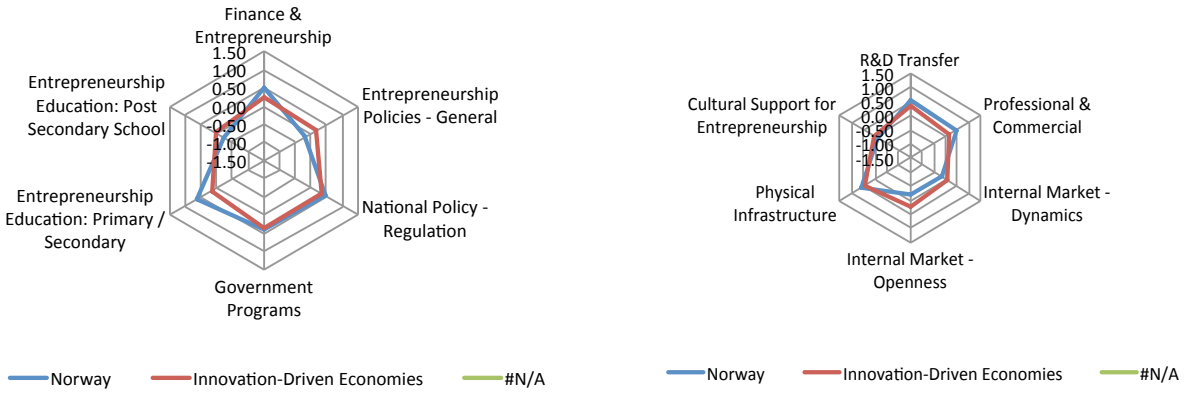
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Norway is the land of opportunities, but the lack of entrepreneurial capabilities is clearly a problem. The unemployment rate is very low and labor is in short supply. Norway has the lowest rate of necessity entrepreneurship in the world. The EEA rates and the PEEE rates for Norway is not available due to a restricted data collection budget.

GEM 2011 National Summary Sheet

Norway

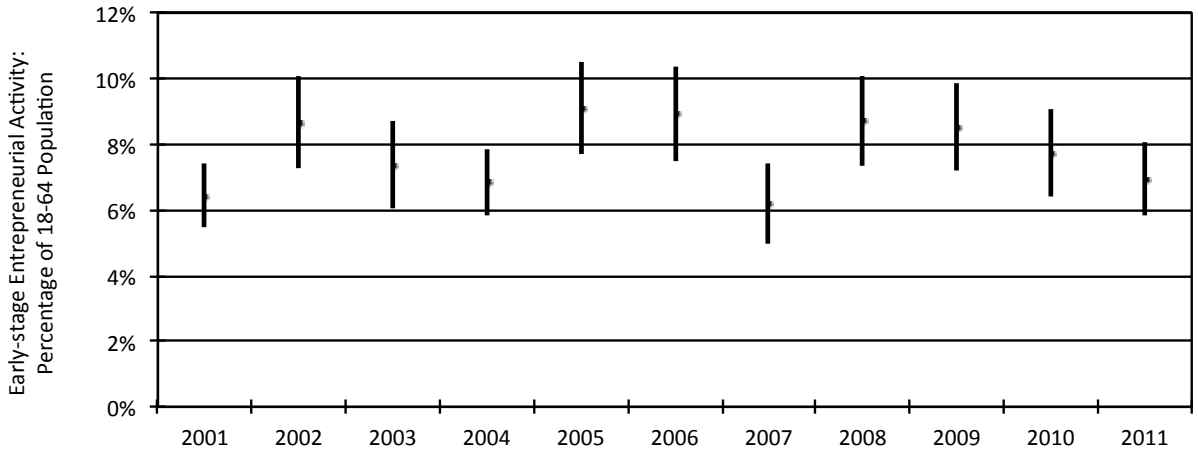
Entrepreneurship Institution Profile



Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Education in primary/secondary school is good, finance is easily available, but entrepreneurship policies are poor.

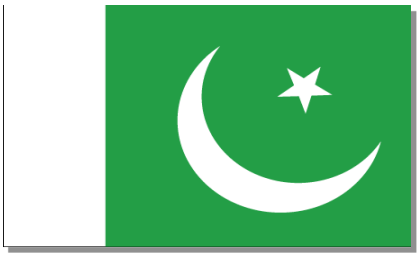
Trend in Total early-stage Entrepreneurial Activity (TEA)



There is no clear evidence to suggest that the government in power has an impact on the TEA rate in the country. There is no significant difference in the TEA rate during the Bondevik 2002-2005 wright wing regime and the Stoltenberg left wing regime in 2006-2011.

GEM 2011 National Summary Sheet

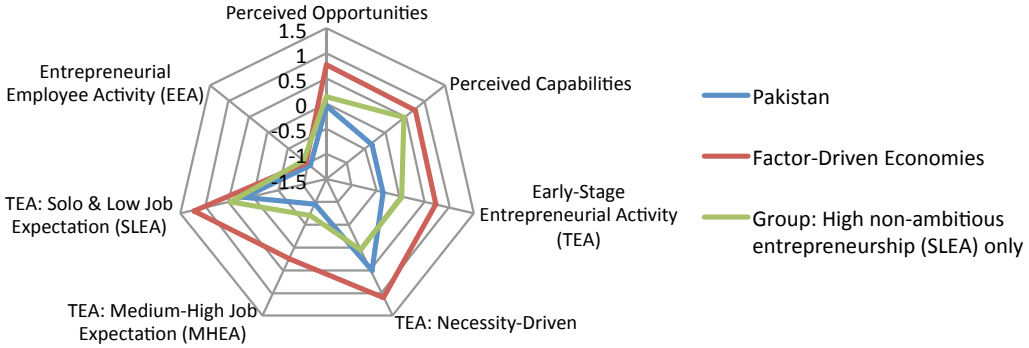
Pakistan



General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	173,593	Perceived Opportunities	40
Area (x 1,000 km^2):	771	Perceived Capabilities	43
Density (persons / km^2):	218.1	Fear of Failure	31
GDP Per Capita (PPP) (USD):	2,792		
		Nascent Entrepreneurship Rate:	7.5
Global Happiness Index:	5 (108/149)	Owner-Managers in New Businesses Rate:	1.7
Human Development Index:	0.5 (145/187)	Owner-Managers in Established Businesses Rate:	4.1
		Total early-stage Entrepreneurial Activity Rate (TEA):	9.1
Global Competitiveness Index:	3.6 (118/142)	- Necessity-Driven TEA Rate:	4.3
Global Innovation Index:	27 (105/125)	- Medium-High Job Expectation Rate: (MHEA)	1.4
Doing Business Index:	(105/183)	Entrepreneurial Employee Activity Rate (EEA):	0.1
GEDI Index:	0.14 (73/79)	- Private Sector EEA Rate (PEEA):	0.0
Classification Phase of Economic Development:		Factor-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile

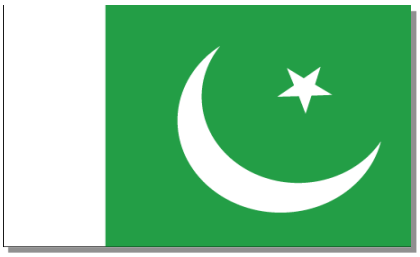


Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

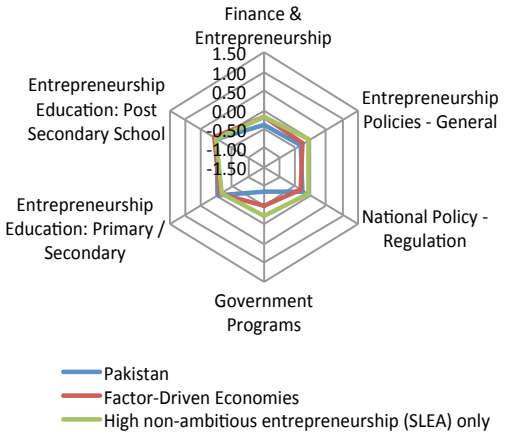
In this cycle Pakistan shows a mix of increase and decrease in many entrepreneurship activity indicators as compared to the 2010 cycle. The people of Pakistan perceive more opportunities in the surrounding environment and perceive to have more capabilities than many of the similar economies . The fear of failure is 31% which is a bit higher than the last year but still lower than the average of factor driven countries. The TEA rate is 9.1, the same as that of last year. Nascent entrepreneurship rate has gone up from 6.6 to 7.5. Necessity driven TEA rate has also gone up from 3.69 to 4.3, indicating that people are being forced in to necessity entrepreneurship. There is a decline in new business manager rate from 2.70 to 1.7 and the established business owner rate from 4.72 to 4.1.

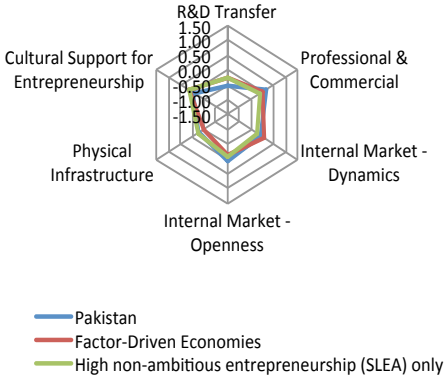
GEM 2011 National Summary Sheet

Pakistan



Entrepreneurship Institution Profile

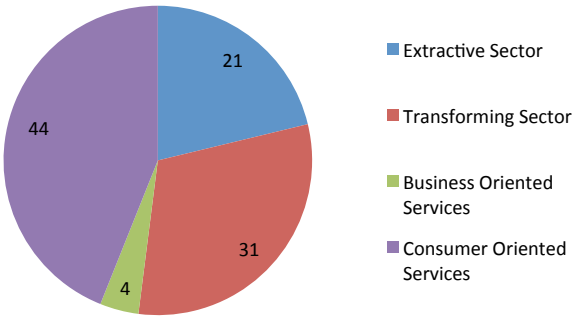


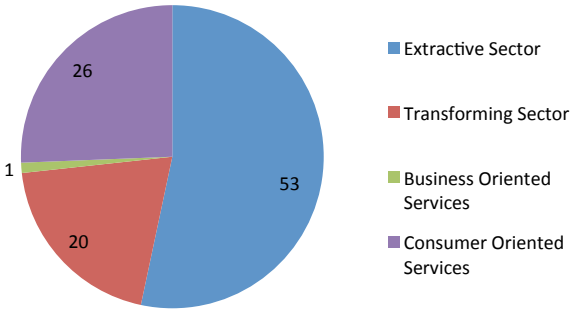


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Pakistan has been improving its entrepreneurship ecosystem in the last few years with several policies and programs (business plan competitions, entrepreneurship education etc.) that are helping the new business creation. At the same time the country lags in terms of any new government programs and national policy regulation in comparison to other similar economies. Cultural and social support to entrepreneurship activities have enhanced in the past few years. Pakistan stands pretty good in terms of internal market openness and professional and commercial support systems.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Most of the early stage TEA in Pakistan is in the consumer oriented services followed by the transforming and extractive sectors. The early stage established business activity is the highest in the extractive sector followed by the consumer and then the transforming sector.

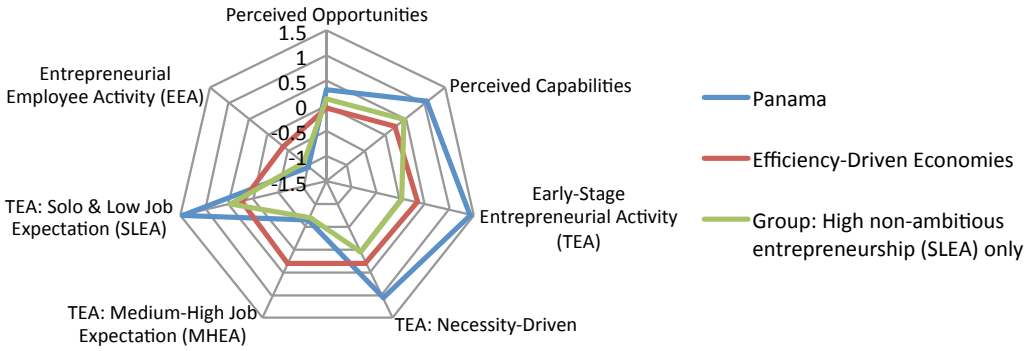
GEM 2011 National Summary Sheet

Panama

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	3,517	Perceived Opportunities	46
Area (x 1,000 km^2):	74	Perceived Capabilities	64
Density (persons / km^2):	46.6	Fear of Failure	16
GDP Per Capita (PPP) (USD):	13,595		
		Nascent Entrepreneurship Rate:	12.0
Global Happiness Index:	7.8 (9/149)	Owner-Managers in New Businesses Rate:	9.1
Human Development Index:	0.77 (58/187)	Owner-Managers in Established Businesses Rate:	6.0
		Total early-stage Entrepreneurial Activity Rate (TEA):	20.8
Global Competitiveness Index:	4.4 (49/142)	- Necessity-Driven TEA Rate:	5.6
Global Innovation Index:	31 (77/125)	- Medium-High Job Expectation Rate: (MHEA)	2.1
Doing Business Index:	(61/183)	Entrepreneurial Employee Activity Rate (EEA):	0.1
GEDI Index:	0.21 (55/79)	- Private Sector EEA Rate (PEEA):	0.0
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



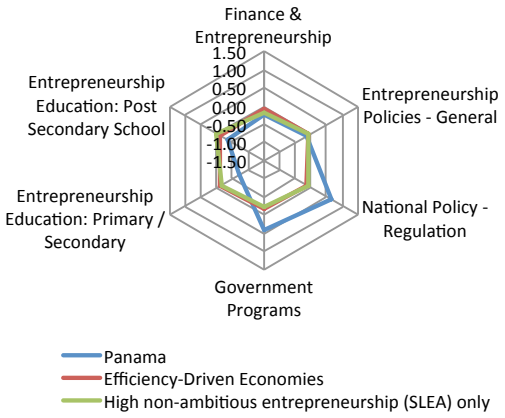
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

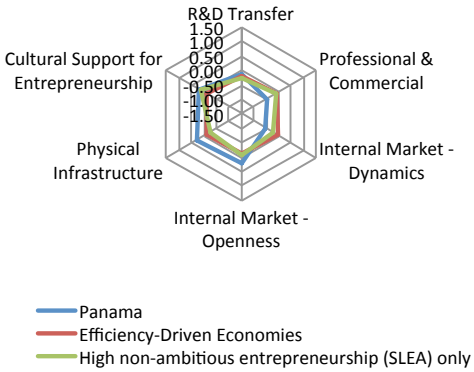
Panama shows a substantial increase in many entrepreneurship activity indicators. Entrepreneurial attitudes indicators are above average, with high perceived opportunities and capabilities. Panama's TEA has more than doubled in two years, showing a decrease in necessity-driven entrepreneurs. MHEA is very low among efficiency-driven economies, with shows a correlation to the very low levels of innovation indicators.

GEM 2011 National Summary Sheet

Panama

Entrepreneurship Institution Profile

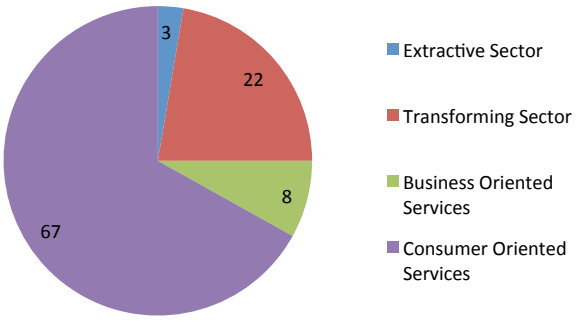


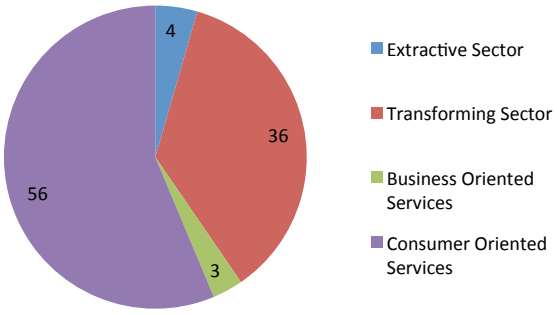


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Education shows the lowest indicators among institutional contribution to entrepreneurship. Programs and policies are highly ranked among efficiency-driven economies, although the internal markets dynamics is low-ranked. R&D transfer as a factor for entrepreneurship is very low, in contrast with physical infrastructure and internal market openness. Cultural and social support to entrepreneurship activities have enhanced in the past few years.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Almost 70% of start-ups belong to the consumer oriented services sector, which shows a correlation to the composition of the national economy. There is a significative and atypical increase in the transforming sector entrepreneurial activity.

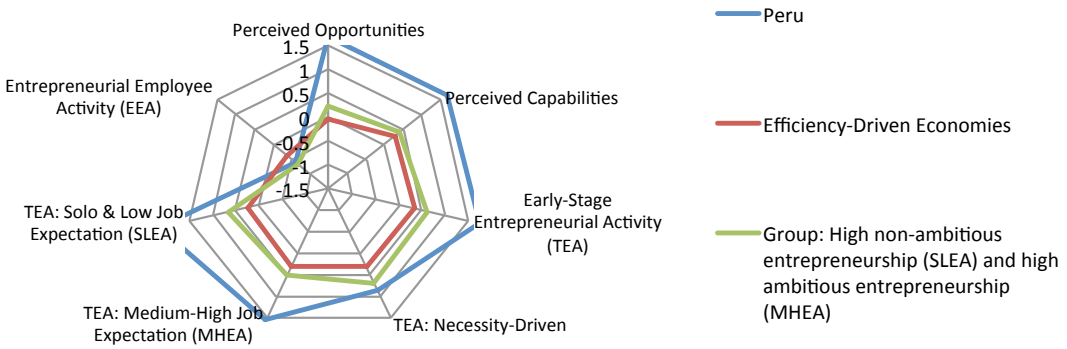
GEM 2011 National Summary Sheet

Peru

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	29,077	Perceived Opportunities	70
Area (x 1,000 km^2):	1,280	Perceived Capabilities	73
Density (persons / km^2):	22.6	Fear of Failure	43
GDP Per Capita (PPP) (USD):	10,001		
		Nascent Entrepreneurship Rate:	17.9
Global Happiness Index:	6.2 (63/149)	Owner-Managers in New Businesses Rate:	5.4
Human Development Index:	0.77 (57/187)	Owner-Managers in Established Businesses Rate:	5.8
		Total early-stage Entrepreneurial Activity Rate (TEA):	22.9
Global Competitiveness Index:	4.2 (67/142)	- Necessity-Driven TEA Rate:	5.1
Global Innovation Index:	30 (83/125)	- Medium-High Job Expectation Rate: (MHEA)	7.6
Doing Business Index:	(41/183)	Entrepreneurial Employee Activity Rate (EEA):	1.2
GEDI Index:	0.26 (41/79)	- Private Sector EEA Rate (PEEA):	0.9
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



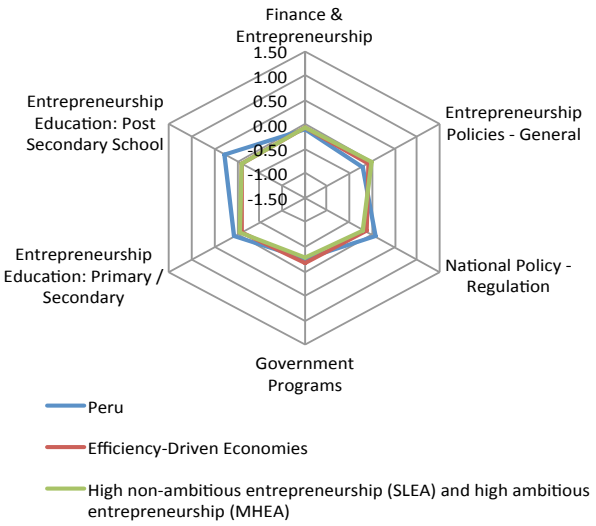
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

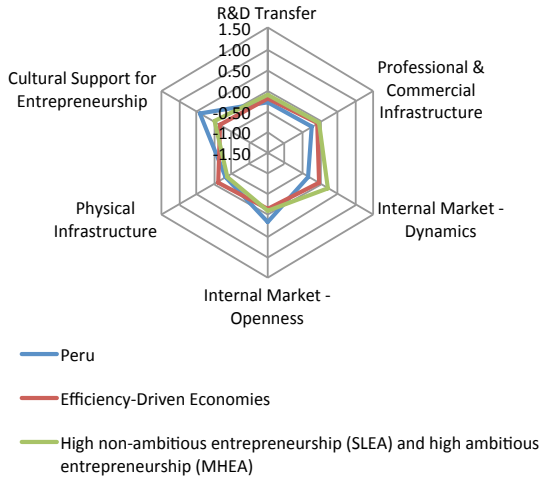
Perú shows a decrease TEA index but continue as one of the highest among efficiency-driven economies. The opportunity-driven entrepreneurships are predominant and are increased at higher rates than the necessity-driven entrepreneurships. The country exhibits favorable entrepreneurial perceptions, intentions, and societal attitudes. Also, Peru shows a high turnover of enterprises with great discrepancies between a high TEA rate relative to business ownership and high rate of discontinuation of business. Peru's MHEA and Innovative rates are among the highest in its group. Peru's EEA rate is very low, maybe it is because most businesses are self-employment initiatives.

GEM 2011 National Summary Sheet

Peru

Entrepreneurship Institution Profile

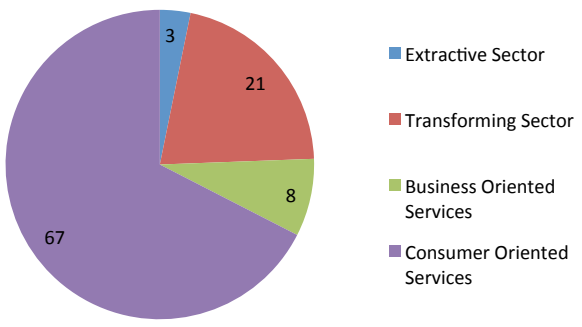


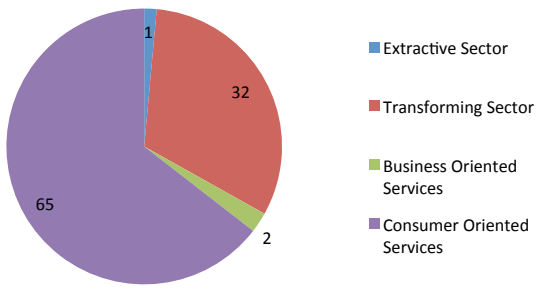


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Peru shows a slow but favorable evolution in policies and programs that facilitate the creation of new businesses, entrepreneurial education at basic levels, R&D transfer and cultural support for entrepreneurship, but still a long way to go because of low valuations of experts. Peru's score is higher in post-school education and opening the domestic market, in comparison to other similar economies.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Peru shows an increase in the proportion of entrepreneurs in the consumer-oriented sector, based on an increase in retail trade, hotels & restaurants activities, and government, health, education & social services activities. The extractive sector shows a significant decrease among both entrepreneurs and established mainly in a minor role in the mining and construction.

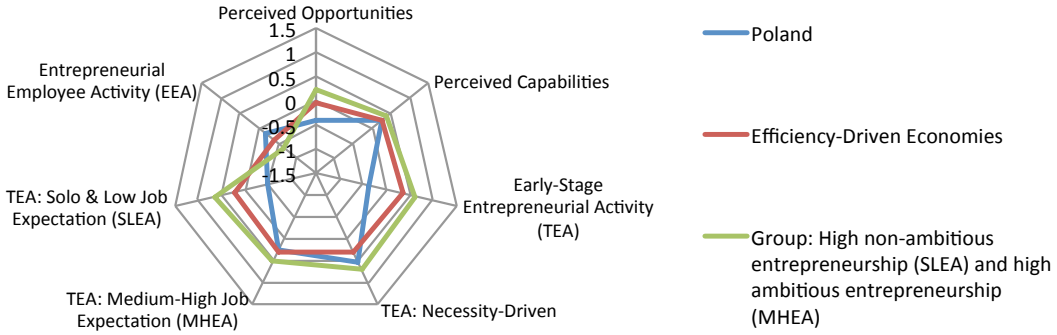
GEM 2011 National Summary Sheet

Poland

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	38,277	Perceived Opportunities	33
Area (x 1,000 km^2):	304	Perceived Capabilities	52
Density (persons / km^2):	118.4	Fear of Failure	54
GDP Per Capita (PPP) (USD):	20,137		
		Nascent Entrepreneurship Rate:	6.0
Global Happiness Index:	6.4 (58/149)	Owner-Managers in New Businesses Rate:	3.1
Human Development Index:	0.81 (39/187)	Owner-Managers in Established Businesses Rate:	5.0
		Total early-stage Entrepreneurial Activity Rate (TEA):	9.0
Global Competitiveness Index:	4.5 (41/142)	- Necessity-Driven TEA Rate:	4.3
Global Innovation Index:	38 (43/125)	- Medium-High Job Expectation Rate: (MHEA)	4.3
Doing Business Index:	(62/183)	Entrepreneurial Employee Activity Rate (EEA):	2.3
GEDI Index:	0.31 (31/79)	- Private Sector EEA Rate (PEEA):	1.8
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



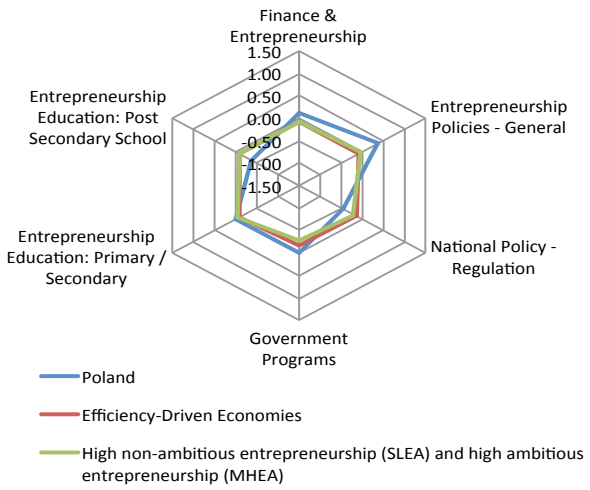
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

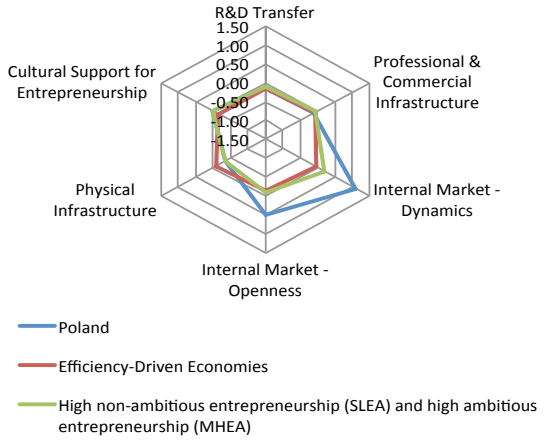
During 7 years of absence in the GEM project, TEA for Poland has not changed substantially (from 8.8 to 9.0). Polish profile is characterized mainly by low rate of perceived opportunities, high rate of fear of failure and low rate of overall TEA comparing to other efficiency-driven economies. Moreover, almost half (48%) of TEA is necessity-driven entrepreneurship and every third (32%) of TEA is improvement-driven opportunity entrepreneurship, which strongly differs from other countries in the group. On the other hand entrepreneurial employee activity is higher than in the reference group.

GEM 2011 National Summary Sheet

Poland

Entrepreneurship Institution Profile

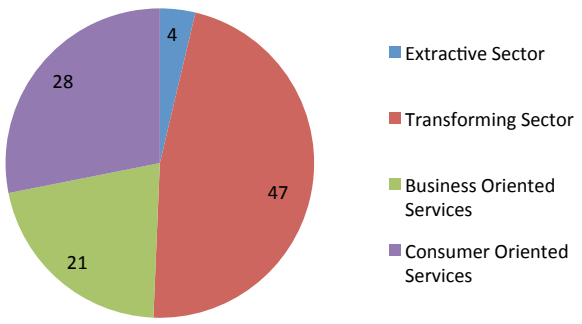


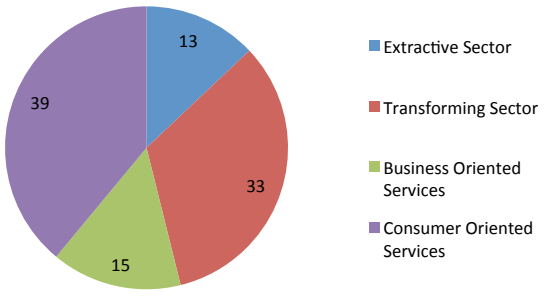


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Entrepreneurship environment in Poland is comparable to other efficiency-driven economies. Slightly lower than average post school entrepreneurship education and regulatory environment are assessed. Poland is still in the process of developing effective entrepreneurship education. Highly above average is both dynamics and openness of internal market.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Poland represents production-oriented model rather than services-oriented one. Over half (51%) of start-ups are production businesses (26% average for innovation-driven economies). At the same time the share of consumer oriented services is low and of business oriented services is significantly higher than average for efficiency-driven economies. Those changes might be the result of foreign investment activity in Poland.

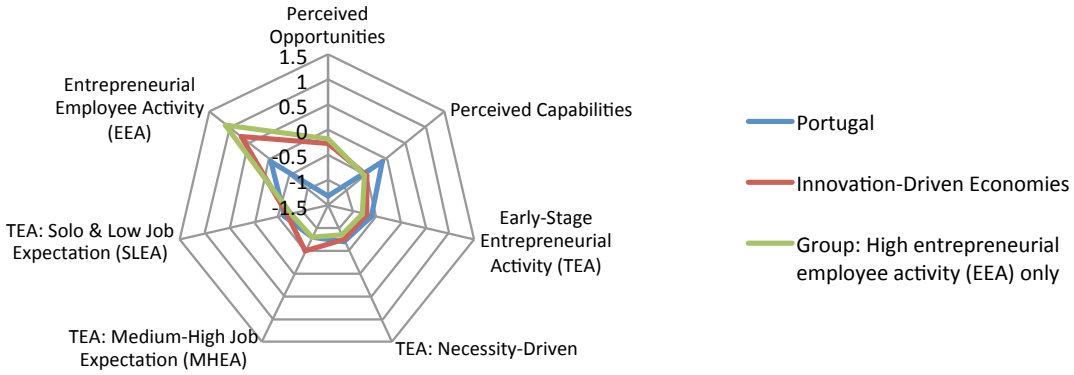
GEM 2011 National Summary Sheet

Portugal

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	10,676	Perceived Opportunities	17
Area (x 1,000 km^2):	91	Perceived Capabilities	47
Density (persons / km^2):	116.1	Fear of Failure	49
GDP Per Capita (PPP) (USD):	23,205		
		Nascent Entrepreneurship Rate:	4.6
Global Happiness Index:	5.7 (83/149)	Owner-Managers in New Businesses Rate:	3.0
Human Development Index:	0.81 (41/187)	Owner-Managers in Established Businesses Rate:	5.7
		Total early-stage Entrepreneurial Activity Rate (TEA):	7.5
Global Competitiveness Index:	4.4 (45/142)	- Necessity-Driven TEA Rate:	1.3
Global Innovation Index:	42 (33/125)	- Medium-High Job Expectation Rate: (MHEA)	1.8
Doing Business Index:	(30/183)	Entrepreneurial Employee Activity Rate (EEA):	2.6
GEDI Index:	0.29 (35/79)	- Private Sector EEA Rate (PEEA):	2.0
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



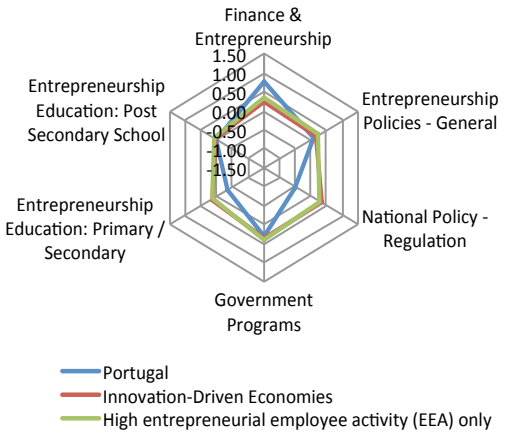
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

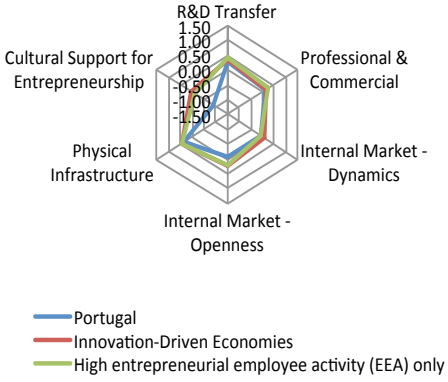
In this cycle, many of the entrepreneurship activity indicators for Portugal have substantially increased. This includes the TEA that has grown from 4.5 in 2010 to 7.5 in 2011. It is believed that this corresponds to the increase in confidence in the Portuguese economy since the worst days of the country's financial crises. Entrepreneurial activity continues to be driven by opportunity motives, with the necessity-driven TEA rate at only 1.3. However, perceived opportunities for entrepreneurship is lower and fear of failure among those seeing opportunities is higher than average for innovation-driven countries.

GEM 2011 National Summary Sheet

Portugal

Entrepreneurship Institution Profile

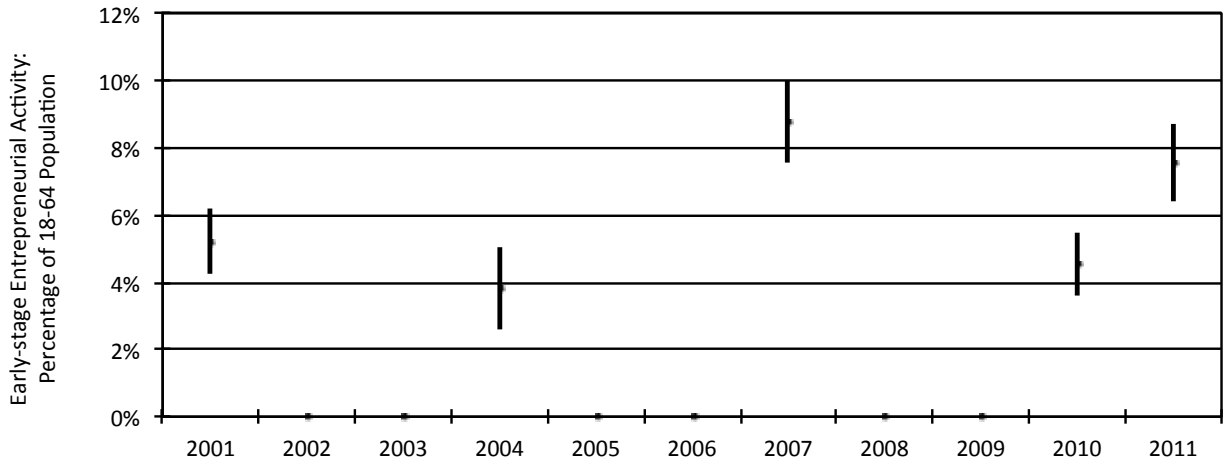




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Portugal has been acting to improve its entrepreneurship ecosystem. In particular, perceptions of entrepreneurship education and access to finance have improved, as have R&D transfer capabilities. However, cultural support to entrepreneurship continues to be very low which is perceived to act as a break on entrepreneurial dynamics within the country.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity



The TEA for GEM 2010 in Portugal was lower than the last study in 2007, reflecting a worsening economic climate driven by the financial crises. Supporting evidence of the impact of the crises includes a reduction of nearly 7% in people working for themselves and a reduction of 19% in the number of new firm registrations in the same period. Whilst the austerity measures are continuing, the increase of the TEA in 2011 is believed to reflect an improvement in confidence about the economy's future. The sector structure of the TEA in 2011 is similar to the average of innovation driven countries, with consumer orientated services being the largest contributor.

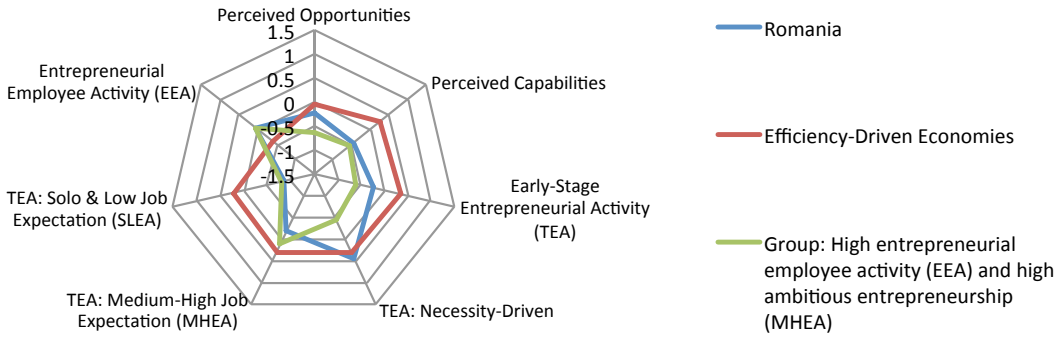
GEM 2011 National Summary Sheet

Romania

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	21,486	Perceived Opportunities	36
Area (x 1,000 km^2):	230	Perceived Capabilities	42
Density (persons / km^2):	90.1	Fear of Failure	43
GDP Per Capita (PPP) (USD):	12,358		
		Nascent Entrepreneurship Rate:	5.6
Global Happiness Index:	5.7 (84/149)	Owner-Managers in New Businesses Rate:	4.5
Human Development Index:	0.78 (50/187)	Owner-Managers in Established Businesses Rate:	4.6
		Total early-stage Entrepreneurial Activity Rate (TEA):	9.9
Global Competitiveness Index:	4.1 (77/142)	- Necessity-Driven TEA Rate:	4.1
Global Innovation Index:	37 (50/125)	- Medium-High Job Expectation Rate: (MHEA)	3.3
Doing Business Index:	(72/183)	Entrepreneurial Employee Activity Rate (EEA):	2.9
GEDI Index:	0.23 (48/79)	- Private Sector EEA Rate (PEEA):	2.2
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



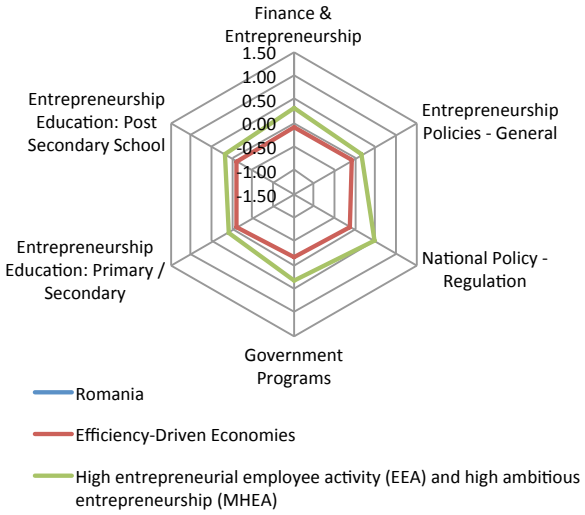
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

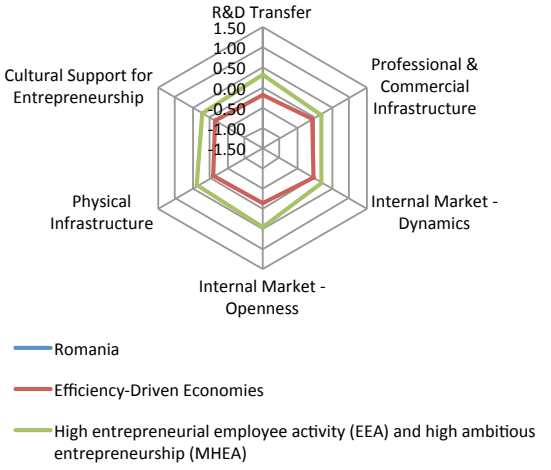
Romania's rates on entrepreneurial attitudes and early-stage entrepreneurial activity tend to be somewhat lower than the averages of the efficiency-driven economies, except for the rate of entrepreneurial employee activity. Medium-high job expectation early-stage entrepreneurial activity is fairly high for Romania.

GEM 2011 National Summary Sheet

Romania

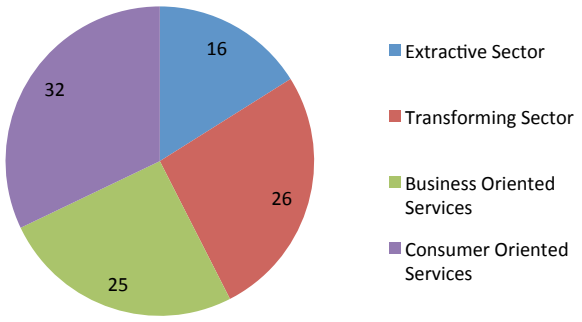
Entrepreneurship Institution Profile

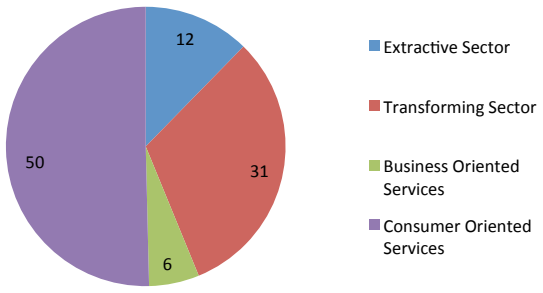




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample). Romania did not collect NES data.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Business oriented activities are much more prevalent among early-stage entrepreneurs in comparison to established entrepreneurs in Romania.

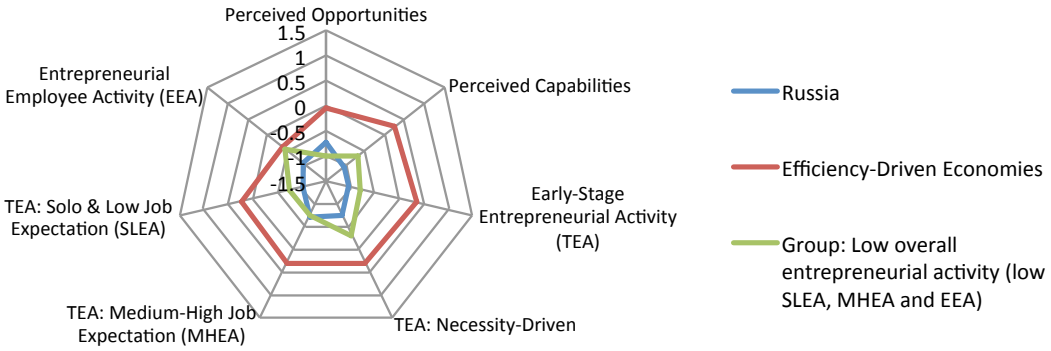
GEM 2011 National Summary Sheet

Russia

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	142,958	Perceived Opportunities	27
Area (x 1,000 km^2):	16,377	Perceived Capabilities	33
Density (persons / km^2):	8.4	Fear of Failure	46
GDP Per Capita (PPP) (USD):	16,687		
		Nascent Entrepreneurship Rate:	2.4
Global Happiness Index:	5.5 (91/149)	Owner-Managers in New Businesses Rate:	2.3
Human Development Index:	0.76 (66/187)	Owner-Managers in Established Businesses Rate:	2.8
		Total early-stage Entrepreneurial Activity Rate (TEA):	4.6
Global Competitiveness Index:	4.2 (66/142)	- Necessity-Driven TEA Rate:	1.2
Global Innovation Index:	36 (56/125)	- Medium-High Job Expectation Rate: (MHEA)	2.0
Doing Business Index:	(120/183)	Entrepreneurial Employee Activity Rate (EEA):	0.4
GEDI Index:	0.18 (62/79)	- Private Sector EEA Rate (PEEA):	0.4
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		Low overall entrepreneurial activity (low SLEA, MHEA and EEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



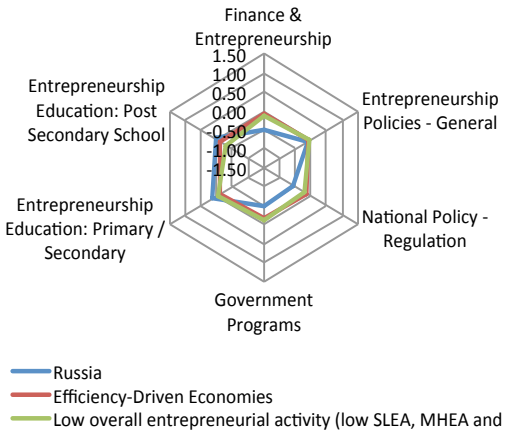
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

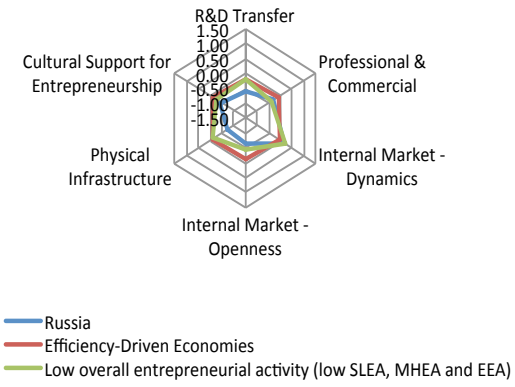
The profile of entrepreneurial activity in Russia differs both from efficiency driven economies and even from countries with low overall entrepreneurial activity – it is in general more negative. Only the level of perceived opportunities is some higher than in countries with low overall entrepreneurial activity, and the level of medium-high job expectation is in line with the indicator of this group as a whole. A relative advantage of Russian entrepreneurial activity is a very low level of necessity driven entrepreneurial activity.

GEM 2011 National Summary Sheet

Russia

Entrepreneurship Institution Profile

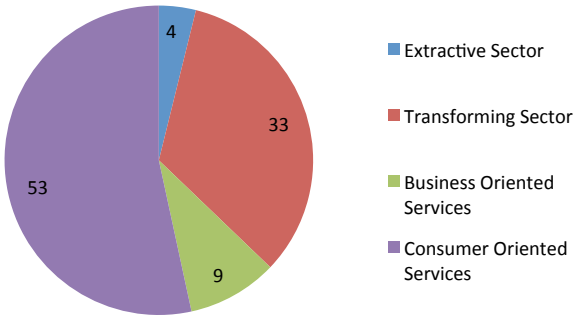


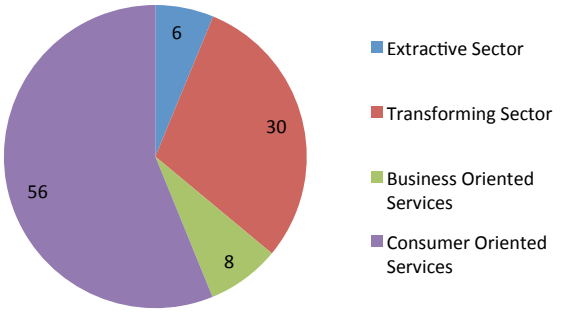


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

According to experts, Russian entrepreneurs have a relatively high level of human capital; despite the general agenda of state policy towards entrepreneurship seems to be adequate, the over-regulation and lack of governmental programs, scarce external funding are the most critical points. Bad physical infrastructure, problems with market entry and low socio-cultural embeddedness of entrepreneurship mark the state of EFC in Russia.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





The sectoral structure of Russian entrepreneurial activity does not differ between early-stage and established business owners – indicating on the one side a natural character of most bottom-up venturing activity, on the other side, the absence of significant structural changes in the economy after the economic crisis (2009). Over 50 % of entrepreneurs are active in consumer oriented industries, the share of business oriented services remains relatively small.

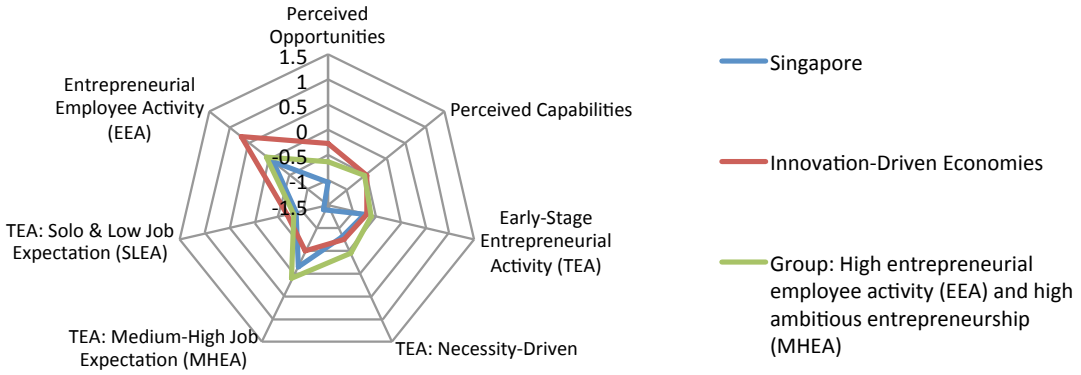
GEM 2011 National Summary Sheet

Singapore

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	5,086	Perceived Opportunities	21
Area (x 1,000 km^2):	1	Perceived Capabilities	24
Density (persons / km^2):	7,447.2	Fear of Failure	39
GDP Per Capita (PPP) (USD):	59,937		
		Nascent Entrepreneurship Rate:	3.8
Global Happiness Index:	6.9 (37/149)	Owner-Managers in New Businesses Rate:	2.8
Human Development Index:	0.87 (26/187)	Owner-Managers in Established Businesses Rate:	3.3
		Total early-stage Entrepreneurial Activity Rate (TEA):	6.6
Global Competitiveness Index:	5.6 (2/142)	- Necessity-Driven TEA Rate:	1.1
Global Innovation Index:	60 (3/125)	- Medium-High Job Expectation Rate: (MHEA)	3.4
Doing Business Index:	(1/183)	Entrepreneurial Employee Activity Rate (EEA):	2.6
GEDI Index:	0.47 (12/79)	- Private Sector EEA Rate (PEEA):	2.2
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



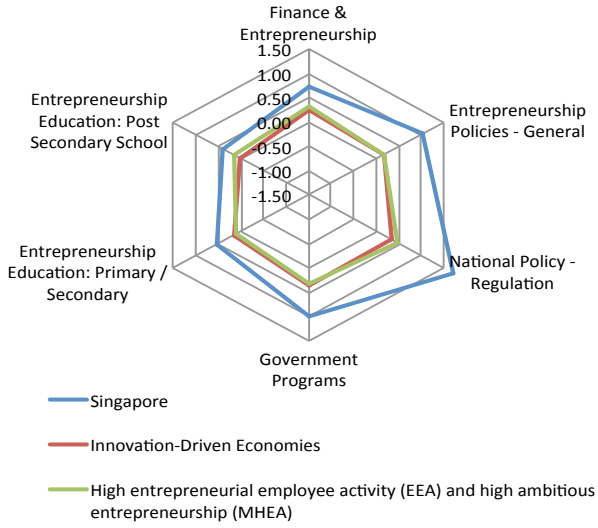
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

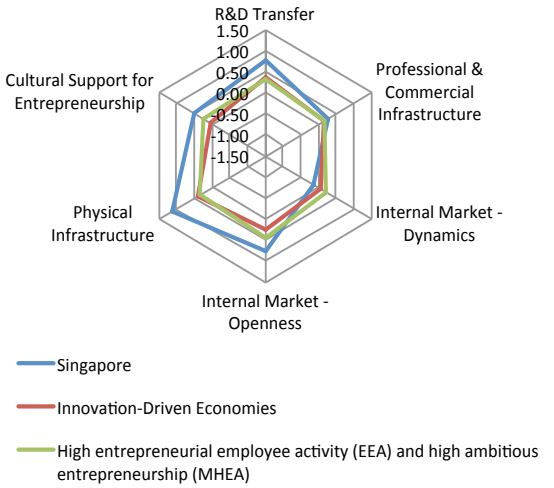
This cycle's data indicates that the entrepreneurial profile in Singapore is comparable to other innovation-driven economies across many dimensions: early-stage entrepreneurial (TEA), TEA driven by necessity, TEA with solo and low job expectation and with medium-high job expectation. However, the data also indicates that the perceived entrepreneurial capabilities and opportunities in Singapore, along with employee activity (EEA), are still lower than comparable economies.

GEM 2011 National Summary Sheet

Singapore

Entrepreneurship Institution Profile

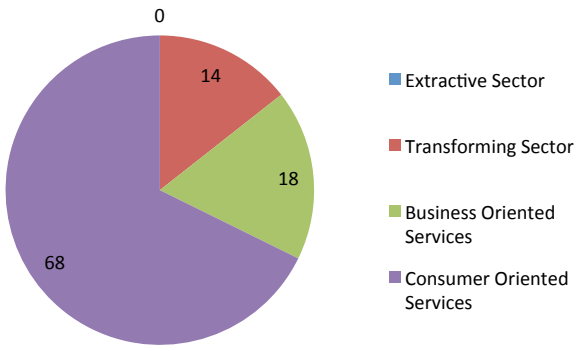


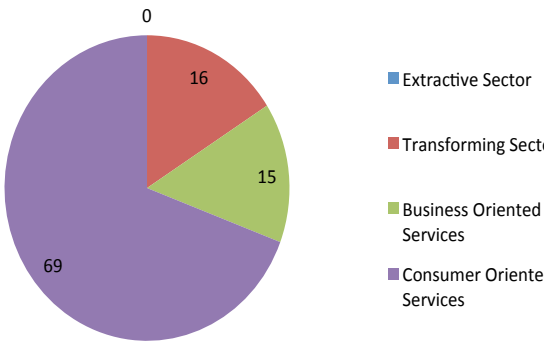


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

The institutional support of entrepreneurship in Singapore exceeds the average of other innovation-driven economies in practically all dimensions. This difference is especially visible in the areas of government programs, policies, regulations, and physical infrastructure.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





The breakdown for Singapore early-stage entrepreneurial activity (TEA) is similar to that for the established business activity. Consumer-oriented service dominates the business landscape followed by business-oriented service and transforming sector.

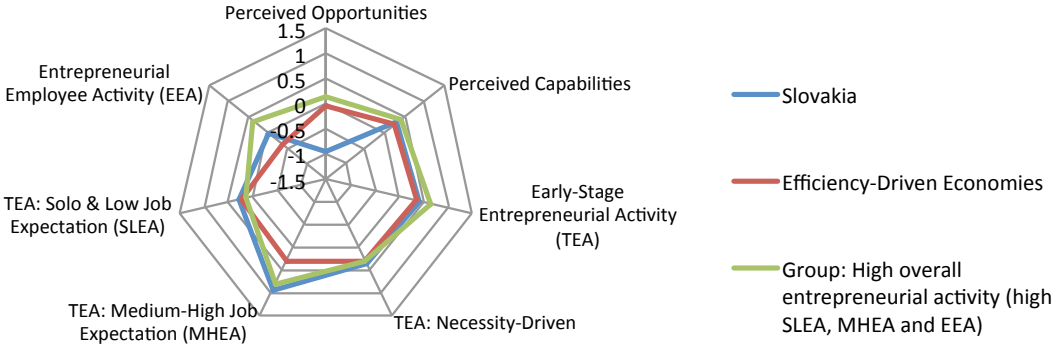
GEM 2011 National Summary Sheet

Slovakia

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	5,462	Perceived Opportunities	23
Area (x 1,000 km^2):	48	Perceived Capabilities	53
Density (persons / km^2):	111.4	Fear of Failure	45
GDP Per Capita (PPP) (USD):	23,384		
		Nascent Entrepreneurship Rate:	9.2
Global Happiness Index:	5.9 (75/149)	Owner-Managers in New Businesses Rate:	5.3
Human Development Index:	0.83 (35/187)	Owner-Managers in Established Businesses Rate:	9.6
		Total early-stage Entrepreneurial Activity Rate (TEA):	14.2
Global Competitiveness Index:	4.2 (69/142)	- Necessity-Driven TEA Rate:	3.9
Global Innovation Index:	39 (37/125)	- Medium-High Job Expectation Rate: (MHEA)	6.1
Doing Business Index:	(48/183)	Entrepreneurial Employee Activity Rate (EEA):	2.7
GEDI Index:	no data	- Private Sector EEA Rate (PEEA):	2.3
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High overall entrepreneurial activity (high SLEA, MHEA and EEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



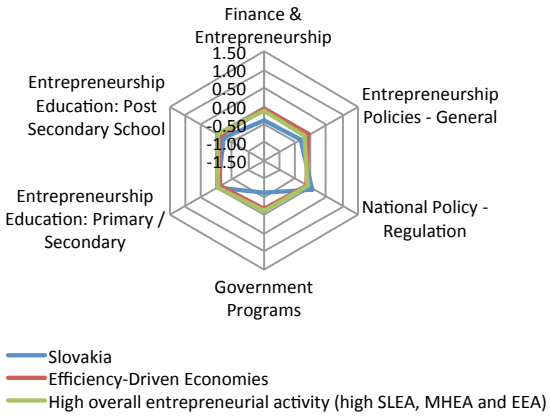
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

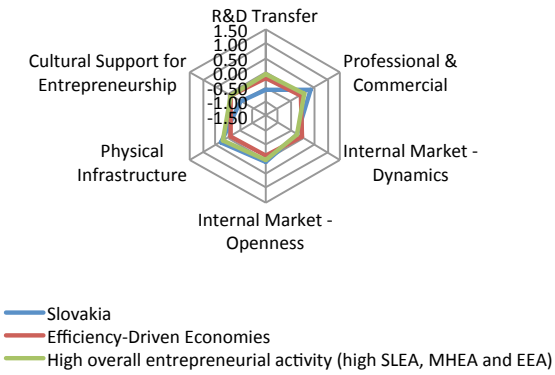
The Slovak Entrepreneurial Profile represents a combination of patterns of efficiency-driven and innovation-driven economies. This is consistent with the country being in transition between the efficiency and innovation-driven phases. Future potential of entrepreneurs appears favorable - lower perceived opportunities may be compensated by high self-confidence (the highest perceived capabilities among European countries) and average (for Europe) fear of failure. The highest TEA among European countries is driven by necessity and can be also explained by some tax, social and insurance remittance. Improving sustainability of nascent entrepreneurs to continue as a new business as well as supporting entrepreneurial employee activity are challenges for future governmental policies.

GEM 2011 National Summary Sheet

Slovakia

Entrepreneurship Institution Profile

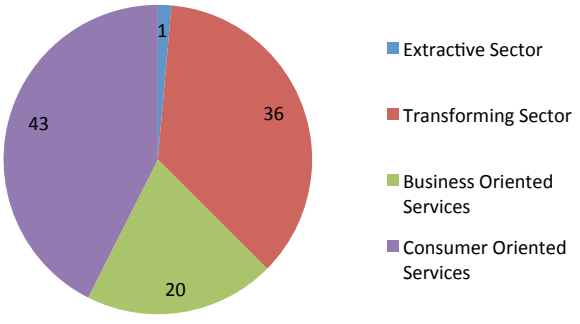


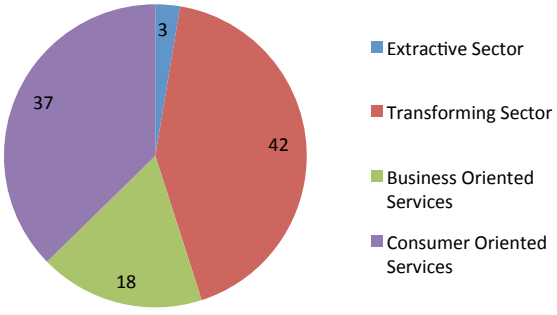


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

EFCs shaping the entrepreneurship ecosystem in Slovakia show generally very similar values for both compared groups. Slightly more favorable situation is in professional & commercial and physical infrastructure, and national policy concerning regulation. On the contrary, government programs, R&D transfer and cultural support for entrepreneurship are showing the most significant deficits, and therefore deserve policymakers' closer attention.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Sector structure shows the following signs of positive development in Total early-stage Entrepreneurial Activity in comparison to Established business activities: a/ share of business services is higher in TEA than in established businesses. b/ the extractive sector constitutes only 1% of TEA while its share of established business activities is 3%.

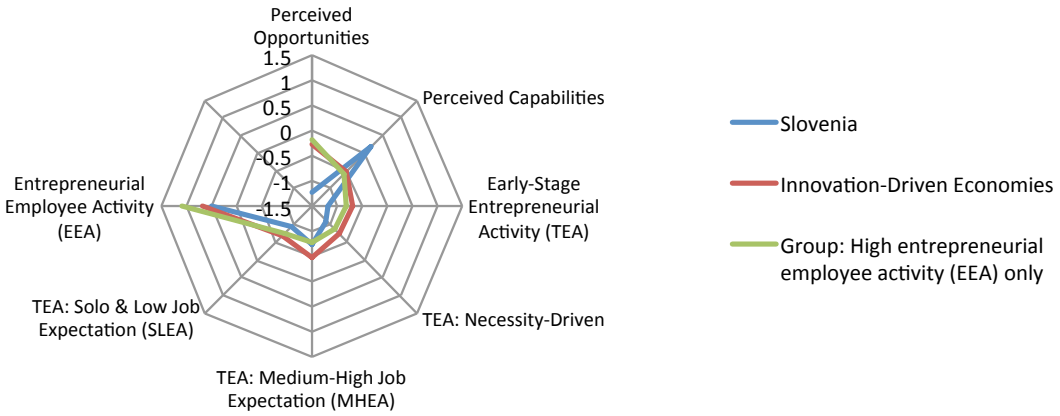
GEM 2011 National Summary Sheet

Slovenia

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	2,030	Perceived Opportunities	18
Area (x 1,000 km^2):	20	Perceived Capabilities	51
Density (persons / km^2):	100.2	Fear of Failure	39
GDP Per Capita (PPP) (USD):	29,179		
		Nascent Entrepreneurship Rate:	1.9
Global Happiness Index:	6.9 (38/149)	Owner-Managers in New Businesses Rate:	1.8
Human Development Index:	0.88 (21/187)	Owner-Managers in Established Businesses Rate:	4.8
		Total early-stage Entrepreneurial Activity Rate (TEA):	3.7
Global Competitiveness Index:	4.3 (57/142)	- Necessity-Driven TEA Rate:	0.4
Global Innovation Index:	45 (30/125)	- Medium-High Job Expectation Rate: (MHEA)	1.9
Doing Business Index:	(37/183)	Entrepreneurial Employee Activity Rate (EEA):	4.1
GEDI Index:	0.42 (23/79)	- Private Sector EEA Rate (PEEA):	2.7
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



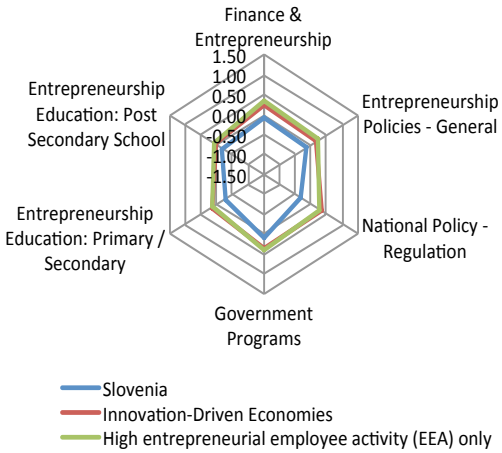
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

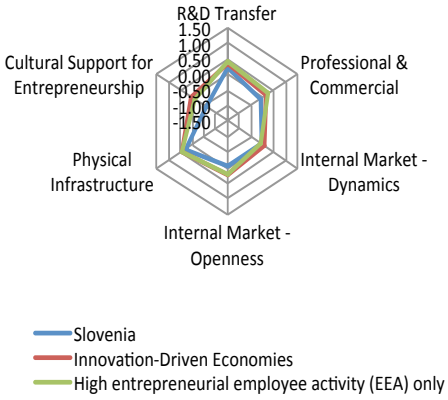
In the 2011 cycle Slovenia is facing the lowest TEA level since 2005, which is the lowest also in comparison to all other GEM countries. On the other hand, Slovenia is one of the countries with a relatively high EEA, where, at least to some extent, the independent entrepreneurship is replaced with the entrepreneurship in organizations - that is situation, similar to some other EU countries with the lowest TEA rates. While the very low level of perceived opportunities very likely also reflects the economic crises, also institutional factors play an important role. Good news is that perceived capabilities are high, much above the comparable countries average and that female entrepreneurship has increased.

GEM 2011 NATIONAL SUMMARY SHEET

SLOVENIA

Entrepreneurship Institution Profile

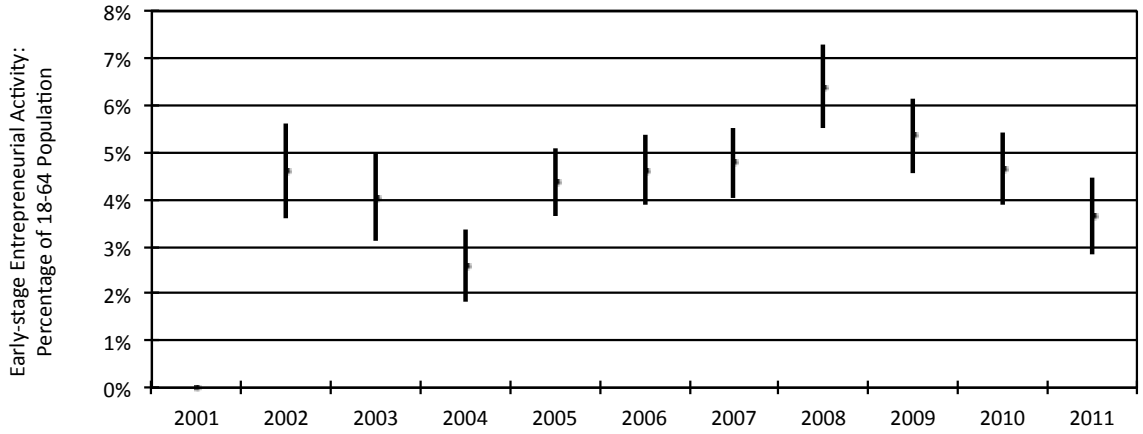




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Except for Physical infrastructure, R&D transfer and Internal market dynamics, Slovenia is falling behind innovation-driven economies at all other entrepreneurship framework s, the most explicitly at Cultural support for entrepreneurship, National policy-regulation, Government programs and Entrepreneurship education in primary and secondary schools.

Trend in Total early-stage Entrepreneurial Activity (TEA)



Slovenia is facing a very large drop of the total early-stage entrepreneurial activity in the 2011, to the level that is the lowest in last seven years. A very low level of population is participating in the early-stage entrepreneurial activity, but the majority of them is still entereing entrepreneurship to exploit good business opportunity.

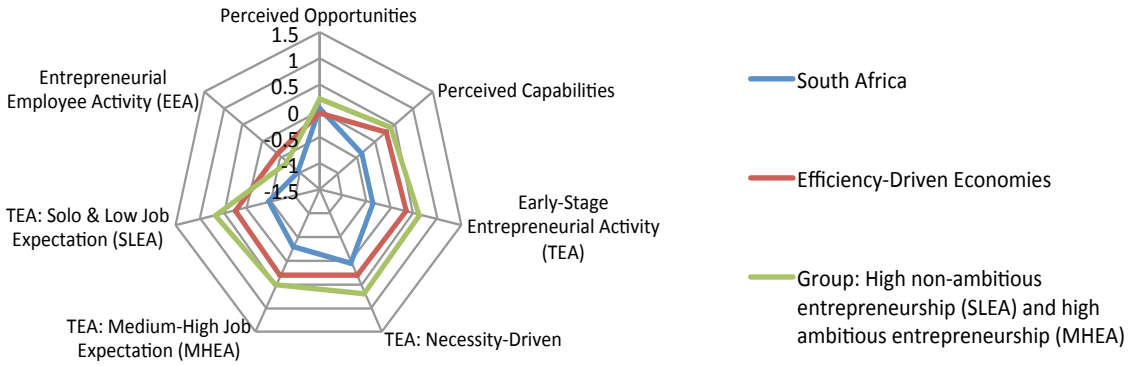
GEM 2011 National Summary Sheet

South Africa

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	50,133	Perceived Opportunities	41
Area (x 1,000 km^2):	1,214	Perceived Capabilities	43
Density (persons / km^2):	41.1	Fear of Failure	29
GDP Per Capita (PPP) (USD):	10,977		
		Nascent Entrepreneurship Rate:	5.2
Global Happiness Index:	5.8 (78/149)	Owner-Managers in New Businesses Rate:	4.0
Human Development Index:	0.62	Owner-Managers in Established Businesses Rate:	2.4
		Total early-stage Entrepreneurial Activity Rate (TEA):	9.1
Global Competitiveness Index:	4.3 (50/142)	- Necessity-Driven TEA Rate:	3.2
Global Innovation Index:	35 (59/125)	- Medium-High Job Expectation Rate: (MHEA)	3.0
Doing Business Index:	(35/183)	Entrepreneurial Employee Activity Rate (EEA):	0.3
GEDI Index:	0.25 (45/79)	- Private Sector EEA Rate (PEEA):	0.2
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



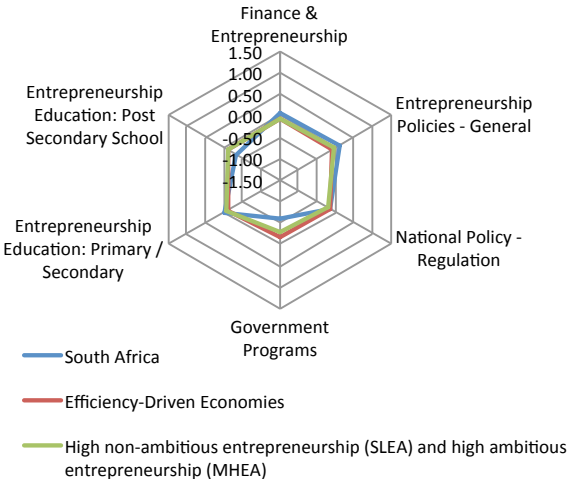
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

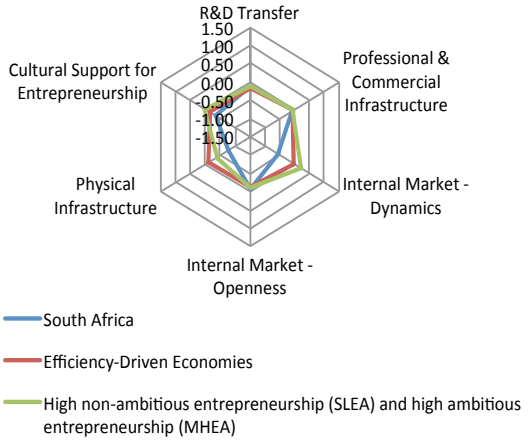
While South Africa has shown positive year on year increases in its overall TEA rates over the last two years (with the TEA for 2011 at a record high of 9.14 in comparison to 5.9 in 2009 and 8.9 in 2010), it must be noted that the country still lags far behind most comparable economies. Given the country's high rate of unemployment (estimated at 25% of the population aged 15-64 years), it is not surprising that a significant percentage of TEA is driven by Necessity (35%). Though a significant proportion of the population exhibits positive attitudes regarding entrepreneurship, the TEA remains dismally low as fear of failure and the desirability of formal employment have a moderating effect.

GEM 2011 National Summary Sheet

South Africa

Entrepreneurship Institution Profile

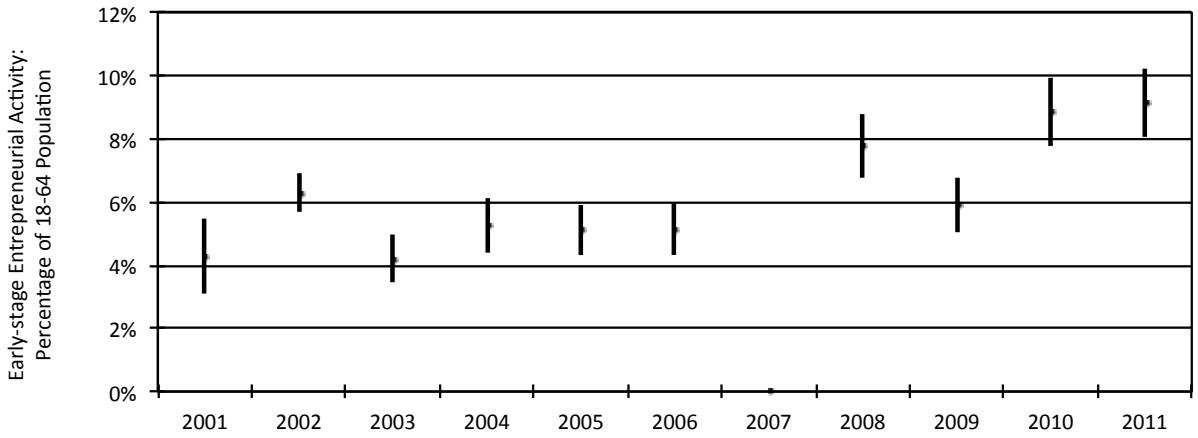




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

The South African Government has prioritized entrepreneurship and the advancement of small businesses as the catalyst to achieving economic growth and development. While legislation provides evidence of this commitment, much still needs to be done to create an environment conducive to entrepreneurship. The quality of the country's commercial infrastructure, particularly its financial markets, sets it apart from comparable economies.

Trend in Total early-stage Entrepreneurial Activity (TEA)



Over the last decade South Africa has consistently shown low TEA rates. The country's hosting of the 2010 FIFA World Cup appears to have had a significant positive impact on entrepreneurial activity. Surprisingly the 2011 TEA rate is the highest ever recorded. However, the country remains one of the worst-performing economies with regard to entrepreneurial activity, despite its high levels of unemployment, poverty and under-development.

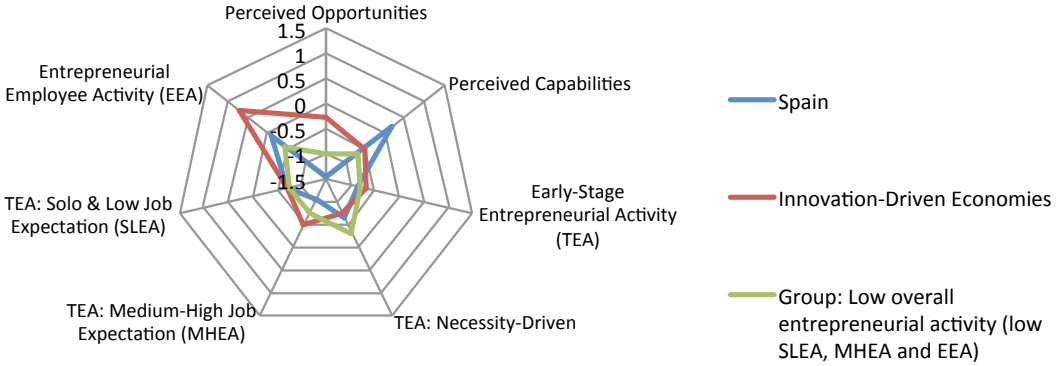
GEM 2011 National Summary Sheet

Spain

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	46,077	Perceived Opportunities	14
Area (x 1,000 km^2):	499	Perceived Capabilities	51
Density (persons / km^2):	91.1	Fear of Failure	52
GDP Per Capita (PPP) (USD):	30,622		
		Nascent Entrepreneurship Rate:	3.3
Global Happiness Index:	7.2 (26/149)	Owner-Managers in New Businesses Rate:	2.5
Human Development Index:	0.88 (23/187)	Owner-Managers in Established Businesses Rate:	8.9
		Total early-stage Entrepreneurial Activity Rate (TEA):	5.8
Global Competitiveness Index:	4.5 (36/142)	- Necessity-Driven TEA Rate:	1.5
Global Innovation Index:	44 (32/125)	- Medium-High Job Expectation Rate: (MHEA)	1.2
Doing Business Index:	(44/183)	Entrepreneurial Employee Activity Rate (EEA):	2.5
GEDI Index:	0.33 (29/79)	- Private Sector EEA Rate (PEEA):	1.6
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		Low overall entrepreneurial activity (low SLEA, MHEA and EEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



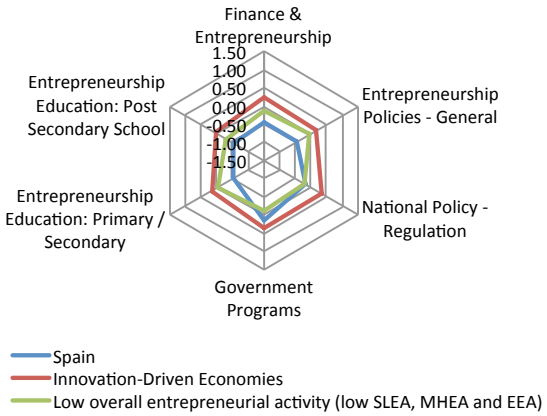
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

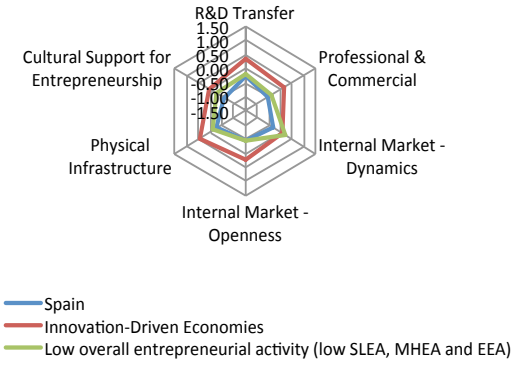
Spain is facing a hard economic crisis aggravated by very high unemployment rates. The quality of entrepreneurship is in part deteriorating by cause of the increment of necessity driven TEA. However, it is also true that is taking some renovation of the business driven by the need to increase competitiveness and diversification. The population perceives fewer opportunities to start up, but the self-recognition entrepreneurial capabilities to do so is above the average of similar economies. The Spanish governmental institutions are conscious of the importance of fostering entrepreneurship and are increasing the design of new public policies to promote it.

GEM 2011 National Summary Sheet

Spain

Entrepreneurship Institution Profile

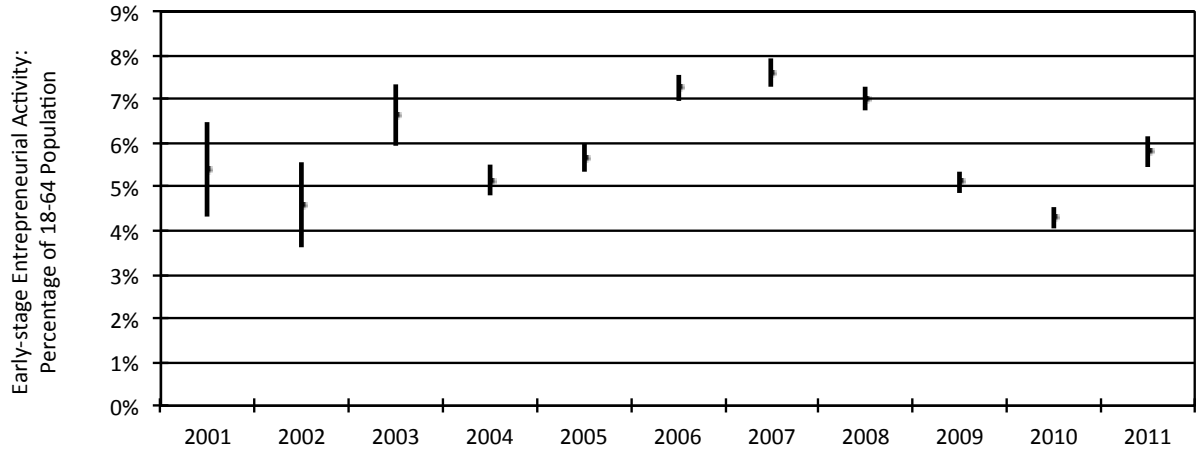




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

The entrepreneurial framework conditions are perceived as hard by the Spanish experts. Last years has worsened access to finance, the economic cuts difficult the advance in entrepreneurial education, R&D transfer and subsides for technological and other projects. Some governmental programs helped specific sectors, but the internal market dynamics is affected by lack of demand and quality entrepreneurship remains some retracted.

Trend in Total early-stage Entrepreneurial Activity (TEA)



The Spanish TEA has been decreasing since the year 2007 due to the worsening of the economic crisis. The year 2011 the trend changed and began to grow. But this is a different growth compared with past periods. This TEA is more driven by necessity and it is an opened question if great part of the nascent activity will really begin the consolidation phase. GEM Spain noticed a notable increment of the nascent activity in the 2011 but high part is still in the air and has no yet impact in the official register

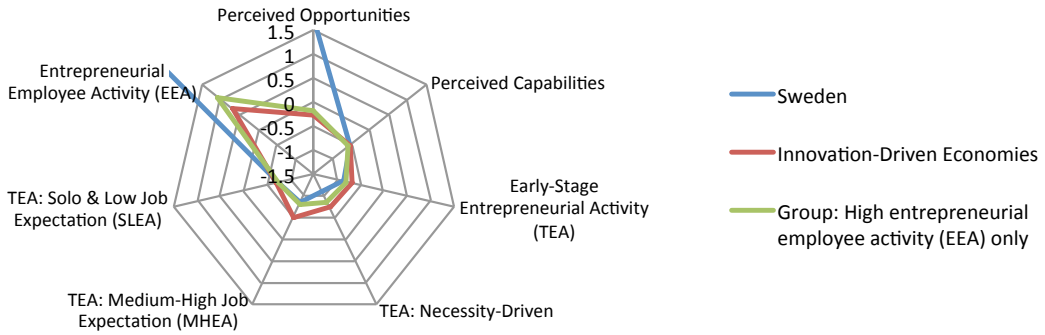
GEM 2011 National Summary Sheet

Sweden

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	9,380	Perceived Opportunities	71
Area (x 1,000 km^2):	410	Perceived Capabilities	40
Density (persons / km^2):	20.8	Fear of Failure	37
GDP Per Capita (PPP) (USD):	40,614		
		Nascent Entrepreneurship Rate:	3.5
Global Happiness Index:	7.8 (10/149)	Owner-Managers in New Businesses Rate:	2.3
Human Development Index:	0.9 (10/187)	Owner-Managers in Established Businesses Rate:	7.0
		Total early-stage Entrepreneurial Activity Rate (TEA):	5.8
Global Competitiveness Index:	5.6 (3/142)	- Necessity-Driven TEA Rate:	0.4
Global Innovation Index:	62 (2/125)	- Medium-High Job Expectation Rate: (MHEA)	1.7
Doing Business Index:	(14/183)	Entrepreneurial Employee Activity Rate (EEA):	13.5
GEDI Index:	0.57 (2/79)	- Private Sector EEA Rate (PEEA):	6.3
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



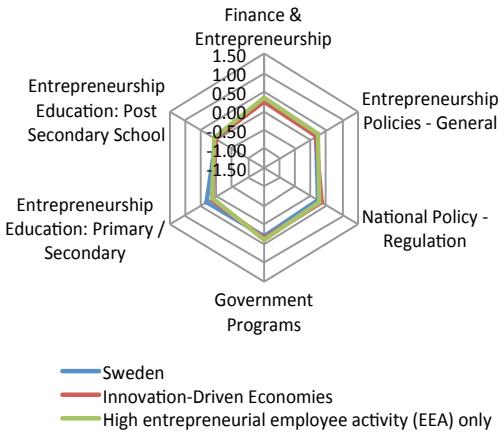
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

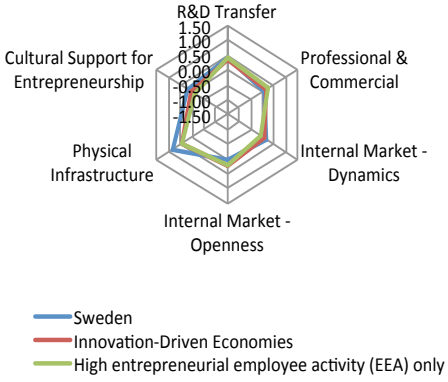
The most striking feature regarding the entrepreneurial profile for Sweden is its very high level of entrepreneurial employee activity (EEA), with the highest level of EEA among all countries taking part in the 2011 GEM survey. This highlights the important role of innovations within existing firms. The profile also shows that adult individuals in Sweden tend to identify business opportunities to a much higher extent than in all other countries (except Columbia), but the paradox is that this is not transformed into a high TEA.

GEM 2011 National Summary Sheet

Sweden

Entrepreneurship Institution Profile

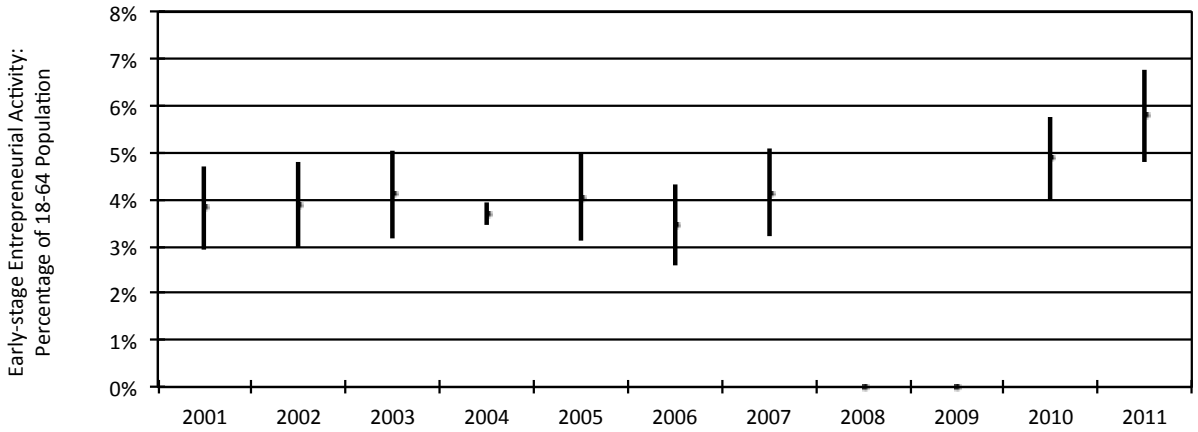




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Sweden does not deviate substantially in any dimension from the average of the two country groups regarding the entrepreneurial institution profile. The only area where Sweden diverges somewhat is in physical infrastructure, which seems to be slightly better in Sweden than for the average within the other two country groups.

Trend in Total early-stage Entrepreneurial Activity (TEA)



The level of early-stage entrepreneurial activity (TEA) has increased remarkably in Sweden during the last two years as compared to the long-term trend around four percent during the first seven years of the millennium. Only the future can tell whether this is a true trend break or not, but given the importance of entrepreneurship for economic prosperity, the picture looks more promising now than during the first years of the millennium.

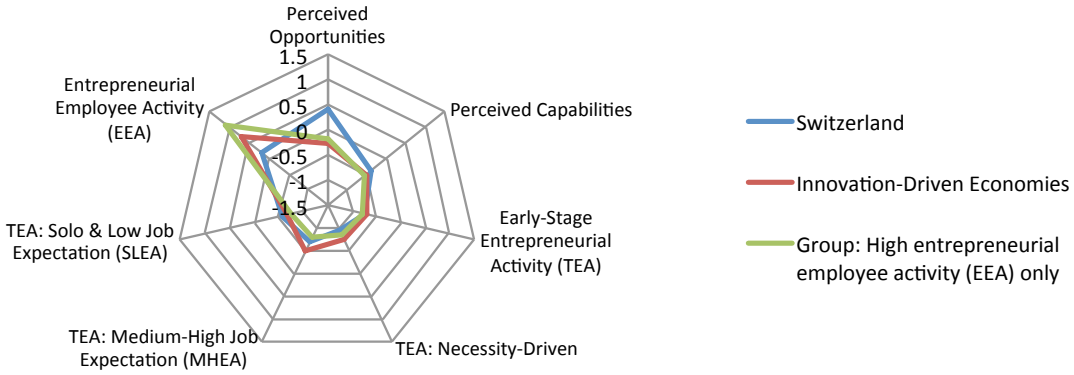
GEM 2011 National Summary Sheet

Switzerland

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	7,664	Perceived Opportunities	47
Area (x 1,000 km^2):	40	Perceived Capabilities	42
Density (persons / km^2):	185.6	Fear of Failure	35
GDP Per Capita (PPP) (USD):	43,509		
		Nascent Entrepreneurship Rate:	3.7
Global Happiness Index:	8 (4/149)	Owner-Managers in New Businesses Rate:	2.9
Human Development Index:	0.9 (11/187)	Owner-Managers in Established Businesses Rate:	10.2
		Total early-stage Entrepreneurial Activity Rate (TEA):	6.6
Global Competitiveness Index:	5.7 (1/142)	- Necessity-Driven TEA Rate:	0.8
Global Innovation Index:	64 (1/125)	- Medium-High Job Expectation Rate: (MHEA)	2.0
Doing Business Index:	(26/183)	Entrepreneurial Employee Activity Rate (EEA):	3.3
GEDI Index:	0.54 (7/79)	- Private Sector EEA Rate (PEEA):	2.0
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



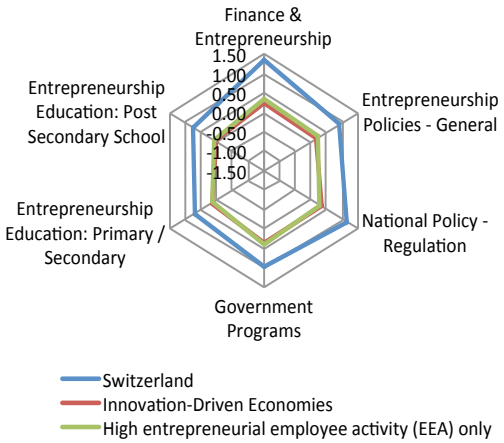
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

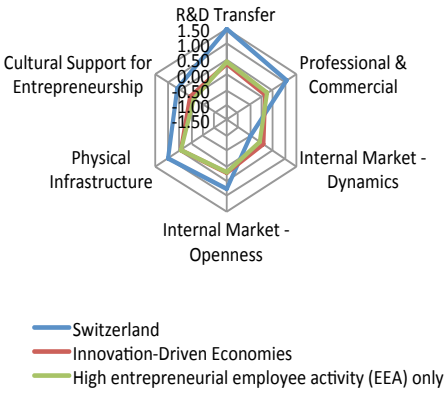
After the 2010 cycle, which was strongly influenced by the aftermath of the financial crisis, many entrepreneurship activity indicators for 2011 turned upward again, perceived opportunities or the total entrepreneurial activity (TEA) being two of them. In comparison to other countries, two indicators need particular attention. The Swiss MHEA rate is below the average of the innovation-driven countries and even more striking, the entrepreneurial employee activity is much less pronounced than in comparable countries.

GEM 2011 NATIONAL SUMMARY SHEET

SWITZERLAND

Entrepreneurship Institution Profile

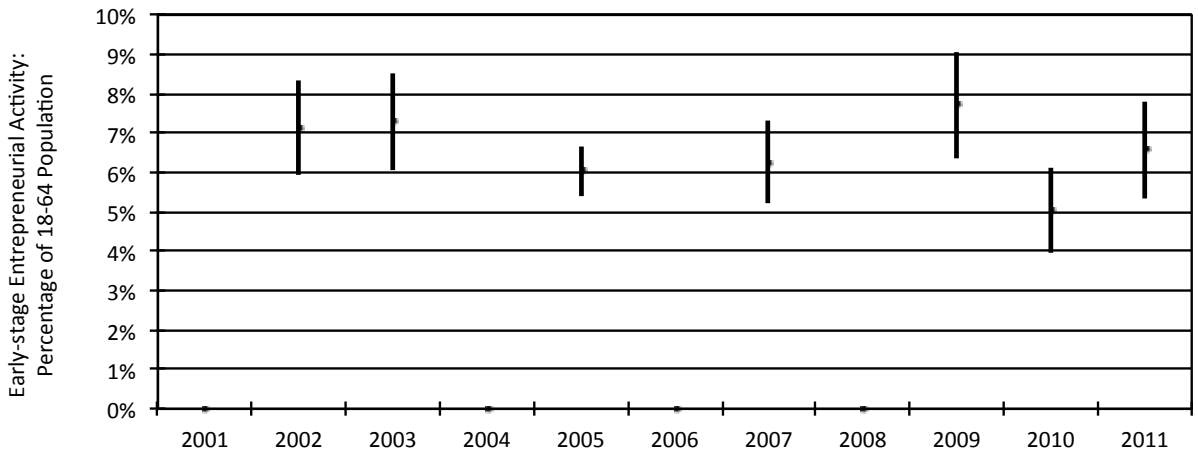




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

As ever, the Swiss framework conditions for entrepreneurship are assessed very positively. Additional programs that have been introduced to reduce the negative effects of the strong Swiss franc are not yet included here.

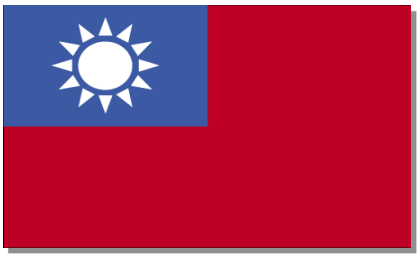
Trend in Total early-stage Entrepreneurial Activity (TEA)



With 2010 being an exception, the Swiss TEA rate fluctuates normally between 6 and 8 percent. Although the quantitative aspect of entrepreneurial activity (TEA) is of great interest for policy makers, we should pay more attention on the quality of it (low vs. high job expectations) and on the entrepreneurial behavior of employees.

GEM 2011 National Summary Sheet

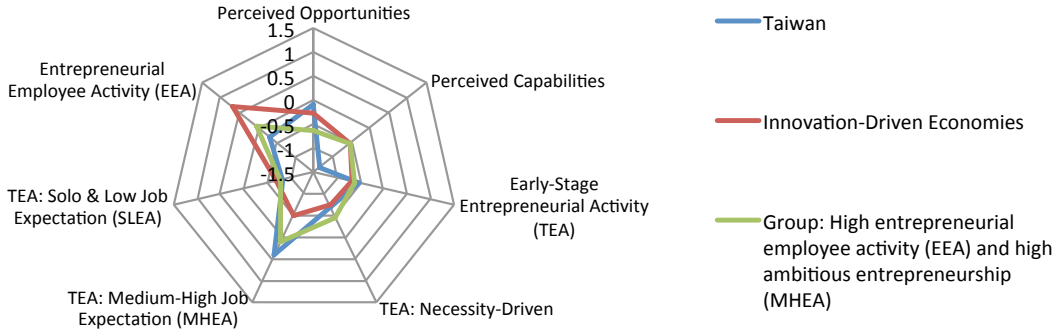
Taiwan



General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	23,072	Perceived Opportunities	39
Area (x 1,000 km^2):	36	Perceived Capabilities	29
Density (persons / km^2):	640.0	Fear of Failure	42
GDP Per Capita (PPP) (USD):	37,932		
		Nascent Entrepreneurship Rate:	3.6
Global Happiness Index:	6.2 (64/149)	Owner-Managers in New Businesses Rate:	4.4
Human Development Index:	no data	Owner-Managers in Established Businesses Rate:	6.3
		Total early-stage Entrepreneurial Activity Rate (TEA):	7.9
Global Competitiveness Index:	no data	- Necessity-Driven TEA Rate:	1.4
Global Innovation Index:	no data	- Medium-High Job Expectation Rate: (MHEA)	4.8
Doing Business Index:	no data	Entrepreneurial Employee Activity Rate (EEA):	2.0
GEDI Index:	0.48 (11/79)	- Private Sector EEA Rate (PEEA):	1.7
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile

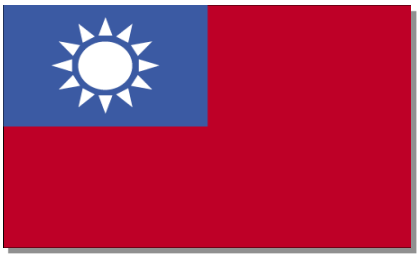


Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

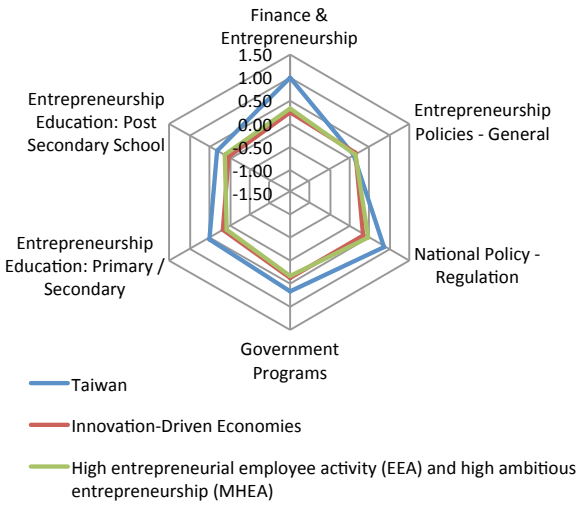
Taiwan stands out as an economy with relatively high levels of medium-high job expectation TEA, while perceived capabilities are rather low in comparison to the reference groups.

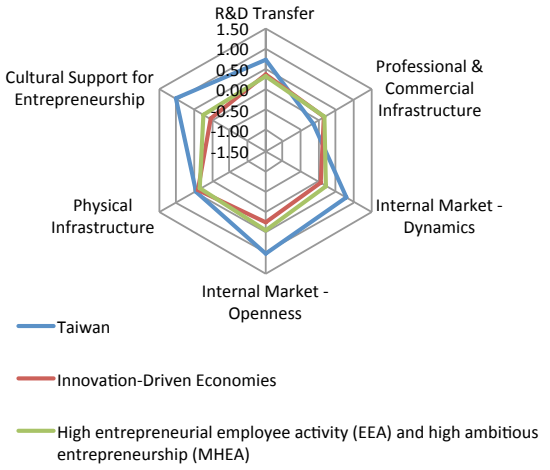
GEM 2011 National Summary Sheet

Taiwan



Entrepreneurship Institution Profile

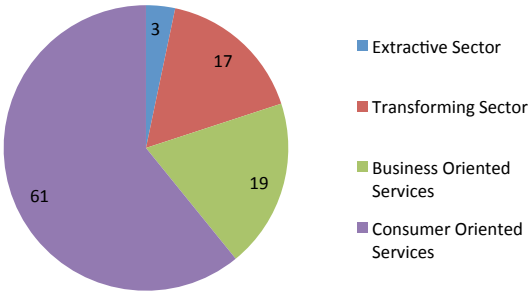


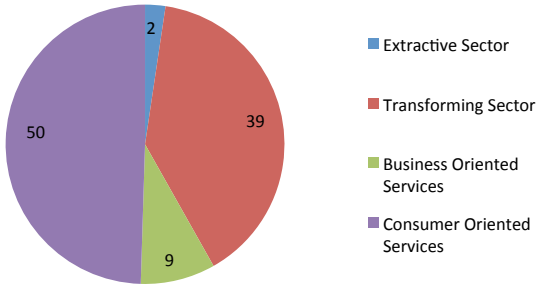


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Experts in Taiwan had positive assessments on most entrepreneurial framework conditions.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Early-stage entrepreneurs exhibit much more activities in services than established entrepreneurs. Most activities are directly targeted at consumers.

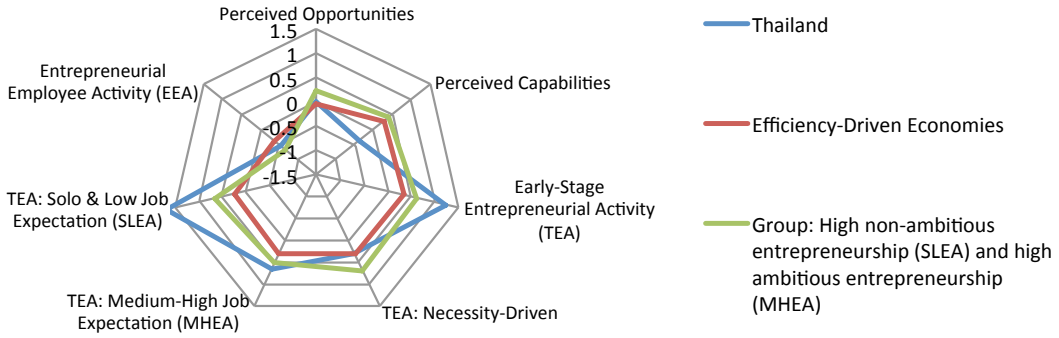
GEM 2011 National Summary Sheet

Thailand

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	69,122	Perceived Opportunities	40
Area (x 1,000 km^2):	511	Perceived Capabilities	43
Density (persons / km^2):	134.7	Fear of Failure	60
GDP Per Capita (PPP) (USD):	9,693		
		Nascent Entrepreneurship Rate:	8.3
Global Happiness Index:	6.6 (49/149)	Owner-Managers in New Businesses Rate:	12.2
Human Development Index:	0.68 (103/187)	Owner-Managers in Established Businesses Rate:	30.1
		Total early-stage Entrepreneurial Activity Rate (TEA):	19.5
Global Competitiveness Index:	4.5 (39/142)	- Necessity-Driven TEA Rate:	3.7
Global Innovation Index:	38 (48/125)	- Medium-High Job Expectation Rate: (MHEA)	5.4
Doing Business Index:	(17/183)	Entrepreneurial Employee Activity Rate (EEA):	1.4
GEDI Index:	0.18 (65/79)	- Private Sector EEA Rate (PEEA):	0.7
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



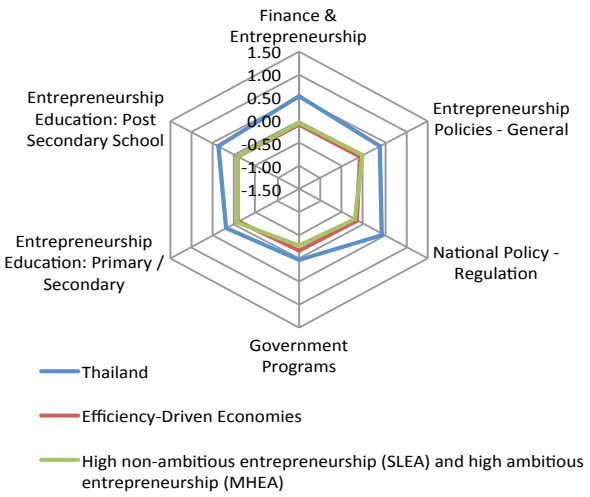
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

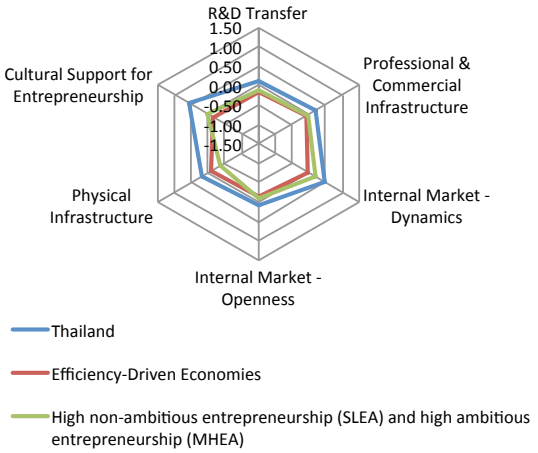
In this cycle, Thailand's early-stage entrepreneurial activity (TEA) is fairly significant relative to that of other countries in the same group (SLEA and MHEA, efficiency-driven economies). The country's SLEA rate is especially high, which indicates that a large number entrepreneurs are self-employment initiatives, but do not have high-growth ambition. This may, in part, relate to Thailand's rate of perceived capabilities, which is much lower that the comparative countries average.

GEM 2011 National Summary Sheet

Thailand

Entrepreneurship Institution Profile

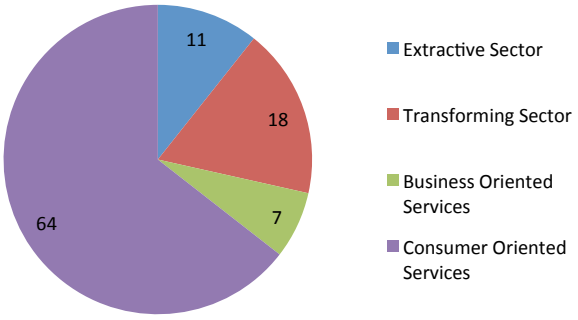


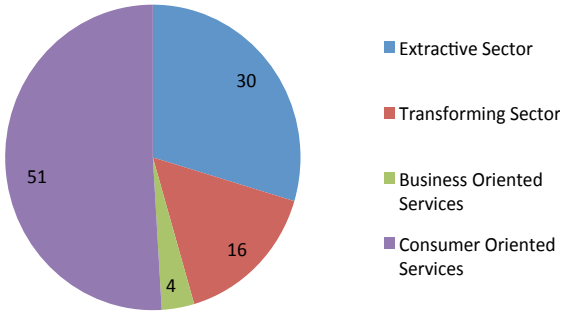


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Thailand's institutional framework is considered to be strong in many aspects in comparison to other similar economies (e.g. SLEA and MHEA, efficiency-driven economies). Notably, the institutional indicators, as reported here, underscore the fact that the country has been trying to focus on policies and financial supports for entrepreneurship development in the past few years.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Two main differences in terms of sector structure between TEA and EST are the excessive portion of consumer-oriented services in the case of TEA, and the EST's large share of extractive sector when compared to the former case. This depicts the country's high competition in consumer-oriented services, with numerous newcomers. Extractive sector, on the other hand, seems to be more stable in Thailand at present.

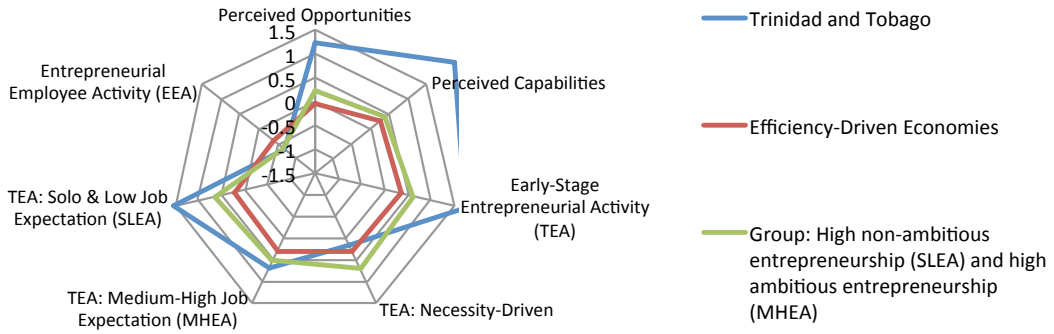
GEM 2011 National Summary Sheet

Trinidad and Tobago

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	1,341	Perceived Opportunities	62
Area (x 1,000 km^2):	5	Perceived Capabilities	81
Density (persons / km^2):	261.5	Fear of Failure	18
GDP Per Capita (PPP) (USD):	20,301		
		Nascent Entrepreneurship Rate:	13.9
Global Happiness Index:	7 (35/149)	Owner-Managers in New Businesses Rate:	9.3
Human Development Index:	0.76 (62/187)	Owner-Managers in Established Businesses Rate:	6.9
		Total early-stage Entrepreneurial Activity Rate (TEA):	22.7
Global Competitiveness Index:	4 (81/142)	- Necessity-Driven TEA Rate:	3.4
Global Innovation Index:	32 (72/125)	- Medium-High Job Expectation Rate: (MHEA)	5.5
Doing Business Index:	(68/183)	Entrepreneurial Employee Activity Rate (EEA):	1.0
GEDI Index:	0.21 (51/79)	- Private Sector EEA Rate (PEEA):	0.8
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile

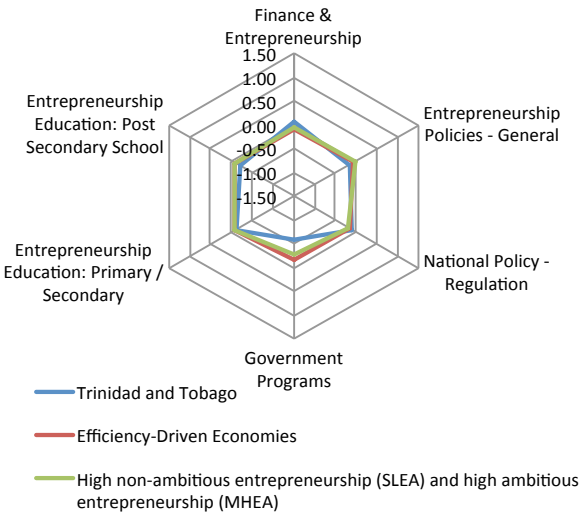


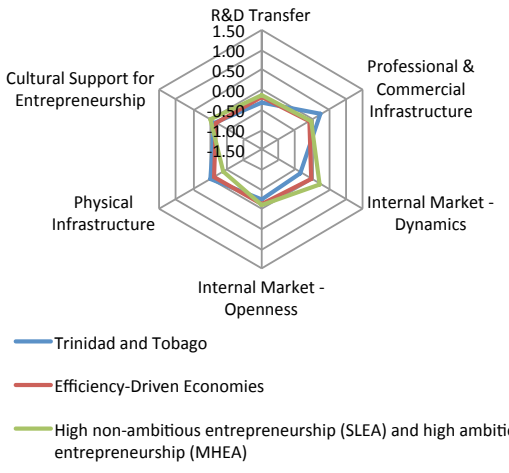
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

GEM 2011 National Summary Sheet

Trinidad and Tobago

Entrepreneurship Institution Profile

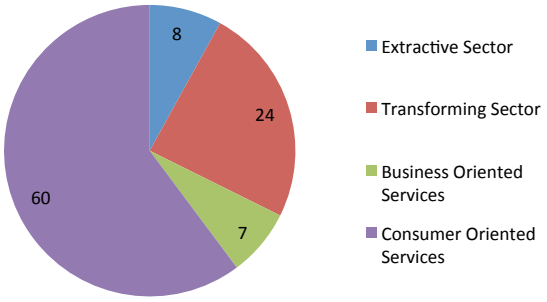


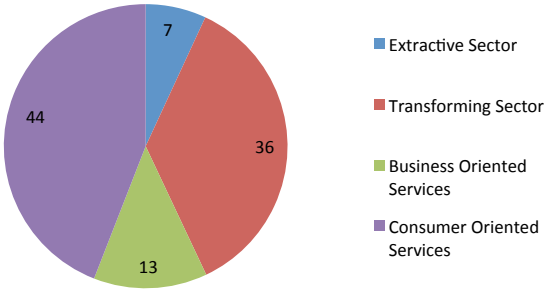


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Trinidad and Tobago has a more advanced Professional and Commercial Infrastructure. This should develop even further as investments in areas such as higher education, and internet connectivity/access continue. Government is actively pursuing programs to support and develop entrepreneurs. Despite this, the country continues to score low on Government Programs. Attention is currently being given to access to- and organization of- these programs.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





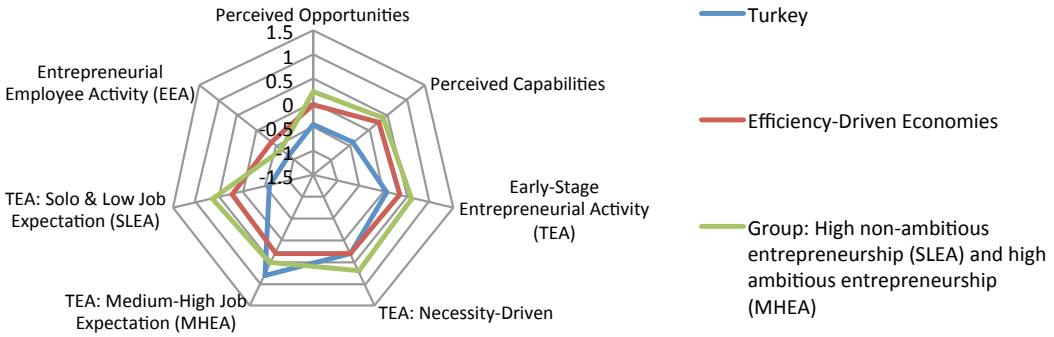
GEM 2011 National Summary Sheet

Turkey

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	72,752	Perceived Opportunities	32
Area (x 1,000 km^2):	770	Perceived Capabilities	42
Density (persons / km^2):	92.8	Fear of Failure	27
GDP Per Capita (PPP) (USD):	14,616		
		Nascent Entrepreneurship Rate:	6.3
Global Happiness Index:	5.6 (86/149)	Owner-Managers in New Businesses Rate:	6.0
Human Development Index:	0.7 (92/187)	Owner-Managers in Established Businesses Rate:	8.0
		Total early-stage Entrepreneurial Activity Rate (TEA):	11.9
Global Competitiveness Index:	4.3 (59/142)	- Necessity-Driven TEA Rate:	3.8
Global Innovation Index:	34 (65/125)	- Medium-High Job Expectation Rate: (MHEA)	5.8
Doing Business Index:	(71/183)	Entrepreneurial Employee Activity Rate (EEA):	0.6
GEDI Index:	0.29 (36/79)	- Private Sector EEA Rate (PEEA):	0.5
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



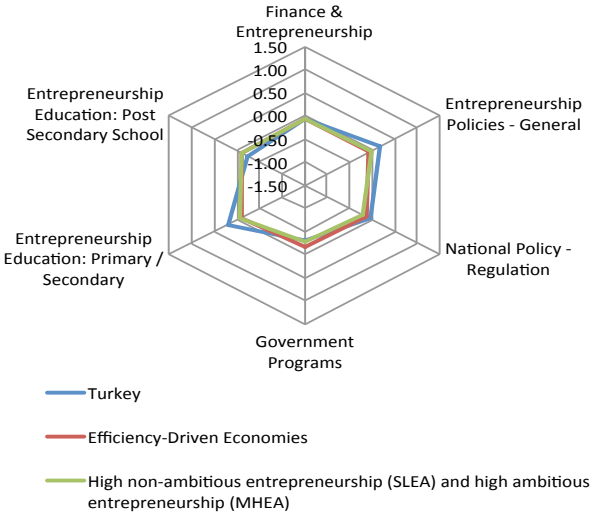
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

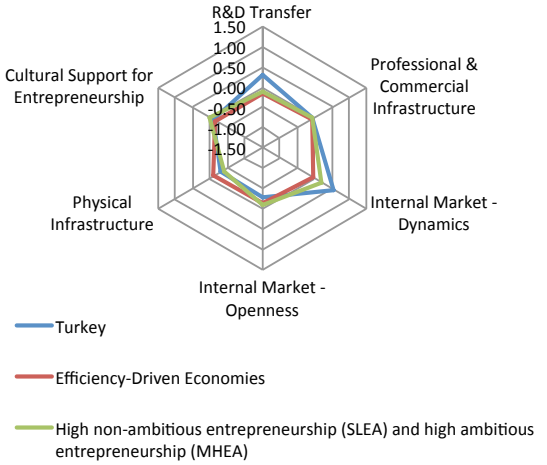
Total early-stage entrepreneurial activity (TEA) has recorded a significant increase from 8.59% in 2010 to 11.87% in 2011. The main reason for this increase is a sharp rise in the nascent firm participation rate. Indeed, the dynamics of the Turkish economy, which is growing without interruption since 2010 and the political stability have been favorable to early-stage entrepreneurial activity. The rate of ambitious entrepreneurship (MHEA) is one of the highest among-efficiency driven economies.

GEM 2011 National Summary Sheet

Turkey

Entrepreneurship Institution Profile

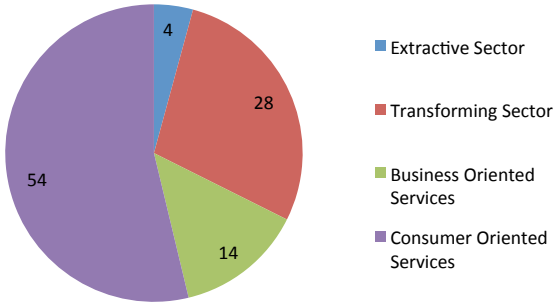


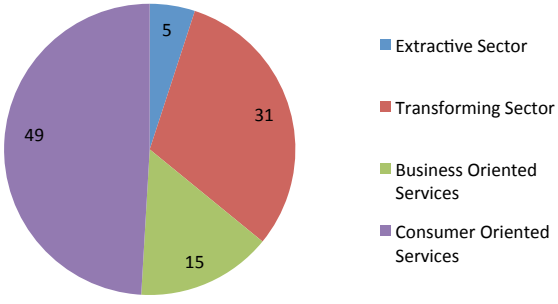


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

The entrepreneurship ecosystem in Turkey has been improving in the past few years, which are encouraging the new business. Turkey has relatively more dynamic internal market in comparison to other similar countries which increases opportunities for nascent entrepreneurs. In addition, cultural and society support, financial environment and government programs related with entrepreneurship have been enhanced in the past years.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





The most entrepreneurial activity in Turkey took place in the consumer oriented sector. However, there is a significant decrease in consumer-oriented sector comparing to 2010 and the business oriented services and the transforming sector becomes more important in 2011.

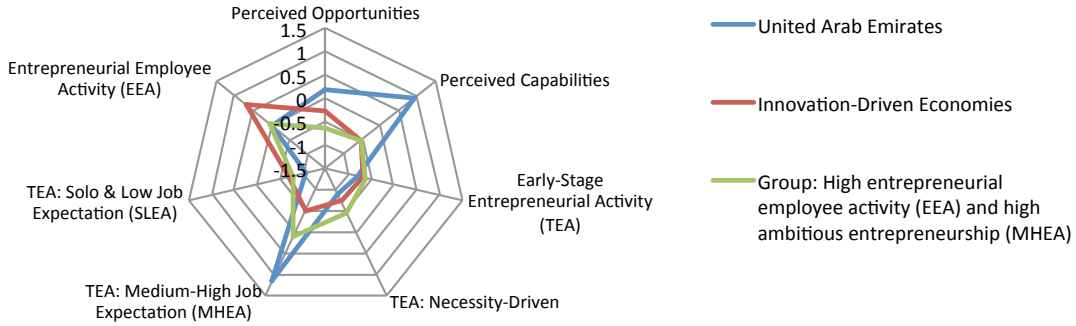
GEM 2011 National Summary Sheet

United Arab Emirates

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	7,512	Perceived Opportunities	44
Area (x 1,000 km^2):	84	Perceived Capabilities	62
Density (persons / km^2):	89.9	Fear of Failure	47
GDP Per Capita (PPP) (USD):	48,598		
		Nascent Entrepreneurship Rate:	3.7
Global Happiness Index:	no data	Owner-Managers in New Businesses Rate:	2.6
Human Development Index:	0.85 (30/187)	Owner-Managers in Established Businesses Rate:	2.7
		Total early-stage Entrepreneurial Activity Rate (TEA):	6.2
Global Competitiveness Index:	4.9 (27/142)	- Necessity-Driven TEA Rate:	0.9
Global Innovation Index:	42 (34/125)	- Medium-High Job Expectation Rate: (MHEA)	6.6
Doing Business Index:	(33/183)	Entrepreneurial Employee Activity Rate (EEA):	2.7
GEDI Index:	0.45 (20/79)	- Private Sector EEA Rate (PEEA):	1.5
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



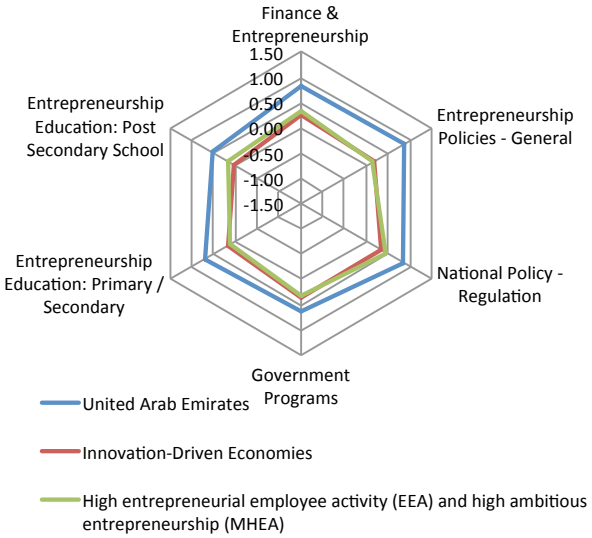
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

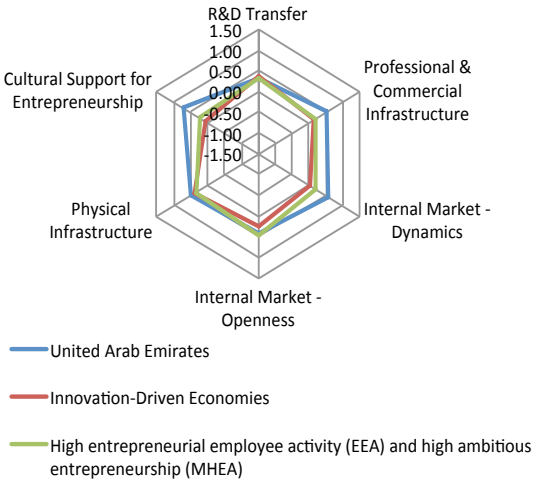
The GEM 2011 report marks the 40th anniversary of the founding of the UAE and the first five year review of the GEM report. The UAE has one of the highest rate of Perceived opportunities and Capabilities (62%) in its Innovation Driven Economies peer group which partially due to increased ease of business formation, speed of changes reflected in regulatory/market environment, and socio-cultural transformations. The MHEA is also much higher than its peer group at 6.6. Necessity driven TEA continues to remain low at 0.9%.

GEM 2011 National Summary Sheet

United Arab Emirates

Entrepreneurship Institution Profile

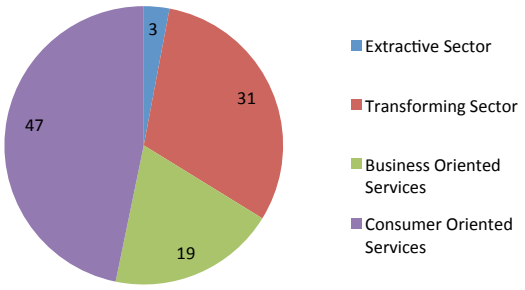


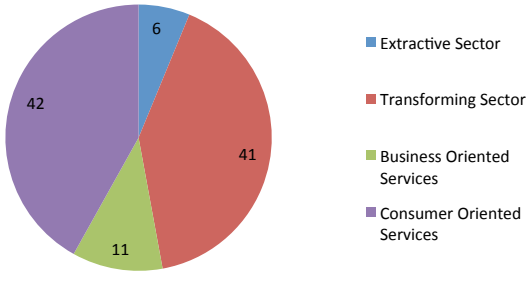


Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

In line with UAE's strategic planning, the government is committed to establishing an economic framework facilitating the growth, promotion and development of SMEs. Government support of entrepreneurial activities, especially amongst the National population, is perceived as high due to well publicized financial support and advice from Federal and Emirate level agencies. There is also gradual social change in particular to the female population.

Sector Structure Total early-stage Entrepreneurial Activity (TEA) and Established Business Activity





Service industry entrepreneurial endeavors maintains its place as the most common form of entrepreneurial activity. While current policies encourage setting up businesses in the manufacturing and transforming sector, these are still not reflected in current entrepreneurial activity.

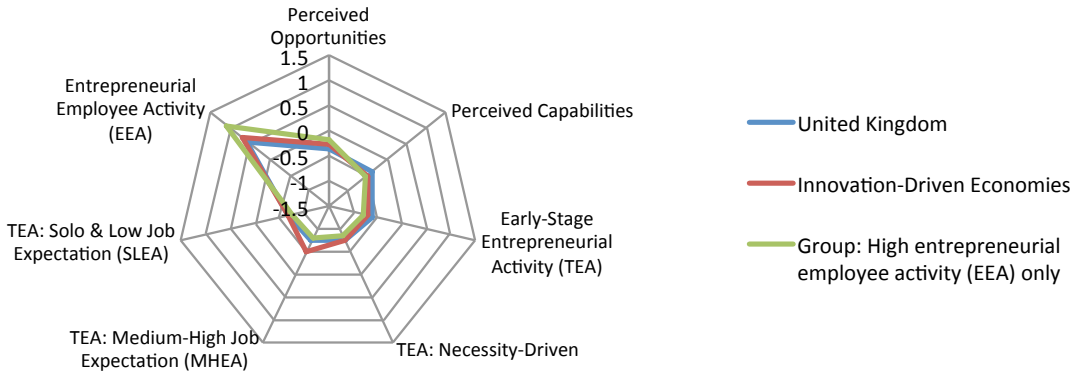
GEM 2011 National Summary Sheet

United Kingdom

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	62,036	Perceived Opportunities	33
Area (x 1,000 km^2):	242	Perceived Capabilities	42
Density (persons / km^2):	255.4	Fear of Failure	46
GDP Per Capita (PPP) (USD):	35,974		
		Nascent Entrepreneurship Rate:	4.7
Global Happiness Index:	7.1 (32/149)	Owner-Managers in New Businesses Rate:	2.6
Human Development Index:	0.86 (28/187)	Owner-Managers in Established Businesses Rate:	7.2
		Total early-stage Entrepreneurial Activity Rate (TEA):	7.3
Global Competitiveness Index:	5.4 (10/142)	- Necessity-Driven TEA Rate:	1.3
Global Innovation Index:	56 (10/125)	- Medium-High Job Expectation Rate: (MHEA)	1.9
Doing Business Index:	(7/183)	Entrepreneurial Employee Activity Rate (EEA):	4.3
GEDI Index:	0.46 (13/79)	- Private Sector EEA Rate (PEEA):	3.6
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High entrepreneurial employee activity (EEA) only	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



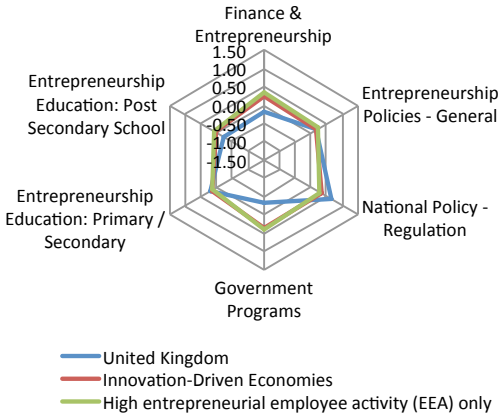
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

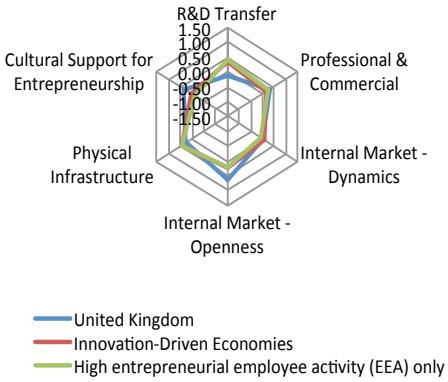
The United Kingdom continues to closely follow the average trend for most entrepreneurial attitude, activity and aspiration measures in innovation-driven economies. This includes the newly-created measures of Entrepreneurial Employee Activity (EEA), Solo & Low Job Expectation (SLEA) and Medium-High Job Expectation (MHEA).

GEM 2011 National Summary Sheet

United Kingdom

Entrepreneurship Institution Profile

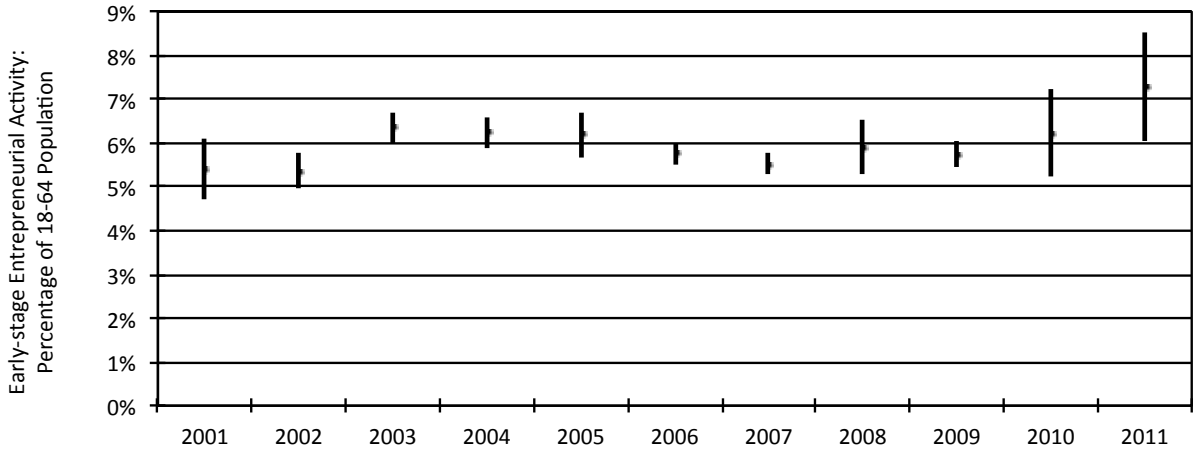




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

In 2011, experts gave relatively high ratings, relative to the UK's peer countries, to its regulations and market openness regime but relatively low ratings to government programs. This may reflect major changes in government programs since 2010; many new programs have not had time to bed in while others have been discontinued. Experts also highlight perceived weaknesses in R&D transfer and availability of finance for entrepreneurship.

Trend in Total early-stage Entrepreneurial Activity (TEA)



The trend of total early-stage entrepreneurial activity since 2007 appears to be rising. In 2011, this was driven by rising nascent entrepreneurship rates (up from 3.2% in 2010) rather than new business ownership, and also by increasing necessity-driven entrepreneurial activity (up from 0.7% in 2010). This is consistent with expectations at this stage in the economic cycle, as talented individuals who have lost their jobs attempt to start businesses.

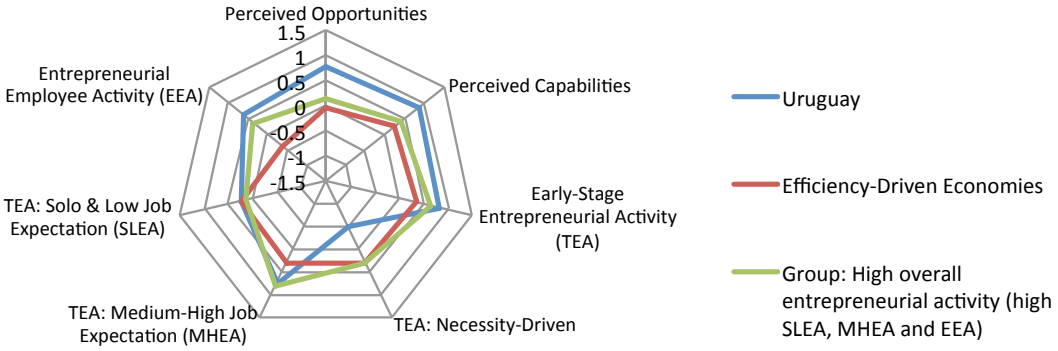
GEM 2011 National Summary Sheet

Uruguay

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	3,369	Perceived Opportunities	54
Area (x 1,000 km^2):	175	Perceived Capabilities	61
Density (persons / km^2):	19.2	Fear of Failure	38
GDP Per Capita (PPP) (USD):	15,470		
		Nascent Entrepreneurship Rate:	11.0
Global Happiness Index:	6.8 (41/149)	Owner-Managers in New Businesses Rate:	6.0
Human Development Index:	0.78 (48/187)	Owner-Managers in Established Businesses Rate:	6.0
		Total early-stage Entrepreneurial Activity Rate (TEA):	16.7
Global Competitiveness Index:	4.3 (63/142)	- Necessity-Driven TEA Rate:	1.8
Global Innovation Index:	34 (64/125)	- Medium-High Job Expectation Rate: (MHEA)	5.7
Doing Business Index:	(90/183)	Entrepreneurial Employee Activity Rate (EEA):	4.4
GEDI Index:	0.34 (27/79)	- Private Sector EEA Rate (PEEA):	3.0
Classification Phase of Economic Development:		Efficiency-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High overall entrepreneurial activity (high SLEA, MHEA and EEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

In this cycle Uruguay shows an important increase in many entrepreneurship activity indicators within the context of almost a decade of sustained economic growth, very low unemployment (5,5%) and increasing good jobs offer. Its entrepreneurial activity is mostly opportunity based entrepreneurship, keeping a very low proportion of TEA by Necessity. It also shows high EEA and PEEA rates, superior to the efficiency-driven economies average but also the reference countries group, with means intrapreneurship activity is particularly significant for Uruguay. The small domestic market (3.3 million people) is the main limitation to obtain a higher MHEA rate.

GEM 2011 National Summary Sheet

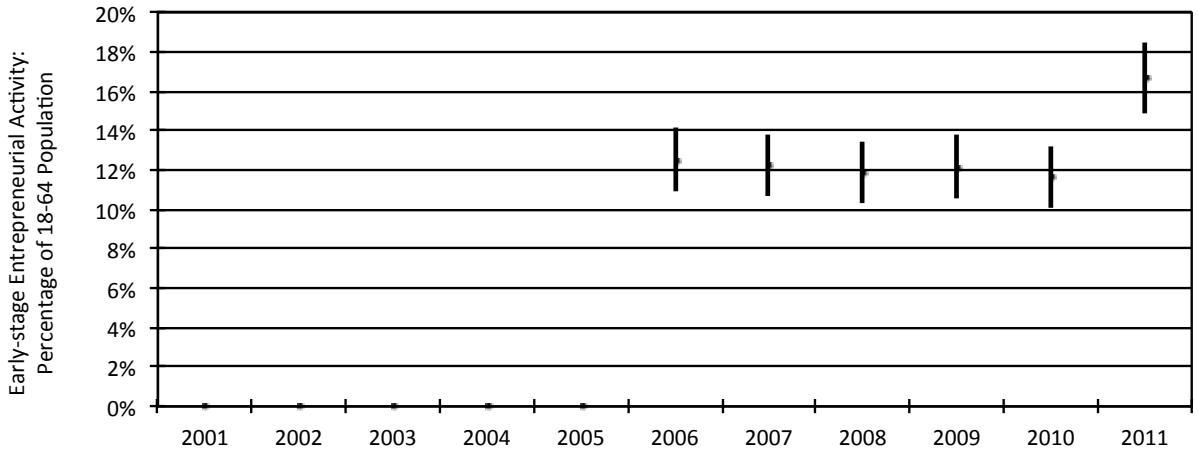
Uruguay

Entrepreneurship Institution Profile

Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Uruguay has been improving its entrepreneurship ecosystem with several policies and programs that are helping the new business creation, in particular EMPRENDER network, the programs supported by ANII (National Agency for Investigation and Innovation) and the efforts of the OPP (Planification and Budget Bureau) oriented to improve the country performance in the Doing Business Index. At the same time the country exhibits a relative deficit related to internal market dynamics and cultural and social support to entrepreneurship activities in comparison to other similar economies.

Trend in Total early-stage Entrepreneurial Activity (TEA)



Since 2006 until 2010, Uruguay's TEA rate had been stable, with a progressive displacement form necessity based to opportunity based entrepreneurship. In 2011 there is a clear inflection point with a significant growth compared to 2010. This year's TEA rate is the highest since Uruguay incorporation in the Global Entrepreneurship Monitor. It's difficult to explain an improve so significant like this. One possible explanation is the accumulative effect of many years of prosperity, stability and entrepreneurship promotion.

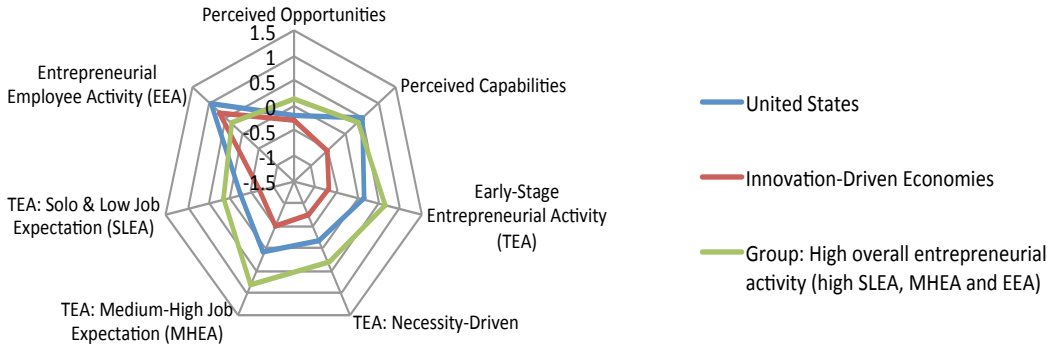
GEM 2011 National Summary Sheet

USA

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	310,384	Perceived Opportunities	36
Area (x 1,000 km^2):	9,147	Perceived Capabilities	56
Density (persons / km^2):	32.2	Fear of Failure	37
GDP Per Capita (PPP) (USD):	48,147		
		Nascent Entrepreneurship Rate:	8.3
Global Happiness Index:	7.4 (21/149)	Owner-Managers in New Businesses Rate:	4.3
Human Development Index:	0.91 (4/187)	Owner-Managers in Established Businesses Rate:	9.1
		Total early-stage Entrepreneurial Activity Rate (TEA):	12.3
Global Competitiveness Index:	5.4 (5/142)	- Necessity-Driven TEA Rate:	2.6
Global Innovation Index:	57 (7/125)	- Medium-High Job Expectation Rate: (MHEA)	4.0
Doing Business Index:	(4/183)	Entrepreneurial Employee Activity Rate (EEA):	5.3
GEDI Index:	0.6 (1/79)	- Private Sector EEA Rate (PEEA):	3.4
Classification Phase of Economic Development:		Innovation-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High overall entrepreneurial activity (high SLEA, MHEA and EEA)	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

In 2011, the increase in entrepreneurial activity was wide-spread across nascent ventures and new businesses as well as established businesses. An across-the-board increase in the rate of entrepreneurial activity has not been seen in the United States in the last ten years. As anticipated in any innovation driven economy, a majority of the U.S. entrepreneurs were motivated by improvement-driven opportunities to start new ventures. The U.S. entrepreneurs, however, expect to create more jobs than did entrepreneurs in any innovation-driven economy.

GEM 2011 National Summary Sheet

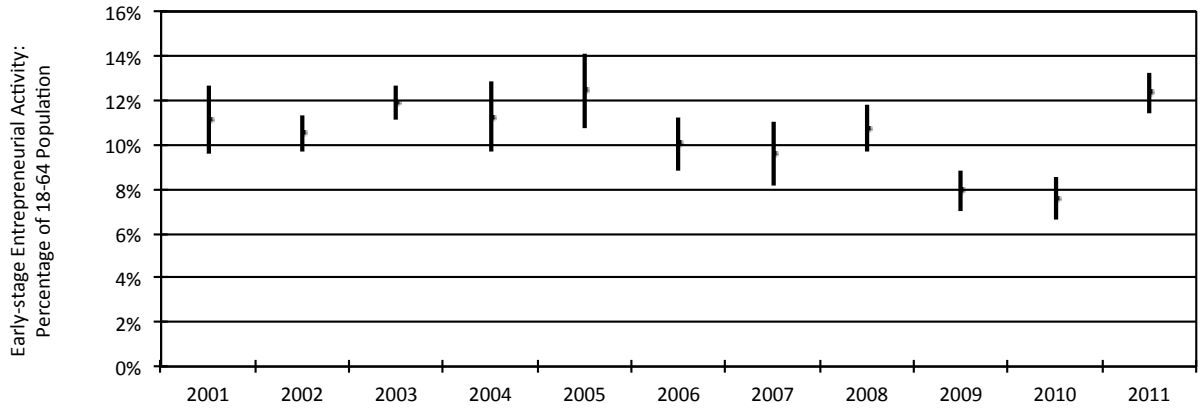
USA

Entrepreneurship Institution Profile

Note: Groups values based on GEM 2011 NES data; USA values based on 2010 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Whereas cultural support for entrepreneurship is perceived to be high, national policy regulation related to entrepreneurship is not assessed very well in comparison to the average of the innovation-driven economies.

Trend in Total early-stage Entrepreneurial Activity (TEA)



The year 2011 saw a remarkable turnaround for entrepreneurial activity in the United States across all groups. After dismal performances of the last few years, the TEA rate of 12.3% in 2011 is almost equal to the highest rate (12.4% observed in 2005) of the past ten years. The increase in the entrepreneurial activity is consistent across genders, different phases of entrepreneurship process, and motives.

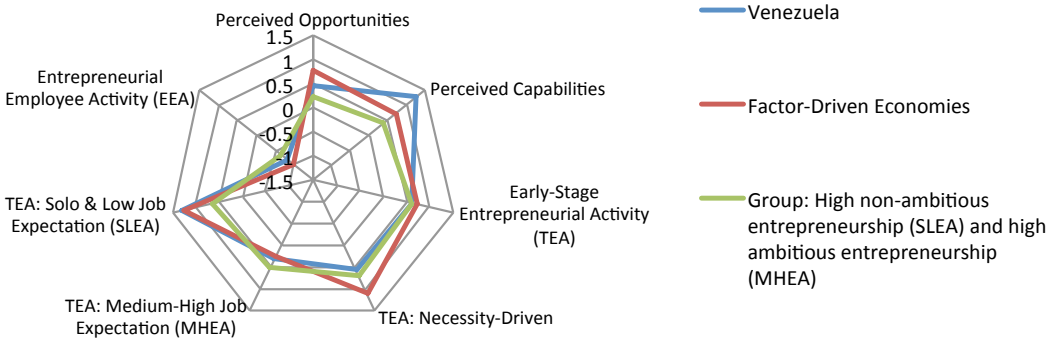
GEM 2011 National Summary Sheet

Venezuela

General Characteristics*		GEM 2011 Entrepreneurship Indicators*	
Population (x 1,000):	28,980	Perceived Opportunities	48
Area (x 1,000 km^2):	882	Perceived Capabilities	67
Density (persons / km^2):	31.8	Fear of Failure	23
GDP Per Capita (PPP) (USD):	12,407		
		Nascent Entrepreneurship Rate:	13.1
Global Happiness Index:	7.5 (20/149)	Owner-Managers in New Businesses Rate:	2.6
Human Development Index:	0.74 (73/187)	Owner-Managers in Established Businesses Rate:	1.6
		Total early-stage Entrepreneurial Activity Rate (TEA):	15.4
Global Competitiveness Index:	3.5 (124/142)	- Necessity-Driven TEA Rate:	4.4
Global Innovation Index:	27 (102/125)	- Medium-High Job Expectation Rate: (MHEA)	4.6
Doing Business Index:	(177/183)	Entrepreneurial Employee Activity Rate (EEA):	0.6
GEDI Index:	0.2 (57/79)	- Private Sector EEA Rate (PEEA):	0.4
Classification Phase of Economic Development:		Factor-Driven Economies	
Classification Entrepreneurship Profile (Ch. 4):		High non-ambitious entrepreneurship (SLEA) and high ambitious	

* For definitions and sources of the indicators, see the first page of this Annex

Entrepreneurial Profile



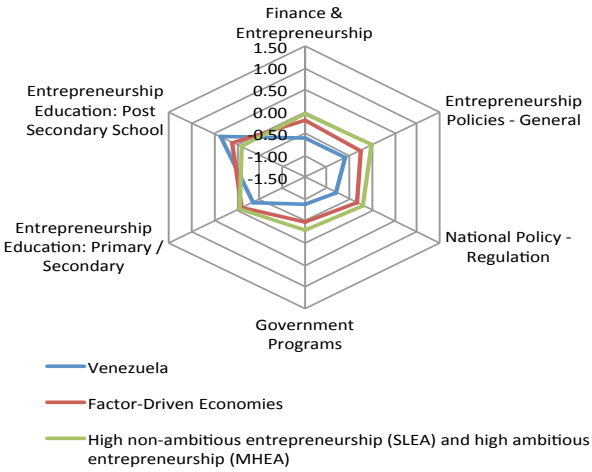
Note: Medium-High Job Expectation TEA and Solo & Low Job Expectation TEA are based on GEM 2009-2011 APS data, all other indicators based on GEM 2011 APS data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

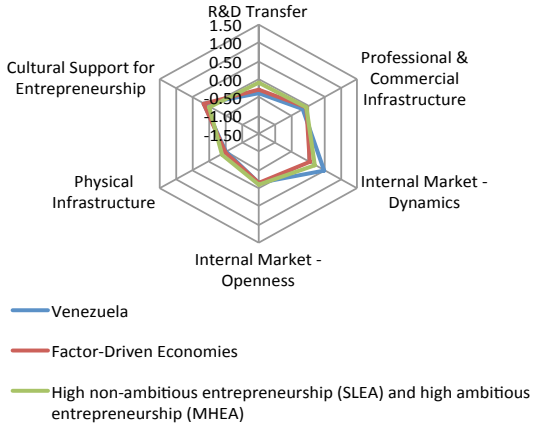
In this cycle, as in the past, Venezuela shows a particularly high measure in perceived capabilities. This fact could be related to a cultural perception of self capability to accomplish challenges, but it differs with the evaluation provided by experts related to the real capability of people to create and conduct a business successfully. The perception of entrepreneurs shows also a low level of necessity-driven enterprises in comparison with the other two groups of reference, because the tendency is to affirm that initiatives came from the entrepreneurial vocation and the desire to be independent, more than the necessity motivations.

GEM 2011 National Summary Sheet

Venezuela

Entrepreneurship Institution Profile

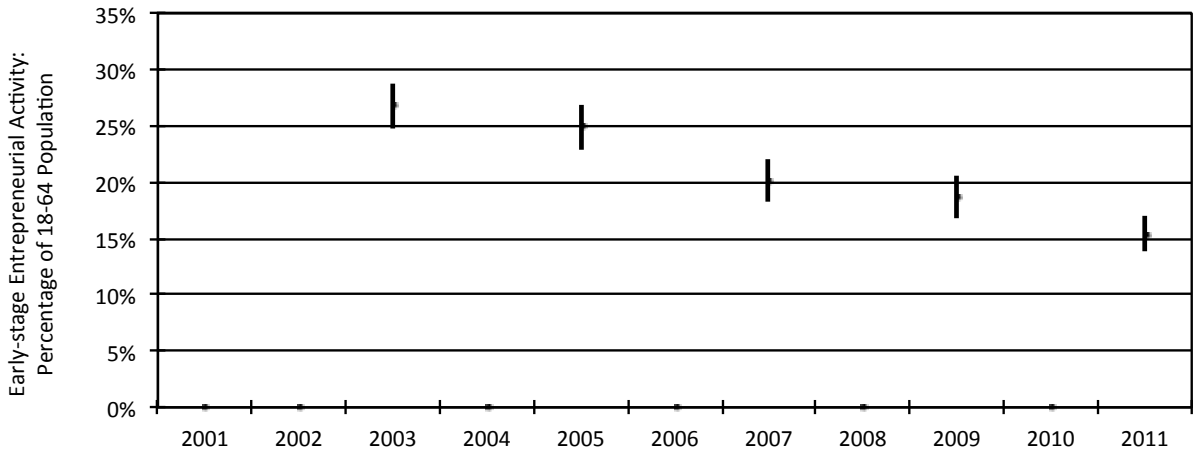




Note: Based on GEM 2011 NES data. Values of group level indicators are based on averaging the country-level Z-scores (standardized values obtained from the entire GEM 2011 sample).

Venezuela has been improving its entrepreneurship ecosystem in the last two years with several initiatives arising from the private sector and academia. One of the striking elements of the assessment of experts is the high value of the contribution of the education system at higher levels. This may be related to the role that the academy has had in joining efforts to support entrepreneurs and providing training programs for different scopes. Entrepreneurial culture has been a sustained strength that Venezuela has exhibited in all its GEM exercises, while policies and regulations remain to be the main challenges.

Trend in Total early-stage Entrepreneurial Activity (TEA)



The Venezuelan TEA has been falling steadily since 2003. The year 2011 was an unusual one due to the effect of a general strike that encouraged many to start their own business. Nevertheless, Venezuela remains among the countries with the highest TEA rates across the world.

ANNEX I: GLOSSARY OF MAIN MEASURES AND TERMINOLOGY

TABLE I.1 MAIN GEM MEASURES USED IN THIS REPORT

Measure	Description
Entrepreneurial Attitudes and Perceptions	
Perceived Opportunities	Percentage of 18–64 age group who see good opportunities to start a firm in the area where they live
Perceived Capabilities	Percentage of 18–64 age group who believe to have the required skills and knowledge to start a business
Entrepreneurial Intention	Percentage of 18–64 age group (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 group 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 group 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 group who agree with the statement that in their country, successful entrepreneurs receive high status
Media Attention for Entrepreneurship	Percentage of 18–64 age group 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 group 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 group 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 group 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 group who are currently owner-manager of an established business, i.e., owning and managing a running business that has paid salaries, wages or any other payments to the owners for more than 42 months
Business Discontinuation Rate	Percentage of 18–64 age group 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 group 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 group 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 their 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 group who are currently involved in developing new entrepreneurial activities for their employer and fulfil a leading role in this activity.
Private Sector Entrepreneurial Employee Activity (PEEA)	Percentage of 18–64 age group who are currently involved in developing new entrepreneurial activities for their employer, active in the private sector, and fulfil 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 I.2 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 to start business	GEM National Expert Survey	Statement assessed by experts in the 2011 GEM National Expert Survey (mean values per economy; based on 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 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
Income inequality (Gini index)	World Ban 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 age group 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 country's investment freedom ranges between 0 and 100, where 100 represents the maximum degree of investment freedom. Cross section data 2002.
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 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 security benefits as the average of the three variables: Old Age, Disability and Death Benefit Index; Sickness and Health Benefits 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 the net salary covered by the net unemployment benefits in case of a one-year unemployment spell. Cross section data covering 1997-2002 period.

ANNEX II: GEM METHODOLOGY

This annex explains some of the main elements that constitute the GEM data collection procedures and as such provides some relevant details for those interested to know more about the data. Before elaborating on the details of the data collection for the GEM Adult Population Surveys and National Expert Surveys in sections 3 and 4, some basic information is provided on GEM's view of what entrepreneurship and entrepreneurial activity entails – as this aligns with the data collection methodologies – as well as the organization of the GEM project.

II.1 DEFINITIONS AND OPERATIONALIZATION

While entrepreneurship is a multifaceted phenomenon with many different meanings and definitions, GEM operationalizes entrepreneurship as: "Any serious attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business." Thus, while GEM defines entrepreneurship rather narrowly as new business activity, it takes a broad view of what it recognizes (new) business activity to be. For example, unlike many official records of new business activity, GEM's definition is not restricted to newly registered businesses[45].

For years GEM has focused on the phase that combines the stage in advance of the start of a new firm (nascent entrepreneurship) and the stage directly after the start of a new firm (owning-managing a *new* firm). Taken together this phase is denoted as "early-stage entrepreneurial activity" (TEA)[46]. In addition, individuals with entrepreneurial attitudes - potentially leading to entrepreneurial activity – and individuals involved as owner-managers in *established* firms are identified. These categories discerning *phases* of entrepreneurship are not easily derived from the GEM questionnaire. Figure 2 shows how individuals that take part in the adult population survey are labeled as nascent entrepreneurs, owner-managers of new firms and owner-managers of established firms, dependent on the answers of particular GEM questions (variable names are indicated in Figure 3) that are of recurring nature.

[45] GEM thus adopts the occupational perspective of entrepreneurship (cf. Wennekers and Sternberg 2005), even though it looks further than individuals officially registered as self-employed. Entrepreneurship can also be seen from the behavioral perspective, for example by identifying employees within organizations who behave entrepreneurially (also known as intrapreneurship or corporate entrepreneurship). This year, details on employee entrepreneurial activity have therefore been included in the GEM surveys (see Chapter 4).

[46] The acronym TEA originally expressed "total entrepreneurial activity". Here, the word 'total' was meant to capture the 'total' collection of new firm activities, including agriculture. This led to some confusion (see e.g. Hindle 2006) as the suggestion was made that, for instance, also entrepreneurial activities in established firms were captured in the measure. Hence, the term 'early-stage' is usually included in describing the TEA acronym that has been retained as the measure itself has not been altered since 2001.

FIGURE II.1 IDENTIFYING NASCENT ENTREPRENEURS, OWNER MANAGERS OF NEW/ESTABLISHED FIRMS AND EARLY-STAGE ENTREPRENEURIAL ACTIVITY FROM THE GEM APS SURVEY QUESTIONS

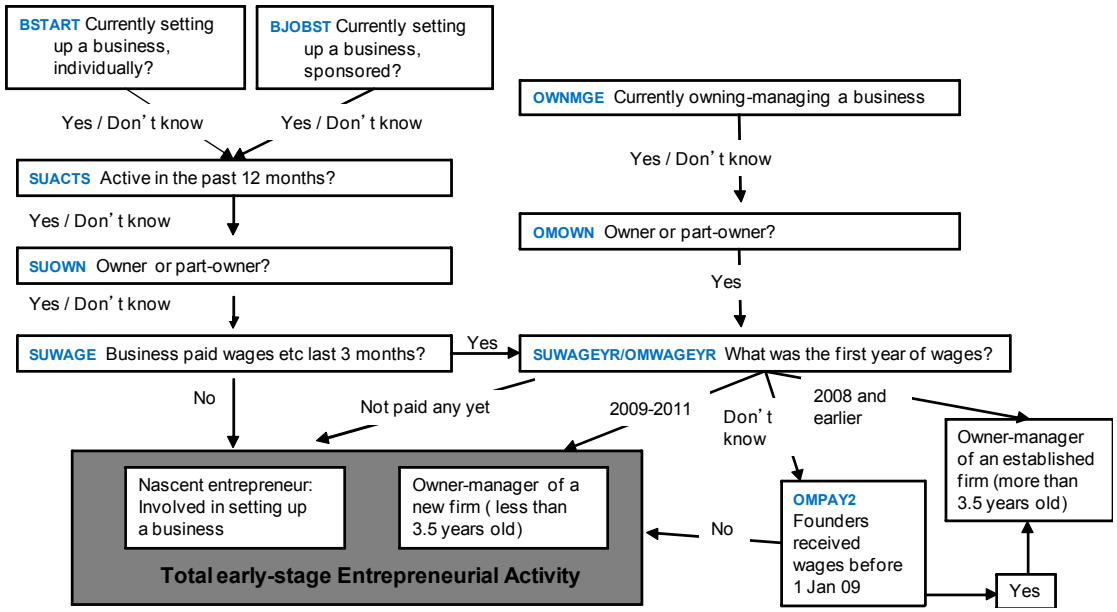
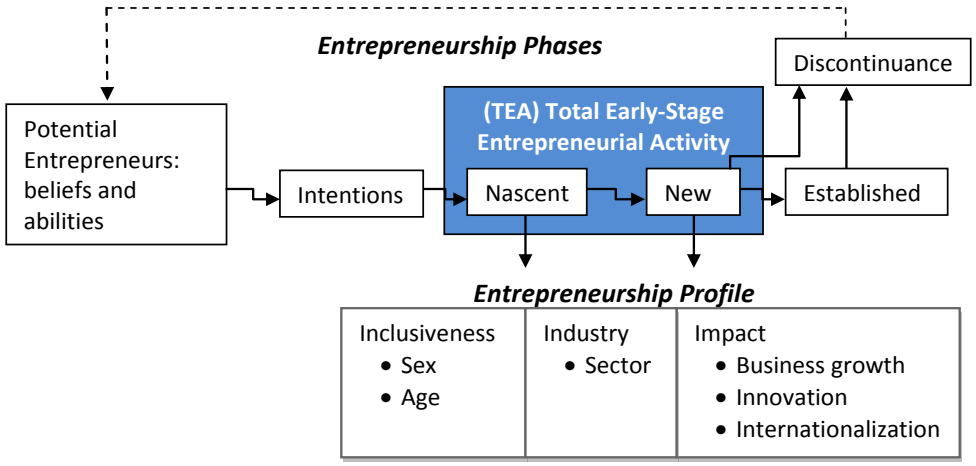


Figure II.2, also presented in Chapter 1, shows the processes individuals may go through, as conceptualized by the GEM research framework. In addition to the abovementioned phases, entrepreneurial attitudes as potential prerequisites of entrepreneurial activity are identified. Of course, also discontinuation of activities in owning and managing a business are important aspects of entrepreneurship. Some recurring GEM questions do not only capture the extent to which people discontinue their business, but also the reasons underlying this decision. In many cases, such reasons appear to be rather positive. Indeed, many of the individuals that discontinue their business are involved in new startups (Bosma and Levie, 2009; Hessels et al., 2010).

FIGURE II.2 PHASES OF ENTREPRENEURSHIP IN THE GEM RESEARCH FRAMEWORK



GEM's focus on individuals as units of observation enables collection of information on the entrepreneurial motivations, aspirations and other characteristics of individuals. Using this information enables researchers to employ units of analysis – and likewise adopting definitions of entrepreneurship - most appropriate to their research objectives. For example, the GEM database allows the exploration of individual or business characteristics, as well as the causes and consequences of new venture creation. This is also what makes the country comparisons particularly

interesting; it is not only about 'how many' people are involved in entrepreneurship; it is also about exploring differences in types and phases of entrepreneurship process. As a result, a wide range of entrepreneurial initiatives has been uncovered. For example, a group of high-expectation entrepreneurs has been defined and studied (Autio, 2007) and gender issues have been explored in GEM reports on women and entrepreneurship (e.g. Allen et al., 2007; Kelley et al., 2011b).

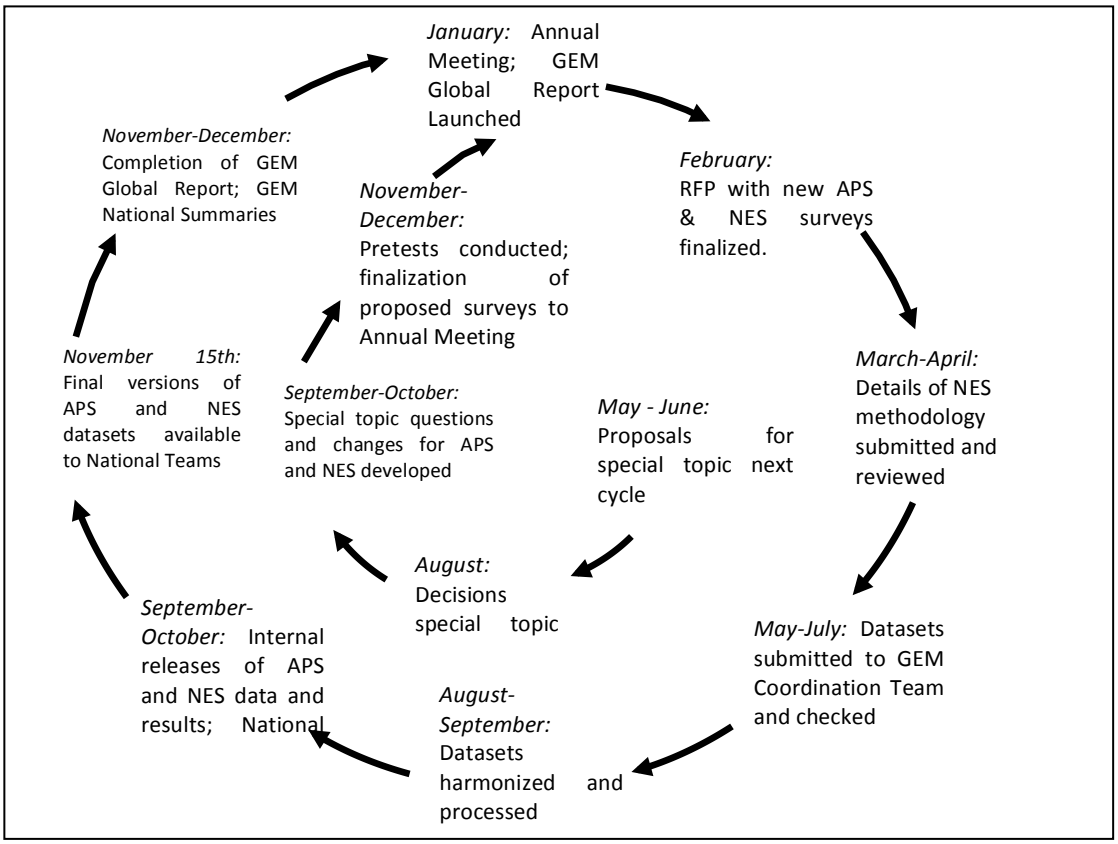
II.2 Organization of GEM

The Annual Planning Meeting of the Global Entrepreneurship Research Association (the institution that hosts GEM) marks the official transition point between GEM cycles. At this time, members of all National Teams that will participate in the next cycle meet, usually in January, to discuss the results of the previous cycle, including issues with data quality or sampling technique, with suggestions as to how to overcome these. The Planning Meeting is also an opportunity for new National Teams, or members of existing Teams to undergo training in APS and NES processes, and key indicators. The main activities performed during the cycle are summarized in Figure II.3.

Special Topics and Pretests

In preparation to the Annual Meeting, suggested changes to the questionnaire are explored. This includes designing the "Special Topic", which is a topic of particular research interest. The Special Topic is assigned during Spring and Summer in advance of the GEM cycle following an internal call for special topics (to be proposed by GEM members) and a review procedure that emphasizes the contribution of such a special topic for the GEM project and for the research field in general (i.e. what would national measures related to this topic bring to the research community). A requirement is that the additional questions that will be inserted in the "core" APS and NES survey are simple and easy to implement. The special topic questions are explored and refined during autumn, after which the entire APS instruments – including the set of questions related to the special topic – will be pretested. Any problems encountered are then addressed before the Annual Planning Meeting where the final APS Questionnaire is proposed. Most of the questions in the "core" APS questionnaire have not changed since 2001 to ensure the availability of consistent measures allowing longitudinal analysis. From 2010 onwards the GEM Adult Population Surveys have been pretested in multiple languages. The NES survey annual modification consists of the inclusion of a specific set of closed questions related to the annual special topic. Previous Special Topics have included *Entrepreneurship Education and Training*and *Social Entrepreneurship*. Other special topics reports explored with core GEM data include *Women Entrepreneurship*,*High-growth Entrepreneurship* and *Entrepreneurial Finance.* Reports on these topics are available to download from GEM consortium website, www.gemconsortium.org by accessing Publications and then Members.

FIGURE II.3 THE ANNUAL GEM CYCLE



II.3 GEM ADULT POPULATION SURVEY

WHO CONDUCTS THE ADULT POPULATION SURVEYS?

From 1999 to 2003, the contracts for the completion of the survey were led and supervised by the GEM coordination unit at London Business School. As of 2004 however, this role was transferred to the National Teams but supervision still takes place by the GEM Coordination Team. The supervision process includes multiple steps and checks:

1. The GEM Coordination Team drafts the full requirements for the survey, its sample, and all data collections requirements. These are published each year as the Request for Proposal (RFP) that is provided to each National Team.

2. Each National Team (often in concern with their chosen survey vendor) submits their survey proposal to the GEM Coordination Team, outlining full details of each aspect of the survey and data collection that they intent to do.

3. The GEM Coordination Team reviews each national proposal, requests any additional information if required, and assesses if it meets the GEM requirements. Only when the GEM Coordination Team is satisfied that the proposal meets all survey, sample, and data collection requirements is the National Team approved to begin their survey. If the National Team is new or if there have any major changes from past years (such as the selection of a new

survey vendor) the GEM Coordination Team will require that they conduct a pilot of the survey.

4. National Teams that are required to conduct a pilot will begin the survey administration and collect a limited number of responses. This pilot data set will then be sent to the GEM Coordination Team for a data quality analysis. The data will be examined for any potential errors in coding, excess missing values, skip pattern, sample selection, etc. Once the pilot has been approved, the National Team can then continue full data collection.

5. National Teams complete all data collection and initial data preparation, to ensure that all data is properly coded and entered into the GEM-supplied data templates.

6. All submitted data sets are examined by the GEM Coordination Team for data quality, including out of range values, patterns of missing data, skip logic error, higher than usual incomplete or refusal rates, representativeness of the sampled population, and several tests for the correct calculation of the weights. The data is also harmonized, where all data from all countries is combined into a single file, using common variable coding schemes.

7. The data files, along with any questions from the GEM Coordination Team, are provided back to the National Teams for their review. Each Team is to review the processed data, and to respond to all inquiries from the Coordination Team.

8. After all data has had a chance to be reviewed by the appropriate National Team, and all data quality checks are complete, a final dataset is produced. It is this data set that is used to produce each year's Global Report.

The National Teams have two choices at this point- to either conduct the survey themselves, or else to have a private firm (also referred to as vendors or surveyors) to conduct the survey on their behalf for a set fee. The key document which teams therefore require to finalize the agreement is the Request for Proposal (RFP) and APS package.Information on data collection and the vendors for each country are listed in Appendix 1

THE APS REQUEST FOR PROPOSAL

The APS Request for proposal (RFP) is a request from the GEM Coordination Team for a proposal from the National Team stating their intentions to complete the APS for that given year. The term RFP refers to the whole package submitted to teams (historically in March, now February). It includes all the documents which teams need to submit in order to request approval for APS data collection as well as the documents they will need to conduct the surveys. It includes the following:

- GEM APS Request for Proposal: A document stating the requirements for completing the questionnaire (discussed below).
- GEM APS Questionnaire: English-language; National Teams are responsible for translating the questionnaire into their national language. A Spanish-language questionnaire is often made available as well.
- GEM APS Questionnaire question-by-question commentary: A detailed document which provides additional information to help the individual conducting the survey interpret each question, understand the associated skip logic and obtain as full an answer as possible. [47].

[47] Skip patterns are found for instance where not all questions are relevant to all respondents, or where respondents are randomly directed to answer only some of the questions.

- GEM APS Questionnaire Changes: A summary of changes to the structure and content of the questionnaire from the previous year.
- GEM APS Data Input Template: An SPSS template to be used to submit ALL APS data. In previous years a separate file was used to submit verbal or "Open-ended" responses to questions. Now all collected APS data must be submitted in one SPSS file.
- GEM APS Variable Listing: A list of all the variables in the SPSS file, their meanings (Labels), an interpretation of the interviewee's response (Code), and the actual response (Value).
- GEM APS Survey Report: An Excel workbook containing six worksheets
    - Methodology Overview: A request for details about the proposed methodology for conducting the interviews.
    - APS Questionnaire: A listing of which optional questions are to be included in the team's APS
    - Strata Definition and Fieldwork Report: Information on sample strata (if any) to be employed
    - National Population Statistics: Most recent population statistics by age, gender, and (if required) sample strata.
    - Weights: Information about survey vendor computed weights
    - Education: Information about team-created education demographic variable

APS REQUIREMENTS

Requirements for conducting the APS are rather stable over the years, and generally always include the following:

1) Submission of all required proposal documents including

- Completed GEM APS Survey Report (described above)
- A Survey Vendor Proposal, which is a formal description of the proposed methodology composed by the team's survey vendor.
- Translated APS Questionnaire for those teams who will administer the APS in a language other than English and Spanish. Teams are encouraged to do the translations in cooperation with their vendor and to use back-translation by third parties to establish whether the translations capture the same meaning as the original English version.
- Any additional team-added APS questions, which must be approved for content and placement before being included in the team's questionnaire.

2) Sample Requirements

A representative national sample of at least two thousand (2,000) adults:

- The preferred age range for the target population for the GEM APS is 18 to 99. If this is not possible, then an age range of 18 to 64 may be used.
- All geographic regions of the country, including urban and rural areas. For each respondent, geographic details of the city/region in which they reside are noted. Those considered OUT of the labor force (homemakers, retirees, students) are to be included. Only those people visiting the country, in restraining institutions (prisons, mental institutions), in group quarters or the military are to be excluded from the sample design.

3) Case or Respondent Identification Number

A unique identification of no longer than 10 digits must be given to each respondent.

4) Socio-Demographic Items

The National Teams need to ensure that for each respondent the following information is also provided (Variable names are given in square brackets, XX represents country abbreviation):

- Respondent gender
- Respondent exact age, in years[48]
- Educational Attainment[49]
- Main Employment status or current working situation. Before 2011, these were captured by variable XXROCCU in the following seven categories: Full-time work, Part-time work, Self-employed, Unemployed, Retired or disabled, Student, Homemaker, Other. Beginning in 2011, the occupation categories have been split into 8 separate yes/no questions.
- Annual income of the entire household including the respondent
- Household size, including the respondent
- Main region of country where the respondent resides
- City where the respondent resides – that which they consider their 'home city' or closest major metropolitan center

Vendors are also required to include the Sample Strata Indicator if their sample employs stratification. This is based on the GEM APS Strata Definition and Fieldwork Report. It is found in worksheet C of the Excel workbook "GEM APS Survey Report", for each sample strata listed as a proposed strata to sample a particular respondent from, the corresponding number of that listed strata must be entered for each unique ID. For example if the respondent was sampled from strata 3 (typically the name of one of the regions within a country) as outlined in the aforementioned form, then '3' would be entered in the 20XX GEM APS Data Input Template for that unique respondent.

5) Open-Ended Responses

Teams must record the multiple potential open-ended questions in the APS as fully and accurately as possible and both the English and native-language responses are to be provided in the submitted SPSS data file.

6) Call-backs

If the survey administrator cannot reach an individual who has been targeted for the APS questionnaire, they must call-back (5 times, if by phone) or revisit (3 times, if face-to-face) in an attempt to interview this person.

7) Timing of Work

The APS must be administered at different times during the day so that respondents are sampled during and after the work hours. The survey cannot be conducted entirely during holiday periods or some other time of year that may bias the types of respondents available for sampling.

8) *Submission of APS Data*

All fieldwork is to be completed and the final SPSS data set together with all documentation including the completed Strata Definition and Fieldwork Report are provided to the Coordination Team in July of each year.

[48] Where the respondent is reluctant to provide their exact age, 7 broad age bands are provided which can be used as a limited alternative. Where the respondent provides their exact age, this category may be left missing.

[49] Preferably in at least six categories, accordingly to the United Nations Classification.

RFP Review Process

GEM systematically controls the annual data collection procedures. Each National Team is required to submit full information (including the complete survey vendor proposal) about their planned GEM Adult Population Survey (APS) for review. Only after the information that has been supplied by the survey vendor and the National Team has been reviewed, and all outstanding issues addressed, is the team given permission to begin data collection. The APS review examines the appropriateness of the sampling frame, the specifics of the sample design, the proposed sample size, the possible use of sample strata, the processes employed to ensure that the respondent is randomly selected, the timing on the survey administration (day of the week and time of day), the call back procedure if a potential respond is not present at the time of the first interview, and the steps that will be taken by the survey vendor to ensure that the sample is representative of the population of the country. The content and placement of any additional APS questions as well as the verbal introduction of the survey to a potential respondent are reviewed. The review process for each National Team proposal also includes examination of the data quality reports for previous years for that country, to see if there were any areas of improvement identified in previous reviews that should be addressed in the current year.

Method of Data Collection

The process of data collection itself varies slightly between teams. Each GEM country is required to find a minimum of 2,000 participants to complete the survey, the method by which they identify these participants is largely dictated by the percentage coverage of the landline telephone network. Where landline coverage is greater than 85% of all households, then the National Teams are permitted to use a landline-based survey outreach to generate a suitable list of participants to contact. For those countries where landline telephone coverage is not as wide-spread, this approach is less appropriate so face-to-face interview techniques and/or the use of mobile phones are also used.

Data Review

Although the National Teams and Survey Vendors in each country are among the best available, all submitted data is reviewed and tested before being approved for inclusion in the master GEM database. Some of the aspects that are examined during the process for all submitted data include:

Missing or refused questions
Respondents are occasionally not asked all the required questions in the questionnaire—possibly because of a misunderstanding of the survey skip pattern. Other times, a respondent may be asked extra questions, which they should not be asked according to skip pattern instructions, causing the respondent confusion and survey fatigue. This may results in refusal to answer specific questions or to complete the survey altogether. All responses are examined for skip logic errors and excessive missing values.

Incomplete interviews
Not all individuals contacted are eligible for the GEM APS and not all those eligible who start the survey complete it. Most GEM countries had a very low percentage of incomplete surveys.

A high refusal rate
A high refusal rate increases the respondent bias, and therefore reduces the likelihood that the survey reflects the true experience of the population. The overall refusal rate for each

national data set is examined and compared to prior years, other nations, and other surveys being conducted using similar techniques.

A gender and or age ratio imbalance.
The overall age and gender distribution for each national data set is compared with that that would have been expected from a completely unbiased sample. Any deviations are noted, and, if necessary, the National Team and/or their survey vendor are asked to respond.

Translations of open-ended responses.
Responses to questions about business type must be recorded verbatim and, if not in English, translated in-full in the APS dataset.

THE HARMONIZATION PROCESS

Upon receipt of the individual country level data by the GEM Coordination Team, the data is cleaned, coded, and weighted to create a harmonized data set which ensures representativeness and consistency across all countries in the study.

Coding

After completing the data collection, each survey firm submits the data in the pre-defined data input template provided by the GEM Coordination Team. A small number of questions require verbal or "open-ended" responses. These questions are translated by the survey firm and/or National Team and both native and English-language responses are submitted in the SPSS APS data file.

The most important open-ended categories refer to the business activities of potential entrepreneurs. In preparing the data, the survey firms are responsible for providing the descriptions of the business activity reported for the start-ups, new or established firms, as well as firms receiving funding from informal investors. Each year the Coordination Team develops and implements a coding protocol to ensure that a single procedure is used to classify business activities across all countries. The International Standard Industry Classification (ISIC) provided by the United Nations (1990) is used for all sector coding.

Other coding includes re-categorizing text responses to several "other" options in the questionnaire. The GEM Coordination Team also recodes the education and income demographic categories into harmonized GEM variables.

Weighting

GEM aims at providing representative random samples for each country. Survey firms have the option of supplying sample case weights for all observations, developed such that proportions of different subgroups (gender and age, for example) match the most recent official data descriptions the population of a country. The basic objective of the weighting approach is to ensure that the APS sample data provides as close a match as possible to the adult population of the country along a range of key dimensions, which must include age and gender at a minimum, but may also include factors such as region, education level and urban/rural stratification.

If no weight is provided by the survey vendor, the weights will be computed by GEM based either on 1) age and gender, or, if the sample is stratified, on 2) age, gender and strata. No other weighting factors will be used. Therefore, if a team wishes to improve the precision of their weight variable by including other factors, the weight should be supplied by the team.GEM calculates weights based on population statistics provided by the team or, if not available, on US Census International Population

Data.The final weights are adjusted to ensure that the average value of the case weights for each country is exactly one. The Census Population Estimates are published on http://www.census.gov/ipc/www/idbsprd.html.

Age has been categorized in five groups between 18-64 years. The age range of respondents varies substantially across national surveys, from as young as 14 to over 90 years in age. A set of weights has been developed from the adjustments based on standardized national population structure estimates for those who, being 18 to 64 years of age, qualify to be active in the labor force. Of the total sample, 99 percent of the weights are smaller than 3.4 – the maximum equals 10.2 and occurred in the UK, where the sample included over 43,000 cases. For most countries the weights range between 0.3 and 5.8.

DATA QUALITY CONTROLS

Each national data file is examined upon submission. Error checks are performed on all submitted data to find and correct any data recording errors and harmonized the format of each variable from country to country. Each variable is examined for out-of-range codes or unusually high rates of missing or refused responses. The frequency distribution for all key indicators is compared to that for other countries and to previous years, to see if there are any possible anomalies. All potential skip logic errors (questions asked that should be skipped, and questions skipped that should be asked) are examined and all excess data deleted from the data file. Each team is sent an initial data quality review, which informs them of any errors in their data, allowing them to respond to or fix the problem. Sometimes, if there is excessive missing data, a team may be asked to either re-contact the respondents which should have been asked the question or to resample enough respondents to make-up for the missing data.

Vendor-supplied weights are examined to ensure that they provide a sample that matches the age and gender distribution for the country, have no high leverage values, and properly represents the age and gender distribution within each sample strata (if applicable). If the weighted distribution does not match the national population, the weights are adjusted by age and gender population data, either provided by the team or, if not, derived from the US Census International Population estimates. If the resulting weights are still not representative, GEM disregards the vendor-provided weights and calculates new ones. Likewise, if the weighted distribution does not match the national population divided by strata, GEM calculates new weights from the age/gender/strata population data provided by the team.

The data files are processed and made available to National Teams two times before the results are finalized. The teams are required to review their data during these initial data releases to check for any potential errors made during the data recording or harmonization process.

STRUCTURE OF THE QUESTIONNAIRE

The GEM Adult Population Surveys have evolved over the years. They are available with the datasets published. The GEM APS Surveys are copyrighted and should hence not be used for own research activities without consulting the Global Entrepreneurship Research Association[50]. Since 2010, the GEM APS surveys have been simplified in order to reduce the probability of errors resulting from incorrectly implementing the survey (e.g. by introducing systematic skip errors) or from translations

[50] See www.gemconsortium.org, 'Datasets'for the data and questionnaires used in every year.

that fail to express the purpose of the questions included[51]. A major change was established by a general change in the interview schedule. Before 2010, the APS questionnaire first posed 10 or 14 main statements to the entire sample (see Reynolds et al 2005, p. 212-213). Subsequently, blocks of questions had been asked to those respondents answering affirmative to the first four screening statements. Since 2010, these blocks of questions - aimed at those in the process of starting a business, those currently owning-managing a business, those providing funds to new businesses and those that have discontinued a business - are inserted directly after the initial screening items. Moreover, these items are now phrased as questions rather than statements because a significant minority of countries reported problems with the way statements were posed to their respondents. These changes have been successfully pretested and the experiences in 2010 and 2011 have been rather positive.

The second step has been to establish a modular approach to the GEM questionnaire. Since 2011, the APS questionnaire consists of (i) a core set of questions that consists of the items required for deriving regular GEM measures, such as perceived opportunities, perceived skills, nascent entrepreneurship, TEA and several measures capturing entrepreneurial aspirations; (ii) a set of questions for the annual special topic that has been selected, prepared and pretested along fixed procedures; (iii) a limited set of questions that can be inserted by the GEM Research Committee (these concern timely questions such as questions related to the global economic slowdown included in 2009 and 2010); and (iv) optional modules: sets of questions that are adopted by a set of countries interested in a particular topic (examples in the past have been 'networking' and 'innovation confidence'). In addition, National Teams may insert questions themselves. However, they are required to inform the GEM data team which questions they intend to insert (and at what position in the questionnaire) and get approval before they can implement these additional questions.

II.4 GEM NATIONAL EXPERT SURVEYS

The National Experts Survey is designed to provide a general diagnostic on Entrepreneurship Institutions and can be applied to any territorial level: national, regional, city or others. The condition is to select a representative sample of experts and to ask them to make valuations on the target territory.

To control and monitor the data collection procedures, GEM requests to teams for an initial proposal of a list of experts that provides specific information to be valued by the NES Coordination. GEM provides a specific template to be filled for this purpose at the end of February. Required items are, amongst others: the list of experts for each one of the nine main institutions (finance, government policies, governmental programs, entrepreneurial education, R&D transfer, commercial infrastructure, internal market openness, physical infrastructure and cultural and social norms), the background that justifies the inclusion of each expert for a concrete condition, the institution to which it belongs and the name and contact details. This proposal is reviewed by the NES Coordination and approved or asked for adjustments if it does not meet the quality standards. Only with an approval the teams get permission to proceed with the survey, usually by the end of March. The surveys take place between April and the end of July. The teams submit the data in the designated format along with the final list of experts.

[51] For every question included in the Adult Population Survey, a commentary is included to express the purpose of the questions, as well as to probe interviewers with instructions in case respondents perceive questions to be unclear. National Teams are stimulated to apply back-translations by a third party to ensure that the purpose of questions is preserved after translation.

Teams have been trained about the required composition of the sample:it must include, for each entrepreneurial framework condition, two professional experts, one person involved in the entrepreneurial process and one academic or research expert. The national teams identify high-quality experts in the fields related to the nine identified entrepreneurial framework condition. For example, in the case of the framework condition related to entrepreneurial finance, relevant experts are to be sought among bankers, business angels, venture capitalists, individuals in charge of public funds related to startups and firm growth, researchers or professors in entrepreneurship financing and entrepreneurs having experience in this field. Similar criteria apply to the other entrepreneurial framework conditions.

Once the experts' valuations are made and all the data are collected (in most cases at the national level), the GEM Data Team builds a file that includes all individual expert responses. In order to establish the reliability of the theoretical constructs that are measured through the survey, Cronbach's Alphas are calculated.Consistently over the years, this results in particular blocks to be summarized by one composite (principal component) factorwhile others are summarized by two (see Table II.1). TheCronbach's Alphas remainvery stable over the years - values are higher than 0.5 in all casesand 0.7 in most cases. After the reliability control, a syntax designed by GEM is applied to calculate the structured principal components for each block.

Analyses based on NES data may appeal to policy makers and teachers, as links between institutional settings and entrepreneurial activity can be made visible using empirical analysis. At the same time, the information is easy to manage and understand. With the dataset getting richer each year (more time observations, more economies involved, more regional data collection) its research potential is increasing (Amorós et al., 2011; Bowen and DeClercq, 2008).Plenty of opportunities remain for investigating the relationship of the NES variables with several GEM indicators as well as to explore the possibilities of relating this information with other sources of information. Careful research designs need to adopted; for instance, De Clercq et al. (2011) show how institutions related to the financial and educational system *reinforce* the (already positive) impact of individuals financial and social resources on the probability for an individual to start a new business. Panel data analyses, which control for any potential cross-cultural biases, may be useful for establishing causal effects between components of entrepreneurship institutions (from GEM National Expert Survey) and observed entrepreneurial activity (from e.g. GEM Adult Population Survey).

TABLE II. 1 SETS OF ITEMS IN THE NES QUESTIONNAIRE AND THE RESULTING COMPOSITE INDICATORS

Original sets of items	Principal components derived from original blocks of variables
Financing	Is summarized in one principal component: Financial environment related with entrepreneurship
Government policies	Is summarized in two principal components: Government concrete policies, priority and support to e-ship; Government policies related with bureaucracy and taxes for e-ship
Government programs	Is summarized in one principal component: Government programs for entrepreneurs
Education and training	Is summarized in two principal components: Entrepreneurial level of education at Primary and Secondary stages; Entrepreneurial level of education at Vocational, Professional, College and University stages
R&D transfer	Is summarized in one principal component: R&D level of transference between university and research institutions and SMEs and entrepreneurs
Commercial & professional infrastructure	Is summarized in one principal component: Professional and commercial infrastructure availability and access for entrepreneurs
Market openness	Is summarized in two principal components: Internal market dynamics; Internal market burdens for entrepreneurs
Physical & services infrastructure	Is summarized in one principal component: Physical infrastructures and services availability and access for entrepreneurs
Cultural & social norms	Is summarized in one principal component: Cultural, social norms and derived society support for entrepreneurs
Opportunities to start up	Is summarized in one principal component: Expert opportunities existence perception
Abilities, knowledge to start up	Is summarized in one principal component: Expert degree of skills and abilities to start up perceived in the population
Entrepreneur's social image	Is summarized in one principal component: Degree of motivation and valuation of entrepreneurs and its economic role
Intellectual property rights	Is summarized in one principal component: Intellectual property rights situation
Women's support to start up	Is summarized in one principal component: Vision of women entrepreneurship and its governmental support
Attention to high growth	Is summarized in one principal component: High growth businesses support and encouragement
Interest in innovation	Is summarized in two principal components: Valuation of innovation from the companies point of view; Valuation of innovation from the consumer point of view
Special topic blocks	Each year two blocks are included and the theoretical construct is planned to derive one or two principal components depending on research and practical purposes. The year 2011, four principal components have been derived from two blocks of questions: Valuation of internal corporative supports to intrapreneurship; Valuation of top-down decision strategy domination in all types of firms; Valuation of indirect-external public determinants of intrapreneurship activity; Valuation of direct-internal determinants of intrapreneurship activity

ANNEX III: GEM 2011 NATIONAL TEAMS, SPONSORS AND SURVEY DETAILS

	Algeria
Institution:	CREAD
National Team members:	Abedou Abderrahamne, Bouyacoub Ahmed, Kherbachi Hamid, Cherrad Salah Eddine, Setti Zakia
Funder(s):	German Development Cooperation (Deutsche Gesellschaft fuer Internationale Zusammenarbeit, GIZ)
APS Vendor:	CREAD, Centre de Recherche en Economie Appliquée pour le Développement.
Contact:	a.abedou@cread.edu.dz
APS details:	
Sampling Method:	Face-to-face (Random Sampling from List)
Sample Design:	Regional
Call-backs for selected respondent:	7: Different days of the week and times of day
Age Range:	18-64
Sample Size:	3427
Response Rate:	93%
Remarks:	Reduced precision of results due to some missing information in APS data collection
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	87%
	Argentina
Institution:	IAE - Business School
National Team members:	Silvia Torres Carbonell, Aranzazu Echezarreta, Juan Martin Rodriguez, Hector Rocha
Funder(s):	Banco Santander Rio, Buenos Aires City Government
APS Vendor:	MORI Argentina
Contact:	scarbonell@iae.edu.ar
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List)
Sample Design:	City size
Call-backs for selected respondent:	5: Scheduled for Different days (at least 1 on weekend) and times of the day
Age Range:	18-80
Sample Size:	2000
Response Rate:	24%
Additional weighting factors (in addition to age/gender and strata if applicable):	Education
NES details:	
Sample Size:	37
Percentage valid responses on EFC indicators (average):	92%
	Australia
Institution:	Queensland University of Technology
National Team members:	Per Davidsson, Paul Steffens, Michael Stuetzer
Funder(s):	Australian Centre for Entrepreneurship Research
APS Vendor:	Q&A Market Research
Contact:	per.davidsson@qut.edu.au
APS details:	
Sampling Method:	Fixed-line Phone, Mobile Phone (Random Digit Dial)
Sample Design:	National
Call-backs for selected respondent:	5: 2 between 5pm and 8.30pm, 2 weekend calls, 1 weekday call
Age Range:	18-99
Sample Size:	2000: 960 (fixed), 1040 (mobile)
Response Rate:	29%

Additional weighting factors (in addition to age/gender and strata if applicable):	Urban/rural
NES details:	
Sample Size:	40
Percentage valid responses on EFC indicators (average):	87%

	Bangladesh
Institution:	International Islamic University Chittagong
National Team members:	Mohammed Shamsul Karim, Shamim Uddin Khan, Abul Kalam Azad, Abbas Ali Khan, Sirajuddowla Shaheen, Syed Md. Ather, S.M. Shafiqul Islam, A. J. M. Nuruddin Chowhdury, ANM Meshquat Uddin, M. Tahlil Azim, Jerry Nicholson, Md. Musharrof Hossain, Md. Moazzam Husain, Mark Hart
Funder(s):	USAID (United States Agency International Development), Aston University
APS Vendor:	Org-Quest Research Limited
Contact:	karimms@aston.ac.uk, mshamsulkarim@yahoo.com
APS details:	
Sampling Method:	Face-to-face (Random Walk)
Sample Design:	Regional, urban/rural
Call-backs for selected respondent:	2: Scheduled depending on the target respondent's availability
Age Range:	18-99
Sample Size:	2000
Response Rate:	94%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	89%

	Barbados
Institution:	The Cave Hill School of Business, The University of the West Indies
National Team members:	Marjorie Wharton, Donley Carrington, Jeannine Comma, Paul Pounder
Funder(s):	International Development Research Centre (IDRC)
APS Vendor:	Systems Consulting Ltd.
Contact:	marjorie.wharton@cavehill.uwi.edu
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	7: Different times of day
Age Range:	18-99
Sample Size:	2928
Response Rate:	59%
Remarks:	Results adjusted to compensate for some missing information in APS data collection
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	81%

	Belgium
Institution:	Vlerick Leuven Gent Management School
National Team members:	Jan Lepoutre, Mathias Cobben, Jacob Vermeire
Funder(s):	STOIO (Flemish Research Organisation for Entrepreneurship and International Entrepreneurship), EWI (Department of Economy, Science and Innovation)
APS Vendor:	Dedicated Research
Contact:	jan.lepoutre@vlerick.com
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List), Mobile Phone (Random Digit Dial)
Sample Design:	National
Call-backs for selected respondent:	
Age Range:	18-64
Sample Size:	1852: 381 (mobile), 1471 (fixed)
Response Rate:	16%

NES details:

Sample Size:

Percentage valid responses on EFC indicators (average):

	Bosnia & Herzegovina
Institution:	Center for Entrepreneurship Development Tuzla (in partnership with University of Tuzla)
National Team members:	Bahrija Umihanić, Rasim Tulumović, Mirela Arifović, Slađana Simić, Aziz Šunje, Slobodan Marković, Zdenko Klepić, Selma Poljić
Funder(s):	Federal Ministry of Development, Entrepreneurship and Crafts, Ministry of Development and Entrepreneurship of Tuzla Canton, Municipality of Tuzla, BIT center Tuzla, Independent Development Bureau Modriča
APS Vendor:	IPSOS d.o.o. Sarajevo
Contact:	office@cerpod-tuzla.org
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List)
Sample Design:	Regional, urban/rural
Call-backs for selected respondent:	5: Different days of the week and times of day
Age Range:	18-64
Sample Size:	2277
Response Rate:	13%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	95%
	Brazil
Institution:	Instituto Brasileiro da Qualidade e Produtividade (IBQP), Escola de Administração de Empresas de São Paulo da Fundação Getulio Vargas – FGV-EAESP
National Team members:	Simara Maria de Souza Siveira Greco, César Rissete, Eduardo Camargo Righi, Eliane Cordeiro de Vasconcellos Garcia Duarte, Gilberto Sarfati, Joana Paula Machado, Júlio César Felix, Laura Pansarella, Marcelo Aidar, Mario Tamada Neto, Rene Rodrigues Fernandes, Romeu Herbert Friedlaender Jr., Tales Andreassi
Funder(s):	Serviço Brasileiro de Apoio às Micro e Pequenas Empresas - Sebrae, Serviço Social da Indústria - SESI- Departamento Regional do Paraná, Universidade Federal do Paraná – UFPR, Instituto de Tecnologia do Paraná - Tecpar, Escola de Administração de Empresas de São Paulo da Fundação Getulio Vargas – FGV-EAESP
APS Vendor:	Bonilha Comunicação e Marketing S/C Ltda., Bonilha Pesquisa
Contact:	simara@ibqp.org.br
APS details:	
Sampling Method:	Face-to-face (Random Sampling from List)
Sample Design:	Regional
Call-backs for selected respondent:	5: Scheduled depending on the target respondent's availability
Age Range:	18-64
Sample Size:	2000
Response Rate:	84%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	94%
	Chile
Institution:	Universidad del Desarrollo
National Team members:	José Ernesto Amorós, Carlos Poblete, Carlos Albornoz, Gianni Romani. For regional teams see www.gemchile.cl
Funder(s):	InnovaChile Corfo, SOFOFA (Federation of Chilean Industry), Endeavor Chile
APS Vendor:	Opina S.A.
Contact:	eamoros@udd.cl
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	5: Different days of the week and times of day

Age Range:	18-99
Sample Size:	7195
Response Rate:	9%
NES details:	
Sample Size:	56
Percentage valid responses on EFC indicators (average):	92%

	China
Institution:	Tsinghua University
National Team members:	Gao Jian, Qin Lan, Jiang Yanfu, Cheng Yuan, Li Xibao
Funder(s):	School of Economics and Management, Tsinghua University
APS Vendor:	SINOTRUST International Information & Consulting (Beijing) Co., Ltd.
Contact:	gaoj@sem.tsinghua.edu.cn
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	5: Different days of the week and times of day
Age Range:	18-64
Sample Size:	3690
Response Rate:	35%
NES details:	
Sample Size:	
Percentage valid responses on EFC indicators (average):	

	Colombia
Institution:	Pontificia Universidad Javeriana Cali, Universidad del Norte, Universidad Icesi, Universidad de los Andes
National Team members:	Fernando Pereira, Fabian Osorio, Alberto Arias, Liyis Gómez Núñez Ph.D, Piedad Martínez Carazo Ph.D, César Figueroa Socarrás, Rodrigo Varela Villegas Ph.D, Luis Miguel Álvarez Vanegas, Juan David Soler Libreros, Raúl Fernando Quiroga Marín, Rafael Augusto Vesga Fajardo, Diana Carolina Vesga
Funder(s):	Pontificia Universidad Javeriana Cali, Universidad del Norte, Universidad de los Andes, Universidad ICESI, For regional studies, please visit www.gemcolombia.org
APS Vendor:	Centro Nacional de Consultoría
Contact:	fpereira@javerianacali.edu.co, rvarela@icesi.edu.co, lalvarez@icesi.edu.co, jdsoler@icesi.edu.co
APS details:	
Sampling Method:	Face-to-face (Random Sampling from List), Fixed-line Phone (Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	5
Age Range:	18-64
Sample Size:	10374: 600 (face-to-face), 9774 (fixed)
Response Rate:	34%
Additional weighting factors (in addition to age/gender and strata if applicable):	Urban/rural
NES details:	
Sample Size:	39
Percentage valid responses on EFC indicators (average):	93%

	Croatia
Institution:	J.J. Strossmayer University Osijek, Faculty of Economics
National Team members:	Slavica Singer, Natasa Sarlija, Sanja Pfeifer, Suncica Oberman Peterka, Djula Borozan
Funder(s):	Ministry of Economy, Labour and Entrepreneurship, J.J. Strossmayer University Osijek, Faculty of Economics, CEPOR - SMEs and Entrepreneurship Policy Center, Zagreb
APS Vendor:	Puls d.o.o., Zagreb
Contact:	singer@efos.hr
APS details:	

Sampling Method:	Fixed-line Phone (Random Dial from List)
Sample Design:	Regional, city size
Call-backs for selected respondent:	6: Different days of the week and times of day
Age Range:	18-64
Sample Size:	2000
Response Rate:	15%
Additional weighting factors (in addition to age/gender and strata if applicable):	Education
NES details:	
Sample Size:	43
Percentage valid responses on EFC indicators (average):	91%

	Czech Republic
Institution:	University of Economics, Prague
National Team members:	Martin Lukes, Martina Jakl
Funder(s):	Ministry of Industry and Trade
APS Vendor:	Factum Invenio
Contact:	lukesm@vse.cz, martina.jakl@vse.cz
APS details:	
Sampling Method:	Mobile Phone (Random Digit Dial)
Sample Design:	National
Call-backs for selected respondent:	3: Different days of the week and times of day
Age Range:	18-64
Sample Size:	2005
Response Rate:	28%
NES details:	
Sample Size:	48
Percentage valid responses on EFC indicators (average):	84%

	Denmark
Institution:	University of Southern Denmark
National Team members:	Thomas Schøtt, Torben Bager, Poul Rind Christensen, Kim Klyver, Ann H. Clarke, Majbritt Rostgård Evald, Kent Wickstrøm Jensen, Jesper Pihl, Kristin B. Munksgård, Heidi R. Nielsen, Mette S. Nielsen, Pia S. Nielsen, Mahdokht Sedaghat, Mohammad Reza Zali, Jonathan Levie, Mick Hancock, Shahamak Rezaie
Funder(s):	Capacent Epinion
APS Vendor:	Catinet
Contact:	tsc@sam.sdu.dk
APS details:	
Sampling Method:	Mobile Phone (Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	6: Different days of the week and times of day
Age Range:	18-64
Sample Size:	2015
Response Rate:	65%
NES details:	
Sample Size:	
Percentage valid responses on EFC indicators (average):	

	Finland
Institution:	Turku School of Economics, University of Turku
National Team members:	Anne Kovalainen, Jarna Heinonen, Tommi Pukkinen, Pekka Stenholm
Funder(s):	Ministry of Employment and the Economy, Turku School of Economics
APS Vendor:	Taloustutkimus Oy
Contact:	anne.kovalainen@utu.fi
APS details:	
Sampling Method:	Fixed-line Phone, Mobile Phone (Random Digit Dial)
Sample Design:	Regional
Call-backs for selected respondent:	5: All after working hours
Age Range:	18-64

Sample Size:	2011: 1948 (mobile), 63 (fixed)
Response Rate:	38%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	94%

	France
Institution:	EMLYON Business School
National Team members:	Alain Fayolle, Danielle Rousson
Funder(s):	Caisse des Depots
APS Vendor:	CSA
Contact:	rousson@em-lyon.com
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	8: different days of the week and times of day
Age Range:	18-99
Sample Size:	2009
Response Rate:	13%
Additional weighting factors (in addition to age/gender and strata if applicable):	Urban/rural, occupation, household size
NES details:	
Sample Size:	30
Percentage valid responses on EFC indicators (average):	91%

	Germany
Institution:	Leibniz Universität Hannover, Institute for Employment Research (IAB) of the German Federal Employment Agency (BA)
National Team members:	Rolf Sternberg, Udo Brixy, Arne Vorderwülbecke
Funder(s):	Institut für Arbeitsmarkt- und Berufsforschung (IAB), Institut für Wirtschafts- und Kulturgeographie, Leibniz Universität Hannover
APS Vendor:	Zentrum fuer Evaluation und Methoden (ZEM), Bonn
Contact:	sternberg@wigeo.uni-hannover.de
APS details:	
Sampling Method:	Fixed-line Phone (90%; Random Digit Dial), Mobile Phone (10%; Random Digit Dial)
Sample Design:	Regional
Call-backs for selected respondent:	20: Scheduled depending on the target respondent's availability
Age Range:	18-64
Sample Size:	4260
Response Rate:	30%
Additional weighting factors (in addition to age/gender and strata if applicable):	Education, city size, household size
NES details:	
Sample Size:	43
Percentage valid responses on EFC indicators (average):	77%

	Greece
Institution:	Foundation for Economic & Industrial Research (IOBE)
National Team members:	Stavros Ioannides, Aggelos Tsakanikas, Stelina Chatzichristou
Funder(s):	National Bank of Greece
APS Vendor:	Datapower SA
Contact:	ioannides@iobe.gr
APS details:	
Sampling Method:	Fixed-line Phone (Random Digit Dial, Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	5
Age Range:	18-64
Sample Size:	2000
Response Rate:	54%

Additional weighting factors (in addition to age/gender and strata if applicable):	Urban/rural
NES details:	
Sample Size:	28
Percentage valid responses on EFC indicators (average):	86%
	Guatemala
Institution:	Universidad Francisco Marroquin
National Team members:	Hugo Maúl, Jaime Diaz, Irene Flores, David Casasola, Mónica de Zelaya, Lisardo Bolaños
Funder(s):	Universidad Francisco Marroquin
APS Vendor:	Khanti, S.A.
Contact:	rmaul@ufm.edu
APS details:	
Sampling Method:	Face-to-face (Random Sampling from List)
Sample Design:	Regional
Call-backs for selected respondent:	5: Different days of the week and times of day
Age Range:	18-64
Sample Size:	2398
Response Rate:	85%
Remarks:	Missing data for some mandatory special topic questions
NES details:	
Sample Size:	39
Percentage valid responses on EFC indicators (average):	84%
	Hungary
Institution:	University of Pécs Faculty of Business and Economics
National Team members:	László Szerb, József Ulbert, Attila Varga, Gábor Márkus, Attila Pethető, Dietrich Péter, Zoltán J. Ács, Terjesen Siri, Saul Estrin, Ruta Aidis
Funder(s):	OTKA Research Foundation Theme number K 81527, Regional Studies PhD Programme, University of Pécs Faculty of Busines and Economics, Business Administration PhD Programme, University of Pécs Faculty of Busines and Economics, Management and Business Administration PhD Programme of the Corvinus University of Budapest, Start Tőkegarancia Zrt
APS Vendor:	Szocio-Gráf Piac-és Közvélemény-kutató, Intézet
Contact:	szerb@ktk.pte.hu
APS details:	
Sampling Method:	Mobile Phone (Random Dial from List)
Sample Design:	National
Call-backs for selected respondent:	5
Age Range:	18-64
Sample Size:	2002
Response Rate:	22%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	86%
	Iran
Institution:	University of Tehran
National Team members:	Abbas Bazargan, Nezameddin Faghih, Ali .Akbar Moosavi-Movahedi, Leyla Sarafraz, Asadolah kordrnaeij, Jahangir Yadollahi Farsi, Mahmod Ahamadpour Daryani, S. Mostafa Razavi, Mohammad Reza Zali, Mohammad Reza Sepehri, Ali Rezaean
Funder(s):	Iran's Ministry of Labour and Social Affairs, Iran's Labour and Social Security Institute (LSSI)
APS Vendor:	Faculty of Entrepreneurship
Contact:	abazarga@ut.ac.ir
APS details:	
Sampling Method:	Face-to-face (Random Sampling from List)
Sample Design:	Regional
Call-backs for selected respondent:	5: Scheduled depending on the target respondent's availability

Age Range:	18-64
Sample Size:	3350
Response Rate:	96%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	100%

	Ireland
Institution:	Fitzsimons Consulting, Dublin City University Business School
National Team members:	Paula Fitzsimons, Colm O'Gorman
Funder(s):	Enterprise Ireland, Forfas
APS Vendor:	IFF
Contact:	paula@fitzsimons-consulting.com
APS details:	
Sampling Method:	Fixed-line Phone, Mobile Phone (Random Digit Dial)
Sample Design:	National
Call-backs for selected respondent:	8: 5-9pm weekdays, 10am-4pm weekends
Age Range:	18-64
Sample Size:	2002: 400 (mobile), 1602 (fixed)
Response Rate:	28%
NES details:	
Sample Size:	35
Percentage valid responses on EFC indicators (average):	87%

	Jamaica
Institution:	University of Technology, Jamaica
National Team members:	Girjanauth Boodraj, Patrice Farquharson, Mauvalyn Bowen, Vanetta Skeete, Reginald Nugent, Horace Williams, Joan Lawla, Orville Reid
Funder(s):	IDRC (International Development Research Centre), University of Technology, Jamaica
APS Vendor:	KOCI Market Research and Data Mining Services
Contact:	gboodraj@gmail.com
APS details:	
Sampling Method:	Face-to-face (Random Sampling from List)
Sample Design:	Regional
Call-backs for selected respondent:	5: Different days of the week and times of day, sometimes by phone
Age Range:	18-64
Sample Size:	2047
Response Rate:	76%
Remarks:	Missing data related to exiting a business
NES details:	
Sample Size:	38
Percentage valid responses on EFC indicators (average):	89%

	Japan
Institution:	Keio University
National Team members:	Takehiko Isobe
Funder(s):	Ministry of Economy, Trade and Industry.
APS Vendor:	Social Survey Research Information Co.,Ltd (SSRI)
Contact:	isobe@kbs.keio.ac.jp
APS details:	
Sampling Method:	Fixed-line Phone (Random Digit Dial)
Sample Design:	National
Call-backs for selected respondent:	5: Different days of the week and times of day
Age Range:	18-64
Sample Size:	2004
Response Rate:	13%
NES details:	
Sample Size:	
Percentage valid responses on EFC indicators (average):	

	Korea
Institution:	Gyeongnam National University of Science and Technology (GnTech)
National Team members:	Sung-sik Bahn, Sanggu Seo, Kyung-Mo Song, Dong- hwan Cho, Jong-hae Park, Min-Seok Cha
Funder(s):	Small and Medium Business Administration(SMBA), Kumwoo Industrial Machinery, Co., Hanaro Tech Co., Ltd., Korea Aerospace Industries, Ltd (KAI), Taewan Co., Ltd.
APS Vendor:	Hankook Research Co
Contact:	ssbahn@gntech.ac.kr
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	5: Different days of the week and times of day
Age Range:	18-64
Sample Size:	2001
Response Rate:	46%
NES details:	
Sample Size:	41
Percentage valid responses on EFC indicators (average):	98%
	Latvia
Institution:	The TeliaSonera Institute at the Stockholm School of Economics in Riga
National Team members:	Olga Rastrigina, Marija Krumina, Vyacheslav Dombrovsky, Anders Paalzow, Alf Vanags
Funder(s):	TeliaSonera AB
APS Vendor:	SKDS
Contact:	olga@biceps.org
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List), Mobile Phone (Random Digit Dial)
Sample Design:	Regional, urban/rural
Call-backs for selected respondent:	6: Scheduled depending on the target respondent's availability
Age Range:	18-64
Sample Size:	2000: 1936 (mobile), 64 (fixed)
Response Rate:	47%
Additional weighting factors (in addition to age/gender and strata if applicable):	Urban/rural, ethnicity, settlement type
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	78%
	Lithuania
Institution:	International Business School at Vilnius University
National Team members:	Mindaugas Lauzikas, Erika Vaiginiene, Aiste Miliute, Vikinta Rosinaite, Skaiste Batuleviciute
Funder(s):	International Business School at Vilnius University, Enterprise Lithuania, Lithuanian Ministry of Economy
APS Vendor:	RAIT Ltd.
Contact:	mindaugas.lauzikas@gmail.com
APS details:	
Sampling Method:	Fixed-line Phone, Mobile Phone (Random Dial from List, Random Digit Dial)
Sample Design:	Regional
Call-backs for selected respondent:	6: Scheduled depending on the target respondent's availability
Age Range:	18-64
Sample Size:	2003: 718 (fixed), 1285 (mobile)
Response Rate:	24%
Additional weighting factors (in addition to age/gender and strata if applicable):	Urban/rural
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	84%

	Malaysia
Institution:	Universiti Tun Abdul Razak
National Team members:	Siri Roland Xavier, Leilanie BT Mohd Nor, Mohar Bin Yusof, Dewi Amat Sapuan, Noorseha Binti Ayob, Mohd Hanif bin Mohd Helmi
Funder(s):	Universiti Tun Abdul Razak
APS Vendor:	Rehanstat
Contact:	roland@unirazak.edu.my, xsroland@gmail.com
APS details:	
Sampling Method:	Face-to-face (Random Sampling from List)
Sample Design:	Regional
Call-backs for selected respondent:	5: Scheduled depending on the target respondent's availability
Age Range:	18-64
Sample Size:	2053
Response Rate:	95%
Additional weighting factors (in addition to age/gender and strata if applicable):	Urban/rural
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	91%
	Mexico
Institution:	Tecnológico de Monterrey
National Team members:	Mario Adrián Flores , Marcia Campos, Elvira Naranjo, Natzin López
Funder(s):	Tecnológico de Monterrey, Campus León, Rectoría de Escuelas Nacionales de Posgrado EGADE Business School y EGAP
APS Vendor:	Alduncin y Asociados
Contact:	adrian.flores@itesm.mx
APS details:	
Sampling Method:	Face-to-face (Random Sampling from List)
Sample Design:	National
Call-backs for selected respondent:	5: Scheduled depending on the target respondent's availability
Age Range:	18-64
Sample Size:	2511
Response Rate:	35%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	95%
	Netherlands
Institution:	EIM Business & Policy Research
National Team members:	Jolanda Hessels, Peter van der Zwan, Sander Wennekers, André van Stel, Roy Thurik, Philipp Koellinger, Ingrid Verheul, Niels Bosma
Funder(s):	Ministry of Economic Affairs, Agriculture and Innovation
APS Vendor:	Stratus
Contact:	joh@eim.nl
APS details:	
Sampling Method:	Fixed-line Phone, Mobile Phone (Random Dial from List)
Sample Design:	National
Call-backs for selected respondent:	6: Scheduled depending on the target respondent's availability, during weekdays
Age Range:	18-99
Sample Size:	3500
Response Rate:	38%
Additional weighting factors (in addition to age/gender and strata if applicable):	Education
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	78%

	Nigeria
Institution:	TOMEB Foundation for Sustainability & Youth Development, Business School Netherlands Nigeria
National Team members:	Rilwan Aderinto, Tunde Popoola, Luqman Olatokunbo Obileye, Abubakar Sadiq Kasum, Lere Baale
Funder(s):	USAID (United States Agency International Development), TOMEB Foundation for Sustainability & Youth Development, MarketSight Consultancy Limited, Business School Netherlands Nigeria
APS Vendor:	MarketSight Consultancy Limited
Contact:	graderinto@yahoo.co.uk
APS details:	
Sampling Method:	Face-to-face (Random Sampling from List)
Sample Design:	Strata
Call-backs for selected respondent:	
Age Range:	18-64
Sample Size:	2190
Response Rate:	74%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	95%
	Norway
Institution:	Bodø Graduate School of Business
National Team members:	Erlend Bullvåg, Lars Kolvereid, Bjørn Willy Åmo, Eirik Pedersen
Funder(s):	Innovation Norway, Ministry of Industry and Trade, Bodø Innovation Center, Bodø Graduate School of Business
APS Vendor:	Polarfakta
Contact:	erlend.bullvaag@uin.no
APS details:	
Sampling Method:	Fixed-line Phone, Mobile Phone (Random Dial from List)
Sample Design:	National
Call-backs for selected respondent:	5
Age Range:	18-64
Sample Size:	2001
Response Rate:	55%
Remarks:	Missing data for some mandatory special topic questions
NES details:	
Sample Size:	40
Percentage valid responses on EFC indicators (average):	90%
	Pakistan
Institution:	Center for Entrepreneurial Development, IBA, Karachi
National Team members:	Sarfraz A. Mian, Zafar A. Siddiqui, M. Shahid Qureshi, Shahid R. Mir, Moeid Sultan
Funder(s):	Institute of Business Administration (IBA), Karachi, US Agency for International Development
APS Vendor:	Oasis International
Contact:	sarfraz.mian@oswego.edu
APS details:	
Sampling Method:	Face-to-face (Random Walk)
Sample Design:	Urban/rural
Call-backs for selected respondent:	3: Evenings or other suitable times for males; daytime or other suitable times for females.
Age Range:	18-64
Sample Size:	2002
Response Rate:	91%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	90%
	Panama

Institution:	Instituto de Estudios Superiores de Administración (IESA) Panama and City of Knowledge Foundation
National Team members:	Federico Fernández Dupouy, Manuel Lorenzo, Andrés León, Manuel Arrocha
Funder(s):	The Authority of the Micro, Small and Medium Enterprises, IPSOS
APS Vendor:	IPSOS
Contact:	federico.fernandez@iesa.edu.pa, mlorenzo@cdspanama.org
APS details:	
Sampling Method:	Face-to-face (Random Sampling from List)
Sample Design:	Regional
Call-backs for selected respondent:	3: Different days of the week and times of day
Age Range:	18-64
Sample Size:	2000
Response Rate:	100%
Additional weighting factors (in addition to age/gender and strata if applicable):	Urban/rural
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	93%

	Peru
Institution:	Universidad ESAN
National Team members:	Jaime Serida, Oswaldo Morales, Keiko Nakamatsu
Funder(s):	Universidad ESAN's Center for Entrepreneurship
APS Vendor:	Imasen
Contact:	jserida@esan.edu.pe
APS details:	
Sampling Method:	Face-to-face (Random Walk)
Sample Design:	Regional
Call-backs for selected respondent:	3: Scheduled depending on the target respondent's availability
Age Range:	18-64
Sample Size:	2010
Response Rate:	56%
NES details:	
Sample Size:	64
Percentage valid responses on EFC indicators (average):	96%

	Poland
Institution:	University of Economics in Katowice
National Team members:	Przemysław Zbierowski, Anna Tarnawa, Paulina Zadura-Lichota, Dorota Węcławska, Mariusz Bratnicki, Wojciech Dyduch, Bartłomiej J. Gabryś, Rafał Kozłowski, Izabella Kozłowska, Joanna Pach, Iwona Karaś
Funder(s):	Polish Agency for Enterprise Development, University of Economics in Katowice
APS Vendor:	SMG KRC
Contact:	przemek@zbierowski.pl, anna_tarnawa@parp.gov.pl
APS details:	
Sampling Method:	Fixed-line Phone, Mobile Phone (Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	5: Different days of the week and times of day
Age Range:	18-64
Sample Size:	2000: 800 (mobile), 1200 (fixed)
Response Rate:	14%
Additional weighting factors (in addition to age/gender and strata if applicable):	Urban/rural, education, mobile/fixed phone
NES details:	
Sample Size:	37
Percentage valid responses on EFC indicators (average):	91%

	Portugal
Institution:	Sociedade Portuguesa e Inovação (SPI), ISCTE - Instituto Universitário de Lisboa (ISCTE-IUL)

National Team members:	Augusto Medina, Luís Reto, António Caetano, Nelson Ramalho, Douglas Thompson, Rui Monteiro, João Rodrigues, Nuno Gonçalves, Ana Ribeiro
Funder(s):	ISCTE - Instituto Universitário de Lisboa (ISCTE-IUL)
APS Vendor:	GfKMetris (Metris – Métodos de Recolha e Investigação Social, S.A.)
Contact:	douglasthompson@spi.pt
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List), Mobile Phone (Random Digit Dial)
Sample Design:	Regional, city size
Call-backs for selected respondent:	5: Different days of the week and times of day
Age Range:	18-64
Sample Size:	2011: 1005 (mobile), 1006 (fixed)
Response Rate:	32%
NES details:	
Sample Size:	32
Percentage valid responses on EFC indicators (average):	93%

	Romania
Institution:	Babeș-Bolyai University, Faculty of Economics and Business Administration
National Team members:	Tünde Petra Petru, Annamária Benyovszki, Ágnes Nagy, István Pete, Lehel Györfy, Dumitru Matiș, Levente Szász, Eugenia Matiș
Funder(s):	Babeș-Bolyai University of Cluj-Napoca, OTP Bank Romania, Asociația Pro Oeconomica
APS Vendor:	Metro Media Transilvania
Contact:	petra.petru@econ.ubbcluj.ro, petrutpetra@yahoo.com
APS details:	
Sampling Method:	Fixed-line Phone, Mobile Phone (Random Digit Dial)
Sample Design:	Cultural area, urban/rural, city size
Call-backs for selected respondent:	5: Different days of the week and times of day
Age Range:	18-99
Sample Size:	2028: 568 (fixed), 1460 (mobile)
Response Rate:	75%
Additional weighting factors (in addition to age/gender and strata if applicable):	Urban/rural, education, ethnicity
NES details:	
Sample Size:	
Percentage valid responses on EFC indicators (average):	

	Russia
Institution:	State University - Higher School of Economics, Saint Petersburg University - Graduate School of Management
National Team members:	Alexander Chepurenko, Olga Obraztsova, Tatiana Alimova, Maria Gabelko, Ekaterina Murzacheva, Ekaterina Popovskaya, Olga Verkhovskaya, Maria Dorokhina, Galina Shirokova
Funder(s):	State University - Higher School of Economics, Saint Petersburg University - Graduate School of Management
APS Vendor:	Levada-Center
Contact:	achepurenko@hse.ru
APS details:	
Sampling Method:	Face-to-face (Random Walk)
Sample Design:	Regional, city size
Call-backs for selected respondent:	3: Different days of the week and times of day
Age Range:	18-64
Sample Size:	7500
Response Rate:	80%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	90%

	Singapore
Institution:	Nanyang Technological University
National Team members:	Ho Moon-Ho Ringo, Olexander Chernyshenko, Chan Kim Yin, Alex Lin, Rosa Kang, LAI Yoke Yong, Olwen Bedford, Jonathan Phan

Funder(s):	Nanyang Technological University, NTU Ventures Pte Ltd
APS Vendor:	Joshua Research Consultants Pte Ltd
Contact:	homh@ntu.edu.sg
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List)
Sample Design:	national
Call-backs for selected respondent:	5
Age Range:	18-64
Sample Size:	2000
Response Rate:	24%
NES details:	
Sample Size:	42
Percentage valid responses on EFC indicators (average):	93%

	Slovakia
Institution:	Comenius University in Bratislava, Faculty of Management
National Team members:	Anna Pilkova, Zuzana Kovacicova, Maria Bohdalova, Marian Holienka, Jan Rehak, Jozef Komornik, Peter Starchon
Funder(s):	Comenius University in Bratislava, Faculty of Management, National Agency for Development of Small and Medium Enterprises, Central European Foundation
APS Vendor:	Ipsos Tambor SR, spol. s r. o., www.ipsos.sk
Contact:	anna.pilkova@gmail.com
APS details:	
Sampling Method:	Fixed-line Phone, Mobile Phone (Random Digit Dial)
Sample Design:	Regional
Call-backs for selected respondent:	0
Age Range:	18-64
Sample Size:	2000: 21 (fixed), 1979 (mobile)
Response Rate:	17%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	91%

	Slovenia
Institution:	University of Maribor, Faculty of Economics and Business
National Team members:	Miroslav Rebernik, Polona Tominc, Katja Crnogaj
Funder(s):	Ministry of Economy, Slovenian Research Agency, Finance - Slovenian Business Daily
APS Vendor:	RM PLUS
Contact:	rebernik@uni-mb.si
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	
Age Range:	18-64
Sample Size:	2009
Response Rate:	14%
Additional weighting factors (in addition to age/gender and strata if applicable):	Urban/rural
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	86%

	South Africa
Institution:	The UCT Centre for Innovation and Entrepreneurship, Graduate School of Business, University of Cape Town
National Team members:	Mike Herrington, Jacqui Kew, Miranda Simrie
Funder(s):	Swiss South African Cooperation Initiative (SSACI), South African Breweries (SAB), Small Enterprise development Agency (SEDA)
APS Vendor:	Nielsen South Africa

Contact:	mike.herrington@gsb.uct.ac.za
APS details:	
Sampling Method:	Face-to-face (Random Sampling)
Sample Design:	Ethnicity, region, city size
Call-backs for selected respondent:	3: Different days of the week and times of day
Age Range:	18-99
Sample Size:	3178
Response Rate:	70%
Additional weighting factors (in addition to age/gender and strata if applicable):	Urban/rural, ethnicity, language
NES details:	
Sample Size:	38
Percentage valid responses on EFC indicators (average):	89%

	Spain
Institutions:	Fundación Xavier de Salas, Universidad de Extremadura, Universidad Autónoma de Madrid, Universidad Autónoma de Barcelona, Universidad Miguel Hernández, Instituto Vasco de Competitividad Orkestra, Universidad de Murcia, Confederación de Empresarios de Galicia, Universidad de Cantabria, Universidad de Navarra/Servicio Navarro de Empleo, Universidad de Zaragoza, Universidad de Las Palmas de Gran Canaria, Madrid Emprende
National Team members:	Ricardo Hernández, Alicia Coduras, Juan Carlos Díaz, Isidro de Pablo, Yancy Vaillant, José Mª Gómez, Iñaki Peña, Antonio Aragón, Araceli de Lucas, F. Javier Martínez, Martín Larraza, Lucio Fuentelsaz, Rosa Mª Batista, Iñaki Ortega
Funder(s):	Fundación Xavier de Salas, GEM España
APS Vendor:	Instituto Opinòmetre S.L.
Contact:	acoduras@gemconsortium.org, alicia.coduras@fgcasal.org
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	5: Different days of the week and times of day
Age Range:	18-64
Sample Size:	17500
Response Rate:	33%
Additional weighting factors (in addition to age/gender and strata if applicable):	Urban/rural
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	85%

	Sweden
Institution:	Swedish Entrepreneurship Forum
National Team members:	Pontus Braunerhjelm, Per Thulin, Kristina Nyström, Carin Holmquist, Ulrika Stuart Hamilton
Funder(s):	Vinnova, Confederation of Swedish Enterprise
APS Vendor:	DEMOSKOP
Contact:	pontus.braunerhjelm@entreprenorskapsforum.se
APS details:	
Sampling Method:	Fixed-line Phone, Mobile Phone (Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	8: Different days of the week and times of day
Age Range:	18-99
Sample Size:	3101
Response Rate:	16%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	78%

	Switzerland
Institution:	School of Business Administration (HEG-FR) Fribourg

National Team members:	Rico Baldegger, Andreas Brülhart, Philipp Bubenzer, Sabine Frischknecht, Thomas Straub, Fredrik Hacklin, Alberton Siegfried, Pascal Wild
Funder(s):	Kommission für Technologie und Innovation KTI / CT , HEG Haute Ecole de Gestion Fribourg (HEG-FR)
APS Vendor:	gfs Bern
Contact:	rico.baldegger@hefr.ch
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List)
Sample Design:	Regional (by different language speaking areas)
Call-backs for selected respondent:	10: Different days of the week and times of day
Age Range:	18-99
Sample Size:	2000
Response Rate:	31%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	91%

	Taiwan
Institution:	National Chengchi University, China Youth Career Development Association Headquartere (CYCDA)
National Team members:	Chao-Tung Wen, Chang-Yung Liu, Su-Lee Tsai, Yu-Ting Cheng, Yi-Wen Chen, Ru-Mei Hsieh, Chung-Min Lo, Shih-Feng Chou
Funder(s):	Small and Medium Enterprise Administration, Ministry of Economic Affairs
APS Vendor:	NCCU Survey Center
Contact:	jtwen@nccu.edu.tw
APS details:	
Sampling Method:	Fixed-line Phone (Random Digit Dial)
Sample Design:	Regional
Call-backs for selected respondent:	5: Scheduled depending on the target respondent's availability
Age Range:	18-64
Sample Size:	2012
Response Rate:	76%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	95%

	Thailand
Institution:	Bangkok University (CEDI - Creative Entrepreneurship Development Institute)
National Team members:	Pichit Akrathit, Koson Sapprasert, Navaphol Viriyakunkit, Vichate Tantiwanich, Luckxawan Pimsawadi, Veerapong Malai, Yupana Wiwattanakantang, Sarn Aksaranugraha
Funder(s):	Bangkok University
APS Vendor:	TNS Research International Thailand
Contact:	kossa509@gmail.com, sarn33@gmail.com
APS details:	
Sampling Method:	Face-to-face (Random Sampling from List), Fixed-line Phone (Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	3: Different days of the week and times of day
Age Range:	18-64
Sample Size:	2000: 1400 (fixed), 600 (face-to-face)
Response Rate:	46%
NES details:	
Sample Size:	37
Percentage valid responses on EFC indicators (average):	98%

	Trinidad and Tobago
Institution:	Arthur Lok Jack Graduate School of Business, University of the West Indies
National Team members:	Miguel Carrillo, Henry Bailey, Abhijit Bhattacharya, Marvin Pacheco
Funder(s):	International Development Research Centre (IDRC)
APS Vendor:	Mary King and Associates Ltd.

Contact:	m.carrillo@gsb.tt
APS details:	
Sampling Method:	Face-to-face (Random Sampling from List)
Sample Design:	Regional
Call-backs for selected respondent:	5: At Scheduled times
Age Range:	18-99
Sample Size:	2008
Response Rate:	89%
NES details:	
Sample Size:	44
Percentage valid responses on EFC indicators (average):	83%
	Turkey
Institution:	Yeditepe University
National Team members:	Esra Karadeniz
Funder(s):	Small and Medium Enterprises Development Organization(KOSGEB), Yeditepe University
APS Vendor:	Akademetre
Contact:	ekaradeniz@yeditepe.edu.tr
APS details:	
Sampling Method:	Fixed-line Phone (Random Digit Dial)
Sample Design:	Regional
Call-backs for selected respondent:	5: Different days of the week and times of day
Age Range:	18-64
Sample Size:	2401
Response Rate:	38%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	94%
	UAE
Institution:	Institute for Social & Economic Research - Zayed University
National Team members:	Mouawiya Al Awad, Constance Van Horne, Victor Huang
Funder(s):	Khalfa Fund for Enterprise Development - Abu Dhabi - UAE
APS Vendor:	
Contact:	mouawiya.alawad@zu.ac.ae
APS details:	
Sampling Method:	Fixed-line Phone, Mobile Phone (Random Dial from List, Random Digit Dial)
Sample Design:	Regional
Call-backs for selected respondent:	
Age Range:	18-64
Sample Size:	3029
Response Rate:	90%
NES details:	
Sample Size:	39
Percentage valid responses on EFC indicators (average):	72%
	United Kingdom
Institution:	Aston Business School
National Team members:	Mark Hart, Jonathan Levie, Michael Anyadike-Danes, Yasser Ahmad Bhatti, Aloña Martiarena Arrizabalaga, Mohammed Karim, Erkko Autio, Liz Blackford, Mohammed Shamsul Karim
Funder(s):	Department for Business, Innovation and Skills, PRIME (The Prince's Initiative for Mature Enterprise), Welsh Assembly Government, Invest Northern Ireland, Hunter Centre for Entrepreneurship, Strathclyde University, Enterprise UK, Birmingham City Council
APS Vendor:	IFF Research Ltd
Contact:	mark.hart@aston.ac.uk
APS details:	
Sampling Method:	Fixed-line Phone (Random Digit Dial), Mobile Phone (Random Sampling from

	List)
Sample Design:	Regional
Call-backs for selected respondent:	
Age Range:	16-80
Sample Size:	2000: 276 (mobile), 1724 (fixed)
Response Rate:	25%
NES details:	
Sample Size:	37
Percentage valid responses on EFC indicators (average):	80%

	United States
Institution:	Babson College
National Team members:	Donna Kelley, Abdul Ali, Candida Brush, Marcia Cole, Gang Hu, Mehdi Majbouri, Diana Hechavarria, Moriah Meyskens, Peter Fleming, Monica Dean, Thomas S. Lyons, Joseph Onochie, Albert Suhu, Ivory Phinisee, Edward Rogoff
Funder(s):	Babson College, Baruch College
APS Vendor:	OpinionSearch Inc.
Contact:	dkelley@babson.edu
APS details:	
Sampling Method:	Fixed-line Phone, Mobile Phone (Random Digit Dial)
Sample Design:	Regional
Call-backs for selected respondent:	8: At a specific or general time as Scheduled by targeted respondent
Age Range:	18-99
Sample Size:	5863: 1309 (mobile), 4554 (fixed)
Response Rate:	7%
NES details:	
Sample Size:	
Percentage valid responses on EFC indicators (average):	

	Uruguay
Institution:	University of Montevideo
National Team members:	Leonardo Veiga, Pablo Regent, Fernando Borraz, Alvaro Cristiani, Cecilia Gomeza, Santiago Ramos, Lucila Arboleya
Funder(s):	University of Montevideo, Banco Santander Uruguay
APS Vendor:	Equipos Mori
Contact:	lveiga@um.edu.uy
APS details:	
Sampling Method:	Fixed-line Phone (Random Dial from List)
Sample Design:	Regional
Call-backs for selected respondent:	5: Different days of the week and times of day
Age Range:	18-99
Sample Size:	2074
Response Rate:	20%
NES details:	
Sample Size:	36
Percentage valid responses on EFC indicators (average):	92%

	Venezuela
Institution:	Instituto de Estudios Superiores de Administración (IESA)
National Team members:	Nunzia Auletta, Rebeca Vidal, Aramís Rodríguez, Edwin Ojeda
Funder(s):	
APS Vendor:	Datanalisis
Contact:	nunzia.auletta@iesa.edu.ve, rebeca.vidal@iesa.edu.ve
APS details:	
Sampling Method:	Face-to-face (Random Sampling from List)
Sample Design:	Socioeconomic levels
Call-backs for selected respondent:	3: Scheduled depending on the target respondent's availability
Age Range:	18-99
Sample Size:	2000
Response Rate:	69%

NES details:

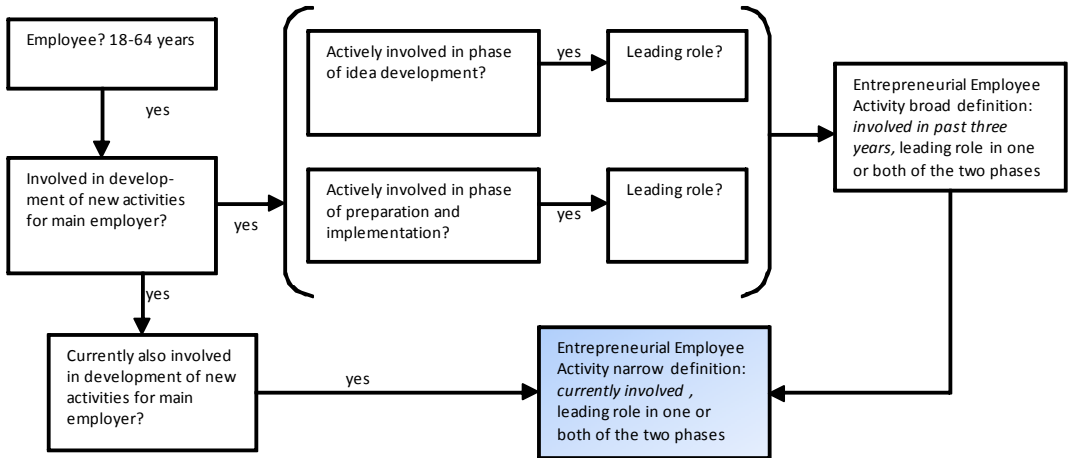
Sample Size:	36
Percentage valid responses on EFC indicators (average):	93%

ANNEX IV: RESEARCH DESIGN ENTREPRENEURIAL EMPLOYEE ACTIVITY

The major goal of the special theme study reported in chapter 4is to obtain comparative empirical information about entrepreneurial employee activities within existing organizations across a large number (52) of economies. This investigation was carried out in the framework of the regular Adult Population Survey of the Global Entrepreneurship Monitor 2011. A particular advantage of this methodology is the opportunity to compare entrepreneurial employees with other employees and with independent entrepreneurs (i.e. individuals who own their businesses, or expect to own the business they are setting up), at both the macro and the micro level. Methodologically this special theme study builds upon an earlier pilot study across 11 countries, conducted in the framework of the Global Entrepreneurship Monitor 2008 (see Bosma et al., 2011b).

Based on the literature as reviewed in Bosma et al. (2011b), three elements were considered important for designing the questionnaire for this investigation. These are the scope of entrepreneurial employee activity, the phases of the entrepreneurial process within existing organizations and the role of entrepreneurial employees in each of these phases. First, the present study has operationalized entrepreneurial employee activity as 'employees developing new activities for their main employer, such as developing or launching new goods or services, or setting up a new business unit, a new establishment or subsidiary'. This scope is wider than new organization creation, but it excludes employee initiatives that mainly aim at optimizing internal work processes. Secondly, this report distinguishes between two phases of entrepreneurial employee activity, i.e. 'idea development for a new activity' and 'preparation and implementation of a new activity'. Idea development includes for example active information search, brainstorming and submitting ideas for new activities to the management of the business. Preparation and implementation of a new activity refers to promoting an idea for a new activity, preparing a business plan, marketing the new activity, finding financial resources and acquiring a team of workers for the new activity. Thirdly, with respect to the involvement of employees in each of these phases of the development of new activities, this study makes a distinction in a supporting and a leading role. A leading role in at least one of these phases has been used as the final criterion for identifying entrepreneurial employees (see Figure IV.1).

FIGURE IV.1 BROAD AND NARROW DEFINITIONS OF ENTREPRENEURIAL EMPLOYEE ACTIVITY USED IN THIS REPORT



Based on these conceptual elements, this report measures the prevalence of entrepreneurial employee activity (EEA) according to a broad and a narrow definition. Following the *broad* definition entrepreneurial employee activity refers to employees who, *in the past three years*, were actively involved in and had a leading role in at least one of these phases (i.e., 'idea development for a new activity' and/or 'preparation and implementation of a new activity'). The *narrow* definition refers to the entrepreneurial employees who are *currently* involved in the development of such new activities. The entrepreneurial employees according to the narrow definition are thus a subgroup of those according to the broad definition. The prevalence of entrepreneurial employee activity can be defined as the number of entrepreneurial employees, according to either definition, as a percentage of either the total number of employees or the adult population (between 18-64 years of age). In most tables and figures in this report, if not otherwise indicated, EEA has been defined as the number of entrepreneurial employees according to the narrow definition as a % of the adult population.

The wording used for the items underlying EEA in the English version of the questionnaire is as follows:

- In the last three years, have you been involved in the development of new activities for your main employer, such as developing or launching new goods or services, or setting up a new business unit, a new establishment or subsidiary?
    - And are you currently involved in the development of such new activity?

  I will now mention two phases that can be identified for developing new activities. Could you indicate for each of these phases whether you have made a contribution in the past three years?

- The first phase consists of idea development for a new activity. This includes for example active information search, brainstorming on new activities and submitting your own ideas to management. Have you been actively involved in this phase in the past three years?
    - And could you tell me whether you had a leading or a supporting role in this phase?

- The second phase concerns preparation and implementation of a new activity. This includes for example promoting your idea, preparing a business plan, marketing the new activity or finding financial sources and acquiring a team of workers. Have you been actively involved in this phase in the past three years?
    - And could you tell me whether you had a leading or a supporting role in this phase?

Next to the above questions, additional ones were included to assess the size of the employee's business, and whether the employee worked in the private sector, for the government or for a semi-government organization. For all employees answering affirmative to the first question listed above, additional questions asked to describe the entrepreneurial activity the respondent is involved in and the job expectations resulting from the activity (in the report this was only assessed for those in EEA). Further additional questions were optional, amongst others the assessment by employees whether they provide support when employees come up with new ideas. More in-depth analysis will be provided in a special report on entrepreneurial employee activity, forthcoming in 2012.

ABOUT THE AUTHORS

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Dr. Niels Bosma is assistant professor in the Entrepreneurship and Innovation Department at Utrecht School of Economics, Utrecht University. He is also research fellow with Vlerick Leuven Ghent Management School and the Global Entrepreneurship Researctresh Association. He holds a PhD in economic geography and an MSc degree in econometrics. His research interests evolve around individuals' entrepreneurial and innovative behavior in regional and social contexts. Since 2005 he has also actively contributed to the Global Entrepreneurship Monitor as research director and has co-authored the annual GEM Global Reports since 2006. Before moving to Utrecht University he held positions at EIM Business and Research Policy (now part of the Panteia group), Erasmus University Rotterdam / Tinbergen Institute and London Business School.

Sander Wennekers

Dr. A. (Sander) R.M. Wennekers has been active as a professional economist for more than 35 years. He works for EIM Business & Policy Research (a member of Panteia). From 1997 until 2010 he was principal investigator of the publicly funded research program on SMEs and Entrepreneurship which EIM carries out for the Dutch Department of Economic Affairs. Presently Sander acts as expert in entrepreneurship at EIM. Sander has been actively involved in the Global Entrepreneurship Monitor (GEM) since 2001, he is a fellow at the Institute for Development Strategies of Indiana University, and he participates in many professional organizations. Sander's work at the crossroads of entrepreneurship and macro-economics has been published in several books and academic journals, and is widely cited. His current research area is entrepreneurship within existing organizations.

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