



Global
Entrepreneurship
Monitor
Bulgaria

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GEM NATIONAL REPORT ON ENTREPRENEURSHIP IN BULGARIA 2017/18 & 2018/19



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2017/18 & 2018/19 GEM NATIONAL REPORT ON ENTREPRENEURSHIP IN BULGARIA

Veneta Andonova, PhD

with Mira Krusteff and Christian Betov

with the participation of
Yasen Georgiev, Economic Policy Institute



Disclaimer: Although GEM data were used to prepare this report, their interpretation and use are the authors' sole responsibility.

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2017/18 & 2018/19 GEM National report on entrepreneurship in Bulgaria by Veneta Andonova, Mira Krusteff, and Christian Betov

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3. innovation

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DEFINITIONS

Nascent Entrepreneurship Rate – % of the 18-64 population currently nascent entrepreneurs, i.e., actively involved in setting up a business they will own or co-own; this business has not paid salaries, wages, or any other payments to the owners for more than 3 months.

New Business Ownership Rate – % of the 18-64 population currently owner-manager of a new business, i.e., owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than three months, but not more than 42 months.

Total [early-stage] Entrepreneurial Activity (TEA) – % of the 18-64 population who are either nascent entrepreneur or owner-manager of a new business.

Necessity-Driven Entrepreneurial Activity – % of those involved in TEA involved in entrepreneurship because they had no better options for work.

Improvement-Driven Opportunity Entrepreneurial Activity – % of those involved in TEA who (i) state they are driven by opportunity as opposed to having no better options for work; and (ii) who indicate the main driver for being involved in this opportunity is being independent or increasing their income, rather than just maintaining their income.

Growth Expectation Entrepreneurial Activity – % of TEA who expect to employ a particular number of employees five years from now, minus the current number of employees.

Innovative Entrepreneurial Activity – % of TEA indicating their product or service is new to some or all customers & is offered by few or no competitors.

International Oriented Entrepreneurial Activity – % of TEA who indicate that at least 25% of their sales are to customers who come from other countries.

Entrepreneurial Employee Activity – % of the 18-64 population who, as employees, have been involved in entrepreneurial activities such as developing or launching new goods or service or setting up a new business unit, a new establishment, or a subsidiary.

Family (early-stage) Business Activity – % of the 18-64 population involved in TEA and (i) own and manage at least part of the business together with family members (strong indication), or (ii) who own the business themselves but manage the business together with family members (some indication).

Gig Economy Participation – % of the 18-64 population who have received income from paid work obtained via a digital platform.

Sharing Economy Participation – % of the 18-64 population who have received income from renting or leasing out some of their own goods or property or from granting access to services they provide through a digital platform.

Established Business Ownership Rate – % of the 18-64 population who are currently owner-manager of an established business, i.e., owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than 42 months.

Business Discontinuance – % of the 18-64 population who have discontinued a business in the past 12 months, either by selling, shutting down, or otherwise discontinuing an owner/management relationship with the business.

High Status for Successful Entrepreneurship – % of the 18-64 population who agree with the statement that in their country, successful entrepreneurs receive high status.

Entrepreneurship as Desirable Career Choice – % of the 18-64 y.o. who agree with the statement that in their country, most people consider starting a business as a desirable career choice.

Media Attention for Entrepreneurship – % of the 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.

Perceived Opportunities – % of the 18-64 population who see good opportunities to start a firm in the area where they live.

Perceived Capabilities – % of the 18-64 population who believe they have the required skills and knowledge to start a business.

Fear of Failure Rate – % of the 18-64 y.o. with perceived opportunities which indicate that fear of failure would prevent them from setting up a business.

Entrepreneurial Intentions – % of the 18-64 population (individuals involved in any stage of entrepreneurial activity excluded) who intend to start a business within three years

ABOUT GEM BULGARIA



The Global Entrepreneurship Monitor (GEM) is the largest and foremost ongoing study on entrepreneurship dynamic in the world. It is a consortium of national country teams, primarily associated with top academic institutions, that carries out survey-based research on entrepreneurship across the globe. GEM is the only global research source that collects data on entrepreneurship directly from individual entrepreneurs! The unique GEM tools and data benefit numerous stakeholder groups:

- Academics can apply unique approaches to studying entrepreneurship at the national level;
- Policymakers can make better-informed decisions to help their entrepreneurial ecosystems thrive;
- Entrepreneurs have better knowledge on where to invest and influence;
- Sponsors collaborate with GEM to advance their organizational interests;
- International organizations leverage the entrepreneurial insights from GEM through reports, events, and more.

In numbers, GEM is:

- 20 years of data
- 200,000+ interviews a year
- 100+ economies
- 500+ specialists in entrepreneurship research
- 300+ academic and research institutions
- 200+ funding institutions

GEM began in 1999 as a joint project between Babson College (USA) and London Business School (UK). The consortium has become the richest resource of information on entrepreneurship, publishing a range of global, national, and 'special topic' reports annually.

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 a social and economic transformation within a balanced entrepreneurship ecosystem.

TEAM

The GEM Bulgaria team consists of experts in entrepreneurship, media, research, data analysis, academia and education, business intelligence, NGOs, policymaking, and the EU.

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

AUTHORS

VENETA ANDONOVA-ZULETA PhD



Veneta is Dean and an Associate Professor of Business at the Universidad de los Andes School of Management. Veneta is devoted to the development and adaptation of business strategies in emerging countries and those in transition. Professor Andonova supports young entrepreneurs as a tutor and a mentor and helps companies understand effective and innovative, and sustainable business models suitable for environments with serious social, environmental and economic challenges.

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

She is a frequent guest and speaker at international conferences and academic programs. She has published articles in international journals, and her reports and MOOC courses are popular among the international academic and learning communities.

MIRA KRUSTEFF



Mira 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 a 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. Since returning to Bulgaria with her family, Mira is an entrepreneur and a member of the board of the non-for-profit GEM Bulgaria.

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Christian is a German-Bulgarian Bachelor in business administration from Fontys University, Netherlands, and has a Master's degree in Latin American Studies from Universidad de Salamanca, Spain. Currently, he is an Analyst in the Retail Real Estate sector. Prior to that, he was active in management consulting and employer branding. Christian has been involved with processing data and sourcing graphs for high-profile publications, analysis and report editing, and publications on entrepreneurship and innovation.

SPONSORS



Bulgarian Entrepreneurship Center

InterCulture Foundation was created in 2008 by Larry Biehl and his wife, Maggie Kritzer, financial advisors and investment managers from Silicon Valley. They traveled around the world in order to identify interesting places with the mission to create “common spaces between cultures in a culturally competent way”. In 2014 they discovered Bulgaria and established the Bulgarian Entrepreneurship Center (BEC). The goal was to promote entrepreneurship throughout all elements of society and to build a “knowledge bridge” between America and Bulgaria. BEC created several educational programs: Teenovator, the Master in Entrepreneurship program, Pragmatic marketing, My Own Business Institute, University Innovation Fellows and many others.



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.



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SuperHosting.BG is the largest and 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



MarketTest

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 the general population, businesses and/or some specific target groups. During its 26 years of existence, Market Test has contributed to the launch of new products and services on the Bulgarian market to develop entrepreneurship in Bulgaria.

EXECUTIVE SUMMARY

Background of the Global Entrepreneurship Monitor

The independent study of entrepreneurship by the Global Entrepreneurship Monitor has welcomed Bulgaria 5 years ago in its annual tracking of entrepreneurship rates and analyzing national environments and global dynamics. GEM Bulgaria launched reports 2015/2016 and 2016/2017 and now presents two years' worth of data and analysis in the current combined 2017/2018 & 2018/2019 report. In 2019 the Global Entrepreneurship Monitor consortium celebrated its 20th anniversary of research, report, and analyses of over 100 countries!

GEM provides unique information on individuals - attributes, values, activities, and interactions with the environment in practicing entrepreneurial behavior - proactiveness, 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 a national country report, usually, within ten months of the global. The GEM Consortium also publishes several special topic reports featuring national data.

Objective and scope

GEM is different from most current studies on entrepreneurship. It does not just look at the businesses but also at the individuals between the ages of 18 and 64 years from a demographically representative portion of the population. GEM looks at individuals, their attitudes, aspirations at what makes them think and do or not do, as these indicators play an essential part in the entrepreneurial pipeline moving towards actually starting a business and growing it until it is fully established.

According to GEM:

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 combined with 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;
2. to identify the factors which encourage or hinder entrepreneurial activity, and

3. to guide the formulation of effective and targeted actions to enhance the entrepreneurial capacity in Bulgaria.

To provide reliable comparisons across countries, GEM obtains data using harmonized research design across all participating countries. The data is gathered on an annual basis from two sources locally and submitted to the consortium:

- a) **Adult population Survey (APS)** random representative sample of 2 000 adults between 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 a significant 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 GEM consortium methodology uses the grouping of countries by economic development stage as developed by Michael Porter: factor-, efficiency- and innovation-driven economies as it matches the patterns of entrepreneurial behavior and often the specifics of the environment. It is a very useful benchmark and is used throughout the report.

Another critical element of the GEM methodology is the data gathering of entrepreneurial activity by phases: nascent, new business, total early-stage (TEA), established business, and discontinuance.

The current 2017/2018 and 2018/2019 report scans through the GEM data across years together with other trustworthy resources for Bulgaria, benchmark

groups, and global averages. We do so to outline the current strengths and areas of improvement in the Bulgarian ecosystem and the Balkans. We are drawing from our 5-year research activity and project the key directions for the region to benefit policymakers, investors, educators, corporations, journalists, consultants, service providers and not last, entrepreneurs and their forms of association.

While there is rarely a particular "right" or "wrong" level or a mix of indicators, they have to be understood in their geographical, political, economic, demographic, and cultural context in order to direct and synchronize the stakeholders' efforts.

Key findings

See DEFINITIONS for details

ENTREPRENEURIAL ACTIVITY in Bulgaria shows minimal changes for a period of 4 years. Bulgaria has a good share of established businesses and one of the lowest early-stage activity rate (TEA) globally. The latter is of particular concern when combined with almost absent intention to start and mostly not seeing good opportunities to start. Interestingly, fear of failure is not a major deterrent for those who do see opportunities. Entrepreneurship continues to be associated with a good career and a high status.

Entrepreneurship by stage

- From 2015 until 2017, the Bulgarian Total Early Stage Entrepreneurship rate (TEA) was in the range of 4- 5% of the adult population, which is low compared to benchmark groups such as geographical sub-groups of countries and by stage of economic development. In 2017, Bulgaria scored the lowest TEA among the 54 monitored economies - 3.7%, while in 2018, the TEA indicator jumped to 6%, exhibiting a significant improvement over the period, still staying at the bottom quarter (42/48). The established business ownership rate is stronger in 2018 at 8.4% (19/48).

Media attention and high status

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2017, Bulgaria scored the lowest TEA among the 54 monitored economies - 3.7%, while in 2018, the TEA indicator jumped to 6%, exhibiting a significant improvement over the period, still staying at the bottom quarter (42/48). The established business ownership rate is stronger in 2018 at 8.4% (19/48).

Opportunities and Capabilities

- Both perceived capabilities and perceived opportunities remained in the ranges 36.9-38.4% and 19.3-19.5%, respectively. This is rather problematic as it indicates people do not find more opportunities to start a business, nor feel more capable of starting one. Both indicators are considerably lower than the corresponding rates of the benchmark groups. Markedly perceived opportunities are more than twice as low as benchmark groups.

Fear of failure as a deterrent

- In 2017 only 20.9% of Bulgarians reported fear of failure stopping them from setting up a business when they see opportunities, compared to levels twice as high in benchmark countries. This puts Bulgaria 3rd out of 54 participating countries with the least fear of failure globally. The indicator went up to 31% in 2018, yet still a lower level than comparatively.

Planning to start a business

- This indicator is what feeds early-stage entrepreneurship. Entrepreneurial intentions among Bulgarians were strikingly low in 2017: only 5% of the population planned to start a business in the next three years compared to an average of 26% in the other participating efficiency-driven economies. This indicator hit its lowest level among Bulgarians in 2018 – just

3.9% of Bulgarians intended to start a business, the second-lowest globally.

Motives to do business

- In Bulgaria in 2017 and 2018, both necessity-driven and improvement-driven TEA were in the range of 26.9-28.5% and not showing a positive trend towards decreasing motivation out of necessity while ranking among the lowest. The difference in favor of improvement-driven entrepreneurship is 3 times larger for the innovation-driven and 4 times larger for Central Europe participating economies. The worrying element for Bulgaria is the absence of a growing trend in a bigger share of improvement-driven entrepreneurship as this is the type of entrepreneurial activity with the highest societal value-added. It is commonly associated with new business model creation, technological adoption and productivity gains.

THE PROFILE of the Bulgarian entrepreneur indicates a solid balance between males and females overall with just slightly more males, with a good increasing trend for males toward opportunity-driven motivation. The dominant age for early-stage entrepreneurs is 25-44 years, and for established, 45-54 years

Age profile

- In 2017 and 2018, one age group with consistent, stable, and growing entrepreneurial orientation was the 25-44 y.o. The absolute levels of early-stage entrepreneurial activity (TEA) in Bulgaria remained very low compared to the benchmark or globally, a fact characterizing every age group, but one: the age group of 45-54-year-olds experienced an increased early-stage entrepreneurial activity in 2018 in Bulgaria.

ratio of female to male TEA is somewhat higher for Bulgaria, scoring in the top 1/2 to 1/3 in the global ranking from 2015 to 2018. This indicates better gender parity regarding early-stage entrepreneurial endeavors than most. Gender inequality in early-stage entrepreneurial ventures is not an issue in Bulgaria's case. In essence, in Bulgaria, there is no evidence for a systemic gender gap regarding entrepreneurship.

Gender

- The ratio of female to male TEA in Bulgaria in 2018 was 0.9. There were more male entrepreneurs than female entrepreneurs. The

Motivation and gender

- For the period 2015-2018 in Bulgaria, there was an increasingly larger share of male opportunity-driven entrepreneurs (65%-66.6%-75.1%-77.6%) and a smaller share of male necessity-driven entrepreneurs.

THE SECTORAL DISTRIBUTION is not exhibiting trends towards a bigger share of knowledge-intensive sectors. The dominance of wholesale and retail orientation is associated with less value-added while higher-skilled sectors are at low levels, a pattern putting Bulgaria far from innovation-driven economies.

Sectors distribution

- Bulgaria continues to closely match the efficiency-driven economies' sector distribution with regards to entrepreneurship, probably

reflecting the scarcity of know-how, skills and industrial base that are required by knowledge-intensive sectors. Almost half of the new ventures belong to retail or wholesale, which are highly vulnerable to economic downturns.

Bulgaria has a smaller share of early-stage businesses belonging to the knowledge-intensive industry sectors (13%) than the

average share exhibited in innovation-driven economies (21%), many of which are Bulgaria's EU partners.

ENTREPRENEURIAL IMPACT gives particularly insightful metrics for creating and changing trends. Bulgaria scores third lowest globally in “employing 6+ employees in the next 5 years”, combined with dominating share of 2/3 of those not planning any job creation next 5 years. Another concerning indicator is the innovativeness of the product/service, where Bulgaria scores twice as low compared to reference groups. The international orientation is devastatingly low compared to all benchmark groups, despite access to the EU market.

Future hires

- Bulgarian early-stage entrepreneurs were especially cautious about future hires in 2018, as a massive 73.7% did not expect to create any jobs, while 23.7% expected to create between 1 and 5 jobs in the next five years. There was a negative trend in expectations related to greater entrepreneurial job creation in Bulgaria, where only 2.5% expected to create more than 6 jobs (46/48), compared to 9.4% in 2017. A decrease three years in a row (13.4%-9.4%-2.5%) in the share of entrepreneurs planning to employ 6+ employees in the next 5 years together with almost 10 percentage points increase in the share of sole entrepreneurs, is a concerning trend and highlights the limited capacity of the early entrepreneurs to grow.

(new to all or some customers) increased significantly to 22.4%, the highest for the period 2015-2018, but still very low (one half) compared to reference groups (41/48). In essence, very few early-stage new ventures in Bulgaria, and only a small fraction of them engages in innovation activities. According to the Global Innovation Index, in 2018, Bulgaria is beside PR China and Malaysia and considered an “innovation achiever”.

Selling abroad

- 11.1% of the Bulgarian entrepreneurs reported that they had a 25% or higher share of international sales in 2017, while in 2018, it went down to 7.4 to the similar levels of 2015 and 2016. Comparatively, this is a very low number. It is remarkable that the international orientation in 2018 is as much as two times lower than the levels in efficiency-driven economy and almost 4 times lower than innovation-driven economies.

Innovative products or business model

- In 2018 the share of Bulgarian entrepreneurs who considered their product to be innovative

ENTREPRENEURIAL ENVIRONMENT is measured by the GEM methodology using 12 areas. Bulgaria's scores in the GEM Global Report 2018/19 among the 54 participating economies are entirely consistent with the country's well-recognized strengths regarding low taxes and access to commercial and professional infrastructure and weaknesses regarding government support for entrepreneurship and entrepreneurial education.

BALKAN PERSPECTIVE: The entrepreneurial landscape of the Balkans is defined mainly by its success in establishing hubs for digital and tech startups. There are some unquestionable challenges, too: the fragmentation and variety of the small markets within the region are frequently perceived as one of the biggest obstacles that startups in this area face for future growth, along with a scarcity of late-stage funding and ‘brain-drain’ and media freedom challenges.

Experts' rating of the Bulgaria entrepreneurial ecosystem

- In Bulgaria, in 2018, the areas rated less than sufficient are Government policies: support (very low at 46/52), Government Entrepreneurial programs (42/54), Entrepreneurial education in school (low but at 32/54) and post-school (41/54), R&D Transfer (37/54), Internal market: burdens (35/54) & entry regulations (33/54), and Cultural & Social Norms (at the bottom 50/54). The areas marked as sufficient with some extent or neutral are Entrepreneurial Finance (impressive 10/52), Government policies: Taxes and bureaucracy (notably 16/54), Commercial & Legal infrastructure (20/54), Internal market: dynamics (35/54); Physical infrastructure (15/54).

Government programs and public sector

- The governments of the Balkans and most notably Bulgaria, are given credit for imposing taxes at tolerable levels for new/growing firms.
- National experts rated government policies related to their support of entrepreneurial ecosystems as low 3.2 out of 9 (ranking 46/54), which is lower than the benchmark groups.
- Among the best-rated aspects of government entrepreneurship programs in Bulgaria is the support offered by science parks and incubators, where there is significant involvement by the private sector and successful entrepreneurs, who participate as mentors, role models, and investors. The result is highest in comparison to the other factors.
- GEM data highlights a lack of balance between the priority national and local government give to supporting entrepreneurship. Both measurements are improving, but the levels remain unsatisfactory (score <5 is insufficient).

Infrastructure, human capital and innovation capabilities

- The Bulgarian and the Balkan economies most significant strengths are access to physical infrastructure and services and access to commercial and professional infrastructure. However, the infrastructure indicator in the Global Innovation Index for the region shows ample room for improvement in this regard.
- In Bulgaria, the Education act of 2016 introduced the subject of Entrepreneurship in

the curriculum of all grade levels. The program started in 2017. It is possible to speculate that this led to a very mild increase in 'adequate instruction in market economic principles and new firm creation' recognized by the national experts in 2018. Yet, for a significant change to occur, many more initiatives need to advance, including world-class management education

Universities and entrepreneurship

- The perception of entrepreneurship education and training at the post-secondary level does not show increasing dynamism or a positive trend with scores below satisfactory (around 4 out of 9) and not showing a positive trend.
- STEM-related departments occasionally receive some credit for their ability to provide large-scale basic training; the majority of actors in the Bulgarian entrepreneurial ecosystem perceive university processes and their knowledge base as out of sync with the requirements of present-day economies.
- The vacuum left by the short-sightedness of the higher education sector in Bulgaria but also South-East Europe is vast. Multiple private initiatives address the unfulfilled need for adequate entrepreneurial skills training. Non-profit, such as Junior Achievement, development agencies, such as SwissContact and private academies, such as the Telerik Academy and SoftUni, are among the most active educational partners on the Balkan scene. Most recently, the Bulgarian Entrepreneurship Center has been an avid supporter of initiatives in Bulgaria and abroad for the benefit of our ecosystem.

Talent

- Entrepreneurial ventures from the Balkans have a much higher share of founders with technical degrees as the highest educational achievement; and have a much more academically-focused founders' profile than Central European ventures.

Entrepreneurial finance

- The region faces a lack of fully-functioning late-stage funding opportunities, which prompts promising local entrepreneurial ventures to sell prematurely, as they do not expect to be able to access readily available funds to fuel their growth. This, however, is a dilemma all entrepreneurs in young ecosystems might have as it is a reliable indicator that the base of the ecosystem is solid and set for expansion.

- During 2015-2018 in Bulgaria, we see a notable increase in the experts' responses with regards to every single funding channel, especially in the case of equity, business angel, VC and crowdfunding and to some extent, debt funding, FFF and IPO. Government subsidies (including EU funding) also exhibit an upward trend.

Market functioning and sophistication

- Bulgaria has very good scores for commercial /professional infrastructure to support its entrepreneurs, ranking 20/54 in 2018. Banking services, legal and accounting, and consultants, are well-perceived, as well as the selection of subcontractors and consultants.

Startup internationalization

- Two significant challenges arise from the fact that local markets are small and unsophisticated. (1) Balkan entrepreneurs experience a shortage of business skills when it comes to internationalization because the majority of them lack proper business training; (2) the mostly negative image of Balkan until recently countries produced a negative spillover effect, even for the most innovative ventures.

Multinationals and labor market

- The small size of the Balkan states makes the 'brain drain' even more significant, reducing private sector activity, productivity, competitiveness.
- The export of IT-related products and services has grown more than four-fold since 2008. However, these powerful IT companies also impose a heavy burden on the Bulgarian entrepreneurial ecosystem because they

Gig Economy

- Gig work could be a stepping-stone toward entrepreneurship. Bulgaria, in particular, shows internet economy characteristics similar to its regional neighbors and does not seem to experience the strong impact of the gig/sharing economy, as do more innovation-driven countries, since financial effects are relatively low.

Family Business

- Europe/N. America show moderate to high rates of family entrepreneurship. One-fifth of all early-stage endeavors start with family members. Bulgaria show the highest a 'strong indications'¹ of family-based early-stage entrepreneurship (% of TEA)- just below 30%. The majority of family businesses in Bulgaria are small scale with only 10% of those are knowledge-intensive and 8% in manufacturing.

compete against domestic entrepreneurial ventures for the same local talent.

Culture

- Existing and dominant social and cultural norms in the Balkans have traditionally discouraged individual actions leading to new ways of conducting business activities. This might, in turn, lead to greater dispersion of personal wealth and income. GEM data suggests that there might be a trend emerging for younger generations showing more proactive entrepreneurial behavior.

Media

- There are frequent accusations that media freedoms are restricted in the region due to political pressure from governments; subsidies which result in political bias and intimidation, and violence against journalists. The problematic media ownership that is often subject to personal relations and interdependencies and the influence of political power. This furthers the problem of transparency, making it hard for new media outlets to enter the market without entering into political power struggles (Brogi, 2017).

Research institutions and R&D transfer

- Innovation and entrepreneurship depend on R&D investment as % of GDP by public & private contributors. Countries with a higher % of R&D score higher in innovativeness indices. For public R&D This alone will not be sufficient unless combined with modernization of the public R&D bodies so that they are a beneficial partner to business & own commercialization.

¹ 'Strong indication' represents family members co-owning and co-managing part of a business, and 'some indication' represents full ownership by an entrepreneur, at least one employee and co-management by family members (GEM Global report 2018/19)

Recommendations

Note: Annex 4 contains recommendations from GEM Bulgaria National report 2015/16 and 2016/17

While conditions for doing business are an integral part of a country's story, entrepreneurship results from a combination of environment and actual activity and can rarely be disentangled from regional and global influences. GEM has measured the spectrum of ecosystems globally for 20 years. The data allows us to see patterns globally while also becoming particularly valuable on a national level when monitoring progress from year to year, tracking the impact of a new/revised policy and benchmark analysis. The Bulgarian Entrepreneurial Ecosystem is multifaceted and with opportunities to shine with well-targeted policies and initiatives supporting high-impact, high growth ventures.

Job growth

- The nature of early-stage entrepreneurship in Bulgaria is to gravitate toward low-tech solo projects. The current industry sector distribution of entrepreneurship and its high exposure to economic cycles can also be blamed. The scarcity of relevant skills in the local labor market can also explain these expectations.
- In order to fuel Bulgaria's economic growth, it is crucial to identify the 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 and the education system will also be necessary. Managerial capacity is going to be critically important too.
- For Bulgaria to reverse the current negative trend of growth expectations, a systemic vision and program have to be put into place spanning over education and life-long learning programs, entrepreneurial finance mechanisms, global talent attraction and retention and a comprehensive national innovation strategy.

Innovation

- The low level of uptake of innovation in early-stage entrepreneurship is a significant constraint of the competitiveness of new ventures in Bulgaria; moreover, it limits the competitiveness of the national economy.
- 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 continues to be to spread the innovation culture and innovation management processes to the second group and thus expand the base on which the international competitiveness of the Bulgarian economy relies.
- The long-standing challenges in the way Bulgarian companies report innovation have also to be resolved in order to have a more precise diagnostic and initiatives in this domain. It is a well-established fact that Bulgarian companies systematically underreport innovation as there is no mandatory mechanism to report and measure such activities.

Internationalization

- The small size of the national market does not provide strong enough scale advantages for most early-stage entrepreneurs to pursue opportunities abroad. Informing and educating them to identify opportunities and scale them up abroad can make a difference in the quality of their business opportunities and their growth rates. This, however, implies a change in the vision and skill-set available to local business.

Government programs & Public sector

- Government programs and policies and the functioning of the public sector are essential factors in entrepreneurial ecosystems as they are the most critical drivers in turning entrepreneurial intentions into actual entrepreneurial behavior. Even though it is not the government that starts new businesses in modern market economies, government policies and initiatives can shape the conditions conducive to entrepreneurial endeavors.

- One reason for the very limited support for entrepreneurship at a local level can be a shortage of instruments the local authorities have at their disposal. Bulgarian regional governance is centralized, and it is an area to explore if entrepreneurial activities are to succeed outside the capital or district cities.
- None of the GEM indicators related to government programs to support entrepreneurship see a solid positive trend between 2015-2018. Nevertheless, mild improvements exist in indicators related to working with a single agency, the role of the science park and incubators, competency of government agency's personnel, access to information and efficiency of new programs aimed at new/growing firms. This very slow improvement primarily indicates that entrepreneurship is not prioritized and support is happening in silos, without a long-term vision, strategy and coordination.
- Better coordination of government programs with the private sector and the developing regional entrepreneurial community can improve the talent pool and the efficiency of existing government programs designed to stimulate entrepreneurship in Bulgaria.

Infrastructure, Labor and innovation

- There are frequently voices in favor of more aggressive government programs of high-skilled immigration from outside the region. If there is a broad consensus between actors to sustain a vibrant entrepreneurial ecosystem - the most important elements are the people, the passion, and the commitment to do something different.
- There is evidence that practical entrepreneurship training may better prepare school leavers for the transition from school to the labor market, enabling them to identify business opportunities and improving their chances of success in business and self-employment ventures (Cheung, 2011)

Universities and R&D

- Universities are key players in the entrepreneurial ecosystem because they hold and attract young talent, shape and influence students' mindset, create and serve as a repository of knowledge and expertise in learning and education, all of which nurture entrepreneurial ecosystems. Universities can commit to the support of the entrepreneurial

ecosystem if they inspire proactiveness and promote a culture of innovation.

- Innovation capabilities require a business environment that facilitates entrepreneurship and provides access to the necessary finance to create and grow innovative firms. Such an environment needs to be supported by effective universities and research institutions with strong links to industry and an ability to integrate with local industrial clusters.
- It is clear from the data that participants in the Bulgarian entrepreneurial ecosystem believe that universities do not play a central role in facilitating knowledge transfer and stimulating innovation. The virtual circle between university-based innovation, entrepreneurship, and competitiveness is broken. Key stakeholders in the regional entrepreneurial ecosystem believe that the root cause of the problem is the broken linkage between the academic and research entities and the market. In this domain, there is a massive opportunity for improvement with selected public policies.

Finance

- The experience in the Balkan shows that governments need to focus more on creating a broad context for the functioning of the entrepreneurial ecosystem - governments cannot be an active manager of the funds, as the right incentives lie with the partners and managers, not bureaucrats. There are still challenges, and there are market gaps in equity and debt instruments and a marked scarcity of investment funds beyond the seed level.

Startup internationalization

- Branding the region and Bulgaria, in particular, is very important for the future of the Balkan entrepreneurial ecosystems, and there has been an exponential growth in awareness and efforts in this regard. Getting recognized as an attractive place to live and work by citizens and foreign talent is essential for the further maturing of the young regional ecosystems.

Culture

- Bulgaria ranks relatively low (50/54) for its cultural and social norms towards entrepreneurship. These are indicators that take time to change. It is important that key stakeholders such as media, serial entrepreneurs, educators, policy-makers, influencers and parents, work together to influence the understanding of success through

own personal efforts, emphasizing self-sufficiency, autonomy and personal initiative as well as entrepreneurial risk-taking, creativity, innovativeness and the responsibility of the individual to make proactive choices for her life.

Media

- Despite many laws and policies regarding free media have been established, the proper application of these has been challenging and is not very effective because of the media market concentration.

Areas of recommendations by Experts

- Besides the areas of Financial support and, to some extent, Education and training, the top 5

areas identified as needing improvement are mostly connected to policy-making, public administration and the rule of law.

Gig economy

- Gig workers represent an exciting pool of potential entrepreneurs.
- Bulgaria and the economies of the Balkans are among these places when it comes to innovation-driven entrepreneurship. Still, the general overview of the entrepreneurial landscape in Bulgaria has to improve in multiple dimensions before the country stands out in international rankings of entrepreneurial activity.

The common use of data and analysis and impact assessment are slowly becoming a norm in policy-making in Bulgaria. To consistently benefit from its insights, the public and private stakeholders need to recognize and support this regular exercise using global, recognized methodologies used by international organizations and national government. The Global Entrepreneurship Monitor methodology, its national team and analysis has a strong record of providing evidence for entrepreneurs, educators, policy-makers, and other entrepreneurial ecosystem stakeholders.

Conclusion

- The future of the nascent entrepreneurial ecosystems in Bulgaria and the Balkans is clearly set. These economies are walking away from outsourcing and entering into a phase of building genuine entrepreneurial ecosystems, whose growth is a positive sign for all classes of stakeholders within the region.
- The innovation-driven entrepreneurs in Bulgaria are not many, but they understand the advantages and disadvantages of their institutional and historical context, geographical location, talent pool, and cost drivers.
- Innovation-driven entrepreneurial ventures in Bulgaria are built for the most part on solid business and economic logic, cost advantages, the strong value proposition in challenging market conditions due to the small size of the markets and the price sensitivity of local clients. The business logic is strong, while local culture is biased towards pessimism rather than optimism.
- The connecting tissue of the Bulgarian entrepreneurial ecosystem – the entrepreneurial communities – has started to function as such. The notion of giving back and the idea of being a part of a network to which entrepreneurs contribute but from which they also benefit has already crystallized.
- The focal points around which these networks form have less to do with country boundaries and more essential resources for entrepreneurship, such as finance and talent. The Balkan region is very diverse, and some generalizations will certainly apply more to some rather than to all entrepreneurial ecosystems. Still, without any doubt, the Bulgarian entrepreneurial ecosystem is one of the essential drivers of the development of the regional community.

CHAPTER 1

INTRODUCTION



The Global Entrepreneurship Monitor (GEM) is a worldwide study on entrepreneurship conceptualized in 1997 by two academics, one from the London Business School,

Michael Hay, and the other from Babson College, Bill Bygrave in the US. At the time, there was no recognized research focused on entrepreneurship, and the word “entrepreneurship” was not a recognized household name as it is today. It was only starting to become important as academics and policymakers recognized the importance of small, medium and micro-sized enterprises development to the overall well-being of the economy, decreasing unemployment levels and fighting the abject poverty, which prevailed in many developing countries.

The first report was published in 1999, and it covered 10 countries: Canada, Denmark, Finland, France, Germany, Japan, Israel, Italy, UK, US. The consortium has grown substantially to over 100 economies from all geographical regions. It can now claim to be truly global and to be the most authoritative and informative study on entrepreneurship in the world today.

GEM is different from most current studies on entrepreneurship in that it does not just look at the businesses but also at the individuals between the ages of 18 and 64 years from a demographically representative portion of the population. GEM looks at individuals, their attitudes, aspirations at what makes them think and do or not do, as these indicators play an important part in the entrepreneurial pipeline moving towards actually starting a business and growing it until it is fully established.

1.1. Why GEM is unique

1. GEM represents a primary source of data generated through an Adult Population Survey (APS) of at least 2,000 randomly selected adults (18-64 years of age) in each economy. In addition, national teams collect expert opinions about components of the external entrepreneurship context through a National Expert Survey (NES) among a minimum of 36 experts.
2. GEM provides a comprehensive set of indicators on entrepreneurship, allowing for the construction of detailed profiles of entrepreneurship in each economy studied. GEM's APS captures both informal and formal activity, moving beyond a reliance on business registrations, explaining only a small proportion of entrepreneurship and entrepreneurial intentions in many societies. With a rigorous methodology, consistently followed by all GEM teams and meticulously supervised and processed by a central data team, GEM enables cross-national comparisons.
3. GEM tracks societal attitudes and perceptions, considering that society needs people ready to venture into entrepreneurship and those willing to support their efforts. Additionally, GEM measures multiple phases of the entrepreneurial process, recognizing, for example, that mature businesses provide stable jobs and ongoing value to other stakeholders. Moreover, while firm-level studies can offer useful information, GEM focuses on the people who start and run businesses.
4. Perhaps what is unique about GEM, however, is the involvement of national teams. These teams are close to the data collection, ensuring efficient and professional oversight of the survey process. Additionally, their depth of knowledge about entrepreneurship and their understanding of national conditions helps explain the results. These teams collectively disseminate a wide range of knowledge about entrepreneurship every year. They conduct research that advances academic and practical understanding about this phenomenon,

informing decision-makers across the globe on how to stimulate and support entrepreneurship. GEM teams also work with the central data team to ensure the survey approach captures

as representative a sample as possible in their economies, particularly as technology advances and as communication habits shift in their societies.

1.1.1. Global regions and income levels used in the GEM methodology

The report reflects the GEM Global methodology by grouping the participating economies² in two ways: geographic region and economic development stage. The classification of economies by geographic region is adapted from the United Nation's composition of the world's macro geographical regions (UN Stats). Classification of economies by economic development stage is adapted from the World Economic Forum (WEF). According to WEF's classification, the factor-driven phase is dominated by subsistence agriculture and extraction businesses, with a heavy reliance on (unskilled) labor and natural resources. In the efficiency-driven phase, an economy has become more competitive with more efficient production processes and increased product quality. As development advances into the innovation-driven

phase, businesses are more knowledge-intensive, and the service sector expands (WEF, 2019). Economies in transition from factor- to efficiency-driven have been grouped with the factor-driven economies. Those in transition from efficiency- to innovation-driven have been included in the efficiency-driven category (GEM Global, 2018).

The economies participating in the GEM research in 2017 are grouped according to their stage of economic development. While in 2018, WEF introduced a new categorization by income level (GCI, WEF, 2018), for the sake of comparative analysis in the current report, the authors will use the former grouping - by economic development phase.

Table 1. GEM economies by geographic region and economic development phase based on WEF model in 2017

	Factor-driven ec	Efficiency-driven economies	Innovation-driven economies
Africa	Madagascar	Egypt, Morocco, South Africa	
Asia & Oceania	India, Kazakhstan, Vietnam	China, Indonesia, Iran, Lebanon, Malaysia, Saudi Arabia, Thailand	Australia, Israel, Qatar, Republic of South Korea, Taiwan, United Arab Emirates, Japan
Latin America & Caribbean		Argentina, Brazil, Chile, Colombia, Ecuador, Guatemala, Mexico, Panama, Peru, Uruguay	Puerto Rico
Europe		Bulgaria, Bosnia & Herzegovina, Croatia, Latvia, Poland, Slovakia	Cyprus, Estonia, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Slovenia, Spain, Sweden, Switzerland, UK
N. America			Canada, United States

Source: GEM Global 2017/18 report

² GEM acknowledges that some regions of the world have individual economies that are not formally recognized as separate countries.

Therefore, the report will use the term economies, but in some cases, refer to countries.

1.2. The GEM conceptual framework

1.2.1. Definition

To understand the role of entrepreneurship in economic growth, GEM uses the following definition:

Entrepreneurship: Any attempt at new business or new venture creation, such as self-employment, a new business organization, or expanding an existing business by an individual, a team of individuals, or an established business.³

The GEM Conceptual Framework guides data collection activities and research, which contribute to GEM's key aims:

Figure 1 below illustrates the relationship of entrepreneurship with its environment. The social, cultural, political, and economic context directly influences entrepreneurship and indirectly through societal values and individual attributes. These

- To uncover factors that encourage or hinder entrepreneurial activity, especially related to societal values, individual attributes and entrepreneurial framework conditions.

- To provide a platform for assessing the extent to which entrepreneurial activity influences socio-economic development within individual economies.

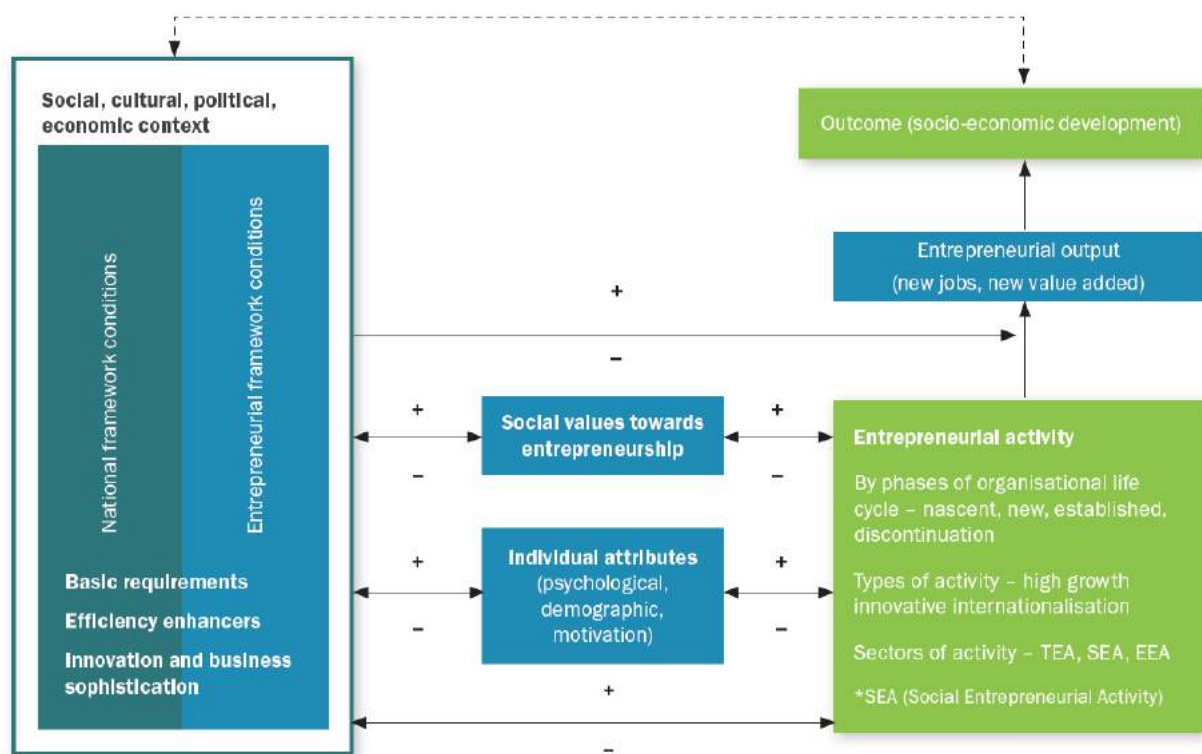
To uncover policy implications to enhance entrepreneurial capacity and resulting outcomes in an economy.

GEM's conceptual framework, shown in

influences can be positive or negative.

Entrepreneurship, in turn, creates jobs and new value that then contribute toward socio-economic development.

Figure 1 The GEM Framework



Source: GEM Global 2017/18 report

³ Raynolds, P. et al., 1999, p. 3

Figure 2 GEM framework conditions



The social, cultural, political and economic context represented through National Framework Conditions (NEC):

- entrepreneurial finance,
- government policy,
- government entrepreneurship programs,
- entrepreneurship education,
- R&D transfer,
- commercial and legal infrastructure,
- physical infrastructure,
- internal market dynamics and entry regulation, and
- cultural and social norms.

Image source: GEM Bulgaria 2015/16 report

1.2.2. Early-stage entrepreneurship profile

Societal Values about entrepreneurship

- ⇒ **Good career choice** - the percentage of the adult population aged 18–64 years who believe that entrepreneurship is a good career choice
- ⇒ **High status of successful entrepreneurs** - the percentage of the adult population aged 18–64 years who believe that high status is afforded to successful entrepreneurs
- ⇒ **Media attention for entrepreneurship** - the percentage of the adult population aged 18–64 years who believe that there is a lot of positive media attention for entrepreneurship in their country

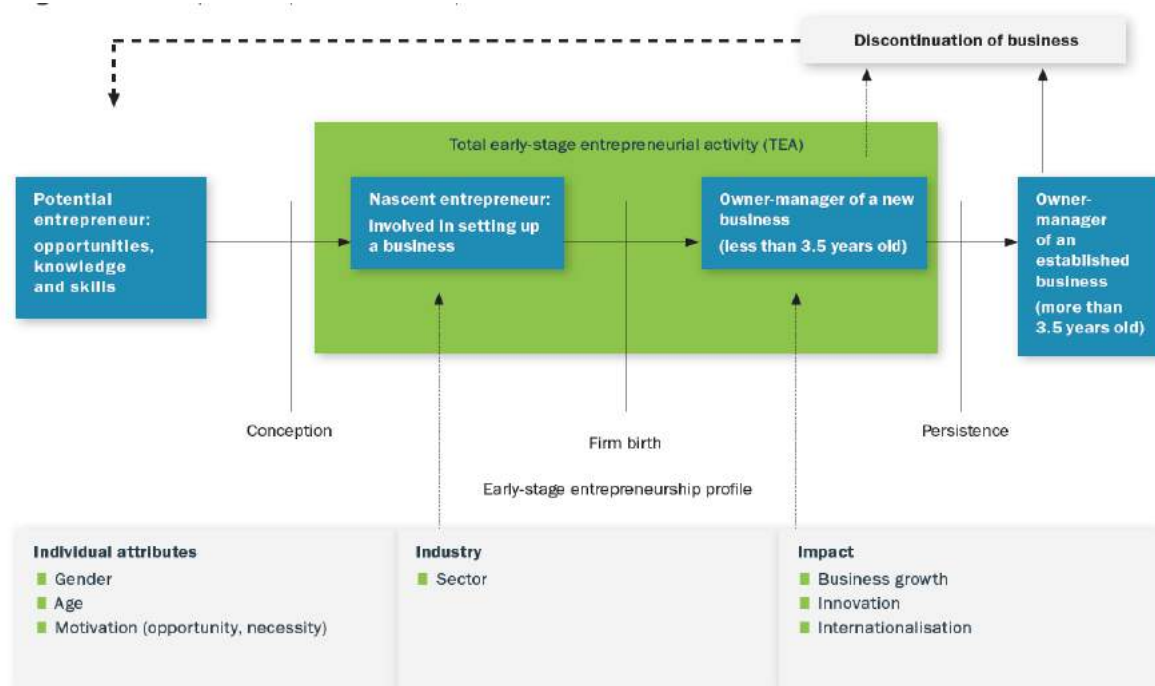
Individual attributes of a potential entrepreneur

- ⇒ **Perceived opportunities** - the percentage of the population aged 18–64 years who see good opportunities to start a business in the area where they live
- ⇒ **Perceived capabilities** - the percentage of the population aged 18–64 years who believe they have the required skills and knowledge to start a business
- ⇒ **Entrepreneurial intention** - the percentage of the population aged 18–64 years (individuals involved in any stage of entrepreneurial activity excluded) who are latent entrepreneurs and intend to start a business within three years
- ⇒ **Rate of fear of failure** - the percentage of the population aged 18–64 years perceiving good opportunities who indicate that fear of failure would prevent them from starting up a business (Note - for this indicator, higher rate indicates high fear of failure)

Individual attributes of an entrepreneur

- ⇒ **Gender and age** - sample age 18–64 years
- ⇒ **Motives** for starting a business (necessity versus opportunity/improvement-driven)

Figure 3 GEM's indicators of business phases and entrepreneurship characteristics



Source: GEM Global 2017/18 report

1.2.3. Entrepreneurial activity indicators by business phase

- ⇒ **Nascent entrepreneur** - the percentage of the adult population aged 18–64 years who are in the process of starting a business
- ⇒ **Owner-manager of a new business** - started a business which is less than 42 months old
- ⇒ **Total early-stage entrepreneurial activity (TEA)** - a nascent entrepreneur or owner-manager of a new business. This indicator can be enriched by providing information related to motivation (opportunity vs necessity), inclusiveness (gender, age), impact (business growth in terms of expected job creation, innovation, and industry sectors)
- ⇒ **Established business ownership rate** - the percentage of the adult population aged 18–64 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** - the percentage of the adult population aged 18–64 years that have discontinued a business in the past twelve months, either by selling, shutting down, or otherwise discontinuing an owner/management relationship with the business
- ⇒ **Entrepreneurial employee activity (EEA)⁴** - the percentage of the adult population aged 18–64 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 a subsidiary
- ⇒ **Social entrepreneurial activity (SEA)⁵** - the percentage of the adult population aged 18–64 years who are engaged in early-stage entrepreneurial activities with a social goal

⁴ Due to the low incidence of TEA, EEA & SEA will not be covered in the current report.

⁵ ibid

CHAPTER 2 WHAT DO WE KNOW ABOUT BULGARIAN ENTREPRENEURS?

Silicon Valley, London, and Berlin are not the only places where successful new ventures thrive. Great business ideas pop up and grow in unlikely places – in communities that manage to leverage business savviness, talent, and creativity. In Europe, the entrepreneurial ecosystems east of Berlin are nascent, but they have already gained breadth and depth and show potential.

Between 2010 and 2017, 5 billion euros were generated as returns to investors in Central and Eastern Europe (CEE) thanks to 15 Venture Capital-backed exits, seven of which were from the Balkan region. This has resulted in cities like Sofia becoming the most important hubs for growth for the tech sector in CEE, creating incentives for firms to set up funds there (Ezekiev, 2017) and the third-

largest hub by the number of VC rounds (Dealroom.co, 2019). These recent developments are not just luck; they are a logical consequence of the vibrancy of the regional entrepreneurial ecosystems that rely on innovation-driven ventures.

While not free from problems, unlikely places offer a vast learning opportunity about how to enable entrepreneurial ecosystems.⁶ Bulgaria and the economies of the Balkans are among these places when it comes to innovation-driven entrepreneurship. Still, the general overview of the entrepreneurial landscape in Bulgaria has to improve in multiple dimensions before the country stands out in international rankings of entrepreneurial activity.

KEY ENTREPRENEURSHIP INDICATORS

In order to assess the state of development of the Bulgarian entrepreneurial ecosystem, we use the key entrepreneurship indicators provided by GEM's **Adult Population Survey** as aggregate performance proxies and the level of the national economies. Teams from each economy that participate in the GEM data collection effort administer the survey while the GEM Consortium oversees it.

The APS surveys are conducted using a random representative sample of at least 2,000 adults between 18 and 64 years. The surveys are conducted at the same time every year (between May and July) using a standardized questionnaire provided by the GEM Global Data Team. The questionnaire is translated into local languages and back-translated for a validity check. The data is tested at several stages and submitted directly to the consortium for synchronization.

⁶ Andonova, V., Nikolova, M. and Dimitrov, D. 2019. Entrepreneurial Ecosystems in Unexpected Places, Palgrave Macmillan.

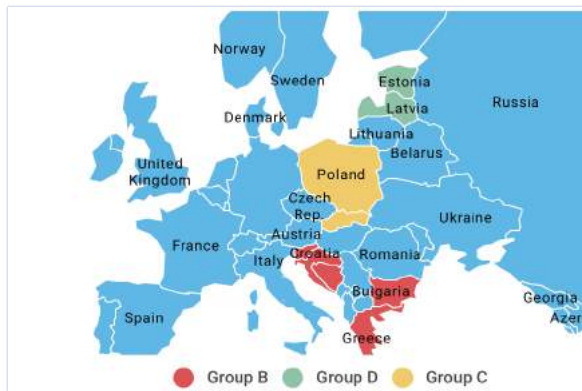
Benchmark

Motivated by the desire to understand the antecedents of the observed behavior, we dig deeper into the details in the rest of this report. So, how does the Bulgarian entrepreneurial ecosystem compare to the entrepreneurial ecosystems of different benchmark groups? To answer this question, besides the benchmark groups defined by

the stage of economic development, we use the following geographical groups: the Balkans, Baltic countries, and Central Europe using their relative performance assessment when data is collected and available, as in

Figure 4.

Figure 4 Benchmark Countries 2017 and 2018



2017: Balkans represented by Bosnia and Herzegovina, Bulgaria, Croatia, Greece, and Slovenia; Baltic states represented by Estonia and Latvia; Central Europe represented by Poland and Slovakia



2018: Balkans represented by Bulgaria, Croatia, Greece, and Slovenia; Baltic states without data in 2018; Central Europe represented by Poland and Slovakia

2.1. Phases of the lifecycle of a business

The key entrepreneurship indicators built into the information collected by the APS comprise all the phases of the lifecycle of a business, as shown in Figure 3.

They are aggregate measures of the national territory: nascent entrepreneurship rate, new business ownership rate, Total Early-stage Entrepreneurial Activity (TEA), established business ownership rate, and business discontinuance.

- **Nascent Entrepreneurship Rate** – Percentage of the 18-64 population who are currently nascent entrepreneurs, i.e., actively involved in setting up a business they will own or co-own; this business has not paid salaries, wages, or any other payments to the owners for more than three months.
- **New Business Ownership Rate** – Percentage of the 18-64 population who are currently owner-manager of a new business, i.e., owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than three months, but not more than 42 months.
- **Total [early-stage] Entrepreneurial Activity (TEA)** – Percentage of the 18-64 population who are either a nascent entrepreneur or owner-manager of a new business (as defined above).
- **Established Business Ownership Rate** – Percentage of the 18-64 population who are currently owner-manager of an established business, i.e., owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than 42 months.
- **Business Discontinuance** – Percentage of the 18-64 population who have discontinued a business in the past 12 months, either by selling,

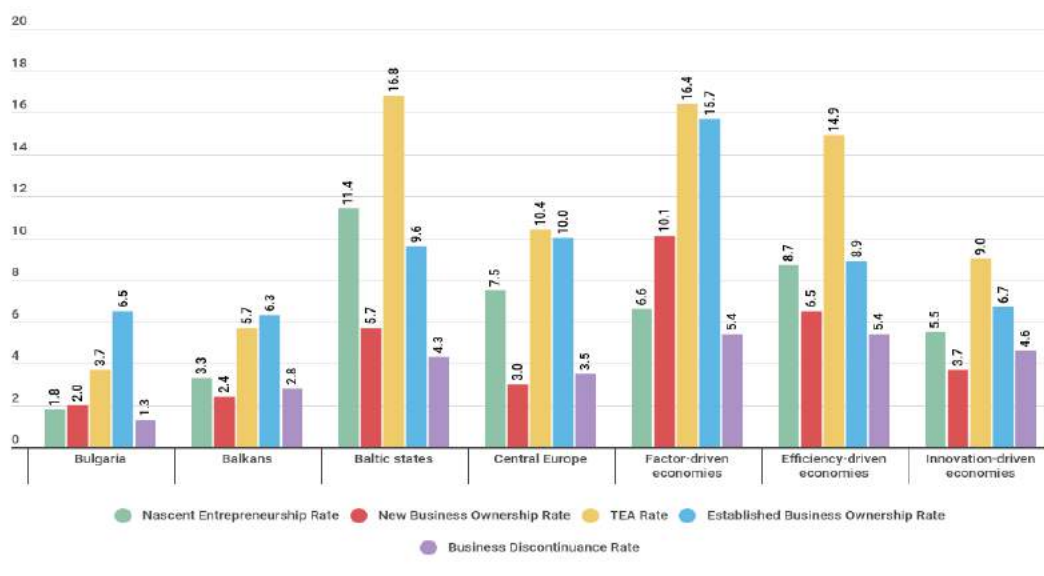
shutting down, or otherwise discontinuing an owner/management relationship with the business (businesses from both TEA and Established business owner phase can discontinue their business).

In 2015 and 2016, Bulgarian Total Entrepreneurial Activity (TEA) was in the range of 4 to 5% of the population (GEM Bulgaria 2015/16 and 2016/17), which is low compared to different benchmark groups such as geographical sub-groups of countries and by stage of economic development (Porter, Sachs and McArthur, 2001). In 2017, Bulgaria still scored the lowest TEA among the 54 monitored economies – 3.7% (GEM Global report 2017/2018). In 2018, the TEA indicator jumped to 6%, exhibiting a significant improvement over the period (GEM Global report 2018/19). In other words, Bulgarians show an improving willingness to create their own enterprises, even though the country lags behind other regions in absolute and relative terms.

In 2018, Bulgaria showed a rate of established business ownership, notably similar to efficiency-driven economies, while close to innovation-driven economies. This is a change from 2017 when Bulgaria showed a much lower distance to innovation-driven economies while being further away from efficiency-driven countries (Figure 5 and Figure 6).

Still, Bulgaria and the Balkan countries have maintained a lower level of business discontinuance. Equally well, the Balkan TEA rate surpassed those of Central Europe in 2018 while still lagging behind other efficiency-driven economies.

Figure 5 Entrepreneurial activity by phase (in %): Bulgaria & GEM benchmark groups 2017



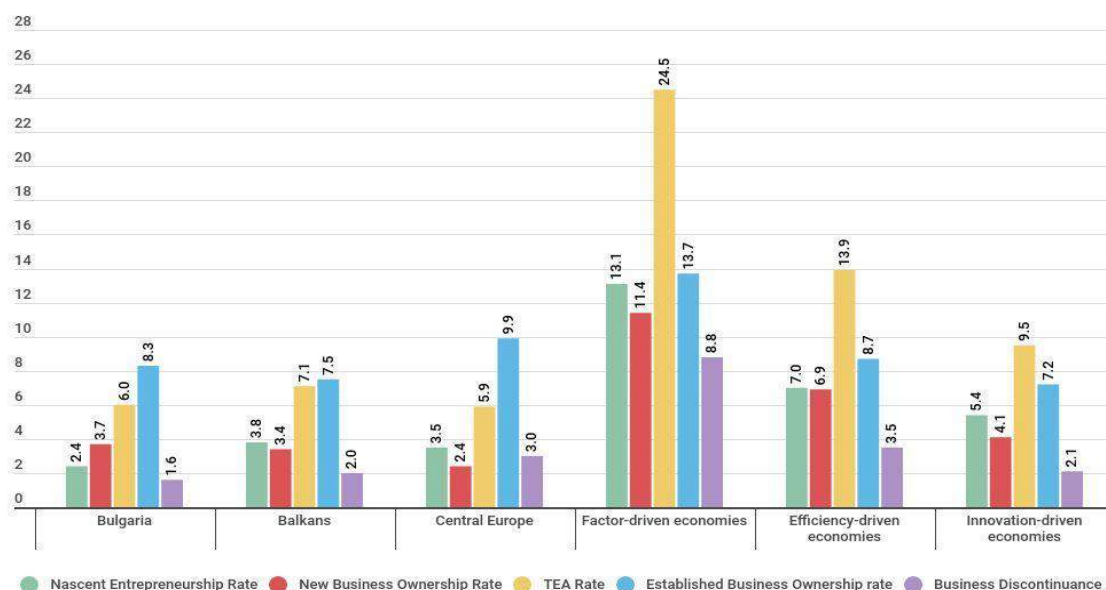
2017	Nascent Entrepreneurship Rate	New Business Ownership Rate	TEA Rate	Established Business Ownership Rate	Business Discontinuance Rate
Bulgaria	1.8	2.0	3.7 Rank 54/54	6.5 Rank 31/54	1.3
Balkans	3.3	2.4	5.7	6.3	2.8
Baltic states	11.4	5.7	16.8	9.6	4.3
Central Europe	7.5	3.0	10.4	10.0	3.5
Factor-driven economies	6.6	10.1	16.4	15.7	5.4
Efficiency-driven economies	8.7	6.5	14.9	8.9	5.4
Innovation-driven economies	5.5	3.7	9.0	6.7	4.6

Balkans represented by Bosnia and Herzegovina, Bulgaria, Croatia, Greece, and Slovenia; Baltic states represented by Estonia and Latvia; Central Europe represented by Poland and Slovakia

Source: GEM Adult Population Survey, 2017 from GEM Global 2017/18 report.

Reads as: % of population aged 18 to 64 years engaged in different phases of entrepreneurial activity.

Figure 6 Entrepreneurial activity by phase (in %): Bulgaria & GEM benchmark groups 2018



2018	Nascent Entrepreneurship Rate	New Business Ownership Rate	TEA Rate	Established Business Ownership rate	Business Discontinuance
Bulgaria	2.4	3.7	6.0 Rank 42/48	8.3 Rank 19/48	1.8
Balkans	3.8	3.4	7.1	7.5	2.75
Central Europe	3.5	2.4	5.9	9.9	3.0
Factor-driven economies	13.1	11.4	24.5	13.7	8.8
Efficiency-driven economies	7.0	6.9	13.9	8.7	3.5
Innovation-driven economies	5.4	4.1	9.5	7.2	2.1

Balkans represented by Bulgaria, Croatia, Greece, and Slovenia (Bosnia and Herzegovina without data in 2018); Baltic states without data in 2018; Central Europe represented by Poland and Slovakia.

Source: GEM Adults Population Survey 2018 from GEM Global 2018/19 report.

Reads as: % of population aged 18 to 64 years engaged in different phases of entrepreneurial activity.

The upheaval of the different rates of entrepreneurship in 2017 was significant, yet the absolute values of the variables remain low to moderate. All in all, while still showing relatively low

TEA rates, Bulgaria has been developing a positive trend towards more prevalent entrepreneurial activities among several age groups.

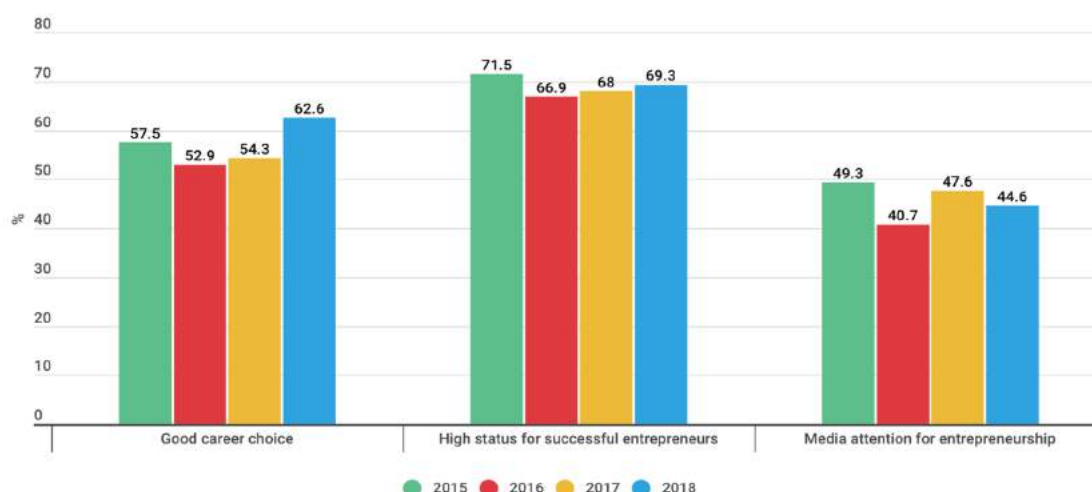
2.2. Key Societal Values

- ⇒ Good career choice - the percentage of the adult population aged 18–64 years who believe that entrepreneurship is a good career choice
- ⇒ High status of successful entrepreneurs - the percentage of the adult population aged 18–64 years who believe that high status is afforded to successful entrepreneurs
- ⇒ Media attention for entrepreneurship - the percentage of the adult population aged 18–64 years who believe that there is a lot of positive media attention for entrepreneurship in their country

In 2018, 62.6% of Bulgarian adults regarded entrepreneurship as a good career choice, compared to 54.3 % a year earlier. 69.3% (68.0% in 2017) agreed that in Bulgaria, successful

entrepreneurs enjoyed high status, and 44.6% (47.6% in 2017) perceived that entrepreneurship received regular media attention (

Figure 7 Societal entrepreneurship attitudes (in %) in Bulgaria, 2015-2018



	2015	2016	2017	2018
Good career choice	57.5	52.9	54.3	62.6
High status for successful entrepreneurs	71.5	66.9	68.0	69.3
Media attention for entrepreneurship	49.3	40.7	47.6	44.6

Source: GEM Bulgaria Adult Population Survey, 2015, 2016, 2017, and 2018.

Reads as: 62.6% of Bulgarian adults in 2018 regarded entrepreneurship as a good career choice.

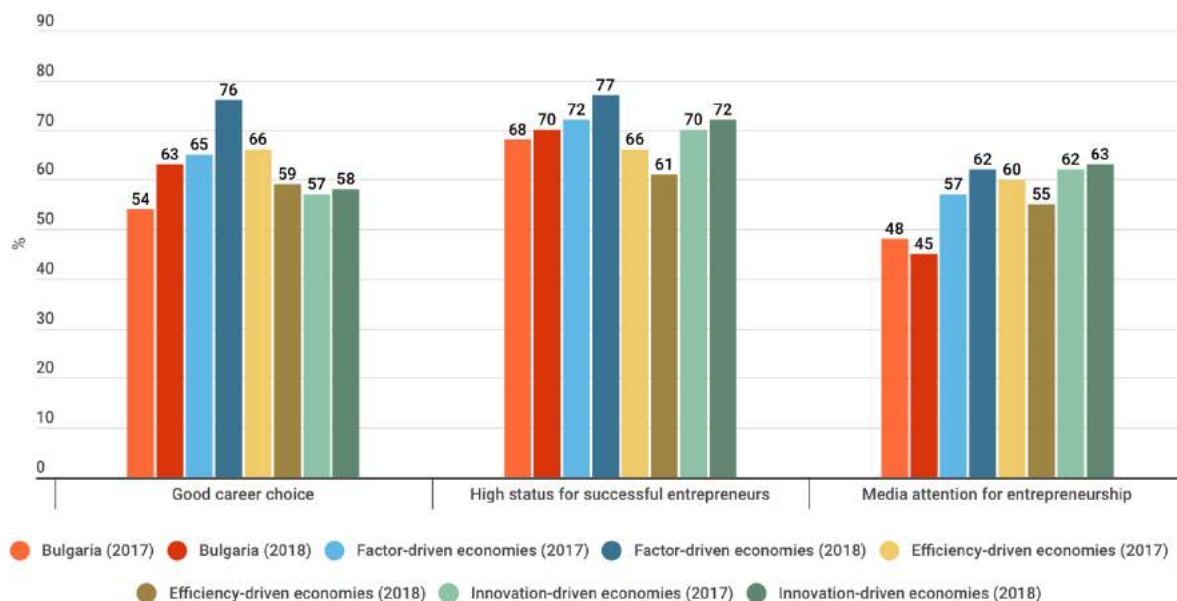
In 2017 fewer Bulgarians saw entrepreneurship as a good career choice than the average for the countries that participated in the 2017 GEM survey according to their stage of development (Table 2.3). In 2018, Bulgaria showed a more similar value in comparison to the other participating economies by stage of development (Table 2.4).

However, in 2018, the perception of media attention stayed on a lower level in Bulgaria compared to the average perception levels in

participating countries. The percentage of respondents who agreed that successful entrepreneurs enjoyed high status in Bulgaria stayed similar to the average of the participating countries (Figure 8).

All in all, entrepreneurs seem to gain a more prestigious reputation, even if media attention is relatively low in Bulgaria

Figure 8 Societal entrepreneurship attitudes (in %) in Bulgaria, factor-driven, efficiency-driven and innovation-driven economies in 2017 and 2018



2017	Bulgaria	Factor-driven economies	Efficiency-driven economies	Innovation-driven economies
Good career choice	54.3	65.0	66.0	57.0
High status for successful entrepreneurs	68.0	72.0	66.0	70.0
Media attention for entrepreneurship	47.6	57.0	60.0	62.0

Source: GEM Adult Population Survey, 2017 from GEM Global 2017/18 report.

Reads as 54.3% of Bulgarian adults in 2017 regarded entrepreneurship as a good career choice.

2018	Bulgaria	Factor-driven economies	Efficiency-driven economies	Innovation-driven economies
Good career choice	62.6 Rank 26/47	76.0	59.0	58.0
High status for successful entrepreneurs	69.3 Rank 29/47	77.0	61.0	72.0
Media attention for entrepreneurship	44.6	62.0	55.0	63.0

Source: GEM Adult Population Survey, 2018 from GEM Global 2018/19 report.

Reads as 62.6% of Bulgarian adults in 2018 regarded entrepreneurship as a good career choice.

2.3. Attitudes and potential entrepreneurs

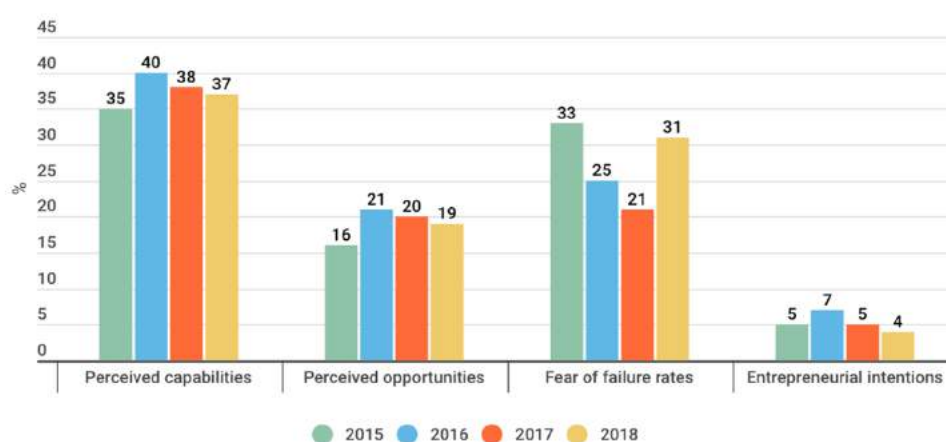
- ⇒ Perceived opportunities - the percentage of the population aged 18–64 years who see good opportunities to start a business in the area where they live
- ⇒ Perceived capabilities - the percentage of the population aged 18–64 years who believe they have the required skills and knowledge to start a business
- ⇒ Entrepreneurial intention - the percentage of the population aged 18–64 years (individuals involved in any stage of entrepreneurial activity excluded) who are latent entrepreneurs and intend to start a business within three years
- ⇒ Rate of fear of failure - the percentage of the population aged 18–64 years perceiving good opportunities who indicate that fear of failure would prevent them from starting up a business (Note - for this indicator, higher rate indicates high fear of failure)

In 2018, 19.3% of the adult population in Bulgaria perceived good opportunities to start a business in the area where they lived, similar to the 19.5% in 2017. This is close to the previous years and is somewhat problematic as it indicates that people do not find increasing opportunities to start a business over time. The population that reported having perceived capabilities to embark on

entrepreneurship is 38.4% and 36.9%, respectively for 2017 and 2018, both lower than the value of 39.7% of 2016.

Both perceived capabilities and perceived opportunities were considerably lower than the corresponding rates of the benchmark groups in 2017 and 2018 (Figure 10).

Figure 9 Perceptions about entrepreneurship in the adult population of Bulgaria, 2015-2018



	2015	2016	2017	2018
Perceived capabilities	35.2	39.7	38.4	36.9
Perceived opportunities	15.8	21.0	19.5	19.3
Fear of failure rates	33.3	25.1	20.9	31.0
Entrepreneurial intentions	5.3	7.1	5.0	3.9

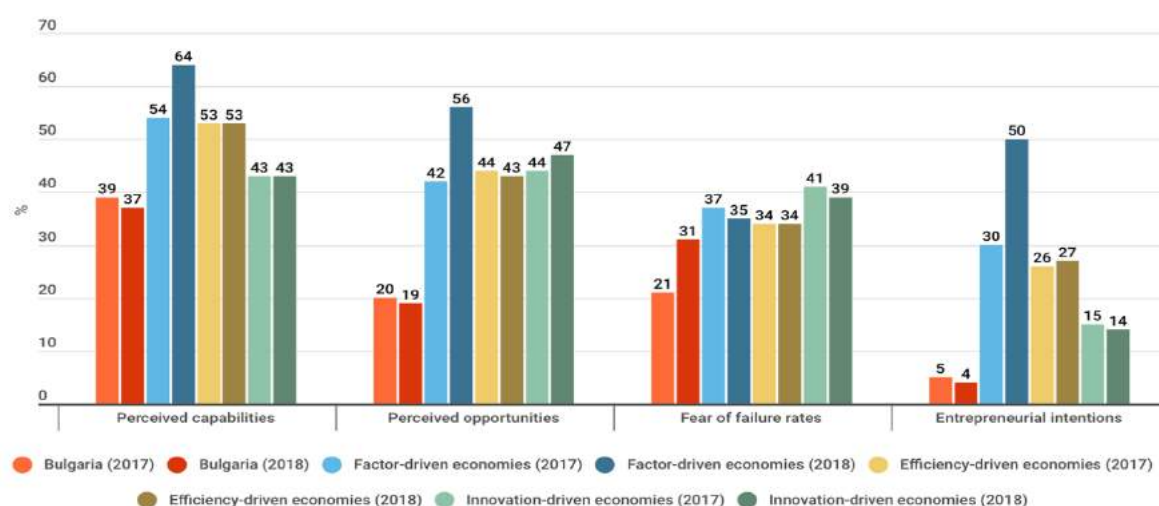
Source: GEM Bulgaria Adult Population Survey, 2015, 2016, 2017, 2018.

Reads as: 36.9% of Bulgarian adults in 2018 perceived to have the necessary capabilities for entrepreneurship.

Interestingly, in 2017 only 20.9% of Bulgarians reported fear of failure, compared to numbers twice as high in the other participating countries in 2017. This variable increased significantly in 2018 to 31% of Bulgarians experiencing fear of failure, still a lower level than the other countries by level of development. This is one indicator where higher levels indicate deficits (Figure 10).

The entrepreneurial intentions among Bulgarians hit their lowest level in 2018 – 3.9% of Bulgarians intended to start a business that year. Entrepreneurial intentions among Bulgarians were very low in 2017 - 5% of the population planned to start a business in the next 3 years compared to 26% in the other participating efficiency-driven economies.

Figure 10 Perceptions about entrepreneurship in the adult population of Bulgaria, factor-driven, efficiency-driven, and innovation-driven economies in 2017 & 2018



2017	Bulgaria	Factor-driven ec.	Efficiency-driven ec.	Innovation-driven ec.
Perceived capabilities	38.4	54.0	53.0	43.0
Perceived opportunities	19.5	42.0	44.0	44.0
Fear of failure rates	20.9	37.0	34.0	41.0
Entrepreneurial intentions	5.0	30.0	26.0	15.0

Source: GEM Adult Population Survey, 2017 from GEM Global 2017/18 report.

Reads as: 38.4.5% of Bulgarian adults in 2017 perceived to have the necessary capabilities for entrepreneurship.

2018	Bulgaria	Factor-driven ec	Efficiency-driven ec.	Innovation-driven ec.
Perceived capabilities	36.9 (Rank 42/49)	64.0	53.0	43.0
Perceived opportunities	19.3 Rank 47/49	56.0	43.0	47.0
Fear of failure rates	31.0 Rank 34/49	34.5	33.9	39.3
Entrepreneurial intentions	3.9 Rank 47/49	49.9	26.9	13.8

Source: GEM Adult Population Survey, 2018 from GEM Global 2018/19 report.

Reads as: 36.9% of Bulgarian adults in 2018 perceived to have the necessary capabilities for entrepreneurship.

2.4. Drivers of Bulgarian entrepreneurship - out of need or seeking an opportunity?

MOTIVATION

The GEM methodology as of 2018 assumes that business drive at the TEA stage can be motivated by opportunity/improvement or by necessity:

- ⇒ **Improvement-driven entrepreneurial activity** - the percentage of those involved in early-stage entrepreneurial activity (TEA) driven entirely or partially by opportunity as opposed to not finding other options for work. This includes taking advantage of a business opportunity AND having a job but looking for a better opportunity.
- ⇒ **Necessity-Driven Entrepreneurial Activity** – the percentage of those involved in TEA who are involved in entrepreneurship because they had no better options for work, i.e. claim to be driven by necessity as opposed to as an opportunity.
- ⇒ **Improvement-Driven Opportunity Entrepreneurial Activity** – the percentage of those involved in TEA who (i) state they are driven by opportunity instead of having no better options for work; AND (ii) who indicate the main driver for being involved in this opportunity is being independent or increasing their income, rather than just maintaining their income.

In Bulgaria in 2017, necessity-driven TEA was 1.6 percentage points lower than the improvement-driven opportunity TEA (Figure 11) yet, necessity-driven TEA is decreasing, showing a slight negative trend in motivation to participate in entrepreneurial activities out of necessity. Bulgaria has traditionally lagged in improvement-driven entrepreneurship with a peak in 2016.

The worrying element is the absence of a growing trend in improvement-driven entrepreneurship, as this is the type of entrepreneurial activity with the highest societal value-added. It is commonly associated with new business model creation, technological adoption and productivity gains.

Figure 11 Opportunity/Improvement- and necessity-driven TEA rates (%) among the adult population in Bulgaria, 2015-2018



	2015	2016	2017	2018
Necessity-driven % TEA	33.4	30.9	26.9	27.5
Improvement-driven opportunity (IDO) % TEA	29.0	35.0	28.5	27.5
Ratio IDO:ND	0.9 Rank 55/60	1.1 Rank 53/64	1.1 Rank 48/54	1.0 Rank 43/48

Source: GEM Bulgaria Adult Population Survey, 2015, 2016, 2017, 2018.

Reads as: 27.5% of TEA activity in Bulgaria in 2018 was necessity-driven.

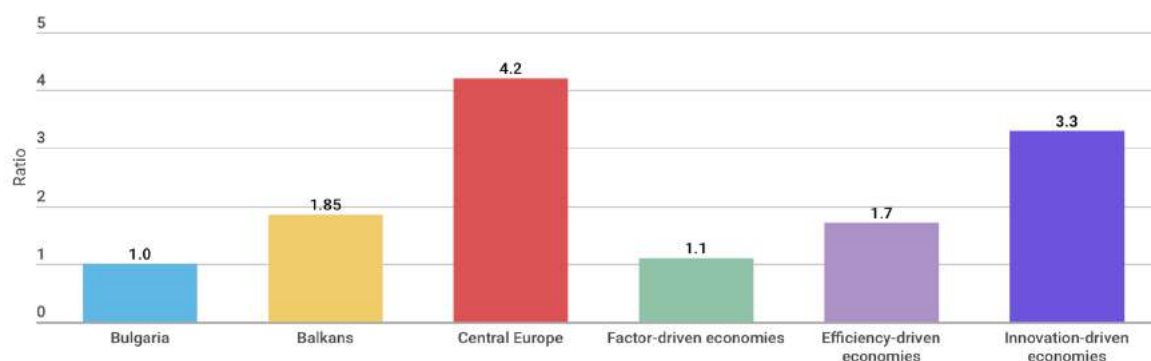
To understand better the importance of the motivation to participate in early-stage entrepreneurial activity, we present the ratio of improvement driven opportunity to necessity driven opportunity (IDO:ND).

The difference in favor of improvement-driven entrepreneurship is much more prominent on

average (1:3) for the innovation-driven and 4 times larger compared to Central Europe participating economies in the 2018 GEM data collection process (

Figure 12

Figure 12 Ratio of Innovation-driven opportunity to necessity-driven entrepreneurial activity as % of TEA in Bulgaria and benchmark groups in 2018



2018	Bulgaria	Balkans	Central Europe	Factor-driven ec.	Efficiency-driven ec.	Innovation-driven ec.
Ratio IDO:ND	1.0 Rank 43/48	1.85	4.2	1.1	1.7	3.3

Source: GEM Adult Population Survey, 2018 from GEM Global 2018/19 report.

Reads as: Innovation-driven opportunity motivation in Bulgaria in 2018 was as much as necessity-driven entrepreneurship activity.



TYPICAL BULGARIAN ENTREPRENEUR

EARLY-STAGE

6.0%

ESTABLISHED

8.3%

25-44



AGE



45-54



MALE



GENDER

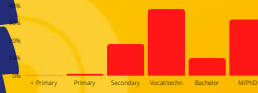


MALE

MASTERS



EDUCATION



VOCAT/TECH
SECONDARY

TOTAL EARLY-STAGE
ENTREPRENEURSHIP
(TEA)

% OF THE 18-64
POPULATION WHO ARE
EITHER A NASCENT
ENTREPRENEUR OR
OWNER-MANAGER OF A
NEW BUSINESS, LESS
THAN 3 1/2 YEARS



ESTABLISHED
ENTREPRENEURSHIP
(EB)

% OF THE 18-64
POPULATION WHO ARE
CURRENTLY OWNER-
MANAGER OF AN
ESTABLISHED BUSINESS,
MORE THAN 3 1/2 YEARS

<25% INT
SALES



INTERNATIONALIZATION



<25% INT
SALES

DISTRICT
CITIES



LOCATION



DISTRICT
CITIES

TRADE, HOTEL,
RESTAURANT



SECTOR



TRADE, HOTEL,
RESTAURANT

<5 JOBS NEXT
5 YEARS



EXPECTATION



<5 JOBS NEXT 5
YEARS

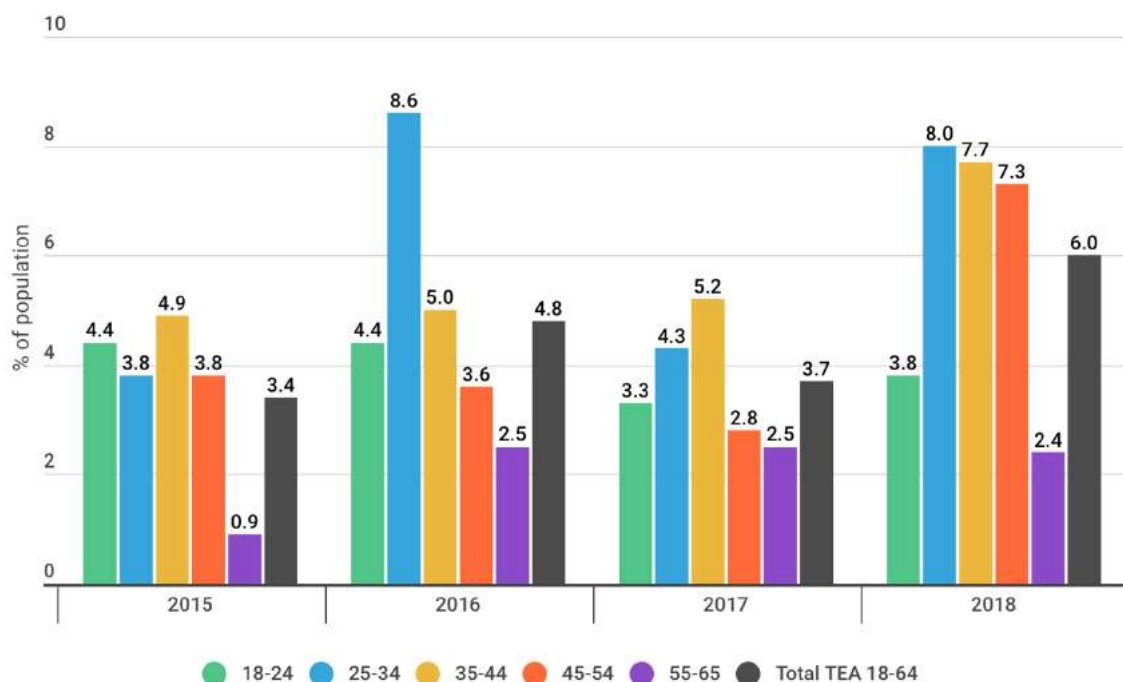
2.5.1. AGE DISTRIBUTION OF TEA

The most entrepreneurially active age group in 2017 and 2018 in Bulgaria was the 25-44-year-olds (see Figure 13). The 25-44 y. o. age group is among the most entrepreneurially active globally (Figure 14). However, in Bulgaria, the age group of 45-54-year-olds has experienced

an increased early-stage entrepreneurial activity in 2018 (Figure 13).

Still, the absolute levels of early-stage entrepreneurial activity in Bulgaria in 2017 and 2018 remained very low, a fact characterizing every age group (Figure 14).

Figure 13 Total Early-stage Entrepreneurship Activity rate by age group in Bulgaria, 2015-2018

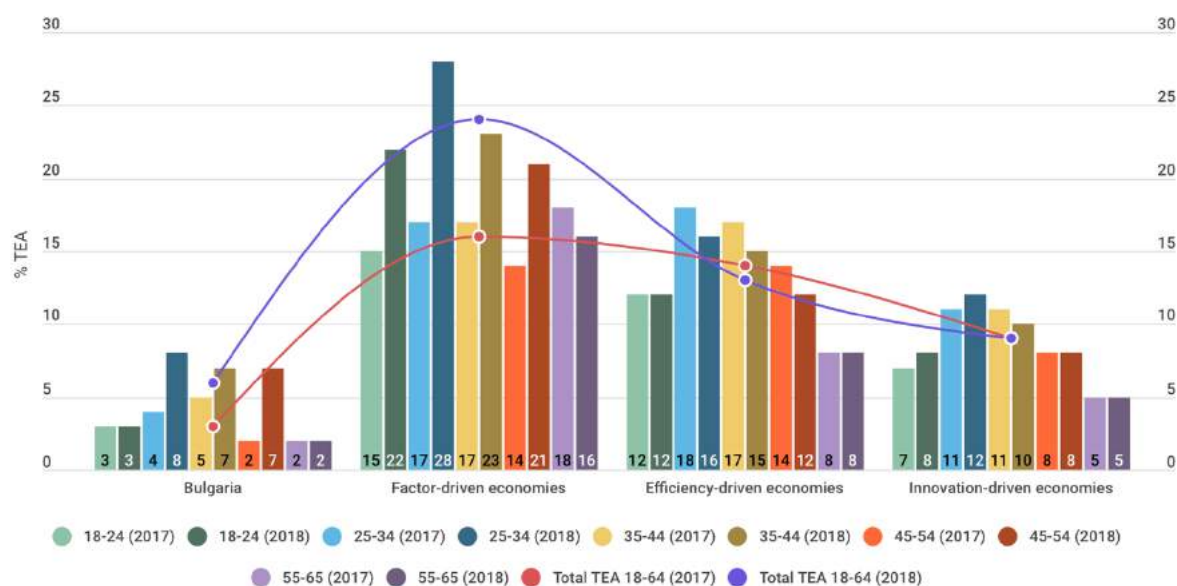


Age groups in Bulgaria	2015	2016	2017	2018
18-24	4.4	4.4	3.3	3.8
25-34	3.8	8.6	4.3	8.0
35-44	4.9	5.0	5.2	7.7
45-54	3.8	3.6	2.8	7.3
55-65	0.9	2.5	2.5	2.4
Total TEA 18-64	3.4	4.8	3.7	6.0

Source: GEM Bulgaria Adult Population Survey, 2015, 2016, 2017, 2018.

Reads as: 3.8 % of the population aged 18 24 years engaged in Total early-stage Entrepreneurial Activity in Bulgaria in 2018.

Figure 14 Total Entrepreneurship Activity by age group in Bulgaria, factor-, efficiency-, and innovation-driven economies 2017 and 2018



2017	Bulgaria	Factor-driven ec.	Efficiency-driven ec.	Innovation-driven ec.
18-24	3.3	15.9	12.9	7.8
25-34	4.3	17.4	18.3	11.8
35-44	5.2	17.8	17.1	11.1
45-54	2.8	14.0	14.0	8.3
55-65	2.5	18.2	8.9	5.5
Total TEA 18-64	3.7	16.4	14.9	9.0

Source: GEM Adult Population Survey, 2017 from GEM Global 2017/18 report.

2018	Bulgaria	Factor-driven ec.	Efficiency-driven ec.	Innovation-driven ec.
18-24	3.8	22.7	12.5	8.9
25-34	8.0	28.8	16.9	12.3
35-44	7.7	23.1	15.8	10.0
45-54	7.3	21.7	12.1	8.8
55-65	2.4	16.7	8.6	5.7
Total TEA 18-64	6.0	24.5	13.9	9.5

Source: GEM Adult Population Survey, 2018 from GEM Global 2018/19 report.

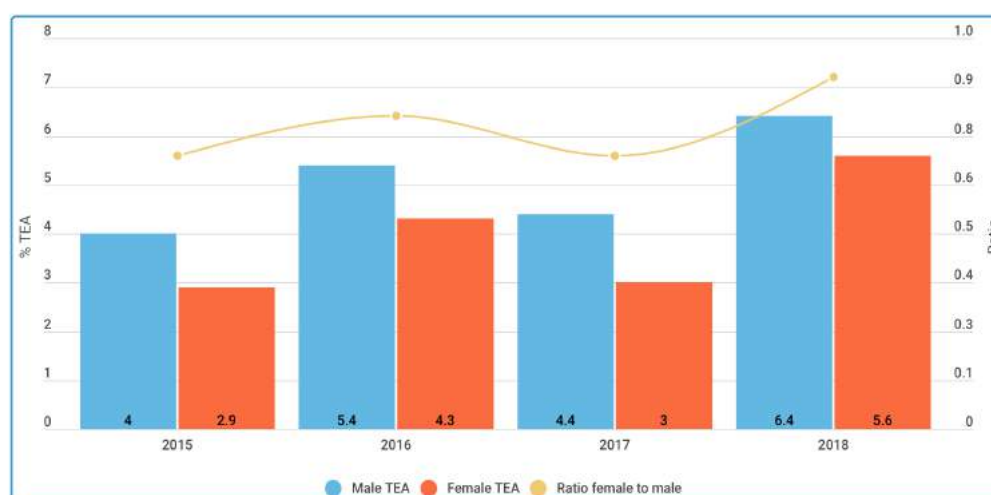
Reads as: % of population groups 18-64 engaged in Total Early-stage Entrepreneurial Activity in Bulgaria and participating factor-driven, efficiency-driven and innovation-driven economies in 2018.

2.5.2. GENDER DISTRIBUTION OF TEA

The ratio of female to male TEA in Bulgaria in 2018 was 0.9, which indicates that there were slightly

more male entrepreneurs than female entrepreneurs (Figure 15).

Figure 15 TEA rates by gender in Bulgaria 2015-2018 (as % of the adult population for each gender involved in TEA)



	2015	2016	2017	2018
Male TEA	4.0	5.4	4.4	6.4
Female TEA	2.9	4.3	3.0	5.6
Ratio Female : Male	0.7 21/60	0.8 Rank 18/64	0.7 Rank 23/54	0.9 Rank 11/48

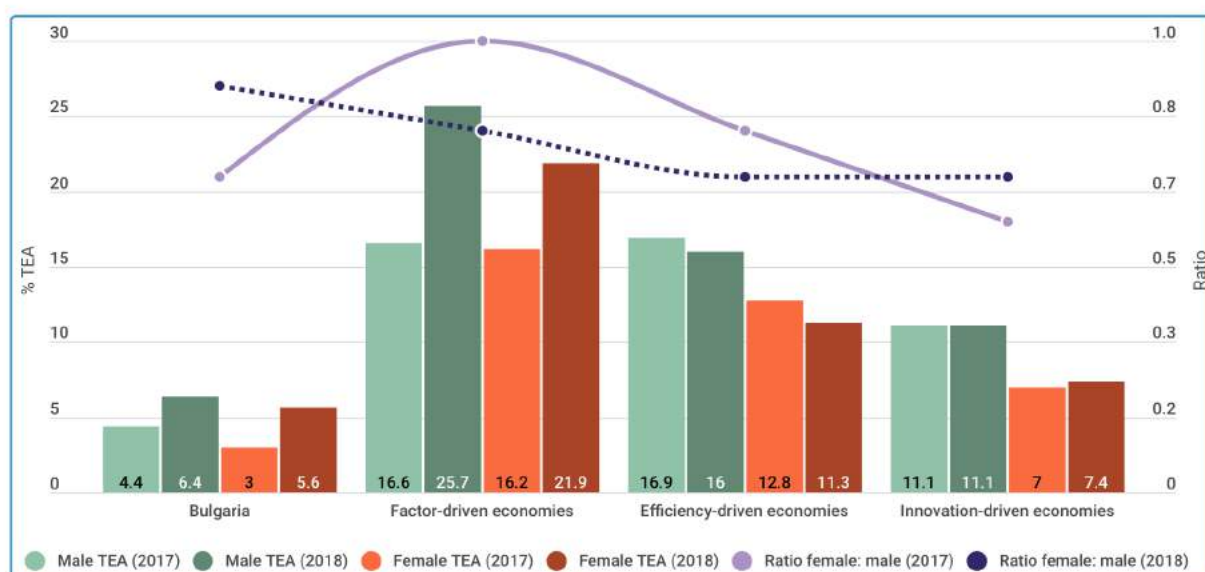
Source: GEM Bulgaria Adult Population Survey, 2015, 2016, 2017, 2018.

Reads as: 6.4% of the adult male population in 2018/2019 was engaged in TEA activity.

The result situated the gender composition of Bulgaria closer to factor-driven economies at 0.8 than to efficiency- & innovation-driven countries at 0.7 – a clear difference to 2017, when the gender composition of Bulgaria was closer to efficiency- and innovation-driven countries. (See Figure 16).

The 2018 result indicates a better gender balance among the early-stage entrepreneurs in Bulgaria and ranking 11th out of 48 globally.

Figure 16 TEA rates by gender in Bulgaria, factor-, efficiency-, and innovation-driven economies in 2017 and 2018 (as % of the adult population for each gender involved in TEA)



2017	Bulgaria	Factor-driven economies	Efficiency-driven economies	Innovation-driven ec.
Male TEA	4.4	16.6	16.9	11.1
Female TEA	3.0	16.2	12.8	7.0
Ratio Female : Male	0.7 Rank 23/54	1	0.8	0.6

Source: GEM Adult Population Survey, 2017 from GEM Global 2017/18 report.

2018	Bulgaria	Factor-driven economies	Efficiency-driven economies	Innovation-driven ec.
Male TEA	6.4	25.7	16.0	11.1
Female TEA	5.6	21.9	11.3	7.4
Ratio Female : Male	0.9 Ratio 11/48	0.8	0.7	0.7

Source: GEM Adult Population Survey, 2018 from Global 18/19 report.

Reads as: 6.4% of the adult male population in Bulgaria in 2018/2019 was engaged in TEA activity.

2.5.3. ENTREPRENEURIAL MOTIVATION AND GENDER

A look into the balance between entrepreneurial motivation by gender in Bulgaria and the three types of economies gives further insight into the entrepreneurial gender balance.

In 2017 and 2018 in Bulgaria, there was an increasingly larger share of male opportunity-driven entrepreneurs and a smaller share of

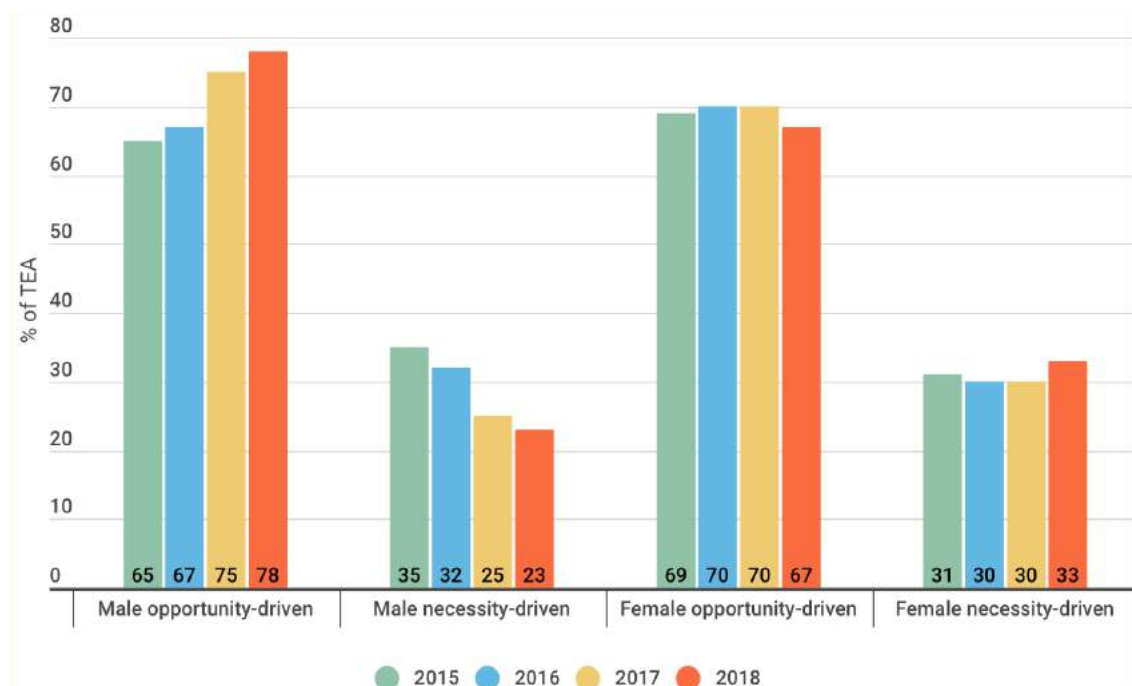
male necessity-driven entrepreneurs than in previous years (see Figure 17).

The data for Bulgaria in 2018 indicates that more of the male entrepreneurs are motivated by improvement and less by necessity (from 2:1 in 2015 to 3:1 in 2018). However, we do not see much change in the motivations of female entrepreneurs (around 2:1 for the same years).

Men seem to have more improvement-driven entrepreneurial activities at early-stage entrepreneurship, while female TEAs show a more

significant share being driven out of necessity. This difference might be an indicator of a discrepancy in opportunities and preparedness between genders.

Figure 17 Entrepreneurial motivation by gender in Bulgaria, 2015-2018 (% of TEA)



	2015	2016	2017	2018
Male opportunity-driven	65.0	66.6	75.1	77.6
Male necessity-driven	35.0	31.5	24.9	23.4
Female opportunity-driven	69.0	69.8	70.2	66.7
Female necessity-driven	31.0	30.2	29.8	33.3
Ratio Female : Male opportunity driven	1.1	1	0.9	0.9

Source: GEM Bulgaria Adult Population Survey, 2015, 2016, 2017, 2018.

Reads as: 77.6% of male early-stage entrepreneurs in 2018 were opportunity-driven.

In 2017, the relative share of male and female opportunity-driven entrepreneurs situated Bulgaria closer to the pattern of other efficiency-driven economies (see Figure 18 below).

The ratio of female to male TEA is somewhat higher for Bulgaria – Bulgaria scores in top 1/2 to 1/3 in the global ranking 2015-2018 - indicating better gender parity regarding early-stage entrepreneurial endeavors than most (see Figure 15).

In Bulgaria, opportunity-motivated female entrepreneurship was slightly higher than opportunity-motivated male entrepreneurship in 2015 and 2016, yet in 2017 and 2018, it started to change (see Figure 17). The egalitarian

participation of women in the early-stage entrepreneurial activities guarantees that the Bulgarian economy already reaps the benefits of high female labor force participation.

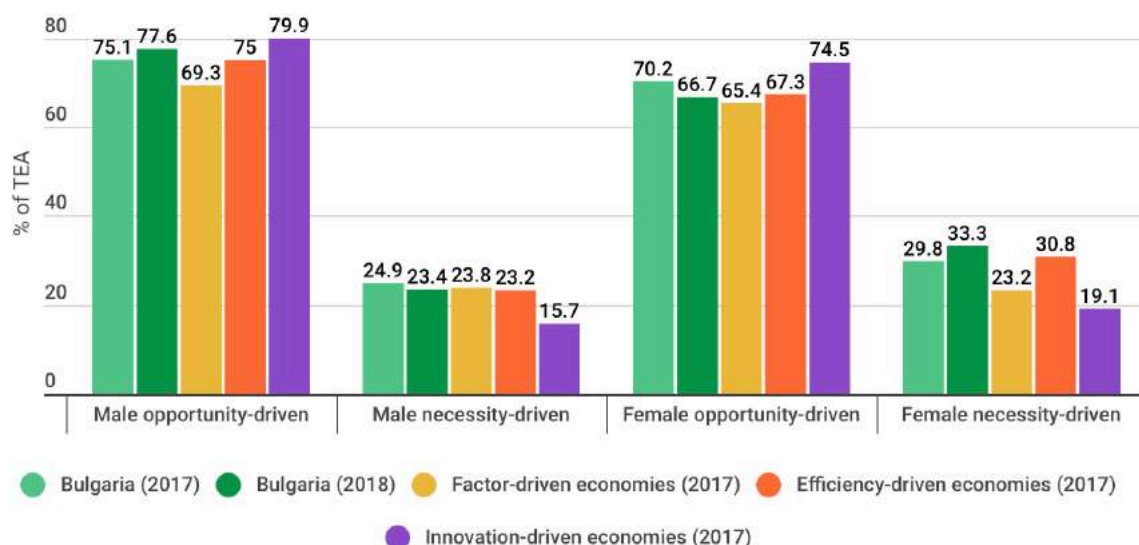
While improving the overall TEA will stimulate economic development, gender inequality in early-stage entrepreneurial ventures is not an issue in Bulgaria's case. In essence, in Bulgaria, there is no evidence for a systemic gender gap regarding entrepreneurship.

This must positively impact the overall economic environment because economies with high female labor 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.

While the ratio for Bulgaria of male opportunity-driven entrepreneurship to necessity-driven motivation (3-3.3) is higher than for female entrepreneurship (2-2.4), the former is closer to the ratio for innovation-driven economies - 5.1 for males vs 3.9 for females entrepreneurs (see Figure 18).

Figure 18 Entrepreneurial motivation by gender in Bulgaria (2017 and 2018) and factor-, efficiency-, and innovation-driven economies 2017 (as % of TEA)



	Bulgaria 2017	Bulgaria 2018	Factor-driven economies 2017	Efficiency-driven economies 2017	Innovation-driven economies 2017
Male opportunity-driven	75.1	77.6	69.3	75.0	79.9
Male necessity-driven	24.9	23.4	23.8	23.2	15.7
Ratio Male OD:ND	3.0	3.3	2.9	3.2	5.1
Female opportunity-driven	70.2	66.7	65.4	67.3	74.5
Female necessity-driven	29.8	33.3	23.2	30.8	19.1
Ratio Female OD:ND	2.4	2.0	2.8	2.2	3.9
Ratio Female/Male Opportunity ratio	0.9	0.9	0.9	0.9	0.9

Source: GEM Adult Population Survey, 2017 from GEM Global 2017/18 report.

Reads as: 75.1% of male early-stage entrepreneurs in Bulgaria in 2017 were opportunity-driven.

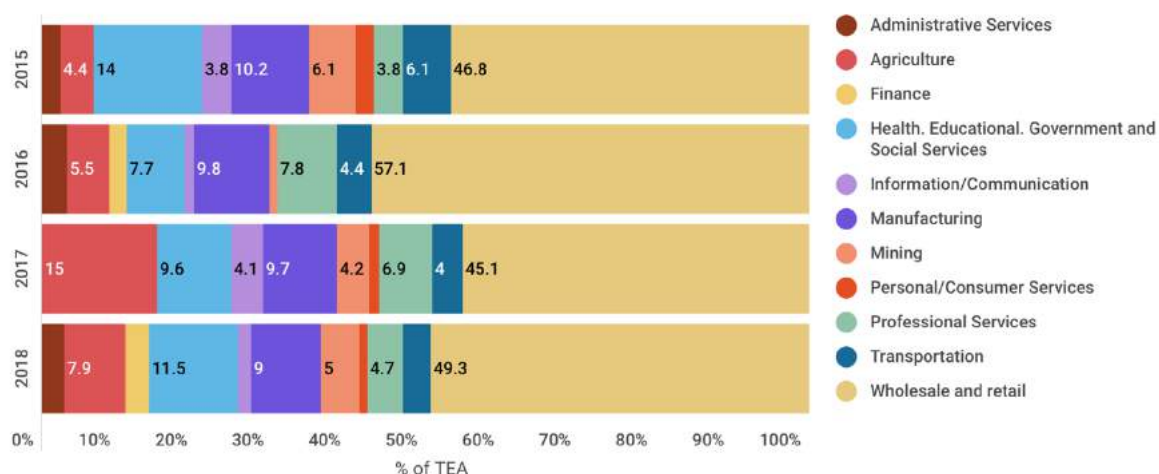
2.6. Sector overview

2.6.1. INDUSTRY SECTOR

In Bulgaria in 2018, 49.3% of the new entrepreneurial ventures belonged to retail or wholesale, a decrease of 6.8 percentage points compared to 2016, when the highest percentage of such ventures was reported (Figure 19). The

distribution of TEA by sector in Bulgaria situates the country closer to factor- and efficiency-driven economies than to innovation-driven economies (see Figure 20).

Figure 19 Distribution of TEA (in %) by sector in Bulgaria, 2015-2018



Sector	2015	2016	2017	2018
Administrative Services	2.4	3.3	0	2.9
Agriculture	4.4	5.5	15.0	7.9
Finance	0	2.2	0	3.2
Health, Educational, Gov. & Soc. Services	14.0	7.7	9.6	11.5
Information/Communication	3.8	1.1	4.1	1.8
Manufacturing	10.2	9.8	9.7	9.0
Mining	6.1	1.1	4.2	5.0
Personal/Consumer Services	2.4	0	1.3	1.1
Professional Services	3.8	7.8	6.9	4.7
Transportation	6.1	4.4	4.0	3.6
Wholesale and retail	46.8	57.1	45.1	49.3

Source: GEM Bulgaria Adult Population Survey, 2015, 2016, 2017, 2018.

Reads as 7.9% of early-stage entrepreneurs in 2018 belong to the agricultural sector.

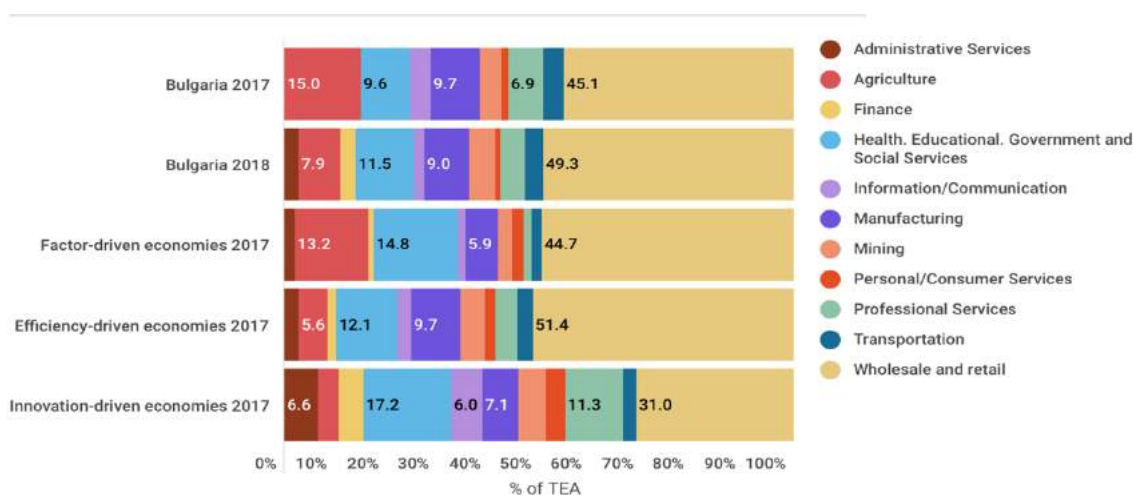
Bulgaria continues to closely match the efficiency-driven economies' sector distribution with regards to entrepreneurship, as almost half of the new ventures belong to retail or wholesale, which are highly vulnerable to economic downturns (see Figure 19).

In 2018, more than a fifth, 20.5%, of the new ventures belong to the higher value-added sectors of manufacturing and health, education, government and social services. Transportation and communication/information and professional services account for around 10-15% of early-stage entrepreneurship, and a trend is still not evident.

The industry sector distribution of TEA for Bulgaria is still similar to the distribution in factor- and efficiency-driven economies (see Figure 20), probably reflecting the scarcity of know-how, skills and industrial-base required by knowledge-intensive sectors.

In essence, Bulgaria has a smaller share of early-stage businesses belonging to the knowledge-intensive industry sectors than the average share exhibited in innovation-driven economies, many of which are Bulgaria's EU partners.

Figure 20 Distribution of TEA (in %) by sector in Bulgaria in 2017 and 2018, and factor-, efficiency-, and innovation-driven economies in 2017



Sector	Bulgaria 2017	Bulgaria 2018	Factor-driven 2017	Efficiency-driven 2017	Innovation-driven 2017
Administrative Services	0	2.9	1.8	2.8	6.6
Agriculture	15.0	7.9	13.2	5.6	4.0
Finance	0	3.2	0.9	1.7	4.9
Health, Educational, Gov. & Soc. Services	9.6	11.5	14.8	12.1	17.2
Information/Communication	4.1	1.8	1.3	2.6	6.0
Manufacturing	9.7	9.0	5.9	9.7	7.1
Mining	4.2	5.0	2.5	4.8	5.5
Personal/Consumer Services	1.3	1.1	2.1	2.1	3.8
Professional Services	6.9	4.7	1.3	4.3	11.3
Transportation	4.0	3.6	1.8	3.0	2.5
Wholesale and retail	45.1	49.3	44.7	51.4	31.0

Source: GEM Adult Population Survey, 2017, 2018 from GEM Global 2017/18 report and GEM Global 2018/19 report.

Reads as: 15% of early-stage entrepreneurs in Bulgaria in 2017 belong to the agricultural sector.

2.7. Entrepreneurial impact

2.7.1. JOB GROWTH

⇒ **Growth Expectation Entrepreneurial Activity** – the percentage of TEA who expect to employ a particular number of employees five years from now, minus the current number of employees.

Entrepreneurs can be ambitious and optimistic about growth in their businesses, and as such, they may employ others or 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 by the dynamism in the job market. This section analyses the intentions of Bulgarian entrepreneurs to hire employees in the next five years.

In Bulgaria in 2018, early-stage entrepreneurs were especially cautious about future hires, as 73.7% did not expect to create any jobs, while 23.7% expected to create between 1 and 5 jobs in the next five years. Additionally, there was a negative trend in expectations related to greater entrepreneurial job creation in Bulgaria, where only 2.5% expected to create more than 6 jobs, compared to 9.4% in 2017 (see Figure 21).

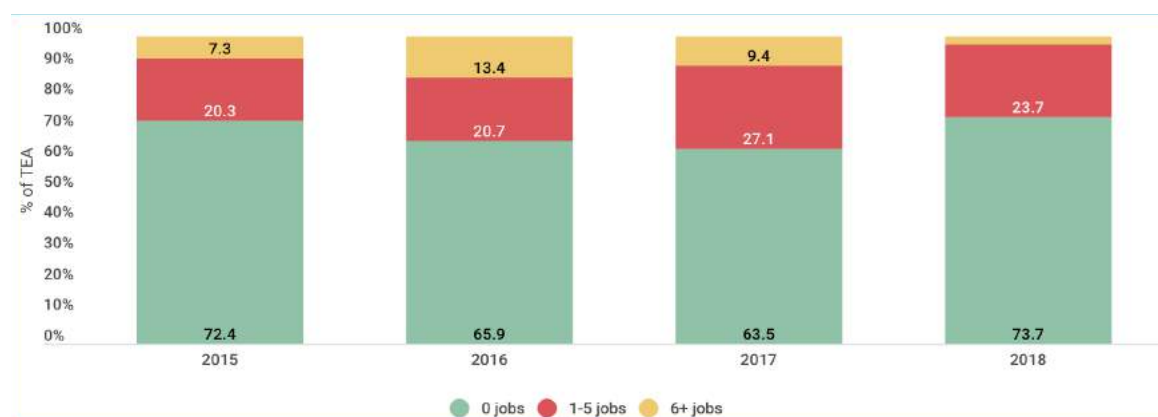
A decrease three years in a row in the share of entrepreneurs planning to employ 6+ employees in the next 5 years together with almost 10 percentage points increase in the share of sole entrepreneurs is a concerning trend and highlights the limited capacity of the early entrepreneurs to grow.

This rate of hiring is indicative of a very cautious pace of entrepreneurial growth. In essence, most entrepreneurial endeavors in Bulgaria grow slowly while growth intention shows a downward trend.

The nature of early-stage entrepreneurship that gravitates toward *low-tech solo projects* 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* in the local labor 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 materialize 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 less than 10% 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 and the education system will also be necessary. Managerial capacity is going to be critically important.

Figure 21 Job Growth expectations (in %) of early-stage entrepreneurs in the next 5 years in Bulgaria, 2015-2018



	2015	2016	2017	2018
0 jobs	72.4	65.9	63.5	73.7
1-5 jobs	20.3	20.7	27.1	23.7
6+ jobs	7.3 Rank 54/60	13.4 Rank 48/64	9.4 Rank 43/54	2.5 Rank 46/48

Source: GEM Bulgaria Adult Population Survey 2015, 2016, 2017, 2018.

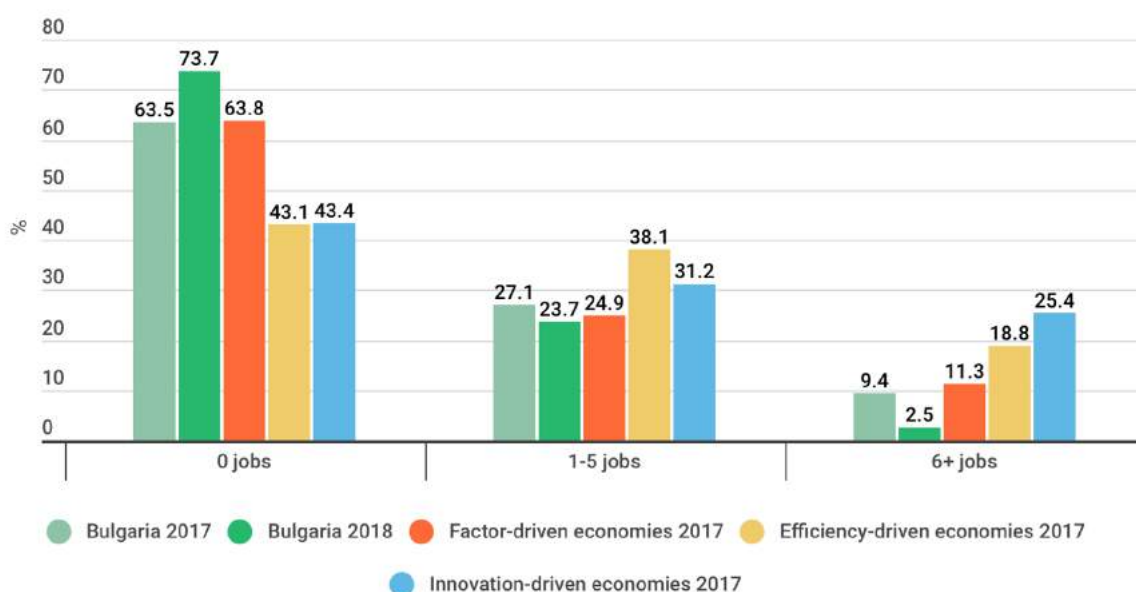
Reads as: 73.7% of early-stage entrepreneurs in 2018 are expected to create no jobs within the next five years.

The pattern of expectations regarding job growth situates Bulgaria closer to factor-driven economies (Figure 22).

The more advanced an economy is, the smaller the share of sole entrepreneurs becomes. Noticeably, the more advanced the economic stage, the higher is the expected growth rate.

For Bulgaria to reverse the current negative trend of growth expectations, a systemic vision and program have to be put into place spanning over education and life-long learning programs, entrepreneurial finance mechanisms, global talent attraction and retention and a comprehensive national innovation strategy.

Figure 22 Job Growth expectations (in %) of early-stage entrepreneurs in the next 5 years in Bulgaria in 2017 and 2018, and in factor-, efficiency-, and innovation-driven economies, in 2017



	Bulgaria 2017	Bulgaria 2018	Factor-driven economies 2017	Efficiency-driven economies 2017	Innovation-driven economies 2017
0 jobs	63.5	73.7	63.8	43.1	43.4
1-5 jobs	27.1	23.7	24.9	38.1	31.2
6+ jobs	9.4 Rank 43/54	2.5 Rank 46/48	11.3	18.8	25.4

Source: GEM Adult Population Survey, 2017, 2018 from GEM Global 2017/18 report and from GEM Global 2018/19 report.

Reads as: 63.5% of early-stage entrepreneurs in Bulgaria in 2017 expected to create no jobs within the next five years.

2.7.2. INNOVATION

⇒ **Innovative Entrepreneurial Activity** – Percentage of TEA who indicate that their product or service is new to some or all customers and is offered by few or no other competitors.

Innovation and entrepreneurship are two very closely related concepts.

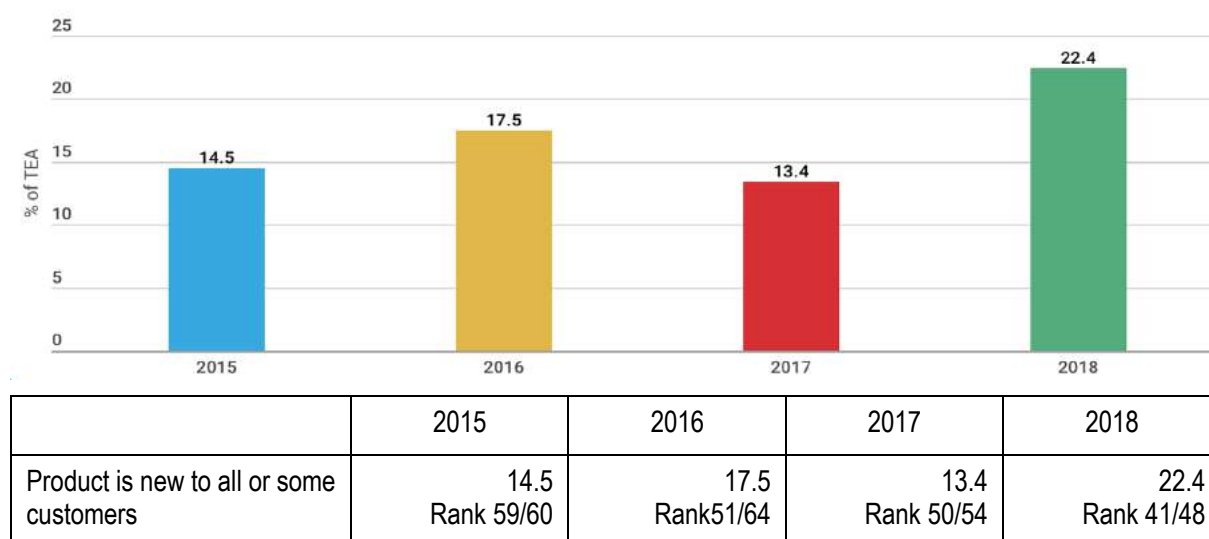
New ventures disrupt the market status quo through the process of “creative destruction” by introducing new product-market combinations that create more value for users and/or make more efficient use of resources.

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.

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 GEM Global 2018/19 ranking of innovativeness of early-stage entrepreneurship, Bulgaria ranks 41st out of 48 world economies. In essence, there are very few early-stage new ventures in Bulgaria, and only a small fraction of them engages in innovation activities (Figure 23).

Figure 23 Innovation levels (as %) among early-stage entrepreneurs in Bulgaria, 2015-2018



Source: GEM Bulgaria Adult Population Survey, 2015, 2016, 2017, 2018.

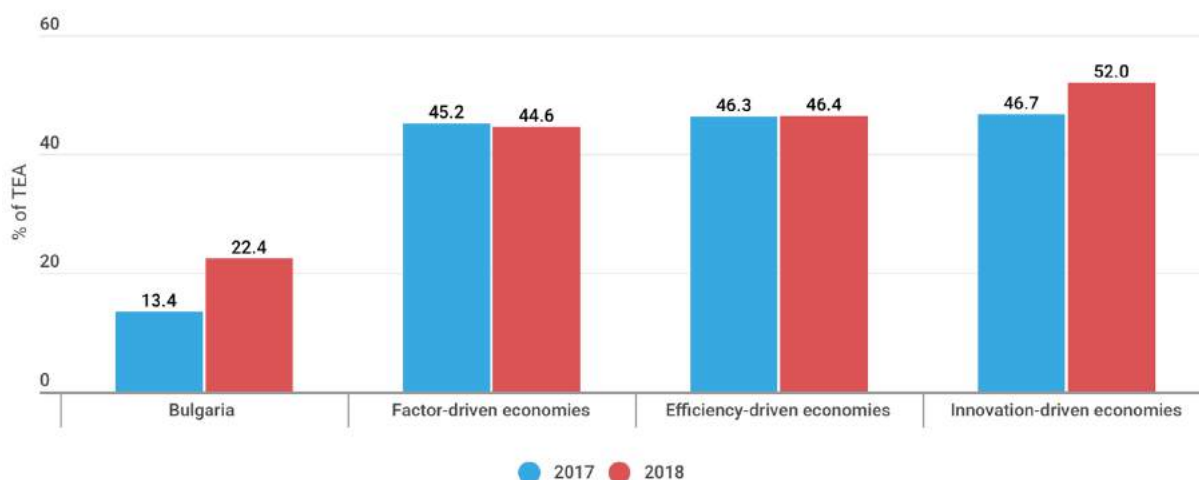
Reads as: 22.4% of the early stage Bulgarian entrepreneurs in 2018 believed that their product was new to all or some customer

Figure 24 contains comparative data for the degree of innovation in Bulgaria among early-stage entrepreneurs and the three types of economies as WEF defines. 13.4% of the Bulgarian early-stage entrepreneurs in 2017 believed their product was new to all or some customers. Comparatively, this is a very low number even for participating factor-

driven economies, and for that matter, to all types of economies.

In 2018, 22.4% of Bulgarian entrepreneurs believed their product is new to all or some customers. It is the highest value on the period 2015-2018 but still very low (one half) compared to reference groups (Figure 24).

Figure 24 Innovation levels (as %) among early-stage entrepreneurs in Bulgaria, factor-, efficiency-, and innovation-driven economies, 2017 and 2018



	Bulgaria	Factor-driven economies	Efficiency-driven economies	Innovation-driven economies
2017	13.4	45.2	46.3	46.7
2018	22.4	44.6	46.4	52.0

Source: GEM Adult Population Survey, 2017 from GEM Global 2017/18 report and GEM Adult Population Survey, 2018 from GEM Global 2018/19 report.

Reads as: 22.4% of Bulgarian entrepreneurs in 2018 believed that their product was new to all or some customers.

The low level of uptake of innovation in early-stage entrepreneurship is a significant constraint to the competitiveness of new ventures in Bulgaria. It remains to be prioritized, 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. According to the Global Innovation Index of 2018 (WIPO, GII, 2018), Bulgaria ranks among the Innovation leaders within its income group (upper middle-income countries) regarding innovation efficiency right after PR China and Malaysia and is considered an “Innovation achiever”.

As the self-reported levels of innovativeness among Bulgarian early-stage entrepreneurs are deficient compared to any other group, we cannot exclude the existence of a perceptual bias in the Bulgarian respondents. This 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.

An explanation that can still reconcile these two data sources (GEM and WIPO) is that **Bulgaria has a relatively small but vibrant group of innovation-oriented businesses which undertake innovation with remarkable efficiency.**

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 continues to be to spread the innovation culture and innovation management processes to the second group and thus expand the base on which the international competitiveness of the Bulgarian economy relies. The long-standing challenges in the way Bulgarian companies report innovation have also to be resolved in order to have a more precise diagnostic and initiatives in this domain. It is a well-established fact that Bulgarian companies systematically underreport innovation as there is no mandatory mechanism to report and measure such activities.

2.7.3. INTERNATIONALIZATION

⇒ **Internationally Oriented Entrepreneurial Activity** – the percentage of TEA who indicate that at least 25% of their sales are to customers who come from other countries.

Internationalization measures the percentage of early-stage 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 economic development reveals the highest average level of internationalization, which somewhat decreases for efficiency-driven economies and even more for factor-driven economies.

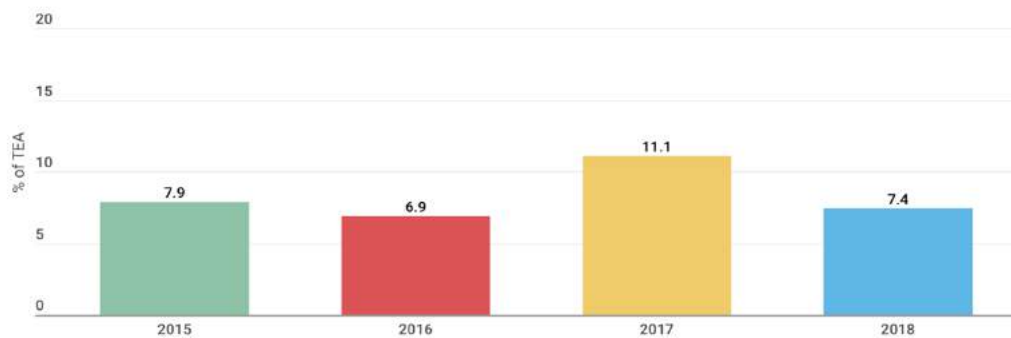
Figure 25 and Figure 26 indicate that on average Bulgarian entrepreneurs exhibit very low levels of international orientation. This result is consistent with the explanation of a two-tier distribution of the

Bulgarian early-stage companies, a small number of which are internationally competitive.

Remarkably, the international orientation of Bulgarian ventures in 2018 is as much as four times lower than the international orientation in other types of economies, with the most noticeable gap with the innovation-driven economies. (Figure 26).

In 2017, 11.1% of the Bulgarian entrepreneurs reported a 25% or higher share of international sales in 2017 (Figure 25). Comparatively, this is a low number (Figure 26). In 2018 the respective figure was even lower – 7.4% (Figure 25)

Figure 25 Percentage of early-stage entrepreneurs with 25% + international sales in Bulgaria, 2015-2018

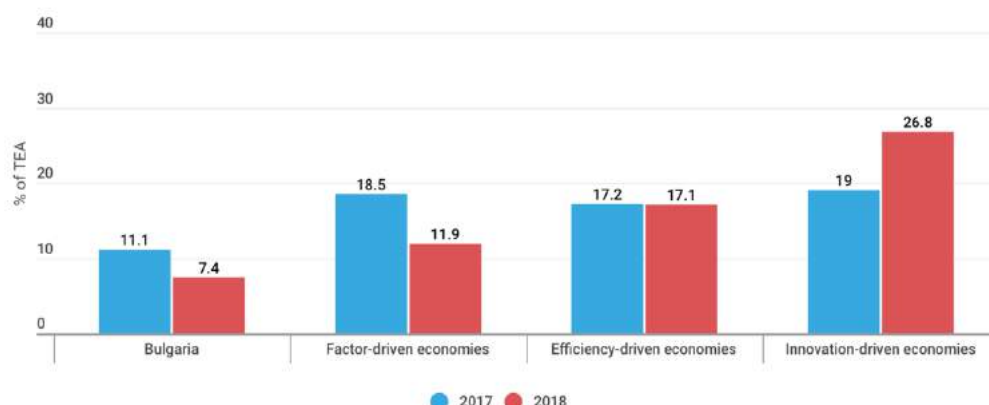


	2015	2016	2017	2018
International Orientation	7.9	6.9	11.1	7.4

Source: GEM Bulgaria Adult Population Survey 2015, 2016, 2017, 2018.

Reads as: 7.4 % of Bulgarian entrepreneurs in 2018 reported 25% or more international sales.

Figure 26 Percentage of early-stage entrepreneurs with 25% or more international sales in Bulgaria, factor-, efficiency-, and innovation-driven economies, 2017 and 2018



	Bulgaria	Factor-driven economies	Efficiency-driven economies	Innovation-driven economies
2017	11.1	18.5	17.2	19.0
2018	7.4	11.9	17.1	26.8

Source: GEM Adult Population Survey, 2017 from GEM Global 2017/18 report and GEM Adult Population Survey, 2018 from GEM Global 2018/19 report.

Reads as: 7.4 % of Bulgarian entrepreneurs in 2018 reported 25% or more international sales.

The public debate already started about the factors that drive competitiveness in the world to correct this alarming result in the case of Bulgaria. The small size of the national market does not provide strong enough scale advantages for most early-stage entrepreneurs to pursue opportunities abroad. Informing and educating them to identify opportunities and scale them up abroad can make a difference in the business opportunities' quality and their growth rates. This, however, implies a change in

the vision and skill-set available to local business.

This 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 labor. The latter cannot be a sustainable base for international competitiveness, and as the data indicates, it is not the case with early-stage entrepreneurship.

CHAPTER 3 THE BULGARIAN ENTREPRENEURIAL ECOSYSTEM IN THE CONTEXT OF SOUTH-EAST EUROPE⁷

The Entrepreneurial Framework Conditions of GEM from a regional perspective

Every year, each economy participating in the GEM cycle interviews at least 36 key experts and informants who have been previously identified as knowledgeable and desirable sources of opinion. In this regard, the National Experts Survey (NES) is similar to other surveys that capture expert judgments to evaluate specific national-level conditions. However, the GEM NES focuses only on the environmental features expected to significantly impact entrepreneurial activities, captured in nine different but particular entrepreneurial framework conditions.

The nine entrepreneurial framework conditions as identified by GEM include:

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

9. social and cultural norms.

When all the countries collect the data, the files are harmonized centrally by the GEM consortium data team, which includes an internal quality audit and the calculation of site variables that summarize each block of questions designed to measure a specific aspect of the entrepreneurial climate. Each year, the results of the participating countries are compared bilaterally and by regions or level of economic development.

While conditions for doing business are an integral part of a country's story, entrepreneurship results from of a combination of environment and actual activity and can rarely be disentangled from regional and global influences. GEM has measured the spectrum of ecosystems globally for 20 years, and the data allows to see patterns globally while also becoming particularly valuable on a national level when monitoring progress from year to year and when using strictly for benchmark analysis.

The historical data in Figure 27 tells a story of a stable entrepreneurial environment, which lacks

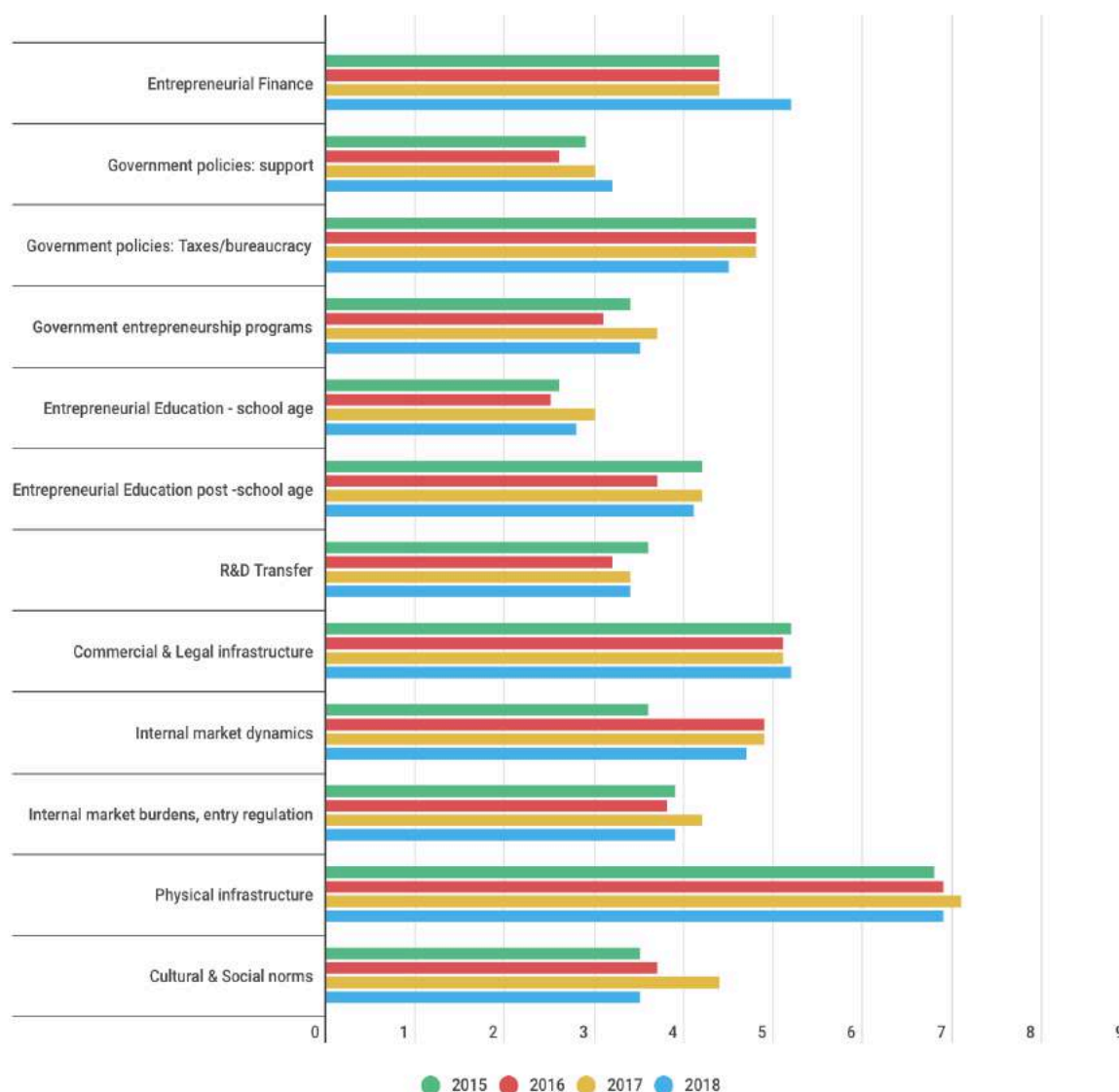
⁷ Beside GEM data, this section draws on the research that preceded the writing of the book Entrepreneurial ecosystems in unexpected places by Veneta Andonova, Milena Nikolova and Dilyan Dimitrov, published in 2019.

prominent positive trends, apart from mild improvement in the indicator of Entrepreneurial finance in 2018. Apart from Physical infrastructure, which is among the better rated (7 out of 9 max), improvements in all other entrepreneurial conditions would be needed to see a change in the entrepreneurial behavior of the individuals (CHAPTER 2). Scores and ranking should be used together to understand the relative attractiveness of the entrepreneurial landscape in Bulgaria compared to different benchmark groups.

Bulgaria compared to different benchmark groups. Using the 9-point Likert scale, the areas rated less than sufficient in the 2018 ranking from Figure 29 below are Government policies: support (very low at 46/52), Government Entrepreneurial programs (42/54), Entrepreneurial education in school (low but at 32/54) and post-school (41/54), R&D Transfer (37/54), Internal market burdens (35/54) & entry regulations (33/54), and Cultural & Social Norms (at the bottom 50/54). The areas marked as sufficient with some extent or neutral are Entrepreneurial Finance (impressive 10/52), Government policies: Taxes and bureaucracy (notably 16/54), Commercial & Legal infrastructure (20/54), Internal market dynamics (35/54) and Physical infrastructure (15/54)

Figure 27 GEM Framework conditions scored as weighted average in Bulgaria 2015-2018

(1=Highly insufficient, 9=Highly sufficient - Likert scale)



GEM Entrepreneurial framework condition	2015	2016	2017	2018
Entrepreneurial Finance	4.4	4.4	4.4	5.2
Government policies: support	2.9	2.6	3	3.2
Government policies: taxes/bureaucracy	4.8	4.8	4.8	4.5
Government entrepreneurship programs	3.4	3.1	3.7	3.5
Entrepreneurial Education - school age	2.6	2.5	3	2.8
Entrepreneurial Education post-school age	4.2	3.7	4.2	4.1
R&D Transfer	3.6	3.2	3.4	3.4
Commercial & Legal infrastructure	5.2	5.1	5.1	5.2
Internal market: dynamics	3.6	4.9	4.9	4.7
Internal market: burdens, entry regulation	3.9	3.8	4.2	3.9
Physical infrastructure	6.8	6.9	7.1	6.9
Cultural & Social norms	3.5	3.7	4.4	3.5

Source: GEM Bulgaria, National Expert Survey, 2015, 2016, 2017, 2018.

When it comes to Bulgaria and the Balkans as a distinct point of comparison, the yearly country comparison is a real challenge because few countries from the region have a sustained commitment to measuring essential elements of their national entrepreneurship climate. Despite these data limitations, the available measures provide valuable insights.

Still, in 2018, fewer countries collected internationally comparable data limited the potential scope of the comparison and can be seen as a symptom of a style of policy-making that hinges more on case studies and special interests than on nationwide data collection and diagnostics.

An essential advantage of the NES questionnaire is that it is standardized globally, making the data readily comparable. Its implementation is agile and limited in scope and cost, allowing more countries to take participate.

It is carefully designed and refined to capture informed judgments from national key informants in each country, who are selected based on their reputation, experience and diversity. Experts are

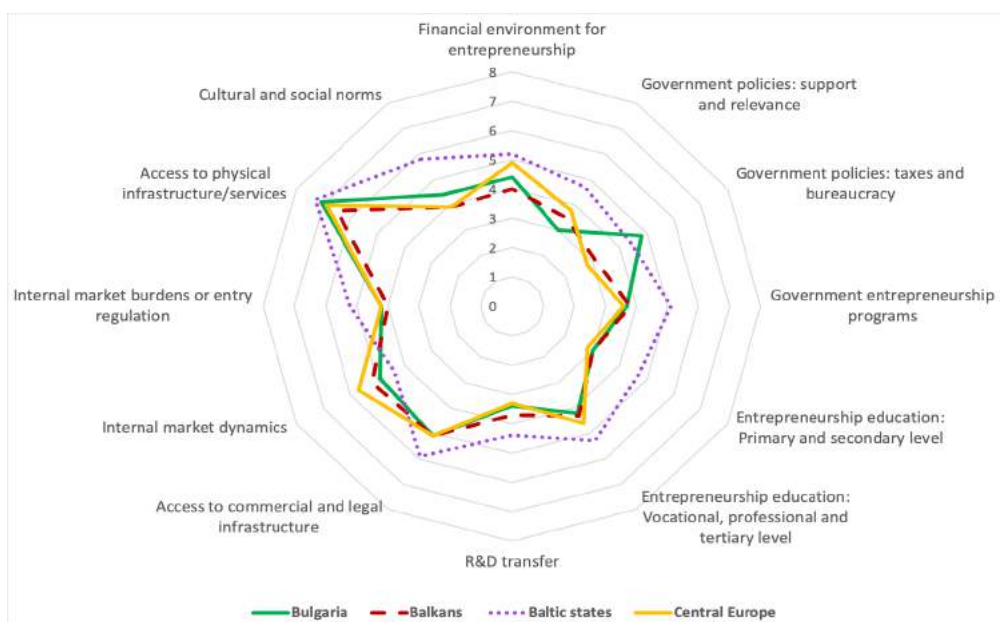
asked to express their views about the most important conditions, either fostering or constraining entrepreneurial activity and developing the entrepreneurial ecosystem in their country. Therefore, the National Experts Survey provides insights into how essential elements of the entrepreneurial ecosystems of Bulgaria, the Balkan countries, and other benchmark groups shape the regional entrepreneurial climate and determine the future productive base of the regional economies.

In Figure 28, we present the comparative results for 2017, using the Baltic countries and several Central European countries for which data is available as a benchmark group as illustrated in

Figure 4. In Figure 29, we do the same for 2018.

Bulgaria's scores in the GEM Global Report 2018/19 among the 54 participating economies are entirely consistent with the country's well-recognized strengths regarding low taxes and access to commercial and professional infrastructure and weaknesses regarding government support for entrepreneurship and entrepreneurial education.

Figure 28 Entrepreneurial framework condition scores as reported in the National Expert Survey of GEM 2017, the weighted average in Bulgaria and benchmark countries

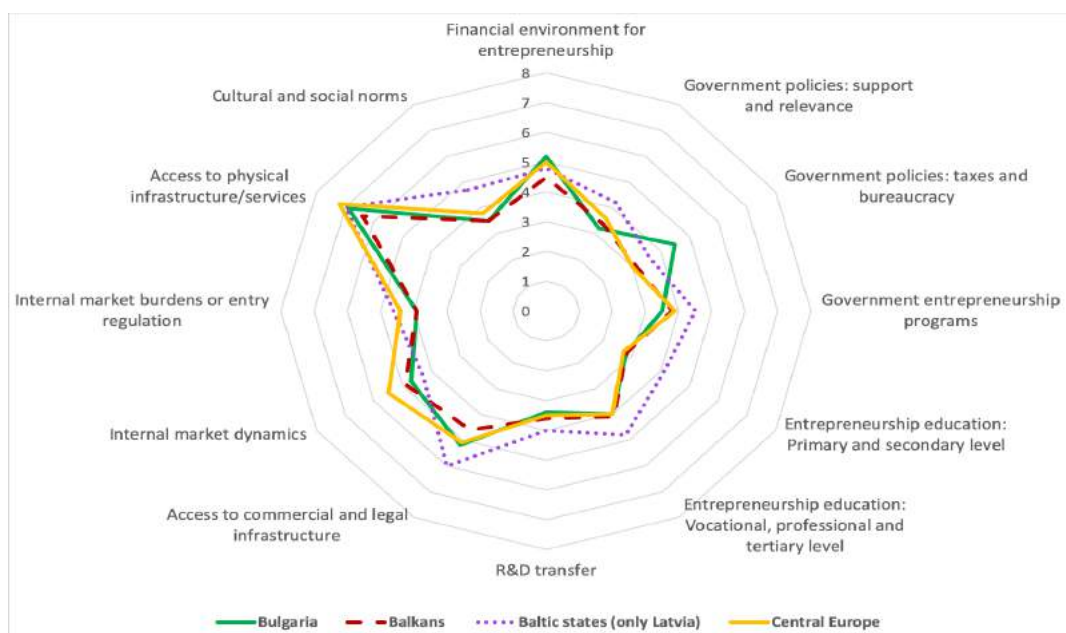


2017	Bulgaria	Balkans	Baltic states	Central Europe
Financial environment for entrepreneurship	4.4	4.0	5.2	4.9
Government policies: support and relevance	3.0	3.5	4.7	3.8
Government policies: taxes and bureaucracy	4.8	3.1	4.4	2.8
Government entrepreneurship programs	3.7	3.8	5.1	3.6
Entrepreneurship education: Primary and secondary level	3.0	3.0	4.7	2.8
Entrepreneurship education: Vocational, professional and tertiary level	4.2	4.3	5.3	4.6
R&D transfer	3.4	3.7	4.4	3.3
Access to commercial and legal infrastructure	5.1	5.1	5.9	5.1
Internal market dynamics	4.9	5.2	4.4	5.7
Internal market burdens or entry regulation	4.2	4.0	5.2	4.2
Access to physical infrastructure/services	7.1	6.5	7.3	6.9
Cultural and social norms	4.4	3.9	5.8	3.9

SEE represented by Bosnia and Herzegovina, Bulgaria, Croatia, Greece, and Slovenia. The Baltic countries are Estonia and Latvia. The Central European countries are Poland and Slovakia. (1=Highly insufficient, 9=Highly sufficient Likert scale)

Source: GEM National Expert Survey, 2017 from GEM Global 2017/18 report.

Figure 29 Entrepreneurial framework condition scores as reported in the National Expert Survey of GEM 2018, the weighted average



2018	Bulgaria	Balkans	Baltic states	Central Europe
Financial environment for entrepreneurship	5.2 Rank 10/54	4.5	4.8	5.0
Government policies: support and relevance	3.2 Rank 46/54	3.4	4.2	3.6
Government policies: taxes and bureaucracy	4.5 Rank 16/54	3.1	3.6	3.0
Government entrepreneurship programs	3.5 Rank 42/54	3.8	4.5	3.9
Entrepreneurship education: Primary and secondary level	2.8 Rank 32/54	2.8	4.1	2.7
Entrepreneurship education: Vocational, professional and tertiary level	4.0 Rank 41/54	4.1	4.8	4.0
R&D transfer	3.4 Rank 37/54	3.6	4.0	3.5
Access to commercial and legal infrastructure	5.2 rank 20/54	4.6	6.0	5.1
Internal market dynamics	4.7 Rank 35/54	4.9	4.3	5.5
Internal market burdens or entry regulation	3.9 Rank 33/54	3.9	4.6	4.4
Access to physical infrastructure/services	6.9 Rank 15/54	6.4	7.0	7.2
Cultural and social norms	3.5 Rank 50/54	3.5	4.7	3.8

SEE represented by Bulgaria, Croatia, Greece, and Slovenia Baltic countries are represented by Latvia, Central European countries are Poland and Slovakia (1-9 Likert scale)

Source: GEM National Expert Survey, 2018 from GEM Global 2018/19 report

According to the national experts, the Balkan region has several significant comparative weaknesses similar to those of Bulgaria (those with lower scores and, in particular, below 4), especially compared to the Baltic countries. Some of the most well-recognized shortcomings concern internal market dynamics/entry, which in many cases, have to do with favoring incumbents.

- Market dynamics - refers to the extent to which markets change dramatically from year to year.
- Market openness - the extent to which new firms are free to enter existing local markets.

Another weakness of the Balkan entrepreneurial climate, including the Bulgarian, also has to do with dominant social and cultural norms. These existing social and cultural norms have traditionally discouraged rather than encouraged individual actions that might lead to new ways of conducting business or economic activities, which might, in turn, lead to greater dispersion of personal wealth and income.

GEM data shows that this might be changing for younger generations as they show more proactive

entrepreneurial behavior; still, there is no strong-emerging trend in this regard to fuel a markedly optimistic outlook (Figure 13).

The Bulgarian and Balkan economies' most significant strengths are access to physical infrastructure and services and commercial and professional infrastructure access.

Physical infrastructure plays a role in two directions: the main factor for the competitiveness of ventures in transportation or manufacturing sectors and/or as a requirement to facilitate more knowledge-intensive sectors requiring internet connectivity.

- Physical infrastructure and services - 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.
- Access to 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

3.1. Government programs and public sector

Government programs and policies and the functioning of the public sector are essential factors in entrepreneurial ecosystems. They are the most critical drivers in turning entrepreneurial intentions into actual entrepreneurial behavior. Even though it is not the government that starts new businesses in modern market economies, government policies and initiatives can shape the conditions conducive to entrepreneurial endeavors.

Balkan national experts rated government policies related to their support of entrepreneurial ecosystems as low, while for

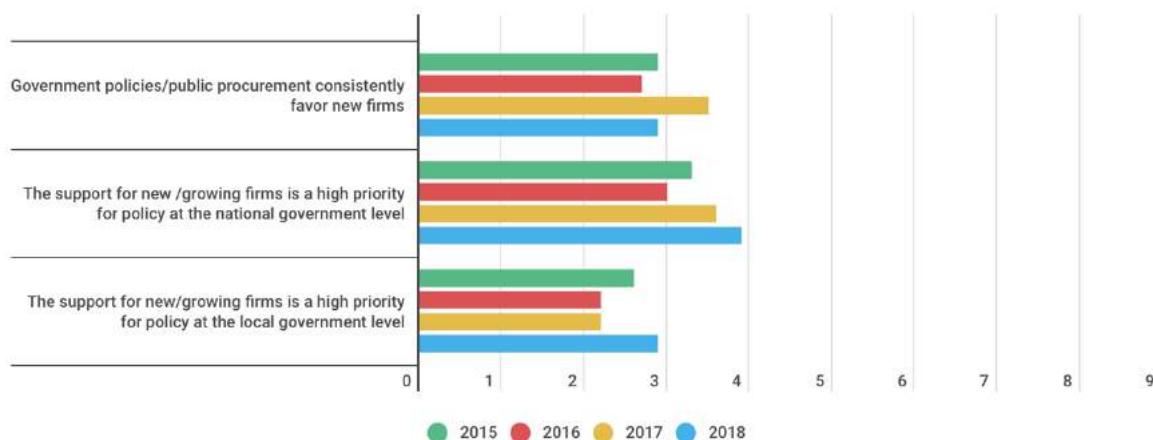
Bulgaria, the low level of 3.2, 46/54 (Figure 29).

GEM data highlights a lack of balance between the priority national and local government give to supporting entrepreneurship. Both measurements are improving, but the levels remain unsatisfactory (below score of 5 is insufficient).

One reason for the very limited support for entrepreneurship at a local level can be a shortage of instruments the local authorities have at their disposal. Bulgarian regional governance is centralized, and it is an area to explore if entrepreneurial activities are to succeed outside the capital or district cities.

Figure 30 Governmental support and policies in Bulgaria

The extent to which public policies support entrepreneurship - entrepreneurship as a relevant economic issue, 2015-2018 (1=Highly insufficient, 9=Highly sufficient Likert scale)



Source: GEM Bulgaria National Expert Survey, 2015, 2016, 2017 and 2018.

The slow digitalization of public services and registration regimes seem to determine the less than satisfactory score in the top indicators regarding government regulation and bureaucracy. Government bureaucracy and licensing regime for new/growing firms suffered in 2018 and reached its lowest score yet.

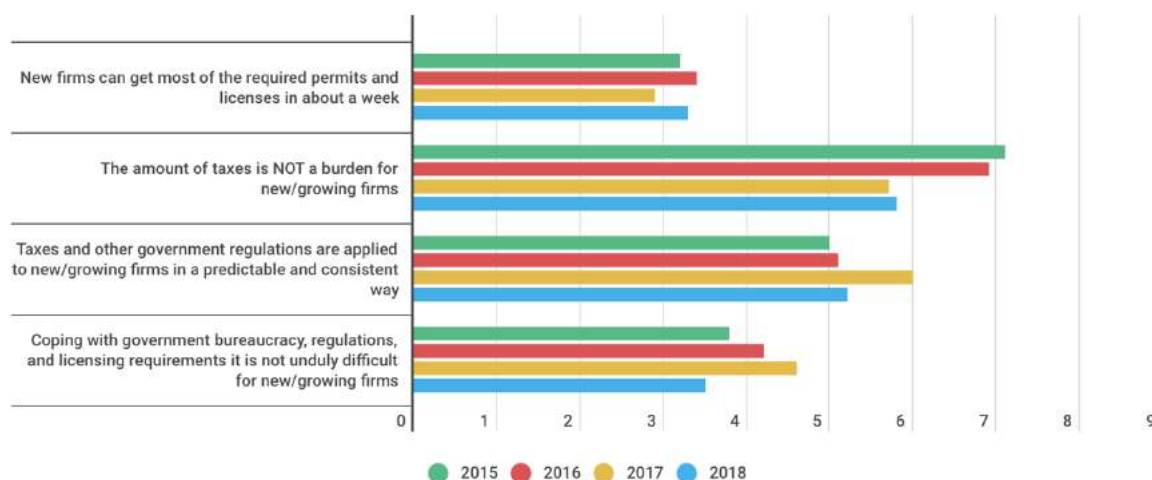
The governments of the Balkan states and most notably Bulgaria, are given credit for imposing taxes at levels that do not place an impossible

burden on new and growing firms. – the highest-ranked factor in Government support, policy and taxes, yet we notice a downward trend in 2018.

Besides, governments in the region appear to show at least some interest in making entrepreneurship a priority. Some experts noted that the social contributions indirectly, not through a sales tax or VAT, start to worry the employers and affect their growth plans.

Figure 31 Government policies taxes and bureaucracy in Bulgaria

The extent to which public policies support entrepreneurship - taxes or regulations are either size-neutral or encourage new and SMEs, 2015-2018 (1=Highly insufficient, 9=Highly sufficient Likert scale)



Source: GEM Bulgaria National Expert Survey, 2015, 2016, 2017 and 2018.

Still, Bulgaria and the Balkan region appear to lag considerably behind the government policy ratings of the Baltic states. At the same time, regulations and bureaucracy in the Balkan states remain among the most positive aspects of government-related policies to impact entrepreneurship.

In Figure 28 and Figure 29, among other things, we report on three of the most critical activities governments can do to support the development of national entrepreneurial ecosystems:

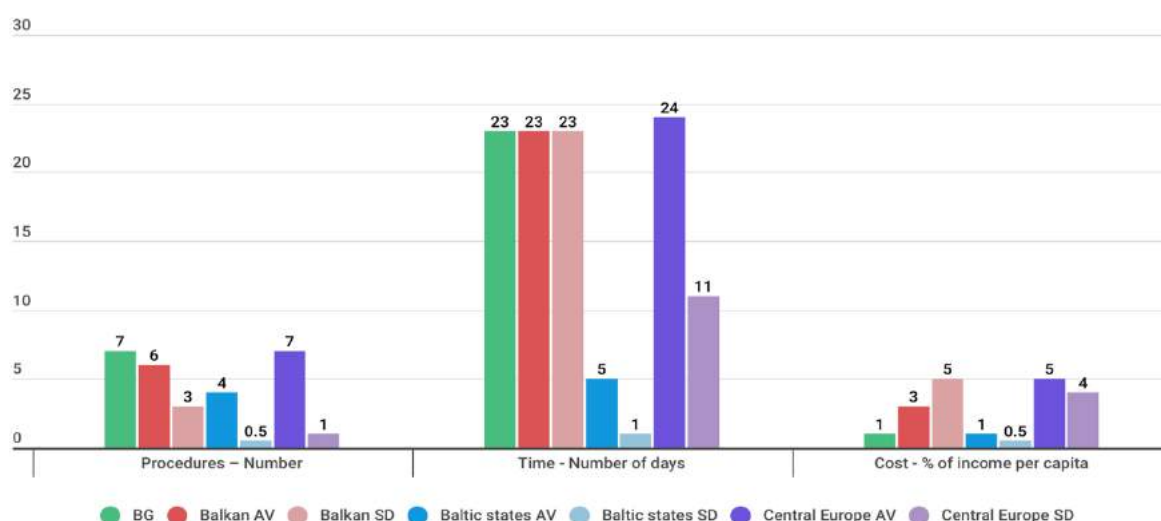
- support and relevance of government programs;
- taxes and bureaucracy and
- state-sponsored entrepreneurship programs.

Bulgaria and the Balkan states are ranked consistently lower than the Baltic countries and mostly on par with Central European countries on

all these accounts. However, from 2017 to 2018, those differences became less outstanding, probably due to the changing composition of the benchmark groups. In 2018, Bulgaria ranked 16th on the taxes and bureaucracy dimension and 46th on the government's support and relevance of the government programs among 54 participating economies (Figure 29).

As Figure 32 shows, it takes on average six procedures, 23 days, and more than 3 percent of the residents' per capita income to start a business in the Balkan countries. As a comparison, in the Baltic states – here including both Estonia and Latvia- it takes four procedures, five days and 1 percent of per capita income. It takes 7 procedures, 23 days, and 1.1% of income per capita to start a business in Bulgaria.

Figure 32 World Bank Doing Business 2019 - Starting a Business. Average results for sample groups and their standard deviation⁸



Indicator	BG	Balkan AV	Balkan SD	Baltic states AV	Baltic states SD	Central Europe AV	Central Europe SD
Procedures – Number	7.00	6.11	2.85	3.67	0.47	6.75	1.30
Time - Number of days	23.00	22.94	22.50	4.83	0.94	23.75	10.77
Cost - % of income per capita	1.10	3.31	4.48	1.07	0.45	4.68	4.41

South East European countries include Bulgaria, Romania, Greece, North Macedonia, Serbia, Albania, Croatia, Slovenia, and Bosnia Herzegovina. Baltic states include Lithuania, Latvia and Estonia. Central European countries include Hungary, Poland, Slovakia, and Czechia. AV – Average; SD – Standard Deviation

Source: The World Bank. Ease of Doing Business 2019 report.

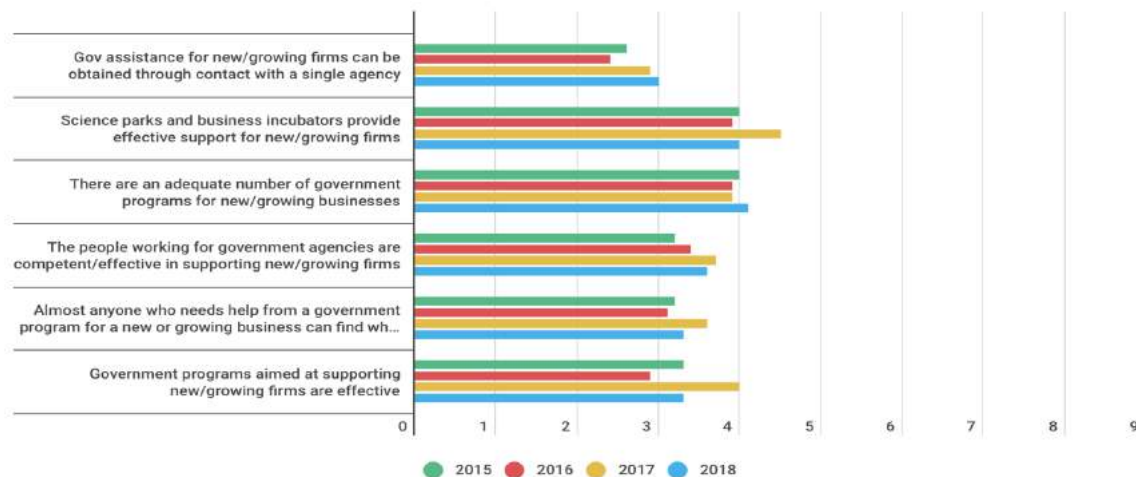
⁸ Standard deviation shows by how much the observations in a sample differ from the mean value for the sample.

There is undoubtedly an increased number of government programs for startups and entrepreneurial ventures, as well as initiatives related to the creation of science parks and business incubators, which, in the case of Bulgaria, was championed by the highest-ranked public official – the president of the country between 2012-2017. However, there are multiple ways these facilities and the state apparatus might be improved and transformed into powerful support mechanisms for the entrepreneurial community.

None of the indicators related to government programs to support entrepreneurship see a definite positive trend between 2015-2018. Yet mild improvements exist in indicators related to working with a single agency, the role of the science park and incubators, competency of government agency's personnel, access to information and efficiency of new programs aimed at new/growing firms. This very slow improvement primarily indicates that entrepreneurship is not prioritized and support is happening in silos, without a long-term vision, strategy and coordination.

Figure 33 Governmental programs in Bulgaria

The presence and quality of programs directly assisting SMEs at all levels of government (national, regional, municipal), 2015-2018 (1=Highly insufficient, 9=Highly sufficient Likert scale)



Source: GEM Bulgaria National Expert Survey, 2015, 2016, 2017 and 2018.

A significant number of key stakeholders in the Bulgarian entrepreneurial ecosystem generally express concerns about the ability of state officials to carry out even the most thoughtfully designed programs for entrepreneurial support (GEM National Expert Survey Bulgaria, 2015, 2016, 2017, 2018).

Serious reservations about the capacity of government officials to effectively and competently carry out their tasks are pervasive across the region.

Among the best-rated aspects of government entrepreneurship programs in Bulgaria is the support offered by science parks and incubators, where there is significant involvement by the private sector and successful entrepreneurs, who participate as mentors, role models, and investors. The result is highest in comparison to the other factors, not reaching satisfiable levels above 5.

For example, in Bosnia and Herzegovina, the multiple levels of government put into place to guarantee the transition from war to peace in a multi-ethnic setting is seen as a significant problem for the development of a more vibrant entrepreneurial community. It is not so much because of the bureaucratic processes but because of the high opportunity cost that abundant and well-paid government jobs impose on young potential entrepreneurs (Andonova et al., 2019).

In other countries, such as Serbia, where only private-sector money fuels the entrepreneurial ecosystem, corruption is seen as a marginal problem for the entrepreneurial community. It presents itself mainly where public funds are distributed. The absence of government financing implies the absence of corruption, and entrepreneurial ventures that have emerged and flourished under even the harshest market

conditions show remarkable resilience (Andonova et al., 2019).

On the other hand, in Bulgaria, the fact that many public servants were incapable of understanding the business models of some of the young foreign market-oriented technology ventures was presented as a fortunate circumstance. Entrepreneurs felt they were protected from extortion by the ignorance of government officials rather than by the law enforcement institutions (Andonova, Nikolova, and Dimitrov, 2019).

In general, better coordination with the private sector and the developing regional entrepreneurial community can improve the talent pool and the efficiency of existing government programs designed to stimulate entrepreneurial endeavors in Bulgaria. Following this line of argument, **government efforts in countries like Bulgaria to establish programs for new and growing businesses are recognized by the experts as better than most of the other government initiatives**, but as insufficient and below par compared to other benchmark regions such as the Baltic countries.

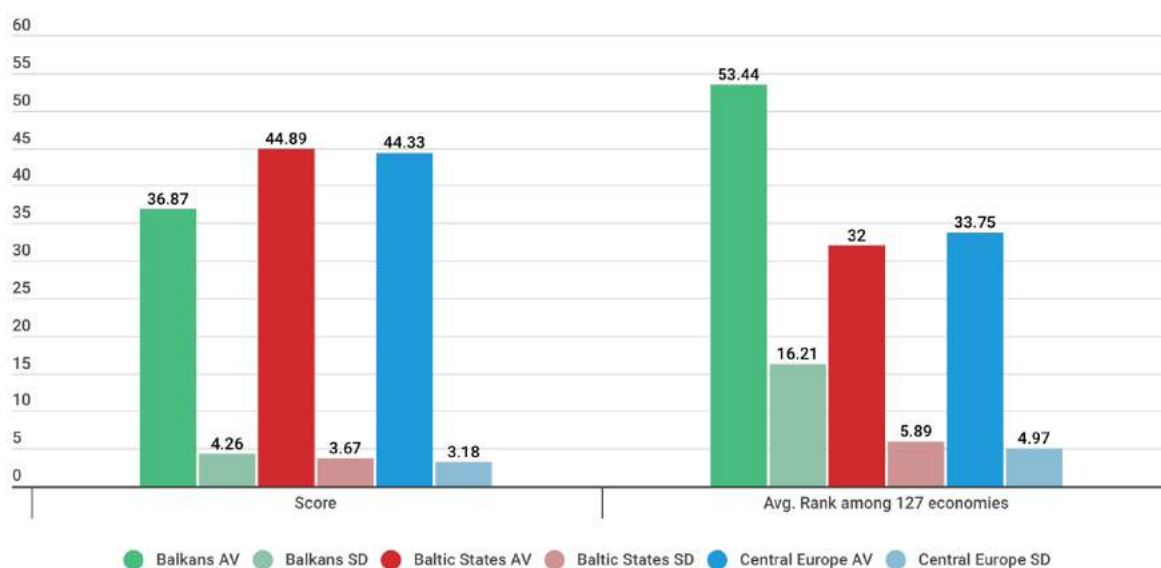
3.2. Infrastructure, human capital and innovation capabilities

Entrepreneurial ecosystems thrive in places with well-developed physical infrastructure. National experts of GEM Bulgaria assess physical infrastructure as among the most competitive elements that contribute to successful entrepreneurial ecosystem development in Bulgaria and the region. However, the infrastructure indicator in the Global Innovation Index for the region shows ample room for improvement (

Figure 34).

The Global Innovation Index (GII) of the World Economic Forum provides a framework and assessment metrics for the performance of 127 economies around the world, systematizing evidence and offering a broad vision built on 81 indicators, including infrastructure. The infrastructure pillar comprises measures of information and communications technologies (ICTs), general infrastructure, and ecological sustainability.

Figure 34 Global Innovation Index 2019 - Infrastructure Pillar. Average Score and Ranking for sample groups



Infrastructure	Balkans AV	Balkans SD	Baltic States AV	Baltic States SD	Central Europe AV	Central Europe SD
Score	36.87	4.26	44.89	3.67	44.33	3.18
Avg. Rank among 127 economies	53.44	16.21	32.00	5.89	33.75	4.97

South East European countries include Bulgaria, Romania, Greece, North Macedonia, Serbia, Albania, Croatia, Slovenia and Bosnia Herzegovina. Baltic states include Lithuania, Latvia and Estonia. Central European countries include Hungary, Poland, Slovakia, and Czechia.

AV – Average; SD – Standard Deviation

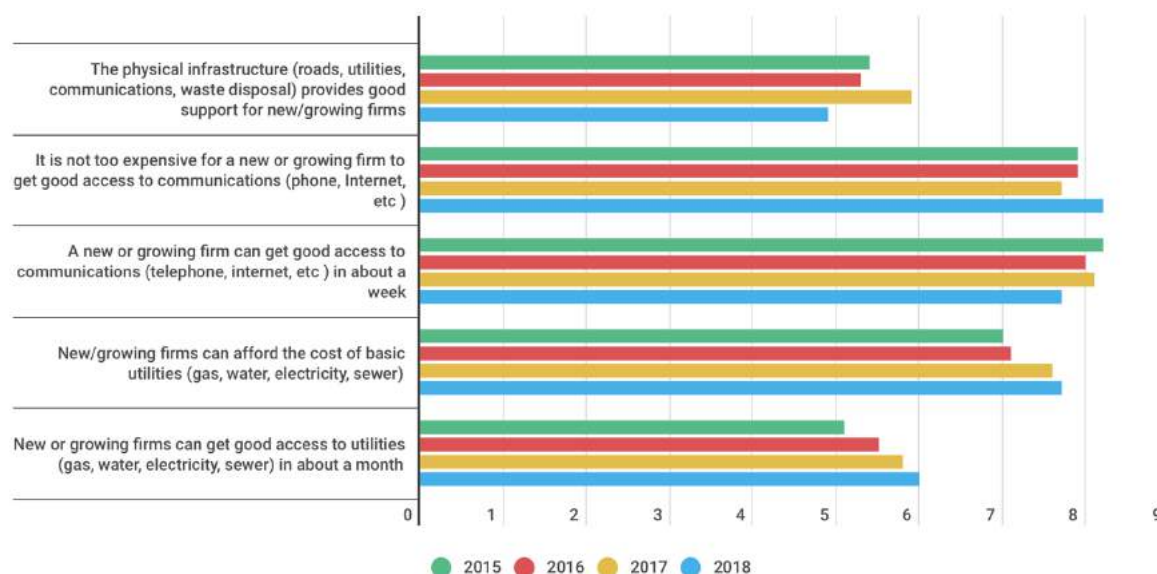
Source: *The Global Innovation Index 2019 Report. Infrastructure Pillar.*

Bulgaria ranks 15 among 54 economies with its infrastructure, with notable strengths in communications capabilities and quick setup within a week, as well as access to basic utilities with improving scores for under a month. The score for the infrastructure support (roads, utilities,

communications and waste disposal) for new/growing firms is around the neutral score of 5, which may indicate that the providers have not developed a good value proposition for businesses to meet their needs better.

Figure 35 Physical and services infrastructure in Bulgaria

Ease of access to physical resources, communication, utilities, transportation, land or space, at a price that does not discriminate against SMEs, 2015-2018 (1=Highly insufficient, 9=Highly sufficient Likert scale)



Source: *GEM Bulgaria National Expert Survey, 2015, 2016, 2017 and 2018.*

Figure 34 contains comparisons between the average scores of Balkan, Baltic, and Central European countries. Even though differences in the infrastructure score between the three regions remain somewhat small, the average global ranking of the Balkan region is significantly lower than the best performing Baltic region countries. The Balkan countries as a group are placed at 54th rank while the Baltic countries as a group are placed at 32nd. In

essence, physical infrastructure in the region still has a long way to go.

According to the EU's Digital Economy and Society Index (DESI), in 2019, Bulgaria comes last, and Romania comes 27th among the 28 EU member states. This is because the human capital dimension of the index is the most critical. In both countries, the overall level of digital skills is amongst the lowest in the EU, and it varies significantly between different socio-economic groups. The best performing Balkan country among EU members is

Slovenia, which shows slightly below average performance compared to other EU members.

Current research has shown a correlation between the levels of perceived capabilities of would-be entrepreneurs, entrepreneurial intentions, and the level of total early-stage entrepreneurial activity (Eurostat, 2012; Tsai et al., 2016).

Education is inextricably linked to entrepreneurial intentions and the vibrancy of the entrepreneurial ecosystem, as it affects entrepreneurs' confidence in having the necessary skills and knowledge to start a business. In essence, education focused on entrepreneurship-related skills can have a powerful influence on entrepreneurial intentions and behavior.

Entrepreneurial experience and/or education help develop new skills that apply to many spheres in life. Non-cognitive and soft skills, such as opportunity recognition, innovation, critical thinking, resilience, decision-making, teamwork, and

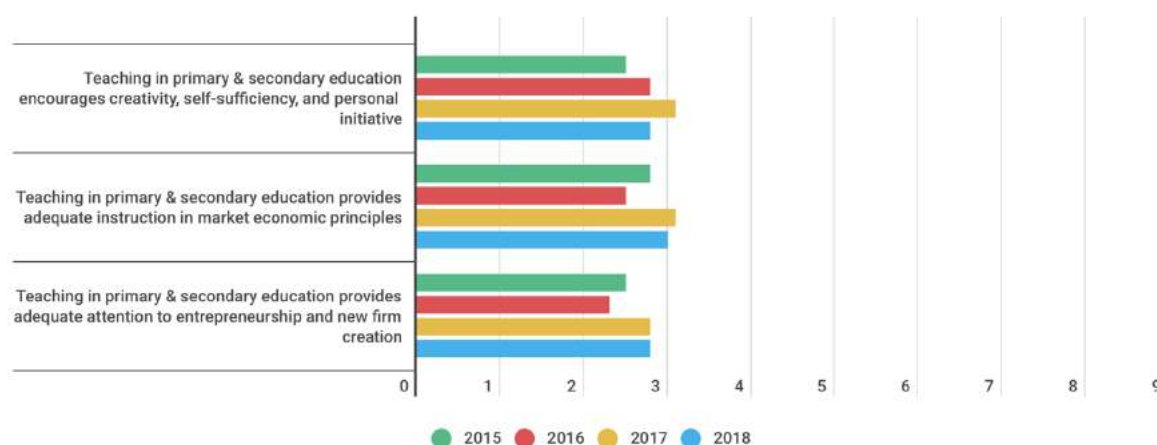
leadership, benefit all economic spheres, whether or not individuals intend to become or continue as entrepreneurs. They lead to a more sophisticated decision-making at all levels and in every type of private or public organization.

There is evidence that practical entrepreneurship training may better prepare school leavers for the transition from school to the labor market, enabling them to identify business opportunities and improving their chances of success in business and self-employment ventures (Cheung, 2011).

In Bulgaria, the new Education act of 2016 introduced the subject of Entrepreneurship in all grade levels. The program started in 2017. It is possible to speculate that this led to a very mild increase in 'adequate instruction in market economic principles and new firm creation' recognized by the national experts. Yet for a significant change to occur, many more initiatives need to advance, including world-class management education.

Figure 36 Basic school entrepreneurial education and training in Bulgaria

The extent to which training in creating or managing SMEs is incorporated within the education and training system at primary and secondary levels, 2015-2018 (1=Highly insufficient, 9=Highly sufficient Likert scale)



Source: GEM Bulgaria National Expert Survey, 2015, 2016, 2017 and 2018.

Entrepreneurship education can enhance an individual's level of self-confidence, as well as

increase their interest in entrepreneurship as a viable career choice.

3.3. Universities and entrepreneurship in the Balkans

Universities are key players in the entrepreneurial ecosystem because they hold and attract young talent, shape and influence students' mindset, create and serve as a repository of knowledge and expertise in learning and education, all of which nurture entrepreneurial ecosystems.

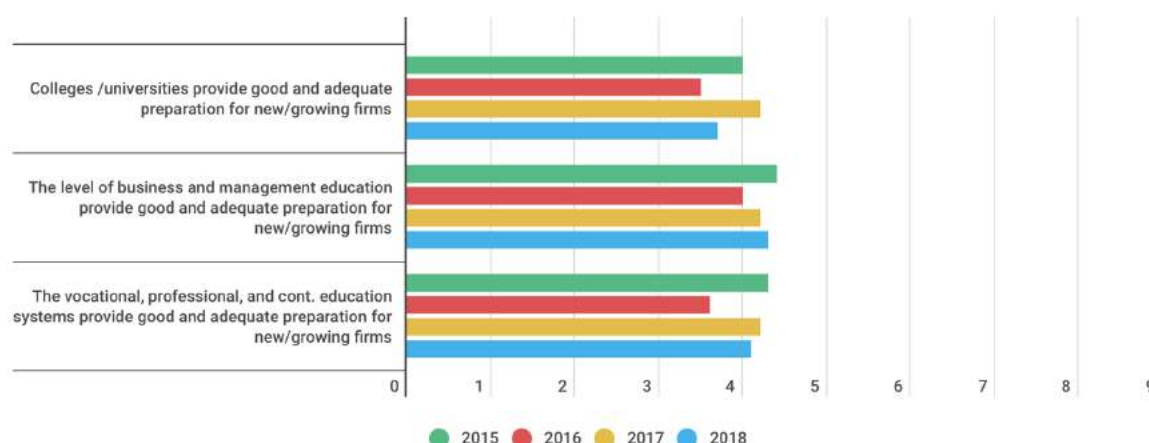
At their best, universities can commit to the support of the entrepreneurial ecosystem if they inspire proactiveness and promote a culture of innovation. They can help students strengthen the required skills and knowledge they need as entrepreneurs and act as a stage for

experimentation and early failure - a platform for research supporting the ecosystem and a place for sharing knowledge and best practices. In sum, as an indispensable part of the most developed entrepreneurial ecosystems in the world, universities engage in lasting relationships with ecosystem partners to build synergies for continuous improvement (Andonova and Nikolova, 2015).

Unfortunately, in the case of Bulgaria, the perception of entrepreneurship education and training at the post-secondary level does not show increasing dynamism or a positive trend.

Figure 37 Post school entrepreneurial education and training in Bulgaria

The extent to which training in creating or managing SMEs is incorporated within the education and training system in higher education such as vocational, college, business schools, etc., 2015-2018 (1=Highly insufficient, 9=Highly sufficient Likert scale)



Source: GEM Bulgaria National Expert Survey, 2015, 2016, 2017 and 2018.

In the Balkans, universities generally have contributed little to the local entrepreneurial ecosystems.

Even though, occasionally, STEM-related departments will receive some credit for their ability to provide large-scale basic training, the majority of actors in the Bulgarian entrepreneurial ecosystem perceive university processes and their knowledge base as irrevocably antiquated and out of sync with the requirements of present-day economies.

Qualifications are scarcer in the case of state-owned universities, where the introduction of new and innovative programs is perceived as a threat to the long-lasting and cozy status quo of faculty

members who are public servants. As a result, new programs are either kept small-scale or aborted altogether soon after the pilot launch. The incentives for universities and their staff to be entrepreneurial and innovative are just not present.

The vacuum left by the short-sightedness of the higher education sector in Bulgaria but also South-East Europe is vast, and multiple private initiatives address the unfulfilled need for adequate entrepreneurial skills training. NGOs, such as Junior Achievement, development agencies, such as SwissContact and private academies, such as the Telerik Academy and SoftUni, are among the most active educational partners on the Balkan entrepreneurial scene.

Most recently, the Bulgarian Entrepreneurship Center has been an avid supporter of initiatives in Bulgaria and abroad for the benefit of our entrepreneurial ecosystem.

The evident problem is that these initiatives are disconnected from the rest and lack the multidisciplinary university environment where entrepreneurship flourishes. Therefore, such solutions can only be “second-best” because the instructors and sponsors often have a narrow agenda and very limited pedagogical skills.

The case of [Telerik Academy](#) is particularly significant. Telerik Academy was established 10 years ago, in 2009, to offer free education to people of all ages on behalf of its founders and the Bulgarian IT industry. Candidates were screened for basic abilities and aptitudes and were expected to show a long-term commitment to pursuing a career in the IT industry in Bulgaria. The training program lasted less than a year and consisted of several modules, culminating with a significant client project supervised by an experienced Telerik programmer. The best and brightest (top 5-10% of all graduates) were offered jobs at Telerik, a highly valued opportunity in the local labor market. At the same time, the rest went to other employers in the

industry. This way, Telerik Academy was effectively able to cream off the best talent, but it also provided much needed free training and educational services for the local economy. Unfortunately, this significant contribution to the local entrepreneurial ecosystem did not seem to be perceived as pivotal for the business once Progress acquired Telerik in 2014. Yet, the founders of Telerik relaunched the Academy as their prime focus and remained active supporters of the increase of essential human capital of young entrepreneurial-minded Bulgarians.

The patience and resilience with organizations such as Telerik Academy that have sustained the regional entrepreneurial ecosystem are admirable. Still, the remaining gap is too big to be satisfactorily filled by the private sector. An ambitious and thorough educational reform that transforms the university sector bottom-up is urgently demanded in the Balkan entrepreneurial ecosystem from investors, entrepreneurs, managers of established companies, and NGOs. If the Balkan entrepreneurial ecosystem is to produce its first unicorn in the near future, it needs all its cogs to be in place. One reason for optimism is that local talent is not in short supply, but it is hard to retain it.

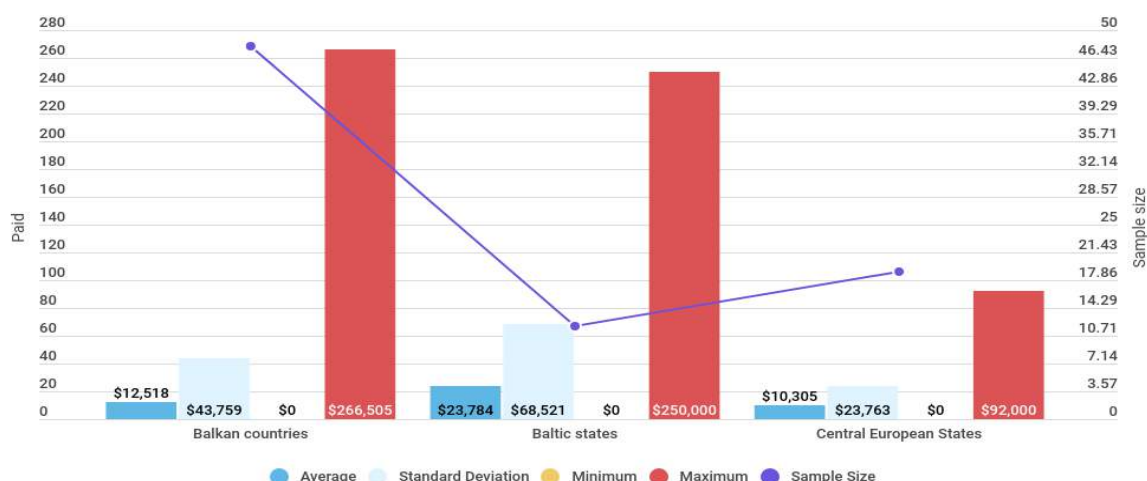
3.4. Talent is top-performing

The programming talent in Bulgaria and South-East Europe is recognized worldwide. According to data from Stack Overflow, the dominant Q&A platform for coders with about 3.5 million users, the best coders are from the Balkans (Salkever, 2015). Stack Overflow ranks the skill level of coders around the world by taking into account the ‘up or down’ votes to answers to previously posted questions about coding and systems, as well as the ranking of fellow users. As such, the result is entirely crowd-driven. Looking at the average country rankings of 14,898 Stack Overflow users who have a reputation score of 5,000 or more, Bulgarian coders come at the top, scoring the highest average reputation in the world. Bulgaria also has 40 top-performing users of Stack Overflow, and their impressively high scores make Bulgaria the country with the highest average reputation in the world. In contrast, Croatia and Greece, the other Balkan countries in the top 20, appear in 6th and 19th place, respectively.

This top-performing talent in coding and other spheres comes at a modest price considering the average wages, salaries, and benefits paid by entrepreneurial ventures in the Balkans (Andonova et al., 2019). Figure 38 contains a comparison between the average yearly personnel expenses of Balkan, Baltic, and Central European early-stage ventures, pointing to a massive gap in the average cost of labor. However, top spenders across regions report comparable maximum expenditures (US\$ 266,505 vs 250,000). On average, entrepreneurial ventures from the Balkans operate at a 50% discount compared to labor costs in the Baltic states and on a par with companies from Central Europe.

However, entrepreneurial ventures from the Balkans have a much higher share of founders with technical degrees as the highest educational achievement and have a much more academically focused founders’ profile than Central European ventures (see Figure 39).

Figure 38 Average yearly wages, salaries, and benefits paid to workers in US Dollars (2013-17, US\$)



	Average	Standard Deviation	Minimum	Maximum	Sample Size
Balkan countries	\$12,518	\$43,759	\$0	\$266,505	48
Baltic states	\$23,784	\$68,521	\$0	\$250,000	12
Central European States	\$10,305	\$23,763	\$0	\$92,000	19

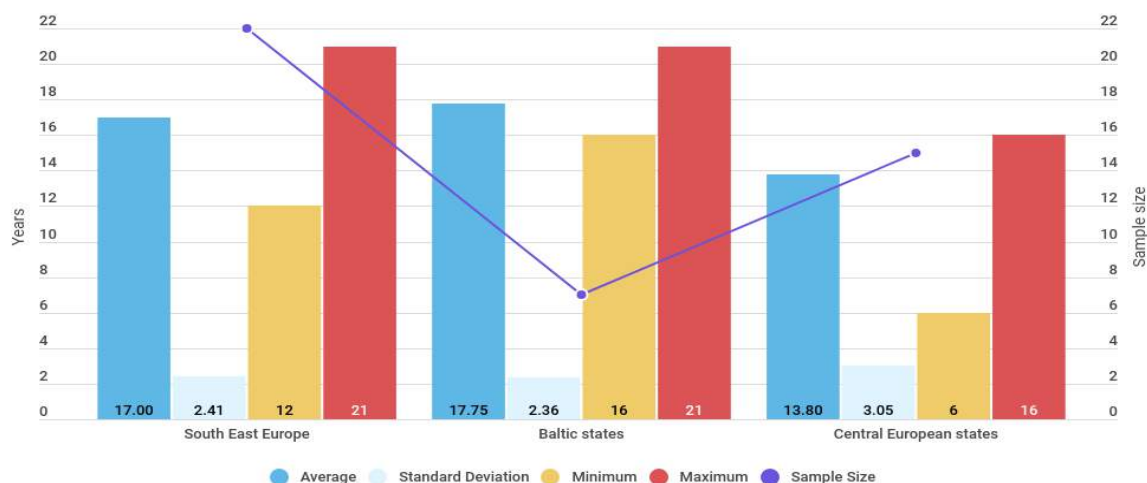
Balkan countries are Albania, Bulgaria, Romania, Serbia, Greece, Croatia, North Macedonia and Slovenia. Baltic states are Estonia, Latvia and Lithuania. Central European States are Hungary, Poland, and Slovakia

Source: Data provided by the Entrepreneurship Database Program at Emory University; supported by the Global Accelerator Learning Initiative (Data collected between 2013 and 2017)

The educational profiles of new venture founders in the Balkans and the Baltic states are as shown in Figure 39. The average number of years of education completed by the most highly educated

founder is 17 for the Balkan entrepreneurial ventures and 18 years for Baltic ventures, with a maximum of 21 years in both cases (Andonova et al., 2019).

Figure 39 Highest level of education completed (in years) by the founder with the most education (2013-17)



	Average	Standard Deviation	Minimum	Maximum	Sample Size
South East Europe	17.00	2.41	12	21	24
Baltic states	17.75	2.36	16	21	7
Central European states	13.80	3.05	6	16	15

Balkan countries represented by Bulgaria, Romania, Serbia, Greece, and Slovenia. Baltic states represented by Estonia, Latvia, and Lithuania. Central European states represented by Hungary, Poland, and Slovakia.

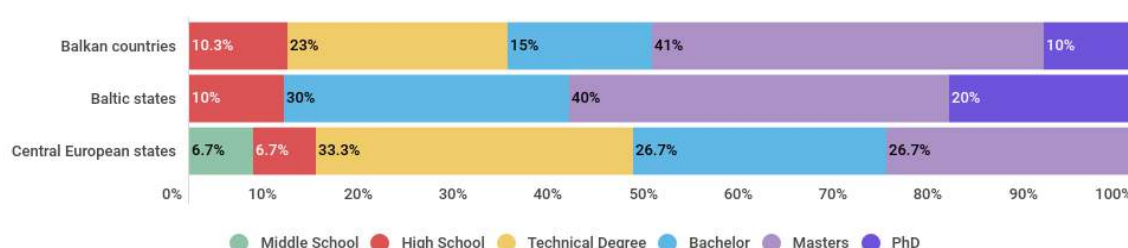
Source: Data provided by the Entrepreneurship Database Program at Emory University; supported by the Global Accelerator Learning Initiative (Includes author's calculations. Data collected between 2013 and 2017.)

The percentage of founders with a PhD. degree as the highest level of education completed by the most highly-educated founder is twice as high for Baltic entrepreneurial ventures compared with Balkan entrepreneurial ventures, where founders

have a bachelor or technical degrees as the highest level of education more frequently (

Figure 40).

Figure 40 Highest level of education completed by the founder with the most education in % (2013-17)



Level of Education	Balkan countries	Baltic states	Central European states
PhD	10%	20%	0.0%
Masters	41%	40%	26.7%
Bachelor	15%	30%	26.7%
Technical Degree	23%	0%	33.3%
High School	10.3%	10%	6.7%
Middle School	0%	0%	6.7%

Balkan states are Albania, Bulgaria, Romania, Serbia, Greece, Croatia, North Macedonia, and Slovenia; Baltic states are Estonia, Latvia, and Lithuania; Central European states are Hungary, Poland, and Slovakia

Source: Data provided by the Entrepreneurship Database Program at Emory University; supported by the Global Accelerator Learning Initiative. Includes author's calculations. (Data collected between 2013 and 2017)

3.5. Entrepreneurial finance

Across Central and Eastern Europe, venture capital investment amounted to €0.5bn in 2015, representing 3% of the total amount invested in the venture capital field across Europe in that year. Both private and institutional money show increasing interest in supporting regional ventures in this part of the world and, more specifically, the Balkans (Andonova et al., 2019).

In this context, Sofia emerged strongly as an accelerator capital in Europe, #3 in 2017, according to the president of BVCA, Evgeni Angelov (Angelov, 2017). In the years after 2012, there was EU funding available for Bulgarian early-stage startups in the form of seed and venture capital. The European Union invested about € 1.4 billion in Bulgaria under a program called Joint European Resources for Micro to Medium Enterprises (JEREMIE).

€ 136 millions of this investment, along with money from the Bulgarian government, was put under the supervision of the European Investment Fund, which selected four funds as managers, conditional on their ability to raise additional private funds. The total amount was around €350 million, revolving around innovation funding to support startups and SMEs. These investments accomplished a 2.57 multiplier effect, which then mobilized a total of €875 million in financing. This has enhanced the competitiveness of 9,476 SMEs and 180 startups, helping to support more than 25,550 jobs in the region (Angelov, 2017). According to the European Investment Fund, growth has been exponential: in 2016, 210 startups raised \$74 million from 20 companies and US\$ 4 million in 2012 (O'Brien, 2018).

Two accelerator venture funds were instrumental in these developments in Bulgaria – Eleven and LaunchHub. Others, such as Neveq, a venture equity

fund, have traditionally focused on revenue-generating companies rather than startups. Eleven was a \$15 million startup accelerator and seed fund, while LaunchHub started as a \$12 million pre-seed fund. Ultimately, most of the entrepreneurial finance in Bulgaria came from the EU, a situation that invites possible policy discussions on the role of governments as arms-length limited partner investor.

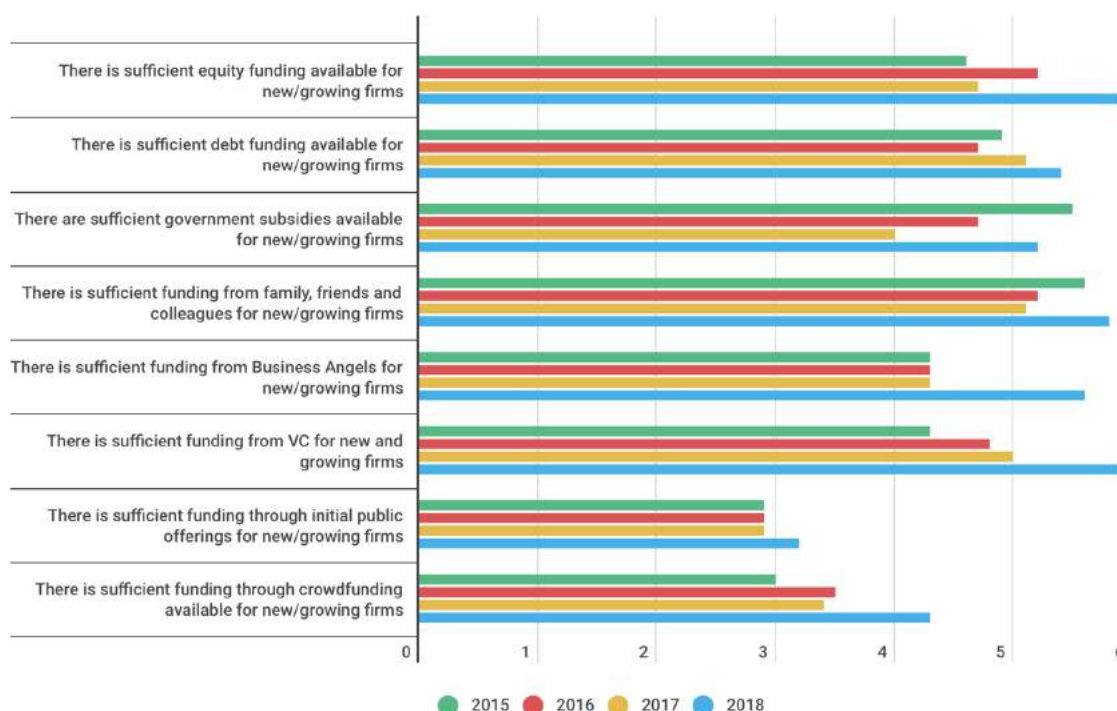
The experience in the Balkan countries shows that governments need to focus more on creating a broad context for the functioning of the entrepreneurial ecosystem. This cannot be an active manager of the funds, as the right incentives lie with the partners and managers, not bureaucrats. There are still challenges, and there are market gaps in both equity and debt instruments in the region and a marked scarcity of investment funds beyond the seed level.

The region also faces a lack of fully functioning late-stage funding opportunities, which prompts promising local entrepreneurial ventures to sell prematurely, as they do not expect to be able to access readily available funds to fuel their growth. This, however, is a dilemma all entrepreneurs in young ecosystems might like to have as it is a reliable indicator that the base of the ecosystem is solid and set for expansion.

According to data I Figure 41), for the period 2015-2018 in Bulgaria, there is a notable increase in the experts' responses with regards to every single funding channel, especially in the case of equity, business angel, VC and crowdfunding and to some extent debt funding, FFF and IPO. Government subsidies (including European funding) also exhibit an upward trend after the all-time high in 2015.

Figure 41 Financing for entrepreneurs in Bulgaria

The availability of financial resources, equity and debt, for SMEs, including grants and subsidies, 2015-2018 (1=Highly insufficient, 9=Highly sufficient Likert scale)



Source: GEM Bulgaria National Expert Survey, 2015, 2016, 2017 and 2018.

3.6. Market functioning and private sector sophistication

The entrepreneurial landscape of the Balkans is mostly defined by its success in establishing hubs for digital and tech startups, some of which have been recognized globally despite the fact they did not become household names.

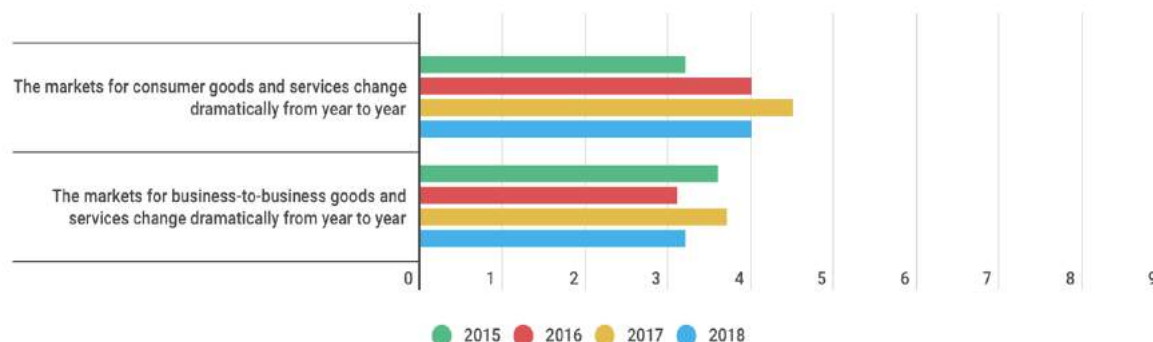
The region has some well-recognized advantages, such as low tax rates. In Bulgaria, for example, there is a 10% flat tax on profits and 5% on dividends. This, plus the growing

number of well-run co-working places, accelerators, and VCs, sets the scene for the Balkans to be seen as one of the best regional entrepreneurial ecosystems.

In this context, there are no major changes in the broader market dynamics or openness in Bulgaria between 2015-2018, as per Figure 42

Figure 42 Internal market dynamics in Bulgaria

The level of change in markets from year to year, 2015-2018 (1=Highly insufficient, 9=Highly sufficient Likert scale)

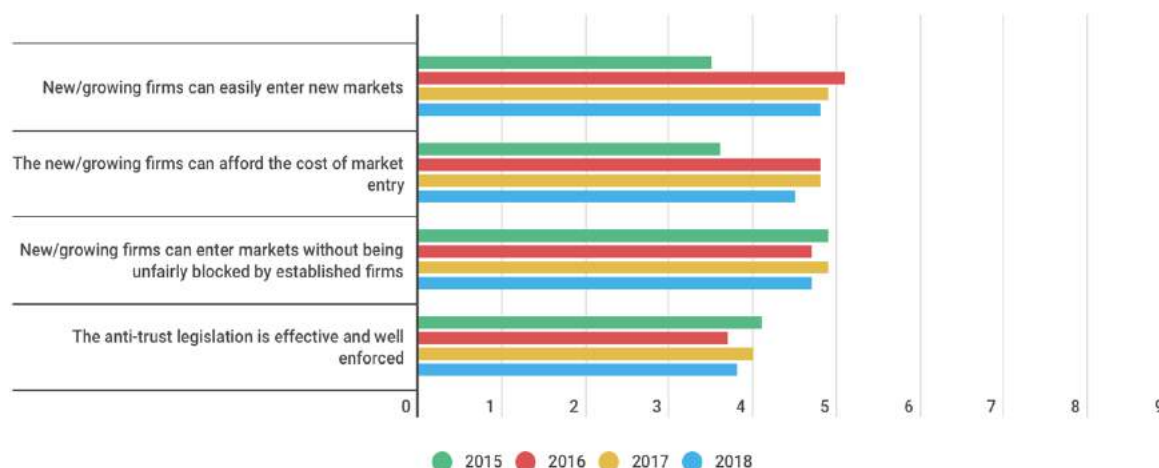


Source: GEM Bulgaria National Expert Survey, 2015, 2016, 2017 and 2018.

Market openness is settled at neutral level (Figure 43).

Figure 43 Internal market openness in Bulgaria

The extent to which new firms are free to enter existing markets, 2015-2018 (1=Highly insufficient, 9=Highly sufficient Likert scale)



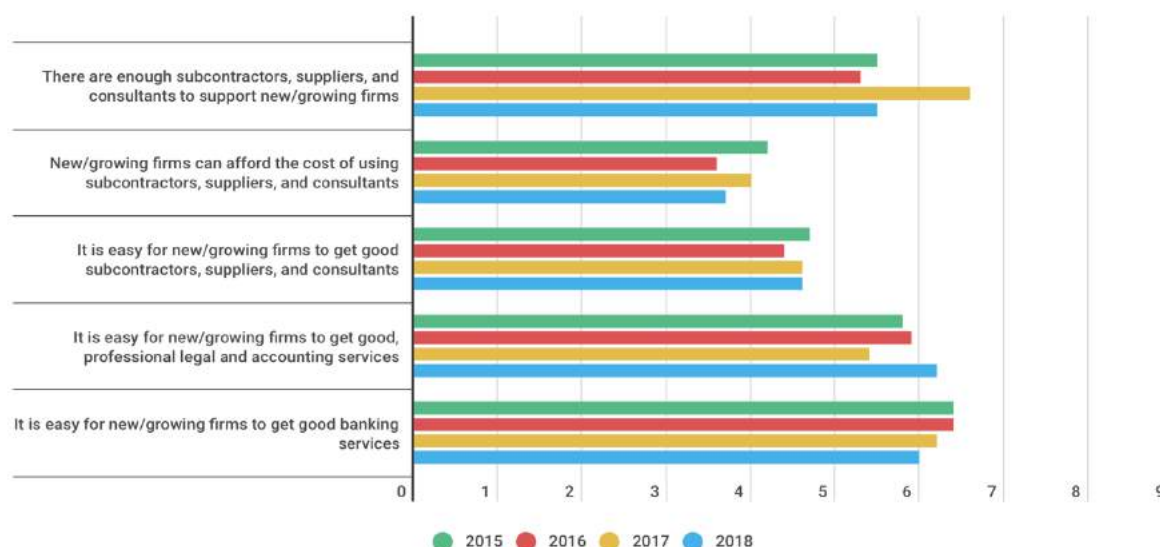
Source: GEM Bulgaria National Expert Survey, 2015, 2016, 2017 and 2018.

Bulgaria has very good scores for commercial and professional infrastructure to support its entrepreneurs, ranking 20/54 in 2018. Banking services for businesses, legal and accounting,

as well as consultants are well-perceived, as well as the selection of subcontractors and consultants.

Figure 44 Commercial and professional infrastructure in Bulgaria

The presence of property rights, commercial, accounting and other legal and assessment services and institutions that support or promote SMEs, 2015-2018 (1=Highly insufficient, 9=Highly sufficient Likert scale)



Source: GEM Bulgaria National Expert Survey, 2015, 2016, 2017 and 2018.

There are some unquestionable challenges, too: the fragmentation and variety of the small markets within the region is frequently perceived

as one of the biggest obstacles that startups in this area face for future growth (Guerrini, 2017)

3.7. Startup internationalization

The presence of leading global companies with R&D operations in the Balkans, such as SAP and VMware, has unquestionably improved the knowledge and relevant experience available in the region's labor markets. Nevertheless, regional buyers are not very sophisticated, and often there is no local demand for the products that the advanced regional engineering talent creates. More often than not, this fact pushes entrepreneurial ventures into early-stage internationalization, adding another layer of complexity to the operations of these ventures (Andonova et al., 2019).

Two significant challenges arise from the fact that local markets are small and unsophisticated. First, Balkan entrepreneurs experience a shortage of business skills when it comes to internationalization because the majority of them lack proper business training. Second, in the not-too-distant past, the most negative image of Balkan countries produced a negative spillover effect, even for the most innovative entrepreneurial ventures.

Some of the region's most successful B2B ventures were explicitly asked to keep the names of their world-renowned clients confidential for fear that the Balkan origin of their suppliers might invite

suspicion and mistrust about their operations. This has been changing gradually, mainly because some of the most successful regional entrepreneurial ventures made substantial efforts to educate their clients and show pride in their country as part of their business strategy (Andonova et al., 2019).

Branding the region and Bulgaria, in particular, is very important for the future of the Balkan entrepreneurial ecosystems, and there has been an exponential growth in awareness and efforts in this regard. Getting recognized as an attractive place to live and work by citizens and foreign talent is essential for the further maturing the young regional ecosystems.

Regional governments are taking cautious steps to encourage the immigration of high-skilled workers and attract talent from non-EU member neighbors.

More frequently, there are voices in favor of more aggressive government programs of high-skilled immigration from outside the region. If there is a broad consensus between actors to sustain a vibrant entrepreneurial ecosystem - the most critical elements are the people, the passion, and the commitment to do something different.

3.8. Multinationals and the labor market

Within the Comecon system under the leadership of the Soviet Union, Romania and Bulgaria experienced economic specialization in information technology. This IT tradition, coupled with a robust STEM-focused education, which has declined since the fall of the Berlin Wall in 1989, gave Bulgaria a strong start in the digital economy when the country became EU members in 2007. Bulgaria rapidly became a competitive outsourcing destination of leading incumbents in the digital economy, such as Cisco Systems, Hewlett-Packard, VMware, Microsoft, Oracle, SAP, and IBM. The presence of the IT leaders and the availability of advanced IT professionals prepared the ground for IT-based entrepreneurial development (Andonova et al., 2019).

According to the Bulgarian Venture Capital Association president, the export of IT-related products and services has grown more than four-fold since 2008. However, these powerful companies also impose a heavy burden on the Bulgarian entrepreneurial ecosystem because they compete against domestic entrepreneurial ventures for the same local talent.

Between 1990 and 2007, when Bulgaria joined the EU, one million Bulgarians left the country, an average of 60,000 per year. According to estimates made in 2017, 30,000 emigrate each year, most of whom are students seeking graduate degrees in IT, engineering, and medicine (Hope, 2018). Immigration from the Balkans to Western Europe has been an ongoing process since the second half of the 20th century. As recently as 2015, more than 130,000 migrants from Kosovo, Albania, and Serbia sought asylum in the EU (Zeneli, 2017). Their primary motivations have been to look for better-paid jobs in richer countries and escape institutional despair (The Guardian Editorial, 2015). The Balkan countries have suffered from poor governance and corruption, which pushes the talent to seek opportunities in the wealthier countries of Western Europe and the United States.

The small size of the Balkan nations makes the 'brain drain' impact even more significant, as this reduces private sector activity, productivity, and the region's overall competitiveness.

The Global Competitiveness Report from the World Economic Forum 2019 ranked Serbia 137th out of

138, Bosnia 134th and Croatia 132th, with Albania and North Macedonia slightly ahead for 'Capacity to retain talent.' Bulgaria is ranked at place 119. This reflects dramatically the number of young students that reported their intentions to leave the country after graduating, including a notable 85 percent of North Macedonian students. In Serbia, in 2016, more than 58,000 people left, doubling the previous yearly average. The high level of youth unemployment further motivates people to leave the region looking for better opportunities in other countries. In Kosovo, for example, 49% of unemployment relates to young people, while in Croatia, it is 19% (Trading Economics, 2019). In most of the Balkan countries, this situation is sometimes seen as a vicious cycle, where young talent from the Balkans leaves searching for better opportunities, and it further harms the economic situation, living standards, and business productivity. Especially for Croatia, which experienced a decrease in its youth unemployment rate by 54% from 2013 to 2018, this supposed positive development is mainly attributed to youth emigration after the EU accession in 2013 (Turković and Vulić, 2019).

The ongoing structural problems affecting the functioning of the market in the Balkans are sometimes seen as an ongoing transitioning from the Communist period that ended in the early 1990s. Most of the economies in South-East Europe are small and open. There has been some progress, with the transition to working free-market institutions from the start of the 2000s that introduced structural reforms and market stabilization, which has led the Balkan economies to improve their attractiveness to foreign investors. The [EBRD transition index](#) for the region – a measure of the countries' progress in a transition toward a free market economy – rose from an average of 2.3 in 2000 to 3.2 in 2008 (Izvorski, 2015). One aspect that is expected to radically improve the working of markets and help all Balkan economies develop is joining the EU. As of 2018, Albania, North Macedonia were candidates for admission to the EU, but there is no firm commitment to their accession date until today, while for Montenegro and Serbia, a potential accession in 2025 has been mentioned (De Munter, 2019).

3.9. Culture

One defining element of Bulgarian and Balkan culture is that pessimism is all-pervasive. Even the most progressive and supportive members of the Bulgarian entrepreneurial ecosystem agree that the transition in mentality from its Communist past has been the hardest. This is, in part, because the post-Communist governments in the region have not made a complete transition from the old ways of thinking and doing. A generation change is expected to bring about a much-needed shift in mentality, especially outside the already global community of IT and high-skilled professionals and managers, developed in this part of the world.

Given the recent Communist past of the countries in the region, it is not surprising that there is a very strong orientation towards employment rather than self-employment. Participants in the local entrepreneurial ecosystem describe the tendency to shy away from responsibility and the over-analyzing of failure as yet another cultural constraint for the faster development of regional entrepreneurial ecosystems. The business culture is incipient, and this can also be seen in the consumption patterns of local tycoons, who spend lavishly on luxury goods but do not see themselves as investors in the local entrepreneurial ecosystem (Andonova, Nikolova and Dimitrov, 2018).

Occasionally, the sense of entitlement found among young and overconfident entrepreneurs in Balkan entrepreneurial ecosystems repels investors. Albanian startup founders, for example, are perceived as inexperienced and underprepared but also arrogant (Bohanes, 2017). They have been accused of a lack of planning and trust in their

attitudes towards investors, causing reduced investment in their startups.

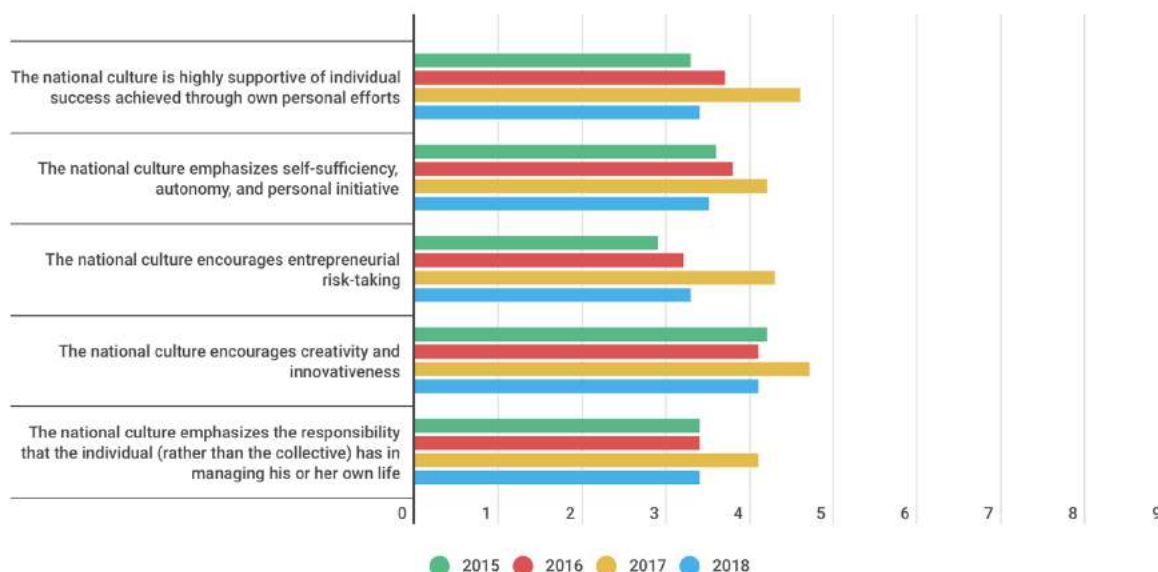
Hence, it is critical that entrepreneurs strengthen their reputation for trustworthiness with all participants in the entrepreneurial ecosystem but particularly with investors. This could be rapidly achieved with:

- improved business skills;
- thorough knowledge of the business fundamentals and indicators;
- evidence of efforts to do the utmost to make the business a success;
- evidence of a disciplined approach;
- a willingness to learn;
- the appropriate behavior for business settings;
- driven and resourceful attitudes and
- an appreciation of the trust required to be recommended to other investors.

Bulgaria ranks rather low (50/54) for its cultural and social norms towards entrepreneurship. These are indicators that take time to change. It is important that key stakeholders such as media, serial entrepreneurs, educators, policy-makers, influencers and parents, work together to influence the understanding of success through own personal efforts, emphasizing self-sufficiency, autonomy and personal initiative as well as entrepreneurial risk-taking, creativity, innovativeness and the responsibility of the individual to make proactive choices for her life.

Figure 45 Cultural and social norms in Bulgaria

The extent to which social and cultural norms encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income, 2015-2018 (1=Highly insufficient, 9=Highly sufficient Likert scale)



Source: GEM Bulgaria National Expert Survey, 2015, 2016, 2017 and 2018.

Members of the diaspora community and returnees are also important participants in the entrepreneurial ecosystem, bringing a significant cultural shift to Bulgaria and the region. Even though there are no readily available statistics about the number of returnees in Bulgaria or the Balkan entrepreneurial ecosystem or about the diaspora members actively supporting Balkan-based ventures, the names of the more prominent actors are widely known within the community. According to the National Statistical Institute and the Economic Institute with the

Bulgaria Academy of Sciences, more Bulgarians are working abroad than in the country. At the same time, 55 percent of those who emigrate every year are aged 20 to 29 (O'Brien, 2018).

Those who really commit to and work hard in this ecosystem have a completely global outlook and participate in global networks, which imprints a pattern of behavior that makes Balkan entrepreneurs indistinguishable from their global partners.

3.10. Media

The essential role of the mass media in creating role models and promoting entrepreneurship is unquestionable. One of the weaknesses within the region is the lack of sufficient appreciation of the success stories or entrepreneurship more generally (even if ending in failure). The general media pays some attention to entrepreneurship. Still, the power of social media is unstoppable, and entrepreneurial communities in South-East Europe have leveraged mainly social media to become stronger.

Many laws and policies regarding free media have been established. Still, the proper application of these has been challenging and is ineffective because of the media market concentration.

There are frequent accusations that media freedoms are restricted due to political pressure from the government subsidies that result in political bias and intimidation, and violence against journalists. Most of these accusations can be traced back to a problematic media ownership that is often subject to personal relations and interdependencies and the influence of political power. This furthers the problem of transparency, making it hard for new media outlets to enter the market without entering into political power struggles (Brogi et al., 2014).

A lack of proper education for journalists and low journalistic ethical standards in the region worsens that problem. This, coupled with a high level of perceived corruption in the region, makes the media

unreliable. Many established journalists are often exposed to a high level of internal and external pressures resulting in limited media freedom (Bieber. Kmezic, 2015).

Nevertheless, from an informational perspective, the media now reports more news about entrepreneurship and technology. More information is available on how to build an entrepreneurial venture regardless of where one lives, and Bulgaria

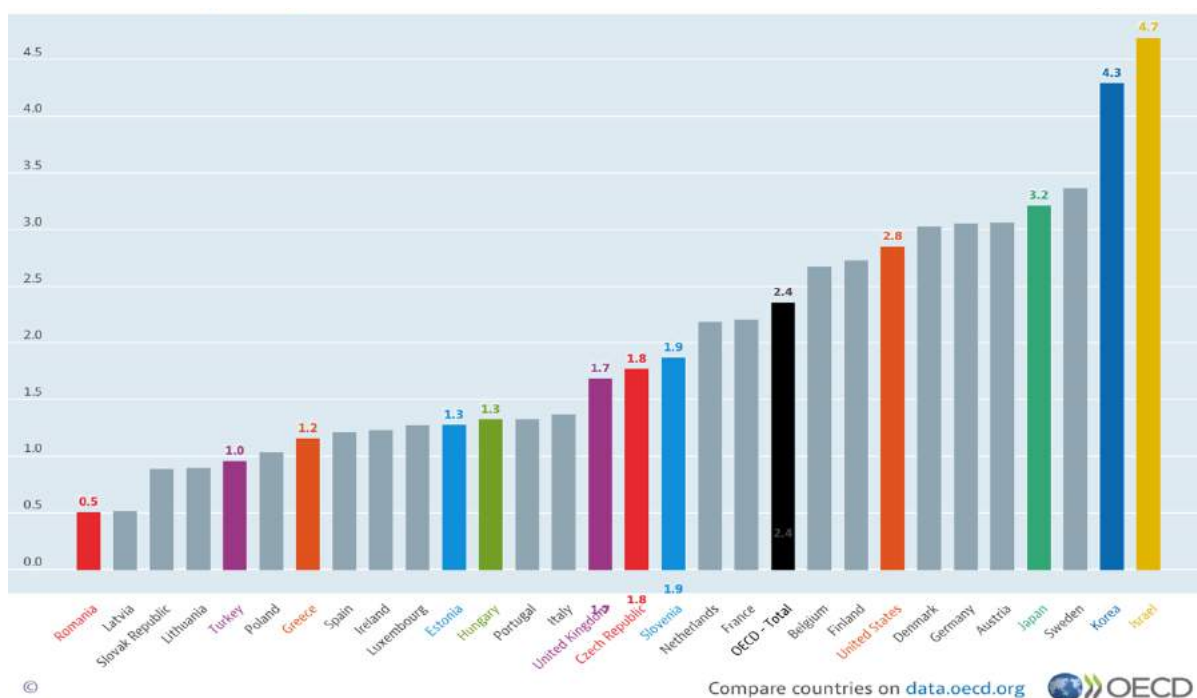
is no exception. Capital has started to flow to the South-Eastern part of Europe, whose citizens are noted for their sometimes rebellious nature, an essential ingredient for a functioning entrepreneurial ecosystem. However, local entrepreneurs are still not seen as a positive force for societies in the region, particularly by leading intellectuals. Entrepreneurs and intellectual elites in this part of the world still look at each other with suspicion and mistrust.

3.11. Academic and research institutions and R&D transfer

Public spending on R&D in the Balkans is relatively low compared to other European countries, as presented in the figures below. Economies like Bulgaria, Croatia, Greece, and Serbia spent around 0.9 percent of their GDP on R&D in 2017 (UNESCO Institute for Statistics, 2017). In contrast, on average, EU countries spent 1.97% of their GDP on R&D in the same year (OECD, 2017), while Baltic and Central European countries such as Czechia,

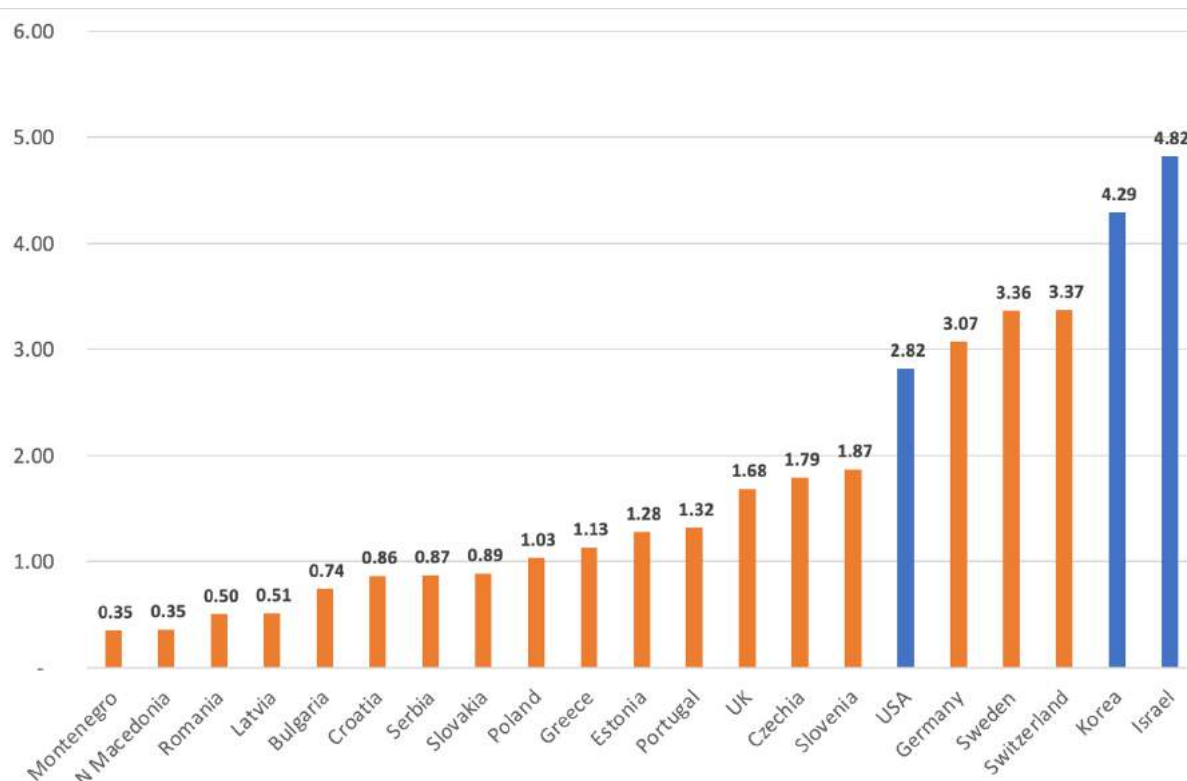
Hungary and Estonia spent around 1 to 2% on R&D (UNESCO Institute for Statistics, 2017). Romania is far behind, with public spending on R&D for 2017 hovering at around 0.4% of GDP (UNESCO Institute for Statistics, 2017). In the Balkans, the positive outlier is Slovenia, which spent more than the average rate for the European Union, at 2.4% of GDP (UNESCO Institute for Statistics, 2017) (Figure 46 and Figure 47).

Figure 46 Gross domestic spending, Total % of R&D in Europe and selected benchmark countries, 2017



Source: OECD, 2017.

Figure 47 Gross domestic expenditure on R&D as percentage of GDP, selected countries, UNESCO 2017



Source: UNESCO Institute of Statistics, 2017.

Innovation capabilities essential for an economy's ability to become competitive, particularly in higher-productivity sectors, are heavily dependent on research and development.

Innovation capabilities require a business environment that, in turn, facilitates entrepreneurship and provides access to the necessary finance for the creation and growth of innovative firms. Such an environment needs to be supported by effective universities and research institutions with strong links to industry and an ability to integrate with local industrial clusters.

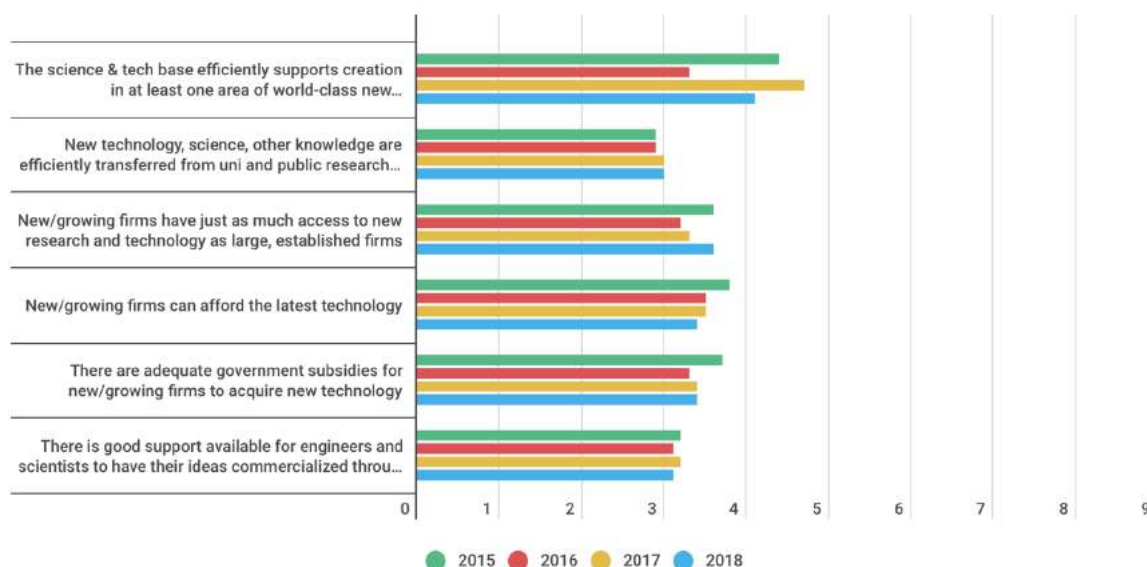
The first successful quarter of a billion exit of the Bulgarian tech company Telerik in 2014

(TechCrunch, 2014) set a precedent where the four founders became prominent ecosystem enablers and served as investors, mentors and serial entrepreneurs. Their success put Bulgaria on the map, and out of their investment, a whole new generation of startups emerged – mostly high tech and global, yet too few to be reflected in a change of the Bulgaria TEA yet.

R&D is still an area needing improvement fast. A major contributor to R&D spending in the country is the private sector, which in 2019 invested the most in R&D in the modern history of Bulgaria together with the category 'abroad' (NSI, 2019).

Figure 48 R&D transfer in Bulgaria

The extent to which national research and development will lead to new commercial opportunities and is available to SMEs, 2015-2018 (1=Highly insufficient, 9=Highly sufficient Likert scale)



Source: GEM Bulgaria National Expert Survey, 2015, 2016, 2017 and 2018.

It is clear from the data that participants in the Bulgarian entrepreneurial ecosystem believe that universities do not play a central role in facilitating knowledge transfer and stimulating innovation. The virtual circle between university-based innovation, entrepreneurship, and competitiveness is broken. Key

stakeholders in the regional entrepreneurial ecosystem believe that the root cause of the problem is the broken linkage between the academic and research entities and the market. In this domain, there is a massive opportunity for improvement with well-thought public policies.

3.12. Top 5 topics impacting the entrepreneurship in Bulgaria according to NES interviews

Since 2015, the following top 5 areas repeatedly rank as the most frequently mentioned by over 200 national experts GEM Bulgaria interviewed (GEM Bulgaria National Expert Survey, 2015-2018) when asked the following.

Factors that foster entrepreneurship related to

1. Access to physical infrastructure
2. Government policies⁹
3. Market Openness
4. Financial support
5. Economic climate

Factors that constraint entrepreneurship related to

1. Government policies
2. Financial support
3. Education and training
4. Corruption
5. Market Openness.

Recommendations to stakeholders in the areas of

1. Education and training
2. Government policies
3. Financial support
4. Corruption
5. Government programs

Besides financial support and, to some extent Education & training, the top 5 areas identified as needing improvement are mostly connected to policy-making, public administration, policy and the rule of law.

⁹ One area can appear on several lists, e.g. Government Policies - e.g. 10% flat tax as a positive and low VAT registration threshold as a negative.

The recommendations from year to year overlap to a great extent due to the slow pace of change in public policy, education and cultural norms. Log of past recommendations is shared in Annex 4 GEM Bulgaria past reports' National Experts Surveys recommendations.

Here is a selection of more recent recommendations by the National experts interviewed in the GEM Survey

- Open access to government data / APIs / portals
- Established successful entrepreneurs' know-how to be shared with early-stage entrepreneurs or established but not innovative, with no clients aboard and do not expect growth.
- Special tax regime for early-stage entrepreneurs
- Efficient e-government to fully support business activities
- Better control and transparency in Public Tenders
- A critical review of the school curriculum
- One-stop-shop for businesses locally, similar to Small Business Services NYC
- More efficient and faster court proceedings
- Management of public funds related to businesses to include managers from private sectors with strict conflict of interest screening
- Attracting skilled returnees back to Bulgaria
- Practical education, including more STEM
- Reality media formats with entrepreneurs
- City labs/incubators
- Better dialogue between government, institutions and startups
- Incentives to fill skill gaps
- Quicker Patent Office processing times
- Bankruptcy law for individuals
- Fewer barriers for foreign companies entry
- The rule of law
- Support for high potential startups, similar to the Israel model
- Startups in universities
- High growth companies as a priority group
- Discounted social contributions payment for startups
- Success stories of Bulgarian entrepreneurs abroad
- Building awareness of entrepreneurial mindset

CHAPTER 4 VENUES FOR THE FUTURE? GIG ECONOMY AND FAMILY ENTREPRENEURSHIP

4.1. GIG economy

- ⇒ **Gig Economy Participation** – Percentage of the 18-64 population who have received income from paid work obtained via a digital platform.
- ⇒ **Sharing Economy Participation** – Percentage of the 18-64 population who have received income from renting or leasing out some of their own goods or property or from granting access to services they provide through a digital platform.

Gig Economy and Sharing

The rise of the gig and sharing economy worldwide led 27 GEM teams to include questions on this topic in their 2018 survey.

In recent years, the platform economy has been increasingly visible in several countries across the globe. Platforms such as TaskRabbit, Foodora, Uber, Airbnb and Grubhub are only a few of the most successful ones. Additionally, opportunities for workers are provided by many national platforms that create a wide range of opportunities for people to take on part-time or short-term gigs.

- The gig economy describes the possibility for people to find online or on-site

service jobs (such as translations, deliveries or dog-sitting) via Internet-based platforms.

- In contrast, the sharing economy is about making available to others part of one's goods and services while potentially monetizing this activity.

Gigs or the sharing economy might use these activities as a way to supplement their income while being employed elsewhere. Even though they are not exclusive to technology applications, Gig and sharing options are often facilitated with app-based platforms (GEM Global report 2018/19).

Link between Gig and Sharing Economy and Early-Stage Entrepreneurship

Not surprisingly, many gig workers have intentions to start a business in the near future or are, in fact, actively setting up a business.

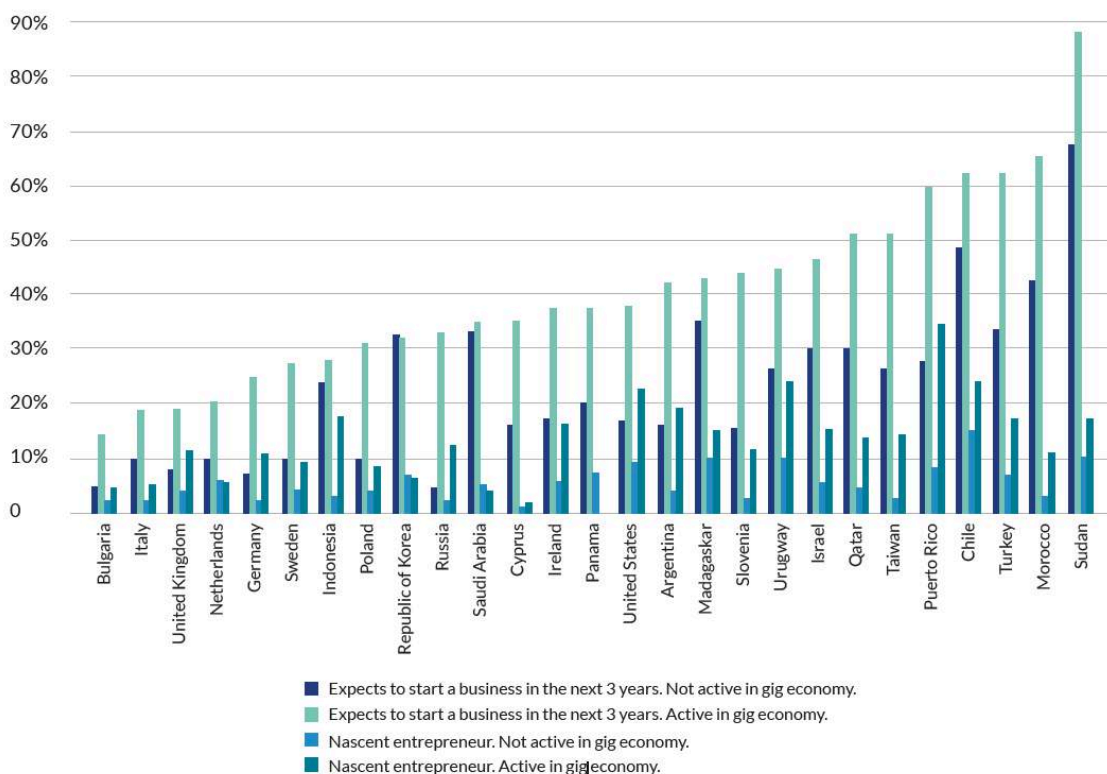
Hence, these **gig workers represent an exciting pool of potential entrepreneurs. How much this presents a favorable option for gig workers will depend on the specific contexts.** Given the sheer size of the gig economy phenomenon and its impact on the individual and society at large, it might be

worth looking into crossing the thin lines between the gig economy and entrepreneurship for many countries.

For some, gig work could be a stepping-stone toward entrepreneurship.

However, low-paid gig work in strongly present and influential competitive online platforms may put pressure on both employment and entrepreneurial opportunities (GEM Global report, 2018/19).

Figure 49 Comparison of Expected and Nascent Entrepreneurship rates among adults (18-64) active in GIG work within 27 GEM economies



Source: Global Entrepreneurship Monitor Adult Population Survey, 2018

Bulgaria, in particular, shows internet economy characteristics similar to its regional neighbors. According to the 2018/2019 ETUI Internet and Platform Work Survey, “looking for work on the internet is widely present in people’s lives in the five central and eastern European countries, but plays a limited role in their finances”. The study also showed that past or sporadic experiences with generating income from the internet are relatively common. Still, the prevalence of regular internet and platform work is very low in Bulgaria and the other surveyed countries - Hungary, Latvia, Poland and Slovakia. As a result, Bulgaria also shows relatively low yearly income generated via the internet economy, with an average of € 100 per

year. In contrast to Bulgaria, more innovation-driven economies perceive the gig economy to be of increasing importance (Lus Laboris, 2018).

Bulgaria does not seem to experience the strong impact of the gig and/or sharing economy, as do more innovation-driven countries, since financial effects are relatively low.

Nevertheless, increasing participation in such formats of economic activity and the internationalization of the offer of such services might increase future financial impact.

4.2. Family business

- ⇒ **Family (early-stage) Business Activity** – the % of the 18-64 population who are involved in TEA and
- (i) own and manage at least part of the business together with family members (strong indication), or
 - (ii) who own the business themselves but manage the business together with family members (some indication).

In 47 economies assessing family business activity, nearly one in five entrepreneurs are starting businesses that will be owned and/or managed with family members. Colombia, the United Arab Emirates, and Uruguay report the highest level of family-based entrepreneurship, accounting for over one-third of entrepreneurs.

Unsurprisingly to many, a high number of businesses is family-owned and run. Family-run small businesses are visible in most communities, but their involvement can also be seen in many regional, national and global businesses. However, what may be less known is to what extent entrepreneurs start as family venture. While some businesses start with family members to get up and run, they might not keep this distinction as they progress, while other companies may experience the involvement of family members at a later stage (GEM Global report, 2018/19).

The GEM Global report adopts a broad **definition** of family-based entrepreneurship, including entrepreneurs involved in TEA who:

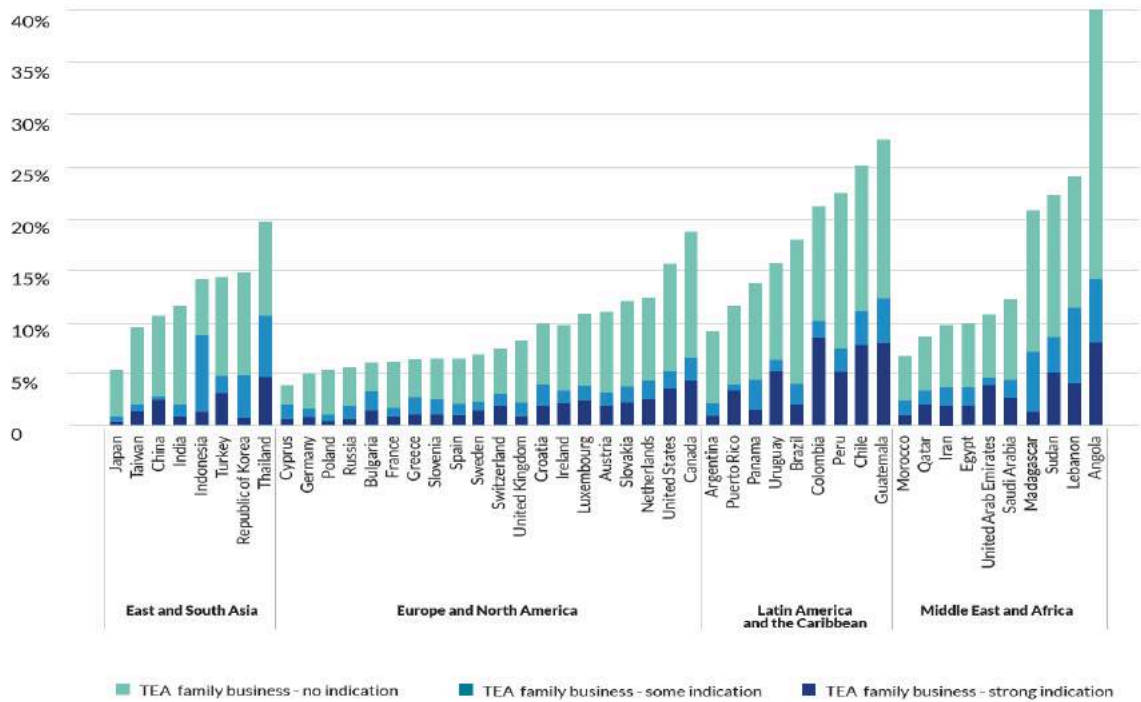
- (i) report to (expect to) be partly owning and managing their business jointly with family members, or
- (ii) do not share ownership but have at least one employee and manage their business jointly with family members. GEM identifies the former as ‘strong indication’ of family-based entrepreneurship and the latter as ‘some indication’ of family-based entrepreneurship.

Europe and North America show moderate to high rates of family entrepreneurship. Throughout the entire sample of countries from those areas, one-fifth of all early-stage entrepreneurial endeavors starts with family members. Among those, Switzerland and Bulgaria show the highest a ‘strong indications¹⁰’ of family-based early-stage entrepreneurship (as a percentage of TEA)- just below 30%; the lowest rates of family-based early-stage entrepreneurship are found in Poland and the United Kingdom (GEM Global report, 2018/19) (Figure 50)

¹⁰ ‘Strong indication’ represents family members co-owning and co-managing part of a business, and ‘some indication’ represents full ownership by an entrepreneur,

at least one employee and co-management by family members (GEM Global report 2018/19)

Figure 50 Total early-stage Entrepreneurial Activity (TEA) Rates among Adults (ages 18-64) in 47 Economies in Four Geographic Regions, Showing the Proportion of Family-owned/Managed



Source: Global Entrepreneurship Monitor Adult Population Survey, 2018

Note: 'Strong indication' represents family members co-owning and co-managing part of a business, and 'some indication' represents full ownership by an entrepreneur, at least one employee and co-management by family members.

With regards to Bulgaria, in 2018, the country registers over 104,000 family businesses, representing around 25% of all private Bulgarian enterprises (NSI, 2018).

While active in all sectors of the economy, Bulgarian family businesses are mostly perceived as small-scale, nearly 40% of which are in the trade or vehicle repairs, followed by professional and research, with 10% and manufacturing with about 8% (NSI, 2018).

CONCLUSION

The future of the nascent entrepreneurial ecosystems in Bulgaria and the Balkans is clearly set. These economies are walking away from outsourcing and entering into a phase of building genuine entrepreneurial ecosystems, whose growth is a positive sign for all classes of stakeholders within the region. Still, this trend is not easily seen when we analyze the aggregate nationally representative indicators of entrepreneurial activity, but rather the specific domain of innovation-driven entrepreneurship.

The innovation-driven entrepreneurs in Bulgaria are not many, but they understand the advantages and disadvantages of their institutional and historical context, geographical location, talent pool, and cost drivers. They have pride in and are engaged with their national and regional context while having a strong global mindset. For the most part, they are determined to make their dreams come true, engaging in civil society and political movements in order to drive forward a faster pace of positive change. Is this wishful thinking? We do not think so. There might be an element of fad and fashion, with 'entrepreneurship as a lifestyle' acquiring a desirable status, particularly for younger generations. Yet, **innovation-driven entrepreneurial ventures in Bulgaria are built for the most part on solid business and economic logic, cost advantages, the strong value proposition in challenging market conditions due to the small size of the**

markets and the price sensitivity of local clients. The business logic is strong, while local culture is biased towards pessimism rather than optimism, balancing the natural overoptimism of most entrepreneurial founders and the technical education of the founders is strong.

Most importantly, the connecting tissue of the Bulgarian entrepreneurial ecosystem – the entrepreneurial communities – has started to function as such. The notion of giving back and the idea of being a part of a network to which entrepreneurs contribute but from which they also benefit has already crystallized.

The focal points around which these networks form have less to do with country boundaries and more with essential resources for entrepreneurship, such as finance and talent. The Balkan region is very diverse, and some generalizations will certainly apply more to some rather than to all entrepreneurial ecosystems. Still, without any doubt, the Bulgarian entrepreneurial ecosystem is one of the essential drivers of the development of the regional community.

Consistent and regular monitoring of the entrepreneurial ecosystem in Bulgaria is key in understanding the needs but also the gains already achieved. This report contributes to the thorough analyses done in recent years that help not only entrepreneurs but all stakeholders involved.

Country Profiles

Bulgaria



Population (2018): 7.1 million

GDP growth (2017, annual % change): 3.6%

GDP per Capita (2017; PPP, international \$): 21.8 thous.

World Bank Ease of Doing Business Rating (2018): 71.24/100; **Rank**: 59/190

World Bank Starting a Business Rating (2018): 85.38/100; **Rank**: 99/190

World Economic Forum Global Competitiveness Rank (2018): 51/140

World Economic Forum Income Group Average (2018): Upper Middle

Bulgaria's entrepreneurial ecosystem scores are consistent with the country's well-documented strengths regarding taxes and access to commercial and professional infrastructure and weaknesses regarding government support for entrepreneurship and education. Since 2015, Bulgaria's TEA has been in the range of 4% to 5% of the population, which is low compared to different benchmark groups. In 2017, Bulgaria scored the lowest TEA (3.7%), combined with extremely low intentions (5%).

Bulgarians have realized that entrepreneurship is a complex and demanding endeavor that needs both a specific mindset and skillset. The growth of technological entrepreneurship in Western Europe and in Bulgaria is proof of growing resilience and of capitalizing on high-quality tech talent. The future of the nascent entrepreneurial ecosystems in Bulgaria and SEE is set, moving away from outsourcing and entering a phase of building genuine entrepreneurial ecosystems, whose growth is a positive sign for all classes of stakeholders within the region.

Source: GEM Global report 2018/19

Self-Perceptions About Entrepreneurship

	Value	Rank
Perceived opportunities	19.3	47/49
Perceived capabilities	36.9	42/49
Fear of failure	31.0	34/49
Entrepreneurial intentions	3.9	47/48

Activity

	Value	Rank
Total early-stage Entrepreneurial Activity (TEA)		
TEA 2018	6	42/48
TEA 2017	3.7	54/54
TEA 2016	4.8	62/65
Established business ownership rate	8.4	19T/48
Entrepreneurial Employee Activity – EEA	0.4	48/49

Motivational Index

	Value	Rank/48
Improvement-Driven Opportunity/Necessity Motive	1.0	43

Gender Equality

	Value	Rank/48
Female/Male TEA Ratio	0.87	11T
Female/Male Opportunity Ratio	0.88	33

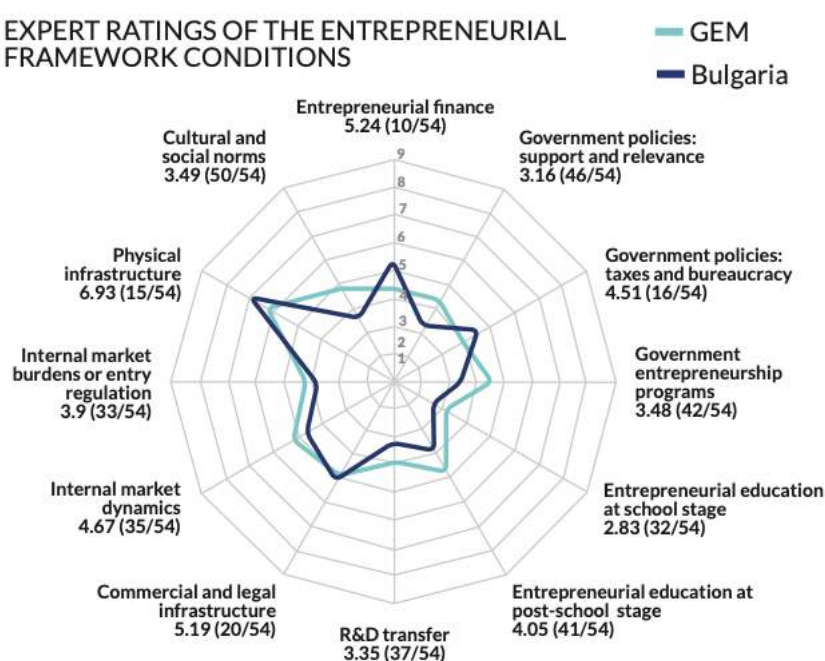
Entrepreneurship Impact

	Value	Rank/48
Job expectations (6+)	2.5	46
Innovation	14.9	41T
Industry (% in Business Services Sector)	14.0	25

Societal Value About Entrepreneurship

	Value	Rank/47
High status to entrepreneurs	69.3	29
Entrepreneurship a good career choice	62.6	26

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



EFCs scale: 1 = very inadequate insufficient status, 9 = very adequate sufficient status
Rank out of 54 recorded in brackets

Country Profiles

Croatia



Population (2018): 4.2 million

GDP growth (2017, annual % change): 2.8%

GDP per Capita (2017; PPP, international \$): 24.7 thous.

World Bank Ease of Doing Business Rating (2018): 71.40/100; **Rank**: 58/190

World Bank Starting a Business Rating (2018): 82.62/100; **Rank**: 123/190

World Economic Forum Global Competitiveness Rank (2018): 68/140

World Economic Forum Income Group Average (2018): High

The year 2018 confirmed long term weaknesses of Croatia's entrepreneurial capacity. Insights can be gleaned from analyzing the relationship between the country's entrepreneurial activity and the quality of its national conditions. A low-level rate of businesses with growth potential (measured by share of businesses which are technologically advanced and share of businesses with new products) can be explained by the country's low education levels, R&D transfer and government policies toward bureaucracy/taxation. For years, the Croatian GEM team has recommended making the regulatory framework simpler, less costly and more transparent. It has also recommended undertaking measures for supporting not only new ventures, but for policies that make established businesses more competitive. In 2018, the government introduced vouchers which will support collaboration between businesses and research institutions. This is a direct response to GEM recommendations. New regulatory changes prepared in 2018 will decrease the burden for entering the market for different products and services in the future.

Source: GEM Global report 2018/19

Self-Perceptions About Entrepreneurship

	Value	Rank
Perceived opportunities	33.1	39/49
Perceived capabilities	52.3	18T/49
Fear of failure	30.3	36T/49
Entrepreneurial intentions	18.6	25T/48

Activity

	Value	Rank
Total early-stage Entrepreneurial Activity (TEA)		
TEA 2018	9.6	29T/48
TEA 2017	8.9	34T/54
TEA 2016	8.4	43/65
Established business ownership rate	4.2	40T/48
Entrepreneurial Employee Activity – EEA	5.3	15/49

Motivational Index

	Value	Rank/48
Improvement-Driven Opportunity/Necessity Motive	1.4	34T

Gender Equality

	Value	Rank/48
Female/Male TEA Ratio	0.59	30T
Female/Male Opportunity Ratio	0.94	26T

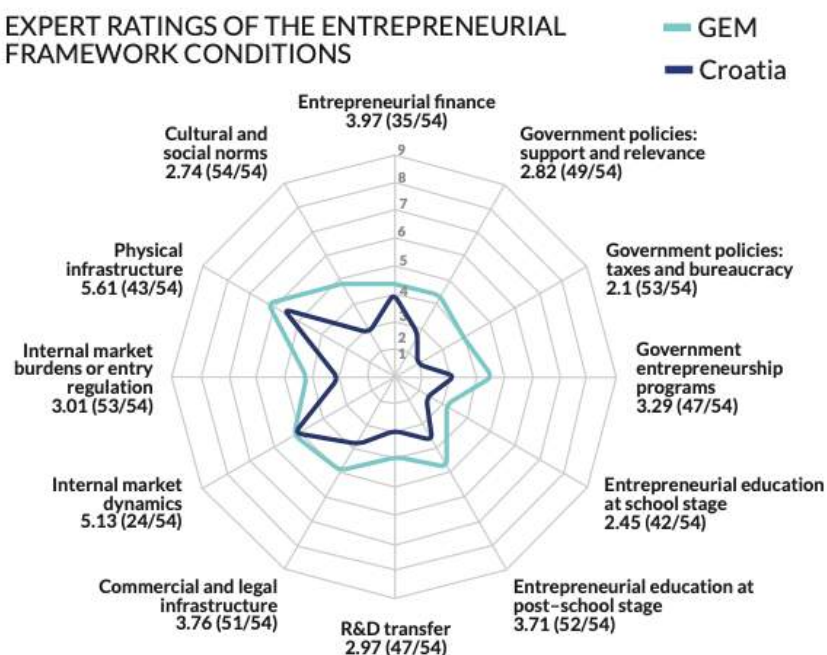
Entrepreneurship Impact

	Value	Rank/48
Job expectations (6+)	26.5	15
Innovation	24.6	27
Industry (% in Business Services Sector)	28.9	7

Societal Value About Entrepreneurship

	Value	Rank/47
High status to entrepreneurs	43.0	47
Entrepreneurship a good career choice	62.1	27

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



EFCs scale: 1 = very inadequate insufficient status, 9 = very adequate sufficient status
Rank out of 54 recorded in brackets

Country Profiles

Germany



Population (2018): 86.7 million

GDP growth (2017, annual % change): 2.5%

GDP per Capita (2017; PPP, international \$): 50.8 thous.

World Bank Ease of Doing Business Rating (2018): 78.90/100; **Rank**: 24/190

World Bank Starting a Business Rating (2018): 83.58/100; **Rank**: 114/190

World Economic Forum Global Competitiveness Rank (2018): 3/140

World Economic Forum Income Group Average (2018): High

Since the inception of GEM almost 20 years ago, Germany has had a strong focus on government programs, physical infrastructure and financing. Over the past two years, seemingly contradictory developments have occurred in Germany. On one hand, the level of entrepreneurial activity is constantly low, even compared to other innovation-driven countries. On the other hand, governments at each level (federal, federal states, local) have 'discovered' new firms started by young people as an important target group of their regional, educational, technology, economic and innovation policies. This may have contributed to a considerable improvement of the entrepreneurial climate, particularly among young citizens. One explanation for this contradictory observation is that the overall economy has performed well with low unemployment and a steady (average) increase in individuals' economic well-being. Consequently, the opportunity cost for starting a business is rather high for many of the potential entrepreneurs who are highly qualified and currently employed in a well-paid job.

Source: GEM Global report 2018/19

Self-Perceptions About Entrepreneurship

	Value	Rank
Perceived opportunities	42.1	28/49
Perceived capabilities	38.3	40/49
Fear of failure	35.1	24/49
Entrepreneurial intentions	5.9	45/48

Activity

	Value	Rank
Total early-stage Entrepreneurial Activity (TEA)		
TEA 2018	5.0	46/48
TEA 2017	5.3	48/54
TEA 2016	4.6	64/65
Established business ownership rate	7.5	22T/48
Entrepreneurial Employee Activity – EEA	5.2	16/49

Motivational Index

	Value	Rank/48
Improvement-Driven Opportunity/Necessity Motive	3.2	14T

Gender Equality

	Value	Rank/48
Female/Male TEA Ratio	0.50	39T
Female/Male Opportunity Ratio	1.00	15T

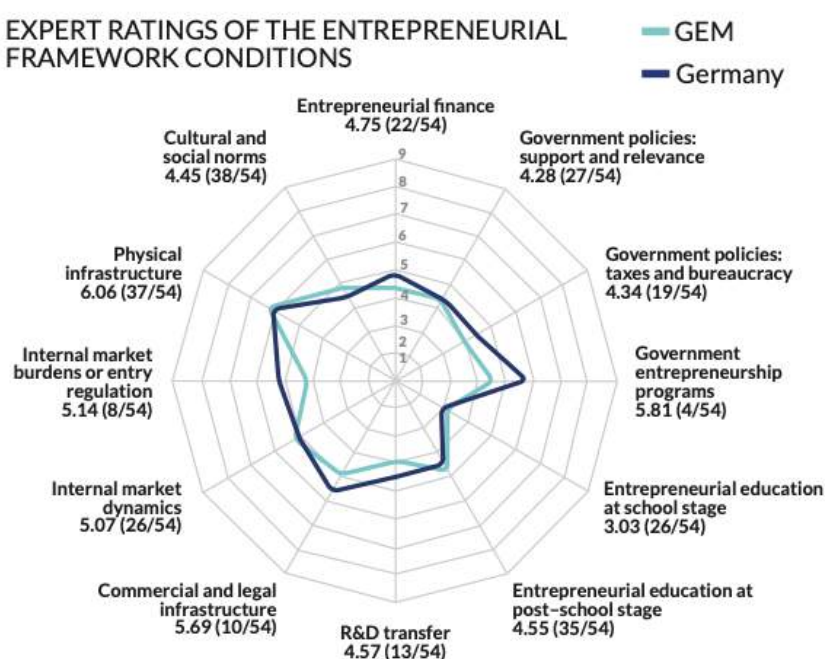
Entrepreneurship Impact

	Value	Rank/48
Job expectations (6+)	28.9	10
Innovation	30.5	16
Industry (% in Business Services Sector)	21.6	16

Societal Value About Entrepreneurship

	Value	Rank/47
High status to entrepreneurs	74.8	19
Entrepreneurship a good career choice	49.6	39

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



EFCs scale: 1 = very inadequate insufficient status, 9 = very adequate sufficient status
Rank out of 54 recorded in brackets

Country Profiles

Greece



Population (2018): 10.8 million

GDP growth (2017, annual % change): 1.4%

GDP per Capita (2017; PPP, international \$): 27.8 thous.

World Bank Ease of Doing Business Rating (2018): 68.08/100; **Rank:** 72/190

World Bank Starting a Business Rating (2018): 92.39/100; **Rank:** 44/190

World Economic Forum Global Competitiveness Rank (2018): 57/140

World Economic Forum Income Group Average (2018): High

The improvement in early-stage entrepreneurship during 2018 is closely related to the rebound of the Greek economy after a period of deep and prolonged economic crisis. The growth rate in 2018 is forecasted to reach 2%, (1.4% in 2017). The most important milestone of 2018 was the fact that in August, an eight-year cycle of three successive programs of economic support and adjustment programmes completed. A significant amount of adjustment and rebalancing in the economy has been achieved, exports and investments have also increased, although domestic financing conditions remain very weak. To promote entrepreneurship, policies aimed at encouraging people with high educational levels should be put in place. It should be kept in mind however that policies should focus not just on a mere quantitative increase of new ventures, but on the quality of these ventures, i.e., their innovation and growth potential.

Self-Perceptions About Entrepreneurship

	Value	Rank
Perceived opportunities	19.2	48/49
Perceived capabilities	46.4	31/49
Fear of failure	57.8	3/49
Entrepreneurial intentions	7.5	41/48

Activity

	Value	Rank
Total early-stage Entrepreneurial Activity (TEA)		
TEA 2018	6.4	38T/48
TEA 2017	4.8	49/54
TEA 2016	5.7	57T/65
Established business ownership rate	10.8	14/48
Entrepreneurial Employee Activity – EEA	1.8	36/49

Motivational Index

	Value	Rank/48
Improvement-Driven Opportunity/Necessity Motive	3.0	16

Gender Equality

	Value	Rank/48
Female/Male TEA Ratio	0.45	44
Female/Male Opportunity Ratio	0.78	44T

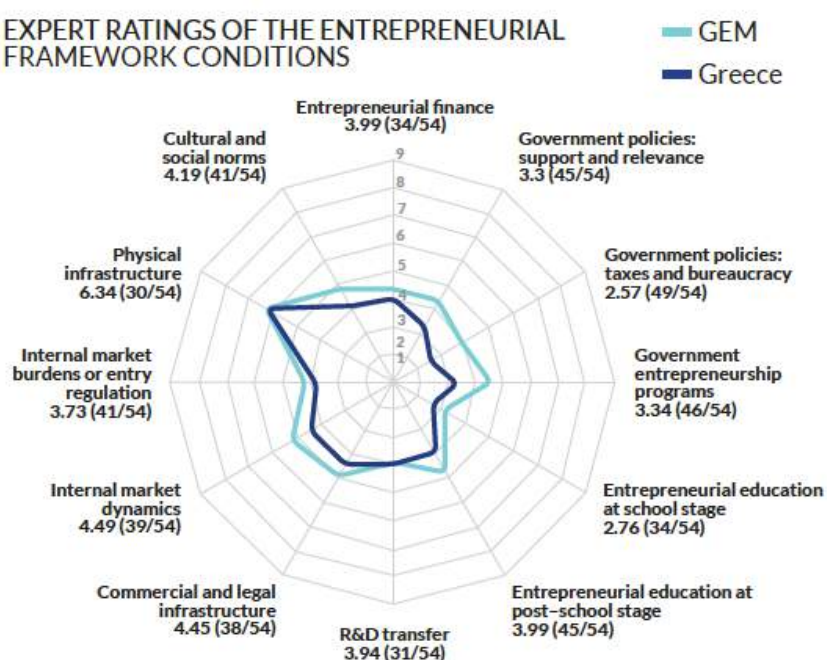
Entrepreneurship Impact

	Value	Rank/48
Job expectations (6+)	9.7	38
Innovation	28.4	18
Industry (% in Business Services Sector)	12.0	27

Societal Value About Entrepreneurship

	Value	Rank/47
High status to entrepreneurs	67.8	33
Entrepreneurship a good career choice	64.9	20

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



Source: GEM Global report 2018/19

EFCs scale: 1 = very inadequate insufficient status, 9 = very adequate sufficient status
Rank out of 54 recorded in brackets

Country Profiles

Netherlands



Population (2018): 17.1 million

GDP growth (2017, annual % change): 2.9%

GDP per Capita (2017; PPP, international \$): 53.9 thous.

World Bank Ease of Doing Business Rating (2018): 76.04/100; **Rank:** 36/190

World Bank Starting a Business Rating (2018): 94.31/100; **Rank:** 22/190

World Economic Forum Global Competitiveness Rank (2018): 6/140

World Economic Forum Income Group Average (2018): High

The results of the National Expert Survey (NES) show that the Netherlands scores are higher than average across all entrepreneurial framework conditions. This shows that the circumstances to start a business in the Netherlands are relatively good. During the last decades the policies of the Dutch government have focused on simplifying the legal and regulatory framework to start an enterprise and creating a favorable business climate for new entrepreneurs. Today, the country's TEA is among the highest in the European Union. At present, support measures focus on improving entrepreneurial skills, easing access to finance and stimulating innovation in particular supporting scale-ups.

Self-Perceptions About Entrepreneurship

	Value	Rank
Perceived opportunities	66.7	7/49
Perceived capabilities	46.1	32/49
Fear of failure	34.7	25/49
Entrepreneurial intentions	7.7	40/48

Activity

	Value	Rank
Total early-stage Entrepreneurial Activity (TEA)		
TEA 2018	12.3	18/48
TEA 2017	9.9	29T/54
TEA 2016	11.0	28/65
Established business ownership rate	12.0	10/48
Entrepreneurial Employee Activity - EEA	7.9	4/49

Motivational Index

	Value	Rank/48
Improvement-Driven Opportunity/Necessity Motive	7.8	2

Gender Equality

	Value	Rank/48
Female/Male TEA Ratio	0.51	37T
Female/Male Opportunity Ratio	1.04	9T

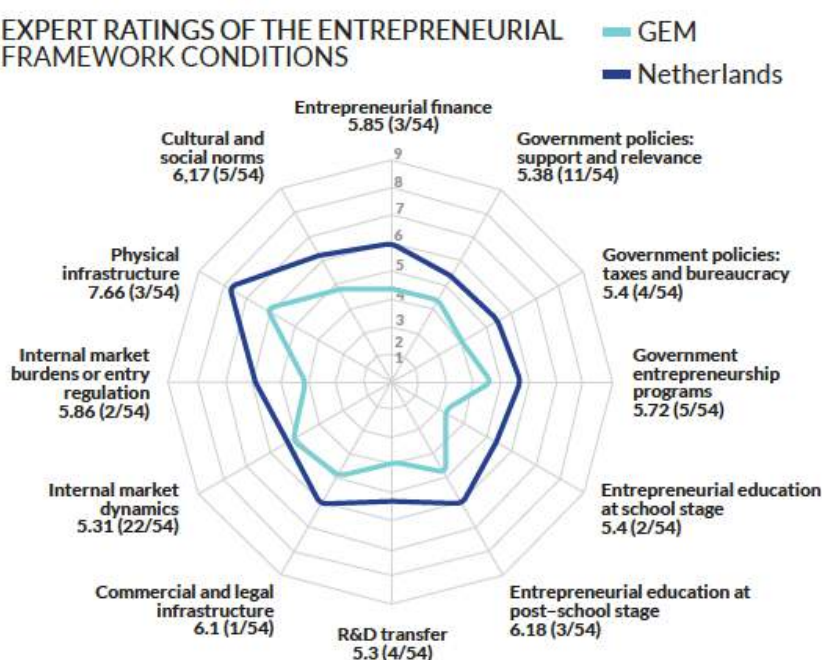
Entrepreneurship Impact

	Value	Rank/48
Job expectations (6+)	9.5	39
Innovation	23.8	29
Industry (% in Business Services Sector)	28.8	8

Societal Value About Entrepreneurship

	Value	Rank/47
High status to entrepreneurs	63.1	37
Entrepreneurship a good career choice	81.7	4

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



Source: GEM Global report 2018/19

EFCs scale: 1 = very inadequate insufficient status, 9 = very adequate sufficient status
Rank out of 54 recorded in brackets

Country Profiles

Poland



Population (2018): 38.0 million

GDP growth (2017, annual % change): 4.6%

GDP per Capita (2017; PPP, international \$): 29.6 thous.

World Bank Ease of Doing Business Rating (2018): 76.95/100; **Rank:** 33/190

World Bank Starting a Business Rating (2018): 82.85/100; **Rank:** 121/190

World Economic Forum Global Competitiveness Rank (2018): 37/140

World Economic Forum Income Group Average (2018): High

The year 2018 saw significant growth of the economy in Poland, supported by strong internal demand and low inflation. The Polish government undertook various actions to support growth of entrepreneurship by introducing a set of new laws, the Constitution for Business. These changes are reflected in our GEM data. They show a significant improvement in social perception of entrepreneurship which historically was rather low. The majority of Poles see business opportunities in their environment and fewer of them fear failure. However, when it comes to the entrepreneurial activity, 2018 witnessed a drop in share of persons starting or running young firms, while the share of established businesses grew to the highest level recorded so far. This can be partially explained by the excellent situation of the labor market where growing wages and demand for workers constitute a relatively good alternative to owning a business.

Self-Perceptions About Entrepreneurship

	Value	Rank
Perceived opportunities	68.5	6/49
Perceived capabilities	46.6	29T/49
Fear of failure	31.1	33/49
Entrepreneurial intentions	9.5	38/48

Activity

	Value	Rank
Total early-stage Entrepreneurial Activity (TEA)		
TEA 2018	5.2	45/48
TEA 2017	8.9	34T/54
TEA 2016	10.7	30/65
Established business ownership rate	13.0	7/48
Entrepreneurial Employee Activity – EEA	1.9	34T/49

Motivational Index

	Value	Rank/48
Improvement-Driven Opportunity/Necessity Motive	6.6	4

Gender Equality

	Value	Rank/48
Female/Male TEA Ratio	0.74	19
Female/Male Opportunity Ratio	1.08	5T

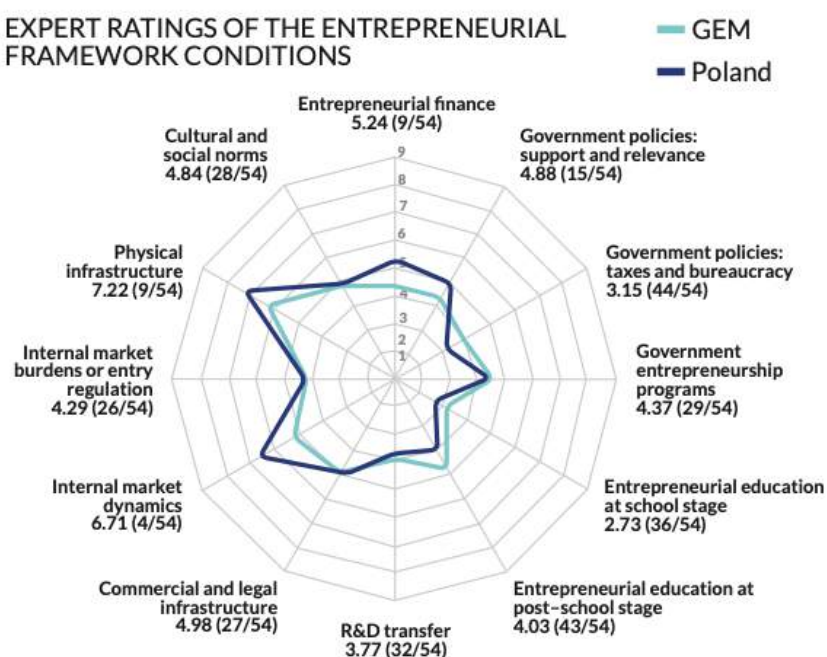
Entrepreneurship Impact

	Value	Rank/48
Job expectations (6+)	11.5	37
Innovation	12.2	45
Industry (% in Business Services Sector)	20.1	17

Societal Value About Entrepreneurship

	Value	Rank/47
High status to entrepreneurs	76.3	15
Entrepreneurship a good career choice	85.9	3

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



Source: GEM Global report 2018/19

EFCs scale: 1 = very inadequate insufficient status, 9 = very adequate sufficient status
Rank out of 54 recorded in brackets

Country Profiles

Slovakia



Population (2018): 5.4 million

GDP growth (2017, annual % change): 3.4%

GDP per Capita (2017; PPP, international \$): 33.1 thous.

World Bank Ease of Doing Business Rating (2018): 75.17/100; **Rank:** 42/190

World Bank Starting a Business Rating (2018): 82.02/100; **Rank:** 127/190

World Economic Forum Global Competitiveness Rank (2018): 41/140

World Economic Forum Income Group Average (2018): High

Over the last few years, a relatively high TEA rate, combined with a relatively low percentage of established entrepreneurs, has typified Slovakia's entrepreneurial activity. This phenomenon is not typical of innovation-driven economies. Additionally, a high level of entrepreneurial intention signals a potential continuation of high early-stage entrepreneurship in the future. The country's high TEA rate can be explained by high self-perceived capabilities within the Slovak population combined with a quite low fear of failure. However, the high level of TEA is accompanied by lower quality of early-stage business ventures in Slovakia, documented by the low motivational index and low levels of innovation. Moreover, in general, would-be entrepreneurs in Slovakia do not enjoy favorable conditions for entrepreneurship. Despite a quality physical and commercial infrastructure and reasonable access to finance, the remaining conditions for entrepreneurship prevent rather than foster starting and development of new business endeavors.

Self-Perceptions About Entrepreneurship

	Value	Rank
Perceived opportunities	37.4	32/49
Perceived capabilities	53.3	16/49
Fear of failure	29.4	39/49
Entrepreneurial intentions	13.7	34/48

Activity

	Value	Rank
Total early-stage Entrepreneurial Activity (TEA)		
TEA 2018	12.1	19T/48
TEA 2017	11.8	24/54
TEA 2016	9.5	38/65
Established business ownership rate	4.6	38/48
Entrepreneurial Employee Activity – EEA	4.4	18/49

Motivational Index

	Value	Rank/48
Improvement-Driven Opportunity/Necessity Motive	1.8	28T

Gender Equality

	Value	Rank/48
Female/Male TEA Ratio	0.59	30T
Female/Male Opportunity Ratio	0.96	23T

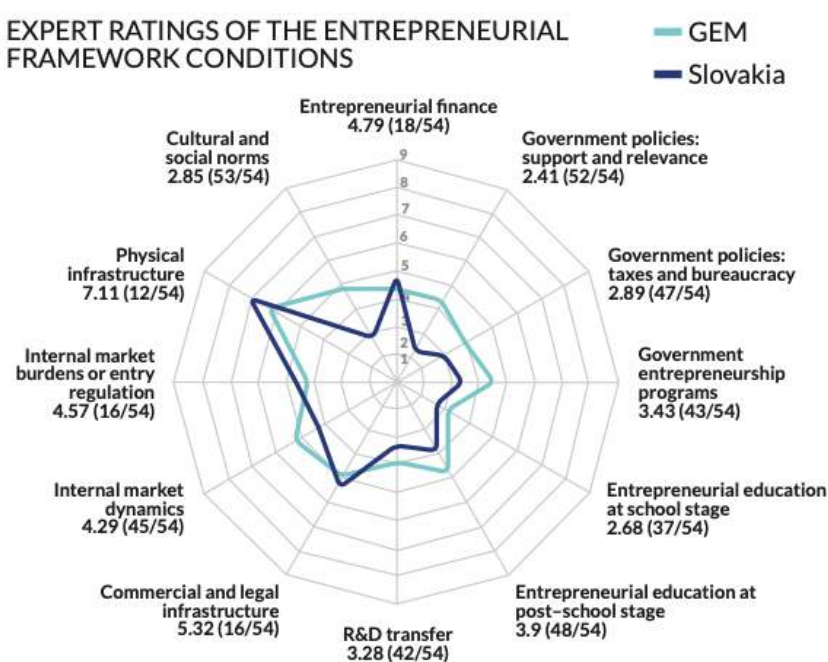
Entrepreneurship Impact

	Value	Rank/48
Job expectations (6+)	27.1	12
Innovation	22.0	32
Industry (% in Business Services Sector)	18.9	20

Societal Value About Entrepreneurship

	Value	Rank/47
High status to entrepreneurs	60.4	40
Entrepreneurship a good career choice	46.9	42

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



Source: GEM Global report 2018/19

EFCs scale: 1 = very inadequate insufficient status, 9 = very adequate sufficient status
Rank out of 54 recorded in brackets

Country Profiles

Slovenia



Population (2018): 2.1 million

GDP growth (2017, annual % change): 5.0%

GDP per Capita (2017; PPP, international \$): 34.5 thous.

World Bank Ease of Doing Business Rating (2018): 75.61/100; **Rank:** 40/190

World Bank Starting a Business Rating (2018): 92.88/100; **Rank:** 38/190

World Economic Forum Global Competitiveness Rank: 35/140

World Economic Forum Income Group Average: High

While the level of established entrepreneurs remains the same, the TEA index in 2018 compared to the previous year decreased from 6.85% to 6.37%, predominantly because of the drop in nascent entrepreneurs that declined from 4.02% in 2017 to 2.84%. However, the share of new entrepreneurs increased from 2.96% to 3.64%, meaning that the survival rate of entrepreneurial endeavors was higher than in the past.

The decline in the Slovenian TEA can be partly attributed to strong economic growth that reached 4.4% in 2018. Strong economic growth has increased the demand for labor and some areas already have labor shortages. In this environment individuals prefer less risky, well-paid jobs over uncertain business ventures. Even though the TEA decreased, the good news is that some important indicators have improved: perceived opportunities increased from 34.60% to 42.17%, entrepreneurship as a good career choice from 55.12% to 58.43%, high status to successful entrepreneurs from 73.42% to 75.78%, and media attention for entrepreneurship from 72.65% to 77.19%.

Source: GEM Global report 2018/19

Self-Perceptions About Entrepreneurship

	Value	Rank
Perceived opportunities	42.2	27/49
Perceived capabilities	51.0	22T/49
Fear of failure	32.0	31/49
Entrepreneurial intentions	15.3	28T/48

Activity

	Value	Rank
Total early-stage Entrepreneurial Activity (TEA)		
TEA 2018	6.4	38T/48
TEA 2017	6.9	45/54
TEA 2016	8.0	48/65
Established business ownership rate	6.8	25T/48
Entrepreneurial Employee Activity – EEA	5.9	13/49

Motivational Index

	Value	Rank/48
Improvement-Driven Opportunity/Necessity Motive	2.0	25

Gender Equality

	Value	Rank/48
Female/Male TEA Ratio	0.43	45
Female/Male Opportunity Ratio	0.86	35T

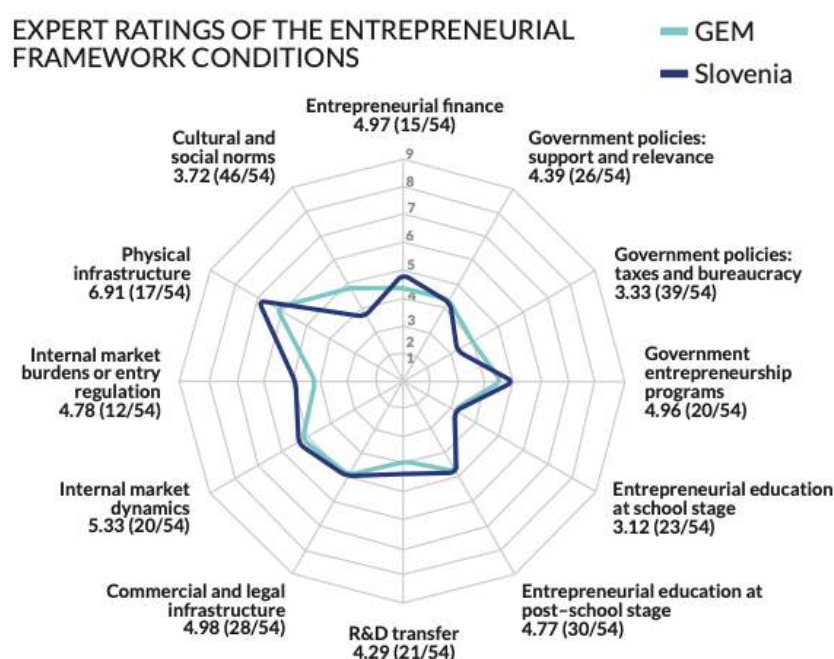
Entrepreneurship Impact

	Value	Rank/48
Job expectations (6+)	15.3	31T
Innovation	25.5	25
Industry (% in Business Services Sector)	32.4	3T

Societal Value About Entrepreneurship

	Value	Rank/47
High status to entrepreneurs	75.8	16
Entrepreneurship a good career choice	58.4	31

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



EFCs scale: 1 = very inadequate insufficient status, 9 = very adequate sufficient status
Rank out of 54 recorded in brackets

Country Profiles

United Kingdom



Population (2018): 66.1 million

GDP growth (2017, annual % change): 1.7%

GDP per Capita (2017; PPP, international \$): 44.3 thous.

World Bank Ease of Doing Business Rating (2018): 82.65/100; **Rank**: 9/190

World Bank Starting a Business Rating (2018): 94.58/100; **Rank**: 19/190

World Economic Forum Global Competitiveness Rank (2018): 8/140

World Economic Forum Income Group Average (2018): High

The UK TEA rate in 2018 was 8.2, very close to the TEA rate in 2017 (8.7) and in line with the country's average TEA rate since 2011.

The proportion of individuals who perceived opportunities for starting a business in their local area, at 44%, was also similar to the 2017 estimate of 43%. This maintenance of both opportunity perception and entrepreneurial activity is remarkable in the light of wider economic uncertainty in 2018 over Brexit.

Self-Perceptions About Entrepreneurship

	Value	Rank
Perceived opportunities	44.0	26/49
Perceived capabilities	46.6	29T/49
Fear of failure	37.7	17/49
Entrepreneurial intentions	7.2	42/48

Activity

	Value	Rank
Total early-stage Entrepreneurial Activity (TEA)		
TEA 2018	8.2	34/48
TEA 2017	8.4	40/54
TEA 2016	8.8	41/65
Established business ownership rate	6.4	29T/48
Entrepreneurial Employee Activity – EEA	7.3	5/49

Motivational Index

	Value	Rank/48
Improvement-Driven Opportunity/Necessity Motive	3.7	9

Gender Equality

	Value	Rank/48
Female/Male TEA Ratio	0.49	41
Female/Male Opportunity Ratio	0.94	26T

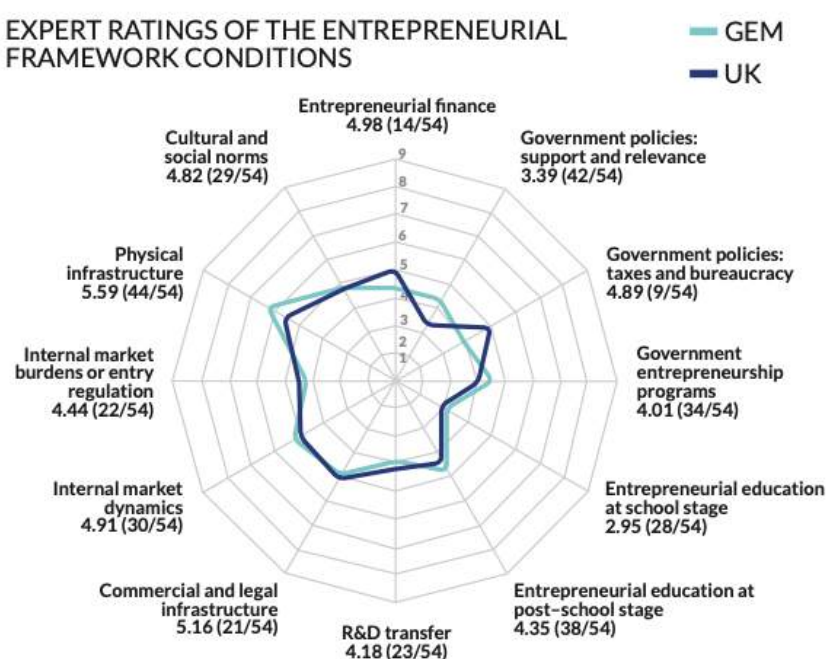
Entrepreneurship Impact

	Value	Rank/48
Job expectations (6+)	20.5	22
Innovation	21.6	34
Industry (% in Business Services Sector)	29.2	6

Societal Value About Entrepreneurship

	Value	Rank/47
High status to entrepreneurs	76.4	13T
Entrepreneurship a good career choice	56.1	33

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



Source: GEM Global report 2018/19

EFCs scale: 1 = very inadequate insufficient status, 9 = very adequate sufficient status
Rank out of 54 recorded in brackets

Country Profiles

United States



Population (2018): 325.9 million

GDP growth (2017, annual % change): 2.2%

GDP per Capita (2017; PPP, international \$): 59.8 thous.

World Bank Ease of Doing Business Rating (2018): 82.75/100; **Rank:** 8/190

World Bank Starting a Business Rating (2018): 91.23/100; **Rank:** 53/190

World Economic Forum Global Competitiveness Rank (2018): 1/140

World Economic Forum Income Group Average (2018): High

As of 2018, the U.S. economy had experienced the strongest recovery among all the OECD countries since the 2008-2010 financial crisis and had enjoyed one of its longest boom cycles since World War II. In fact, if the economy grows beyond the second quarter of 2019, it will break the record of its longest expansion cycle. All economy-wide indices have remained strong in the last two years: the growth rate has been over 2%, inflation has stayed below 2%, and consumer confidence has remained high. Based on these robust indices, it is not surprising that the TEA rate and the perceived opportunities rate reached 13.6% and 64% in 2017 and 15.7% and 69.8% in 2018.

Self-Perceptions About Entrepreneurship

	Value	Rank
Perceived opportunities	69.8	5/49
Perceived capabilities	55.6	13/49
Fear of failure	35.2	23/49
Entrepreneurial intentions	12.2	35/48

Activity

	Value	Rank
Total early-stage Entrepreneurial Activity (TEA)		
TEA 2018	15.6	13/48
TEA 2017	13.6	18/54
TEA 2016	12.6	24/65
Established business ownership rate	7.9	21/48
Entrepreneurial Employee Activity – EEA	8.0	3/49

Motivational Index

	Value	Rank/48
Improvement-Driven Opportunity/Necessity Motive	6.9	3

Gender Equality

	Value	Rank/48
Female/Male TEA Ratio	0.77	17
Female/Male Opportunity Ratio	0.92	30T

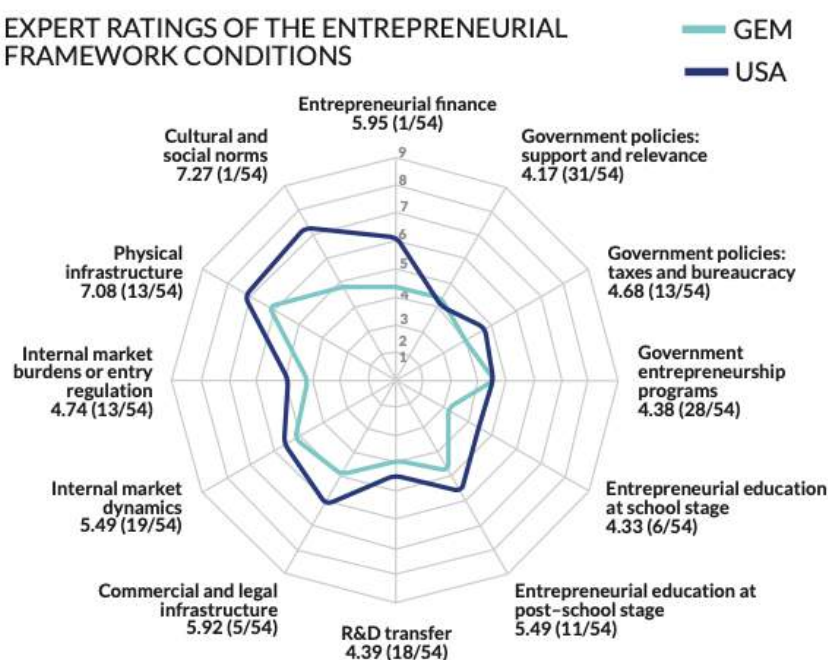
Entrepreneurship Impact

	Value	Rank/48
Job expectations (6+)	31.8	8
Innovation	34.0	10
Industry (% in Business Services Sector)	22.5	15

Societal Value About Entrepreneurship

	Value	Rank/47
High status to entrepreneurs	78.7	9
Entrepreneurship a good career choice	62.7	25

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



Source: GEM Global report 2018/19

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Rank out of 54 recorded in brackets

ANNEX 2 GEM COUNTRY TEAMS

Economy	Institution	National Team Members	Funders	APS Vendor	Contact
Angola	Sociedade Portuguesa de Inovação Universidade Católica de Angola	Augusto Medina Douglas Thompson Sérgio Ferreira Alves Francisco Rocha Daniela Coutinho Manuel Alves da Rocha	BFA – Banco de Fomento Angola, S.A.R.L.	Marktest Angola	augustomedina@spi.pt
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Austria	FH Joanneum GmbH - University of Applied Sciences	Christian Friedl Bernadette Frech Christoph Resei Rene Wenzel	Federal Ministry of Digital and Economic Affairs (BMDW) Federal Ministry of Transport, Innovation and Technology (BMVIT) Austrian Federal Economic Chamber (WKO) Federal Economic Chamber of Vienna (WKW) Austrian Council for Research and Technology Development (Rat FTE) Austrian Economic Service (AWS) Austrian Research Promotion Agency (FFG) Joanneum Research FH JOANNEUM - University of Applied Sciences	OGM	christian.friedl@fh-joanneum.at
Brazil	Instituto Brasileiro da Qualidade e Produtividade (IBQP)	Simara Greco Morlan Luigi Guimaraes Vinicius Larangeiras Anderson Luz Patrícia Aquila Patrícia Chepelski	Serviço Brasileiro de Apoio às Micro e Pequenas Empresas (SEBRAE)	Agrodata Pesquisas Ltda	simaragreco@yahoo.com.br
Bulgaria	GEM Bulgaria	Iskren Krusteff Veneta Andonova Mira Krusteff Svetozar Georgiev Petar Sharkov Malina Kroumova Milena Nikolova Iskra Yovkova Stela Gavrilova	JEREMIE Bulgaria InterCulture Foundation Inc. Iskren & Mira Krusteff Superhosting.bg	Market Test JSC	office@gemorg.bg
Canada	The Centre for Innovation Studies (THECIS)	Peter Josty Chad Saunders Etienne St-Jean Nathan Greidanus Karen Hughes Harvey Johnstone Adam Holbrook Brian Wixted Blair Winsor Horia El hallam Yves Bourgeois Kevin McKague Allison Ramsay Marc Duhamel Sandra Schillo Amanda Williams Richard Hawkins Charles Davis Chris Street Dave Valliere Howard Lin Murat Erogul Jacqueline S. Walsh	Futurpreneur Government of Alberta Government of Canada Government of Ontario Government of Quebec Ontario Centres of Excellence	Elemental Data Collection Inc.	p.josty@thecis.ca

Source: GEM Global report 2018/19

ANNEX 2 GEM COUNTRY TEAMS

Economy	Institution	National Team Members	Funders	APS Vendor	Contact
Chile	Universidad del Desarrollo	Vesna Mandakovic Tomas Serey	Telefónica Chile: Movistar Innova & Wayra SOFOFA (Federation of Chilean Industry) InnovaChile Corfo Ministerio de Economía	Questio, Estudios de Mercado y Opinión Limitada	vmandakovic@udd.cl
China	Tsinghua University	Jian Gao Rui Mu	Tuspark	Horizon Research Consultancy Group	mur@sem.tsinghua.edu.cn
Colombia	Pontificia Universidad Javeriana Cali Universidad del Norte Universidad Icesi Universidad EAN CECAR Universidad Cooperative de Colombia	Fernando Pereira Fabian Osorio Alberto Arias Liyis Gómez Sara Lopez Rodrigo Varela Villegas Francisco Matiz León Dario Parra Piedad Martinez Piedad Buelvas Javier Francisco Rueda Gustavo García Moises Galvis Maria Camila Franco Natalia Hernández Vargas Jhon Alexander Moreno Marcela Sacanamboy	Pontificia Universidad Javeriana Cali Universidad del Norte Universidad Icesi Universidad EAN Universidad Cooperative de Colombia CECAR	INFO Investigaciones S.A.S.	fpereira@javerianacali.edu.co
Croatia	J.J. Strossmayer University Osijek, Faculty of Economics	Slavica Singer Nataša Šarlija Sanja Pfeifer Suncica Oberman Peterka	Ministry of Economy, Entrepreneurship and Crafts CEPOR SME & Entrepreneurship Policy Centre J.J. Strossmayer University in Osijek, Faculty of Economics Croatian Banking Association	Puls d.o.o., Zagreb	singer@efos.hr
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Dominican Republic	Dirección de Desarrollo Estadístico Ministerio de Industria Comercio y Mipymes Barna Management School	Luis Madera Aura Madera Alan Fernández José Checo Ivette Cáceres	Ministerio de Industria Comercio y Mipymes (MICM)	Dirección de Desarrollo Estadístico	luismaderasued@gmail.com
Egypt	The American University in Cairo - School of Business	Ayman Ismail Ahmed Tolba Seham Ghalwash Hakim Meshreki	The American University in Cairo - School of Business Oxfam's Youth Participation and Employment Program under the Danish Arab Partnership Program	PHI KNOWLEDGE	aymanism@aucegypt.edu
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Germany	Institute of Economic and Cultural Geography, Leibniz Universität Hannover RKW Kompetenzzentrum	Rolf Sternberg Johannes von Bloh Matthias Wallisch Natalia Gorynia-Pfeffer Armin Baharian	RKW Kompetenzzentrum	Umfragezentrum Bonn	sternberg@wigeo.uni-hannover.de
Greece	Foundation for Economic & Industrial Research (IOBE)	Aggelos Tsakanikas Sofia Stavraki Evangelia Valavanioti	Aegean Airlines S.A.	Datapower SA	atsakanikas@iobe.gr

Source: GEM Global report 2018/19

ANNEX 2 GEM COUNTRY TEAMS

Economy	Institution	National Team Members	Funders	APS Vendor	Contact
Guatemala	Universidad Francisco Marroquin	Mónica Río Nevado de Zelaya Maria Lucrecia Monge Jershem David Casasola Carolina Uribe	Francisco Marroquín University - UFM	Khanti Consulting	zelaya@ufm.edu
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Indonesia	UNPAR - Parahyangan Catholic University, Bandung, Indonesia	Gandhi Pawitan Catharina Badra Nawangpalupi Maria Widyarini Agus Gunawan Triyana Iskandarsyah	UNPAR - Universitas Katolik Parahyangan, Indonesia Higher Education Directorate General, Republic of Indonesia Center of Excellence in Small and Medium Enterprise Development - CoE-SMED	PT Idekami Indonesia	gandhip08@gmail.com
Iran	University of Tehran	Leyla Sarafranz Jahangir Yadollahi Farsi Mohammad Reza Zali	Labour Social Security Institute (LSSI)	Faculty of Entrepreneurship	lsarfaraz@gmail.com
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Israel	The Ira Centre for Business Technology and Society, Ben Gurion University of the Negev	Ehud Menipaz Yoash Avrahami	The Ira Foundation for Business Technology and Society, Ben Gurion University of the Negev The Ministry of the Economy and Industry, Government of Israel	Brandman Institute	ehudm@bgu.ac.il
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Kazakhstan	Nazarbayev University Graduate School of Business	Patrick Duparcq Venkat Subramanian Dmitry Khanin Assel Uvaliyeva Yerken Turganbayev Bakyt Ospanova Nurlan Kulbatyrov Saltanat Yunussova Danna Gafyatullina Zhanna Yerubayeva	Nazarbayev University Graduate School of Business Economic Research Institute JSC	Economic Research Institute JSC	patrick.duparcq@nu.edu.kz
Latvia	Stockholm School of Economics in Riga (SSE Riga) Baltic International Centre for Economic Policy Studies (BICEPS)	Marija Krumina Anders Paalzow	Stockholm School of Economics in Riga (SSE Riga)	SKDS	marija@biceps.org
Lebanon	UK Lebanon Tech Hub	Stephen Hill Abier Annan Lama Zaher	UK Lebanon Tech Hub	Information International	stephen.hill@uklehub.com

Source: GEM Global report 2018/19

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Economy	Institution	National Team Members	Funders	APS Vendor	Contact
Luxembourg	STATEC Research	Cesare Riillo Chiara Peroni	STATEC Research STATEC (National Institute of Statistics and Economic Studies of the Grand Duchy of Luxembourg) Chambre de Commerce Luxembourg House of Entrepreneurship Ministère de l'Économie	TNS ILRES	Cesare.Riillo@statec.etat.lu
Madagascar	Institut National Des Sciences Comptables et de l'Administration d'Entreprises	Claudine Ratsimbazafy Félix Rasoloarijaona Oly Harimino Rakoto Ida Rajaonera Faly Rakotomanana Mamy Tiana Rasolofoson Paul Gilde Ralandison Rasolonjatovo Andriamahery Ferdinand	International Development Research Centre (IDRC)	INSTAT	cratsimbazafy@gmail.com
Mexico	Instituto Tecnológico y de Estudios Superiores de Monterrey	Hugo Garza Medina José Ernesto Amorós Marcia Campos Elvira Naranjo Natzin López José Manuel Aguirre Rafaela Bueckmann Diegoli Ján Rehák Patricia Alonso Lucía Rodríguez Aceves Edgar Muñiz Ávila Francisco Lezama Pacheco Iñaki Ortega Chacón Jesús Patiño Silva Francisco Sainz de Murieta Irene de la Torre Cuéllar Carlos Álvarez E. Lavandeira	Instituto de Emprendimiento Eugenio Garza Lagüera (Tecnológico de Monterrey) Instituto Yucateco de Emprendedores	n/a	jmaguirre@itesm.mx
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Netherlands	Panteia	Jacqueline Snijders Amber van der Graaf Paul van der Zijden Jan de Kok Ton Geerts	The Ministry of Economic Affairs and Climate Policy of the Netherlands	Panteia	j.snijders@panteia.nl
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Source: GEM Global report 2018/19

ANNEX 2 GEM COUNTRY TEAMS

Economy	Institution	National Team Members	Funders	APS Vendor	Contact
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Qatar	Qatar Development Bank	Farha Alkuwari Ahmad Hawi Maha Alsulaiti	Qatar Development Bank	IPSOS	falkuwari@qdb.qa
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Russia	Graduate School of Management SPbU	Verkhovskaya Olga Karina Bogatyreva Eleonora Shmeleva Dmitrii Knatko Maria Dorokhina	Sberbank of Russia	Levada-Center	verkhovskaya@gsom.spbu.ru
Saudi Arabia	Prince Mohammad Bin Salman College (MBSC) of Business & Entrepreneurship The Babson Global Center for Entrepreneurial Leadership (BGCEL) at MBSC	Amal Dokhan Muhammad Azam Roomi Alicia Coduras Osama M. Ashri	Lockheed Martin Corporation The Babson Global Center for Entrepreneurial Leadership (BGCEL) at MBSC	Top Level Mena monitored by Opinometre Institute LLS	adokhan@babson.edu
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Source: GEM Global report 2018/19

ANNEX 2 GEM COUNTRY TEAMS

Economy	Institution	National Team Members	Funders	APS Vendor	Contact
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Regional Teams	Institution	Director			
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Aragón	Universidad de Zaragoza	Lucio Fuentelsaz Lamata			
Asturias	Univesidad de Oviedo	Beatriz Junquera Cimadevilla			
Baleares	Universitat de les Illes Balears	Julio Batle Lorente			
Canarias	Universidad de Las Palmas de Gran Canaria	Rosa M. Batista Canino			
Cantabria	Universidad de Cantabria	Ana Fernández-Laviada			
Castilla y León	Grupo de Investigación en Dirección de Empresas (GIDE), Universidad de León	Mariano Nieto Antolín Nuria González Álvarez			
Castilla La Mancha	Universidad de Castilla La Mancha	Juan José Jiménez Moreno			
Cataluña	Institut d'Estudis Regionals i Metropolitans	Carlos Guallarte Nuez			
Ceuta	Universidad de Granada	Lázaro Rodríguez Ariza			
Comunidad Valenciana	Universidad Miguel Hernández de Elche	José María Gómez Gras Ignacio Mira Solves			
Extremadura	Fundación Xavier de Salas-Universidad de Extremadura	Ricardo Hernández Mogollón J. Carlos Díaz Casero			
Galicia	Universidad de Santiago de Compostela	Loreto Fernández Fernández Isabel Neira Gómez			
La Rioja	Ricari Desarrollo de Inversiones Riojanas Universidad de la Rioja	Luís Ruano Marrón Ruben Fernandez Ortiz			
Madrid	Centro de Iniciativas Emprendedoras (CIADE), Universidad Autónoma de Madrid	Isidro de Pablo López			
Melilla	Universidad de Granada	María del Mar Fuentes Fuentes			
Murcia	Universidad de Murcia	Antonio Aragón Sánchez Alicia Rubio Bañón			
Navarra	Universidad Pública de Navarra	Ignacio Contín Pilart Martin Larraza Quintana			
País Vasco	Universidad del País Vasco Deusto Business School	María Saiz Santos José L. González-Pernía			
Sudan	Ahfad University for Women (Leading Institution) Impact Hub Khartoum Innovation and Entrepreneurship Community (IEC)	Widad Ali A/Rahman Amira Kamil Ibrahim Nuha Hassan Almubasher Altaiyb Khalid Mohamed Ali Lena Mahgoub Mohamed Osman Alsaeed Mahjoub Mutaz Mohamed Nour Moneera Yassin Project Consultant: Midaht Abdel- Magied	ENABLE Youth Sudan Program - financed by African Development Bank (AfDB)	MOEEN ICT	Widadali01@live.com
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Source: GEM Global report 2018/19

ANNEX 2 GEM COUNTRY TEAMS

Economy	Institution	National Team Members	Funders	APS Vendor	Contact
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Source: GEM Global report 2018/19

Annex 3 National Expert Survey participants

NES 2017

Alena Palasheva, Business Development - Plovdiv Municipality

Alexander Mihaylov, CEO - Betahaus

Andrey Novakov, Member of Parliament - European Parliament

Asen Aleksandrov, Director - 51 School Sofia

Atanas Raykov, Business Development, Viber

Boyko Vasilev, Bulgarian National Television

Boyko Vuchev, Pravetz Computers

Donka Dimitrova, Managing Partner - Lawyers „Dimitrova, Staykova and partners

Genoveva Bakardjieva, Executive Director – Bulgarian HR Association

Ivaylo Hristov, Founder, DEV.BG

Jeliaz Enev, Ministry of Economy

Julian Popov, Energy expert - independent

Kalin Marinov, Ministry of Economy

Lubomir Minchev, CEO - Telelink

Lubomir Stanislavov, Automotive Cluster Bulgaria

Marieta Todorova, Official - EU DG GROWTH

Marin Hristov, Head of RD - Sofia Tech Park

Martin Danovski, Fund of the funds

Mihaela Belouhova, Scientist, entrepreneur

Milen Baltov, Burgas Free University

Milena Nikolova, Professor, AUBG

Nadia Sultanova, Invest Sofia

Nikolay Nedelchev, Country CEO - Pulicis Group

Petar Ganev, Institute for Market Economics

Petko Petkov, Founder - ZaraLab

Radoslav Kardjiev, CEO - ICON. Ltd.

Rumyana Peycheva, Manager - RP Partners

Stoyan Stavrev, Bulgarian Consultancy Organization

Strahil Karapchanski, Strahil Karapchanski

Teodor Sedlarski, Dean, Sofia University, ex-minister of economy

Todor Breshkov, Partner - Launchub

Todor Gigilev, CEO, Dreamix

Venetsa Netsova, ABLE Bulgaria

Vladimir Indzhov, Area Manager - Booking.com

Vladimir Sirkarov, Journalist, Bloomberg

Zlatin Sarastov, Senior Partner – Benefin

NES 2018

Adelina Kioseva, Ministry of Economy

Adriana Popova, Founder A Data Pro

Andrey Bachvarov, Founder BICA international recruitment agency

Anna Dimitrova, Team Leader EVN Bulgaria

Assen Vassilev, Managing Director CTW Consulting

Belizar Marinov, Eleven Ventures

Bilyana Gyaurova-Wegertseder, Director Institute for Legal Initiatives

Bistra Ivanova, Founder of Multi culti, social entrepreneur

Boris Christov, Founder 365Labs

Borislav Boyanov, Managing partner, Boyanov & Co (lawyer)

Borislava Yankova, Advisory Consultant, PwC Bulgaria

Daniel Lorer, Managing partner, BrightCap Ventures

Dimitar Dimitrov, Founder of Tickey

Dobrin Ganchev, Professor in entrepreneurship, Gabrovo University

Dragomir Belchev, Financial Director, Economic Policy Institute

Emil Shekerdijiski, Founder Blockchain Academy

Evgeni Angelov, Chairman Bulgarian VC Association

George Chisuse, Lawyer

Ivaylo Mirchev, CEO of ProSmart

Ivelina Strateva, Director of Section Commercial activities, Bourgas municipality

Kassen Stanchev, Professor Sofia University, Founder Institute for Market Economics

Kostadin Kostadinov, Professor, Former deputy minister of education and science

Leona Aslanova, Founder at Innovation Starter & Innovation Explorer Bulgaria

Maria Todorova, Director for Vocational Education and Training and Lifelong Learning, Ministry of Education

Mariela Ilieva, Accountant, Founder of Saldo.bg

Maya Doneva, Social entrepreneur

Mila Grigorova, Co-founder and vice-president of Start it smart, Co-Founder of The house

Natanail Stefanov, Vice Chairman Sofia Tech Park, Board member of Bulgarian startup association

Nikola Aleksiev, Founder at Advanced Oil Solutions

Nikola Yanev, Marketing Director, Eleven Ventures

Nikolay Stoyanov, Journalist and editor, Capital daily

Pavlin Dobrev, Research and Development Manager at Bosch Software Innovations

Petar Sharkov, Founder of Start it Smart, Board member

Radoslav Russev, Water & Agri Sector

Svetoslava Georgieva, Executive Director and Board member Fund Manager of Financial Instruments in Bulgaria

Theodora Ivanova-Valeva, Co-Founder and Chairperson at Impact Drive Foundation

Tihomira Palova, Senior expert, Innovation and Entrepreneurship Section, Ministry of Economy

Vasil Atanasov, CEO at Rapido Express and logistics

Veselin Georgiev, Trainer, entrepreneur

Vladimir Pulkov, Professor, Technical University, ICT cluster

Annex 4 GEM Bulgaria past reports' National Experts Surveys recommendations

GEM Bulgaria 2015/16 report

National institutions for a successful entrepreneurial ecosystem

1. An urgent implementation of electronic government to reduce opportunities for corruption and effective jail time for corruption by public officials.
2. Allow for extrajudicial conflict resolution mechanisms, such as mediation and arbitration, in order to avoid using the judicial system. According to national experts, the judicial system needs deep reform and better accountability.
3. Introducing regular reviews and establishing a practice of competency checks upon hiring public officials; ongoing assessment of competencies supported by training or even making redundant incompetent civil servants is seen as a much-needed step toward creating a service-oriented public administration.
4. Imprinting a service-oriented culture in the public administration is seen as a burning need. The administration must support private initiative within the boundaries of the law. A preliminary step is making the entrepreneurial culture better understood and accepted, and consequently, better supported by public servants.
5. Stimulate innovation by public institutions and create a strict system for impact measurement of public entities to quantify their role in the entrepreneurial success of Bulgarian businesses.
6. Transparent and efficient mechanisms for impact assessment of proposed public programs and instruments about all aspects of entrepreneurship.
7. Expand the role of public-private partnerships while building in guarantees that corruption practices will be prosecuted.
8. Support regional clusters and programs to stimulate entrepreneurship across the national territory will enable the grass-root creation of more widespread entrepreneurial activity. It would lead to increased job creation and economic growth for the local communities.
9. Liberalization of the electricity sector is pending and will solve one of the most critical pains for Bulgarian businesses. The electricity bills represent a considerable share of the spending

for many companies, and the reluctance and failure of Bulgarian governments to establish some degree of competition on the market has been draining the competitiveness of the economy for decades.

10. Transparent government purchases are seen as an effective instrument to stimulate entrepreneurship and national industry.
11. Media coverage and recognition by the government of truly successful entrepreneurial ventures is considered as a soft but necessary mechanism to encourage entrepreneurial culture.
12. Change some specific administrative arrangements that have a very important impact on the cost of engaging in entrepreneurial efforts, such as the level of registration for VAT, or a joint-stock company

Education and training

13. Creating a widespread culture of entrepreneurship requires a broad base of well-trained entrepreneurs. This can only be achieved through a considerable effort in the formal, nonformal and informal educational environments, and national experts have a number of ideas about the best way to achieve this.
14. Activities that educate entrepreneurial mindset and skillset can be introduced as early as elementary school level.
15. Entrepreneurial role models need to enter middle and high schools, where students need to undertake a large number of hands-on projects and initiatives.
16. The education must be more market-oriented, and those in charge of educational policies and educational management and regulation understand the market needs, have a very clear map of skills deficiencies – both for knowledge-intensive industries and low tech. For example, specific measures might include strengthening the STEM (science, technology, engineering, math) disciplines and dual education.
17. Provision of training and complimentary assessment of high-school graduates and university students in soft skills, among which entrepreneurial mindset has to be covered.

18. Enable and promote collaboration between public, private and non-profit sectors to introduce sooner and more efficiently new educational tools (new as not used currently), methods and hands-on experiences that are closely related to forming an entrepreneurial mindset – less rigid rules for experimentation with new tools and methods.
19. Facilitate the hiring of foreigners through a special provision for companies that cannot find local talent, as the Bulgarian educational system coupled with an ongoing process of youth emigration is draining the talent pool of workers with requested skills. The inability to find local talent does impact the growth of companies.

Mentorship and business support

20. Introduce specific support programs for high-growth companies as these are also high-impact companies and have the potential to generate the highest economic value-added in their local environment.
21. Special programs for entrepreneurs 55+-year-old, as they have a different skill set and different motivation but could contribute to economic growth if eager to engage in entrepreneurial efforts.
22. Generate learning opportunities for active entrepreneurs and allow them to learn best practices and engage in opportunities to exchange experience with foreign entrepreneurs. Among the most critical skills that Bulgarian entrepreneurs need to master are those related to the identification of foreign

markets and building a product-market match with foreign partners.

23. Capitalizing on the R&D potential of entities, such as the Bulgarian Academy of Sciences, by linking them to business opportunities. The focus of this effort can be on existing technologies and the optimization of their market potential, as this is more cost-effective than undertaking new fundamental research. Academic entrepreneurship presents another opportunity to capitalize on advanced R&D.
24. Provide mentorship and support for international patent protection.

Access to finance

25. Stimulate market-based financial instruments and avoid over-reliance on grants, even though their role has been enormous for the inception of an entrepreneurship community in Sofia.
26. Introduce sector-specific grants and actively develop instruments for impact assessment.
27. Where grants or other public (including EU) funds are used, flexibility to fund based on project potential as a whole (patents, paying customers, etc.) rather than solely on assuring project execution.
28. Better collaboration with professional business organizations on topics important for entrepreneurship, including finance.
29. A methodology and instruments for assessing the assets of software companies are needed to get access to loans, investment, and grants.
30. Establish a special regulatory regime for high-risk financing and recognize its role in stimulating R&D activity.

GEM Bulgaria 2016/17 report

Summarizing the findings: Recommendations for policy and practice

1. Crafting of a national strategy for the development of entrepreneurship with explicit goals and transparent financing overseen by an independent agency with an institutional design that 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 maturing of the 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 involving a technological transfer.

4. Transparent government purchases are marked as an effective instrument to stimulate entrepreneurship.
5. 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.
6. 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.
7. Change some specific administrative arrangements that significantly impact the cost of engaging in entrepreneurial efforts such as labor-related tax obligations. Besides, crafting more flexible labor regulations regarding the new forms of employment such as teleworking is essential for developing a bubbling entrepreneurial ecosystem.
 8. 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
 9. 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.
 10. 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.
 11. 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 developing of a bubbling entrepreneurial ecosystem.
 12. 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 international patent protection and create stimuli for mentorship on the part of advanced businesses.
 13. Private entities can manage government initiatives for technology transfer and technological parks through long-term public-private partnerships to eliminate political interference.
 14. Stimulate market-based financial instruments and avoid political interference in grants management.
 15. Better collaboration with professional business organisations on topics essential for entrepreneurship, including finance.
 16. A methodology and instruments assessing of the assets of software companies are needed to get access to loans, investment and grants.
 17. Establish a special regulatory regime for high-risk financing and recognize its role in stimulating
 18. 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.

The role of the media in forming entrepreneurial intentions and behaviour

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.

REFERENCES

- Andonova**, Veneta and Milena Nikolova, "Universities & Entrepreneurship. Why universities are important members of the start-up ecosystem". Presentation in Sofia, 2015.
- Andonova, Veneta and Mira Krusteff**. 2015/16 GEM National report on entrepreneurship in Bulgaria: Baseline of the Bulgarian entrepreneurship ecosystem. Global Entrepreneurship Monitor Bulgaria Association, 2016.
- Andonova**, Veneta and Mira Krusteff. 2016/17 GEM National report on entrepreneurship in Bulgaria. Global Entrepreneurship Monitor Bulgaria Association, 2017.
- Andonova**, Veneta, Milena Nikolova, and Dilyan Dimitrov. Entrepreneurial Ecosystems in Unexpected Places: Examining the Success Factors of Regional Entrepreneurship. Basingstoke, Palgrave Macmillan, 2019.
- Angelov**, Evgeni. "Funding Entrepreneurs". Presentation at Bulgarian Venture Capital Association, Vienna, May 31, 2017. Shared in communication with the author.
- Atomico**. The State of European Tech 2018. London: Atomico, 2018.
- Beeka**, B., and Doo Beeka. "Entrepreneurship Career Centre." Entrepreneurship Career Centre (blog), September 6, 2016.
<http://entrepreneurshipcareercentre.org/blog/importance-of-youth-entrepreneurship>.
- Bieber**, Florian and Marko Kmezic, Balkans in Europe Advisory Group. "Media freedom in the Western Balkans. Background paper at Vienna Western Balkans Summit 2015, Vienna, Austria, August 27, 2015, accessed January 20, 2018, <http://www.biepag.eu/wp-content/uploads/2016/10/BIEPAG-Media-Freedom-in-the-Western-Balkans.pdf>.
- Bohanes**, Michal. "Albanian entrepreneurs: For heaven's sake, leave your entitlement at the door!" Oficina Blog (blog). 2017, accessed July 25, 2017.
<http://www.oficina.al/albanian-entrepreneurs-for-heavens-sake-leave-your-entitlement-at-the-door/>
- Brogi**, Elda, Alina Dobрева, and Pier Luigi Parcu. Directorate-General for External Policies of the Union, Directorate B, Policy Department. Freedom of Media in the Western Balkans. Brussels, Belgium, 2014, accessed November 9, 2017.
[http://www.europarl.europa.eu/RegData/etudes/STUD/2014/534982/EXPO_STU\(2014\)534982_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2014/534982/EXPO_STU(2014)534982_EN.pdf).
- Central Intelligence Agency**. "Bulgaria, People, and Society: Age Structure." The World Factbook, accessed 2017. <https://www.cia.gov/library/publications/the-world-factbook/geos/bu.html>.
- Cheung**, Chi-Kim and Yuk Che Regina Chan. "The Introduction of Entrepreneurship Education to School Leavers in a Vocational Institute." International Journal of Scientific Research in Education (IJSRE), Vol. 4(1) (March 2011): 8-16
- Cornell University**, INSEAD, and WIPO. Analysis: Explore the interactive database of the Global Innovation Index 2018 indicators. Cornell University, INSEAD, and WIPO, 2018.
- Cornell University**, INSEAD, and WIPO. Analysis: Explore the interactive database of the Global Innovation Index 2019 indicators. Cornell University, INSEAD, and WIPO, 2019.
<https://www.globalinnovationindex.org/analysis-indicator>.
- De Munter**, André. "The Western Balkans: Current status." European Parliament, April, 2019, accessed November 12, 2019.
<https://www.europarl.europa.eu/factsheets/en/sheet/168/the-western-balkans>.
- Dealroom.co**. "The state of the Bulgarian tech ecosystem". Presentation at DigitalK, May 31, 2019.
- DW**. "Youth are deserting Balkan countries." Deutsche Welle, December 23, 2016, accessed January 26, 2018.
<https://www.dw.com/en/youth-are-deserting-balkan-countries/a-36891266>.
- European Commission**. Small Business Act Factsheet, Bulgaria. 2019
- Eurostat** – European Commission. Entrepreneurship determinants: Culture and capabilities. Brussels, Belgium, 2012, accessed June 2, 2018.
<https://ec.europa.eu/eurostat/documents/3217494/5748437/KS-31-12-758-EN.PDF>.
- Ezekiev**, Pavel. "The \$5 billion CEE exits lead table." Neo Ventures (blog). August 6, 2017. Accessed February 15, 2018. <https://neoventures.net/2017/08/06/5-bn-lead-table-cee-rising-in-technology/>.
- Global Entrepreneurship Research Association (GERA)**. Global Entrepreneurship Monitor: 2016/2017 Global Report. GERA, 2017.
- Global Entrepreneurship Research Association (GERA)**. Global Entrepreneurship Monitor: 2017/2018 Global Report. GERA, 2018.
- Global Entrepreneurship Research Association (GERA)**. Global Entrepreneurship Monitor: 2018/2019 Global Report. GERA, 2019.
- Guerrini**, Federico. "Is Sofia the real digital Capital of the New Markets?" Forbes, April 14, 2016, accessed February 24, 2018.
<https://www.forbes.com/sites/federicoguerrini/2016/04/14/>

[is-sofia-bulgaria-the-real-digital-capital-of-the-new-markets/#f152d1b7bbfd](#).

Herrington, Mike and Penny Kew. An Ibero-American Perspective on Youth Entrepreneurship. Global Entrepreneurship Monitor, Special Topic Reports, 2016.

Hope, Kerin. "Bulgaria battles to stop its brain drain" FT, January 10, 2018, accessed March 3, 2018. <https://www.ft.com/content/51f1bd86-d6cc-11e7-ae3e-563c04c5339a>

Izvorski, Ivailo. "The Three Transitions of the Western Balkans." The World Bank Blog (blog). March 10, 2015, accessed April 19, 2017. <http://blogs.worldbank.org/developmenttalk/three-transitions-western-balkans>.

Lus Laboris, The Gig economy. Accessed November 12, 2019. https://iuslaboris-assets.s3.amazonaws.com/media/filer_public/9f/d5/9fd5b984-cb21-42fb-8445-cb0a28eedc2a/iuslaboris_the_byword_the_gig_economy_web.pdf

Mazarakis, Anna and Alyson Shontell. "The founders of Robinhood, a no-fee stock trading app, were initially rejected by 75 venture capitalists – now their startup is worth \$1.3 billion." Business Insider, July 6, 2017. <https://www.businessinsider.com/robinhood-app-vlad-tenev-founder-free-stock-trading-valuation-2017-7>.

Miller, Ron., Progress Software Buys Telerik for \$262.5M As Buying Spree Continues, TechCrunch, October 22, 2014. Accessed at November 12, 2019. <https://techcrunch.com/2014/10/22/progress-software-buys-telerik-for-262-5m-as-buying-spree-continues/>

National Statistical Institute. Annual data per sectors. Accessed November 12, 2019. <https://www.nsi.bg/bg/content/17703/годишни-данни-по-икономически-дейности>

O'Brien, Chris. "Bulgaria rising: Can a growing startup movement reinvent the country's economy?" Venturebeat, March 23, 2018, accessed May 19, 2018. <https://venturebeat.com/2018/03/23/bulgaria-rising-can-a-growing-startup-movement-reinvent-the-countrys-economy/>.

OECD. Gross domestic spending on R&D. OECD, 2017, accessed November 12, 2019. <https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm>.

Piasna, Agnieszka and Drahokoupil, Jan, Digital labour in central and eastern Europe: evidence from the ETUI Internet and Platform Work Survey. Accessed November 12, 2019. <https://www.etui.org/node/3149112>.

Porter, Michael, Jeffrey Sachs, and John McArthur. Global Competitiveness Report. Geneva: World Economic Forum, 2001: 16-25.

Salkever, Alex. "Data: Best programming talent in the world is not in California" Venturebeat, April 5, 2015, accessed May 19, 2018.

<https://venturebeat.com/2015/04/05/data-best-programming-talent-in-the-world-is-not-in-california/>.

The Guardian Editorial. "The Guardian view on the EU and migration: let's stop the Balkans being part of the problem." The Guardian, August 27, 2015, accessed June 22, 2017. <https://www.theguardian.com/commentisfree/2015/aug/27/the-guardian-view-on-the-eu-and-migration-lets-stop-the-balkans-being-part-of-the-problem>.

The World Bank. Research and development expenditure (% of GDP). The World Bank, 2016. https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS?locations=EU&name_desc=false.

Trading Economics A. Croatia – Youth Unemployment Rate – Q4 2019. Trading Economics, 2019, accessed November 12, 2019. <https://tradingeconomics.com/croatia/youth-unemployment-rate>.

Trading Economics B. Kosovo – Youth Unemployment Rate – Q4 2019. Trading Economics, 2019, accessed November 12, 2019. <https://tradingeconomics.com/kosovo/youth-unemployment-rate>.

Tsai, Kuen-Hung, Hui-Chen Chang, and Chen-Yi Peng. "Refining the linkage between perceived capability and entrepreneurial intention: roles of perceived opportunity, fear of failure, and gender." International Entrepreneurship and Management Journal, Vol. 12 (4) (December 2016): 1127. <https://doi.org/10.1007/s11365-016-0383-x>.

Turković, Ivana and Vulić, Lucija. "Mostly false: youth unemployment rate in Croatia decreased by more than half due to government policies". EU Factcheck.eu, May 13, 2019, accessed November 12, 2019. <https://eufactcheck.eu/factcheck/mostly-false-youth-unemployment-rate-in-croatia-decreased-by-more-than-half-because-of-government-policies/>.

UNESCO Institute for Statistics. How much does your country invest in R&D? UNESCO, Institute for Statistics, 2017, accessed November 12, 2019. <http://uis.unesco.org/apps/visualisations/research-and-development-spending/>.

World Economic Forum. Global Competitiveness Report, Geneva. 2019.

Zeneli, Valbona. "Migration, Brain Drain and the Western Balkans: What must be done to make life attractive enough at home to not see everyone go abroad?" The Globalist, July 27, 2017, accessed February 11, 2018. <https://www.theglobalist.com/european-union-migration-brain-drain-and-the-western-balkans/>.

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