Global Entrepreneurship Monitor Bulgaria

GEM National report on entrepreneurship in Bulgaria

Annual Report

2016/17

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2016/17 GEM NATIONAL REPORT ON ENTREPRENEURSHIP IN BULGARIA

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Global Entrepreneurship Monitor Bulgaria Association Sofia, 2017

2016/17 GEM National report on entrepreneurship in Bulgaria by Veneta Andonova and Mira Krusetff

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ABOUT GEM BULGARIA

The Global Entrepreneurship Monitor (GEM) is the largest and foremost ongoing study of entrepreneurial dynamics in the world. With data collection in over 100 economies it is the largest collaborative research project in the world. The network of National Teams is home to over 500 experts in entrepreneurship research; the project has an estimated global budget of nearly USD $9 million.

OUR MISSION

As part of a global consortium we gather annual primary data for the Bulgarian entrepreneurship ecosystem, perform benchmark analysis across countries and regions and identify factors that foster entrepreneurship. We produce and communicate recommendations to stakeholders in order to improve the conditions for living and doing business in Bulgaria.

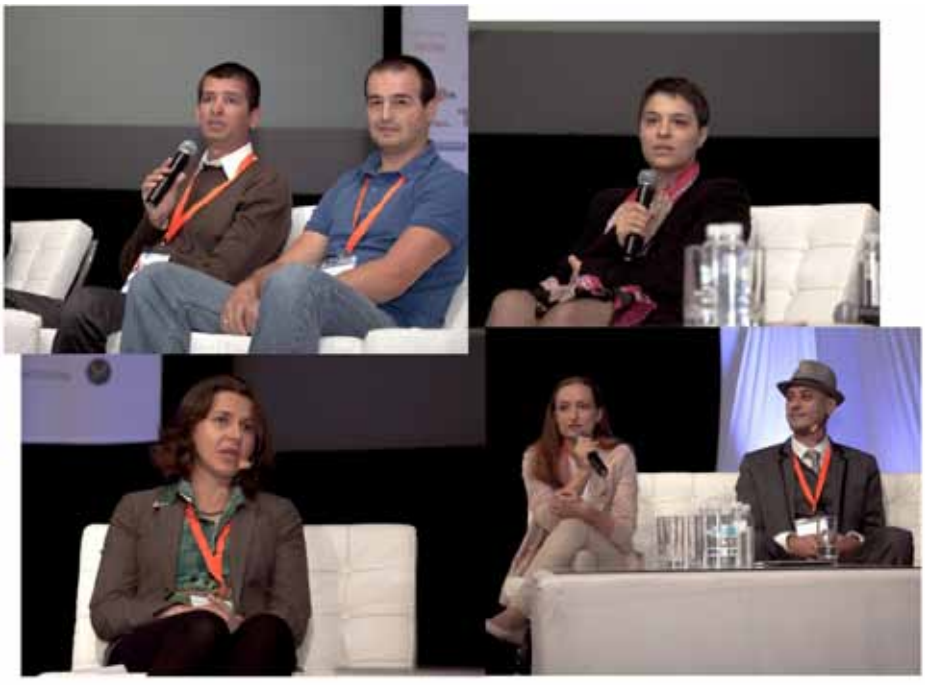
OUR VISION

Make Bulgaria attractive for living and doing business through social and economic transformation within a balanced entrepreneurship ecosystem.

TEAM

The team of GEM Bulgaria consists of experts in the fields of entrepreneurship, media, research, data analysis, academia and education, NGOs, policy making and EU.

The Global Entrepreneurship Monitor Bulgaria is a not-for-profit organization for public benefit registered in Sofia City Court, Bulgaria in 2015



Svetozar Georgiev, Petar Sharkov, Mira Krusteff, Veneta Andonova, Nusha Spirova, Iskren Krusteff. Malina Kroumova not pictured.

AUTHORS

DR. VENETA ANDONOVA

Veneta Andonova is an Associate Professor of Business at the Universidad de los Andes School of Management, Bogota and the Chair of the Research Policy committee at the School. She is also Board member and Director Research of GEM Bulgaria. Veneta is devoted to the development and adaptation of business strategies in developing countries and those in transition. Professor Andonova supports young entrepreneurs as tutor and mentor and helps companies understand effective and innovative business models, suitable for environments with serious social and economic challenges.

With her expertise, acquired from numerous travels and contact with leading figures in the business science and practice, Prof. Andonova actively participates as mentor of entrepreneurial initiatives in Bulgaria and actively supports student entrepreneurship while in Bulgaria.

She is frequent guest and speaker at international conferences and academic programs. She has published articles in international journals and her newly published book **Multilatinas: strategies for internationalization** (Cambridge University Press, 2017) is popular among practitioners and the international academic community.

MIRA KRUSTEFF

Mira Krusteff is an entrepreneur, passionate about children and youth, education transformation, informal education and making Bulgaria a better place for living. She obtained an MBA from New Bulgarian University and postgraduate degree in World Politics at the LSE. She had previously managed high-profile international conferences on urbanism for the Urban Age project of the London School of Economics and Deutsche Bank's Alfred Herrhausen Society, while in London. In Ireland she set up, together with her husband, the first Bulgarian school in southern Ireland. Since returning to Bulgaria with her family, Mira is an entrepreneur, in addition to being member of the board of the non-for-profit GEM Bulgaria. She spends her spare time educating parents on how to use effectively digital instruments to benefit their children. Mira is certified PRINCE2 Project Manager.

SPONSORS

JEREMIE BULGARIA

The support is provided with recycled funds paid back under financial engineering instruments operations implemented through the JEREMIE Initiative under the OP "Development of the Competitiveness of the Bulgarian Economy" 2007-2013 funded by the European Regional Development Fund (ERDF) and the national budget of the Republic of Bulgaria managed by the Ministry of Economy of the Republic of Bulgaria and the European Investment Fund.

EY BULGARIA

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In doing so, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY has been present in Bulgaria since 1992. Employing over 260 professionals locally across its four service lines - assurance, tax, transactions and advisory, the firm offers the full scope of global services in a close and integrated effort with other growing practices in the region. EY Bulgaria enjoys a leading position on the Bulgarian market and also covers Macedonia, Albania and Kosovo.

SUPERHOSTING

SuperHosting.BG is the largest and the fastest growing hosting company in Bulgaria. They are the most popular choice for a hosting partner in the country – their quality of service, exceptional customer care and 24/7 technical support are the features their customers value the most.

VENDOR

MARKET TEST

Market Test is a private Bulgarian joint stock company for research and consulting, established in 1995.Market Test applies a wide range of research methodologies and techniques, both qualitative and quantitative. Its well trained and motivated field force is located in 30 cities and towns, thus enabling fast and cost effective data collection. The company focuses on face-to-face computer assisted interviewing, in-hall or in-home product / taste / concept/ advertising tests, in-hall focus groups and in-depth interviews. The conducted studies cover general population, businesses and/or some specific target groups. During its 22 years of existence Market Test has been contributing to the launch of new products and services on Bulgarian market and to the development of entrepreneurship in Bulgaria.

PREFACE

Baselining an environment and building an engagement platform to foster entrepreneurship is very beneficial for people and organisations who want to measure the impact of their actions. A baseline point for the Bulgarian entrepreneurship ecosystem was established and communicated to key stakeholders during the GEM Bulgaria conference 2016. Discussions at the highest level demonstrated the seven critical elements required for sustainable growth and development: Finance, Markets, Human Capital, Culture, Policy, Supports (credits to Dan Isenberg, Driving Economic Growth through Entrepreneurship Ecosystems) and an essential component of achieving Synergy in the communication between them.

GEM Bulgaria delivers vital benefits for each of the values multipliers in the entrepreneurship ecosystem as follows:

- **for bankers; investors; venture capital and private equity funds; donor organisations; business angels:** GEM Bulgaria's data provides insights on the levels of entrepreneurship ecosystem sophistication, investment opportunities, what challenges can be faced and access to a network of professionals to help in resolving those;
- **for managers of acceleration and pre-acceleration programs:** GEM Bulgaria provides useful insights on levels of fear of failure, discontinuation of businesses, opportunities to connect startups and scaleups with other markets within countries from the GEM family, as well as global recognition for the exclusive focus on developing a healthy entrepreneurial environment;
- **for the corporation heads, distributors, export agencies, trading company executives, international trade missions and embassies:** GEM Bulgaria provides comparable data for all GEM participating countries, a platform for open innovation, CSR campaigns and a floor to share recommendations with policymakers;
- **to educators and developers of human capital, university heads, science and R&D experts, leaders of training centres, service professionals:** GEM Bulgaria provides an opportunity to participate in the most significant ongoing collaborative study of entrepreneurship in the world, opportunity to meet world-class academics, high impact entrepreneurs, professionals, policymakers, investors;
- **for the culture impactors - journalists, favourite cultural icons, informal opinion makers:** GEM Bulgaria provides indisputable data, inspiring stories, and a platform to become an excellent example for the generations to come;
- **for the policymakers and public leaders, public servants, mayors, lawmakers:** GEM Bulgaria provides insights on what, how and when can be improved, policy recommendations by an outstanding selection of national experts and low level, high detail data on particular subjects of interest, as well as access to successful implementers of entrepreneurship policies abroad;
- **for the support organisations - lawyers, accountants, incubator directors, mentors, NGO managers, foundation managers and service professionals:** GEM Bulgaria is the platform that links it all, hence bringing an extraordinary opportunity to connect all stakeholders in a symbiotic relationship.

The Global Entrepreneurship Monitor (GEM) Consortium is launching a global index in 2018, based on its global, national and regional high-quality primary


Credits: Claudia Leisinger

data, provided by each country. Having Bulgaria among the first nations to participate and benchmarking national performance is of vital significance and our team is very proud Bulgaria is finally not a follower, but an early adopter.

GEM Bulgaria can remain an independent value creator and catalyst empowering positive change in Bulgaria only if all key stakeholders support it. From 2017 GEM Bulgaria is welcoming donor organisations who want to create a long-term measurable impact in Bulgaria to support our mission and vision in developing a high impact entrepreneurship ecosystem for the benefits of all stakeholders and the country. We are also welcoming EU grants specialists to join the team. Individual support can go a long way too!

It is an absolute privilege to be able to work with the report authors - Veneta and Mira, GEM Bulgaria's core team - Iskra and Nato, the Board and our amazing volunteers, our vendor MarketTest, our partners from JEREMIE Bulgaria, EY Bulgaria and Superhosting, our individual donors and supporters for the shared vision, common values, professionalism and support.

Enjoy the 2017 report!

Iskren Krusteff
Chairman of GEM Bulgaria

EXECUTIVE SUMMARY

GEM Bulgaria is an independent, not-for-profit organisation, part of the Global Entrepreneurship consortium. This is the second report of GEM Bulgaria since collecting its first data in 2015.

Background of the Global Entrepreneurship Monitor

The independent study on entrepreneurship by the Global Entrepreneurship Monitor has welcomed Bulgaria in its 16th year of tracking entrepreneurship rates and analysing national environments. The first report was launched in 1999 and encompassed 10 developed economies – eight from the OECD (Canada, Denmark, Finland, France, Germany, Israel, Italy and the United Kingdom) as well as Japan and the United States of America. Now, in 2017, GEM is a global consortium that conducts research in 65 world economies surveyed over 180,000 people and 2,300 experts to measure individual participation across multiple phases of the entrepreneurial process, providing insights into the level of engagement in each stage. GEM brings together over 400 researchers from across the globe and includes more than 100 institutions every year. The involvement of all these individuals and institutions undoubtedly makes GEM the largest study on entrepreneurship in the world. GEM provides unique information on individuals - attributes, values, activities and their interaction with the environment in practising entrepreneurial behaviour - pro-activeness, innovativeness and responsible choices.

The GEM Consortium publishes a Global report each February following the year of the data collection, while each GEM national team produce their National country report within the next ten months. GEM also publishes Special topic reports and Policy Briefs.

Objective and scope

According to GEM, the **entrepreneurial activity** is an output of the interaction of an **individual's perception of an opportunity and capacity** (motivation and skills) to act upon this opportunity AND **the distinct conditions of the environment** in which the individual is located. Hence GEM and the current report have three key objectives:

1. to determine the **extent to which entrepreneurial activity influences economic growth** in Bulgaria;
2. to identify the **factors which encourage or hinder entrepreneurial activity**; and
3. to **guide the formulation of effective and targeted actions** aimed at enhancing the entrepreneurial capacity in Bulgaria.

To provide reliable comparisons across countries, GEM obtained data using a research design that is harmonised over all participating countries. The data is gathered on an annual basis from two sources:

a) **Adult Population Survey** (APS) random representative sample of 2 000 adults between the ages of 18 and 64 years.

b) **National Experts Survey** (NES) providing information on the environment faced by entrepreneurs by interviewing a minimum of 36 experts. Unlike other expert surveys, NES focuses solely on the environmental features that are expected to have an important impact on the entrepreneurial activities, captured in the nine entrepreneurial framework conditions (EFCs), rather than on general economic factors: (1) Financing for entrepreneurs, (2) Government policies, (3) Governmental programs, (4) Entrepreneurial education and training, (5) Research and development transfer, (6) Commercial and professional infrastructure, (7) Internal market openness, (8) Physical and services infrastructure and (9) Social and cultural norms.

The report aims to provide policy-makers, business leaders and other stakeholders with information that enables them to put into place precise, practical and targeted recommendations. An economy cannot increase the quantity and quality of potential and intentional entrepreneurs without creating an enabling environment in which entrepreneurship can flourish. Informed policy decisions, which help to create a healthy entrepreneurial environment will be of benefit to entrepreneurs in all phases of their businesses, be it young start-ups, established or serial entrepreneurs.

Structure

The GEM Bulgaria 2016/17 report covers the GEM methodology and framework in Chapter 1, the Adult Population Survey results and analysis in Chapter 2, the National Experts Survey results and analysis in Chapter 3, and a Summary of Recommendations for Policy and Practice in Chapter 4..

To give context to the Bulgarian data in Chapter 2, the authors selected three **benchmark** groups, formed of (1) Greece and Turkey, (2) Poland and Estonia, and (3) Ireland, UK, Israel, and Canada.

To avoid any confusion, the data gathered in 2016 is being published in 2017, hence the title of the report 2016/17 GEM Bulgaria report. Data and events since data collection in May-July 2016 are not reflected in this report.

The report is available in English and Bulgarian as **PDF** and is published online at **www.GEMorg.bg**

KEY FINDINGS

Entrepreneurial activity

- Only 52.9% of Bulgarian adults regarded entrepreneurship as a good career choice, compared to 57.5% a year earlier. 66.9% (71.5% in 2015) agreed that successful entrepreneurs enjoy high status in Bulgaria and 40.7% (49.3% in 2015) perceived that entrepreneurship receives regular media attention. The real danger here is that entrepreneurship might have fallen even further in the national agenda and that this early sign might be indicative of a weakening support and acceptance of entrepreneurship as the engine for the productivity leap that the Bulgarian economy needs to make in order to breach the gap in competitiveness compared to the high-income countries.
- In 2016 21.0% (15.8% in 2015) of the adult population in Bulgaria perceived good opportunities to start a business in the area where they lived. This result is significantly lower than the corresponding figure for Turkey and Greece. 39.7% (35% in 2015) of the population reports having capabilities to embark on this endeavour. In 2016 in Bulgaria, both the perception of opportunities and capabilities increased by the same degree. There is a very well established relationship between entrepreneurial intentions and perceived capabilities to start a business. Therefore, the increase in the perceived capabilities to start a business can be seen as an early signal for increasing entrepreneurial intentions
- The national rates of reported fear of failure (25.1%) are below the

average group rates for efficiency-driven societies at 33.0%.

- The number of potential entrepreneurs is extremely low at 7.1% (5.3% in 2015) not only compared to the three benchmark groups but also globally. Arguably, both the relatively low perceived opportunities and weak individual capabilities (these include both skills and self-confidence) explain the result in the case of Bulgaria, but it is clear that the stronger explanation relates to deficiencies in the business environment as respondents see few profitable business opportunities.
- In 2016, the Total Early-stage Entrepreneurial Activity (TEA) rate for Bulgaria was 4.8% (3.5% in 2015), comprised of 2.6% of the adult population engaged in nascent

entrepreneurial endeavours and 2.2% who were new business owners. By all standards, these numbers are among the lowest in the world. Interestingly, despite the very low rate of early-stage entrepreneurship in Bulgaria, a relatively high percentage of these manage to survive long enough and become established businesses.

- Despite the positive dynamics since 2015, namely a decrease in necessity-driven TEA and an increase in improvement-driven TEA, Bulgaria stands out against the benchmark groups as it has significantly more necessity-driven than improvement-driven TEA. Bulgaria's Motivational Index of 1.1 is three times lower than the average Motivation Index of all European countries that participated in the GEM Global Report 2016/17.

Profile of entrepreneurs

- The analysis of the profile of the entrepreneurs in Bulgaria can assist policymakers in stimulating an increase and more inclusive participation of various groups in the economy. It will also help in crafting policies that are geared towards the specific pain points of the various social groups as entrepreneurship itself is set to change the social texture of a country.
- The most entrepreneurially active individuals are the 25-44-year-olds. The group of 18-24-year-olds shows a participation rate almost as high as the subgroup of 35-44-year-olds.
- Young entrepreneurs have some significant strengths including the low opportunity cost of time and stimulating entrepreneurship among them might be particularly effective. Providing conditions for entrepreneurial opportunities for the youth has the potential to decrease the rate of youth emigration and even become one of the key factors to stimulate returnees.
- In Bulgaria, there is no evidence for a gender gap regarding entrepreneurship. This must have a positive impact on the overall economic environment because economies with high female labour force participation are more resilient as they experience economic growth slowdowns less often.
- The ratio of female to male TEA is somewhat higher for Bulgaria compared to some of the benchmark countries indicating more gender equality regarding early-stage entrepreneurial endeavours. Moreover, unlike the commonly held view based on previous global GEM research (GEM Global Report 2016/17, p. 28), in Bulgaria, the share of necessity-motivated female entrepreneurship is very similar to the male equivalent.
- Although it is minimal, the most early-stage entrepreneurial effort among those who identify themselves as Roma is opportunity-driven.
- Those with secondary education are among the most active early-stage entrepreneurs, accounting for more than half of all early-stage ventures

Entrepreneurial impact

- Bulgaria does not fit Europe's sector distribution with regards entrepreneurship, as more than half of the new ventures belong to retail or wholesale, which are extremely vulnerable to economic downturns.
- Bulgaria has a smaller share of early-stage startups belonging to knowledge-intensive industry sectors than innovation-driven economies, many of which are Bulgaria's EU partners. The industry sector distribution of TEA for Bulgaria is similar to the distribution in factor- and efficiency-driven economies, probably reflecting the scarcity of skills that are required by knowledge-intensive industries.
- In Bulgaria, early-stage entrepreneurs are especially cautious about future hires, as 72% do not expect to create any jobs, while 20.3% expect to create between one and five jobs in the next five years. This rate of hiring is indicative of a very slow pace of entrepreneurial growth. Most entrepreneurial endeavours in Bulgaria grow slowly, but the rate of growth is higher than the one reported in the previous year
- In order to fuel Bulgaria's economic growth, it is important to identify these 13.4% of high-growth early-stage ventures and create the necessary regulatory environment that encourages their growth, as they are the ones expected to add new dynamism to the economy.
- Only 17.5% (14.5% in 2015) of Bulgarian entrepreneurs believe their product is new to all or some customers. Regarding the criterion of innovativeness, Bulgaria falls in the group of economies with low innovation activity of its early-stage ventures. More specifically, in the global GEM ranking of innovativeness of early-stage entrepreneurship, Bulgaria ranks 52nd out of 65 world economies. In essence, there are very few early-stage new ventures in Bulgaria, and only a small fraction of them engage in innovation activities. This is a major constraint of the competitiveness of new ventures in Bulgaria, and it has to be urgently addressed, as it limits the competitiveness of the national economy.
- Bulgaria has a rather small but vibrant group of innovation-oriented businesses which undertake innovation with a remarkable efficiency. In fact, this pattern of 'elite' innovation suggests that there might be a two-tier population of both early-stage and established businesses: one small group of innovation-active businesses and a much larger group of companies that do not engage in innovation. The real challenge of the public policy then will be to spread the innovation culture to the second group and thus expand the base on which the international competitiveness of the Bulgarian economy relies
- This result resonates and can be partially the consequence of a profoundly mistaken idea that dominates the debates about the drivers of competitiveness of the Bulgarian economy, namely the importance of cheap labour. The latter cannot be a sustainable base for international competitiveness, and as the data indicates, it is not in the case of early-stage entrepreneurship. A profound debate about the factors that drive competitiveness generally is needed to correct this alarming result in the case of Bulgaria.

Regional differences

- Despite its small territory, Bulgaria has sharp regional asymmetries regarding wealth generation, incomes per capita and ultimately, quality of life. There is a marked difference of 10 percentage points between residents in Sofia and those who reside elsewhere regarding their perception of entrepreneurship as a good career choice.
- Sofia residents exhibit a higher level of perceived capabilities. This difference is only 3 percentage points when Sofia is compared to the pool of district centers and 11 percentage points with other cities. In perceived opportunities, Sofia residents report much higher levels, and this is the indicator with the most significant disparities between Sofia and other cities. The larger scale of the economy and the economies of agglomeration explain this result. Fear of failure of Sofia residents in 2016 is comparable to the national average and it has dropped sharply in comparison to 2015 data.
- There are substantial differences across different parts of Bulgaria that need to be accounted for in national policies and government programs and initiatives. Understanding entrepreneurial intentions as a function of profoundly local factors are mandatory for establishing a nation-wide culture and practice of entrepreneurship.

Constraints to entrepreneurship

Improvement in public policy and fight against corruption as well as building capacity for entrepreneurship, educational and training programs shall become the highest priorities if building a bubbling entrepreneurial ecosystem in Bulgaria is ever going to take place. Shifts in each of this domains are associated with considerable inertia, and yearly variations in the indices are unlikely to capture meaningful improvement in the Bulgarian entrepreneurial ecosystem. Over the medium and long-term, improvements in these fundamental conditions for business are set to change the quality of the business environment substantially.

- According to the national experts, Bulgaria has a number of significant weaknesses. The most critical ones have to do with the entrepreneurship education at the primary and secondary levels and the lack of targeted government support and initiatives that turn entrepreneurship into a government priority
- The strongest among the Entrepreneurial Framework Conditions (EFCs) in Bulgaria is the access to physical infrastructure and services, followed by access to commercial and professional infrastructure and supportive government policies related to taxes and bureaucracy.
- Bulgaria has a rate of business discontinuance in 2016 of 7.3%, which contrasts sharply with 2.0% business discontinuance rate in 2015. This increase is accompanied by an increase in the TEA rate, and at least partially it reflects increased entrepreneurial experimentation in the economy. Environmental factors such as a

complicated regulatory system that increases the bureaucracy of starting and exiting businesses may produce barriers to entry, as well as barriers to exit, reducing people's willingness to venture into starting a business. This scenario, however, is not the case in Bulgaria, where entry costs are rather low but corruption and capture by interest groups remain the most common deterrents according to national experts' survey conducted by GEM. The Bulgarian government imposes taxes that are not a burden for new and growing firms and apply regulations predictably and consistently. Nevertheless, national and local government levels appear to have little interest in turning entrepreneurship into a priority

- The monopolistic nature of the Bulgarian electricity distribution market with regulated prices and no competition can explain why the attractiveness of the Bulgarian business environment is adversely affected by lengthy and costly procedures of getting electricity. Urgent reforms in the industry are needed, but they are also greatly complicated by the complex geopolitical situation in which Bulgaria needs to balance its commitments accruing from the country's EU membership and its extreme dependency on Russian energy sources.
- In 2016 again experts cannot identify a ‚one-stop shop" entity that supports small and medium businesses, and they think that the support offered by existing entities is deficient.
- One of the best-rated aspects of government programs related to entrepreneurship is the support provided by incubators and science parks, where there is a substantial involvement by the private sector and successful entrepreneurs, who participate as mentors, role-models and investors. In general, better coordination with the private sector and the incipient entrepreneurial community can improve the talent pool and the efficiency of the existing government programs meant to stimulate entrepreneurial endeavours.
- In Bulgaria, there is no lack of active search for solutions and business pre-acceleration and acceleration programs, among initiatives undertaken by NGOs and philanthropists must be credited for bringing dynamism to the Bulgarian entrepreneurial ecosystems.
- Burning issues that are named as key constraining factors relate to government functioning, education and capacity for entrepreneurship.
- The experts judged particularly harshly the deficiencies of the primary and secondary education systems in Bulgaria and evaluated somewhat more positively (but still low) the state of business and management education. In fact, in the light of the generally positive assessment of the Bulgarian primary education by the Global Competitiveness Ranking 2016/2017, the biggest problem for Bulgaria appears to be the quality of its secondary education. The secondary education is instrumental for the social integration through life-long skills.
- A step in the right direction is the inclusion of entrepreneurship classes in the mandatory school curricula for the 2016/17 academic year. The implementation of this idea has been less impressive as most school teachers lack adequate preparation or experience in the field. Nonetheless, the initiative is promising, and it requires close monitoring and impact assessment in order to turn it into a change mechanism for the broader cultural mindset and employability of young graduates.
- Innovation capabilities, which are essential to economies' ability to become competitive, particularly in higher-productivity sectors, are heavily dependent on research and development. Experts believe that universities are not playing a central role in facilitating knowledge transfer and stimulating innovation. A common opinion is that universities play little to no role in supporting entrepreneurship and this view has not changed since 2015.
- The most positive perceptions of the national experts are related to the availability of science and technology base that efficiently supports the creation of world-class new technology-based ventures in at least one industrial sector. The ICT ventures are the most common case in question. Note that as a sector ICT is labour- and talent-intensive and as such its development relies on elite educational programs, which in the case of Bulgaria has a very limited, albeit growing scale. This factors coupled with a trend of youth migration imposes substantial limitations on the growth of this internationally competitive economic activity.
- For a second year in a row, the experts believe that Bulgaria's low levels of entrepreneurial activity

are heavily influenced by a dominant culture of very low propensity to entrepreneurial risk-taking. The experts believe that currently, the dominant sentiment in Bulgaria is that little can be accomplished through personal efforts and personal initiative.

The key recommendations regarding business environment remain the same as last year, and most of the structural conditions for entrepreneurship received the same expert evaluations as in the GEM Bulgaria 2015 survey.

While individual's intentions showed an increase and give early signs for optimism especially in the case of youth entrepreneurs, who seem to show more interest in self-employment than before, factor conditions have remained very stable and without significant improvements. Well-functioning entrepreneurial ecosystems emerge as a result of a complex symbiosis between individual aspirations and behaviours and collective action and government policies. In 2016 in Bulgaria, the initiative has been taken by the entrepreneurial individuals, while the society at large and the government appear to be waiting on the sideline.

In this second annual report of GEM, Bulgaria experts extend a number of new recommendations for policy and practice to complement the list compiled in 2015, which remained largely unfulfilled. Also, we make a special call to two constituencies that appear to be particularly critical for the rise and consolidation of young entrepreneurial ecosystems: media and acting entrepreneurs and managers.

- Media are essential for the rise of entrepreneurial intentions because they facilitate exposure to role models and create the verbalisation and the symbols associated with entrepreneurial behaviour. These powerful levers have the potential to alter the notions of hope and faith in society as both of them are symbolic and verbally constructed and as a consequence change the aspirations, confidence and sense of worth and purpose of members of society. In this role, media share an enormous responsibility, which they have not fully accepted and certainly have not lived up to.
- The level of business sophistication of Bulgarian companies is low and the associated managerial and leadership practices, in particular, those related to responsibility delegation and inter-firm entrepreneurial initiatives are not sophisticated either. The time has come to openly acknowledge that acting business leaders and entrepreneurs are as responsible for the competitiveness of the national economy as the government policies and their enforcement. Policies and regulations shape the context for business, but it is the labour productivity of the workers and the business sophistication of the firm leaders that determine the ultimate driver of competitiveness in any economic system–firm productivity. It is unlikely to see a huge surge in the scale and quality of entrepreneurship in the observable future unless there is a general improvement in the managerial and leadership practices of those currently in charge.

Acknowledgements

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- The core GEM Bulgaria operational team and volunteers
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- Those who provided additional research, commentary, moral and practical support to the authors
- MarketTest, who conducted the Adult Population Survey (APS) professionally and without error
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1 INTRODUCTION AND BACKGROUND

Global Entrepreneurship Monitor Bulgaria

GEM is a worldwide study on entrepreneurship that was first conceptualised in 1997 by two academics, one from London Business School (Michael Hay) and the other from Babson College (Bill Bygrave) in the United States. In the late 1900s, there was no recognised international research focused on entrepreneurship, and the word was not a recognised household name as it is today. It was only starting to become important as academics and policy makers acknowledged the importance of small, medium and micro-sized enterprises development to the overall well-being of an economy; towards decreasing the levels of unemployment and in fighting the abject poverty which at that time prevailed in many developing, third world countries.

The first published reports came out in 1999 and involved just ten countries, eight from the OECD, Japan and the United States. Now 17 years later, the Consortium of GEM countries has grown substantially to where over 100 economies are participating from all levels of economic development and in almost all geographic regions. The GEM study now represents between 70% and 75% of the world's population and approximately 90% of the world's GDP. It can now claim to be truly global and to be the most reliable and informative study on entrepreneurship in the world today. Only a few areas of the globe are not represented such as some countries in mid and central Asia, a few countries in South East Asia and some from West and Central Africa.

GEM is different from most current studies on entrepreneurship in that it does not just look at businesses but also at individuals between the ages of 18 and 64 years from a demographically representative portion of the population. GEM looks at people (not companies), their attributes, aspirations, attitudes, perceptions and intentions. It looks at what makes them think and do, and not do, as these indicators play an important part in the entrepreneurial pipeline moving from potential, to intentional to those entrepreneurs who start a business and those that become fully established and growing.

One of the world's leading research consortia concerned with improving our understanding of academics and policymakers agree that entrepreneurs, and the new businesses they establish, play a critical role in the development and well-being of their societies. As such, there is increased appreciation for, and acknowledgement of the role played by new and small businesses in an economy. GEM contributes to this recognition with longitudinal studies and comprehensive analyses of entrepreneurial attitudes and

Figure 1.1 GEM economies, participating in the 2016 GEM cycle by geographic region and economic development level

	Factor- driven economies	Efficiency-driven economies	Innovation-driven economies
Africa	Burkina Faso, Cameroon, Senegal	Egypt, Morocco, South Africa	
Asia & Oceania	India, Iran, Kazakhstan	China, Georgia, Indonesia, Jordan, Lebanon, Malaysia, Saudi Arabia, Thailand, Turkey	Australia, Hong Kong, Israel, Qatar, Republic of South Korea, Taiwan, United Arab Emirates
Latin America & Caribbean		Argentina, Belize, Brazil, Chile, Colombia, Ecuador, El Salvador, Guatemala, Jamaica, Mexico, Panama, Peru, Uruguay	Puerto Rico
Europe	Russian Federation	Bulgaria, Croatia, Hungary, Latvia, Macedonia, Poland, Slovakia	Austria, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom
North America			Canada, United States

Source: Herrington M., Kew P., GEM Global report 2016/17, pg. 13

activity across the globe. Since its inception in 1997 by scholars at Babson College and London Business School, GEM has developed the relationships between entrepreneurship and national development.

In the 17 years since GEM studies started and it has measured entrepreneurship in over 100 economies, covering all geographic regions and all economic levels, and has gained widespread recognition as the most informative and authoritative longitudinal study of entrepreneurship in the world. In 2016, 66 economies participated in the GEM study, comprising approximately 69.2% of the world's population and 84.9% of the world's total GDP. The economies that took part in the 2016 GEM cycle are presented in **Figure 1.1**. Since 2008 (Bosma et al., 2009), GEM has followed the World Economic Forum's typology of countries, based on Porter's (Porter et al., 2002) definitions of economic development levels: factor-driven, efficiency-driven and innovation-driven economies.

#ENTREPRENEURSHIP

DEFINITION

The starting definition for entrepreneurship still remains valid, being:
"any attempt at new business or new venture creation, such as self-employment, a new business organisation, or the expansion of an existing business, by an individual, a team of individuals, or an established business" (Reynolds, P. et al, 1999, p. 3).

1.1 The GEM conceptual framework

Since its inception, the GEM survey was conceptualised to explore the interdependency between entrepreneurship and economic development. During the last 17 years, this conceptual framework and the basic definitions have evolved gradually without compromising the comparability of the collected information but bringing more clarity to assumed relationships. This process was supported by the work of a number of researchers who, using GEM data, contributed to building an entrepreneurship paradigm (Alvarez et al., 2014, Bosma, 2013, Levie and Autio, 2008, Reynolds et al., 2015).

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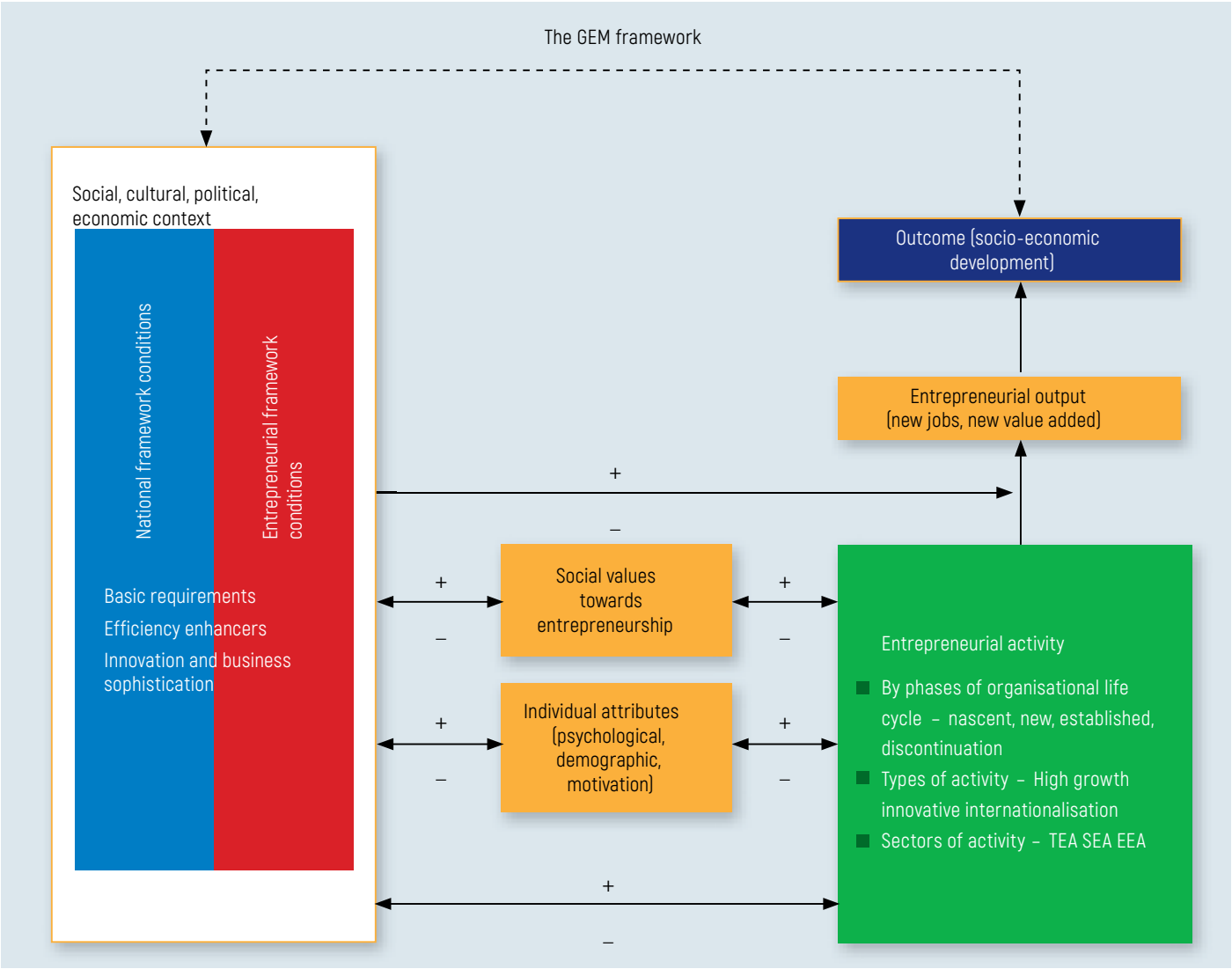
The three questions which initially opened the way to the GEM survey (Reynolds, P. et al., 1999, p. 3) were formulated as follows:

- Does the level of entrepreneurial activity vary between countries, and if so, to what extent?
- Does the level of entrepreneurial activity affect a country's rate of economic growth and prosperity?
- What makes a country entrepreneurial and what factors influence entrepreneurial activity?

To answer these questions, GEM had to depart from the conventional approach of thinking about national economic growth. This shift led to the development of a new conceptual framework, which has been through a series of adjustments since its inception in 1999.

The most recent revision of the GEM conceptual framework entailed opening the "black box" entitled "Entrepreneurship Profile". From the beginning of conducting GEM surveys the implicit assumption of mutual relationships between attitudes, aspirations and activities was built into the conceptual framework, but without spelling out the nature of these relationships. In the revised GEM conceptual framework (depicted in **Figure 1.2**) this "black box" has been opened to allow for testing of the characteristics of the assumed relationships between social values, personal attributes and various forms of entrepreneurial activity. This work was carried out by members of the GEM Research and Innovation Advisory Committee (RIAC).

Figure 1.2: The GEM conceptual framework



Source: Herrington M., Kew P., GEM Global report 2016/17

1.1.1 Social, cultural, political and economic context

As in the previous GEM model, this is defined according to the twelve pillars of competitiveness derived from the World Economic Forum's Global Competitiveness Index, and the nine components of GEM's Entrepreneurial Framework Conditions (see **Table 1.1**). These will affect countries differently, depending on the stage of economic development at which the countries are, i.e. although all of the pillars will be important to each economy, the pillars of competitiveness which are of most importance to a factor-driven economy will differ from those that will be most important in an efficiency-driven economy.

Table 1.1: Social, cultural, political and economic context and economic development phases

	From other available sources	From GEM National Expert Surveys (NES)
Economic development phases	National framework conditions, based on World Economic Forum pillars for profiling economic development phases	Entrepreneurial framework conditions
Basic requirements – key to resource-driven economies	■ Institutions ■ Infrastructure ■ Macroeconomic stability ■ Health and primary education	
Efficiency enhancers – key to efficiency-driven economies	■ Higher education and training ■ Goods market efficiency ■ Labour market efficiency ■ Financial market sophistication ■ Technological readiness ■ Market size	
Innovation and sophistication factors – key for innovation-driven economies	■ Business sophistication ■ Innovation	■ Entrepreneurial finance ■ Government policy ■ Government entrepreneurship programmes ■ R&D transfer ■ Internal market openness ■ Physical infrastructure for entrepreneurship ■ Commercial and legal infrastructure for entrepreneurship ■ Cultural and social norms

Source: Herrington M., Kew P., GEM Global report 2016/17

It is important to note that all components of the environment in which women and men act entrepreneurially (or cannot act proactively and innovatively) are mutually dependent. This dependency demands a holistic approach not only in research but also in designing appropriate policies for building a supportive environment in which entrepreneurial behaviour can flourish.

1.1.2 Social values towards entrepreneurship

This component includes aspects such as the extent to which society values entrepreneurship as a good career choice; whether entrepreneurs have high societal status; and the extent to which media attention to entrepreneurship is contributing to the development of a positive entrepreneurial culture.

1.1.3. Individual attributes

This component includes different demographic factors (such as gender, age, geographic location); psychological factors (including perceived capabilities, perceived opportunities, fear of failure); and motivational aspects (necessity versus opportunity based ventures, improvement-driven ventures).

1.1.4. Entrepreneurial activity

This component is defined according to:

- the phases of the life cycle of entrepreneurial ventures (nascent, new business, established business, discontinuation);
- the type of activity (high growth, innovation, internationalisation);
- the sector of activity (Total Early-stage Entrepreneurial Activity – TEA, Social Entrepreneurial Activity - SEA, Employee Entrepreneurial Activity – EEA).

In all the conceptual frameworks, the main assumption has remained unchanged – namely, that entrepreneurial activity is an output of the interaction of an individual's perception of an opportunity and capacity (motivation and skills) to act upon this opportunity AND the distinct conditions of the environment in which the individual is located. The GEM survey of entrepreneurship (based on individuals) complements the other main business creation surveys by providing unique information on individuals (attributes, values, activities) and their interaction with the environment in practising entrepreneurial behaviour (proactiveness, innovativeness and responsible choices).

It is clear, therefore, that GEM continues to focus on contributing to global economic development through surveying and researching entrepreneurship, which helps to improve research-based education and research-based formulation of public policies in the field of entrepreneurship. To achieve this, GEM has three key objectives:

- to determine the extent to which entrepreneurial activity influences economic growth within individual economies;
- to identify factors which encourage and/or hinder entrepreneurial activity (especially the relationships between national entrepreneurship conditions, social values, personal attributes and entrepreneurial activity); and
- to guide the formulation of effective and targeted policies aimed at enhancing entrepreneurial capacity within individual countries.

Over the years, GEM surveys have confirmed that the level of entrepreneurial activity varies among countries at a relatively constant rate. A crucial point confirmed by GEM research is that it takes time and consistency in policy interventions to enhance and develop the factors which contribute to the entrepreneurial activity. Surveys also confirmed that entrepreneurial activity, in different forms (nascent, start-up, employee entrepreneurship), is positively correlated with economic growth, but that this relationship differs according to phases of economic development (Acs and Amorós, 2008; Van Stel et al., 2005; Wennekers et al., 2010).

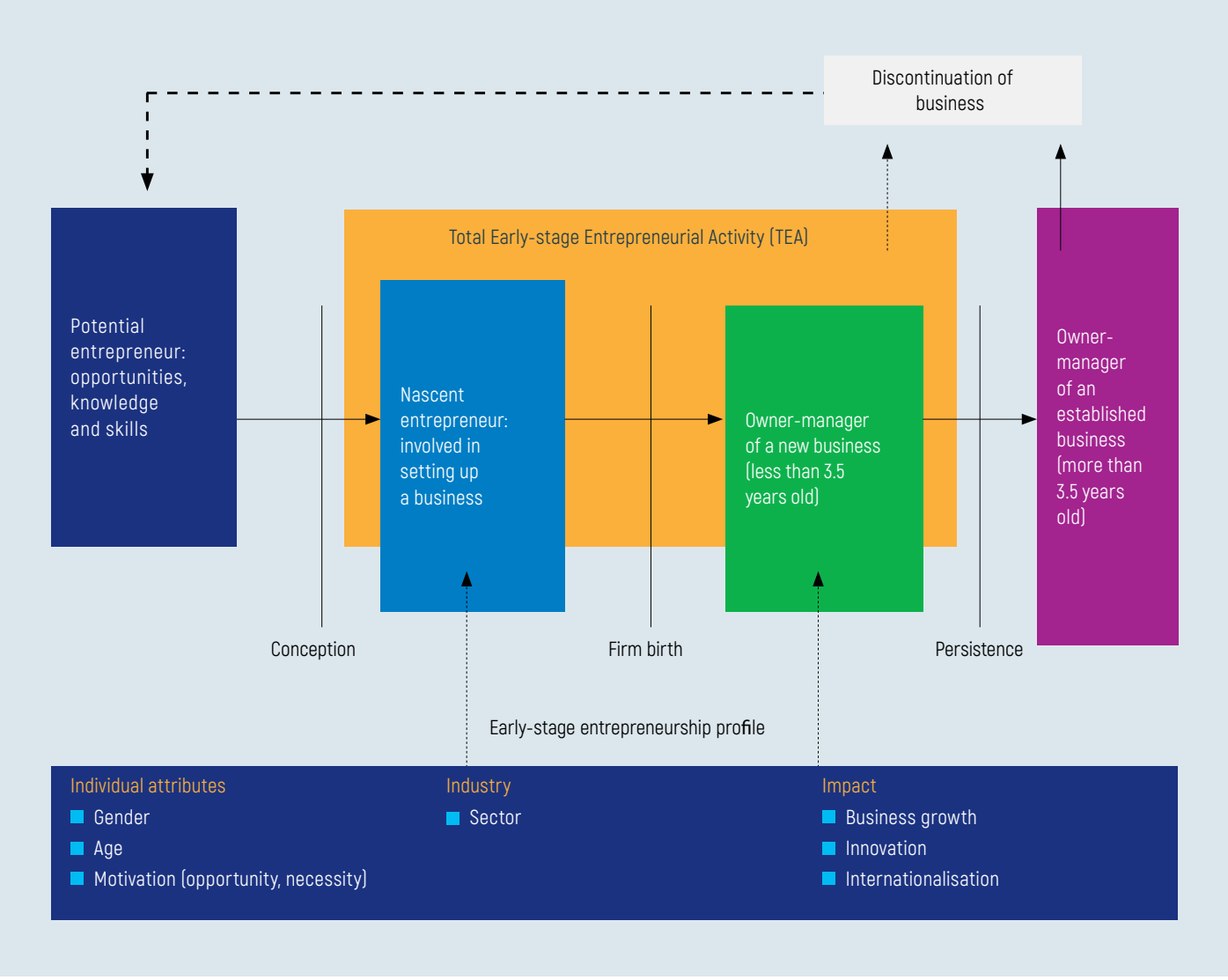
GEM's role as one of the world's leading research consortia concerned with improving the understanding of the relationships between entrepreneurship and national development is validated by recent policy interventions around the world. These are focused on components of the GEM conceptual framework: environment (entrepreneurial framework conditions), individual capacity for identifying and exploiting opportunities, and society's capacity to develop an entrepreneurial culture. A recent report on entrepreneurial ambition and innovation[1] highlights the cases of Colombia and Chile, economies that have put in place several public and private initiatives to enhance their entrepreneurial ecosystems (Drexler and Amorós, 2015).

[1] *Leveraging Entrepreneurial Ambition and Innovation Report by GEM & WEF, 2015*

1.2 How GEM measures entrepreneurship

GEM measures **individual** participation across multiple phases of the entrepreneurial process, providing insights into the level of engagement in each stage. This insight is important because societies may have varying levels of participation at different points in this process; however, a healthy entrepreneurial society needs people active in all phases. For example, to have startups in society, there must be potential entrepreneurs. Later in the process, people that have started businesses must have the ability and the support to enable them to sustain their businesses into maturity. **Figure 1.3** presents an overview of the entrepreneurial process and the GEM operational definitions.

Figure 1.3: The entrepreneurial process and GEM operational definitions



Source: Herrington M., Kew P., GEM Global report 2016/17

GEM's multi-phase measures of entrepreneurship are provided below:

Potential entrepreneurs – those that see opportunities in their environments, have the capabilities to start businesses and are undeterred by fear of failure.

Intentional entrepreneurs – those who intend to start a business in the future (in the next three years).

Nascent entrepreneurs– those who have taken steps to start a new business, but have not yet paid salaries or wages for more than three months.

New entrepreneurs – those who are running new businesses that have been in operation for between 3 months and 42 months.

Established business owners – those who are running a mature business, in operation for more than 42 months.

Discontinued entrepreneurs – those who, for whatever reason, have exited from running a business in the past year.

GEM's individual-level focus enables a more comprehensive account of business activity than firm-level measures of formally registered businesses. In other words, GEM captures both informal and formal activity. This aspect is important because, in many societies, the majority of entrepreneurs operate in the informal sphere. Also, GEM's emphasis on individuals provides an insight into who these entrepreneurs are: for example, their demographic profiles, their motivations for starting ventures, and the ambitions they have for their businesses. GEM also assesses broader societal attitudes about entrepreneurship, which can indicate the extent to which people are engaged in or willing to participate in an entrepreneurial activity and the level of societal support for their efforts. The GEM database allows for the exploration of individual or business characteristics, as well as the causes and consequences of new business creation.

A primary measure of entrepreneurship used by GEM is the Total Early-Stage Entrepreneurial Activity (TEA) rate. TEA indicates the prevalence of individuals engaged in nascent entrepreneurship and new firm ownership in the adult (18 - 64 years of age) population. As such, it captures the level of dynamic early-stage entrepreneurial activity in a country.

Every person engaged in any behaviour related to the new business creation, no matter how modest, contributes to the national level of entrepreneurship. However, it is important to recognise that entrepreneurs can differ in their profiles and impact. For this reason, GEM provides a range of indicators that describe the unique, multifaceted pattern exhibited in each society. It is therefore important to consider not just the number of entrepreneurs in an economy, but other aspects such as the level of employment they create, their growth ambitions, and the extent to which groups such as youth and women are participating in an entrepreneurial activity.

1.3. GEM methodology

GEM data is obtained using a research design that is harmonised over all participating countries in order to provide reliable comparisons across countries. The data is gathered on an annual basis from two primary sources, APS and NES described below.

1.3.1 Adult Population Survey (APS)

The key entrepreneurship indicators are measured in the Adult Population Survey (APS). Academic teams in each participating economy administer and oversee this survey, which is conducted using a random representative sample of at least 2 000 adults between the ages of 18 and 64 years. The surveys are conducted at the same time every year (between May and July) using a standardised questionnaire provided by the GEM Global Data Team. The questionnaire is translated into local languages and back-translated for a validity check.

In 2016, MarketTest was the accredited vendor to conduct the APS in Bulgaria. The research included conducting 2 000 face-to-face interviews with a random selection of the adult population in Bulgaria between the ages of 18 and 64 years in both rural and urban areas, covering all ethnic groups and gender. Interviews were conducted in the homes of respondents using a structured questionnaire, in Bulgarian.

A multi-stage selection method is used for sampling 2000 respondents amongst Bulgarian 18-64 urban and rural population. Each Economic Region (NUTS2) is stratified into mutually exclusive and collectively exhausted strata - District Cities, Other Cities, Villages. The sample stratification results in 18 clusters, among which 250 Primary Sampling Units (PSU) are defined and selected by probability proportionally of size (PPS) method. Within each PSU respondents' selection through random walk procedure with a predefined starting point is executed.

The individual countries only gain access to the data once the raw data has been analysed by experts at London Business School for quality assurance, checking and ensuring uniformity of statistical calculations. As the GEM research design harmonises the data, it is possible to conduct reliable cross-national and intra-country comparisons over time.

1.3.2 National Experts Survey (NES)

The National Expert Survey (NES) provides information on the local environment faced by start-up entrepreneurs. Information is collected about the nine entrepreneurial framework conditions: financing for entrepreneurs, government policies, governmental programmes, entrepreneurial education and training, research and development transfer, commercial and professional infrastructure, internal market openness, physical and services infrastructure and social and cultural norms. These nine framework conditions are detailed below. GEM guidelines suggest that experts may be identified from the sources listed.

DASHBOARD OF GEM INDICATORS

This report features a detailed review of key entrepreneurship indicators, with each economy receiving a ranking for every indicator. Overall, this group of indicators may be viewed as a **dashboard** representing a comprehensive set of measures that collectively contribute toward the impact entrepreneurship has on a society and the extent society supports this activity. Highlighted in the report are the following measures:

Societal values and perceptions:

- **Good career choice**

  Percentage of the adult population between the ages of 18 and 64 years who believe that entrepreneurship is a good career choice.
- **High status to successful entrepreneurs**

  Percentage of the adult population between the ages of 18 and 64 years who believe that high status is afforded to successful entrepreneurs.
- **Media attention for entrepreneurship**

  Percentage of the adult population between the ages of 18 and 64 years who believe that there is a lot of positive media attention for entrepreneurship in their country.

Individual attributes of a potential entrepreneur:

- **Perceived opportunities**

  Percentage of the population between the ages of 18 and 64 years who see good opportunities to start a rm in the area where they live.
- **Perceived capabilities**

  Percentage of the population between the ages of 18 and 64 years who believe they have the required skills and knowledge to start a business.
- **Entrepreneurial intention**

  Percentage of the population aged 18 – 64 years (individuals involved in any stage of entrepreneurial activity excluded) who are latent entrepreneurs and who intend to start a business within three years.
- **Fear of failure rate**

  Percentage of the population aged 18 – 64 years perceiving good opportunities who indicate that fear of failure would prevent them from setting up a business.

Indicators that describes the life cycle of a venture:

- **Total Early-stage Entrepreneurial Activity – TEA**

  Percentage of the adult population between the ages of 18 and 64 years who are in the process of starting a business (a nascent entrepreneur) or owner-manager of a new business which is less than 42 months old. This indicator can additionally be enriched by providing information related to motivation (opportunity vs. necessity), inclusiveness (gender, age), impact (business growth in terms of expected job creation, innovation, internationalization) and industry (sectors).

- **Established business ownership rate**

  Percentage of the adult population between the ages of 18 and 64 years who are currently an owner-manager of an established business, i.e. owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than 42 months.

- **Business discontinuation rate**

  Percentage of the adult population aged between 18 and 64 years (who are either a nascent entrepreneur or an owner-manager of a new business) who have, in the past 12 months, discontinued a business, either by selling, shutting down, or otherwise discontinuing an owner/ management relationship with the business.

Two indicators that describes additional types of entrepreneurial activity:

- **Entrepreneurial Employee Activity – EEA**

  Percentage of the adult population aged between 18 and 64 years who as employees have been involved in entrepreneurial activities such as developing or launching new goods or services, or setting up a new business unit, a new establishment or subsidiary.

- **Social Entrepreneurial Activity – SEA**

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

Perceived quality of entrepreneurial ecosystem:

Average value of experts' perceptions, using a Likert scale of 1 (highly insufficient) to 9 (highly suf cient), for the nine entrepreneurial framework components:

1. Entrepreneurial nance
2. Government policy
3. Government entrepreneurship programs
4. Entrepreneurship education
5. R&D transfer
6. Commercial and legal infrastructure
7. Entry regulation
8. Physical infrastructure
9. Cultural and social norms

Financing for entrepreneurs: the availability of financial resources, equity, and debt, for new and growing firms, including grants and subsidies.

Sources:

- Banks and building societies
- Venture capital associations
- Associations of Business angels
- Informal investors
- Entrepreneurs
- Government agencies that provide funds for entrepreneurs

Government policies: the extent to which government policies, such as taxes or regulations, are either size-neutral or encourage new and growing firms.

Sources:

- Policy-makers
- Ministries
- Other relevant charges (secretaries, deputies)
- Public agencies
- Consultants
- Entrepreneurs
- Analysts

Government programmes: the presence and quality of direct programmes to assist new and growing firms, at all levels of government (national, regional, municipal).

Sources:

- Policy-makers
- Incubators
- Local development offices
- Commerce Chambers
- Business Associations
- Trade unions
- Public agencies

Entrepreneurial education and training: the extent to which training in creating or managing new, small or growing business entities is incorporated within the education and training system at all levels – primary and secondary school and post-school entrepreneurship education and training.

Sources:

- Schools
- Vocational schools
- Colleges
- Universities
- Business schools
- Professors

R&D transfer: the extent to which national research and development will lead to new commercial opportunities, and whether or not these are available for new, small and growing firms.

Sources:

- Technology and science parks
- Centres for Research
- Universities
- Incubators
- Accelerators
- Researchers
- Inventors

Commercial and professional Infrastructure: the presence of commercial, accounting and other legal services and institutions that allow or promote the emergence of small, new and growing business entities.

Sources:

- Consultants, advisors, managers
- Lawyers
- Accounting
- Entrepreneurs
- Incubators
- Commerce Chambers

Internal market openness: there are two sub-divisions – market dynamics, i.e. the extent to which markets change dramatically from year to year; and market openness, i.e. the extent to which new firms are free to enter existing markets.

Sources:

- Market analysts
- Consultants, advisors
- Brokers
- Researchers
- Specialist professors
- Specialist journalists

Physical and services infrastructure: ease of access to available physical resources – communication, utilities, transportation, land or space – at a price that does not discriminate against new, small or growing firms.

Sources:

- Water companies
- Electricity companies
- Phone companies
- Real estate for business
- Public offices in charge of roads, transportation and communications
- Entrepreneurs

Social and cultural norms: the extent to which existing social and cultural norms encourage, or do not discourage, individual actions that might lead to new ways of conducting business or economic activities, which might, in turn, lead to greater dispersion in personal wealth and income.

Sources:

- Sociologists
- Psychologists
- Social researchers
- Women's institutes and associations
- Young entrepreneurs' associations
- Policy-makers
- Specialist journalists

that must be met when selecting experts, to construct a balanced and representative sample.

At least four experts from each of the entrepreneurial framework condition categories must be interviewed, making a minimum total of 36 experts per country.

A minimum of 25% must be entrepreneurs or business people, and 50% must be professionals.

Additional aspects such as geographical distribution, gender, involvement in the public versus private sector, and level of experience should also be taken into account when balancing the sample. NES data is collected by interviewing experts identified by the local team.

GEM researchers are encouraged to source information from the following when identifying possible experts to survey:

- Social networks
- Phone directories
- Professional directories
- Personal contacts
- Professional relationships
- Governmental agencies
- Local agencies
- Chambers of commerce
- Research institutes
- Consulting firms
- Internet

Interviews were offered in a face-to-face, telephonic or electronic format. Experts were nominated for their depth of experience, seniority within organisations, areas of specialisation and affiliation. In some instances, the head of an institution referred us to individuals they considered best positioned to provide the insights we sought. A number of the respondents are engaged in full-time entrepreneurial ventures, while a number of others indicated that they were involved in small business ventures in addition to their primary job.

2 ADULT POPULATION SURVEY (APS)

2.1. Introduction

In 2015 the GEM report on Bulgaria gave account for the very first time of the societal attitudes and perceptions that shape entrepreneurial culture. The picture that emerged reflected low levels of total entrepreneurial activity and an entrepreneurial environment that was characterised by two separate dynamics, one that was innovation and internationalisation-driven and another that struggled with the local context in which only a few opportunities were perceived as profitable. The division that characterises the entrepreneurial environment in Bulgaria is by no means an exception from the key global trends identified by the World Economic Forum' Global Competitiveness index report 2017 report. There, the rising income and wealth disparities materialise in unemployment and underemployment and co-exist with other fundamental risks such as profound social instability and failure of regional, national and global governance. Bulgaria has to deal with its share of risks that accrue from these global trends and the country's specificities regarding entrepreneurial dynamics and context are described in the following pages.

2.2. The entrepreneurial pipeline

As this is only the second annual GEM report for Bulgaria, the results are presented for the previous year to evaluate the changes in the indicators and also in comparison with the benchmark groups adopted in the first report to enhance the interpretability of the results. Because the entrepreneurship process is contingent on local cultural, social, institutional, historical and economic factors, choosing a single benchmark would have limited the learning value of this study.

We use three groups of countries to maximise the interpretability and practical usefulness for decision-makers interested in this study. **Benchmark** group 1 (G1) consists of Turkey and Greece, two neighbouring countries that participated in the GEM study in 2016 (Romania which was in benchmark Group 1 in GEM Bulgaria report 2015/16 report did not take part in 2016). Benchmark group 2 (G2) contains Poland and Estonia, two EU member countries with an ambition to create conditions for bubbling entrepreneurial processes. Benchmark group 3 (G3) consists of Ireland, Israel, the United Kingdom and Canada, countries that have managed to build strong entrepreneurship cultures and that are given as examples of best practices regarding the entrepreneurship process.

Within the GEM framework, entrepreneurial attitudes, intentions and activities are all elements of the national entrepreneurial environment. The entrepreneurial process is understood as complex phenomenon shaped by multiple cultural, social and economic conditions. Therefore, the collective view about entrepreneurship as an activity requires a wider context in which the entrepreneurship endeavour takes place. Within the GEM framework, these factors are captured by measuring the shared view about the social status of the entrepreneurs; how desirable entrepreneurship is as a career choice; and the perceived media attention for entrepreneurship.

#BENCHMARK

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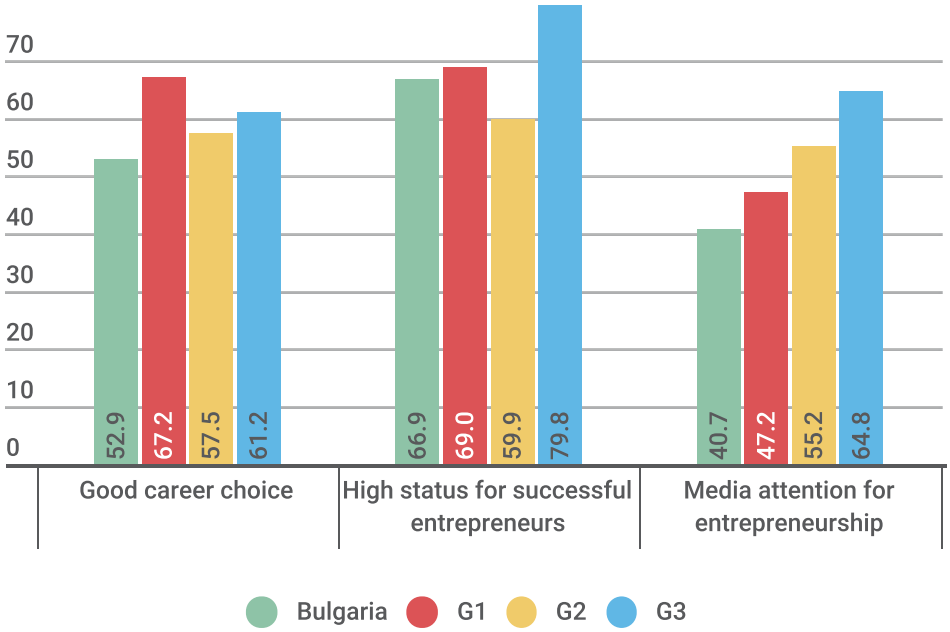
G1 - Turkey and Greece
G2 - Poland and Estonia
G3 - Ireland, UK, Israel and Canada

2.2.1 Attitudes and potential entrepreneurs

Figure 2.1 shows that in 2016, only 52.9% of Bulgarian adults regarded entrepreneurship as a good career choice, compared to 57.5% a year earlier. 66.9 (71.5% in 2015) agreed that in the country, successful entrepreneurs enjoy high status and 40.7% (49.3% in 2015) perceived that entrepreneurship receives regular media attention. There was a marked decrease in all three variables that capture the broad societal attitudes to entrepreneurship. In the case of media attention for entrepreneurship, the decrease is by almost nine percentage points. Out of the three variables meant to capture societal attitudes towards entrepreneurship, media attention again appears to have the smallest role in shaping the general environment in which the entrepreneurship endeavours take place. The media influence in a limited way the views of entrepreneurship as a good career choice and the perceived high status of successful entrepreneurs, and it seems that media has lost rather abruptly its previous interest in featuring entrepreneurship. The real danger here is that entrepreneurship might have fallen even further in the national agenda and that this early sign might be indicative of a weakening support and acceptance of entrepreneurship as the engine for the productivity leap that the Bulgarian economy needs to make in order to breach the gap in competitiveness compared to the high-income countries.

Figure 2.1 Societal entrepreneurship attitudes (in %) in Bulgaria, 2016



Source: GEM Adult Population Survey individual level data, 2016

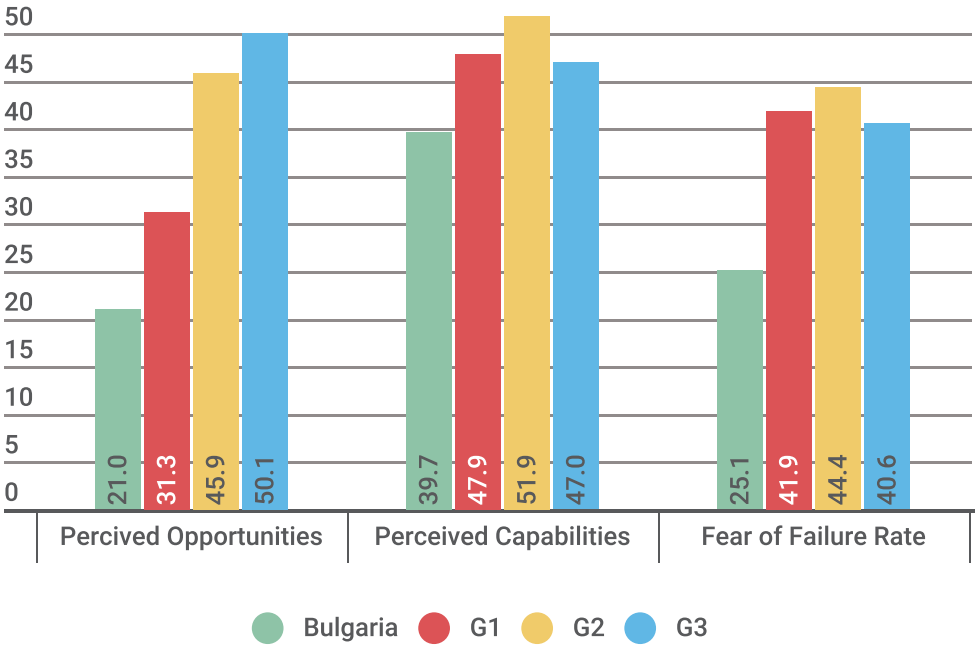
Read as: 52.9% of Bulgarian adults in 2016 regarded entrepreneurship as a good career choice.

GEM considers those who perceive good opportunities for starting a business and who also believe they have the required skills, as the potential entrepreneurs in the society. It is important to note that, at this stage of the entrepreneurial pipeline, they have not yet decided whether they will pursue the opportunity or not.

While the broader cultural context influences entrepreneurial intentions to a degree, the individual perception of entrepreneurial opportunities, capabilities and fear of failure provide a much better idea about the factors that shape entrepreneurial intentions.

Figure 2.2 shows that in 2016 only 21.0% (15.8% in 2015) of the adult population in Bulgaria perceived good opportunities to start a business in the area where they lived. This result is significantly lower than the corresponding figure for Turkey and Greece (G1), and much lower than the measure of perceived opportunities in the other two benchmark groups. Similarly, the perceived preparedness for starting a business in Bulgaria is low but improving. Only 39.7% (35% in 2015) of the population reports having capabilities to embark on this endeavour. Partially, this result can be attached to the personal fear of failure, but it is important to note that the rates of reported fear of failure are on a par with the average rates for efficiency-driven societies. However, still low perceived capabilities and opportunities for entrepreneurship fit better with the pattern of innovation-driven societies, which also report higher rates of fear of failure. In Bulgaria, as in all factor-driven and efficiency-driven economies, the level of capabilities is markedly greater than the level of opportunities. This finding is consistent with explanations related to the ease of market entry and the development of markets in general, but it may also reveal a systemic overestimation of one's skills and knowledge. In 2016 in Bulgaria, both the perception of opportunities and capabilities increased by the same degree. There is a very well established relationship between entrepreneurial intentions and perceived capabilities to start a business, and therefore the increase in the perceived capabilities to start a business can be seen as an early signal for increasing entrepreneurial intentions reported in **Figure 2.3** below. Moreover, these results are remarkable given the decrease in the positive social attitudes towards entrepreneurship reported in **Figure 2.1**.

Figure 2.2 Perceptions (in %) about entrepreneurship in the adult population of Bulgaria, 2016



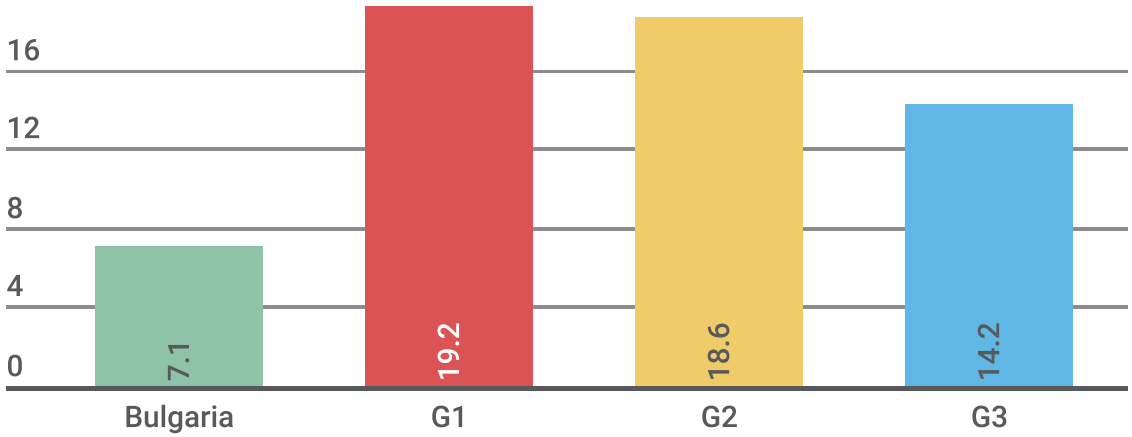
Source: GEM Adults Population Survey 2016, individual level data

Read as: 39.7% of Bulgarian adults in 2016 perceived to have the necessary capabilities for entrepreneurship.

2.2.2 Entrepreneurial intentions

Figure 2.3 contains the direct measurement of entrepreneurial intentions. For Bulgaria, the number of potential entrepreneurs is extremely low (5.3% in 2015) not only compared to the three benchmark groups but also globally. While there are countries with low level of entrepreneurial intentions, most of them are innovation-driven. In fact, the average level of entrepreneurial intentions for innovation-driven economies as a group in 2016 is 15%, and it is significantly lower than the number for factor-driven economies (30%) and efficiency-driven economies (26%). Arguably, both the relatively low perceived opportunities and weak individual capabilities (these include both skills and self-confidence) explain the result in the case of Bulgaria, but it is clear that the stronger explanation relates to deficiencies in the business environment as respondents see few profitable business opportunities. While the numbers remain small compared to the benchmark groups, there is evidence to believe that certain improvements in the entrepreneurial environment have happened. Yet, more regulatory and policy changes need to take place to create a supportive entrepreneurial ecosystem. However, the role of the media in this and also in shaping expectations cannot be overlooked In the case of Bulgaria, it has not been fully aligned with the goal of supporting a national entrepreneurial culture, and the data indicated the media had de-emphasized entrepreneurship in between 2015 and 2016. Besides, an outdated educational system that has been undergoing continuous reforms and revisions does not help develop the necessary skill sets or the self-confidence needed to stimulate entrepreneurship. Recent reforms will surely require more time to make a measurable difference. An educational system that includes more hands-on learning and competent instruction on entrepreneurship topics would address these weaknesses and become instrumental in generating a national culture of entrepreneurship.

Figure 2.3 Entrepreneurial intentions (in %)in Bulgaria, 2016



Source: GEM Adults Population Survey 2016, individual level data

Read as: 7.1% of Bulgarian adults in 2016 had entrepreneurial intentions.

2.2.3 Early-stage entrepreneurial activity

The early-stage entrepreneurial activity follows the entrepreneurial intentions stage. The entrepreneurial activities are presented by using the organisational life cycle approach (nascent, new businesses, established businesses and discontinuation).

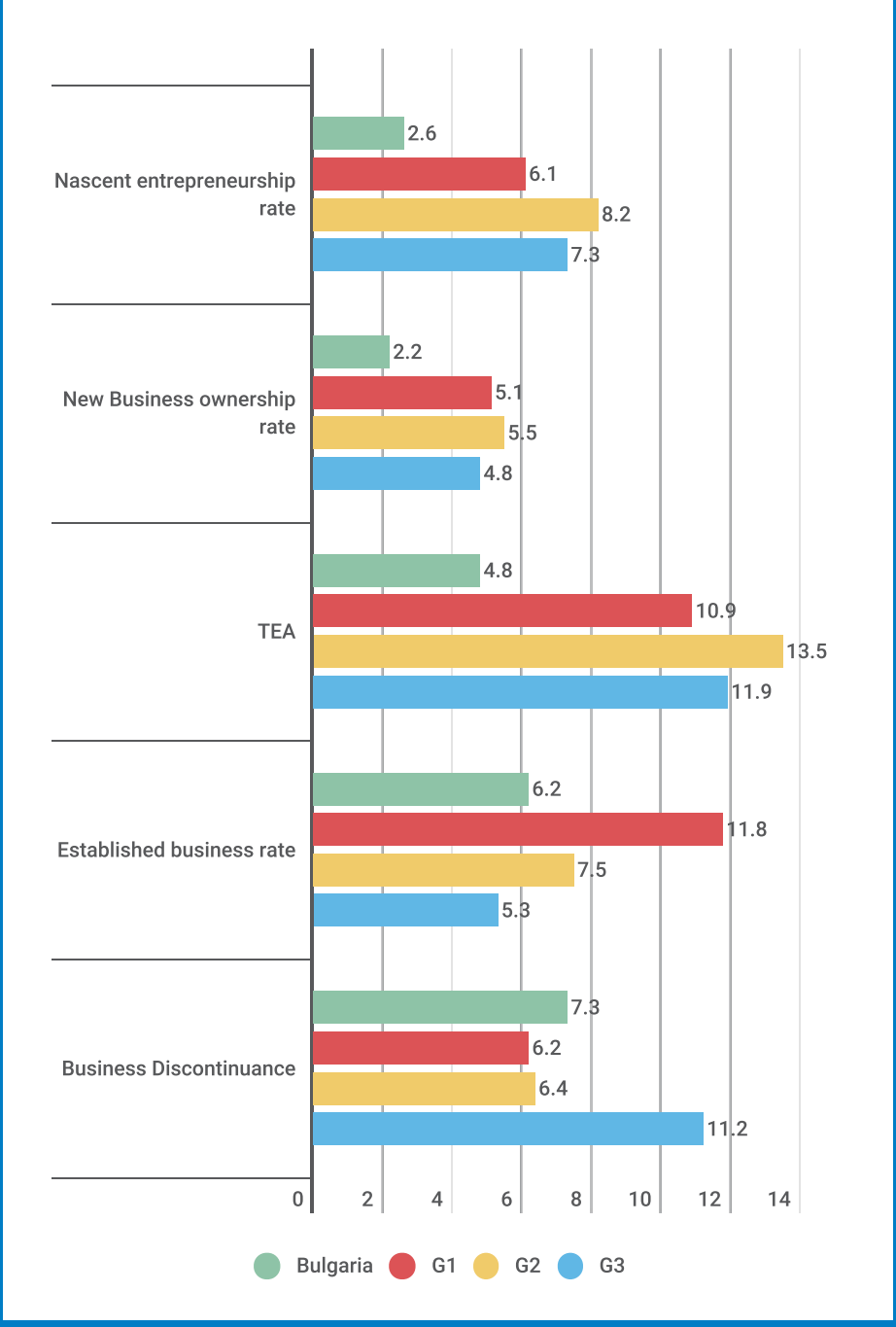
The key indicator of GEM is the Total Early-stage Entrepreneurial Activity (TEA) rate, which measures the percentage of the adult population (18 to 64 years) who are in the process of starting or who have just started a business. This indicator combines individuals who are engaged in either of the two initial phases of the entrepreneurial process:

- **nascent entrepreneurs** – those who have committed resources to starting a business, but have not paid salaries or wages for more than three months, and
- **new business owners** – those who have moved beyond the nascent stage and have paid salaries or wages for more than three months but less than 42 months.

The measurement of the total early-stage entrepreneurial activity is important because it is new businesses that will later become established and therefore TEA represents the potential of the group of established businesses, defined as those that have paid salaries for more than 42 months.

Figure 2.4 contains the data about the early-stage entrepreneurial activity in Bulgaria. TEA rates tend to be highest in the factor-driven group, decreasing with higher levels of economic development. In fact, the average TEA rate in the factor-driven economies is more than 8 percentage points higher than that of the innovation-driven economies (GEM Global Report 2016-2017). For example, the average TEA in 2016 for the factor-driven, efficiency-driven and innovation-driven countries was 29.2%, 25.1% and 20.9%, respectively. In 2016, the TEA rate for Bulgaria was 4.8% (3.5% in 2015), comprised of 2.6% of the adult population engaged in nascent entrepreneurial endeavours and 2.2% who were new business owners. By all standards, these numbers are among the lowest in the world. They are also consistent with the very low rate of established business ownership, which accounts for 6.2% of the adult population and tends to be close to the rate of innovation-driven economies (6.7%) and further from the factor- (8.6%) and efficiency-driven rate averages (11.2%). One interpretation is that despite the very low rate of early-stage entrepreneurship in Bulgaria, a relatively high percentage of these manage to survive long enough and become established businesses.

Figure 2.4 Prevalence rates (in %) of entrepreneurial activity among the adult population in Bulgaria, 2016



Source: GEM Adult Population Survey 2016, individual level data

Read as 2.6% of entrepreneurs in 2016 were engaged in nascent entrepreneurship.

To put these indicators into a global perspective, **Figure 2.5** presents the comparison with all countries participating in GEM 2016 data collection process. The table features several stages of the entrepreneurial process, and several observations need to be made. First, among economies at the same development level, there are great within-group variations in the TEA rate, especially in the factor-driven and efficiency-driven groups. These variations are attributed to cultural specificities, regulatory systems and other aspects of the entrepreneurial ecosystem. Europe has the lowest regional TEA rates while Africa, Latin America and the Caribbean have the highest TEA rates.

Previous exploratory analyses of GEM data have established that TEA rates tend to be higher in countries with lower GDP per capita. In economies with higher levels of GDP, employment is less reliant on early-stage entrepreneurial activity such as small enterprise creation. Therefore, the relative importance of necessity-driven and opportunity-driven entrepreneurial activity is essential for understanding the nature of the entrepreneurial process in any country.

Table 2.1 Entrepreneurial activity by phase (in%) in GEM economies in 2016, by geographical region.

REGION	Country	Nascent entrepreneurship rate	New business ownership rate	Early-stage entrepreneurial activity (TEA)	Employee Entrepreneurial Activity	Established business ownership rate	Discontinuation of businesses (% of TEA)
Africa	Burkina Faso	21.2	13.5	33.5	0.6	28.0	9.4
	Cameroon	17.8	10.9	27.6	1.2	15.2	14.9
	Egypt	8.2	6.6	14.3	2.0	6.1	17.4
	Morocco	1.3	4.3	5.6	0.5	7.5	12.0
	South Africa	3.9	3.3	6.9	0.7	2.5	10.0
	Total	**10.5**	**7.7**	**17.6**	**1.0**	**11.9**	**12.7**
Asia & Oceania	Australia	8.8	6.2	14.6	9.0	11.3	4.4
	China	4.5	6.1	10.3	1.2	7.5	6.4
	Georgia	4.6	4.3	8.6	0.5	8.6	11.1
	Hong Kong	5.0	4.7	9.4	4.1	6.1	5.0
	India	3.9	6.8	10.6	2.5	4.6	26.4
	Indonesia	3.9	10.4	14.1	0.7	15.3	2.9
	Iran	6.9	6.2	12.8	1.2	11.6	13.3
	Israel	7.0	4.5	11.3	7.3	4.0	11.9
	Jordan	4.1	4.6	8.2	1.5	2.7	21.2
	Kazakhstan	6.9	3.4	10.2	0.7	2.4	3.4
	Korea	3.7	3.0	6.7	2.3	6.6	8.2
	Lebanon	9.5	12.1	21.2	2.6	20.1	9.2
	Malaysia	2.0	2.8	4.7	0.3	4.7	14.6
	Qatar	4.3	3.6	7.8	6.4	3.0	14.0
	Saudi Arabia	3.7	7.7	11.4	4.7	2.3	13.6
	Taiwan	3.6	4.7	8.2	5.7	7.7	10.9
	Thailand	5.2	12.6	17.2	1.0	27.5	6.9
	Turkey	8.9	7.6	16.1	3.6	9.4	9.5
	United Arab Emirate	1.3	4.4	5.7	2.2	1.9	20.7
	Total	**5.1**	**6.1**	**11.0**	**3.0**	**8.3**	**11.2**
Latin America & Caribbean	Argentina	8.9	5.7	14.5	3.1	7.9	10.0
	Belize	18.7	10.7	28.8	8.0	5.3	18.8
	Brazil	6.2	14.0	19.6	1.5	16.9	5.6
	Chile	15.6	9.3	24.2	5.4	8.0	10.1
	Colombia	16.3	11.3	27.4	1.2	8.9	8.9
	Ecuador	22.4	11.0	31.8	0.7	14.3	11.8
	El Salvador	8.0	6.7	14.3	1.0	11.5	11.3
	Guatemala	12.2	8.6	20.1	1.7	9.1	6.3
	Jamaica	4.1	5.8	9.9	0.7	8.2	9.0
	Mexico	6.1	3.6	9.6	4.8	7.5	5.9
	Panama	8.6	4.7	13.2	0.2	4.4	7.1
	Peru	19.9	5.7	25.1	0.8	6.1	8.3
	Puerto Rico	8.5	2.0	10.3	1.8	1.6	7.4
	Uruguay	10.1	4.2	14.1	2.6	7.4	14.6
	Total	**11.8**	**7.4**	**18.8**	**2.4**	**8.4**	**9.6**

Source: Herrington M., Kew P., GEM Global report 2016/17, p 99-101

REGION	Country	Nascent entrepreneurship rate	New business ownership rate	Early-stage entrepreneurial activity (TEA)	Employee Entrepreneurial Activity	Established business ownership rate	Discontinuation of businesses (% of TEA)
Europe	Austria	6.0	3.7	9.6	7.3	8.8	11.3
	Bulgaria	2.6	2.2	4.8	0.9	6.2	7.3
	Croatia	6.1	2.5	8.4	5.3	4.2	4.1
	Cyprus	7.6	4.5	12.0	5.6	8.2	4.7
	Estonia	11.7	4.8	16.2	6.3	7.8	8.8
	Finland	4.3	2.7	6.7	5.6	7.3	2.9
	France	3.1	2.3	5.3	3.6	4.3	8.5
	Germany	2.9	1.7	4.6	5.1	7.0	4.7
	Greece	3.2	2.6	5.7	1.4	14.1	2.8
	Hungary	4.8	3.2	7.9	3.0	5.5	3.4
	Ireland	7.0	4.4	10.9	6.2	4.4	10.1
	Italy	2.3	2.2	4.4	2.1	5.2	4.4
	Latvia	9.7	4.9	14.2	4.5	9.5	7.2
	Luxembourg	6.4	2.9	9.2	7.2	3.2	12.3
	Macedonia	3.4	3.1	6.5	1.4	7.2	6.4
	Netherlands	5.7	5.4	11.0	7.6	10.2	7.5
	Poland	4.6	6.1	10.7	5.2	7.1	9.8
	Portugal	4.7	3.7	8.2	2.4	7.1	4.0
	Russia	3.2	3.0	6.3	0.7	5.3	6.7
	Slovakia	6.4	3.2	9.5	2.2	6.1	12.2
	Slovenia	5.1	3.1	8.0	4.7	6.7	5.0
	Spain	2.3	2.9	5.2	2.7	6.2	4.4
	Sweden	5.8	1.8	7.6	6.1	4.5	10.2
	Switzerland	5.1	3.2	8.2	6.1	11.1	4.4
	United Kingdom	5.2	3.7	8.8	7.0	6.1	6.3
	Total	**5.2**	**3.4**	**8.4**	**4.4**	**6.9**	**6.8**
North America	Canada	10.0	6.9	16.7	5.9	6.8	16.3
	USA	8.9	4.0	12.6	7.0	9.2	7.7
	Total	**9.5**	**5.5**	**14.7**	**6.5**	**8.0**	**12.0**

Necessity-based early-stage entrepreneurship activity is defined as the percentage of those involved in an early-stage entrepreneurial activity who claim to be driven by necessity as opposed to opportunity.

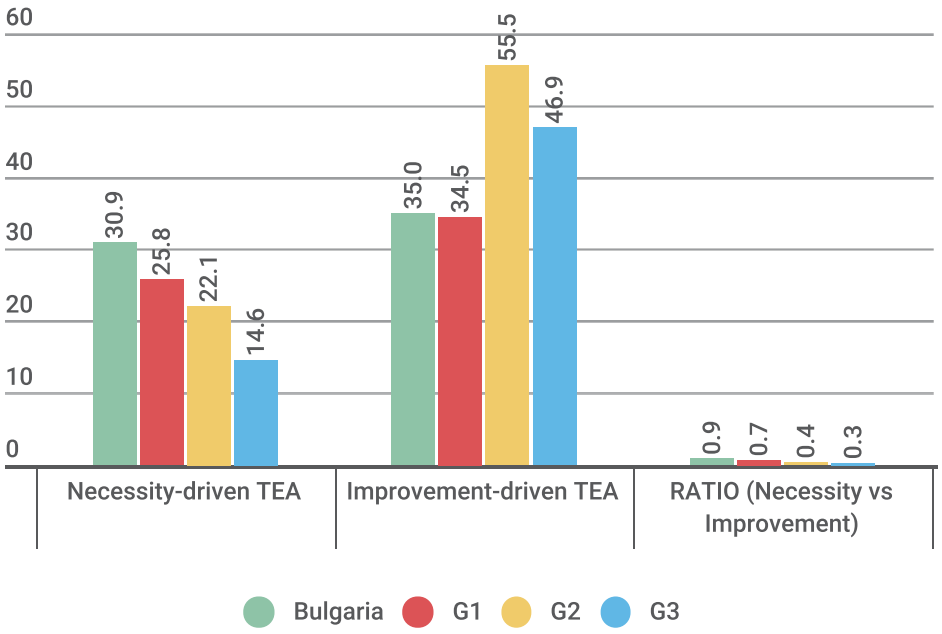
Opportunity-based early-stage entrepreneurial activity is the proportion of those involved in early-stage entrepreneurial activity driven entirely or partially by opportunity as opposed to finding no other option for work. This group includes both taking advantage of a business opportunity and having a job but looking for a better opportunity.

The GEM Global Report 2016/17 establishes that most entrepreneurs around the world are opportunity-motivated (p. 22) and that their businesses are much more likely to survive and generate employment than those created by necessity-driven entrepreneurs. In innovation-driven economies, opportunity-motivated entrepreneurs are 79% of all early-stage entrepreneurs, and this proportion remains very high (66% and 71%, respectively) even in factor- and efficiency-driven economies.

As featured in the GEM Global Report 2016/17, among entrepreneurs with opportunity-driven motives, a portion of these seek to improve their situation, either through increased independence or through increased income (versus maintaining their income). GEM calls these entrepreneurs "improvement-driven opportunity entrepreneurs" (IDO). To assess the relative prevalence of improvement-driven opportunity (IDO) entrepreneurs, GEM created the Motivational Index. This Motivational Index in 2016 shows that in factor-driven economies there are on average 1.2 times as many IDO entrepreneurs as necessity-driven. In efficiency-driven economies, the proportion is higher - 2.3 times, while in innovation-driven economies the share of IDO entrepreneurs is the highest at 3.9.

In Bulgaria, necessity-driven TEA was slightly less than a third of all entrepreneurship in the country, relatively high when compared to the benchmark groups of countries. It showed a slight decrease compared to 2015 data. Furthermore, improvement-driven TEA was only 35%, but this was six percentage points higher than the rate of improvement-driven TEA in 2015. Despite the positive dynamics since 2015, namely a decrease in necessity-driven TEA and an increase in improvement-driven TEA, Bulgaria stands out against the benchmark groups as it has significantly more necessity-driven than improvement-driven TEA. Bulgaria's Motivational Index of 1.1 is three times lower than the average Motivation Index of all European countries that participated in the GEM Global Report 2016/17 (3.4).

Figure 2.6 Improvement- and Necessity-driven TEA rates (in%) among the adult population in Bulgaria, 2016



Source: GEM Adult Population Survey 2016, individual level data

Read as: 30.9% of TEA activity in 2016 was necessity-driven.

2.2.4 Established businesses

Information on the established businesses allows assessing the sustainability of the entrepreneurial endeavours in the economy. As these businesses have successfully moved beyond the nascent and the new business phases, they can change the landscape of competitiveness and contribute to the economy through proving a stable base for employment and continuous efforts in innovation. On a global scale, established business ownership is the highest among the factor-driven economies, but relative to their high TEA rates, there are proportionately few businesses that make it to the mature business stage.

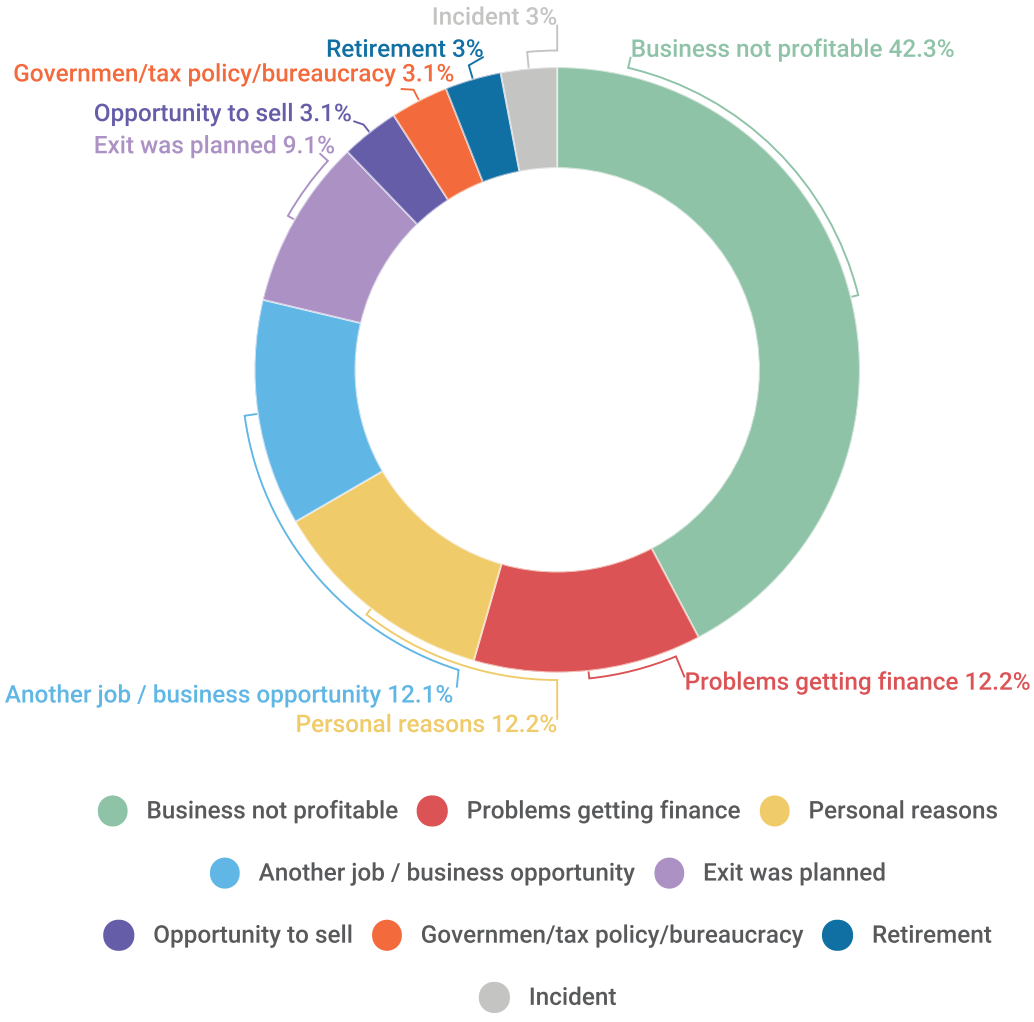
In Bulgaria, 6.2% of the adult population are established business owners. Compared to the three benchmark groups, Bulgaria has a lower rate of business ownership than benchmark groups G1 and G2, while it also has a very low TEA rate. The balance of low TEA rate and low established business ownership rate implies a relatively higher longevity of the entrepreneurial ventures and a successful transition of a larger share of these to a mature phase. It also indicates though that there is a relatively small pool of entrepreneurs to draw from. This fact shows that in Bulgaria there is still a significant constraint for accelerated economic activity driven by entrepreneurship, despite the slight improvement in the established business ownership rate compared to 2015. The roots behind the persistently low rate of both TEA and business ownership are multiple and have to do with the stage of development of the efficiency enhancers, that is the drivers of competitiveness of all efficiency-driven economies: higher education and training; goods, labour and financial market development, technological readiness and market size.

2.2.5 Business discontinuance

Bulgaria has a rate of business discontinuance in 2016 of 7.3, which contrasts sharply with 2.0% business discontinuance rate in 2015. This increase is accompanied by an increase in the TEA rate, and at least partially it reflects increased entrepreneurial experimentation in the economy. Environmental factors such as a complicated regulatory system that increases the bureaucracy of starting and exiting businesses may produce barriers to entry, as well as barriers to exit, reducing people's willingness to venture into starting a business. This scenario, however, is not the case in Bulgaria, where entry costs are rather low but corruption and capture by interest groups remain the most common deterrents according to national experts' survey conducted by GEM (see Chapter 3).

In Bulgaria, while people are not willing to engage in new business creation, the society is missing out on the potential benefits that this activity can generate, both directly and indirectly. The entrepreneurial endeavour is very complex and characterised by many risks, but it is enormously beneficial for the economy. Therefore, it is important to analyse the reasons behind the business exit. **Figure 2.7** summarises the reported reasons for a business exit in Bulgaria in 2016. The most common reason for business exit is the lack of profitability. In Bulgaria, this factor explains 42.0% of all exits, while across economies at all development stages this factor ranges between 33.1% in innovation-driven economies and 38.2% in efficiency-driven economies. Problems getting finance in Bulgaria are important in 2016, more so than in most factor- and efficiency-driven economies, suggesting the reduced availability of entrepreneurial capital relative to others. While it is important to recognise that the relatively high cost of some factors of production (e.g. capital) might explain some of the reported lack of business profitability, the low business sophistication of Bulgarian entrepreneurs explains the remaining share of this driver of business exit. Personal reasons for taking the exit decision remained significant. Planned exit makes for the first time a significant entry into the list of exit reasons. These occurrences can be seen as a first early signal for the birth of a new breed of serial entrepreneurs in the country.

Figure 2.7 Reasons for business exit (in %) in Bulgaria, 2016



Source: GEM Adult Population Survey 2016, individual level data

Read as: 3.1% of early-stage entrepreneurs in 2016 exited their business because of an opportunity to sell.

2.2.6 Entrepreneurial employee activity (EEA)

The Entrepreneurial Employee Activity (EEA) measure reflects the development of new activities for an individual's primary employer, such as developing or launching new goods or services or setting up a new business unit, a new establishment or subsidiary.

As in most factor- and efficiency-driven economies, EEA is negligible in Bulgaria. It is clear that entrepreneurial behaviour does not have a place within existing organisations in Bulgaria which reports an EEA of 0.9%, comparable to the average EEA for Africa which stands at 1%. While from an employee perspective, conducting entrepreneurial activities from within the safety of a larger organisation may represent a more attractive option than venturing into a start-up, in Bulgaria such an option is not available, as organisations and their leadership teams seem not be particularly supportive of entrepreneurial culture and efforts. Again, the entrepreneurial and business culture and accompanying skill sets across the business ventures in Bulgarian need a significant upgrade. The lack of adequate managerial abilities must be recognised as a deterrent to improving the economy-wide productivity to the extent that government regulations and macroeconomic stability are seen as factors for improving the well-being of the Bulgarian society.

2.3 Profile of entrepreneurs

GEM's focus on individual-level activity provides an opportunity to draw the profile of the Bulgarian entrepreneur using a range of demographic and other characteristics of entrepreneurs. The data also allows to assess the degree of inclusiveness in an economy, that is, the extent to which various groups (age, gender, ethnicity or education level) engage in entrepreneurial activity and their motivations. This analysis can assist policymakers in stimulating more inclusive participation in the economy by various groups and in crafting policies that are geared towards the specific pain points of the different societal groups, as entrepreneurship itself is set to change the social texture of a country.

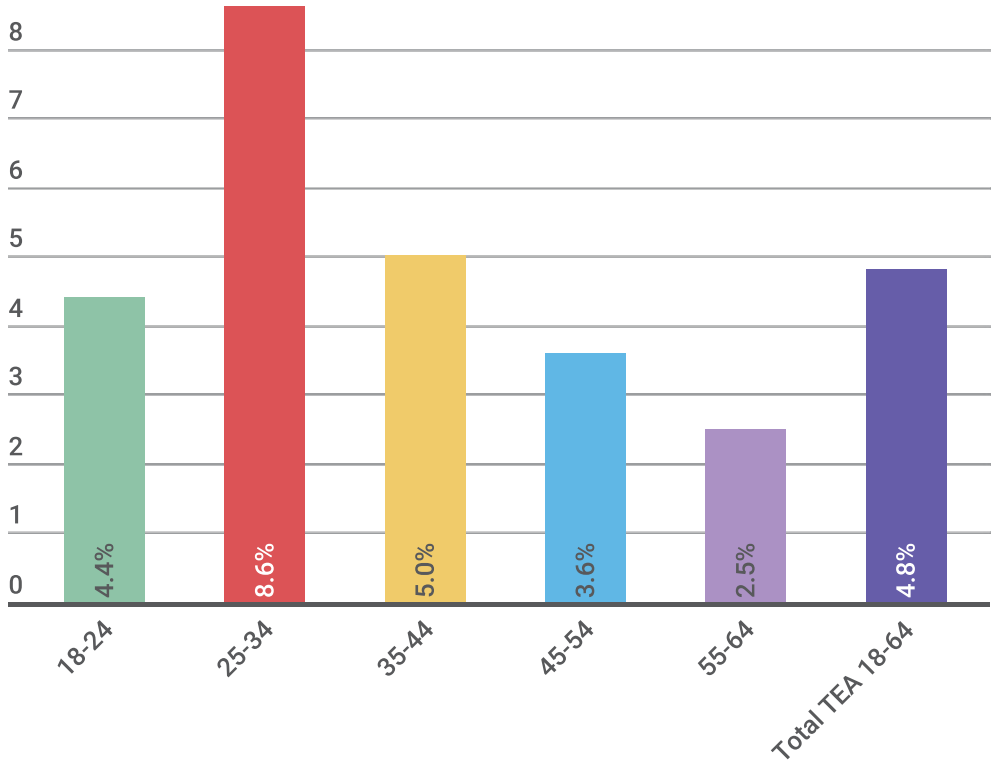
2.3.1 Age distribution

The influence of age on entrepreneurship appears to be very similar across countries. At a global scale, the highest participation rates are among the 25–34 and 35–44-year-olds, people in their early and mid-careers. According to the GEM Annual Report 2015/16, this reveals the ambition of young people, particularly those who have accumulated some experience, networks and other resources that could be of value in starting a business. The pattern is also present in Bulgaria. The most entrepreneurially active group is the 35-44-year-olds, and the group of 18-24-year-olds shows a participation rate almost as high as the 35-44-year-olds (see **Figure 2.8**). The group of 45-54-year-olds is nearly as

entrepreneurially active as the group of 18-24-year-olds. This pattern is common among factor-driven economies. It probably indicates a need to generate income among this older population. In contrast, sources of income such as household savings, pensions or else may explain the steeper drop in the participation of older age groups in the efficiency-driven and innovation-driven economies, where these groups are backed by a better-targeted and more effective safety net.

Again, the relatively high participation rate among the 18-25-year-olds is worth noting. Young entrepreneurs have some significant strengths including the low opportunity cost of time and stimulating entrepreneurship among them might be particularly effective, especially if their entrepreneurial endeavours are compatible with the process of pursuing an educational degree. Notably, providing conditions for entrepreneurial opportunities for the youth has the potential to decrease the rate of youth emigration and even become one of the key factors to stimulate returnees.

Figure 2.8 TEA rates by age group in Bulgaria, 2016



Source: GEM Adult Population Survey 2016, individual level data

Read as: 4.4% of 18-24-year-olds in 2016 were engaged in an early-stage entrepreneurial activity.

2.3.2 Gender and population group

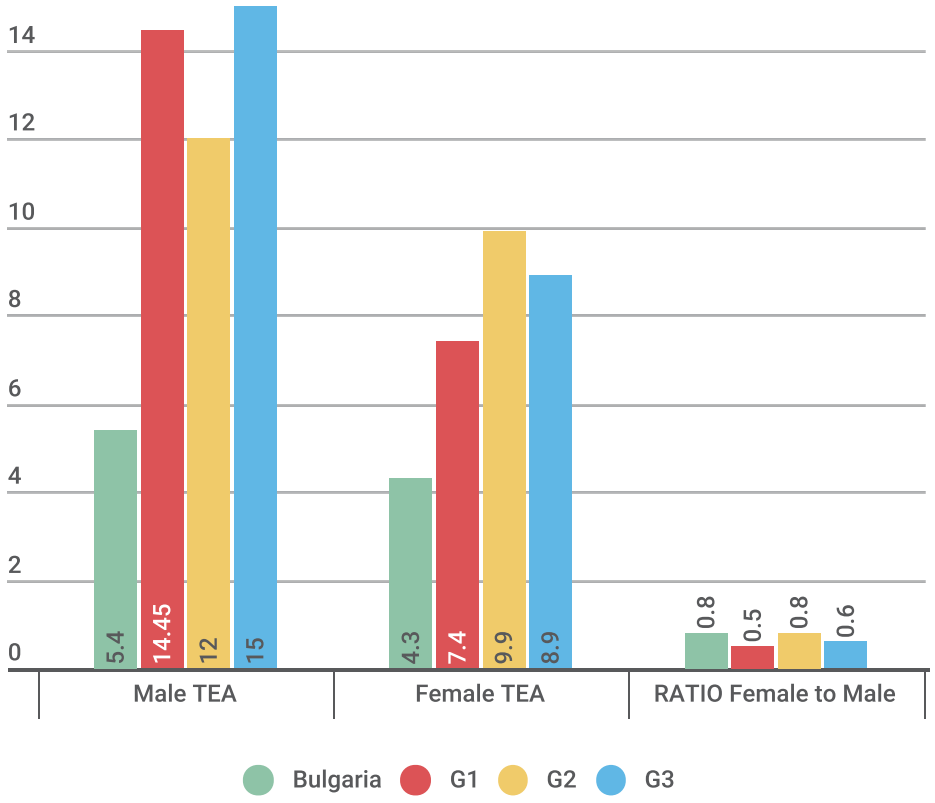
As in the previous years, according to the GEM Annual Report 2015/16 women were less likely to engage in entrepreneurship than men, but when they did. Many studies maintain that women face greater difficulties in becoming entrepreneurial for a variety of reasons:

- higher levels of domestic responsibility,
- lower levels of education,
- lack of female role models,
- access to fewer business-oriented networks in their communities,
- lack of capital and assets,
- culturally-induced lack of assertiveness, and
- lower confidence in their ability to succeed in business.

These factors may prevent women from perceiving, as well as acting, on entrepreneurial opportunities. Nevertheless, there are regions in the world where women show equal or higher entrepreneurial rates than male. In the GEM Global Report 2016/17 Indonesia, Brazil and Malaysia are the three economies that exhibit this pattern. Still, narrowing the gender gap in entrepreneurship is declared as a priority by decision makers in most countries.

Some of the factors that play a role on a global scale are present in Bulgaria as well. Bulgaria's male TEA is one percentage point above the female TEA, both of which are remarkably low (see **Figure 2.9**). The ratio of female to male TEA is somewhat higher for Bulgaria compared to some of the benchmark countries indicating more gender equality regarding early-stage entrepreneurial endeavours. Moreover, unlike the commonly held view based on previous global GEM research (GEM Global Report 2016/17, p. 28), in Bulgaria, the share of necessity-motivated female entrepreneurship is very similar to the male equivalent (see **Figure 2.10** below).

Figure 2.9 TEA rates by gender in Bulgaria in 2016



Source: GEM Adult Population Survey 2016, individual level data

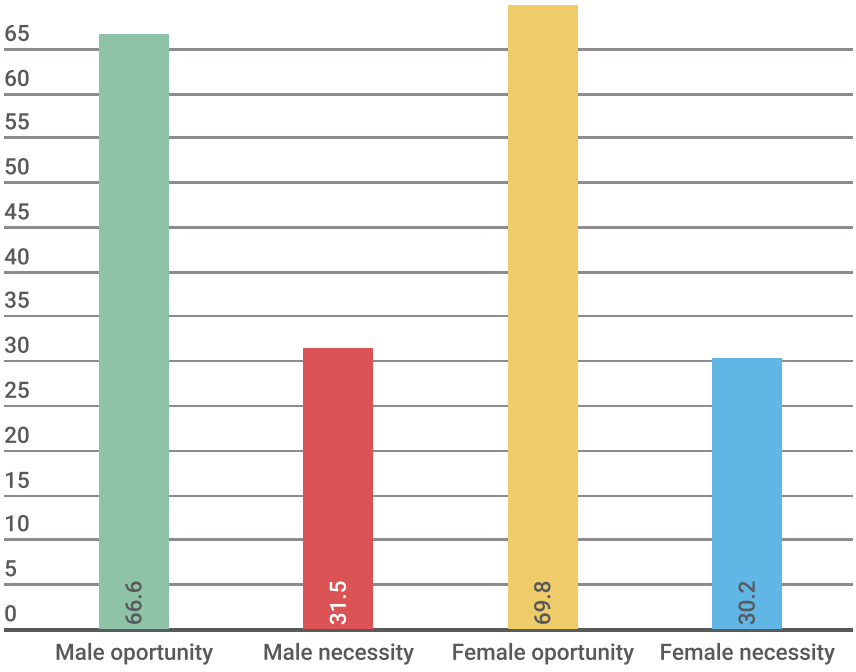
Read as: 5.4% of the adult male population in 2016 were engaged in TEA activity.

In Bulgaria, opportunity-motivated female entrepreneurship is slightly higher than opportunity-motivated male entrepreneurship (see **Figure 2.10**). The egalitarian participation of women in the early-stage entrepreneurial activities guarantees that the Bulgarian economy already reaps the benefits of high female labour force participation. While an improvement in the overall TEA will stimulate economic development, gender inequality in early-stage entrepreneurial ventures is not an issue in Bulgaria's case.

In Bulgaria, there is no evidence for a gender gap regarding entrepreneurship. This must have a positive impact on the overall economic environment because economies with high female labour force participation are more resilient as they experience economic growth slowdowns less often. In addition, in countries where household income derives primarily from the paid work of more than one household member, especially when they work in different sectors, the risk that the household will lose all its income as a consequence of a negative macroeconomic shock is palliated.

Figure 2.11 contains information about the ethnicity of the early-stage entrepreneurs in Bulgaria. Of all opportunity-motivated early-stage endeavours, almost 87.9% are undertaken by entrepreneurs who identify their ethnicity as Bulgarian. This share is 83.3% of necessity-driven and 87.9% of opportunity-driven early-stage entrepreneurship. The share of entrepreneurs out of necessity who identify themselves as Bulgarians of Turkish origin increases to 10% from 6.1% in the case of opportunity-motivated business ventures. Notably, although it is minimal, the most early-stage entrepreneurial effort among those who identify themselves as Roma is opportunity-driven. The relative participation of Bulgarians and Bulgarians of Turkish origin go hand in hand with the relative size of these ethnic groups in the Bulgarian society. Thus, as the Roma group represents almost 5% of the Bulgarian population, their participation in the early-stage entrepreneurial activity is more or less at par at 4.12%.

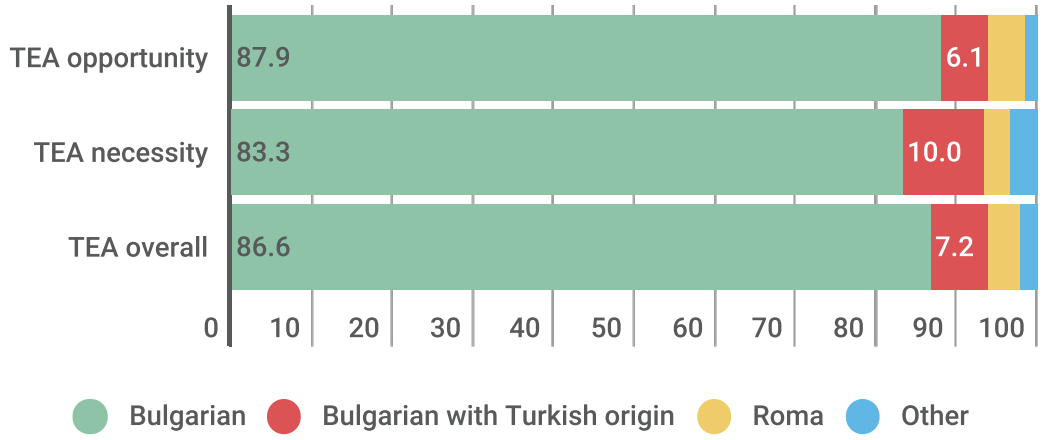
Figure 2.10 Entrepreneurial motivation (in %) by gender in Bulgaria in 2016



Source: GEM Adult Population Survey 2016, individual level data

Read as 66.6% of male early-stage entrepreneurs in 2016 were opportunity-motivated.

Figure 2.11 TEA (in %)in Bulgaria 2016, disaggregated according to population group and motivation



Source: GEM Adult Population Survey 2016, individual level data

Read as: 5.4% of the adult male population in 2016 were engaged in TEA activity.

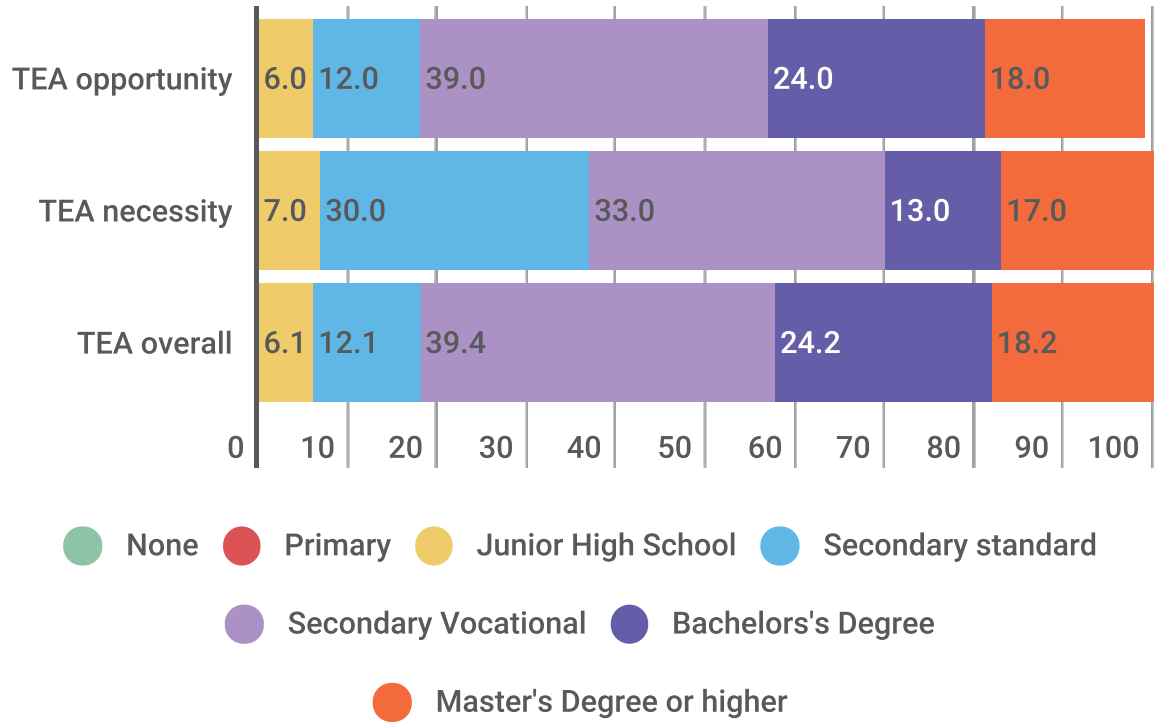
2.3.3 Education

An educated workforce, appropriately skilled and with the capacity for innovation, is vital to an economy's competitiveness, productivity and growth. A sound education system is, therefore, one of the key imperatives for a competitive country. It is reasonable to believe that a high-quality education system will have a positive influence on individuals' belief that they can successfully pursue an entrepreneurial venture, as it will instil self-confidence and give the adequate skill set to become a successful entrepreneur.

GEM research over the years (GEM Global Report 2015/16, p. 16) shows that there is a strong positive correlation between perceived capabilities (skills and confidence) and TEA, reinforcing that all forms of education (formal, informal and non-formal) are essential for developing entrepreneurial competencies.

Figure 2.12 shows that those with secondary education are among the most active early-stage entrepreneurs, accounting for more than half of all early stage ventures. Noteworthy, respondents with secondary education account for almost 2/3rds of all necessity-driven early-stage entrepreneurs. Among those with secondary education, people with vocational training outperform considerably those with standard secondary education as the former group is more than three times more active in undertaking early-stage ventures. Those with secondary vocational training, bachelor and master's educational degrees account for 81% of all opportunity-motivated early-stage entrepreneurship. Entrepreneurs with junior high school and master's degrees engage more or less as frequently in necessity-driven as in opportunity-motivated business creation. For entrepreneurs with secondary vocational education and bachelor's degrees, opportunity-driven TEA is much higher than necessity-driven TEA. This pattern is consistent with such labour market dynamics where more educated workers are in high demand and do not have the need to create businesses as a way to find employment. Most of their entrepreneurial endeavours are opportunity-motivated. On the other hand, individuals with lower educational degrees experience severe difficulties in finding a job and may resort to entrepreneurship out of need.

Figure 2.12 Education levels (in%) for early stage entrepreneurs in Bulgaria 2016



Source: GEM Adult Population Survey 2016, individual level data

Read as 6.1% of early stage entrepreneurs in 2016 have junior high school education.

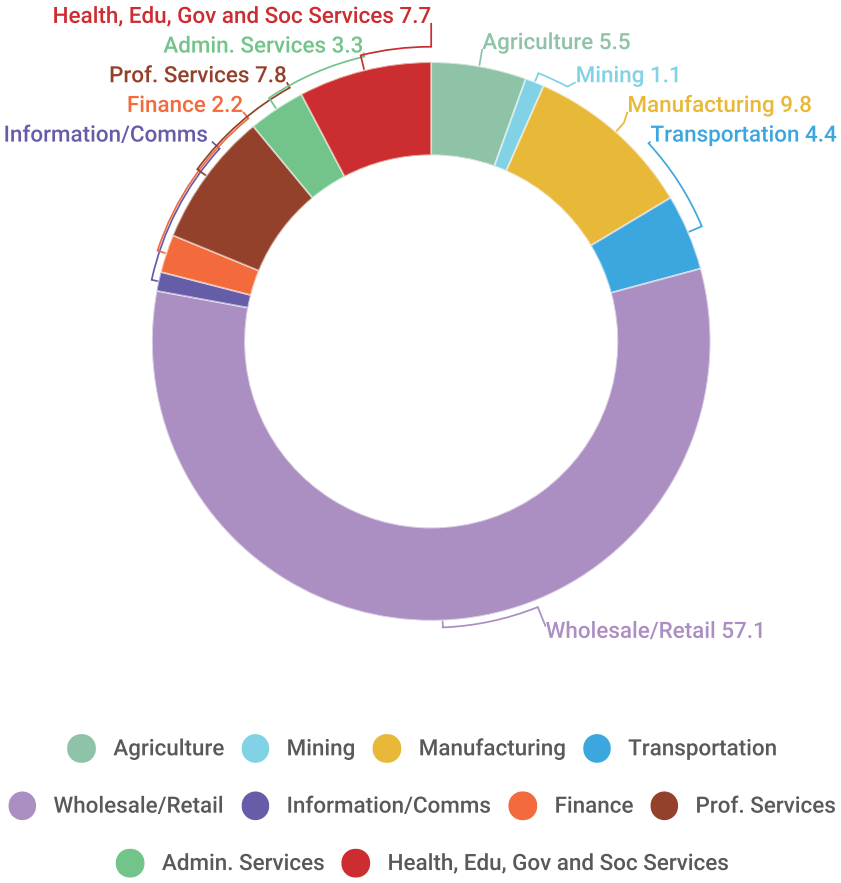
2.4 Entrepreneurial Impact

GEM recognises that entrepreneurs have a different impact on their societies. They might perceive the opportunities for entrepreneurship offered by an economy's sectors differently, which then impacts on the growth potential and dynamics of these sectors. Also, entrepreneurship activity has a direct effect on the labour market in terms of job creation. The level of innovation and international competitiveness of various sectors and the economy as a whole are also hugely impacted by entrepreneurship. This section focuses on these four impacts as a result of entrepreneurial activity in Bulgaria.

2.4.1 Industry sector

According to current GEM research, the greatest distinction in industry participation among countries and regions lies in the level of wholesale/retail activity. In Europe and North America, about a quarter of early-stage businesses belong to these sectors, while in the rest of the regions more than half of the early-stage ventures are in retail and wholesale. **Figure 2.13** contains the TEA distribution by sectors for Bulgaria in 2016. Bulgaria does not fit Europe's sector distribution with regards entrepreneurship, as more than half of the new ventures belong to retail or wholesale, which are extremely vulnerable to economic downturns. Almost a fifth of the new ventures belong to the higher value-added sectors of manufacturing and health, education, government and social services, whereas transportation and communication, information and professional services account for less than 15% of early-stage entrepreneurship. In essence, Bulgaria has a smaller share of early-stage startups belonging to knowledge-intensive industry sectors than innovation-driven economies, many of which are Bulgaria's EU partners. The industry sector distribution of TEA for Bulgaria is similar to the distribution in factor- and efficiency-driven economies, probably reflecting the scarcity of skills that are required by knowledge-intensive industries.

Figure 2.13 Distribution of TEA (in %) by sector in Bulgaria, 2016



Source: GEM Adult Population Survey 2016, individual level data

Read as: 5.5% of early-stage entrepreneurship in 2016 belong to the agricultural sector.

2.4.2 Job creation

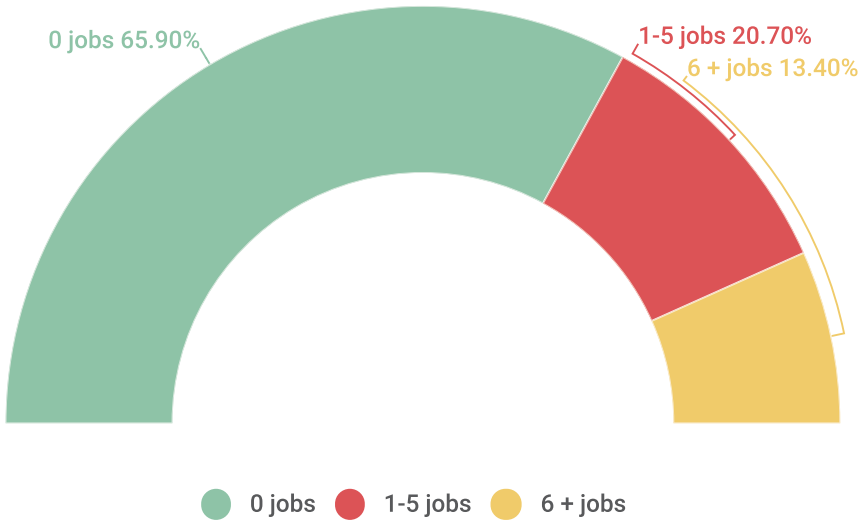
Entrepreneurs can be ambitious and optimistic about growth in their businesses and as such they may employ others or they may intend to do so in the future. Whether entrepreneurs anticipate hiring employees – that is, the extent to which they are creating jobs – is of great interest to policymakers and other stakeholders in the economy, as all are affected through the dynamism in the job market. This section analyses the intentions of Bulgarian entrepreneurs to hire employees in the next five years.

GEM asks early-stage entrepreneurs how many employees (other than the owners themselves) they currently have and how many they expect to have in the next five years. The difference between current and expected employees indicates growth expectations.

Figure 2.14 presents the intentions of Bulgarian entrepreneurs to create new jobs in the next five years. According to the global pattern of job creation uncovered in previous GEM research (GEM Global Report 2015/16), the job creation of the early-stage entrepreneurs in efficiency-driven economies is the smallest. On the other hand, it is early-stage entrepreneurs in innovation-driven economies who are the most optimistic and ambitious regarding job creation.

In Bulgaria, early-stage entrepreneurs are especially cautious about future hires, as 65.9% do not expect to create any jobs, while 20.7% expect to create between 1 and 5 jobs in the next five years. This rate of hiring is indicative of a very slow pace of entrepreneurial growth. In essence, most entrepreneurial endeavours in Bulgaria grow slowly, but the rate of growth is higher than the one reported in the previous year. The nature of the early-stage entrepreneurship could explain the results, although there may be other factors, too. The current industry sector distribution of entrepreneurship and its high exposure to economic cycles can also be blamed. The scarcity of relevant skills on the local labour market can also explain these expectations. Finally, the results can also reflect a form of an extreme pessimism of new entrepreneurs that might or might not materialise in the years to come. It has to be stressed that in order to fuel Bulgaria's economic growth it is important to identify these 13.4% of high-growth early-stage ventures and create the necessary regulatory environment that encourages their growth, as they are the ones expected to add new dynamism to the economy. Regulatory improvements alone will hardly be enough and improvements in the market-functioning education system. Managerial capacity is going to be critically important.

Figure 2.14 Job Growth expectations (in %) of early-stage entrepreneurs in the next 5 years in Bulgaria, 2016



Source: GEM Adult Population Survey 2016, individual level data

Read as: 65.9% of early-stage entrepreneurs in 2016 expect to create no jobs within the next five years

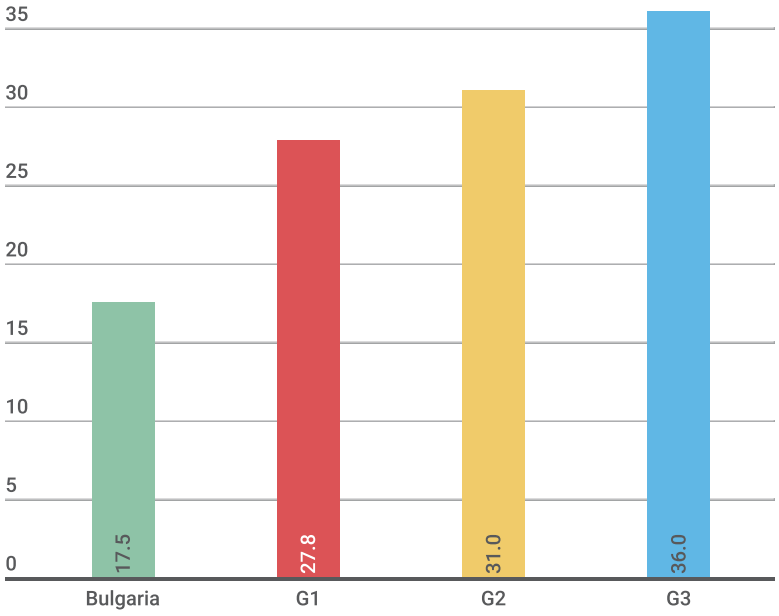
2.4.3 Innovation and internationalisation

Innovation and entrepreneurship are two very closely related concepts. New ventures disrupt the market status quo through the process of "creative destruction", by introducing new product-market combinations that create more value for users and/or make a more efficient use of resources. The success of innovation derives from both the inventive nature of the entrepreneurs and their ability to market and sell their products and services. Therefore, innovativeness is instrumental in the success of all new ventures.

Figure 2.15 contains comparative data for the degree of innovation in Bulgaria among early-stage entrepreneurs and the respective benchmark groups. Only 17.5% (14.5% in 2015) of Bulgarian entrepreneurs believe their product is new to all or some customers. Regarding the criterion of innovativeness, Bulgaria falls in the group of economies with low innovation activity of its early-stage ventures. More specifically, in the global GEM ranking of innovativeness of early-stage entrepreneurship, Bulgaria ranks 52nd out of 65 world economies. In essence, there are very few early-stage new ventures in Bulgaria, and only a small fraction of them engage in innovation activities.

This is a major constraint of the competitiveness of new ventures in Bulgaria, and it has to be urgently addressed, as it limits the competitiveness of the national economy. Of course, the innovation achievements of the national economy do not depend solely on the innovativeness of its early-stage entrepreneurship and according to the World Economic Forum's Global Innovation Index 2017[2], Bulgaria ranks among the high-achievers in innovation efficiency within its income group (upper middle-income countries). An explanation that can reconcile these two data sources is that Bulgaria has a rather small but vibrant group of innovation-oriented businesses which undertake innovation with a remarkable efficiency. In fact, this pattern of 'elite' innovation suggests that there might be a two-tier population of both early-stage and established businesses: one small group of innovation-active businesses and a much larger group of companies that do not engage in innovation. The real challenge of the public policy then will be to spread the innovation culture to the second group and thus expand the base on which the international competitiveness of the Bulgarian economy relies. It is also remarkable that compared to benchmark group G1, the self-reported levels of innovativeness among early-stage entrepreneurs are strikingly low. We cannot exclude the existence of a perceptual bias in the Bulgarian respondents, which will go in line with the evident pessimism about mid-term growth. Regardless of the above, there is already some evidence of a positive shift towards more innovative entrepreneurial initiatives in Bulgaria.

Figure 2.15 Innovation levels (as %) among early stage entrepreneurs in 2016



Source: GEM Adult Population Survey 2016, individual level data

Read as: 17.5% of Bulgarian entrepreneurs in 2016 believed that their product was new to all or some customers.

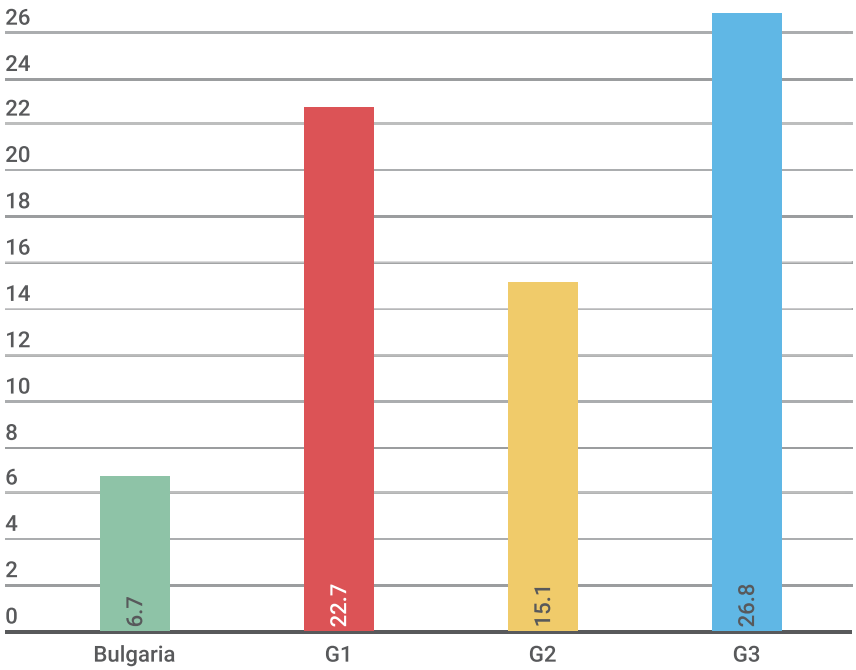
Internationalisation measures the percentage of entrepreneurs who report that 25% or more of their sales come from outside their economy. According to previous GEM reports, the innovation-driven phase of development reveals the highest average level of internationalisation, which somewhat decreases for efficiency-driven economies and even more for factor-driven economies.

Figure 2.16 indicates that Bulgarian entrepreneurs exhibit very low levels of international orientation and this result is consistent with the explanation of a two-tier distribution of the Bulgarian early-stage companies, a small number of which are internationally competitive. It is remarkable that the international orientation of Bulgarian ventures is so much lower than the international orientation in the benchmark groups.

This result resonates and can be partially the consequence of a profoundly mistaken idea that dominates the debates about the drivers of competitiveness of the Bulgarian economy, namely the importance of cheap labour. The latter cannot be a sustainable base for international competitiveness, and as the data indicates, it is not in the case of early-stage entrepreneurship. A profound debate about the factors that drive competitiveness in the world is needed to correct this alarming result in the case of Bulgaria. The small size of the national market does not provide a strong enough push for most early-stage entrepreneurs to pursue business opportunities abroad. Informing and educating early-stage entrepreneurs to identify opportunities and scale them up abroad can make a difference in the quality of the business opportunities and their growth rates.

[2] *Available at https://www.globalinnovationindex.org*

Figure 2.16 Percentage of early-stage entrepreneurs with 25% or more international sales 2016



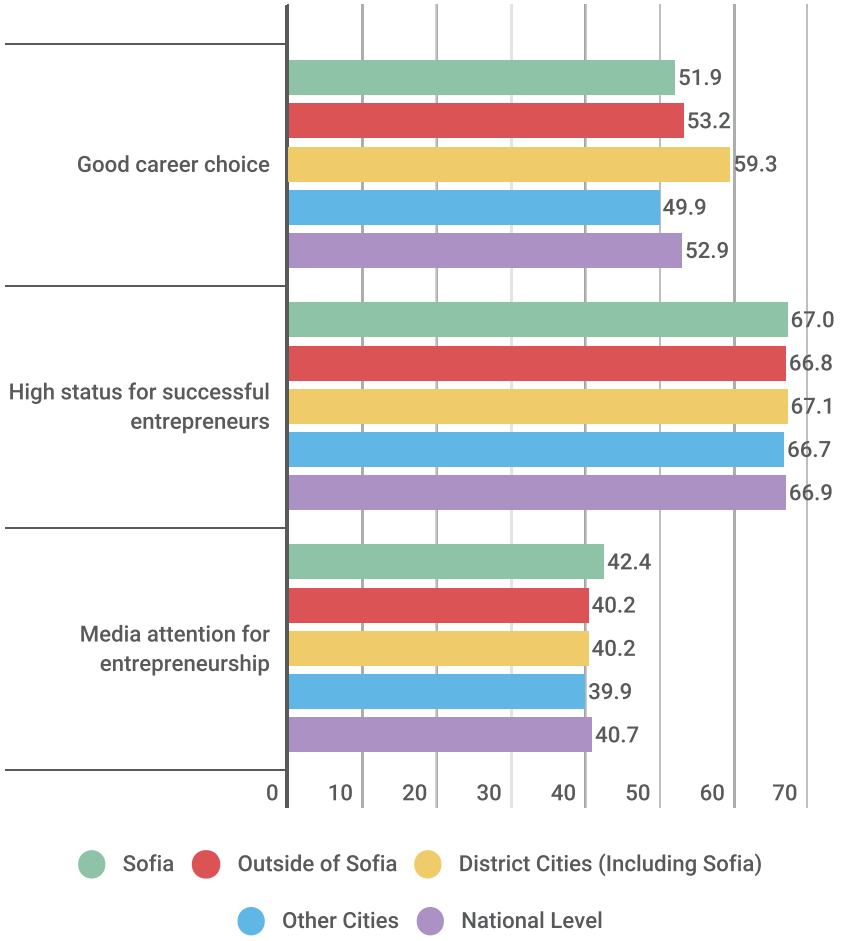
Source: GEM Adult Population Survey 2016, individual level data

Read as: In 2016, 6.74% of Bulgarian entrepreneurs reported 25% or more international sales.

2.5 Regional differences

Despite its small territory, Bulgaria has sharp regional asymmetries regarding wealth generation, incomes per capita and ultimately, quality of life. There are great differences between the South West region, where Sofia is located, and the least developed North West region. In 2015 for example, the GDP per capita and the total GDP generated by the best performing region were respectively 2.6 and 7 times bigger than those generated by the worst performing region. Entrepreneurial attitudes also show different patterns in the capital city, the district centres and other cities.

Figure 2.17 Societal entrepreneurship attitudes in Bulgaria, 2016, city profiles



Note: District cities are district centres as per NUT3

Source: GEM Adult Population Survey, individual level data

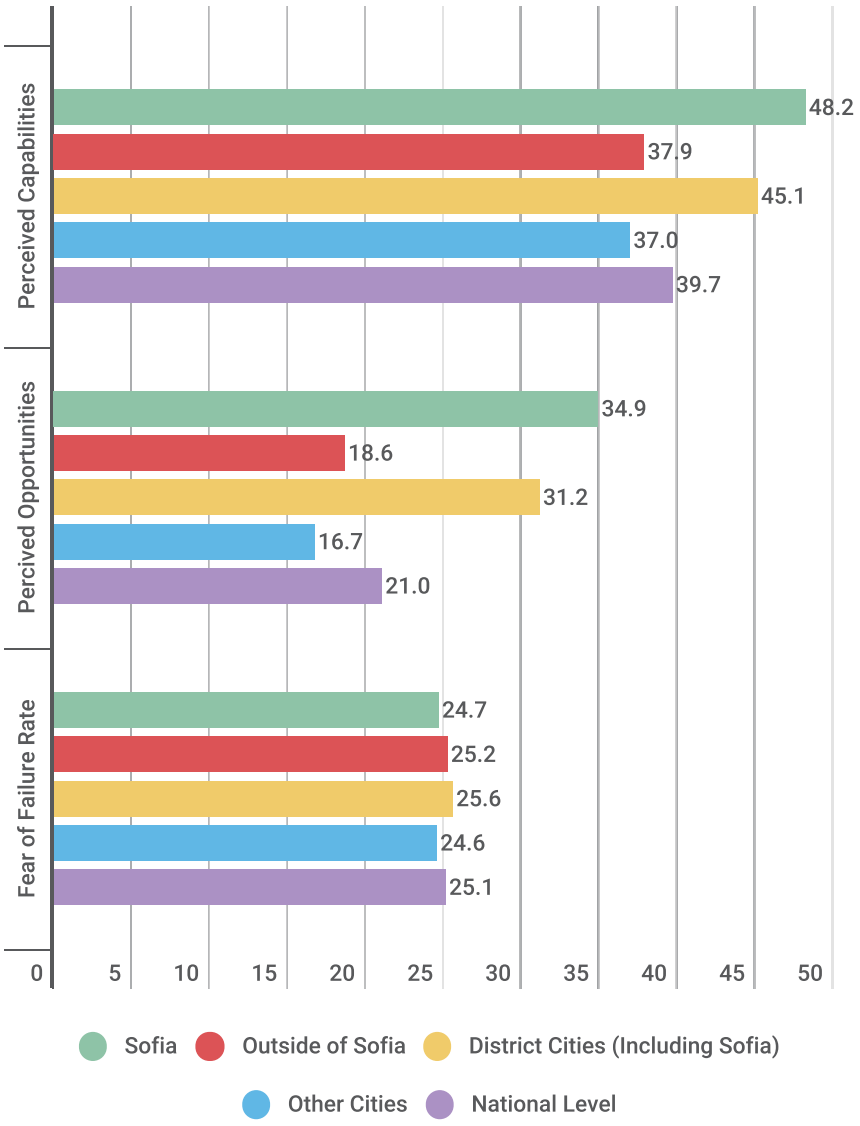
Read as: 51.9% of Bulgarian adults who resided in Sofia in 2016 regarded entrepreneurship as a good career choice.

GEM considers those who perceive good opportunities for starting a business, as well as believe they have the required skills, the potential entrepreneurs in the society. It is important to note that, at this stage of the entrepreneurial pipeline, they have not yet decided whether they will pursue the opportunity of not.

There is a marked difference of almost 10 percentage points between residents in district centres and other cities regarding their perception of entrepreneurship as a good career choice (see **Figure 2.17**). Residents of district cities report a positive attitude to entrepreneurship at levels that surpass the national average. There is a relatively small variation in the perceived high status for successful entrepreneurs and media attention to entrepreneurship in Sofia, large district cities, and other cities. The data implies that even if there is a substantial difference between Sofia and the rest of the large district cities, it is even bigger between the large district cities and the remaining smaller cities and villages. A multifocal pattern of entrepreneurial developments seems to start emerging, in which the social attitudes to entrepreneurship in all large district cities appear to converge.

Figure 2.18 contains information about the perceived capabilities, opportunities and fear of failure among Bulgarian adults residing in Sofia and other cities. In perceived capabilities, there is some variation around the national average as Sofia residents exhibit a higher level of perceived capabilities than the rest. This difference is only 3 percentage points when Sofia is compared to the pool of district centres and 11 percentage points with other cities. In perceived opportunities, Sofia residents report much higher levels, and this is the indicator with the most significant disparities between Sofia and other cities. The larger scale of the economy and the economies of agglomeration explain this result. Fear of failure of Sofia residents in 2016 is comparable to the national average, and it has dropped sharply in comparison to 2015 data. This result can reflect the higher opportunity cost of failure in the capital city but also the absence of adequate social safety nets that smaller cities have.

Figure 2.18 Perceptions about entrepreneurship (as %) in the adult population of Bulgaria, 2016, city profiles

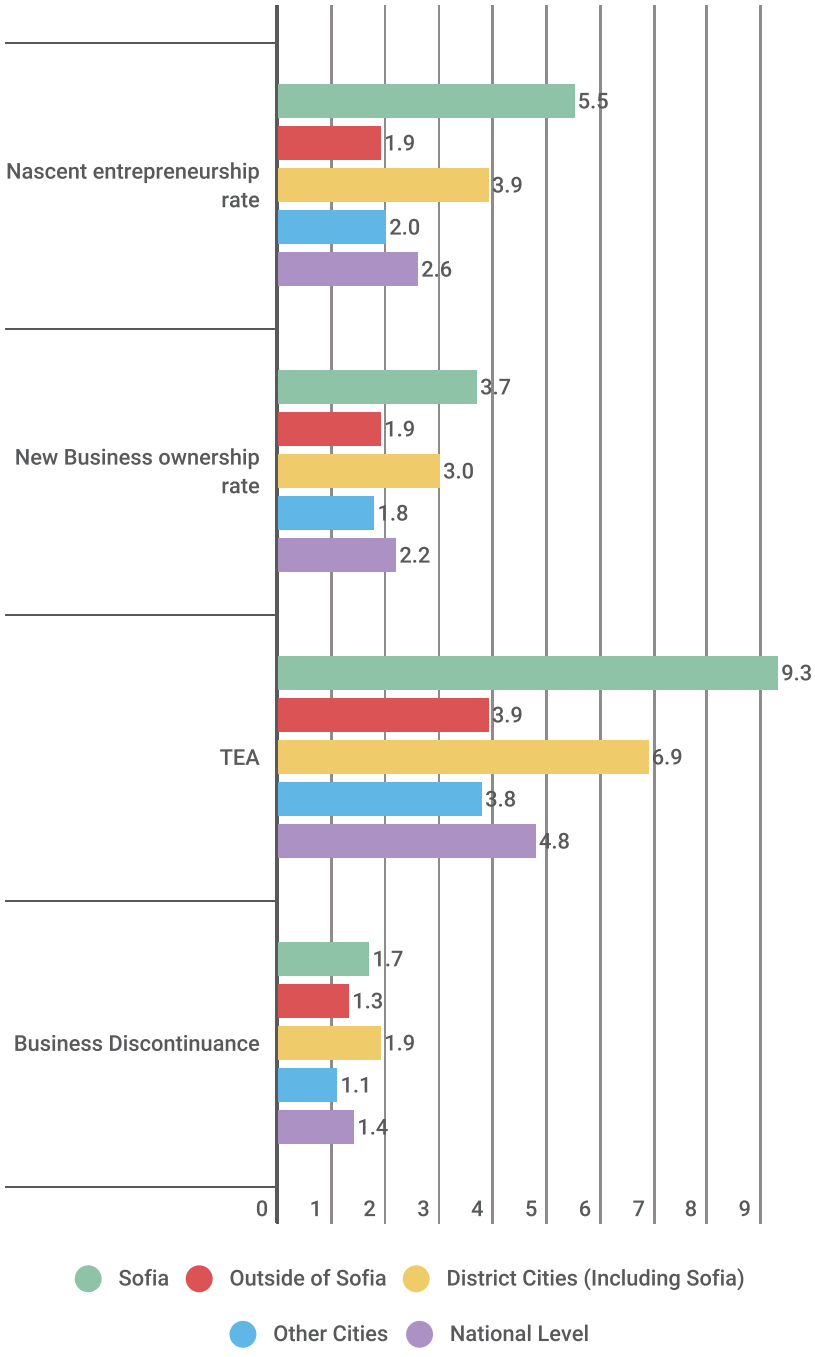


Source: GEM Adult Population Survey 2016, individual level data

Read as: 48.2% of Bulgarian adults who resided in Sofia in 2016 perceived to have the necessary capabilities for entrepreneurship.

Figure 2.19 contains the prevalence rates of entrepreneurial activity among the adult population living in the different type of cities in Bulgaria. The nascent entrepreneurship rate is the highest in the capital city while the business discontinuance rate also remains very high. The new business ownership rate is higher in Sofia, which implies that new ventures survive for longer if Sofia residents create them. This can be the result of better opportunity recognition or better skills and resources available to Sofia-based entrepreneurs.

Figure 2.19 Prevalence rates (as %) of entrepreneurial activity among the adult population in Bulgaria, 2016, city profiles



Source: GEM Adult Population Survey 2016, individual level data

Read as: 5.52% of entrepreneurs who resided in Sofia in 2016 were engaged in nascent entrepreneurship.

Figure 2.20 Improvement- and necessity-driven TEA rates among the adult population of Bulgaria, 2016, city profiles

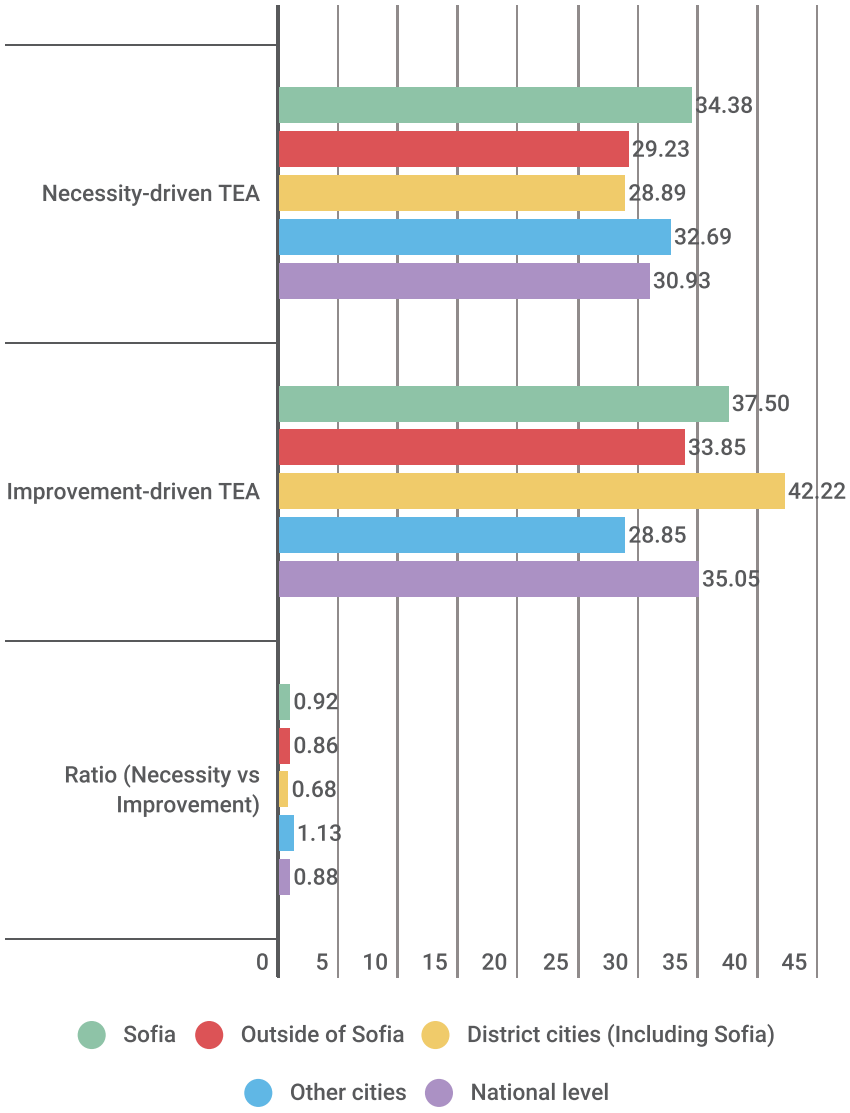


Figure 2.20 contains the necessity-driven versus improvement-driven entrepreneurship in different types of cities in Bulgaria in 2016. Given the low general level of entrepreneurship in Bulgaria, each of the statistics in **Figure 2.20** is based on only a few data points and therefore, highly sensitive. Therefore, we recommend caution when analysing the data. In 2016 necessity-driven entrepreneurship is lower outside of Sofia. It is in large district cities where the highest rate of improvement-driven entrepreneurship is reported. The ratio between necessity vs improvement driven entrepreneurial activity is the smallest in district cities and largest in smaller cities.

In essence, there are important differences across different parts of Bulgaria that need to be accounted for in national policies and government programs and initiatives. Understanding entrepreneurial intentions as a function of profoundly local factors are mandatory for establishing a nationwide culture and practice of entrepreneurship.

Source: GEM Adult Population Survey 2016, individual level data

Read as: 34.38% of TEA activity in 2016 in Sofia was necessity-driven.

TYPICAL BULGARIAN EARLY STAGE ENTREPRENEUR 2016/17

Male

54% of involved in TEA*

25-34 Years old

35.7% of involved in TEA

Secondary education

39.4% Education level of early-stage entrepreneurs in Bulgaria in 2016

Opportunity driven motivation

68% necessity vs. opportunity motives

Based in Sofia

33% of early-stage entrepreneurial activity among the adult population in Bulgaria, 2016

Retail / wholesale sector

28%

18%

9.8% Manufacturing

7.8% Professional services

7.7% Health, EDU, GOV & Social Services

*TEA - In the process of setting up a company or managing a company set up in the last 3 1/2 years

Source: 2016/17 Global Entrepreneurship Monitor Bulgaria report

3 NATIONAL EXPERT SURVEY (NES)

3.1 A short overview of Bulgaria's competitiveness

Data on the Bulgarian entrepreneurial ecosystem can be obtained from various sources such as the World Bank, the World Economic Forum, the Heritage Foundation, or the United Nations. The Global Competitiveness Report 2016/2017, published by WEF ranks Bulgaria 50th among 138 world economies. According to the report, Bulgaria's key weakness is the quality of its institutions and especially the protection of intellectual property rights, organised crime, transparency of government policy making and independence of the judicial system. According to this report, Bulgaria is lagging behind in innovation, and business sophistication, especially related to leadership style and willingness to delegate authority. Among Bulgaria's strengths are its technological readiness related to the excellent internet bandwidth infrastructure and mobile-broadband subscriptions per 100 inhabitants. In addition, health and primary education are also recognised as strengths in contrast to the state of higher education and training, among which the local availability of specialised training services and the management of schools appear to be of remarkably low quality. **Table 3.1** summarises Bulgaria's performance in selected key indicators, compared to previous years where available. These results as most of the results in what follows in this chapter affect the higher-level institutional

set-up of the country. This institutional setup is not easily influenced by any purposeful initiative or historical accident, and many of the indicators that are reported here exhibit only slight changes. As this is only the second year, GEM collected data in Bulgaria, the identified trend between 2015 and 2016 captured by a few decimal points is probably more likely to be attributed to a statistical error than to any sizeable change in the overall context. Moreover, the fact that the indices reported here are informed by the opinion of experts, who tend to agree on the fundamental strengths and weaknesses of the Bulgarian business climate and the characteristics of the entrepreneurial ecosystem additionally limit the variance. In what follows we provide a very brief summary of the experts' diagnostics and highlight what might be a few details to which we did not pay enough attention to the GEM Bulgaria report 2015/16.

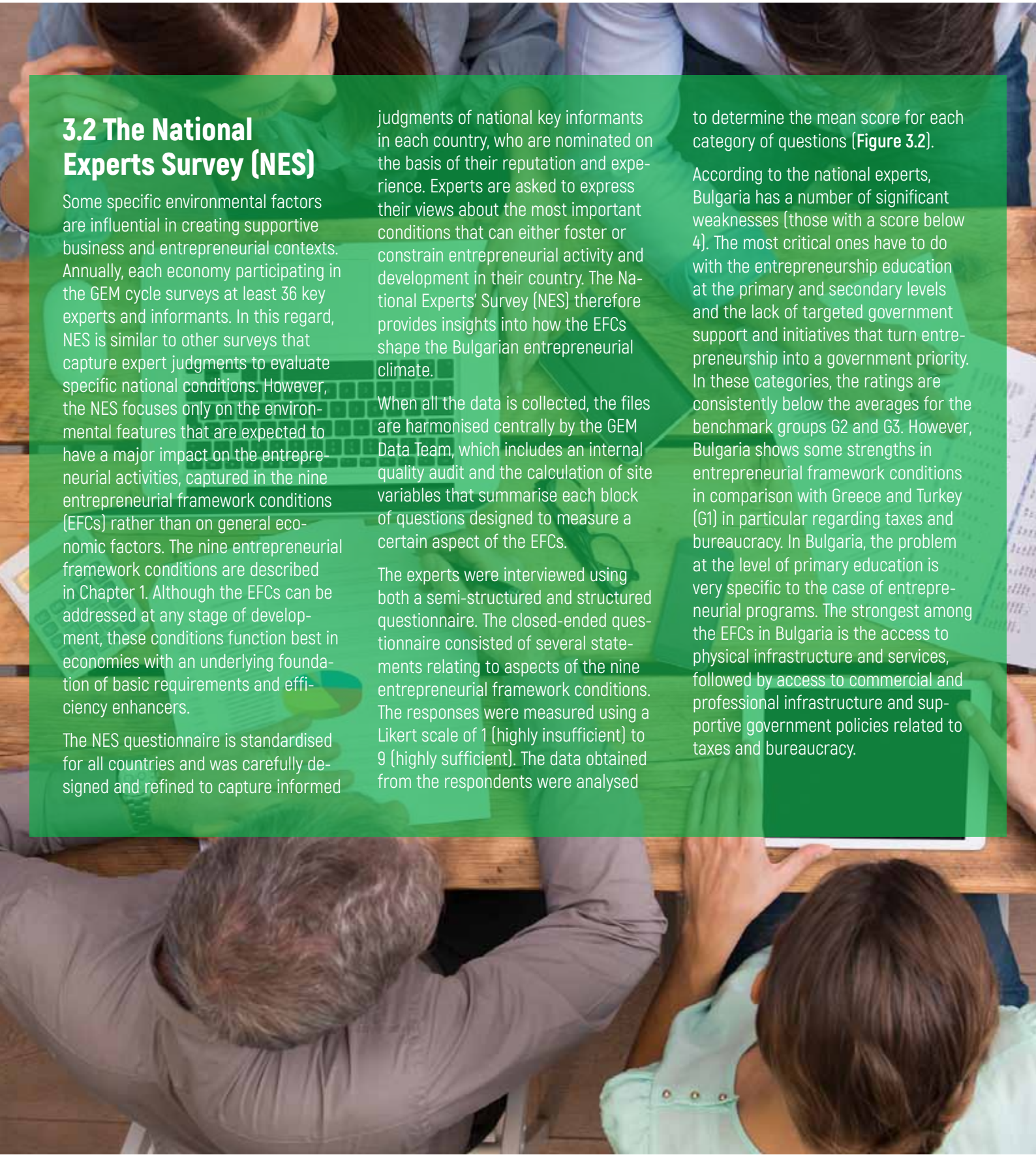
The lack of trust in the public institutions and the perceived absence of judiciary independence undermine the international competitiveness in the economy as they compromise market exchanges and large-scale, long-term investment commitments by the businesses. Additionally, the mediocre business culture and low levels of sophistication of the Bulgarian firms limit the growth potential of the economy.

Table 3.1 Global Competitiveness Report rankings of Bulgaria, selected indicators

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Number of countries included	125	131	134	133	139	143	144	148	144	140	138
Public trust in politicians	96	105	112	112	104	95	85	97	130	110	86
Irregular payments and bribes	n/a	n/a	n/a	n/a	94	92	76	63	55	76	87
Burden of government regulations	84	83	84	82	76	86	109	105	102	94	66
Favoritism in decisions of government officials	107	108	111	110	111	111	106	117	134	122	97
Bussiness cost of crime and violence	98	97	99	98	103	106	111	108	82	86	97
Quality of overall infrastructure	86	93	109	115	120	124	115	102	100	89	79
Quality of electricity supply	73	89	95	95	96	99	95	94	86	84	79
Quality of primary education	n/a	63	79	70	76	84	67	60	50	54	67
Quality of the education system	60	76	81	82	85	101	98	90	91	93	91
Quality of science and math education	31	50	51	56	69	82	68	59	54	61	75
Quiality of management schools	88	83	93	92	94	102	101	112	121	111	111
No. days to start a business	43	63	75	109	65	72	76	78	84	91	94
Flexibility of wage determination	36	30	26	31	59	63	59	49	44	72	71
Hiring and firing practices	45	50	35	39	42	55	49	70	96	86	60
Availabilityof financial services	n/a	n/a	n/a	n/a	95	106	110	107	85	83	67
Gov't procurement of advanced tech products	95	84	82	97	87	77	81	90	97	86	64

Source: Global Competitiveness Report 2016

*Rank among the countries in the study per category.



3.2 The National Experts Survey (NES)

Some specific environmental factors are influential in creating supportive business and entrepreneurial contexts. Annually, each economy participating in the GEM cycle surveys at least 36 key experts and informants. In this regard, NES is similar to other surveys that capture expert judgments to evaluate specific national conditions. However, the NES focuses only on the environmental features that are expected to have a major impact on the entrepreneurial activities, captured in the nine entrepreneurial framework conditions (EFCs) rather than on general economic factors. The nine entrepreneurial framework conditions are described in Chapter 1. Although the EFCs can be addressed at any stage of development, these conditions function best in economies with an underlying foundation of basic requirements and efficiency enhancers.

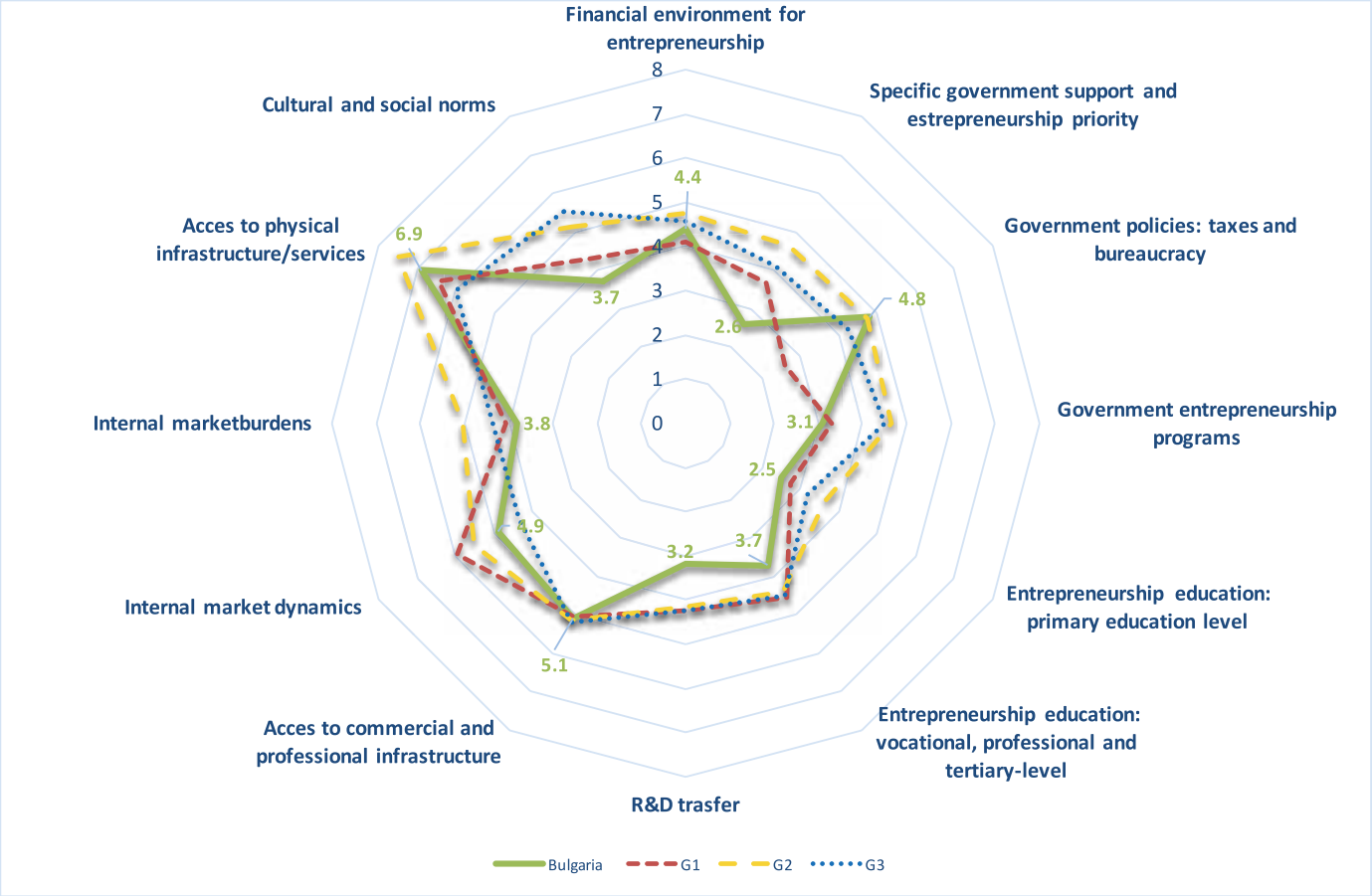
The NES questionnaire is standardised for all countries and was carefully designed and refined to capture informed judgments of national key informants in each country, who are nominated on the basis of their reputation and experience. Experts are asked to express their views about the most important conditions that can either foster or constrain entrepreneurial activity and development in their country. The National Experts' Survey (NES) therefore provides insights into how the EFCs shape the Bulgarian entrepreneurial climate.

When all the data is collected, the files are harmonised centrally by the GEM Data Team, which includes an internal quality audit and the calculation of site variables that summarise each block of questions designed to measure a certain aspect of the EFCs.

The experts were interviewed using both a semi-structured and structured questionnaire. The closed-ended questionnaire consisted of several statements relating to aspects of the nine entrepreneurial framework conditions. The responses were measured using a Likert scale of 1 (highly insufficient) to 9 (highly sufficient). The data obtained from the respondents were analysed to determine the mean score for each category of questions (**Figure 3.2**).

According to the national experts, Bulgaria has a number of significant weaknesses (those with a score below 4). The most critical ones have to do with the entrepreneurship education at the primary and secondary levels and the lack of targeted government support and initiatives that turn entrepreneurship into a government priority. In these categories, the ratings are consistently below the averages for the benchmark groups G2 and G3. However, Bulgaria shows some strengths in entrepreneurial framework conditions in comparison with Greece and Turkey (G1) in particular regarding taxes and bureaucracy. In Bulgaria, the problem at the level of primary education is very specific to the case of entrepreneurial programs. The strongest among the EFCs in Bulgaria is the access to physical infrastructure and services, followed by access to commercial and professional infrastructure and supportive government policies related to taxes and bureaucracy.

Figure 3.2 Entrepreneurial framework conditions scores, 2016



Source: GEM Global National Expert Survey Survey 2016

3.2.1 Government policies and initiatives

Government policies are among the factors that can turn the intention to become an entrepreneur into actual behaviour. The Bulgarian government imposes taxes that are not a burden for new and growing firms and apply regulations predictably and consistently (see **Figure 3.3**). Nevertheless, national and local government levels appear to have little interest in turning entrepreneurship into a priority.

National experts believe that the bureaucratic burden for new firms is still considerable despite the fact that Bulgaria ranks 39 among 190 economies in the ease of doing business according to the Doing Business Ranking 2017 by the World Bank[3]. It is important to stress that Bulgaria ranks 20th in the European Union in easiness of doing business[4] with a score of 73.51 compared to the average EU regional score of 76.27. As shown in **Figure 3.4**, in 2017 there has been an increase in the number of days and procedures for starting a business and in 2017 it takes 6 procedures and 23 days to start a business in Bulgaria. As a comparison, in Macedonia in 2017 the same process requires 2 procedures and takes 2 days, while for the high-income member countries in OECD it takes 5 procedures and 8 days.

Similarly, in Bulgaria, the procedure of getting electricity has been shortened by 6 days since 2010 (see **Figure 3.5**). As a comparison, in Macedonia, it takes 3 procedures and 97 days, while for the high-income OECD countries it takes 5 procedures and 76 days.

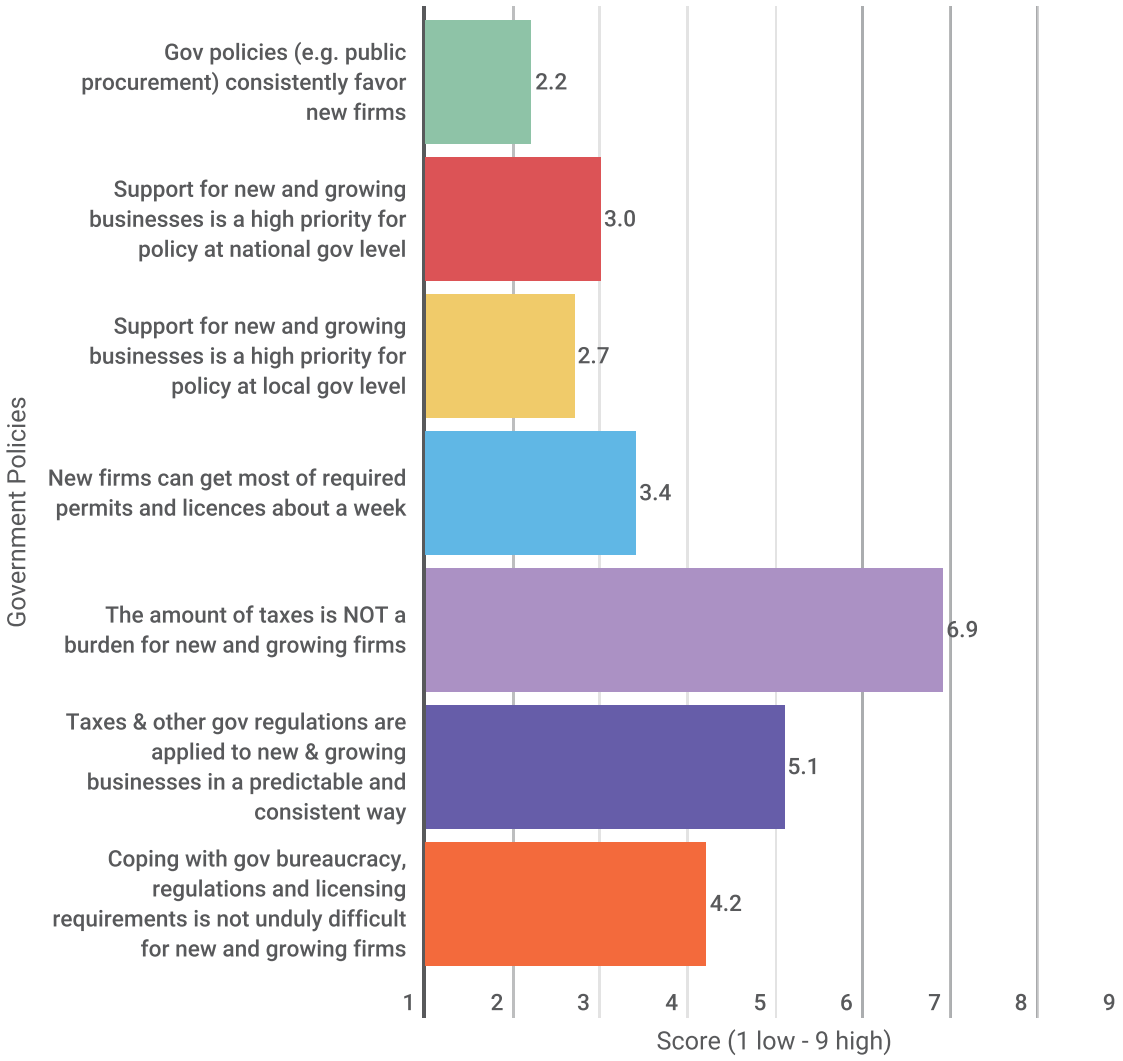
In fact, in 2017 Bulgaria dropped two places in the Doing Business Ranking report mainly due to the relative worsening of its position in the following indicators – starting a business, access to credit and protecting minority investors. In general terms, Bulgaria is not in good position in getting access to electricity (rank 104 among 190 economies participating in the 2017 ranking)

[3]*http://www.doingbusiness.org/rankings*
[4]*Doing Business Ranking 2017*

and in paying taxes (rank 83 among 190 economies taking part in the 2017 ranking). According to the same ranking, in 2017 these relative weaknesses were somewhat offset by the high protection of minority investors (13/190) and trading across borders (21/190).

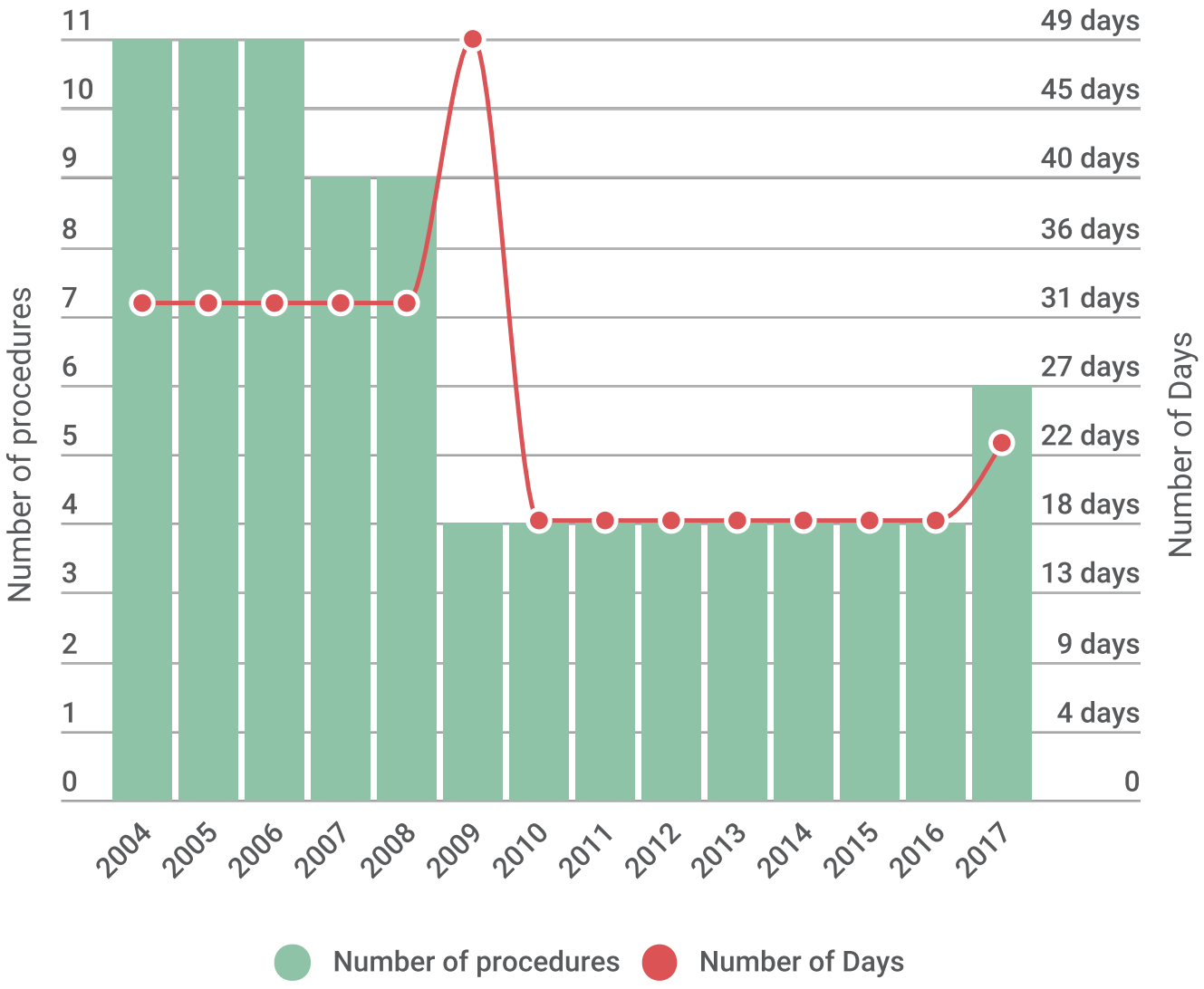
The monopolistic nature of the Bulgarian electricity distribution market with regulated prices and no competition can explain why the attractiveness of the Bulgarian business environment is adversely affected by extremely lengthy and costly procedures of getting electricity. Urgent reforms in the industry are needed, but they are also greatly complicated by the complex geopolitical situation in which Bulgaria needs to balance its commitments accruing from the country's EU membership and its extreme dependency on Russian energy sources.

Figure 3.3 Average expert ratings for government policies for entrepreneurship in Bulgaria, 2016
(weighted average, 1 = completely false, 9 = completely true)



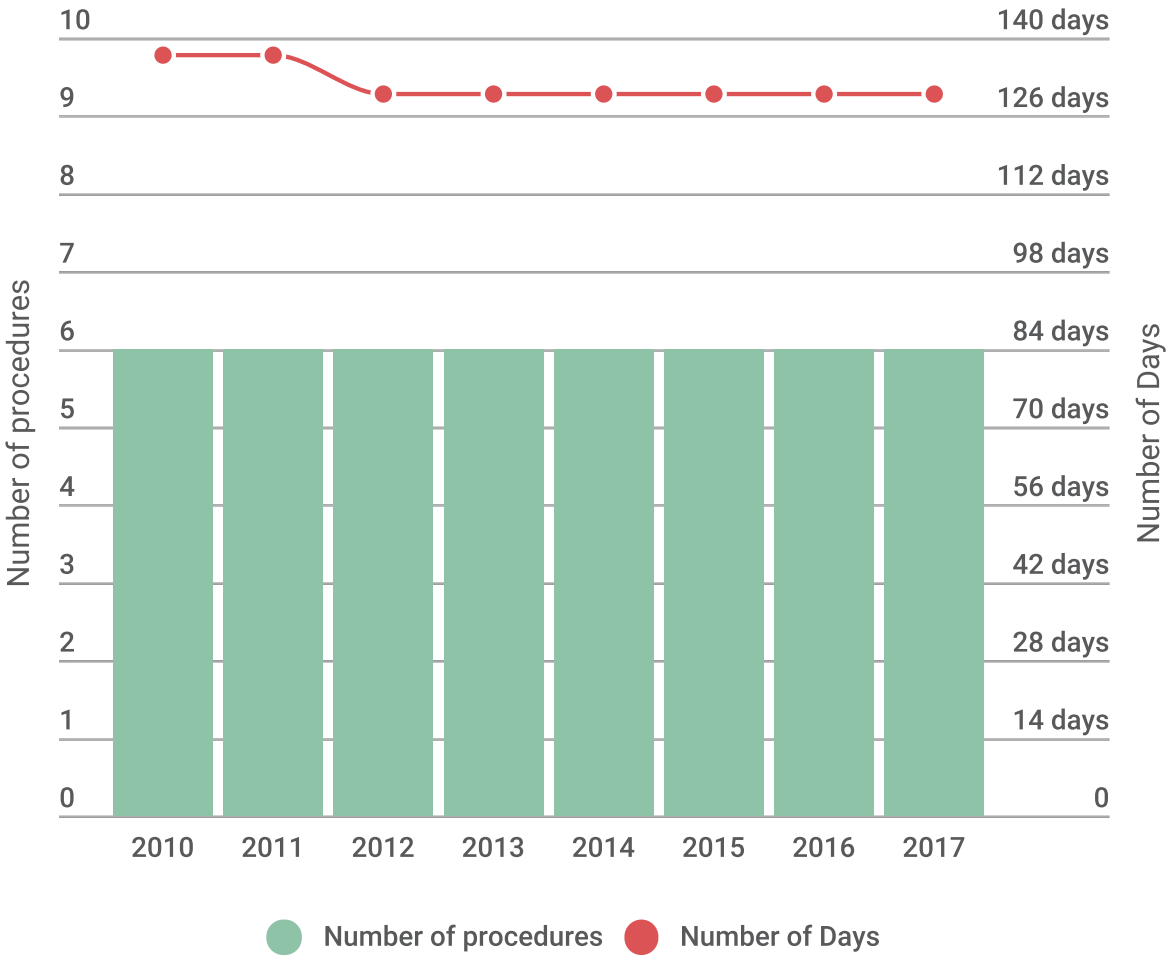
Source: GEM Bulgaria National Expert Survey Survey 2016

Figure 3.4 Number of procedures and days to start a business in Bulgaria (Doing Business Ranking 2017)



Source: Doing Business Ranking 2017

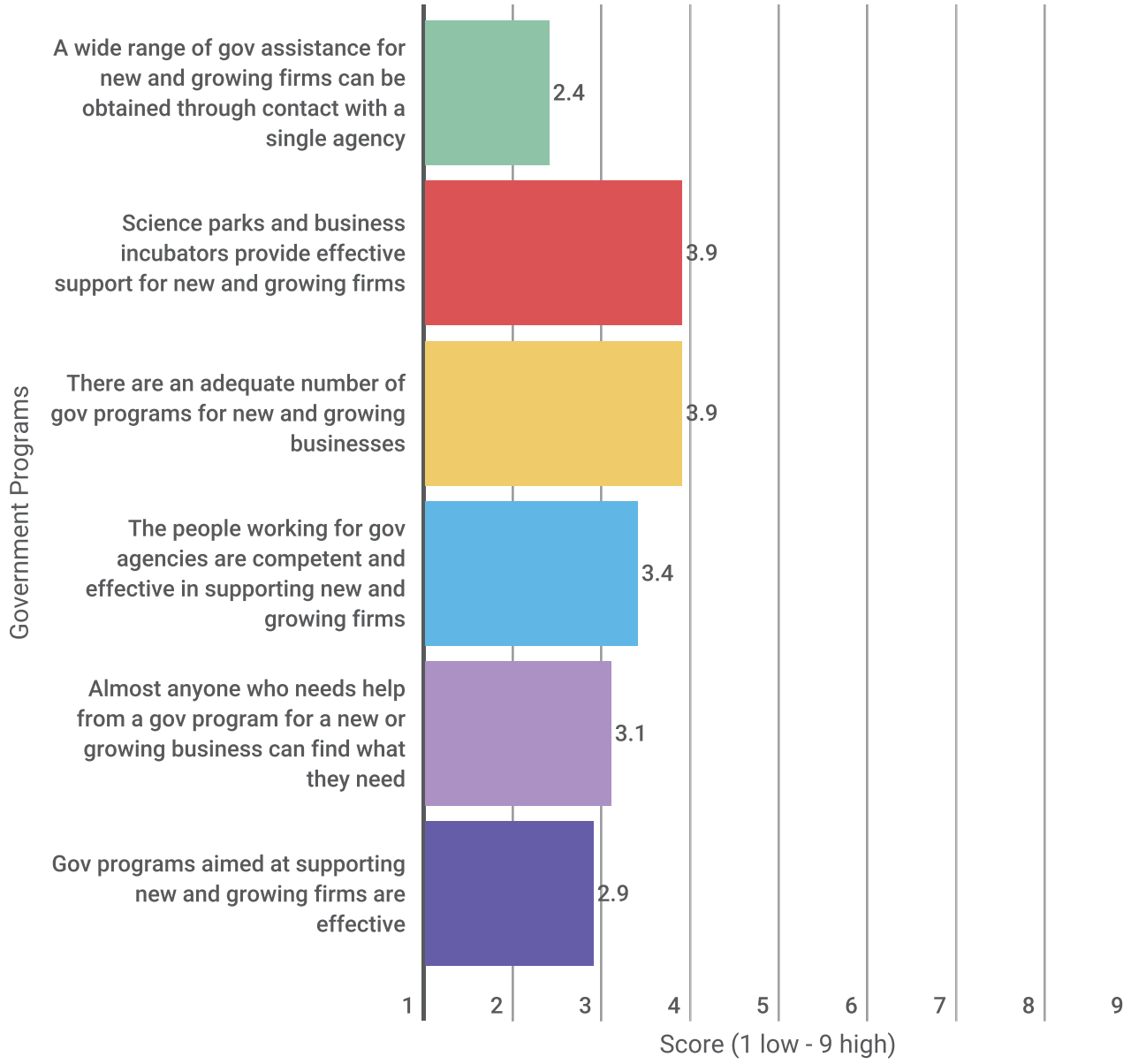
Figure 3.5 Number of procedures and days to get electricity in Bulgaria (Doing Business Ranking 2017)



Source: Doing Business Ranking 2017

In 2017 again experts cannot identify a "one-stop shop" entity that supports small and medium businesses, and they think that the support offered by existing entities is deficient. **Figure 3.6** indicates that one of the best-rated aspects of government programs related to entrepreneurship is the support offered by science parks and incubators, where there is a substantial involvement by the private sector and successful entrepreneurs, who participate as mentors, role-models and investors. In general, better coordination with the private sector and the incipient entrepreneurial community can improve the talent pool and the efficiency of the existing government programs meant to stimulate entrepreneurial endeavours. Similarly, to 2015, the government's efforts to establish programs for new and growing businesses are recognised by the experts as better than most of the other government initiatives.

Figure 3.6 Average expert ratings for government programs in Bulgaria, 2016
(weighted average, 1 = completely false, 9 = completely true)

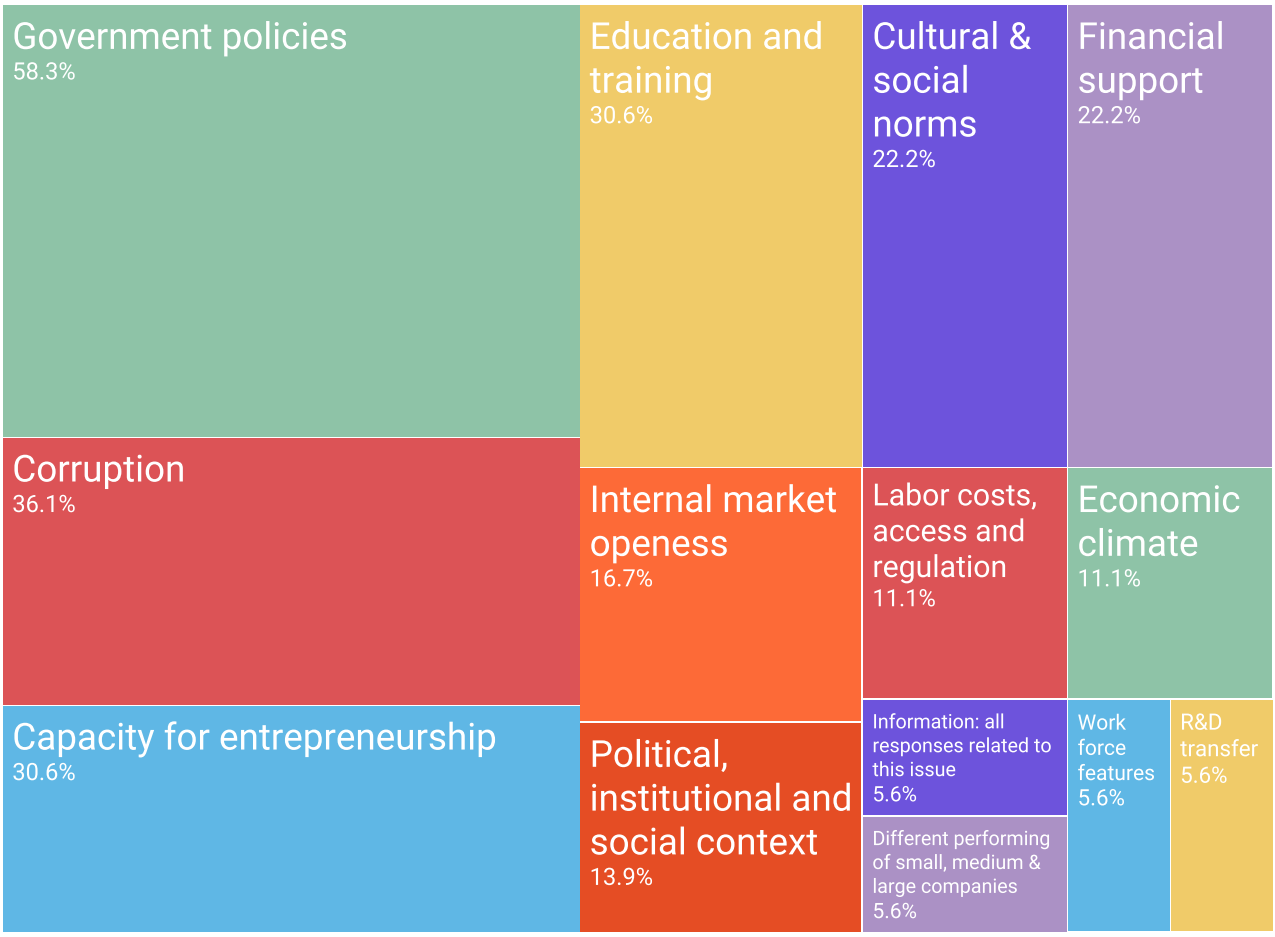


Source: GEM Bulgaria National Expert Survey Survey 2016

3.2.2 Access to finance

In Bulgaria, access to finance as an obstacle to entrepreneurship endeavours comes after government policies, corruption, education and training, and entrepreneurial capacity (see **Figure 3.7**). As a problem, access to finance has many facets as it includes the insufficient financial culture of early-stage entrepreneurs, lack of adequate funds, lack of competent fund managers and proficient investors, conservatism and risk-aversion of more traditional fund providers such as banks and lack of a critical mass of angel investors. None of these issues are unique to Bulgaria as they are common to all immature entrepreneurial environments and therefore they all need attention. In Bulgaria, there is no lack of active search for solutions and business pre-acceleration and acceleration programs, among initiatives undertaken by NGOs and philanthropists must be credited for bringing dynamism to the Bulgarian entrepreneurial ecosystem. As advanced in the 2015/2016 GEM Bulgaria report, the burning issues that are named as key constraining factors relate to government functioning, education and capacity for entrepreneurship. Improvement in public policy and fight against corruption as well as building capacity for entrepreneurship, educational and training programs shall become the highest priorities if building a bubbling entrepreneurial ecosystem in Bulgaria is ever going to take place. Shifts in each of this domains are associated with considerable inertia and yearly variations in the indices are unlikely to capture meaningful improvement in the Bulgarian entrepreneurial ecosystem. Over the medium and long-term, improvements in these fundamental conditions for business are set to change the quality of the business environment substantially.

Figure 3.7 List of constraining factors in the entrepreneurial environment in Bulgaria, 2016
(average scores of experts' rankings, higher ranking stands for stronger constraining power)



Source: GEM Bulgaria National Expert Survey Survey 2016

3.2.3 Education and training

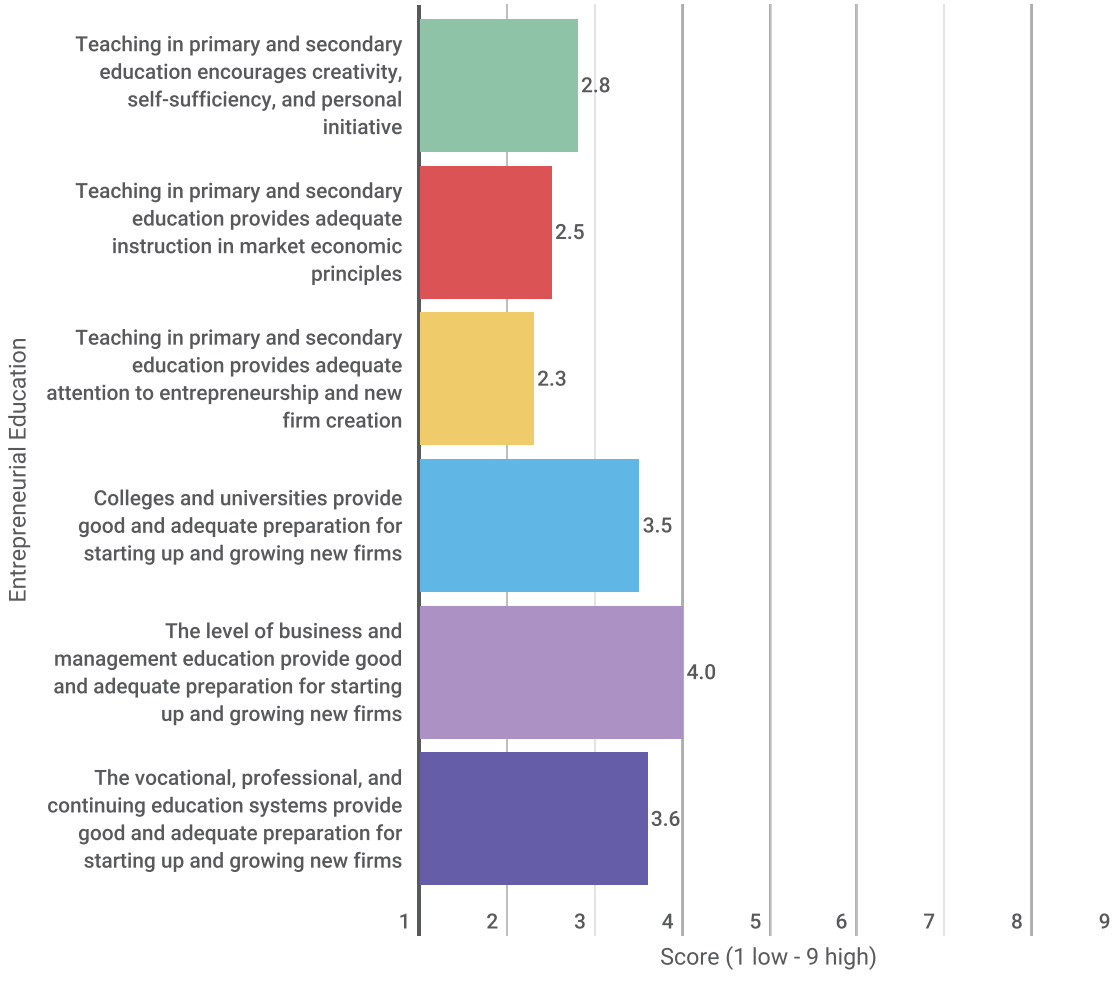
Education influences entrepreneurial intentions and consequently entrepreneurial behaviour in a powerful way.

The strongly negative rating of the quality of entrepreneurship education at school level (**Figure 3.8**) is a clear indication that the school system in Bulgaria is failing to prepare learners adequately for successful participation in the economy. Entrepreneurship is taught neither widely nor effectively. Many teachers are lacking in academic competence, let alone being entrepreneurially able, so they cannot inspire and support students who show passion for hands-on learning experiences such as the ones presented by entrepreneurial endeavours.

The experts judged particularly harshly the deficiencies of the primary and secondary education systems in Bulgaria and evaluated somewhat more positively (but still low) the state of business and management education. In fact, in the light of the generally positive assessment of the Bulgarian primary education by the Global Competitiveness Ranking 2016/2017, the biggest problem for Bulgaria appears to be the quality of its secondary education. The secondary education is instrumental for the social integration through life-long skills.

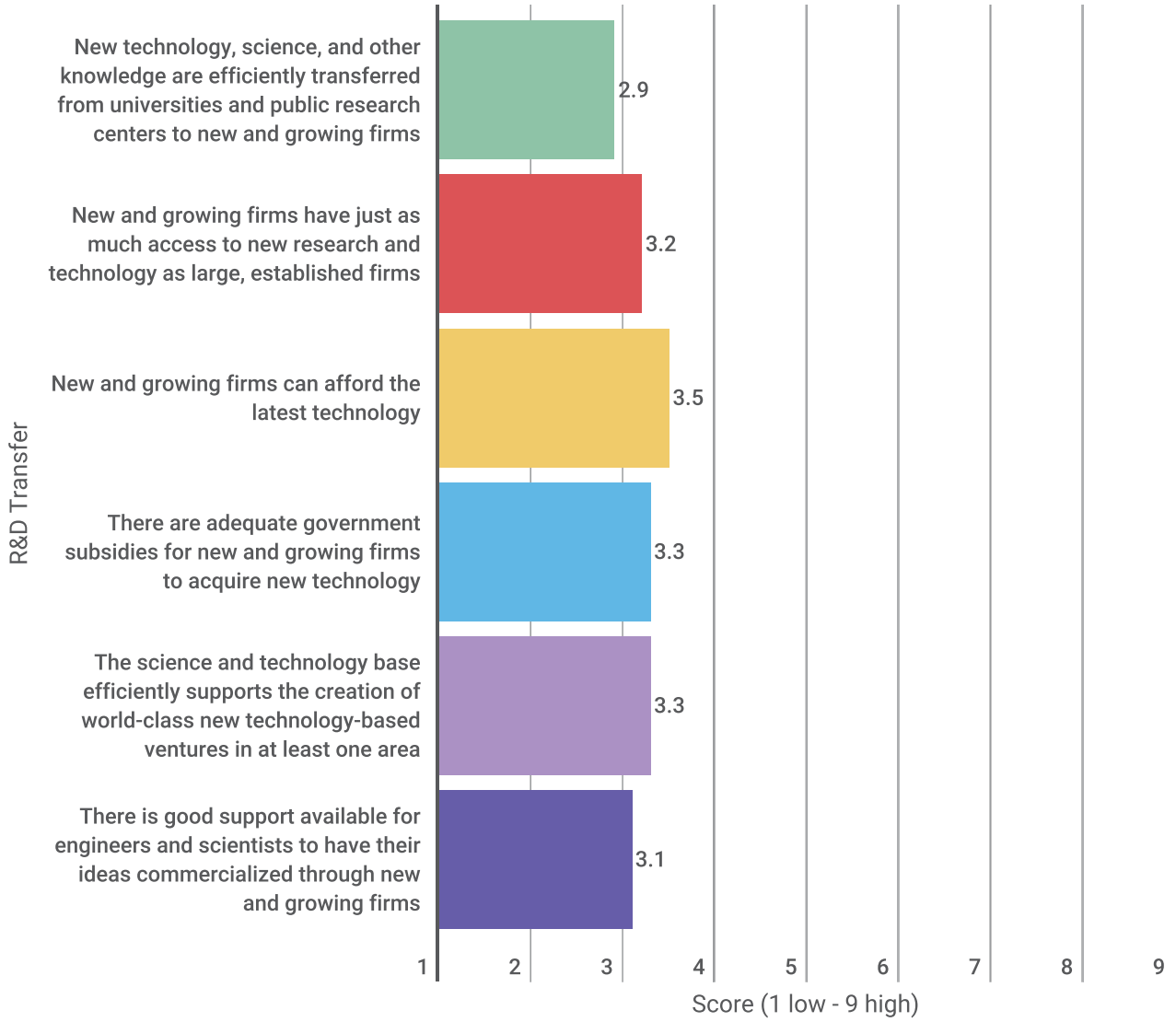
A step in the right direction is the inclusion of entrepreneurship classes in the mandatory school curricula for the 2016/17 academic year. The implementation of this idea has been less impressive as school teachers who tend to have lower teaching loads such as teachers of Music and PE have taught entrepreneurship without necessarily having adequate preparation or experience in the field. Nonetheless, the initiative is promising, and it requires close monitoring and impact assessment in order to turn it into a change mechanism for the broader cultural mindset and employability of young graduates.

Figure 3.8 average expert ratings for entrepreneurial education in Bulgaria, 2016
(weighted average, 1 = completely false, 9 = completely true)



Source: GEM Bulgaria National Expert Survey Survey 2016

Figure 3.9 Average expert ratings for R&D transfer in Bulgaria, 2016
(weighted average, 1 = completely false, 9 = completely true)



Source: GEM Bulgaria National Expert Survey Survey 2016

3.2.4 R&D transfer

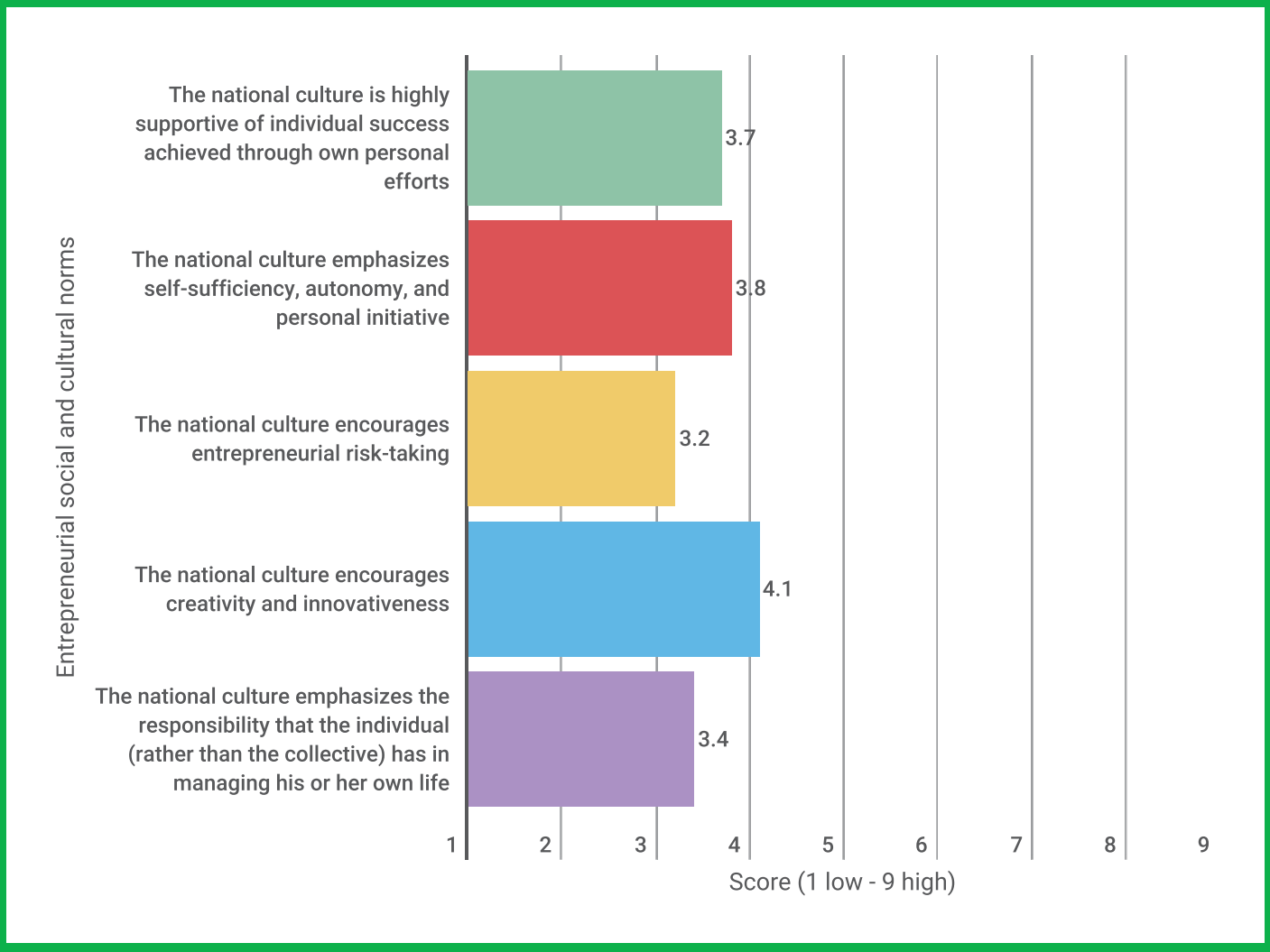
Innovation capabilities – which are essential to economies' ability to become competitive, particularly in higher-productivity sectors – are heavily dependent on research and development. It is evident from **Figure 3.9** that the experts believe that universities are not playing a central role in facilitating knowledge transfer and stimulating innovation. A common opinion is that universities play little to no role in supporting entrepreneurship and this view has not changed since 2015.

Again, the most positive perceptions of the national experts are related to the availability of science and technology base that efficiently supports the creation of world-class new technology-based ventures in at least one industrial sector. The ICT ventures are the most common case in question. Note that as a sector ICT is labour- and talent- intensive and as such its development relies on elite educational programs, which in the case of Bulgaria has a very limited, albeit growing, scale. This factors coupled with a trend of youth migration imposes substantial limitations on the growth of this internationally competitive economic activity.

3.2.5 Social and cultural norms

Figure 3.10 indicates for a second year in a row that the experts believe that Bulgaria's low levels of entrepreneurial activity are heavily influenced by a dominant culture of very low propensity to entrepreneurial risk-taking. The experts believe that currently, the dominant sentiment in Bulgaria is that little can be accomplished through personal efforts and personal initiative.

Figure 3.10 Average expert ratings for entrepreneurial social and cultural norms in Bulgaria, 2016
(weighted average, 1 = completely false, 9 = completely true)



Source: GEM Bulgaria National Expert Survey Survey 2016

In conclusion, an important focus of the national experts' survey, through helping to identify key strengths and weaknesses in the entrepreneurial environment, is to provide policy-makers and business leaders with information that enables them to put into place precise, practical and targeted recommendations. The key recommendations regarding business environment remain the same as last year, and most of the structural conditions for entrepreneurship received the same expert evaluations as in the GEM Bulgaria 2015 survey. Entrepreneurial activity is an output of the interaction of an individual's perception of an opportunity and capacity (motivation and skills) to act upon this and the distinct conditions of the particular environment, in which the individual is located. An economy cannot increase the quantity and quality of potential and intentional entrepreneurs without creating an enabling environment in which entrepreneurship can flourish. Informed policy decisions, which help to create a healthy entrepreneurial environment will be of benefit to entrepreneurs in all phases of their businesses, be it young start-ups, established or repeat entrepreneurs. Bulgaria has not made any significant progress regarding the environmental conditions for business. Given the active efforts of governments in the countries in the region to improve their business climate, the overwhelming stability of the experts' evaluation for Bulgaria appears to show the glass half empty rather than half full. In what follows we complement the list of policy recommendations we proposed last year and are making a call to two particularly important constituencies of our society: the media and the current entrepreneurs and managers.

4 CONCLUSION

4.1 Summarizing the findings: Recommendations for policy and practice

Bulgaria's improving but still low levels of entrepreneurial activity are driven by environmental conditions and individual intentions. While individual intentions showed an increase and give early signs for optimisms especially in the case of youth entrepreneurs, who seem to show more interest in self-employment than before, factor conditions have remained very stable and without significant improvements. Well-functioning entrepreneurial ecosystems emerge as a result of a complex symbiosis between individual aspirations and behaviours and collective action and government policies. In 2016 in Bulgaria, the initiative has been taken by the entrepreneurial individuals, while the society at large and the government appear to be waiting by the side line.

In this second annual report of GEM, Bulgaria experts extend a number of new recommendations for policy and practice to complement the list compiled in 2015, which remained largely unfulfilled. In addition, we make a special call to two constituencies that appear to be particularly critical for the rise and consolidation of young entrepreneurial ecosystems: media and acting entrepreneurs and managers.

Experts' recommendation for building national institutions for a successful entrepreneurial ecosystem The generalised view of the experts for a second year in a row is that entrepreneurship has not been identified as strategically important by the government. Below is a selection of national experts' advice that is meant to be complementary to the priorities pinpointed by the experts in the GEM Bulgaria report 2015/16.

1. **Crafting of a national strategy** for the development of entrepreneurship with explicit goals and transparent financing that is overseen by an independent agency the institutional design of which protects against political rent-seeking.
2. **Smart specialisation in a few sectors** where Bulgarian companies have strong capabilities for turning into regional and global leaders is seen as a necessary step in the maturing of Bulgarian entrepreneurial ecosystem.
3. **Expand the role of public-private** partnerships, while building in guarantees that corruption practices will be prosecuted. These are seen as particularly useful in the case of innovation-related activities and activities that involve a technological transfer.
4. **Transparent government purchases** are marked as an effective instrument to stimulate entrepreneurship and national industry. Open and transparent access of innovative high-tech companies to tenders for public procurement contracts is regarded as a highly effective mechanism for public support to entrepreneurship.
5. **Media coverage and recognition** by the government of truly successful entrepreneurial ventures is perceived as a soft but necessary mechanism to stimulate entrepreneurial culture. This suggestion fits well with a more ambitious idea of purposefully shifting the national mindset to more entrepreneurially supportive virtues such as innovation, risk-taking, enthusiasm and optimism.
6. **Change some specific administrative** arrangements that have a significant impact on the cost of engaging in entrepreneurial efforts such as labour –related tax obligations. Besides, crafting more flexible labour regulations regarding the new forms of employment such as teleworking is seen as essential for the development of a bubbling entrepreneurial ecosystem.
7. **Attracting large software and** technology companies to locate their R&D centres in Bulgaria and become part of the ecosystem is also seen as a way to create access to world-class knowledge for

all the participants in the Bulgarian entrepreneurial community.

8. **Activities that educate entrepreneurial** mindset and skillset introduced as early as elementary school level. Some level of financing of student entrepreneurial efforts is recommended.
9. **Provision of training and complementary** assessment of high-school graduates and university students in soft skills, among which entrepreneurial mindset, emotional and social skills have to be included. Emphasis on good practices and role models is likely to be an asset to such efforts. In particular, allow Universities to take an equity participation in business endeavours that use locally developed technology.
10. **Create educational opportunities** where entrepreneurship and science are brought together.
11. **Facilitate the hiring of foreigners.** Foreign technology experts are likely to bring both knowledge and contacts to enrich Bulgarian entrepreneurial ecosystem.
12. **Establish mechanisms to facilitate** travel and international exposure and validation of the ideas/prototypes created within the Bulgarian entrepreneurial ecosystem.
13. **Provide mentorship and support** for international patent protection and create stimuli for mentorship on the part of advanced businesses.
14. **Government initiatives for technology** transfer and technological parks can be managed by private entities through long-term public-private partnerships in order to eliminate political interference.
15. **Stimulate market-based financial** instruments and avoid political interference in grants management.
16. **Better collaboration with professional** business organisations on topics essential for entrepreneurship, including finance.
17. **A methodology and instruments** for assessment of the assets of software companies are needed to get access to loans, investment and grants.
18. **Establish a special regulatory** regime for high-risk financing and recognise its role in stimulating R&D activity, allowing pension funds to invest in VC-backed projects.
19. **Expand the financing options and start building the culture of startup financing, including through educating potential private investors. Currently, there is available funding for early-stage startups but not for A rounds.**

4.2 The role of the media in forming entrepreneurial intentions and behaviour

In the last year, media has lost their interest in entrepreneurship. If this happens to be an early sign of a sustained trend entrepreneurship has lost an important ally. Media are essential for the rise of entrepreneurial intentions because they facilitate exposure to role models and create the verbalisation and the symbols associated with entrepreneurial behaviour. These powerful levers have the potential to alter the notions of hope and faith in society as both of them are symbolic and verbally constructed and as a consequence change the aspirations, confidence and sense of worth and purpose of members of society. In this role, media share an enormous responsibility, which they have not fully accepted and certainly have not lived up to. The lower engagement of the media with entrepreneurship stories and news in Bulgaria is a conscious detachment from a deeply transformational process that affects the basis of economic productivity and societal well-being.

20. **Special informational campaigns** and efforts must be initiated to create awareness, understanding and interest in the stories generated inside the entrepreneurial community. Once again, short-term effects cannot be expected, but sustained educational efforts geared towards all types of mass media professionals are instrumental in influencing both individual entrepreneurial behaviour and societal attitudes toward it.

4.3 The role of acting entrepreneurs and managers

The level of business sophistication of Bulgarian companies is low and the associated managerial and leadership practices, in particular, those related to responsibility delegation and inter-firm entrepreneurial initiatives are not sophisticated either. The time has come to openly acknowledge that acting business leaders and entrepreneurs are as responsible for the competitiveness of the national economy as the government policies and their enforcement. Policies and regulations shape the context for business, but it is the labour productivity of the workers and the business sophistication of the firm leaders that determine the ultimate driver of competitiveness in any economic system–firm productivity. It is unlikely to see a huge surge in the scale and quality of entrepreneurship in the observable future unless there is a general improvement in the managerial and leadership practices of those currently in charge.

Acting entrepreneurs and managers should take their share of responsibility in nurturing an entrepreneurially-rich business environment, which can be hugely beneficial for their own purposes if they identify the ways to capitalise on innovation and experimentation. What matters is firm productivity, not wages alone and business leaders should upgrade their skills

ANNEXES

ANNEX 1

GEM 2016/17 NATIONAL EXPERT PANEL

Each year GEM Bulgaria conducts its own survey with face-to-face interviews with 36-45 experts – nominated by us and approved by the GEM consortium. All of the experts have worked in an area related to at least one of the nine framework conditions of GEM: Entrepreneurial Finance; Government Policy; Government Entrepreneurship Programmes; Entrepreneurship Education; Research & Development Transfer; Commercial & Legal Infrastructure; Market Openness; Physical Infrastructure; Cultural & Social Norms.

The experts express their personal opinion, not the organization's they currently affiliate with.

1. **Anna-Marie Vilamovska** - Former Secretary for Innovation and Healthcare at the administration of the President of Republic of Bulgaria
2. **Anton Gerunov** - Former Chief of Staff and E-Governance Lead to the Deputy Prime Minister (2014-2017)
3. **Antonii Todorov** - Sociologist, political analyst
4. **Christo Moskov** - General Manager of Sofia Business Park
5. **Diana Nikolaeva** - Partner in Transaction Advisory Services at EY
6. **Dimitar Dimitrov** - Corr. Mem. Full professor, Advisor to the President of Bulgarian Academy of Science
7. **Evgeni Evgeniev** - Vice Rector at University of Finance, Business and Entrepreneurship
8. **Filip Genov** - Vice President of Unicredit Bulbank
9. **George Parvanov** - Member of the Management Board, Bulgarian People Management Association, Member of EAPM
10. **Hristo Georgiev** - Board Member of StartUP foundation
11. **Hristo Stoyanov** - Regional Mandate Manager, European Investment Fund
12. **Iliyana Tsanova** - Deputy Managing Director of the European Fund for Strategic Investment (EFSI)
13. **Ivelina Peneva** - Director General at Ministry of Economy, DG "EU Funds for Competetiveness"
14. **Juliana Antonova** - Sales director, ePay
15. **Kiril Petkov** - CEO of BDC
16. **Krum Hadjigeorgiev** - CEO at Melon, Member of the Board of Directors of Bulgarian software development companies
17. **Lyubomir Yanchev** - Founder of Melissa Climate
18. **Milena Stoycheva** - CEO of Junior Achievement Bulgaria
19. **Miroslav Stoyanov** - Former Director Investment Banking & Member of the Board of Elana Trading
20. **Nayden Nikolov** - Political Analyst and entrepreneur
21. **Nikola Yanev** - President of Start It Smart

22. **Nikolay Denkov** - former Deputy Minister and Operational Program "Science and Education for Smarth Growth", Ministry of Education and Science, Bulgaria 2014-2016
23. **Nikolay Yarmov** - Founder and CEO of CEED Bulgaria - Centre for Entrepreneurship Education and Development
24. **Peter Ivanov** - former General Manager, Microsoft Bulgaria
25. **Richard Clegg** - Partner at Wolf Theiss
26. **Sasha Bezuhanova** - Founder of Move.bg
27. **Stanimir Nenov** - Founder and CEO Advokatami.bg
28. **Stefan Hadjitodorov** - Advisor to the President of Bulgarian Academy of Science, Prof. at the Institute of Biophysics and Biomed Engineering
29. **Svetlin Nakov** - Co founder of Software University
30. **Tania Hristova** - Mayor of the town of Gabrovo
31. **Teodora Vasileva** - Deputy Editor of Capital Weekly
32. **Tunio Zafer** - CEO at pCloud.com
33. **Tzvetana Ivanova** - Manager of regional information centre in town of Vratza
34. **Vladimir Popov** - CEO of VAPTECH
35. **Yassen Guev** - former Chief Corporate Affairs at Telenor
36. **Yuriy Valkovski** - Director of Reach for Change Foundation

ANNEX 2

COUNTRY PROFILES

BULGARIA

Population: 7.2 million **(2015)**

GDP: $49.0 billion **(2015)**

GDP per capita: $6,381 **(2015)**

SME contribution to GDP: 66% **(2015)**

World Bank Doing Business *Rating* (2015): 74/100; ***Rank:*** 39/190

World Bank Starting a Business *Rating* (2015): N/A; ***Rank:*** 82/190

World Economic Forum Global Competitiveness *Rating* (2015): 4.4/7; ***Rank:*** 50/138

Economic Development Phase: Efficiency-Driven

Self-Perceptions About Entrepreneurship	Value %	Rank/64
Perceived opportunities	21.0	62
Perceived capabilities	39.7	52
Undeterred by fear of failure	25.1	58
Entrepreneurial intentions	7.1	60

Activity	Value %	Rank/64
Total Early-stage Entrepreneurial Activity (TEA)		
TEA 2016	4.8	61
TEA 2015	3.5	58
TEA 2014	N/A	N/A
Established business ownership rate	6.2	38T
Entrepreneurial Employee Activity – EEA	0.9	52

Motivational Index	Value	Rank/64
Improvement-Driven Opportunity/Necessity Motive	1.1	53T

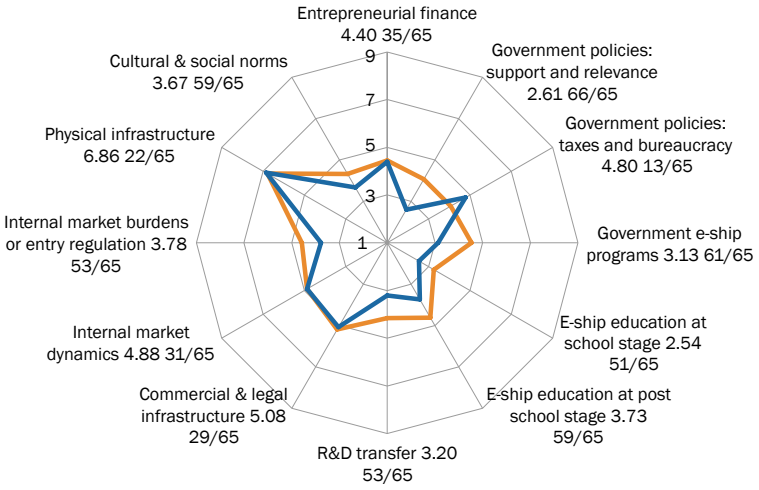
Gender Equality	Value	Rank/64
Female/Male TEA Ratio	0.80	18T
Female/Male Opportunity Ratio	1.05	10T

Entrepreneurship Impact	Value %	Rank/64
Job expectations (6+)	13.4	48
Innovation	17.5	51T
Industry (% in Business Services Sector)	13.5	38

Societal Value About Entrepreneurship	Value %	Rank/61
High status to entrepreneurs	66.9	35
Entrepreneurship a good career choice	52.9	50

Expert Ratings of the Entrepreneurial Eco-system (ranked out of 65)

EUROPE — BULGARIA — 1 = highly insufficient, 9 = highly sufficient



Source: GEM Global report 2016/17

CANADA

Population: 35.8 million **(2015)**

GDP: $1,552.4 billion **(2015)**

GDP per capita: $43,332 **(2015)**

SME contribution to GDP: 27% **(2015)**

World Bank Doing Business *Rating* (2015): 79/100; ***Rank:*** 22/190

World Bank Starting a Business *Rating* (2015): N/A; ***Rank:*** 2/190

World Economic Forum Global Competitiveness *Rating* (2015): 5.3/7; ***Rank:*** 15/138

Economic Development Phase: Innovation-Driven

Self-Perceptions About Entrepreneurship

	Value %	Rank/64
Perceived opportunities	59.0	8
Perceived capabilities	54.1	23
Undeterred by fear of failure	39.0	24
Entrepreneurial intentions	14.0	41

Activity

	Value %	Rank/64
Total Early-stage Entrepreneurial Activity (TEA)		
TEA 2016	16.7	12
TEA 2015	14.7	17
TEA 2014	13.0	N/A
Established business ownership rate	6.8	35
Entrepreneurial Employee Activity – EEA	5.9	14

Motivational Index

	Value	Rank/64
Improvement-Driven Opportunity/Necessity Motive	3.4	20

Gender Equality

	Value	Rank/64
Female/Male TEA Ratio	0.66	33T
Female/Male Opportunity Ratio	1.03	16T

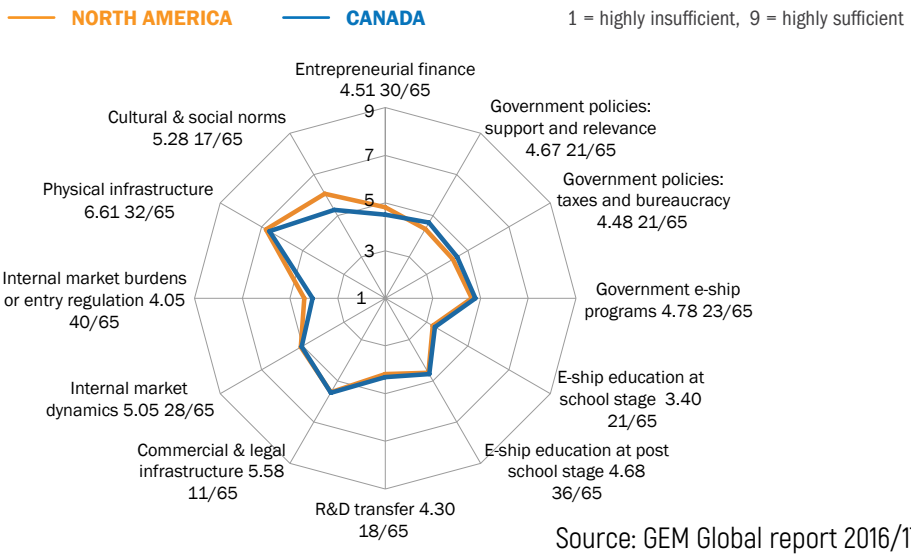
Entrepreneurship Impact

	Value %	Rank/64
Job expectations (6+)	15.9	46
Innovation	40.9	5
Industry (% in Business Services Sector)	26.2	15

Societal Value About Entrepreneurship

	Value %	Rank/61
High status to entrepreneurs	73.5	23
Entrepreneurship a good career choice	65.5	26

Expert Ratings of the Entrepreneurial Eco-system (ranked out of 65)



Source: GEM Global report 2016/17

ESTONIA

Population: 1.3 million **(2015)**

GDP: $22.7 billion **(2015)**

GDP per capita: $17,288 **(2015)**

SME contribution to GDP: 75% **(2015)**

World Bank Doing Business *Rating* (2015): 81/100; ***Rank:*** 12/190

World Bank Starting a Business *Rating* (2015): N/A; ***Rank:*** 14/190

World Economic Forum Global Competitiveness *Rating* (2015): 4.8/7; ***Rank:*** 30/138

Economic Development Phase: Innovation-Driven

Self-Perceptions About Entrepreneurship

	Value %	Rank/64
Perceived opportunities	52.3	15
Perceived capabilities	43.7	43
Undeterred by fear of failure	41.2	15
Entrepreneurial intentions	16.4	35T

Activity

	Value %	Rank/64
Total Early-stage Entrepreneurial Activity (TEA)		
TEA 2016	16.2	13
TEA 2015	13.1	22
TEA 2014	9.4	N/A
Established business ownership rate	7.8	25
Entrepreneurial Employee Activity – EEA	6.3	10

Motivational Index

	Value	Rank/64
Improvement-Driven Opportunity/Necessity Motive	3.3	21

Gender Equality

	Value	Rank/64
Female/Male TEA Ratio	0.56	43T
Female/Male Opportunity Ratio	1.02	18T

Entrepreneurship Impact

	Value %	Rank/64
Job expectations (6+)	27.0	18
Innovation	34.5	13
Industry (% in Business Services Sector)	26	16T

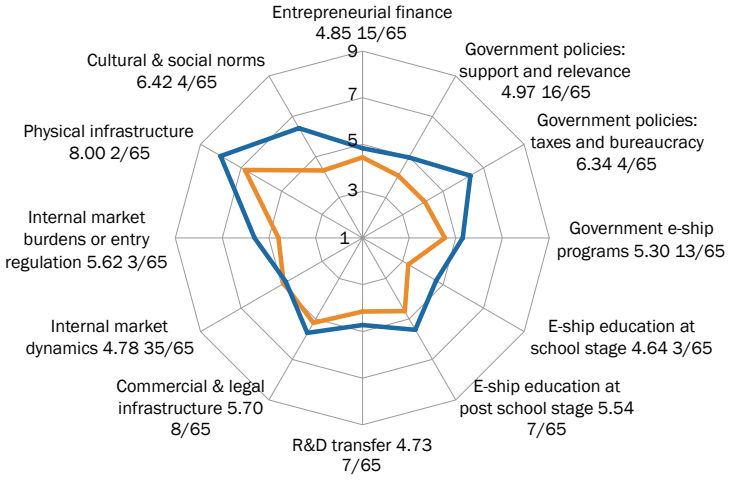
Societal Value About Entrepreneurship

	Value %	Rank/61
High status to entrepreneurs	63.6	41
Entrepreneurship a good career choice	53.2	49

Expert Ratings of the Entrepreneurial Eco-system (ranked out of 65)

EUROPE — ESTONIA

1 = highly insufficient, 9 = highly sufficient



Source: GEM Global report 2016/17

GREECE

Population: 10.8 million **(2015)**

GDP: $195.3 billion **(2015)**

GDP per capita: $18,064 **(2015)**

SME contribution to GDP: 75% **(2015)**

World Bank Doing Business *Rating* (2015): 69/100; ***Rank:*** 61/190

World Bank Starting a Business *Rating* (2015): N/A; ***Rank:*** 56/190

World Economic Forum Global Competitiveness *Rating* (2015): 4.0/7; ***Rank:*** 86/138

Economic Development Phase: Innovation-Driven

Self-Perceptions About Entrepreneurship

	Value %	Rank/64
Perceived opportunities	13.0	64
Perceived capabilities	41.7	47
Undeterred by fear of failure	52.7	2
Entrepreneurial intentions	8.1	56

Activity

	Value %	Rank/64
Total Early-stage Entrepreneurial Activity (TEA)		
TEA 2016	5.7	56T
TEA 2015	6.7	48
TEA 2013	7.9	N/A
Established business ownership rate	14.1	8
Entrepreneurial Employee Activity – EEA	1.4	44T

Motivational Index

	Value	Rank/64
Improvement-Driven Opportunity/Necessity Motive	1.1	53T

Gender Equality

	Value	Rank/64
Female/Male TEA Ratio	0.73	22T
Female/Male Opportunity Ratio	0.89	49T

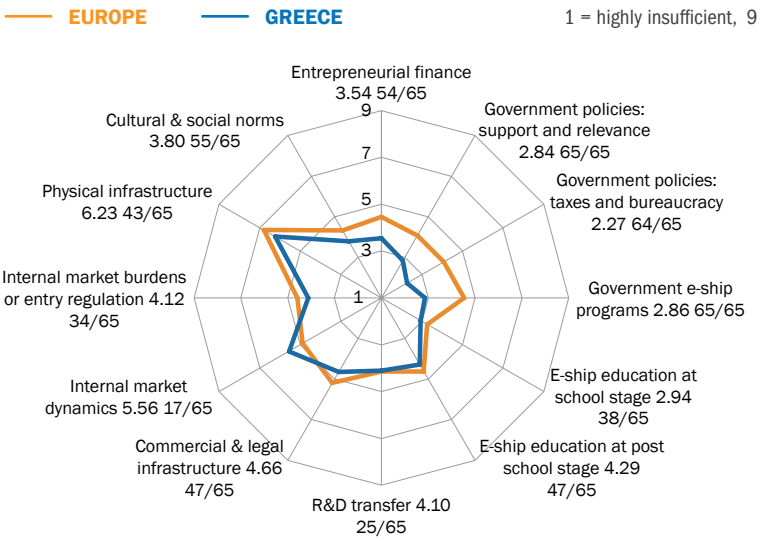
Entrepreneurship Impact

	Value %	Rank/64
Job expectations (6+)	9.7	52T
Innovation	24.8	33
Industry (% in Business Services Sector)	17.3	30

Societal Value About Entrepreneurship

	Value %	Rank/61
High status to entrepreneurs	65.9	37
Entrepreneurship a good career choice	63.6	30

Expert Ratings of the Entrepreneurial Eco-system (ranked out of 65)



Source: GEM Global report 2016/17

IRELAND

Population: 4.6 million **(2015)**

GDP: $238.0 billion **(2015)**

GDP per capita: $51,351 **(2015)**

SME contribution to GDP: 47% **(2015)**

World Bank Doing Business *Rating* (2015): 80/100; ***Rank:*** 18/190

World Bank Starting a Business *Rating* (2015): N/A; ***Rank:*** 10/190

World Economic Forum Global Competitiveness *Rating* (2015): 5.2/7; ***Rank:*** 23/138

Economic Development Phase: Innovation-Driven

Self-Perceptions About Entrepreneurship

	Value %	Rank/64
Perceived opportunities	45.2	25
Perceived capabilities	44.9	40
Undeterred by fear of failure	39.6	22
Entrepreneurial intentions	12.9	43

Activity

	Value %	Rank/64
Total Early-stage Entrepreneurial Activity (TEA)		
TEA 2016	10.9	29
TEA 2015	9.3	40
TEA 2014	6.5	N/A
Established business ownership rate	4.4	52T
Entrepreneurial Employee Activity – EEA	6.2	11

Motivational Index

	Value	Rank/64
Improvement-Driven Opportunity/Necessity Motive	3.2	22T

Gender Equality

	Value	Rank/64
Female/Male TEA Ratio	0.50	51T
Female/Male Opportunity Ratio	1.00	22T

Entrepreneurship Impact

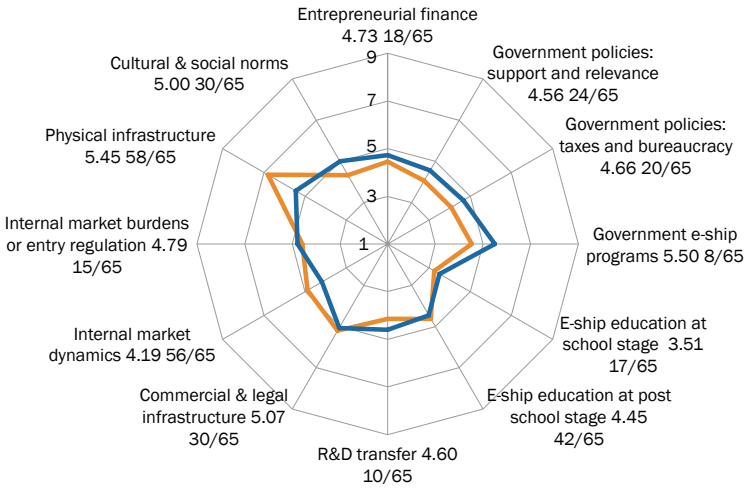
	Value %	Rank/64
Job expectations (6+)	36.7	5
Innovation	40.0	6
Industry (% in Business Services Sector)	23.7	20

Societal Value About Entrepreneurship

	Value %	Rank/61
High status to entrepreneurs	83.1	5
Entrepreneurship a good career choice	56.3	43

Expert Ratings of the Entrepreneurial Eco-system (ranked out of 65)

EUROPE — IRELAND — 1 = highly insufficient, 9 = highly sufficient



Source: GEM Global report 2016/17

ISRAEL

Population: 8.4 million **(2015)**

GDP: $296.1 billion **(2015)**

GDP per capita: $35,343 **(2015)**

SME contribution to GDP: 45% **(2012)**

World Bank Doing Business *Rating* (2015): 72/100; ***Rank:*** 52/190

World Bank Starting a Business *Rating* (2015): N/A; ***Rank:*** 41/190

World Economic Forum Global Competitiveness *Rating* (2015): 5.2/7; ***Rank:*** 24/138

Economic Development Phase: Innovation-Driven

Self-Perceptions About Entrepreneurship	Value %	Rank/64
Perceived opportunities	53.7	13
Perceived capabilities	41.1	50
Undeterred by fear of failure	48.7	7
Entrepreneurial intentions	20.6	29

Activity	Value %	Rank/64
Total Early-stage Entrepreneurial Activity (TEA)		
TEA 2016	11.3	27
TEA 2015	11.8	27
TEA 2014	N/A	N/A
Established business ownership rate	4.0	56
Entrepreneurial Employee Activity – EEA	7.3	4T

Motivational Index	Value	Rank/64
Improvement-Driven Opportunity/Necessity Motive	2.6	31T

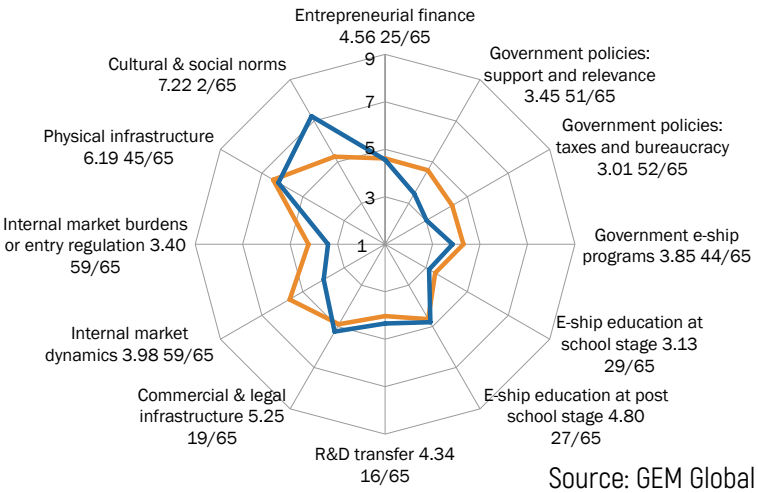
Gender Equality	Value	Rank/64
Female/Male TEA Ratio	0.71	27T
Female/Male Opportunity Ratio	1.15	2

Entrepreneurship Impact	Value %	Rank/64
Job expectations (6+)	22.1	29
Innovation	30.4	20
Industry (% in Business Services Sector)	34.8	3

Societal Value About Entrepreneurship	Value %	Rank/61
High status to entrepreneurs	85.5	3
Entrepreneurship a good career choice	64.2	28

Expert Ratings of the Entrepreneurial Eco-system (ranked out of 65)

ASIA & OCEANIA — ISRAEL — 1 = highly insufficient, 9 = highly sufficient



Source: GEM Global report 2016/17

POLAND

Population: 38.0 million **(2015)**

GDP: $474.9 billion **(2015)**

GDP per capita: $12,495 **(2015)**

SME contribution to GDP: 52% **(2015)**

World Bank Doing Business *Rating* (2015): 78/100; ***Rank:*** 24/190

World Bank Starting a Business *Rating* (2015): N/A; ***Rank:*** 107/190

World Economic Forum Global Competitiveness *Rating* (2015): 4.6/7; ***Rank:*** 36/138

Economic Development Phase: Efficiency-Driven

Self-Perceptions About Entrepreneurship	Value %	Rank/64
Perceived opportunities	39.5	36
Perceived capabilities	60.2	14
Undeterred by fear of failure	47.6	8
Entrepreneurial intentions	20.8	28

Activity	Value %	Rank/64
Total Early-stage Entrepreneurial Activity (TEA)		
TEA 2016	10.7	30
TEA 2015	9.2	37T
TEA 2014	9.2	N/A
Established business ownership rate	7.1	32T
Entrepreneurial Employee Activity – EEA	5.2	20

Motivational Index	Value	Rank/64
Improvement-Driven Opportunity/Necessity Motive	2.0	34T

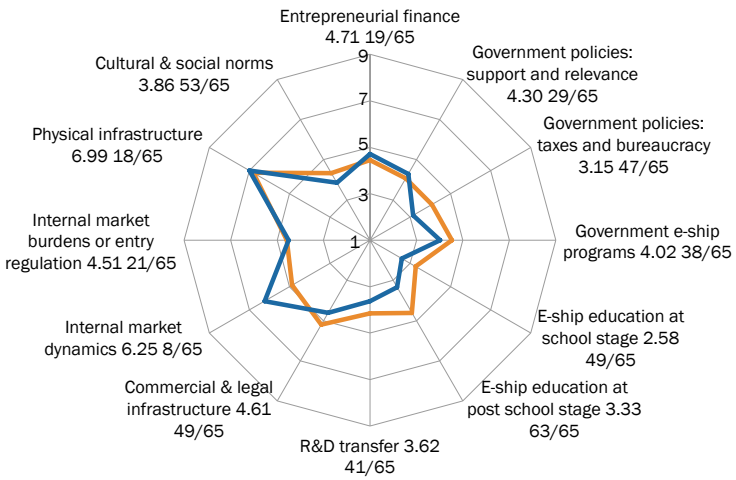
Gender Equality	Value	Rank/64
Female/Male TEA Ratio	0.61	37T
Female/Male Opportunity Ratio	0.90	45T

Entrepreneurship Impact	Value %	Rank/64
Job expectations (6+)	28.3	16
Innovation	27.7	26
Industry (% in Business Services Sector)	32.4	6

Societal Value About Entrepreneurship	Value %	Rank/61
High status to entrepreneurs	56.2	53
Entrepreneurship a good career choice	61.9	35

Expert Ratings of the Entrepreneurial Eco-system (ranked out of 65)

EUROPE — POLAND — 1 = highly insufficient, 9 = highly sufficient



Source: GEM Global report 2016/17

TURKEY

Population: 77.7 million (2015)

GDP: $733.6 billion (2015)

GDP per capita: $9,437 (2015)

SME contribution to GDP: 53.9% **(2015)**

World Bank Doing Business *Rating* (2015): 67/100; ***Rank:*** 69/190

World Bank Starting a Business *Rating* (2015): N/A; ***Rank:*** 79/190

World Economic Forum Global Competitiveness *Rating* (2015): 4.4/7; ***Rank:*** 55/138

Economic Development Phase: Efficiency-Driven

Self-Perceptions About Entrepreneurship

	Value %	Rank/64
Perceived opportunities	49.6	19
Perceived capabilities	54.2	22
Undeterred by fear of failure	30.9	46
Entrepreneurial intentions	30.3	17

Activity

	Value %	Rank/64
Total Early-stage Entrepreneurial Activity (TEA)		
TEA 2016	16.1	14
TEA 2015	N/A	N/A
TEA 2014	N/A	N/A
Established business ownership rate	9.4	15
Entrepreneurial Employee Activity – EEA	3.6	26T

Motivational Index

	Value	Rank/64
Improvement-Driven Opportunity/Necessity Motive	1.9	36T

Gender Equality

	Value	Rank/64
Female/Male TEA Ratio	0.45	60
Female/Male Opportunity Ratio	0.97	28T

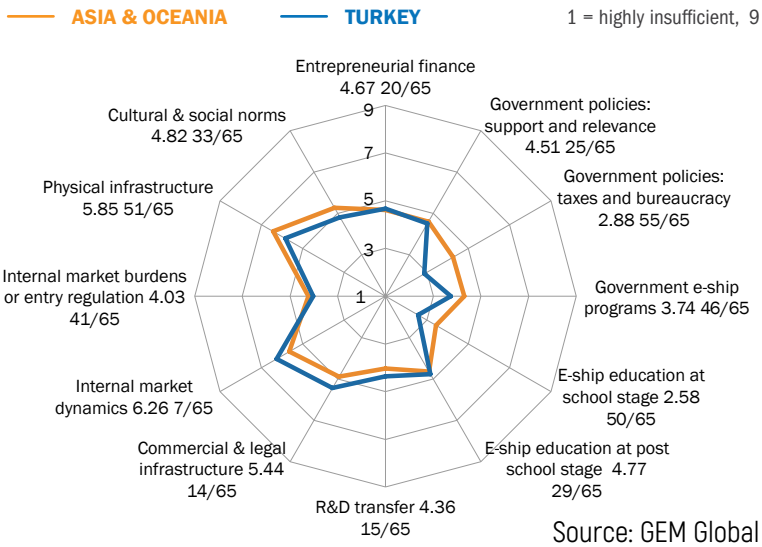
Entrepreneurship Impact

	Value %	Rank/64
Job expectations (6+)	48.1	2
Innovation	30.8	19
Industry (% in Business Services Sector)	5.3	56

Societal Value About Entrepreneurship

	Value %	Rank/61
High status to entrepreneurs	72.1	24
Entrepreneurship a good career choice	80.8	5

Expert Ratings of the Entrepreneurial Eco-system (ranked out of 65)



Source: GEM Global report 2016/17

UNITED KINGDOM

Population: 65.1 million (2015)

GDP: $2,849.3 billion (2015)

GDP per capita: $43,771 (2015)

SME contribution to GDP: 52% **(2015)**

World Bank Doing Business *Rating* (2015): 83/100; ***Rank:*** 7/190

World Bank Starting a Business *Rating* (2015): N/A; ***Rank:*** 16/190

World Economic Forum Global Competitiveness *Rating* (2015): 5.5/7; ***Rank:*** 7/138

Economic Development Phase: Innovation-Driven

Self-Perceptions About Entrepreneurship

	Value %	Rank/64
Perceived opportunities	42.3	32
Perceived capabilities	48.0	34T
Undeterred by fear of failure	35.2	37
Entrepreneurial intentions	9.1	54

Activity

	Value %	Rank/64
Total Early-stage Entrepreneurial Activity (TEA)		
TEA 2016	8.8	40
TEA 2015	6.9	47
TEA 2014	10.7	N/A
Established business ownership rate	6.1	40T
Entrepreneurial Employee Activity – EEA	7.0	7T

Motivational Index

	Value	Rank/64
Improvement-Driven Opportunity/Necessity Motive	3.8	16

Gender Equality

	Value	Rank/64
Female/Male TEA Ratio	0.47	55T
Female/Male Opportunity Ratio	0.95	34T

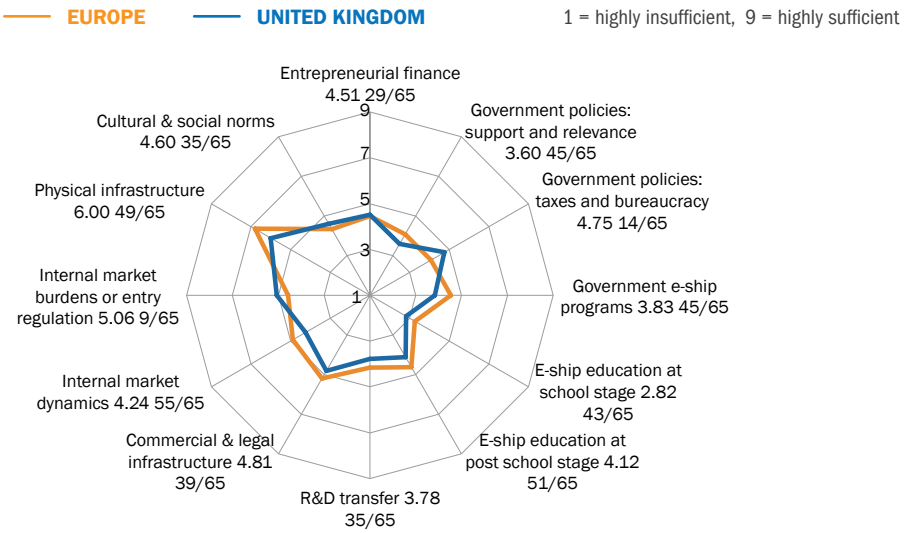
Entrepreneurship Impact

	Value %	Rank/64
Job expectations (6+)	28.4	15
Innovation	33.0	17
Industry (% in Business Services Sector)	33.7	4T

Societal Value About Entrepreneurship

	Value %	Rank/61
High status to entrepreneurs	77.2	19
Entrepreneurship a good career choice	58.8	38

Expert Ratings of the Entrepreneurial Eco-system (ranked out of 65)



Source: GEM Global report 2016/17


GEM

ANNEX 3

GEM OPERATIONAL DEFINITIONS

Total Early-stage entrepreneurial activity (TEA)

Percentage of individuals aged 18-64 who are either a nascent entrepreneur or owner-manager of a new business in the past 42 months.

Nascent entrepreneurship rate

Percentage of individuals aged 18-64 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 individuals aged 18-64 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.

Opportunity-based early-stage entrepreneurial activity

Percentage of individuals involved in early-stage entrepreneurial activity (as defined above) who claim to be purely or partly driven by opportunity as opposed to finding no other option for work. This includes taking advantage of a business opportunity or having a job but seeking better opportunity.

Necessity-based early-stage entrepreneurial activity

Percentage of individuals involved in early-stage entrepreneurial activity (as defined above) who claim to be driven by necessity (having no better choice for work) as opposed to opportunity.

Improvement-driven opportunity early-stage entrepreneurial activity

Percentage of individuals involved in early-stage entrepreneurial activity (as defined above) who (1) claim to be driven by opportunity as opposed to finding no other option for work; and (2) who indicate that the main driver for being involved in this opportunity is being independent or increasing their income, rather than just maintaining their income.

High-growth expectation early-stage entrepreneurial activity

Percentage of early-stage entrepreneurs (as defined above) who expect to employ at least 6+ people five years from now.

New product-market-oriented early-stage entrepreneurial activity

Percentage of early-stage entrepreneurs (as defined above) who report that their product or service is new to at least some customers and that not many businesses offer the same product or service.

International-oriented early-stage entrepreneurial activity

Percentage of early-stage entrepreneurs (as defined above) who report that at least 25% of their customers are from foreign countries.

Established business ownership rate
Percentage of individuals aged 18-64 who are currently an owner-manager of an established business, i.e., owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than 42 months.

Business discontinuation rate
Percentage of individuals aged 18-64 who, in the past 12 months, have discontinued a business, either by selling, shutting down, or otherwise discontinuing an owner/management relationship with the business.

Entrepreneurial employee rate (EEA) is measured by the following two rates:
- broad definition: employee who in the past three years was actively involved in and had a leading role in at least one of the following phases, idea development for a new activity or preparation and implementation of a new activity
- narrow definition: employee who is currently involved in the development of such new activities.

Perceived opportunities
Percentage of individuals aged 18-64 involved in any stage of entrepreneurial activity excluded who see good opportunities to start a business in the area where they live.

Perceived capabilities
Percentage of individuals aged 18-64 involved in any stage of entrepreneurial activity excluded who believe they have the required skills and knowledge to start a business.

Entrepreneurial intentions
Percentage of individuals aged 18-64 involved in any stage of entrepreneurial activity excluded who are latent entrepreneurs and who intend to start a business within three years.

Potential entrepreneurial rate
Percentage of those individuals aged between 18-64 years who believe they possess the capabilities to start businesses, who see opportunities for entrepreneurship, and who would not be dissuaded from doing so by fear of failure.

Fear of failure rate
Percentage of individuals aged 18-64 not involved in any stage of entrepreneurial activity who report that fear of failure would prevent them from setting up a business.

Entrepreneurship as desirable career choice
Percentage of 18-64 population 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 population who agree with the statement that in their country successful entrepreneurs receive high status.

Media attention for entrepreneurship
Percentage of 18-64 population who agree with the statement that in their country they will often see stories in the public media about successful new businesses.

Source: Singer et al., 2015, p. 24 and Amorós and Bosma, 2014, pp. 24-29

ANNEX 4
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