

2016

GLOBAL ENTREPRENEURSHIP MONITOR

Poland

Anna Tarnawa
Dorota Węclawska
Paulina Zadura-Lichota
Przemysław Zbierowski



POLAND



**Report on Global Entrepreneurship Monitor
– Poland 2015**

WARSAW 2016

Report on Global Entrepreneurship Monitor – Poland 2015

Authors:

Anna Tarnawa (PARP) – Chapter 2, 6

Dorota Węclawska (PARP) – Chapters 4, 5

Paulina Zadura-Lichota (PARP) – Chapter 2

Professor Przemysław Zbierowski, PhD (University of Economics in Katowice) – Chapters 1, 2, 3

Editors: Anna Tarnawa, Dorota Węclawska

Proofreading: Lercher Translations Aleksandra Lercher-Szymańska

Design: Rajmund Rajchel

Printing house: Omikron sp. z o.o .

© Copyright by Polska Agencja Rozwoju Przedsiębiorczości

The report was prepared on the basis of data from the 2011–2015 GEM study, conducted by the Global Entrepreneurship Research Association in cooperation with national teams.

The Polish team consists of the Polish Agency for Enterprise Development (PARP) and the University of Economics in Katowice.

ISBN 978-83-7633-310-6

Edition I

Circulation: 400 copies

Warsaw 2016

Spis treści

Introduction	7
Executive summary	9
1. About the GEM study	13
1.1. GEM models.....	13
1.2. Indicators of entrepreneurship in GEM.....	16
1.3. Research within GEM.....	17
2. Entrepreneurship in Poland – results of the adult population survey (APS)	19
2.1. Social perception of entrepreneurship in Poland	19
2.2. Entrepreneurial attitudes of Poles	22
2.3. Level of entrepreneurship	25
2.4. Motivations to start a business activity.....	29
2.5. Business activity by sector.....	32
2.6. Growth aspirations.....	34
2.7. Internationalisation.....	36
2.8. Innovativeness of enterprises	38
2.9. Entrepreneurship of men and women	40
2.10. Intrapreneurship.....	46
3. Startups in Poland	51
3.1. Background and methodological assumptions	51
3.2. Main attributes of startups.....	51
3.3. Motivations and aspirations of new technology entrepreneurs.....	54
3.4. Sectors of startup activity.....	56
3.5. Entrepreneurship of startup owners.....	58
4. Financing a new business activity: the perspectives of an entrepreneur and informal investors .	61
4.1. Introduction	61
4.2. Financing of the beginning of activities.....	62
4.3. Informal investors	64
5. Determinants of entrepreneurship.....	69
6. Summary	73
7. Bibliography	79

Dear Readers,

on the grounds of the newest **Report on Global Entrepreneurship Monitor – Poland**, elaborated by the Polish Agency for Enterprise Development (PARP) in cooperation with the University of Economics in Katowice, two major conclusions can be drawn – the Poles boast high entrepreneurial skills and are more than willing to set up businesses, however, the conditions for starting-up and developing a new business activity in Poland still require improvement.

Business in Poland has an enormous capacity to grow, which is confirmed by the analysis of selected social attitudes and the percentage of those who plan to set up a new business. More than a half of our society regards the entrepreneurship as a highly positive phenomenon. Every fifth person is planning to set up their own business within the next three years, whereas the European ratio is one in eight. Contrary to the widespread opinion, the Poles, when asked about their motives for starting up a business, more frequently pointed to a big chance or an opportunity than to the necessity resulting from the lack of a satisfying job.

The report highly favourably evaluates the startups, i.e. the firms that make use of new technologies and that have been operating on the market for a period no longer than 3.5 years. These companies are mainly run by young people, whose average age is 34 (with a high percentage of 18-24 year-olds). By comparison, average age in the group of traditional company owners is 38 years (with the prevalence of persons between 35 and 54 years of age). The startup owners more frequently than the owners of other newly established companies rely on a business opportunity while setting up a new business rather than on sheer necessity. The startups more often operate in the B2B area, which points to a greater maturity and innovativeness of the market. The activity of this group of companies shows that Polish entrepreneurship is developing in the right direction.

A new and interesting theme, thoroughly analysed in GEM, refers to the area of informal investors financing the newly established companies. The presence of a great number of informal investors on the market not only proves the increasing wealth of our society, but also points to the growing supply of firms attractive from the investors' point of view. Over the past three years, 4.5% of Poles (circa 1 million persons) invested in a startup company, which is close to the European average. How many of them are true business angels? The data show that they can account for as much as 13% of all informal investors, as this was the percentage among the respondents who declared investment in a new business set up by a total stranger with an innovative idea.

Simultaneously, the authors of the report estimate that the conditions for setting up and developing a new business require certain changes and improvements. Polish weaknesses in this respect can be attributed to the following areas: the transfer of knowledge from the scientific institutions to the new companies, access of SMEs to R&D results, and inadequate education not meeting the requirements of the market. The elimination of the above mentioned barriers constitutes one of the priorities in the State's policy at the moment.

I would like to express my gratitude to the PARP team specialising in analyses and strategies for the preparation of the report. Also, I encourage you to review its contents, as the report can be a valuable source of new information on the conditions and the characteristics of Polish entrepreneurship against the background of over 60 other world economies. Polish Agency for Enterprise Development highly values this knowledge, as it constitutes a considerable contribution in the process of elaborating new instruments of support for the entrepreneurs.

Patrycja Klarecka
President of PARP

Executive summary

Entrepreneurship in Poland in key GEM indicators

Social perception of entrepreneurship, an important factor in shaping entrepreneurial attitudes, is a field which requires a great deal of consideration.

Currently, 61% of Poles think that having one's own business is a good career path, 56% believe that people who have successfully set up new business enjoy high social status and respect, and 52% agree with the statement that the Polish public media often show stories describing new companies operating for a short time with great success. On the one hand, they still constitute the majority, while on the other hand, their number is significantly smaller than in most developed countries (the innovation-driven economies). Also, in comparison to the Europeans, we do not have the best results. Even though we do think that having one's own business is a good way to build a career, we are much less willing to hold successful entrepreneurs in high esteem (differences of 5 and 10 p.p., respectively). We also notice the issue of entrepreneurship in the media less often than the rest of the Europeans. What is worse, the perception of entrepreneurship in the Polish society is gradually deteriorating. Over the past five years, the percentage of Poles thinking that running one's own business is a good career path has decreased by 12 p.p. (as compared to 2011), the percentage of those who believe that successful entrepreneurs deserve respect – by 8 p.p., and the percentage of those who notice that entrepreneurship is present in the media – by 3 p.p. The above data is no reason for optimism, in particular in the context of the declining percentage of Poles who treat their own business as a fulfilment of their professional dreams, and one of the lowest percentages among the Europeans of people who see the connection between entrepreneurship and high social esteem¹.

Entrepreneurial attitudes of Poles are gradually improving

Despite the deteriorating perception of entrepreneurship in our society, entrepreneurial attitudes of Poles are gradually improving. After a few years of a declining trend, entrepreneurial intentions of our country's citizens have increased in 2015 by 4 p.p. as compared to the previous year. Currently, 20% of Poles declare that they will set up their own business in the next 3 years. Similar intentions are expressed by 13% of the Europeans and 12% of the citizens of innovation-driven economies. This appears to be much more than in the two country groups.

As a society we still assess our entrepreneurial capabilities very highly – already in the first edition of the GEM survey, conducted in 2011, 52% of Poles were convinced that they had relevant qualifications, i.e. knowledge, skills, and experience, needed to set up their own business; currently, 56% of us think the same. In this category, the result is significantly different from the one observed among the citizens of Europe and innovation-driven economies (13 and 14 p.p., respectively).

Perceived business opportunities among Poles have improved over the last four years. In 2015, one in every third adult in our country thought that the next six months would see good conditions for setting one's own business in his/her place of residence. This was much more than in 2012, when only one in every fifth Pole would say so. As regards the perceived business opportunities, we still slightly lag behind the European and innovation-driven economies (with average results of 4 and 7 p.p., respectively); alas, based on the available data, it is difficult to conclude whether this stems from the lack of relevant capabilities to form a sound judgement, or from the uncertainty over how the situation will develop in the nearest future, or indirectly from the unwillingness to take risks.

The very unwillingness to take risks and fear of failure are the weakest points in entrepreneurial attitudes of Poles. Currently, 48% of those who see business opportunities do not choose to set up their own business due to their fear of failure. In this respect, our results are definitely higher than the average in Europe (we

¹ In this respect, our result beats only that of Croatia – 42%, Spain – 48% and Belgium – 55%.

rank as one of the top three economies²) and innovation-driven economies (by 9 p.p.). The situation does not benefit from the fact that percentage of people who do not want to expose themselves to the risk of failure has remained high for five years – in 2011 it amounted to 43%, only to increase in the following years, reaching 51% in 2014. The last year (2015) witnessed a shift in the trend and a decline of 3 p.p. We will see whether this is going to be a stable change in the years to come.

The level of early-stage entrepreneurship in Poland remains high and stable

The level of early-stage entrepreneurship (TEA measure) has oscillated slightly above 9% over the last five years – which means that approximately 2.4 million adult Poles are setting up or run their own businesses (no longer than 3.5 years, though). Unlike young enterprises indicator, the share of established enterprises (older than 3.5 years) changes more rapidly over time. After a period of growth in 2011–2014, from 5% to 7.3%, it has declined quite sharply to 5.9% of adult population. Compared with the European and innovation-driven economies average, there is a slightly greater number of young enterprises in Poland (TEA measure) and, at the same time, fewer established enterprises³ (however, still in 2014 we achieved better results than the two groups of countries). 2015 also saw a significant decrease in the business discontinuation rate – the share of adult population who had discontinued their own business activity over the preceding 12 months fell to 2.6%, by almost 40% y/y. Even though the percentage of people discontinuing their business activity in Poland is similar to the one observed in Europe and innovation-driven economies, discontinuation in our country, much more often than in other country groups, means winding down a company, and not leaving it in the market with a new owner.

Motivation structure is improving – the percentage of people driven by necessity when establishing a company is declining

The results in the field of motivation for setting up an enterprise among people who run them have improved over the last two years. Between 2013 and 2015, the percentage of young enterprises owners who chose to set up their own business due to the lack of any other way of earning a living fell by approximately 40% and in 2015 it amounted to 28% of TEA. Despite the positive trend, it remains a worse result than in innovation-driven economies and the European average. The percentage of those driven by opportunity when establishing a company in our country is similar to the European result, but worse than the innovation-driven economies average. Currently, those people amount to 46% of TEA and this is a result which has not changed since 2014. However, the opportunity-driven motivation when establishing a new company has remained, above all, a dominating factor since 2014.

Young enterprises offer more innovative products and latest technologies

Latest technologies, available on the market for less than a year, are used more often by young enterprises than the established ones – this proportion amounts to 8% of TEA compared with 2% of companies present on the market for over 3.5 years. Young enterprises also dominate in this respect in Europe, however Poland can boast a greater number of them (12% of TEA, 4% of the established ones). Young enterprises are convinced of innovative character of products offered more often than companies present on the market for a longer time, and in this respect we outdo the European average. According to 17% of young enterprises in Poland, their products are innovative in nature for all customers, whereas according to 40% of such enterprises they are innovative only for some customers. As regards the established enterprises, 14% of them believe that their products are completely innovative, and 36% – that they are innovative for some customers. Data for Europe show the following, respectively: 15% of TEA and 10% of established enterprises – innovative product for everyone; 32% of TEA and 21% of established enterprises – for some customers. It is clear that many of the Polish young enterprises are convinced of their innovativeness; the entities which have been in operation for a longer period of time on the Polish market also claim to be forerunners when it comes to the proposed offer.

² After Italy (58%) and Belgium (49%).

³ TEA – compared with the European and innovation-driven economies average (1.4 p.p. and 0.7 p.p. more, respectively), established enterprises – 0.7 and 0.9 p.p. less, respectively.

Polish young enterprises are poorly internationalised

The domestic market remains the only place of activity for 60% of young enterprises in Poland. Those enterprises are not involved in any export activity, and there is a greater number of them in Poland than in innovation-driven economies or in Europe on average (the difference in both cases amounts to approximately 20 p.p.). 30% of young exporting enterprises in Poland are those whose revenues from foreign customers account for less than 25% of total revenues. These are small scale exporters. In our country there are less than 8% of companies whose foreign revenues account for 25–75% of total revenues, and the most advanced ones constitute less than 3% of TEA. In every exporters group included in the GEM study, Poland has lower shares of total number of entrepreneurs than in innovation-driven economies or in Europe on average. Young enterprises are much more innovative than the older ones.

Women are still less enterprising than men

Entrepreneurial attitudes among women in Poland are not as strong as those among men. Women less often than men see their business opportunities, they are more critical when it comes to self-assessment of their capabilities to run business, and it is them who most often experience fear of failure. Nonetheless, the year 2015 brought some changes in the field. The gap between men and women as regards their self-assessment of entrepreneurial capabilities shrank, but the gap related to the fear of failure and perceived opportunities expanded. Still, Poland's results correspond to the ones of innovation-driven economies.

As regards the level of entrepreneurship, the situation of women in Poland also appears as worse; what is more, it has not changed over the last few years. In 2015, there were half as few women as men among owners of young enterprises (TEA). The same applied in the case of the established enterprises.

Selected indicators of entrepreneurship in Poland and in the EU (%)*

Indicator	2014		2015	
	Poland	EU	Poland	Europe
Entrepreneurship as desirable career choice	63	57	61	56
High status to successful entrepreneurs	57	67	56	66
Media attention for entrepreneurship	55	53	52	55
Entrepreneurial intentions	16	12	20	13
Perceived opportunities	31	35	33	37
Entrepreneurial capabilities (self assessment)	54	42	56	43
Fear of failure	51	41	48	39
TEA	9.2	7.8	9.2	7.8
Established enterprises	7.3	6.7	5.9	6.6
Discontinuation of business	4.2	2.6	2.7	2.6
Necessity-driven entrepreneurship	37	23	28	22

*Detailed description regarding individual indicators is available in Chapter 2.

1. About the GEM study

Global Entrepreneurship Monitor has been dynamically developing since its inception in 1997 and conduction of the first research in 1999, when around 10 countries took part in the project. In 2015, the surveys covered 62 countries worldwide. GEM is based on a uniform methodology of data collection (it includes a quantitative survey on a sample of at least 2,000 adult respondents and at least 36 individual interviews with experts in the field of entrepreneurship in a given country). The process of data collection is closely supervised by persons responsible for the quality of data in GEM.

GEM is the largest and most prestigious entrepreneurship-related research project which focuses on early-stage entrepreneurship. The project is purely scientific, due to which it provides a deep insight into the process of entrepreneurship.

The Global Entrepreneurship Monitor has three main objectives:

- to measure the differences in entrepreneurial attitudes, activity and aspirations across economies,
- to uncover factors determining the nature and level of national entrepreneurial activity,
- to identify socio-economic policy implications for enhancing entrepreneurship.

1.1. GEM models

GEM research is based on theoretical models of entrepreneurship established on the basis of years of scientific achievements. Two most important theoretical models are: the model of economic relationships and the model of individual entrepreneurial process.

Interpretation of entrepreneurship in GEM

Entrepreneurship is a broad term, of many different meanings. GEM operationalises this term as “any attempt at new business or new venture creation, such as self-employment, a new business organisation, or the expansion of an existing business, by an individual, a team of individuals, or an established business”. While entrepreneurship is defined narrowly as a new business activity, it takes a broad view of what it recognizes as a business activity. This has its implications in measuring the level of entrepreneurship in GEM that is not limited to the registration of a new business activity. It is treated more in behavioural than institutional terms, and it includes both entrepreneurial activities aimed at the registration of new business entities, and entrepreneurial activities involved in the existing organisations.

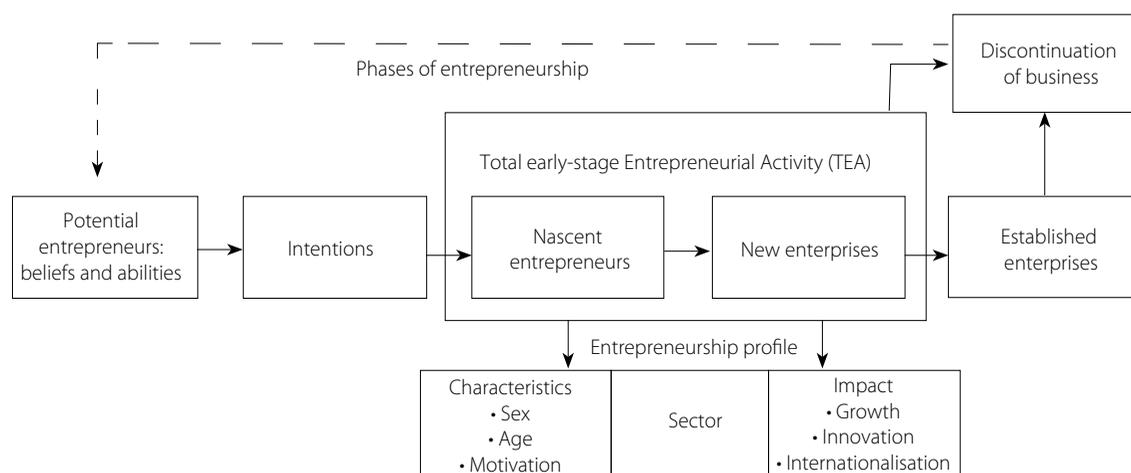
Model of entrepreneurship process

In GEM, it is important to differentiate between the particular phases of a business activity (Figure 1). What is more, the phases prior to formal registration are also subject to the analysis. The least attention is paid to the early-stage activity phases. It is one of the significant elements distinguishing GEM from other research projects on entrepreneurship, where registration of new entities is studied on the basis of data of national statistical offices, which fails to provide good insight into the nature of the new enterprises.

In modelling the entrepreneurship process, GEM uses three stages of economic undertaking development. Depending on the phase an entrepreneur is in, they may be defined as a nascent entrepreneur, a new enterprise or an established enterprise. In the GEM methodology:

- **nascent entrepreneurs** are individuals actively involved in setting up a business they will own or co-own, as well as entrepreneurs under organisation, which have not paid salaries/payments to the owners for more than 3 months;
- **new enterprises** are people who established their business activities between 3 and 42 months before the beginning of the research. The period of 3.5 years is considered to be critical in running entrepreneurial activity. After surviving this period one may consider the first stage to be a success, i.e. the company has been established and now it is in transition to the next stage – management of the existing enterprise.
- **established enterprises** are those who have been operating on the market for the period longer than 42 months (3.5 years).

Figure 1. GEM model of entrepreneurship process



Source: N. Bosma, S. Wennekers, J.E. Amorós, **Global Entrepreneurship Monitor 2011 Extended Report: Entrepreneurship and Entrepreneurial Employees Across the Globe**, London, GERA 2012, p. 10.

Apart from the phases, the GEM entrepreneurship process identifies beliefs and abilities preceding the decision regarding setting up business activity, as well as reasons for discontinuance by former entrepreneurs, which is significant due to re-establishing business by some of them.

The approach based on the research and analysis of individuals, not enterprises, is characteristic of GEM and provides better insight into the nature of the entrepreneurship process. It yields twofold results. It facilitates the analysis of the entrepreneurship process in many dimensions, e.g. identification of people with similar attitudes and characteristics. On the other hand, it provides the opportunity to discover more differences between the countries, since we obtain information not only about the number of entrepreneurs in a given country, but also about their varied attitudes and characteristics in certain phases of running a business activity.

GEM model of economic development

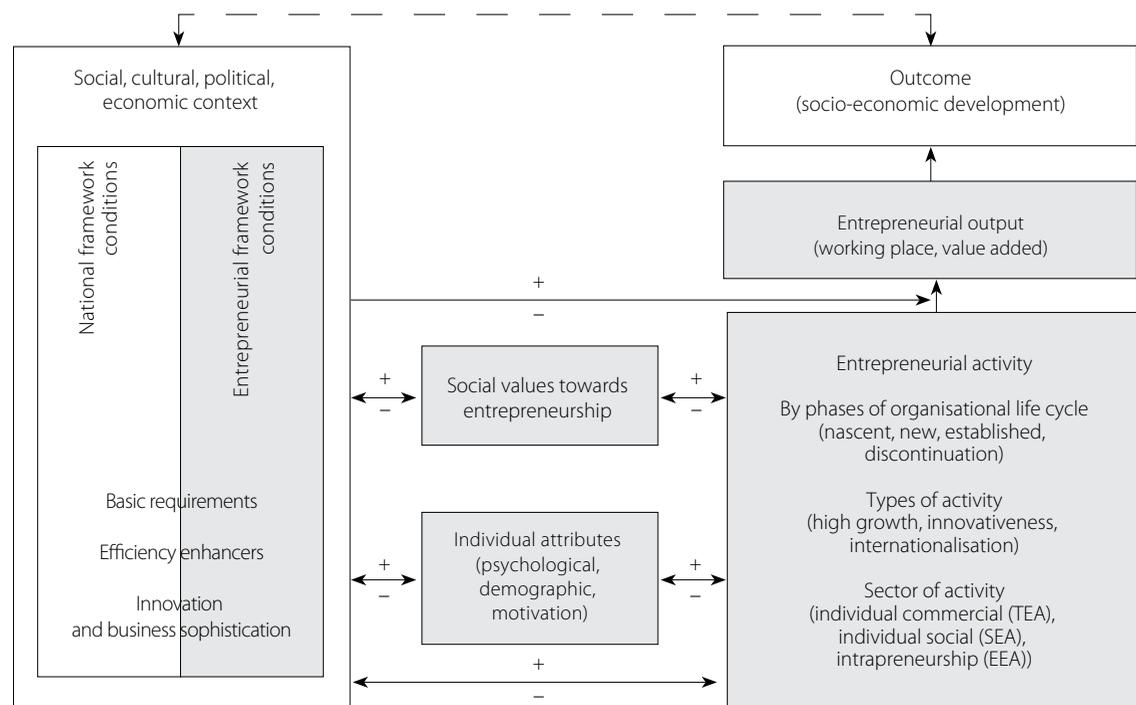
GEM model of economic development is based on several significant assumptions. First of all, an economy's prosperity is highly dependent on a dynamic entrepreneurship sector. Although this is true across all stages of development, the nature of this activity can vary in character and impact. Necessity-driven entrepreneurship, particularly in less developed regions or those experiencing temporary declines in employment, can support economy, when there are fewer work options available. More developed economies, on the other hand, generate more entrepreneurial opportunities as a result of their wealth and innovation capacity, yet

they also offer more wage employment options to attract those that might otherwise become independent entrepreneurs.

Second, economy's entrepreneurial capacity is based on individuals with the ability and motivation to start businesses and may be strengthened by positive social perception of entrepreneurship. Finally, high-growth entrepreneurship is a key contributor to new employment in economy and competitiveness is stimulated by innovative and cross-border entrepreneurial ventures.

In 2014, a new GEM model was introduced (Figure 2). It presents a complex network of dependencies between determinants of entrepreneurship, individual attributes of entrepreneurs, type of enterprises, entrepreneurial output and its impact on social and economic life. A particularly important aspect of the new model is highlighting the significance of individual (psychological, demographic and motivational) attributes, social values towards entrepreneurship and the nature of entrepreneurial activity. The latter category comprises the phases of an enterprise's life cycle, type of activity (high growth, innovativeness, internationalisation) and the type of activity which comprises **Total Early-stage Entrepreneurial Activity (TEA)** and **Employee Entrepreneurial Activity (EEA)**.

Figure 2. GEM model of economic development



Source: S. Singer, J.E. Amoros, D. Moska, **Global Entrepreneurship Monitor 2014 Global Report**, London, GERA 2015, p. 20.

Phases of economic development

The division of countries into three groups by phases of economic development: factor-driven, efficiency-driven, and innovation-driven⁴ (Figure 3) is important in GEM. In the factor-driven economies, competitiveness is organised at the level of factors of production, such as labour and natural resources. Competitiveness is based on price, productivity is low, so are labour costs. Countries transforming into efficiency-driven

⁴ M.E. Porter, J.J. Sachs, J. Mc Arthur, *Executive Summary: Competitiveness and Stages of Economic Development*, in: *The Global Competitiveness Report 2001-2002*, M.E. Porter, J.J. Sachs, J.W. Mc Arthur and K. Schwab (ed.), New York, NY, 2002: Oxford University Press.

economies, along with increasing labour costs, must create more efficient methods of production and increase the quality of products and services. On the other hand, countries transforming into innovation-driven economies are able to maintain high level of wages and high standard of living only if enterprises are able to compete on the basis of new and specialised products and other innovative solutions⁵. In 2014, similarly as in previous years, Poland was included in the efficiency-driven economies.

Figure 3. Three phases of economic development



Source: N. Bosma, S. Wennekers, J.E. Amoros, **Global Entrepreneurship Monitor 2011 Extended Report: Entrepreneurship and Entrepreneurial Employees Across the Globe**, London, GERA 2012, p. 13.

In each of the three phases of economic development, the role of the country in supporting entrepreneurship and economic growth is different. In the case of factor-driven economies, the state should support the development of institutions, infrastructure, macroeconomic stability and provide the efficient health care system and primary education. In efficiency-driven economies the government’s focus should be on getting labour and capital markets working more efficiently, attracting foreign direct investments and creating educational system to educate the workforce to successfully adopt technologies. In innovation-driven economies, the key role of the country is to provide and commercialise knowledge.

1.2. Indicators of entrepreneurship in GEM

GEM applies several criteria differentiating entrepreneurial activity. The results of employing these criteria are the indicators used in the project.

Total early-stage Entrepreneurial Activity (TEA)

TEA is a central measure established in the GEM survey. It presents the percentage of working age population involved in establishing business activities or running a new enterprise, established 3.5 years ago. In the GEM entrepreneurship process model, total early-stage entrepreneurial activity includes nascent entrepreneurs and new entrepreneurs, but does not include the established companies. Methodology of calculation of TEA measure is relatively complex and it is based on answers to several questions from the GEM survey questionnaire concerning intentions and actions taken in terms of establishing and running a business activity. It has to be stated that TEA does not measure the share of people running business, but the share of people establishing and running business in its early stage among the adult population. In this context, it is a forward indicator since it allows us to forecast the intensity of business activity in the society.

Employee Entrepreneurial Activity (EEA)

Apart from individual entrepreneurship, GEM is also interested in intrapreneurship, also called organisational or corporate entrepreneurship. It means the establishment of entrepreneurship projects by an employee not

⁵ Countries are categorised in groups according to the classification adopted in the *Global Competitiveness Report* issued by the World Economic Forum.

on his/her own, but on behalf of their employer. This form of entrepreneurship is measured by EEA, which stands for the percentage of the population playing the leading role in organisational entrepreneurship.

1.3. Research within GEM

Research within the GEM project is conducted in two parts. The first one is a typical quantitative adult population survey (APS) conducted on a sample of working age population. The second part of the research is the qualitative survey consisting in collection of national experts' opinions on establishing and developing new companies in the country (National Experts Survey – NES).

APS

Adult population survey is conducted annually on a sample of at least 2,000 people in each country involved in the project. In general, the survey is carried out with CATI method with consideration of land-based and mobile telephony applied in households. APS survey measures TEA, it also provides information about the society's aspirations and perception of entrepreneurship, growth aspirations of entrepreneurs, their international orientation, as well as financing business activity.

NES

National experts survey is conducted on a sample of at least 36 experts from various fields directly and indirectly connected to entrepreneurship. This part of the survey is aimed at the identification of framework conditions for entrepreneurship in a given country. In each country, the group of experts is selected in accordance to the same criteria. The main criteria are the following: the type of activity (scientist, manager, politician, etc.) and experience in running entrepreneurial activity (entrepreneur, non-entrepreneur).

2. Entrepreneurship in Poland – results of the adult population survey (APS)

This Chapter presents the results of a quantitative survey conducted on the sample of adult Polish population (*adult population survey, APS*) in 2015. This is the fifth time we present the results for Poland. The thematic scope of this survey consists of several dimensions of entrepreneurship: the phenomenon perception in society (general beliefs), entrepreneurial attitudes relating in a more concrete way to the potential of “being” an entrepreneur, the stage of entrepreneurship from the startup to the discontinuation phase, and the motivation for running a business. The conducted study also specifies the characteristics of entrepreneurs in terms of gender, growth aspirations, sectors of activity, level of internationalisation or innovation.

The general data for 62 countries included in the survey in 2015 were presented in the GEM Global Report 2015/16⁶. In this national report, we compare Poland with the selected countries or groups of countries. One of the important categories of grouping the countries entering GEM is a division of individual economies depending on their stage of development based on the classification used by the World Economic Forum (WEF). This way, it is possible to distinguish the following groups of countries: factor-driven economies, efficiency-driven economies (Poland included), and innovation-driven economies. The data for Poland are also analysed in relation to the European average.

2.1. Social perception of entrepreneurship in Poland

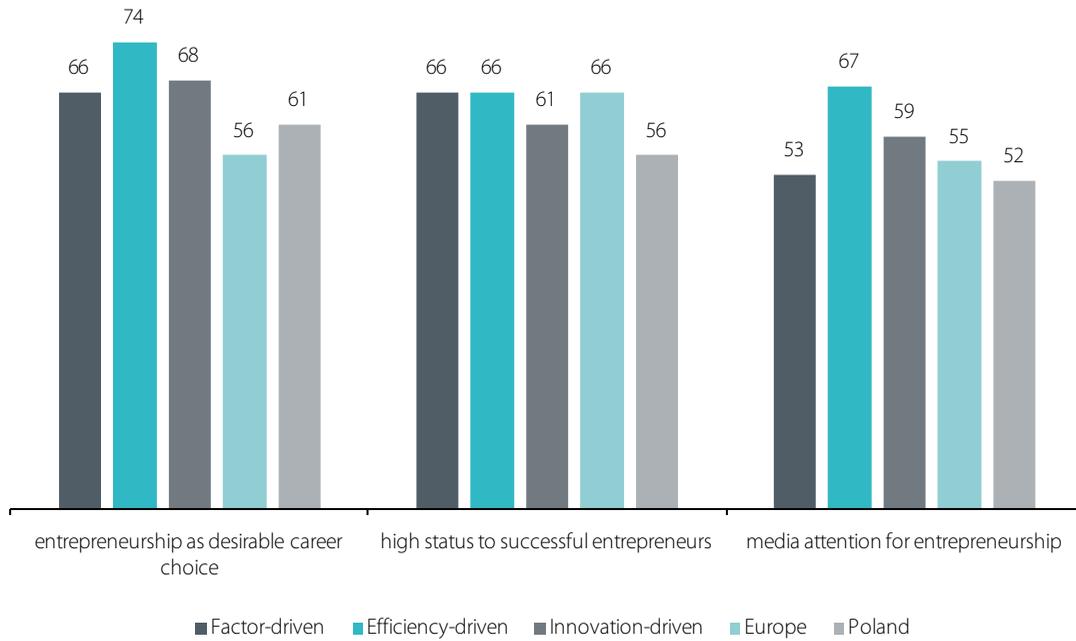
The social perception of entrepreneurship is analysed in GEM survey in terms of three dimensions: assessment of entrepreneurship as a good career choice, assessment of the status of successful entrepreneurs and assessment of the entrepreneurship in the media.

The results for Poland are unusual. If we look at the averages for different groups of countries, we can see that Poland is not close to any of the groups presented. Slightly more than 60% of Poles believe that entrepreneurship is a good career choice – it is slightly above the European average, but significantly lower than the average for efficiency- and innovation-driven countries, to which we aspire. Over the years, the value of this indicator has steadily and significantly decreased (by 12.5 p.p. from 2011).

The similar situation occurs in relation to the status of entrepreneurs. Less than 56% of Poles believe that entrepreneurs who succeeded can expect a high social status, it is by 10 p.p. less than the European average. The best result in this category was achieved in 2011, whereas the worst result was recorded in 2014 and remained unchanged in the last edition of the survey (56%). As regards media attention for entrepreneurship, we can now observe the largest decline year to year (decline by 3.5 p.p. compared to 2014).

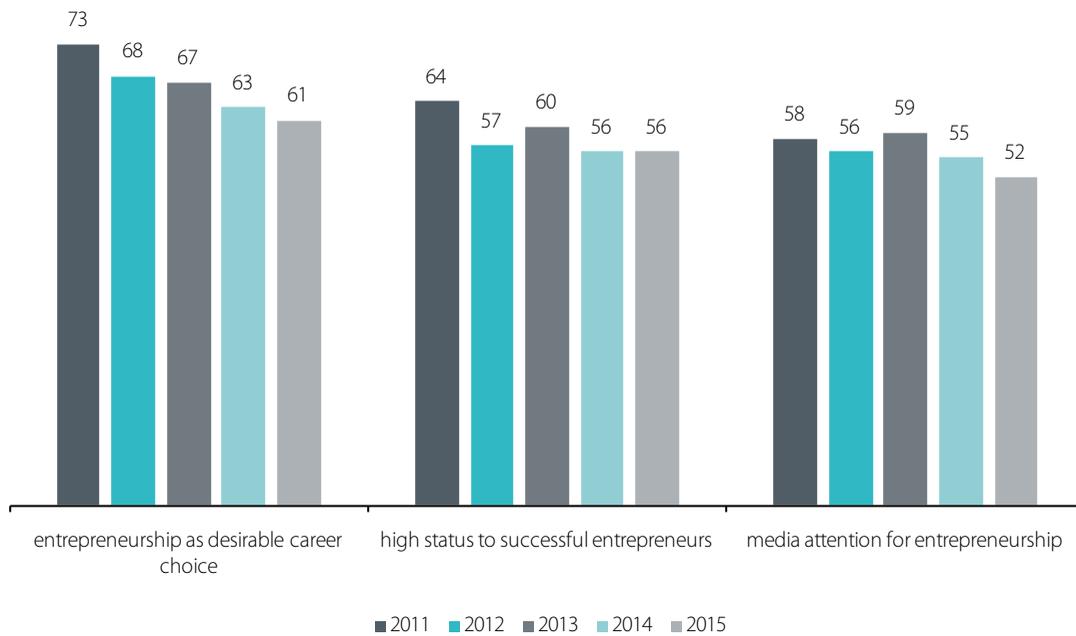
⁶ D. Kelly, S. Singer, M. Herrington, *2015/16 Global Report*, Global Entrepreneurship Monitor.

Diagram 1. Social perception of entrepreneurship in Poland compared with the rest of Europe and the group of factor-driven, efficiency-driven and innovation-driven economies (%)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

Diagram 2. Entrepreneurial perceptions in Poland in the years 2011–2015 (%)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data.

It can be assumed that moderately positive social perception of entrepreneurship with features of success can affect at least neutrally or negatively individual decisions on starting business. Apart from the values taken by indicators it is worth considering what might be the cause and whether there is a chance to improve them in the future. Although in recent years the unemployment rate in Poland has been steadily declining, there is still a social belief that sole proprietorships dominating on the market are established because of the inability to find a regular job and that the dominance of such companies demonstrates the weakness and fragmentation of the sector. In consequence, it affects the opinions on the quality of Polish entrepreneurship. However, the work in the form of sole proprietorship is very popular in many countries of Western Europe and the USA. For example, the share of this group of companies in business sector in Germany is about 56%, in the USA – 75% in 2000 and 79% in 2010, while in Poland there are 70% of such companies⁷.

Another important factor that certainly affects the values of the above indicators is social trust. The CBOS survey concerning social trust in Poland⁸ shows that 3/4 of the population prefers caution in contacts with other people. In recent years, the share of persons who believe that most people can be trusted has not increased; to the contrary, their number has slightly decreased in the period 2008–2010. These attitudes translate into thinking about business: 40% of us say that trust in business generally ends badly. We can formulate a hypothesis that Poles, even when reading the positive business stories in the media, do not absorb the content in the form in which it is presented, because we rely on our strong, negative beliefs that make it hard for us to trust in purity of business relations. The trust index created by CBOS shows that invariably, for 10 years now, mistrust and lack of openness in the Polish society outweigh the open and trusting attitude. The young generation also gets the negative picture – the youngest people (18–24 years old and 25–34 years old) declare a relatively lower level of trust.

The CBOS data show another interesting phenomenon indicating that the only group that can teach us how to trust each other consists of the representatives of the management staff and self-employed people. Among all surveyed groups it is only the management staff indicator that has a positive value (0.24), the second highest value was assigned to the entrepreneurs, although even in this case it was negative (-0.38).

Table 1. General confidence factor by socio-professional groups

Group type	Confidence indicator from -3 to +3
Management staff, specialists with higher education	0.24
Associated professionals, technicians	-0.45
Office and administration employees	-0.43
Service providers	-0.78
Skilled workers	-1.27
Unskilled workers	-1.71
Farmers	-1.03
Self-employed persons	-0.38
Unemployed	-1.22

⁷ J. Cieślak, *Przedsiębiorcy solo*, http://www.kozminski.edu.pl/fileadmin/wspolne_elementy/Jednostki/sfop/Artykuly_expertow/14_Przedsiębiorczosc_solo.pdf, available: 28.04.2016.

⁸ *Trust in the public sphere*, Public Opinion No. 18/2016, CBOS, Warsaw, February 2016.

cont. Table 1

Pensioners	-0.70
Annuitants	-0.81
Pupils and students	-0.77
Housewives and others	-0.92

Source: *Trust in the public sphere*, Public Opinion No. 18/2016, CBOS, Warsaw, February 2016.

2.2. Entrepreneurial attitudes of Poles

In GEM, the entrepreneurial attitudes are measured using four indicators: entrepreneurial intentions, perceived opportunities, perceived entrepreneurial capabilities, and fear of failure.

The declaration of Poles on the willingness to be “self-employed” is significantly higher than the indications of specific entrepreneurial intentions. Whereas about one half of the Polish population would prefer to run their own company than have a full-time job⁹, GEM survey shows that every fifth adult has the actual plans in this regard for the next three years¹⁰. We can assume that a smaller group is actually focused on setting up a business. Still the indications of Poles significantly outweigh the indications of adults from other European countries (13%). The share of Poles declaring the intention to set up a business in 3 years is also nearly twice higher than the average for the innovative economies (12%). We should consider the increase of this indicator by 4 p.p. in comparison to 2014 as a positive phenomenon, as in the period 2012–2014 we had to deal with a gradual decrease in the indicator measuring entrepreneurial intentions.

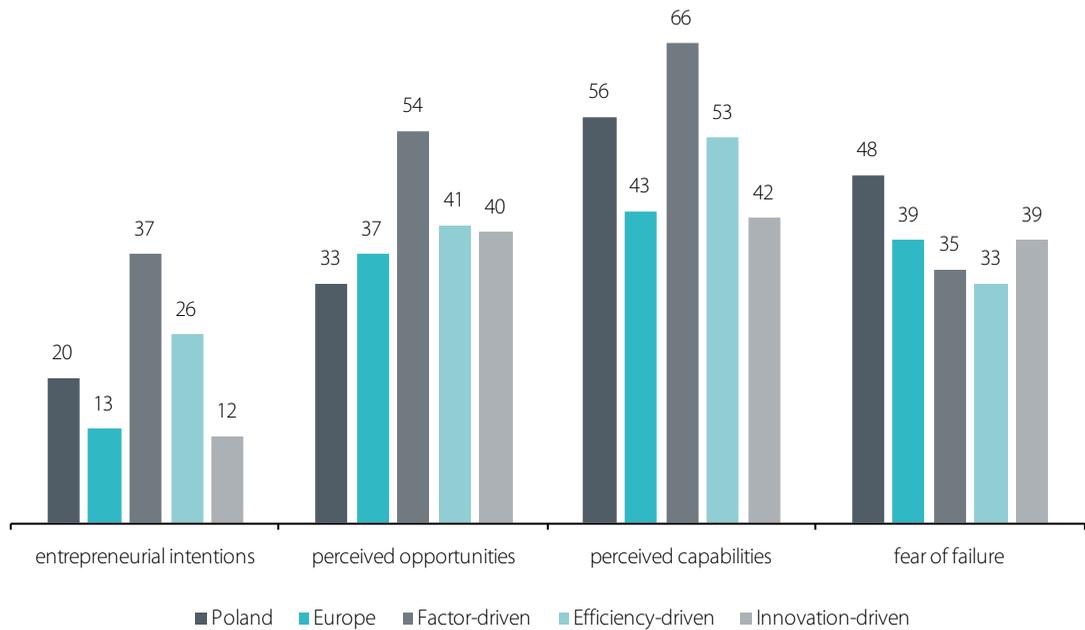
We lag far behind in recognising the opportunities offered by the market in relation to developing a new business. Compared to the average in different groups of countries we are very cautious when it comes to expressing our appreciation of the market situation. We are far from the average of innovation-driven countries (33% versus 40%), although ultimately their economies are extremely competitive and in order to establish a business you should find a niche, use the highest technology, explore new areas of business or find new markets.

People recognising the business opportunities could potentially start their own business, although, as we shall see in the following pages of this Chapter, fewer people become entrepreneurs. There are several reasons for this situation, but certainly the attitude towards the risk and fear of failure are important and worthy of analysis. In 2015, 48% Poles seeing the business opportunities were discouraged to start their own business because of fear of failure. This is about 3 p.p. less than in 2014, however about 5 p.p. more than in 2011. Moreover, the level of fear of failure in Poland was one of the highest in the world. It should be noted that, as regards the whole adult population, the fear of failure was about 10 p.p. higher (i.e. 58%), which means that, compared to the entire society, people recognising the business opportunities are nevertheless more willing to take the risk. These results require more in-depth analyses, because they do not solve the dilemma of government policy – whether to invest in campaigns promoting social acceptance of failure and to improve the law in this area, or to take care of the entrepreneurs’ education in the field of market analyses and building competitive strategy based on new markets and industries.

⁹ In 2012, 47% of Poles, given a choice, would prefer to work in their own business, in 2009 this indicator amounted to 49%. Source: *Entrepreneurship at a glance 2013*, OECD 2013.

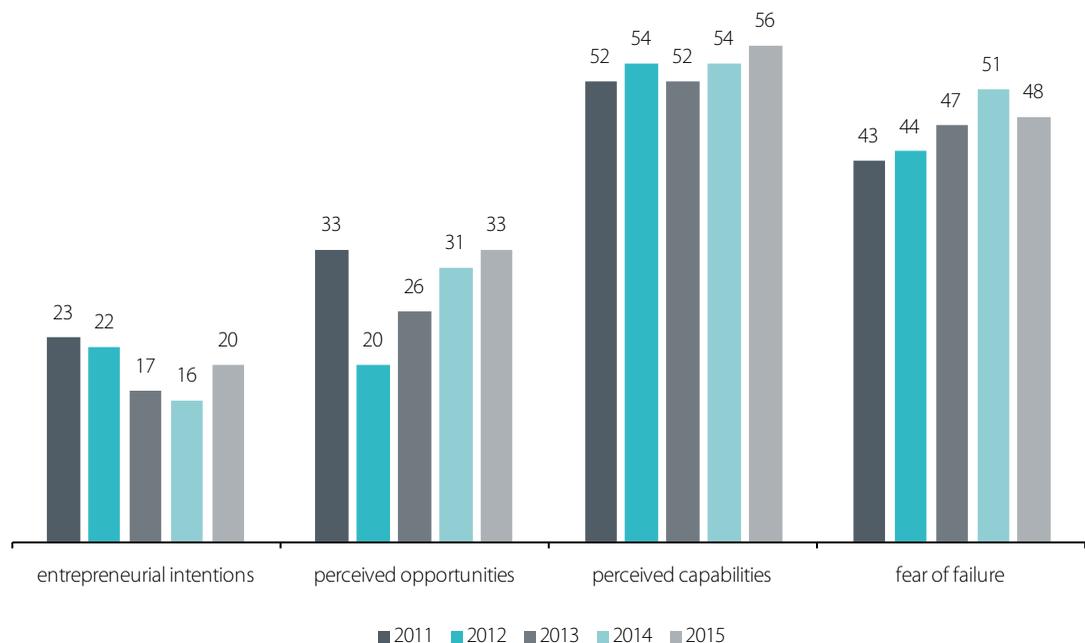
¹⁰ The indicator ‘entrepreneurial intentions’ does not include persons who at the time of study were running a business or were involved in its establishment.

Diagram 3. Entrepreneurial attitudes in Poland compared with the rest of Europe and the group of factor-driven, efficiency-driven and innovation-driven economies in 2015 (%)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

Diagram 4. Entrepreneurial attitudes in Poland in the years 2011–2015 (%)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data.

However, the Poles have been perceiving their own business-starting capabilities as very good invariably for a number of years. In 2015, 56% of Poles perceived their capabilities positively – which constituted an increase of 2 p.p. from 2014 and 4 p.p. from 2013. There is a trend in the GEM survey – the higher the economic

level, the worse the representatives of particular nationalities perceive their business capabilities. Although the Poles are well below the average of factor-driven economies (58% vs. 66%), we perceive our capabilities much better than the citizens of innovation-driven economies (42%).

The GEM survey does not cover sources of knowledge and entrepreneurial competences, but the results of the study conducted by the European Commission¹¹ show that the sources of good self-assessment are not to be sought in the entrepreneurship education at the level of formal education. In the countries where the citizens most often admit to have participated in entrepreneurship classes (at least 3 out of 10 respondents in: Finland, the Netherlands, Slovenia, Latvia, Sweden, Luxembourg, Austria, and Poland), the perceived entrepreneurial capabilities are highly varied. Generally, only Italy fits in with this intuitive picture of the correlation between education and the perceived business capabilities. Only 16% of this country's population participated in entrepreneurship classes and it is the country with the lowest perceived entrepreneurial capabilities in Europe (30%) according to the GEM survey.

Table 2. Participation in entrepreneurship classes at the formal education level and the perceived entrepreneurial capabilities in selected European countries (%)

Country	Participated in courses and other activities linked with entrepreneurship at school or university (%) ¹²	Perceived entrepreneurial capabilities (%) ¹³
results over 30%		
Finland	39	37
Netherlands	36	40
Slovenia	36	49
Latvia	33	49
Sweden	33	37
Luxembourg	32	44
Austria	31	NDA
Poland	30	56
lowest results		
Greece	17	NDA
Italy	16	30
United Kingdom	15	44
Malta	15	47

Source: Flash Eurobarometer 354 (data for 2012) and Global Entrepreneurship Monitor (data for 2015).

¹¹ *Entrepreneurship and beyond*, Flash Eurobarometer 354.

¹² *Entrepreneurship and beyond*, Flash Eurobarometer 117

¹³ Global Entrepreneurship Monitor 2015 data.

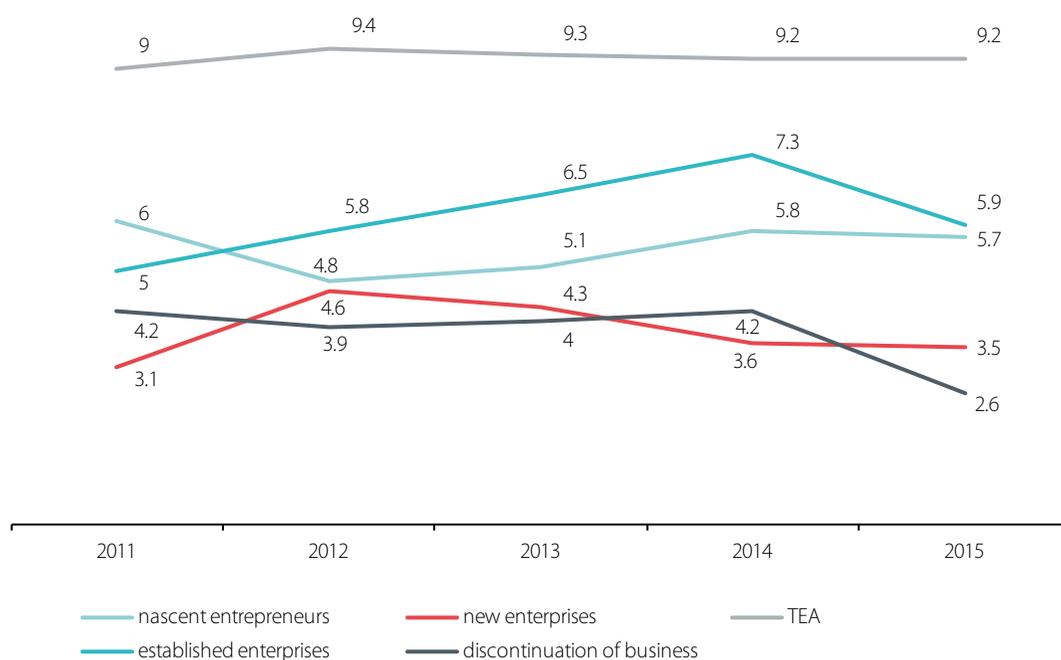
2.3. Level of entrepreneurship

GEM distinguishes four forms of entrepreneurship depending on the stage of the company's development. They are illustrated by the following indicators¹⁴:

- **nascent entrepreneurs**
- **new enterprises**
- **established enterprises**
- **discontinuation of business:** persons who over the last 12 months discontinued business activity through sale (the company remains on the market) or winding down.

A specific GEM indicator is TEA (Total early-stage Entrepreneurial Activity), which covers nascent entrepreneurs and new enterprises and it allows the researchers to forecast the intensity of entrepreneurial activity in society (more information on the indicator – see Chapter 1, paragraph 1.2).

Diagram 5. Level of entrepreneurship in Poland in the years 2011–2015 (%)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data.

Compared with the previous edition of the survey, the value of indicators concerning nascent entrepreneurs and new entrepreneurs have marginally decreased in Poland. Over the 5 years, the TEA has been above 9%. In 2015, the sharpest decline was noted for established enterprises, which is surprising because it does not translate into the share of companies which have discontinued business activity and whose share in the adult population has declined as well (from 4.2% to 2.6%).

The average values for particular economy groups and their comparison with the values for Poland need to be treated indicatively due to the fact that there are considerable differences even between the values for countries at the same economic level. It also proves the fact that the strength of particular motivation factors may strongly vary between countries. For instance: in Scandinavia, where people on average notice market

¹⁴ See definitions on p. 14.

opportunities much more often than in other countries, the share of nascent entrepreneurs in the company structure is relatively low, which suggests that in these countries a positive perception of the market situation does not necessarily translate into individual decisions about starting a business.

Table 3. The level of entrepreneurial activity in Poland compared with selected countries in 2015 (% of adults)

Country	Nascent entrepreneurs	New enterprises	TEA	Established enterprises
Factor-driven economies	12.9	9.2	21.4	12.5
Efficiency-driven economies	8.5	6.6	14.7	8.5
Innovation-driven economies	5.3	3.4	8.5	6.8
Europe	4.8	3.1	7.8	6.6
Poland	5.7	3.5	9.2	5.9

Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data.

The values for particular entrepreneurial activity stages in Poland are similar to the average for innovation-driven economies and significantly lower than the average values for efficiency-driven economies. The greatest difference concerning the TEA measure values for Poland is 9.2% and for efficiency-driven economies – almost 15%. Since the TEA measure's value for Poland has been relatively stable over the following years, we can only talk about the stability of the development of entrepreneurship in Poland in terms of the newly-established companies.

However, as mentioned above, there is no single model for each economy group. A general tendency may be observed, in which the largest number of economic initiatives are developed in factor-driven economies, then in efficiency-driven economies and in innovation-driven economies. It is likely, however, that the types of companies emerging in particular groups vary considerably in terms of sector, industry, company's innovation level and the planned scale of activity, and these are the key factors for competitiveness and the growth perspectives of these enterprises. It seems that for Poland, which is approaching innovation-driven economies in terms of economy, it is no longer the increase in the number of companies itself that deserves thorough analysis, but their quality.

Another important issue is the diversification of the share of new enterprises in particular countries. The indicator values of the share of new enterprises in the structure of enterprises for the most important innovation-driven economies are highly varied. Over the last few years, the role of startups in the economy has been recognised globally, which can be seen in three different dimensions:

- increase in the number of new business projects;
- increase in the number of government and private initiatives which are startup market-oriented (government programmes, increase in the number of entities supporting the early stage of company development and their acceleration, portals dedicated to startups, first rankings and databases collecting information on the startup ecosystem);
- increase in the number of companies valued at more than 1 billion dollars in a short time (unicorns).

A high share of new business projects (nascent entrepreneurs) in particular countries, measured in a GEM survey, makes an important contribution to studies concerning the role of young enterprises in the economy.

It is rather one of the elements of the assessment of the startup intensity in a given country. On the one hand, if we look at the share of nascent entrepreneurs in particular countries, we can observe that despite the fact that the values of the nascent entrepreneurs indicator for the Nordic countries (Norway, Finland, Sweden, Denmark) are rather low, the majority of unicorn enterprises¹⁵ come from the Scandinavia and the same holds true for the Crunch Base¹⁶, which collects the data on startups from all over the world, where the companies from the Nordic countries are in the lead. On the other hand, there are countries such as the USA, Estonia or Israel, where many new business initiatives are being developed. These countries also provide excellent conditions for the development of young enterprises, which is why the startups from those countries are known all over the world. It follows from the above that providing direct support to increase the number of companies (for instance, the provision of direct financing for the establishment of companies) is worse or highly insufficient, if there is no broader policy of supporting the startup ecosystem. This has been confirmed especially by the examples from the Nordic countries, where a relatively small population of nascent entrepreneurs established many innovative, global enterprises.

Table 4. The level of early entrepreneurial activity in innovation-driven economies and in comparison with Poland in 2015 (%)

Country	Nascent entrepreneurs	New enterprises	TEA measure
Canada	9.74	5.49	15.23
Estonia	8.74	4.7	13.44
Israel	8.4	3.68	12.08
USA	8.28	4.04	12.32
Australia	7.34	5.75	13.09
Luxembourg	7.1	3.2	10.3
Puerto Rico	6.59	1.89	8.48
Ireland	6.5	2.98	9.48
Slovakia	6.49	3.39	9.88
Poland	5.74	3.52	9.2
Portugal	5.62	4.01	9.63
South Korea	5.01	4.29	9.3
Sweden	4.79	2.62	7.41
Belgium	4.53	1.96	6.49
Switzerland	4.62	2.81	7.43
Netherlands	4.3	3.01	7.31

¹⁵ P. Grossinger, *Scandinavia is a land of unicorns*, http://www.slate.com/blogs/moneybox/2015/12/18/the_nordic_startup_scene_is_second_only_to_silicon_valley.html, accessed on: 06.05.2016.

¹⁶ <https://data.crunchbase.com/>

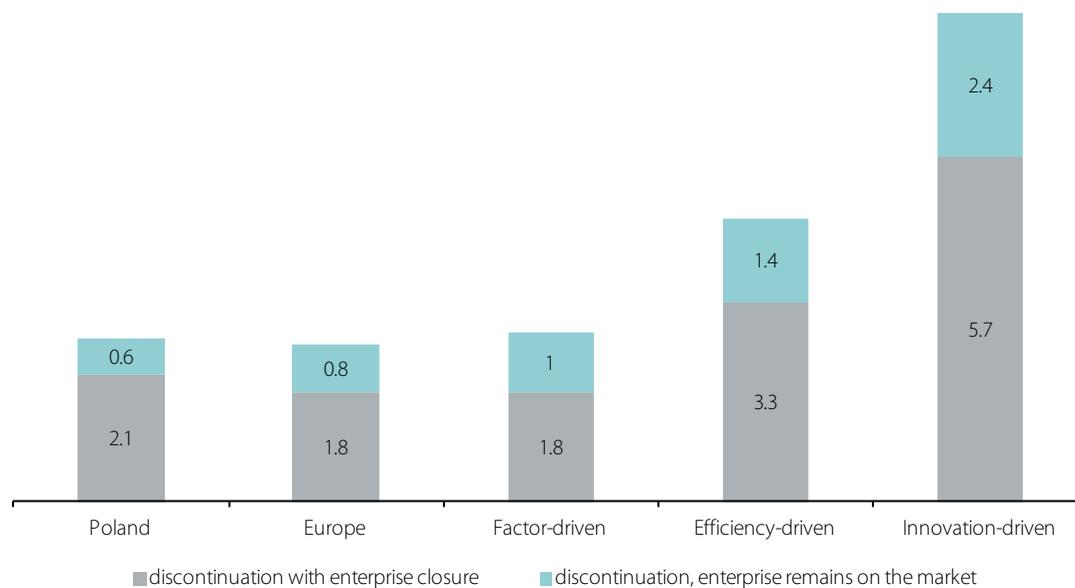
cont. Table 4

Finland	4.04	2.75	6.79
United Kingdom	4.03	2.92	6.95
Greece	3.94	2.8	6.74
Slovenia	3.22	2.79	6.01
Germany	2.84	1.93	4.77
Taiwan	2.54	4.81	7.35
Norway	2.32	3.34	5.66
Spain	2.13	3.62	5.75

Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

The last edition of the survey has provided positive information on entrepreneurs who had chosen to discontinue their business activity. Their share in the structure has declined in comparison to 2014, from 4.2% to 2.6%. Out of that, 0.6% of companies remained on the market but a given entrepreneur withdrew from the role.

Diagram 6. Discontinuation of business activity – share in the adult population in 2015 (%)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

2.4. Motivations to start a business activity

The knowledge of factors which motivate people to start their own business is an important element in discovering the nature of entrepreneurship in a given country. The attitude adopted for the first time in GEM as early as in 2001¹⁷ was based on the assumption that there were two main reasons behind starting a business activity: noticing a business opportunity or a lack of any other (or satisfying) opportunity to find employment. As it then turned out, 97% of enterprises in the world were established for one of these two reasons (61% due to noticing a fresh opportunity and 37% out of necessity). Other studies exploring this issue indicate the important role of motivation to gain independence or – more precisely – the autonomy in decision-making, the ability to act in accordance with one's own principles or the freedom in pursuing one's own objectives, values, and ideas, and not executing the supervisor's orders¹⁸. Other studies confirm McClelland's need for achievement theory, and what is more – prove that entrepreneurs motivated by this need achieve better financial results, which in turn may be helpful in applying for external financing and support¹⁹.

The reasons for which people become entrepreneurs – despite evolving over time – have an impact on the first strategic decisions and then on the achieved results²⁰. Startups established out of necessity create jobs for new employees less often than other companies, their products/services are rarely the result of R&D activity, they have to face higher market competition, more often act in low-tech sectors²¹. Those entrepreneurs – in a way being forced to establish business due to the lack of opportunity to find employment – are often in a worse situation than persons who can easily plan new projects: they have less time, capital, and knowledge needed to develop a new product or service²². Due to the fact that these people used to be unemployed, they often lack experience connected with performing hired labour or lack social skills, which in turn weakens their opportunities to notice and use arising business opportunities²³. On the other hand, it should not be overlooked that necessity-driven entrepreneurship is a phenomenon which is typical of low-income countries, where people running their own business more often face limitations related to the access to human capital, financial capital or technologies. Thus, being reasonable, they limit their willingness to develop through innovations or international activity, knowing that such ambitions may be difficult to fulfil²⁴.

Let us have a look at the recent GEM data concerning motivations, which are currently described in the model as: a) an opportunity, namely the willingness to use the opportunities offered by conducting a business activity, by gaining independence or increasing personal income; b) necessity – lack of a better choice in terms of employment²⁵.

The data confirm the recent studies conducted in the framework of the GEM project, according to which in the countries with a higher level of economic development the number of enterprises established out of necessity is declining, and the importance of motivation linked to seizing the opportunity is increasing²⁶. In factor-driven and efficiency-driven economies, approximately 29% of enterprises are established due to the lack of possibility to find a satisfying job, and there are 43% and 48%, respectively, young enterprises established out of willingness to seize an opportunity. In the most-developed innovation-driven economies

¹⁷ P.D. Reynolds, W.D. Bygrave, E. Autio, L. Cox, M. Hay, *Global Entrepreneurship Monitor: 2002 Executive Report*, Kansas City, MO: Kaufman Center for Entrepreneurial Leadership, 2002.

¹⁸ M. Van Gelderen, P. Jansen, *Autonomy as a start-up motive*, *Journal of Small Business and Enterprise Development*, 2006, vol. 13, No. 1, pp. 23–32.

¹⁹ Ch.J. Collins, P.J. Hanges, E.A. Locke, *The relationship of achievement motivation to entrepreneurial behavior: a meta-analysis*, 2004 (electronic version). Downloaded on 4 May 2016 from Cornell University, ILR School site: <http://digitalcommons.ilr.cornell.edu/articles/>.

²⁰ J.H. Block, K. Kohn, D. Miller, K. Ullrich, *Necessity entrepreneurship and competitive strategy*, *Small Business Economics*, 2015, 44:37–54.

²¹ *Ibidem*.

²² J.C. Dencker, M. Gruber, S.K. Shah, *Individual and opportunity factors influencing job creation in new firms*, *Academy of Management Journal*, 2009, vol. 52, No. 6, pp. 1125–1147.

²³ J. Block, M. Wagner, *Necessity and opportunity entrepreneurs in Germany: Characteristics and earnings differentials*, *Schmalenbach Business Review*, 2015, 62(2), 154–174.

²⁴ J. Hessels, M. Van Gelderen, R. Thurik, *Entrepreneurial aspirations, motivations, and their drivers*, *Small Business Economics*, 2008, 31:323–339.

²⁵ The sum of the share of TEA established out of necessity and the share of those established due to an opportunity does not always sum up to give 100% because some respondents – when asked about their motivation – indicate mixed motivations or other reasons.

²⁶ D.J. Kelley, S. Singer, M. Herrington, *The Global Entrepreneurship Monitor. 2011 Global Report*, 2012.

only 18% of enterprises are established out of necessity, while more than one half are established out of the willingness to take advantage of the opportunities offered by running own business.

On the other hand, there are significant differences between countries at a similar level of development concerning the structure of motivation to establish an enterprise, which indicates the impact of other – cultural and social – factors, as well as the factors related to a given person’s individual needs, explaining the lack of interdependence between entrepreneurship driven by opportunity and the level of economic development observed by the researchers²⁷.

In Poland, 46% of individuals who have been conducting a business activity for less than 3.5 years (therefore classified as TEA, further commonly referred to as “young”) have decided to do this because they wanted to take advantage of the opportunities offered by conducting a business activity, namely gaining independence or increasing their income, and 28% – due to the lack of a better choice in terms of employment. Compared with Europe, and more precisely – with innovation-driven economies, Polish entrepreneurship is characterised by a higher share of companies established out of necessity. The distance in the motivation structure is partly a result of a lower level of development in our country. Additionally, this situation may be influenced by the fact of being a post-communist country with a relatively short history of economic freedom²⁸. In comparison, the highest (approx. 65%) share of young enterprises established due to an opportunity in Europe has been recorded for: the Netherlands, Germany, Norway, and Switzerland, while the lowest rate has been recorded for Bulgaria (29%).

Table 5. Level of opportunity- and necessity-driven entrepreneurship (% of TEA)

	NECESSITY as a lack of a better choice as regards work (% of TEA)	OPPORTUNITY related to the willingness to use the opportunities that accompany running one’s own business (% of TEA)
Factor-driven economies	28.7	42.6
Efficiency-driven economies	29.1	47.5
Innovation-driven economies	18.0	52.2
Europe	22.4	47.5
Poland	28.1	46.4
Hungary	23.2	50.5
Romania	27.5	33.2
Bulgaria	33.4	29
Latvia	17.1	51.4

Source: The authors’ own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

²⁷ F. Liñán, J. Fernandez-Serrano, *National culture, entrepreneurship and economic development: different patterns across the European Union*, Small Business Economics, 2014, 42:685–701.

²⁸ A. Freytag, R. Thurik, *Entrepreneurship and its determinants in a cross-country setting*, SCALES, 2006. P. Tominc, M. Rebernik, *Growth aspirations and cultural support for entrepreneurship: a comparison of post-socialist countries*, Small Business Economics, 2007, 28:239–255.

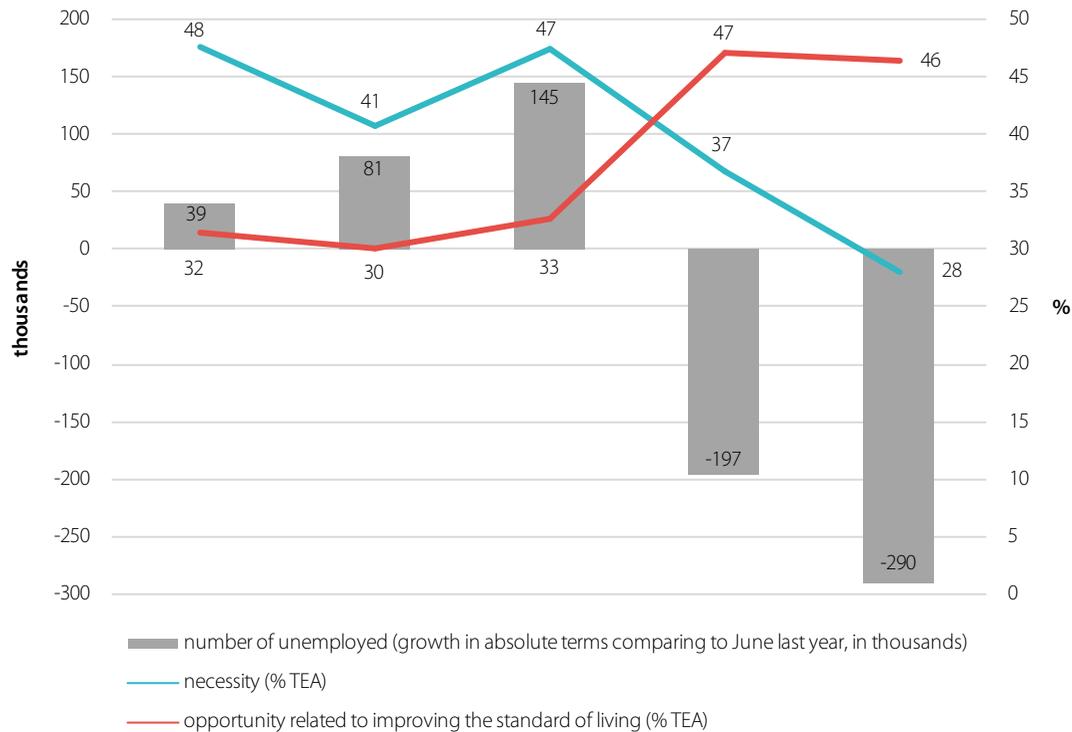
We should here highlight the structure of the components of positive motivation. According to the GEM data for 2015, more than a half (56%) of opportunity-driven entrepreneurs (TEA) in Poland are people who have decided to conduct their own business activity out of the willingness to gain independence. However, 32% of the opportunity-driven entrepreneurs are people who want to increase their income. Treating one's own business as a way of becoming independent is more common in Poland than in Europe on average, while setting up one's own business for financial reasons remains similar (data for Europe: 48% and 33% of TEA – opportunity, respectively). The GEM data does not provide an answer to the question of the nature of independency that drives Poles to take their first steps in business; it is still to be surveyed.

The analysis of changes in motivation structure in the period 2011–2015 shows that the year 2014 for the first time saw the continuing reversal of unfavourable trends as regards motivation driving Poles who set up businesses, and this was even reinforced last year. It can be seen in the diagram below that until 2013 it had been the necessity that dominated among motivations driving Poles to set up their own businesses: the percentage of early-stage enterprises established for that reason was higher by 10–15 p.p. than the percentage of enterprises established because of the opportunities guaranteed by having one's own business. This trend was reversed in 2014 – the percentage of young enterprises set up as a result of necessity declined by 11 p.p., whereas the percentage of young entities motivated by an opportunity increased by 14 p.p. The last available data shows that the share of companies set up as a result of necessity decreased again (by nearly 9 p.p.), while the percentage of those established because of willingness to use opportunities offered when running one's own business remained at the level similar to the last year's. Currently, it is an opportunity, instead of necessity, that dominates among motivations for people who set up their own business.

Changes in the Poles' motivation structure go hand in hand with the situation in the labour market. The data on annual changes in the number of the unemployed presented in the diagram below²⁹ shows dynamic growth of this indicator until 2013, when the number of the registered unemployed amounted to 2.1 million people. In 2014, the situation changed dramatically and the number of the unemployed fell to as many as 1.6 million people in June 2015.

²⁹ As the quantitative study within the GEM project in Poland is usually implemented in mid-year, we took into account the annual increases as of the end of June.

Diagram 7. Level of opportunity- and necessity-driven entrepreneurship in the context of unemployment in Poland in 2011–2015



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data.

2.5. Business activity by sector

The GEM model identifies four categories of sectors of business activity: extraction, production (processing), business-to-business (B2B) services and business-to-customer services (B2C).

Regardless of the level of economic development, business-to-customer services constitute a dominating sector in business activity of young enterprises. The percentage of active entities in the field ranges from 58% – for efficiency-driven economies, to 48% for innovation-driven economies. In the least developed countries, business-to-customer services account for over a half of enterprises operating in the market for less than 3.5 years. It mainly stems from the fact that such an activity requires, above all, that the owner demonstrates specific knowledge and skills, whereas financial resources are needed to a lesser extent³⁰.

A higher entry threshold is typical for business-to-business services, and thus the percentage of enterprises in this sector is the highest in innovation-driven economies (27%). In comparison, in efficiency-driven economies 11% of enterprises offer such services, and in the least developed countries only 6%.

The extraction sector is the least popular sector among young enterprises. Only in the least developed countries, it accounts for quite a high percentage of enterprises, that is 18% of early-stage enterprises, whereas in the other two groups of countries worldwide the share of enterprises operating in the sector amounts to nearly one third of this result.

³⁰ I. Grilo, R. Thurik, *Determinants of entrepreneurship in Europe*, Discussion Papers on entrepreneurship, Growth and Public Policy, 2004.

Last, but not least, as regards the percentage of enterprises, the production sector accounts for 19%–24% of entrepreneurs running their own business for less than 3.5 years, with the highest number in efficient economies, and the lowest – in the most advanced, innovation-driven economies.

Table 6. Early-stage entrepreneurship (TEA) by individual economy sectors (%)

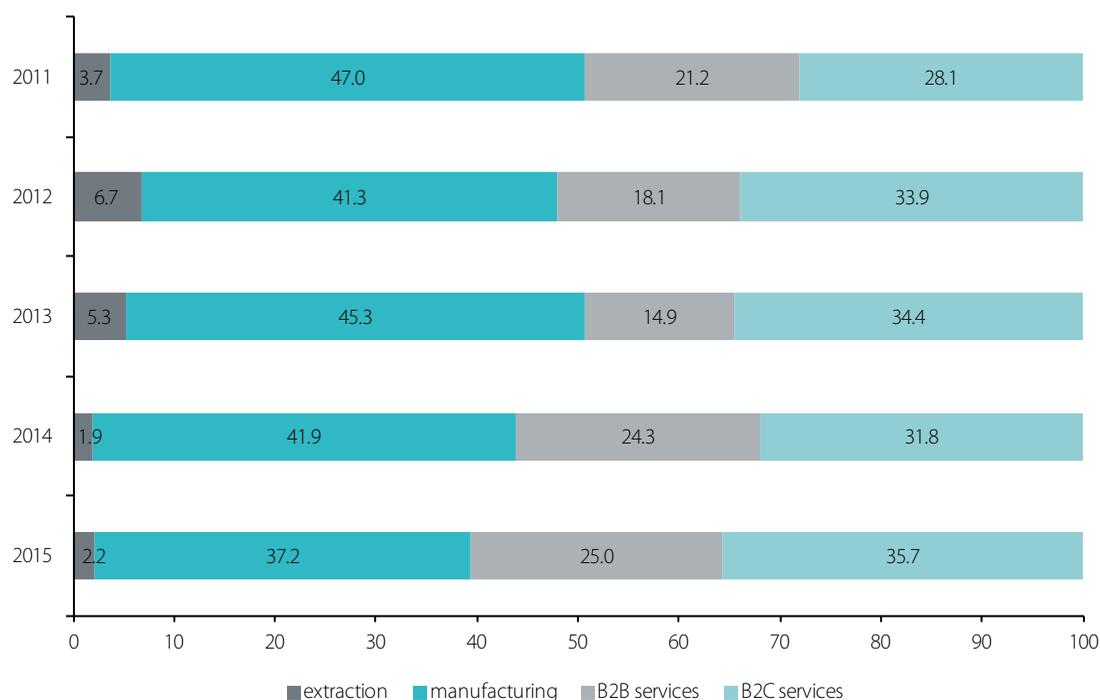
Country	Extraction	Production	B2B services	B2C services
Factor-driven economies	18.0	22.5	5.8	53.8
Efficiency-driven economies	6.6	24.0	11.5	58
Innovation-driven economies	5.2	19.4	27.3	48.1
Europe	7.9	22.8	25.9	43.4
Poland	2.2	37.2	25	35.7

Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

Like in the last edition of the survey, the services sector accounts for the largest percentage of companies active in the Polish market for less than 3.5 years: 36% of enterprises provide business-to-customers services, and 25% – business-to-business services. Quite many enterprises (37%) operate in the production sector. The lowest number of early-stage enterprises operate in the extraction sector (2%). By comparison to Europe, Poland has much more (by 14 p.p.) enterprises involved in the production sector, whereas fewer – in the extraction sector (by 6 p.p.). As regards the services sector and business-to-business services, we achieve similar results. In the business-to-customer sector, in Poland there are fewer enterprises than in Europe (by 7 p.p.).

The diagram below shows the sectoral structure of early-stage entrepreneurship in Poland in 2011–2015. There was a clear growth in significance of the services sector, from 49% in 2011 to nearly 61% in 2015, with much bigger increase in the share of enterprises providing B2C services. At the same time, the percentage of enterprises in the production sector declined (from 47% to 37% of TEA) as well as the percentage of enterprises active in the extraction sector (by half). Compared to the previous edition of the survey, the year 2015 saw, above all, a decline in the number of enterprises in the production sector (by 5 p.p.) and an increase in the number of enterprises providing business-to-customers services (by 4 p.p.).

Diagram 8. Sectoral structure of young enterprises in Poland in 2011–2015 (% of TEA)



Source: The authors' own elaboration based on Global Entrepreneurship Monitor data.

Changes in the sectoral structure of enterprises in operation for less than 3.5 years, visible in the decreasing role of the production sector and growing role of the services sector, bring us closer to the sectoral structure typical for the innovation-driven economies. The production sector is the only one in which we have more active enterprises. Its significance is declining, but still more than 37% of young enterprises operate within the sector. In this respect we top the European ranking, and the only countries with a similar percentage in the production sector include: Latvia, Bulgaria, and Macedonia.

2.6. Growth aspirations

Increasing employment is one of the dimensions of the development aspirations of people running their own business. Entrepreneurs' plans in the field are particularly important in the case of our country; even though Poles are still willing to set their own businesses, the majority of newly established enterprises does not induce higher employment³¹. The GEM model allows for a better insight into growth aspirations of people who set up or run enterprises for less than 3.5 years. They are expressed through two variables: by the *percentage of enterprises with medium aspirations* – declared wish to create at least 5 new jobs over the next five years and the *percentage of enterprises with high aspirations* – declared creation of at least 10 new jobs with the employment growth by at least 50% over the next 5 years.

The GEM data shows that the readiness to develop one's own business by increasing the number of job places is correlated with the rise in the level of economic development. In the least developed countries, every

³¹ The most recent available data of the Central Statistical Office indicates 360 000 newly established enterprises in 2014; over the last five years the number of registered enterprises has oscillated at similar levels, only in 2010 it reached 402 000. Still, compared to the EU average, the structure of enterprises in Poland is largely dominated by microenterprises, and there are fewer small enterprises than in the EU. According to the CSO data for 2014, the structure of enterprises in Poland is as follows: microenterprises – 95.7%, small enterprises – 3.2%, medium-sized enterprises – 0.8% (*Activity of non-financial enterprises in 2014*, CSO, 2015); whereas in the EU we have the following data: microenterprises – 92.7%, small enterprises – 6.1%, medium-sized enterprises – 1% (Eurostat, data for 2012).

fifth entrepreneur declares that he/she will create at least 5 jobs within 5 years, whereas in the developed and innovation-driven countries such aspirations are expressed by every fourth young entrepreneur. A similar indicator can be observed as regards the percentage of enterprises with high aspirations, but its levels are definitely lower – between 13 and 15%, depending on the economic development level of a given country.

Table 7. Growth aspirations of young enterprises (% of TEA)

	Medium aspirations – at least 5 new jobs within 5 years	High aspirations – at least 10 new jobs and employment growth by at least 50% within 5 years
Factor-driven economies	21	13
Efficiency-driven economies	25	16
Innovation-driven economies	25	15
Europe	25	16
Poland	34	20

Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

In Europe, the percentage of early-stage entrepreneurs who declare that they will create new jobs is even higher: 25% of enterprises declare that they will create at least five jobs, and 16% – at least 10 jobs with 50% employment growth within 5 years. Such a high result is influenced by countries (e.g. Poland and other countries of Central-Eastern Europe³² and Ireland), where the percentage of entrepreneurs with medium growth aspirations amounts to 33-37%, whereas the percentage of those with high aspirations: 22-27%.

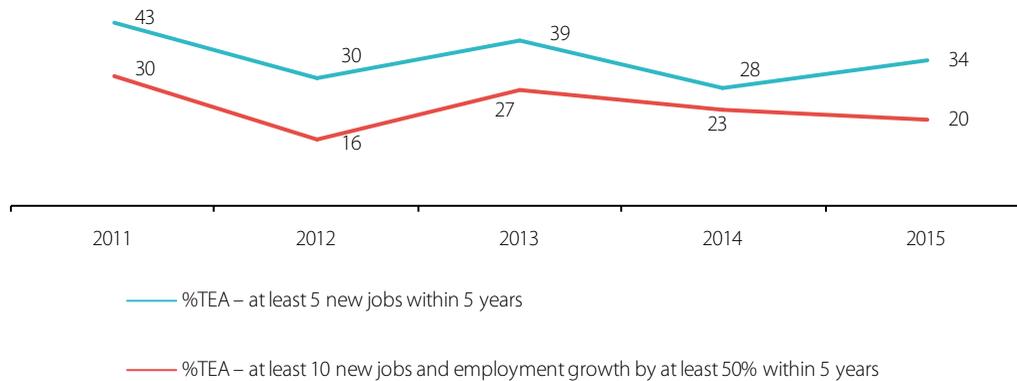
In comparison to the previous year, enterprises' growth ambitions in the world have remained similar. In Poland, every third person running his/her own business for less than 3.5 years declares that he/she will create at least 5 jobs within 5 years, and every fifth person – at least 10 jobs with employment growth of at least 50% during that time. Compared to the 2014 data, the percentage of enterprises with medium aspirations increased in our country by 6 p.p., whereas the percentage of entities with high aspirations slightly decreased (by 3 p.p.).

The analysis for the last 5 years indicates a changeable nature of entrepreneurs' growth ambitions in Poland, in particular as regards the percentage of entrepreneurs who declare that they will create at least 5 jobs. Even though the result was significantly lower in 2015, when compared to 2011 (a decline of ¼), the diagram presented below clearly shows its sinusoidal form, with growth after each decline. The indicator of the percentage of entrepreneurs with high aspirations is more stable; over the last 5 years it has decreased by 1/3, from 30% to 20%. One of the reasons for greater indicator changeability in the case of enterprises with medium aspirations in Poland may be the fact that it refers to the lower number of jobs created than it is in the case of the indicator of enterprises with high aspirations and as such it might be considered as easier to implement by the entrepreneurs. Of a considerable importance here is a significant improvement in economic conditions in the years 2014 and 2015 and an increasing role of opportunity as a motivation for setting up business. One must not forget either that both indicators refer to the declared employment growth and these are predictions which may prove irrelevant in reality. On the other hand, even declared enterprise development plans providing for employment growth indicate enterprises' growth ambitions. It is worth re-

³² Hungary, Latvia, Estonia, Croatia, Slovakia.

membering that the percentage of entrepreneurs with growth aspirations is higher in Poland than in Europe on average, and at the same time it is similarly high in other countries of Central-Eastern Europe and Ireland.

Diagram 9. Growth aspirations of young enterprises in Poland in 2011–2015 (% TEA)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data.

2.7. Internationalisation

Entering foreign markets is a strategic decision for every enterprise. However, unlike enterprises with extensive experience and level of development which ensures good access to knowledge and capital, young entities planning to expand abroad must face some difficulties. These include, inter alia, limited access to financial instruments securing international transactions or knowledge regarding legal, institutional, and cultural aspects of target markets³³. Still, according to Prof. Cieřlik "such entry [into foreign markets] usually creates additional benefits – better efficiency due to faster assimilation of knowledge and experience, called learning by exporting"³⁴.

Certain image of current internationalisation level of young enterprises in Poland when compared to other European countries and worldwide is provided by the data acquired in the GEM survey. It gives information on the intensity of young enterprises' (TEA) export activity, measured as the share of revenues from foreign customers in their annual revenues³⁵. For the purposes of this analysis, three groups of enterprises were distinguished, depending on the level of this intensity:

- **non-exporters**, i.e. entrepreneurs at an early stage (TEA) that do not have revenues from foreign customers;
- **exporters:**
 - **small scale exporters**, i.e. entrepreneurs at an early stage (TEA) whose 1%–25% of annual revenues come from foreign customers;

³³ Z.J. Acs, S. Terjesen, *Born local: toward a theory of new venture's choice of internationalization*, Small Business Economics, 2012.

³⁴ J. Cieřlik, *Przedsiębiorczość, polityka, rozwój*, Warsaw 2014.

³⁵ In 2015, the question on enterprises' export activity in the questionnaire of the quantitative study was changed from "What percentage of your customers within this project live abroad?" to: "What share of your annual revenues from sales comes from foreign customers (customers from abroad)?" There are two reasons for this change. First, export as a percentage of sales may provide more useful data than export as a percentage of customers living abroad. Secondly, the entrepreneurs may find the question about revenues easier to answer than the question about customers. In addition, it solves the problem of the cases in which an entrepreneur has only one foreign customer, which generates a large share of revenues, and this entrepreneur, when answering the question in the survey, states that he/she has few customers who live abroad, while in reality export accounts for majority of his/her sales. Both questions underwent pre-tests, which did not however show any significant differences when it comes to the structure of answers.

- **medium scale exporters**, i.e. entrepreneurs at an early stage (TEA) whose 25%–75% of annual revenues come from foreign customers;
- **advanced exporters**, i.e. entrepreneurs at an early stage (TEA) whose 75%–100% of annual revenues come from foreign customers.

The level of internationalisation increases with the economic growth. In the least developed countries, there are far fewer young enterprises involved in export activity than in efficiency- or innovation-driven economies. This is reflected in the value of non-exporters indicator, which amounts to 76% in factor-driven economies, 60% in efficiency-driven economies, and only 40% in innovation-driven economies. This is also seen in the percentage of exporters: in innovation-driven economies there are over twice as many small scale exporters than in factor-driven economies, three times as few medium scale exporters, and four times as few advanced exporters.

In Poland, 60% of young enterprises (TEA) focus solely on the domestic market. Among internationalised enterprises, like in the rest of the world, small scale exporters are a dominating share, accounting for 30% of enterprises active in the market for less than 3.5 years. Medium scale exporters make up the next group (with 7.6%), and advanced exporters account for 3%. It is clear that compared to the European average, in Poland there are by one half more enterprises operating solely in the domestic market. As regards the exporters, the largest differences pertain to the share of companies, which are advanced in this activity (there is 2.5 times as few such companies in Poland) and medium scale exporters (almost twice as few).

Table 8. Intensity of export activity of young entrepreneurs (% TEA)

Country	Non-exporters 0% of revenues from foreign customers	Small scale exporters 1-25% of revenues from foreign customers	Medium scale exporters 25-75% of revenues from foreign customers	Advanced exporters 75-100% of revenues from foreign customers
Factor-driven economies	75.8	18.5	3.9	1.8
Efficiency-driven economies	62.1	25.0	9.4	3.5
Innovation-driven economies	39.4	40.4	13.0	7.2
Europe	40.4	38.7	13.6	7.4
Poland	59.8	29.7	7.6	2.9

Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

The above data points to two facts: the majority of young enterprises in Poland focus solely on the domestic market, while those exporting derive rather low revenues from this activity. In comparison to a group of most developed countries, we have 50% more non-exporters, $\frac{1}{3}$ less medium scale exporters and significantly less-more advanced exporters. On the other hand, against the background of efficiency driven countries, to which we belong, we look slightly better in terms of the share of enterprises focused solely on the domestic market and those beginning their adventure with exports (4-5 p.p. difference). Professor M. Gorynia, analysing

the data for the period 1990-2010, stated that Poland still had a significant potential for internationalisation³⁶. However, in order to answer the question whether Polish young enterprises will manage to reduce the distance in export activities to companies operating in most developed economies, one shall have to wait for the next GEM Poland Report.

2.8. Innovativeness of enterprises

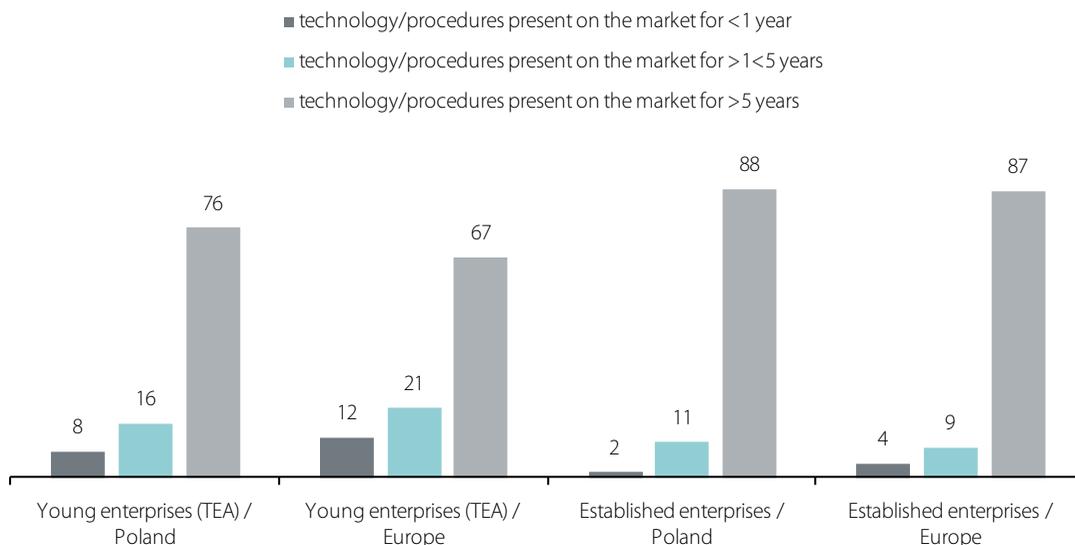
In recent years, the topic of innovativeness has been included in the GEM survey, where owners of enterprises report on their activities through the lens of technologies applied, the level of novelty in their consumer products or the level of diffusion of proposed solutions in the market. The results of studies carried out in 2014 and 2015 indicate that it is young enterprises that offer more innovative products and the latest technologies, rather than more mature companies. This holds true not only for Poland, but also for innovation-driven countries, to which our country aspires.

The analysis below has been conducted from two comparison perspectives. We present the results in a breakdown into young enterprises (TEA) and established enterprises (active in the market for longer than 3.5 years) and we show the data for Poland against the background of the average in the innovation-driven economies across Europe.

The level of innovativeness of technologies/procedures in enterprises

Both in Poland and in other innovation-driven economies³⁷ across Europe, established enterprises use the newest technologies less often than young enterprises. In Poland, 8% of young entities declare using technologies present in the market for no longer than one year, while the average for innovation-driven economies in Europe for this group of entities is 12%.

Diagram 10. For how long the technologies or procedures used in companies have been present in the market? (%)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

³⁶ M. Gorynia, *Eksport szansą dla Polski*, Rzeczpospolita, 13 July 2012., http://mariangorynia.pl/prasa/RZ_Eksport_Gorynia_13_07_12.pdf, accessed: 01.04.2016.

³⁷ It includes the following countries: Greece, the Netherlands, Belgium, Spain, Italy, Switzerland, the United Kingdom, Sweden, Norway, Germany, Portugal, Luxembourg, Ireland, Slovakia, Slovenia, Estonia, Finland.

Significantly lower number of established companies in Poland use the newest technologies: only 2% of enterprises of this type, while in Europe it is 4%.

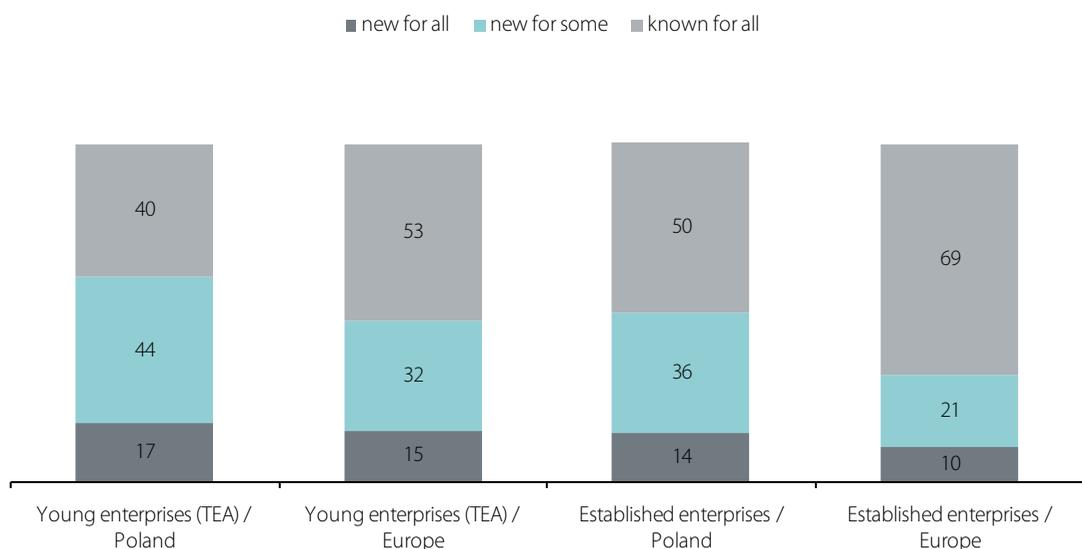
Young enterprises also look better when it comes to using slightly older technologies (present in the market for up to 5 years). They are applied by 16% of young enterprises from Poland, every fifth company in Europe, but only by every tenth established enterprise from Poland (11%) and Europe (9%) on average.

The degree of novelty of a product

Most of the time, it is young enterprises from Poland that declare that their product is new to all clients (17%), followed by young enterprises from Europe (15%). Established companies declare such degree of novelty of their products less often, but the differences are not substantial: in the case of the Polish enterprises this indicator equals 14%, while in the case of the European enterprises - 10%. There is also a group of outsiders, i.e. established enterprises from innovation-driven economies in Europe, among which nearly 70% declare that their product is known to all customers. It may result from the fact that these companies are well established in the market and their products are really well-known and capitalising on a good brand, and as the economies of scale they are less inclined to introduce innovation.

Polish young and established enterprises also rank high in terms of declarations when it comes to the novelty of their products for certain customers. 44% young enterprises from Poland declare that their product is new to some of their clients, 36% of established enterprises claim the same. The European enterprises declare this level of innovativeness less often - young ones at the level of 32%, established at the level of 21%. Slightly better than the European average parameters of entrepreneurial activity in Poland work to our (Polish) advantage, as proportionally we have to do with a larger inflow of new, thus potentially innovative companies, than in average innovative EU economy. B2B market is also developing very dynamically in Poland, a sector relatively new for Polish companies and with a very large growth potential, with innovation strongly embedded in the nature of the sector. Enterprises from strong innovative economies may also operate in a certain saturation of the market when it comes to the services they offer. Also competition in terms of quality is very strong there. As a result enterprises may fail to see innovativeness in what they offer, as they do not operate in an economy evolving as strongly as the Polish one.

Diagram 11. The degree of novelty of products for customers

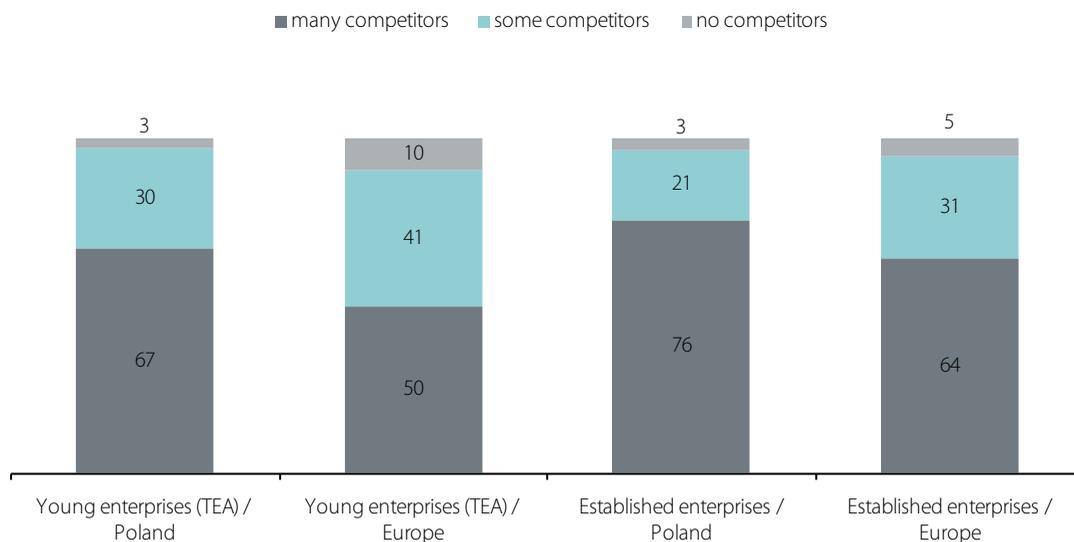


Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

Strong competition on the Polish market

One could expect that Polish enterprises declaring high innovativeness of their products would also experience relatively less competitive pressure, as their proposals are ahead of the standard market offer. However, the data point to the contrary. The pressure of the competition is felt most by the established enterprises from Poland, among which $\frac{3}{4}$ see a lot of competing companies, followed by the Polish young enterprises (67%). Young enterprises from Europe declare the smallest number of competitors in their environment (50%), followed by the established enterprises (64%). Low level of declarations pointing to an absence of competition may indicate a potential weakness of the Polish enterprises. Companies with no competitors are those operating in technological and market niches or applying new business models. Unfortunately, an absence of competition is declared by only 2.7% of young enterprises in Poland (9.5% of young enterprises in Europe) and 3.3% established enterprises (5.3% in Europe).

Diagram 12. How many competitors who offer the same products as you do are there on the market? (%)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

2.9. Entrepreneurship of men and women

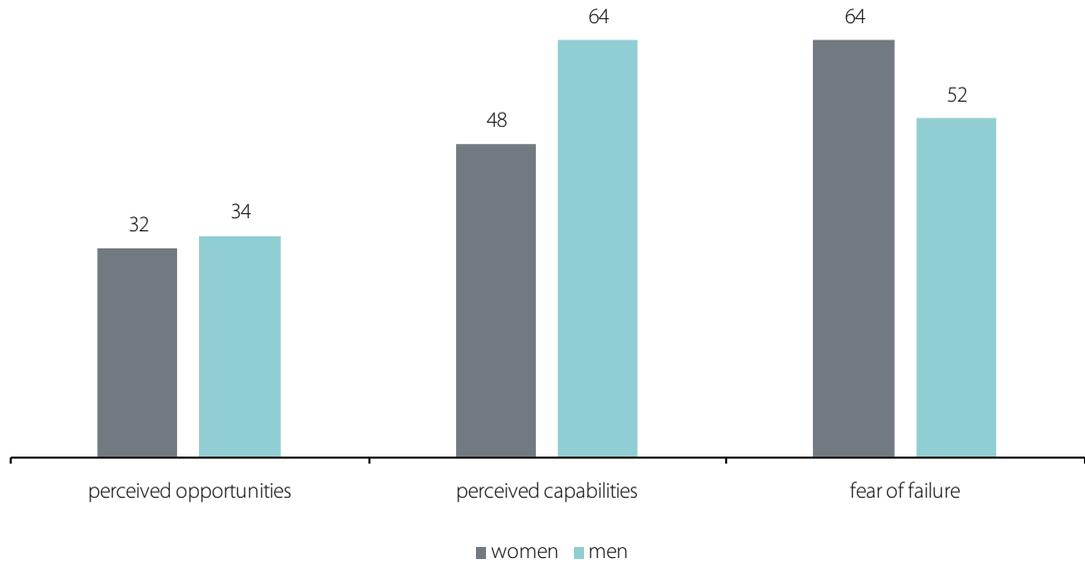
The data from the last two years of the survey shows that there is no significant difference between men and women when it comes to the perception of market opportunities. In 2015, almost every third woman saw positive market signals, as well as every third man. In the case of men, it is worth to highlight a 4.4 p.p. increase in indications in comparison to the survey from 2014.

However, the values of subsequent indicators show large differences between the two groups. Less than a half of women assess their capacity to start a business well, while as many as 64% of men are of a similar opinion. Still, the last year brought a significant increase in this indicator when it comes to women (an increase by 9 p.p. compared to 2104). Women are also much more often afraid of failure, this is declared by more than 6 in 10 women and 50% of men³⁸. The data for five editions of the survey, and in particular for the recent three

³⁸ The value of the indicator refers to the entire population of adults: women and men respectively. Chapter 2.2 describes the indicator, where the fear of failure refers to adults who see opportunities to start a business. The share of adults afraid of failure among all adults amounted to 58% in 2015.

years, indicate the rising concern among women. In 2015, the lowest value of this indicator was recorded among men, however, one should assume that the average value of this indicator has been subject to slight variations in recent years.

Diagram 13. Entrepreneurial attitudes among men and women in Poland in 2015 (%)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

Table 9. Entrepreneurial attitudes of men and women in Poland in 2011–2015 (%)

	2011	2012	2013	2014	2015
Women					
Perceived opportunities	31	23	29	33	32
Perceived capabilities	40	43	40	39	48
Fear of failure ³⁹	47	64	60	62	64
Men					
Perceived opportunities	35	18	23	30	34
Perceived capabilities	64	65	64	70	64
Fear of failure ⁴⁰	60	53	54	55	52

Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data.

³⁹ See above.

⁴⁰ See above.

⁴¹ See above.

If we look at the data in the breakdown by gender in cross-sections by different groups of economies, it turns out that in principle everywhere women tend to perceive opportunities in the market to a lesser degree, they do not recognise their capabilities as much as men do and they are more afraid of failure. The differences are significant when it comes to perceived capabilities and the fear of failure, while they are quite small as regards the perception of opportunities, which - as it seems - should belong to the group of the strongest drivers in thinking about owning a business.

Table 10. Entrepreneurial attitudes among men and women in Poland and selected groups of countries in 2015 (%)

Country	Perceived opportunities – men	Perceived opportunities – women	Perceived capabilities – men	Perceived capabilities – women	Fear of failure - men ⁴¹	Fear of failure - women
Factor-driven economies	56	52	70	62	31	35
Efficiency-driven economies	43	39	59	47	35	42
Innovation-driven economies	42	37	50	34	39	47
Europe	39	34	51	35	41	49
Poland	34	32	64	48	52	64

Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data for 2015.

It seems symptomatic that women are still more attached to household duties, which affects the amount of time they could devote to a potential business. These concerns were visible in a survey conducted by PARP⁴². The problem also transpired in the Eurobarometer survey. The EU residents, persons who envisage no possibility of starting a company within the next 6 years, were asked for the reasons of such a decision. Women pointed to the difficulty in reconciling new professional duties with their family life twice as often as men did⁴³ (8% of women and 4% of men), though both groups first of all pointed to problems with funds for starting a company equally as often (22% of women and 20% of men).

Generally, in all types of economies women own private companies less often than men. In Poland, for four years the differences in the level of entrepreneurship of men and women have remained almost at the same level, i.e. in general, men are owners of young enterprises twice as often as women. In the case of established enterprises, the difference is slightly bigger to the disadvantage of women.

⁴² B. Balcerzak-Paradowska, M. Bednarski, D. Głogosz, P. Kusztełak, A. Ruzik-Sierdzińska, J. Mirosław, *Przedsiębiorczość kobiet*, PARP, 2011.

⁴³ *Entrepreneurship in the EU and beyond*, Flash Eurobarometer 354.

Table 11. Level of entrepreneurship among men and women in 2015 (averages in %)

	TEA men	TEA women	Established enterprises - men	Established enterprises - women
Factor-driven economies	23	20	15	10
Efficiency-driven economies	17	12	11	6
Innovation-driven economies	11	6	9	5
Europe	10	5	9	5
Poland	12	6	8	4

Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

The values for Poland differ considerably from the average in efficiency-driven economies; we are much closer to the structure of averages in innovation-driven economies. In Poland, female adult population is starting or running a company for up to 3,5 years on the market is owned by a woman, in efficiency-driven economies, with in innovation-driven economies. In the case of established enterprises, the share of women-owned companies is 4% of female adults population in Poland, 6% in efficiency-driven, and 5% in innovation-driven economies.

The gender gap

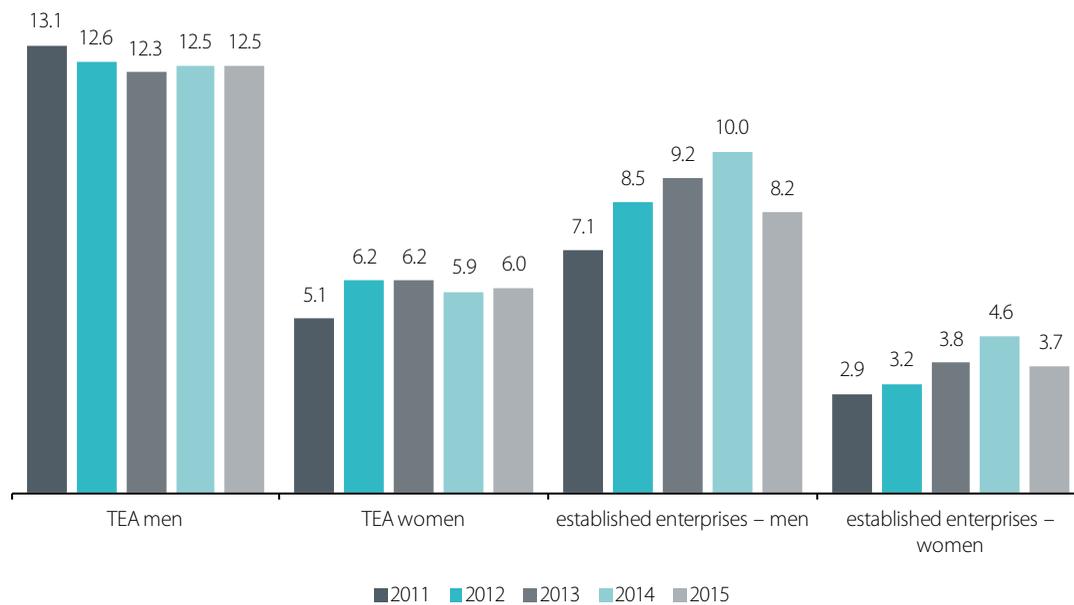
Thus, the above data indicate also a higher gender gap (measured as the difference in the share of men- and women-owned companies) in Poland than in the remaining groups of countries. In this case, the average in Poland for young enterprises is almost equal to the average in efficiency-driven economies. The smallest gender gap has been recorded in factor-driven economies, where both men and women have limited opportunities of hired work. It is interesting that outside of the factor-driven economies the gender gap decreases (very clearly in Poland) in the case of established enterprises, which indicates that women close their businesses less often than men.

Table 12. The gender gap for TEA and established enterprises (%)

	TEA - gender gap	Established enterprises - gender gap
Factor-driven economies	3.2	4.8
Efficiency-driven economies	6.4	4
Innovation-driven economies	4.4	4.2
Europe	4.7	4.2
Poland	6.5	4.5

Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

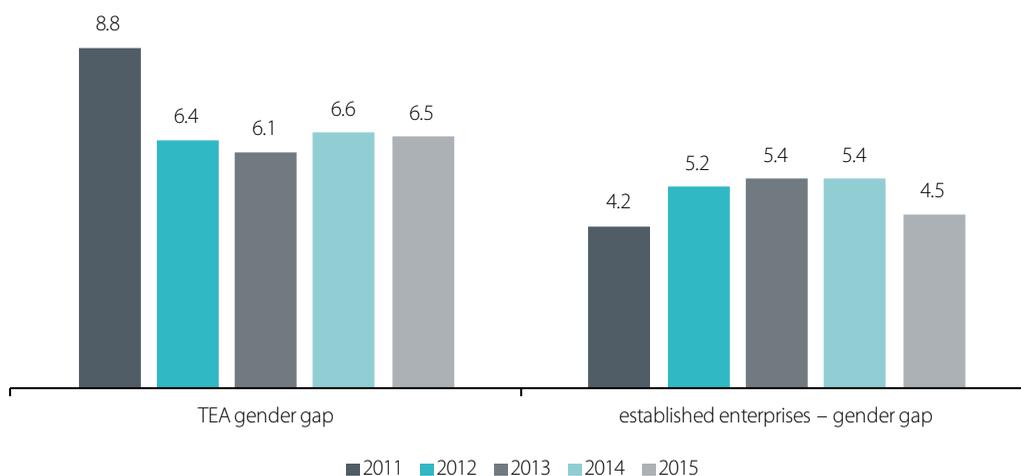
Diagram 14. Level of entrepreneurship among women and men in Poland in 2011–2015 (%)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data.

The high value of the gender gap persistent for many years in Poland indicates the complexity of factors that contribute to this situation. One of them is the problem of an unsatisfactory childcare infrastructure in Poland, which is quite evident and particularly painful in smaller towns and rural areas, which - as we know from the studies - is an important barrier for women willing to start a professional career. Any improvement in other conditions (legal, economic, social) will have an impact on both men and women. In consequence, any changes in this area (an increased number of women-owned companies) should be expected only when the society feels a palpable improvement in childcare infrastructure. Another possibility is that more and more women, disagreeing with the situation where their remuneration is still lower than men's - despite an increasing educational gap between genders in favour of women - will find professional fulfilment as company owners.

Diagram 15. The gender gap for TEA and established enterprises in Poland in 2011–2015 (%)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data

Motivations of men and women

According to the GEM data, the differences in motivations influencing men and women while taking decisions on setting up businesses depend on the degree of economic advancement of the country in which they reside. Still, however, irrespective of the level of economic development, men more often than women start companies because they want to use the opportunities provided by running a business, while women do so because they have no better chance of employment. As a result, irrespective of the type of motivation, the largest difference between the share of young enterprises established by men and women is recorded in the poorest countries, and this is to the disadvantage of women. In efficiency-driven economies, the differences between the share of men and women deciding to start up a business because of the opportunity, as well as those driven by sheer necessity, are lower by half, and in innovation-driven economies they are infinitesimal.

In Poland, almost 64% of women running a company for a period shorter than 3.5 years established it because of seeing an opportunity provided by running their own business, while 32% did so as a result of having no alternative in the form of hired work. Similarly to other countries, women in comparison to men more often decide to have their own business out of necessity rather than because of a hope for a positive change (the difference is 5 p.p. and 9 p.p., respectively). Considering the above, we are not far from our group of efficiency-driven economies and Europe, though we are a certain distance away from the results of innovation-driven economies. This pertains in particular to the situation of women: in Poland, 64% of companies are established on opportunity, in the most developed countries -74%. Even worse is the situation of women motivated by necessity - in Poland, 32% of companies are established for this reason, while only 19% in innovation-driven economies.

Table 13. Motivations of men and women running young enterprises (% TEA men/women)

	Men - opportunity	Women - opportunity	Men - necessity	Women - necessity
Factor-driven economies	72.3	62.8	25.9	35.3
Efficiency-driven economies	72	65.6	25.8	32.2
Innovation-driven economies	78.9	74.2	17.3	19.1
Europe	74.8	72.1	21.5	23.7
Poland	72.1	63.5	26.3	31.6
Ireland	75.9	88.3	24.1	8.8
Belgium	70.5	44.4	20.9	37.5

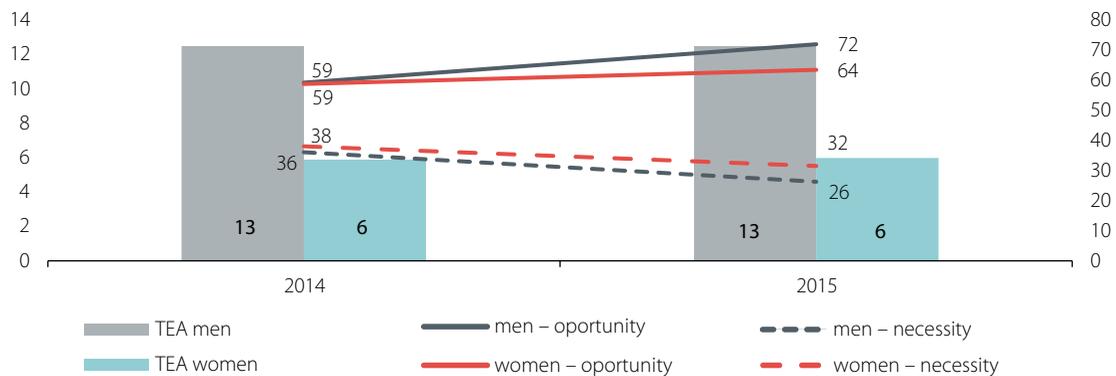
Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

There are quite significant differences in motivations governing men and women starting their own companies. The comparison of differences in the area of negative and positive motivations between young enterprises established by men and women in the European countries leads to interesting observations. The most desirable motivation structure for women (understood as ca. 10 p.p. difference between the percentage of companies established by men and women out of necessity and the minimum of - 10 p.p. difference

between companies established by men and women because of an opportunity) is in Ireland⁴⁴, while the least desirable structure - in Belgium⁴⁵. In Poland, the motivation structure in terms of gender is moderately unfavourable: 5 p.p. less companies owned by women than men-owned are established because of an opportunity, and less than 9 p.p. because of the absence of an alternative to hired employment. In the remaining countries, the differences are insignificant.

Over the past two years, considering the continuing inclination of men and women in our country to establish companies, it is visible that bigger changes - and the positive ones - have taken place in relation to the motivation structure of Polish men rather than women. In 2015, in comparison with 2014, the share of young male entrepreneurs who were motivated positively much increased, while the share of entrepreneurs who established companies because of the absence of an opportunity to find satisfactory hired employment much decreased, which cannot be said of women setting up their own business.

Diagram 16. Level of entrepreneurship vs. motivations to start a business in a breakdown by gender in 2014–2015 (%)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data.

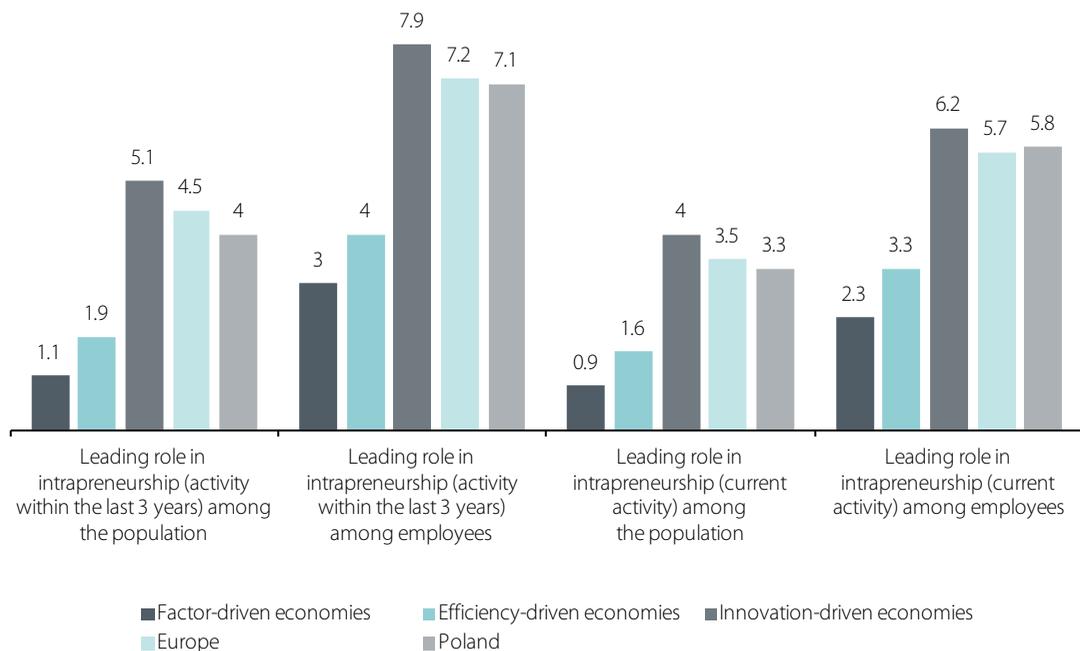
2.10. Intrapreneurship

Apart from individual entrepreneurship, the Global Entrepreneurship Monitor is also interested in intrapreneurship - starting new undertakings for an employer, rather than on one's own. From the point of view of an enterprise, intrapreneurship is a desired way of development, which facilitates gaining a competitive edge, particularly in innovative sectors, characterised by high competitiveness, fast changes, and rather hostile determinant factors. In its studies, GEM tries to raise the status of this form of entrepreneurship and equalise it with starting individual activity based on the assumption that in some countries intrapreneurship is more effective than individual entrepreneurship and contributes to socio-economic development to a greater extent. The studies of intrapreneurship in GEM are carried out in two aspects: intrapreneurial activity at present and over the past three years, as well as the share of active intrapreneurs among the entire population of adults and among employed persons. This results in four variables: the average values of these variables for three groups of countries, the averages for European countries and the results for Poland, all of them are presented below.

⁴⁴ Respectively: 15 p.p. -12 p.p. Similar, but not as good, is the situation in Italy (4 p.p. -11 p.p.) and in the Netherlands (9 p.p. -14 p.p.).

⁴⁵ Respectively: -16 p.p.; 26 p.p. Similar is the situation in Hungary (-11 p.p.; 20 p.p.), in Portugal (-17 p.p.; 16 p.p.) and Finland (-9 p.p.; 13 p.p.).

Diagram 17. Intrapreneurship in three groups of countries, Europe and Poland (%)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

The dependence of intrapreneurship on the stage of economic development is shaped in the way described in the theory of entrepreneurship. The higher the level of development of economy, the higher the level of intrapreneurship. It stems from the existence of a larger number of big enterprises, which are technologically advanced, willing to invest their resources in innovations and generally hold satisfactory resources for entrepreneurial activity of their employees. What should be noted here is the significant gap between the efficiency-driven economies and the innovation-driven ones. In most cases the difference is at least twice as big. For example, in the past three years, 4% of employees were involved in intrapreneurship in efficiency-driven economies and as many as 8% in innovation-driven economies. This could indicate that intrapreneurship is an effective method of competing in countries with the highest level of technological and economic development, but also, that when transferring from the second to the third group of countries, somehow individual entrepreneurship is “converted” into organisational entrepreneurship, which is a more desirable solution, for example from the point of view of the labour law, but is also a more effective catalyst of innovativeness.

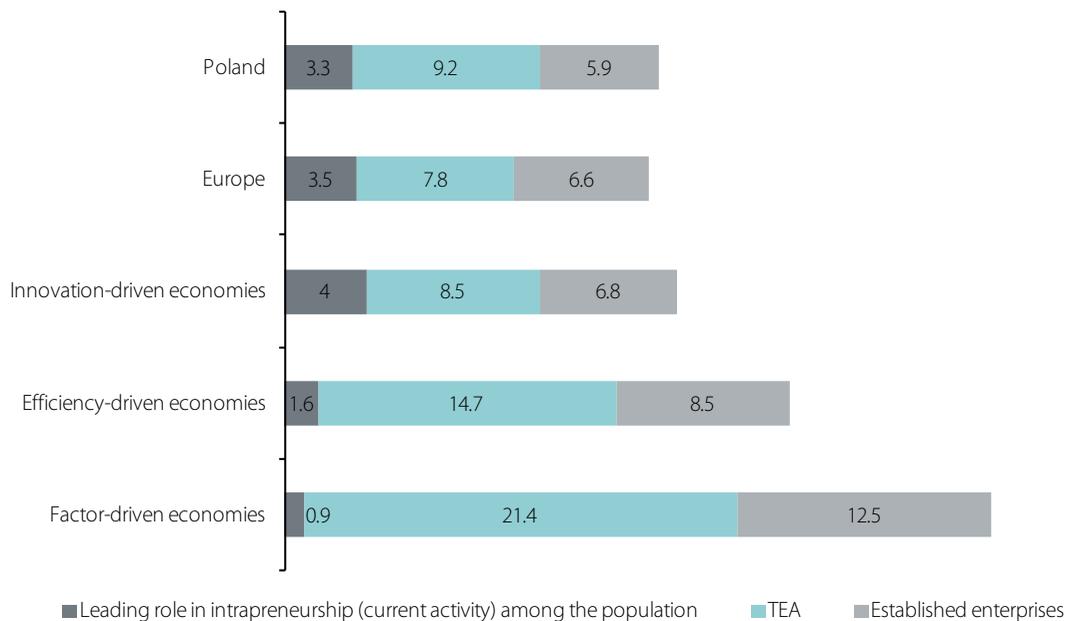
The level of intrapreneurship in the European countries (both EU and non-EU), is slightly lower than the average of the innovation-driven economies. It reflects the fact that the European continent is the place dominated by innovation-driven economies with an addition of efficiency-driven economies, of which most are described as countries in the transition stage from the second to the third group. These countries include entire Central Europe, with the exception of Slovakia, which is already in the group of the most developed countries. The group of countries in the transition stage also includes Poland, which is reflected in the results concerning intrapreneurship. It is on a slightly lower level than the European level and in the case of the present activity of employees it is even slightly higher. These results confirm that in terms of the economic profile Poland already resembles innovation-driven economies and support the claim that it should already be included in this group of countries.

The highest level of intrapreneurship is recorded in countries with the highest level of development, as well as most innovation-oriented: Australia, Norway, the United Kingdom, Ireland, the United States, Canada, Israel, Belgium, Switzerland, and Luxembourg. Slovenia and Croatia rank quite high (and higher than Poland). In the countries with the highest level of organisational entrepreneurship, every eighth employee was an intrapre-

neur in the past three years, while presently it is every tenth. The countries with the lowest intrapreneurship are: Malaysia, Indonesia, Bulgaria, Panama, the Republic of South Africa, and India.

As it has been already mentioned, intrapreneurship is often perceived as an alternative to individual entrepreneurship. The diagram below presents the aggregation of intrapreneurship in three groups of countries, Europe and Poland.

Diagram 18. Intrapreneurship and individual entrepreneurship in three groups of countries, Europe and Poland (%)



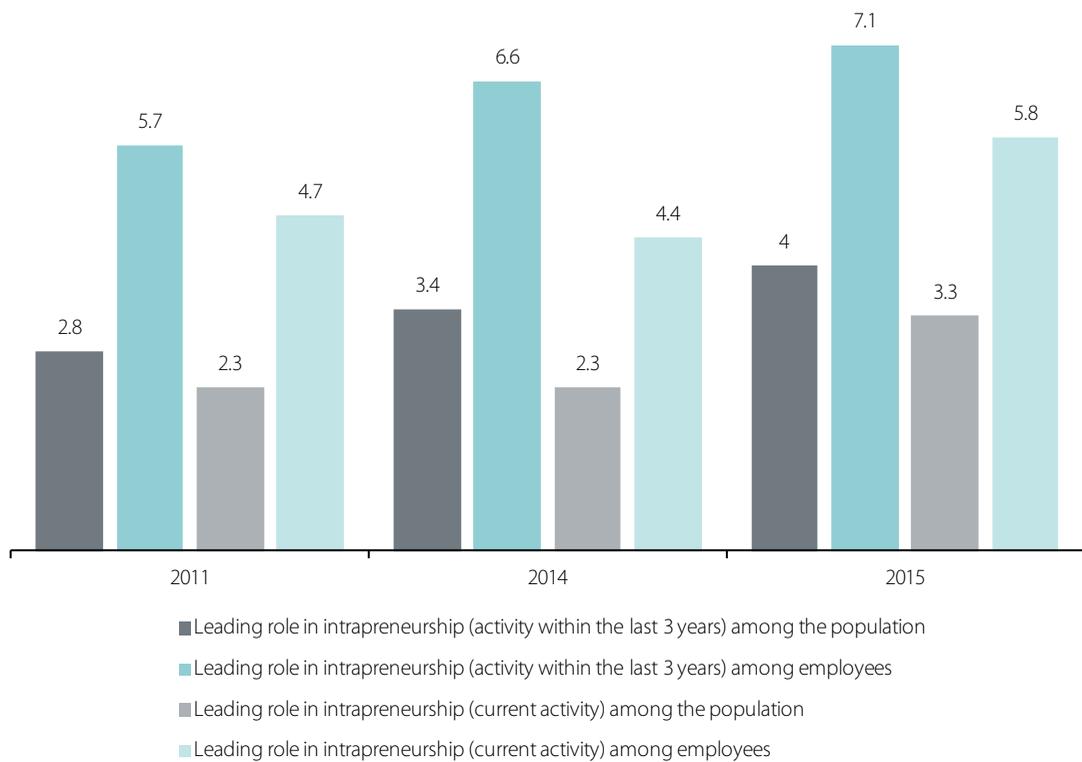
Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

As mentioned above, intrapreneurship increases with economic development. The opposite phenomenon is observed in the case of individual entrepreneurship. On average, in factor-driven economies every third adult citizen is an entrepreneur (34%), in efficiency-driven economies this indicator drops to 23%, while in innovation-driven economies - to 15%. Real results may be slightly lower due to the fact that there is a group of entrepreneurs, which are classified in both groups of individual entrepreneurship: entrepreneurs at an early stage of activity and owners of established enterprises.

Reduced intensity of individual entrepreneurship associated with economic development is to a certain degree "compensated" by increased organisational entrepreneurship. Thus, the aggregated indicator of the three types of entrepreneurship equals almost 35% in factor-driven economies, nearly 25% in efficiency-driven economies, and over 19% in innovation-driven economies. The results for Poland and Europe are very close to the results for innovation-driven economies, with a difference that in Poland the share of entrepreneurs in an early stage is higher, while the share of owners managing the already established enterprises is slightly lower.

Carrying out the same survey annually enables us to grasp the dynamics of the phenomena. The level of intrapreneurship in Poland in 2011 and over the last two years is presented below.

Diagram 19. Intrapreneurship in Poland in 2011, 2014 and 2015



Source: The authors' own elaboration based on the Global Entrepreneurship Monitor 2011, 2014, 2015 data.

The above diagram shows quite clearly that the level of organisational entrepreneurship in Poland has a rising trend. It is particularly visible when we compare the years 2014 and 2015. It means a significant and quite rapid improvement. In the case of indicators describing the intrapreneurship in the past five years, the growth is weaker, but still substantial. These results may be a good forecast for the increase of innovativeness in the Polish economy in future.

3. Startups in Poland

3.1. Background and methodological assumptions

There is no single definition of startups, however recently the term tends to be understood as small and medium enterprises (SMEs), which start activities by assumption targeted at the implementation of innovations. These are normally IT sector companies, but not only; they could as well be for example restaurants, which offer innovative meals or organise cooking classes within their activity. Startups need a deeper analysis for a number of reasons. The most important one is their potential contribution to economic and technological development. Most of the time these are the companies with a large growth potential, which develop new technologies and create jobs. The analysis of startups may also translate into more effective methods for supporting and financing them.

The cyclical research within the framework of Global Entrepreneurship Monitor allows to track the dynamics of the analysed phenomena. Another advantage is the possibility to gather the data for several periods and to perform the analysis on a larger sample. This procedure is based on the assumption that the conditions of starting and running a business do not change considerably and thus sample pooling is possible.

For the purpose of this year's report such procedure was applied in the case of persons starting businesses with the use of new technologies. The basis for distinguishing startups using new technologies is the question included in the APS questionnaire: "Since when the technologies or procedures necessary to manufacture a product or to provide a service have been available"⁴⁶.

In order to analyse the characteristics of entrepreneurs using new technologies, the sets of data from 2013-2015 have been accumulated. On the one hand, such collection provides a larger size of the research sample, on the other hand, the period between the outermost points of the study is not too long and equals circa two years. In such situation, one may assume that external conditions for running a business have not changed substantially. The accumulation of the research samples resulted in a total sample with the size of 6001 respondents. Within this sample, 569 persons have been identified as entrepreneurs in the early stage and included in the TEA measure. Among these persons, 35 entrepreneurs declared using the newest technologies (up to one year) while 113 - using new technologies (between one and five years). The rest, that is 421 entrepreneurs in the early stage declared using technologies older than five years. In view of such results, it is most expedient to combine groups of entrepreneurs using the newest and new technologies and analyse them jointly. There are 148 such persons as a result, which constitutes a foundation for statistical analysis. Most of analyses in this Chapter pertain to the comparison of the new technology entrepreneurs with the remaining entrepreneurs, that is the ones using solely the technologies which have been available for at least five years.

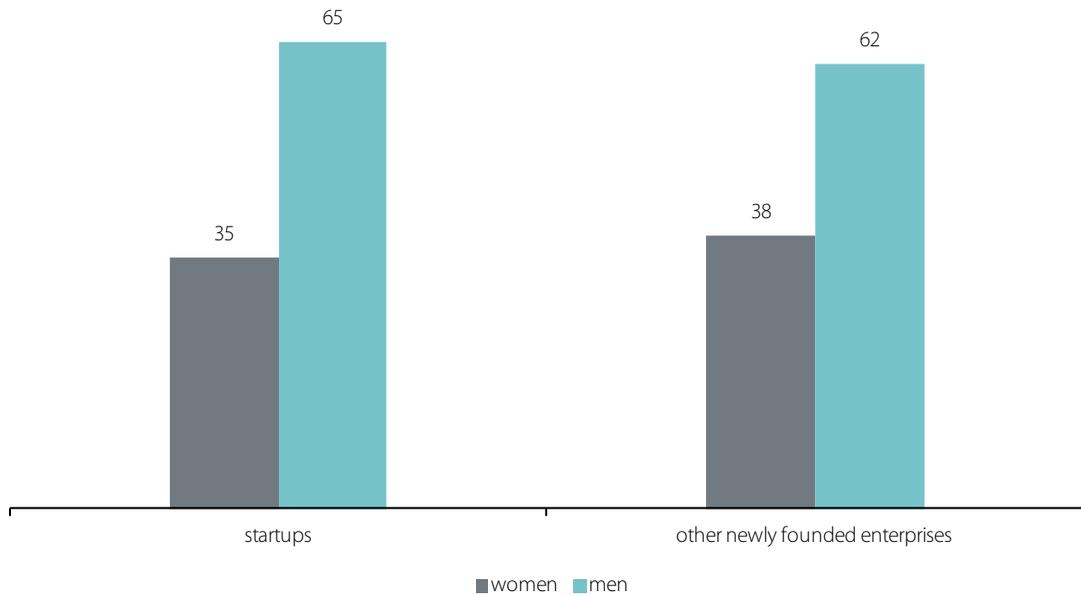
3.2. Main attributes of startups

Certain differences between the startups and other newly established companies become visible already at the level of basic attributes, such as gender, age, size of a household, additional employment, education.

⁴⁶ There are three possible answers: "since less than one year", "between one year and five years", "longer than five years". Depending on the answer given, GEM divides entrepreneurs into those using newest technologies (up to one year), new technologies (one to five years) and not using new technologies (more than five years).

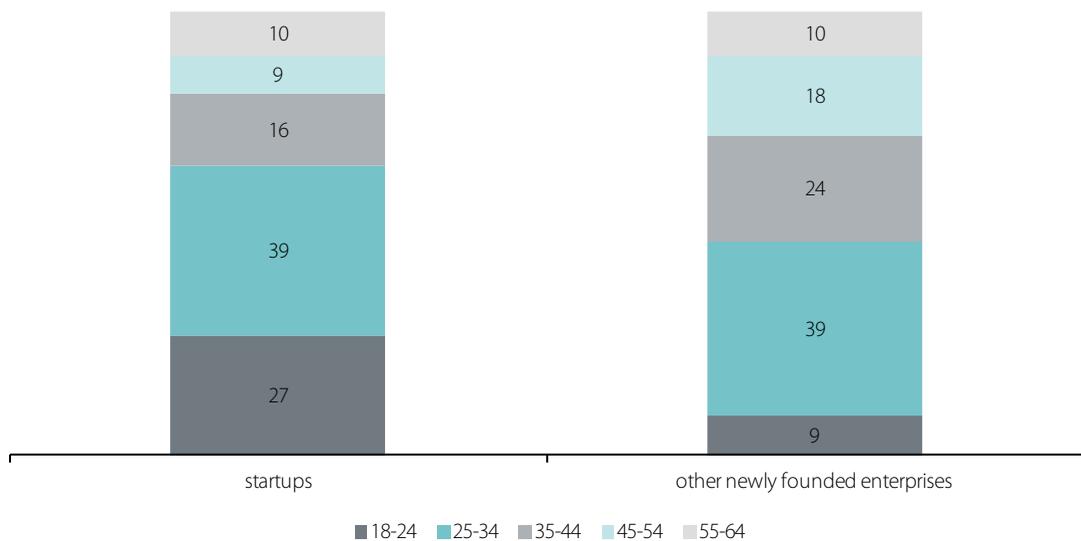
Women represent 35% of startup owners and 38% of owners of the remaining companies. It indicates a slight additional domination of men in the group of “technological entrepreneurs”, but the difference is infinitesimal so it may be a result of a statistical error.

Diagram 20. Gender of startup owners and owners of newly established companies



Source: The authors’ own elaboration on the basis of Global Entrepreneurship Monitor data for 2013–2015.

Diagram 21. Age structure of startup owners and owners of the remaining newly established companies



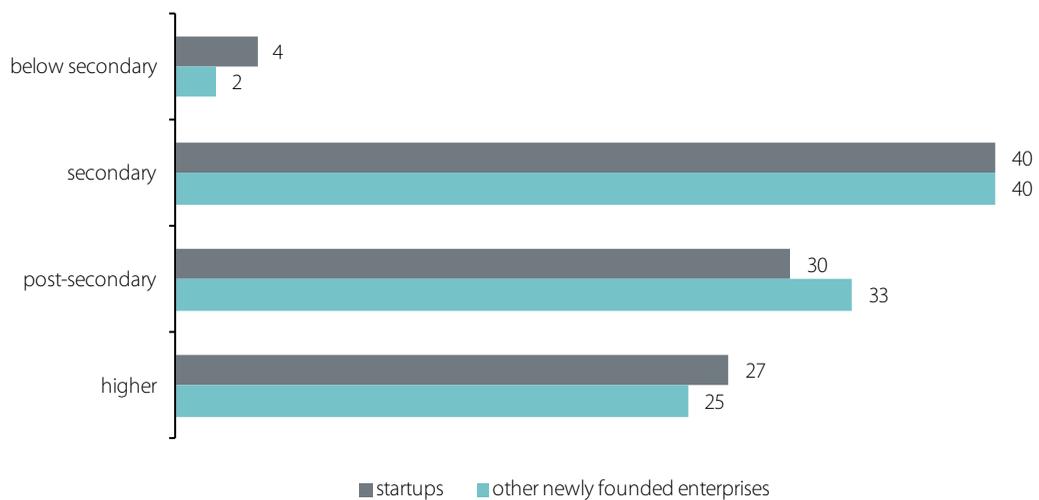
Source: The authors’ own elaboration on the basis of Global Entrepreneurship Monitor data for 2013–2015.

However, there are big differences as regards the analysis of the age of startup owners and owners of the newly established companies. The average age of the startup owners is 33.7 years, while the average age of

the entrepreneurs not using new technologies is 37.8 years. The difference stems primarily from three times bigger share of the youngest entrepreneurs (18-24) among those using new technologies. On the other hand, the share of persons aged 35-54 is much larger among the entrepreneurs using traditional methods. The differences in this area are substantial and it is worth noting that every fourth startup owner is below 25 years of age. On the one hand, it is in line with intuitive thinking about the use of new technologies and on the other, it sends an optimistic message about the entrepreneurial potential of young Poles.

In relation to the analyses presented earlier, it is also possible to trace the level of education in both groups. It turns out, however, that differences in this area are marginal. The startup owners are slightly better educated, but only when it comes to the tertiary education. 27% of them hold a university diploma, in the second group there are 25% of university graduates. At the same time, a greater part of startup owners do not even have the secondary education (3.5% to 2.1%).

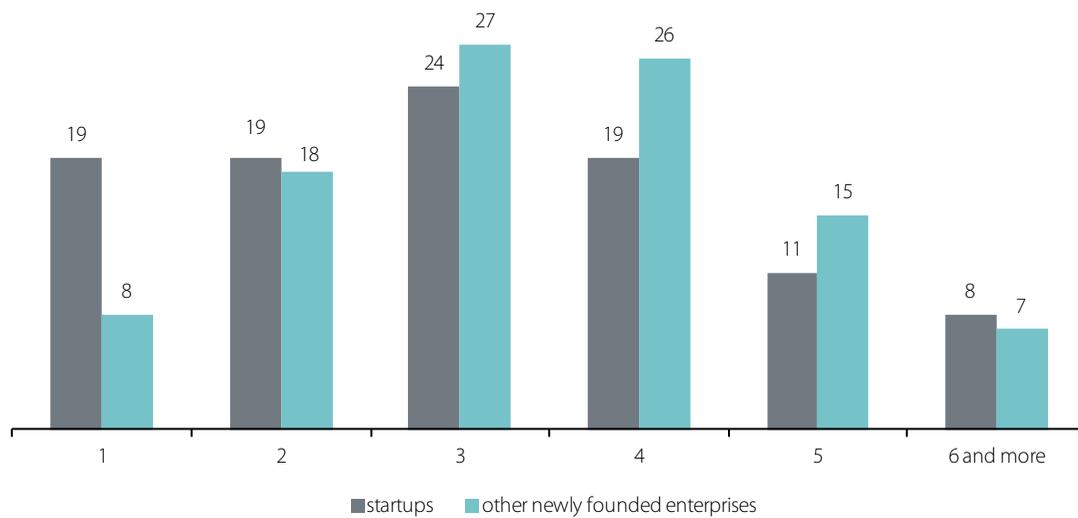
Diagram 22. Education of startup owners and owners of the remaining newly established companies



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data for 2013–2015.

The analysis of the size of a household also provides interesting results. Among the startup owners, the singles constitute a more numerous group (19% to 8%), among the remaining owners the share of families composed of four (26% to 19%) and five persons (15% to 11%) is higher. The fact that every fifth "technological" entrepreneur lives on his/her own surely results from their lower age, but may also mean that they devote more time to running a business.

Diagram 23. Household size of startup owners and owners of the remaining newly established companies (number of persons in a household) (%)

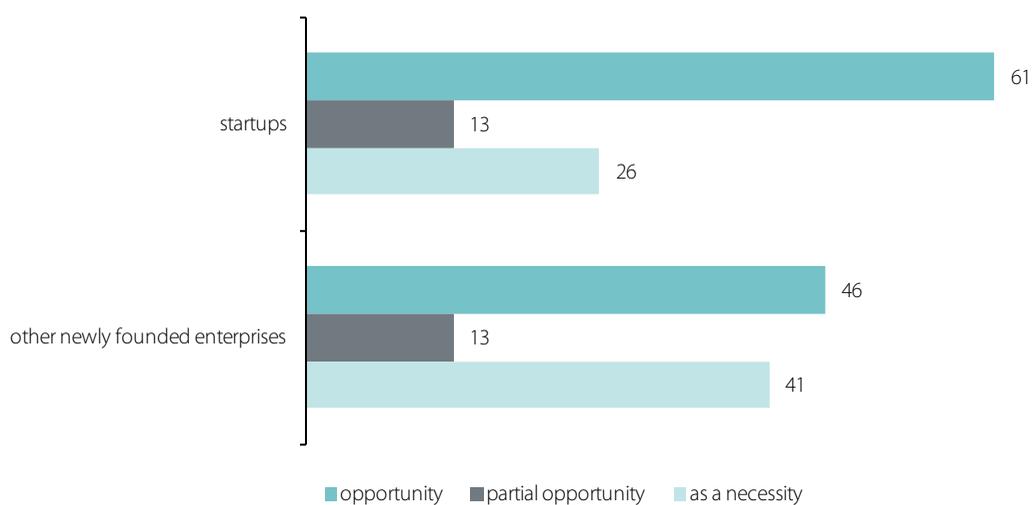


Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data for 2013–2015.

3.3. Motivations and aspirations of new technology entrepreneurs

One of the central topics of GEM is motivation governing the entrepreneurs who decide to start a business. Traditionally, a distinction has been made between the motivation based on the will to take the advantage of business opportunity and the motivation out of necessity, meaning starting a business while in unemployment or possessing unsatisfactory qualifications for expected employment. In the course of the development of the project, this set has been enriched with mixed motivations.

Diagram 24. Motivations of startup owners and owners of the remaining newly established companies



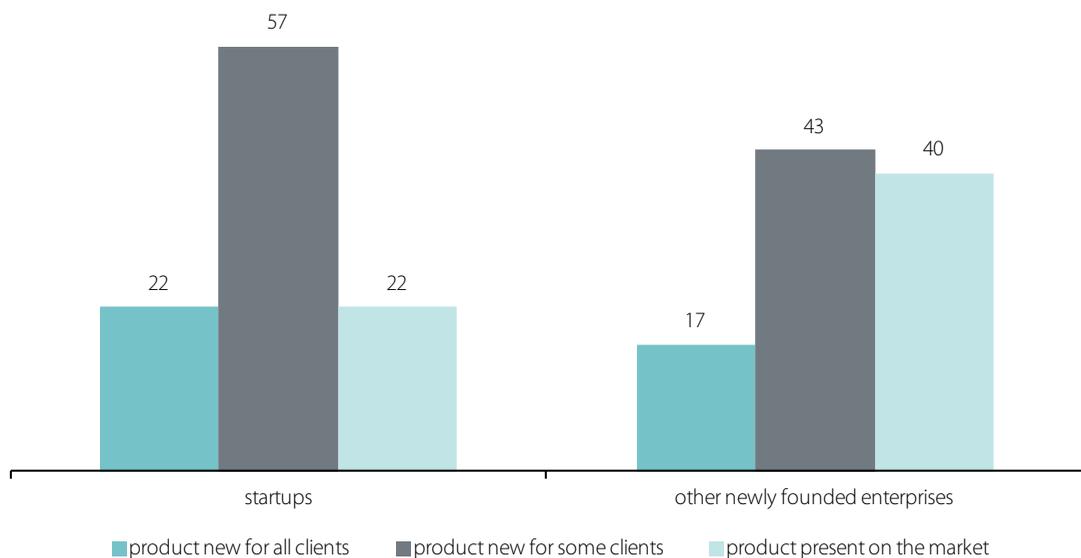
Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data for 2013–2015.

In line with the expectations, the startup owners are much more often driven by the intention to take the advantage of a business opportunity. This pertains to three out of five of them. In the case of the remaining new entrepreneurs, this is only 46%. The share of startups motivated by necessity is lower by a similar value (15 p.p.) The results indicate that in the case of the “technological” entrepreneurs, the business is significantly more often targeted at a specific idea - an opportunity that can be used. However, one should remember that motivation based on opportunity at the level of 60% is not a high result as compared to other countries. In the majority of countries with developed economic systems, the average motivation of this type among the entrepreneurs in general is at a higher level.

Alongside the motivation to start a business, the entrepreneurs’ aspirations are an important factor, demonstrating the quality of such undertakings. There are two primary categories of aspirations in GEM: innovativeness and development measured by the creation of work places. One should expect that startups will have higher aspirations than others in all categories.

This is primarily confirmed in the area of product innovations. Almost 22% of the “technological” entrepreneurs declare that their products or services will be new to all customers; in the case of the remaining entrepreneurs this share amounts to less than 17%. There is also a big difference in the case of declarations that products or services shall be new for some customers (57% to 43%). The biggest difference pertains to products and services, which are not new for any customer. This is declared only by one in five startups, while in the case of the remaining entrepreneurs it is two out of five. Coexistence of the use of new technologies and product innovations is in a way natural, in some cases new technologies directly translate into product novelty, in others application of such technologies in the manufacturing process or service provision facilitates offering new solutions to clients.

Diagram 25. Innovations of startup owners and owners of the remaining newly established companies



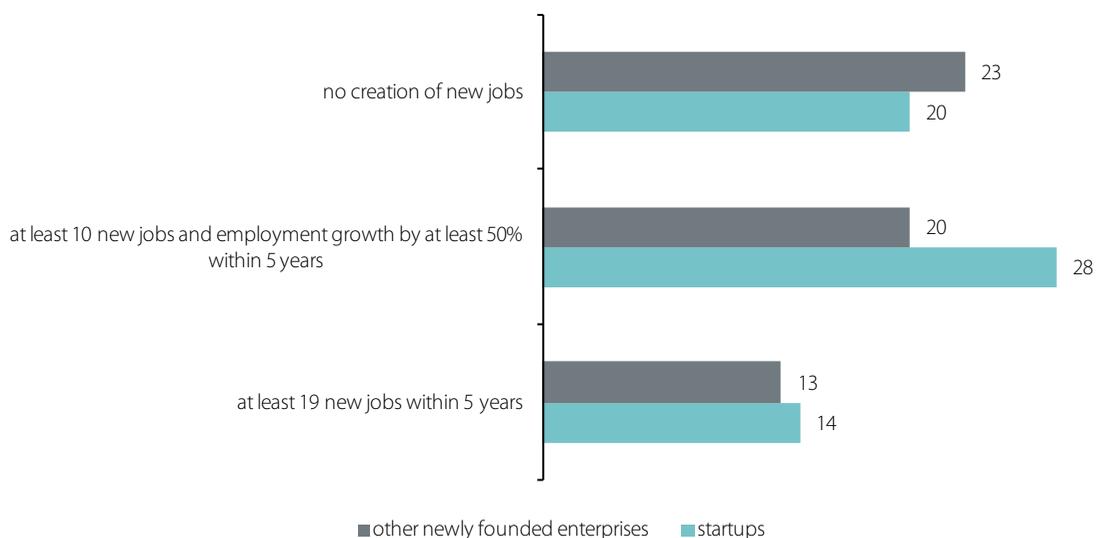
Source: The authors’ own elaboration on the basis of Global Entrepreneurship Monitor data for 2013–2015.

There are also certain differences in the area of aspirations related to growth measured by the creation of work places. What is interesting is that the differences are the smallest in terms of the share of entrepreneurs declaring no intention to create any jobs in subsequent five years. Such declaration has been made by over 20% startups and almost 23% of the remaining companies. It means that the “solo” type entrepreneurship is a popular choice in the case of “technological” entrepreneurs - some of them probably specialise in personal execution of work related to new technologies, this group may, for example, include those using IT technologies.

The biggest differences in aspirations between both groups have been recorded in the area of high growth aspirations, understood as the creation of at least 10 work places over the next 5 years accompanied by an increase in employment by at least 50%. Such declarations are made by every fifth entrepreneur not using new technologies, while it is 28% in the group of technological entrepreneurs. Thus, the use of new technologies generates positive thinking about the development of a company, however, it holds true only for the high, not the highest, aspirations.

There are also small differences in the case of entrepreneurs who declare the highest growth aspirations and want to create at least 19 jobs in the next 5 years. This is claimed by 14% of startups and is only one percentage point less than with the remaining entrepreneurs. This result is quite surprising and indicates that similar share of “gazelles” of business use or not use new technologies, though of course one should bear in mind that here we only talk about the declarations pertaining to the future.

Diagram 26. Growth aspirations of startup owners and owners of the remaining newly established companies



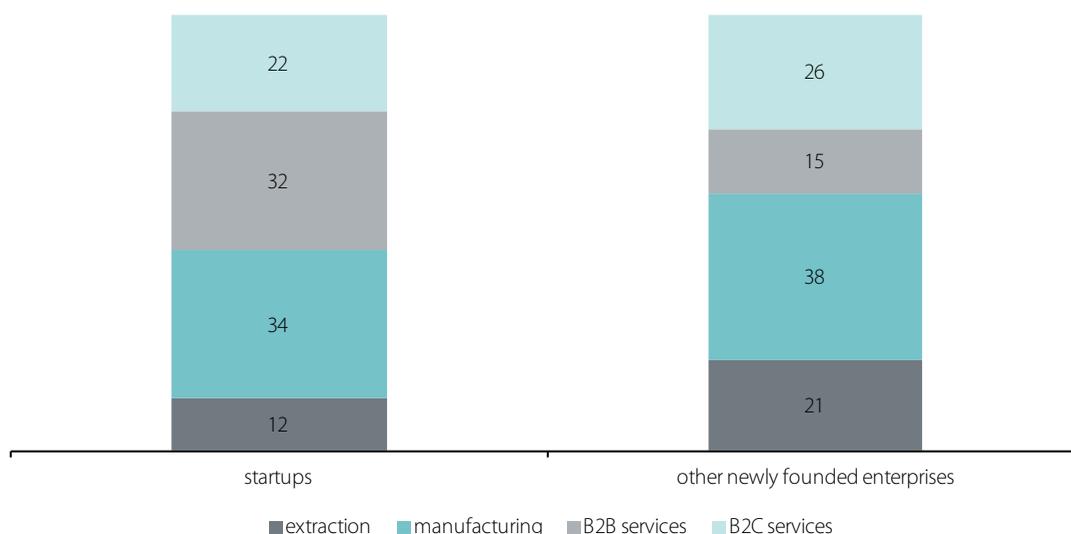
Source: The authors’ own elaboration on the basis of Global Entrepreneurship Monitor data for 2013–2015.

3.4. Sectors of startup activity

Alongside the differences indicated above, there are also differences pertaining to the sector of activity of entrepreneurs. The share of companies, whose activity is related with acquisition of all types of raw materials, including mining and agriculture, is much lower among startups.

There are also certain differences in the case of services provided to individual clients and in the case of manufacturing. In both of these types of activity, the share of startup is slightly lower. However, the biggest difference pertains to the services provided to other companies. Here, the share of startups is almost twice as high as in the remaining companies. Every third entrepreneur using new technologies operates in this manner.

Diagram 27. Sectors of activity of startup owners and owners of the remaining newly established companies



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data for 2013–2015.

A more detailed breakdown reveals more differences between the startups using new technologies and other newly established companies. In the latter group one will more likely find companies operating in the following sectors: agriculture, forestry and fisheries, mining and construction, wholesale, retail, public administration, health care, education, and social services. The former group will more often include companies operating in information, communication, and administration services, as well as support for the services provision.

Table 14. Activities of the newly established companies by sectors

	Startups	Other newly established companies
agriculture, forestry, fisheries	0.7%	2.2%
mining, construction	9.7%	13.1%
manufacturing	6.9%	6.1%
transportation, storage, disposal	4.1%	3.9%
wholesale trade	2.8%	5.3%
retail trade, hotels, restaurants	7.6%	10.0%
information and communication	8.3%	2.9%
financial intermediation, real estate agency	2.8%	2.9%
professional services	38.6%	37.1%

cont. Table 14

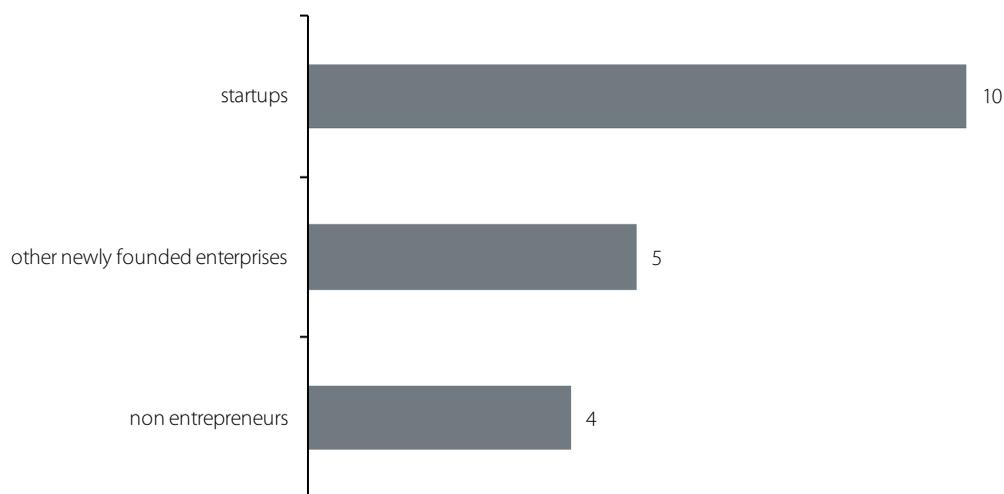
administrative services	4.1%	2.2%
public administration, health care, education, social services	11.7%	12.9%
service activity support	2.8%	1.5%

Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data for 2013–2015.

3.5. Entrepreneurship of startup owners

The activity of business angels is becoming increasingly popular in Poland. The GEM data indicate that over the past three years 3.7% of adult Poles provided funds for a business undertaking launched by another person. However, this result is diversified according to business operations and the use of new technologies in the process.

Diagram 28. Business angels among groups of entrepreneurs and non-entrepreneurs



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data for 2013–2015.

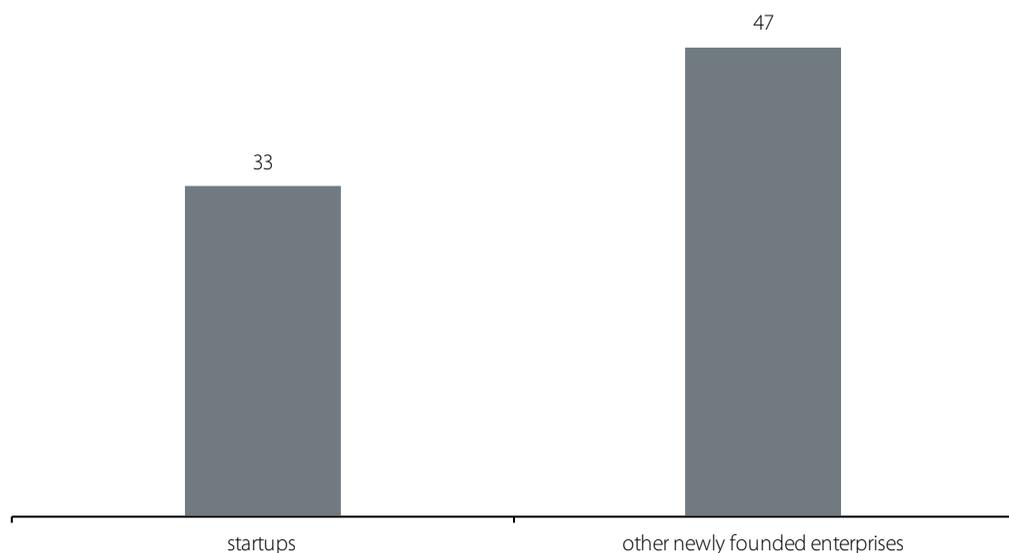
As the diagram shows, the entrepreneurs using new technologies are also actively involved in providing financial support to other undertakings. As many as every tenth of them provided such support in the past three years. The entrepreneurs not using new technologies provide such support half as often (one in twenty), while non-entrepreneurs two and a half times less often (one in twenty five). It shows that “technological” entrepreneurs are very active not only in their own operations, but also in monitoring and getting involved in the activities of other entrepreneurs. Providing financial support may also be connected with their business skills and the knowledge of the sector in which they operate. However, the support provided by the entrepreneurs using new technologies is on average lower and amounts to PLN 30,000, while the support provided by other entrepreneurs nears PLN 50,000 on average. More information on the topic can be found in Chapter 4 devoted to financing.

There also might be certain differences between the two groups of entrepreneurs, when it comes to the perception of entrepreneurship or the environment of entrepreneurship. GEM collects data on: spotting

business opportunities, entrepreneurial intention, fear of failure, perception of entrepreneurship as a desired career path, respect for entrepreneurship and entrepreneurs, as well as presence of information on successful entrepreneurs in the media. In the majority of these variables there are no significant differences between the entrepreneurs using new technologies and others.

However, the area where there are significant discrepancies between these two groups is the fear of failure. It pertains to the degree to which fear of business failure may stop the respondents from starting a business. Fear of failure is one of the determinants of the level of entrepreneurship and in Poland it reaches the highest values in the world. In Poland, the share of persons experiencing fear of business failure in the past three years amounted to 60%⁴⁷, which means that three in five persons may refrain from starting a business for fear of failure.

Diagram 29. Fear of failure of startup owners and owners of the remaining newly established companies



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data for 2013–2015.

The comparison of the two analysed groups indicates that it is much more intense in the case of the new entrepreneurs not using new technologies. It is experienced by almost every other of them. The entrepreneurs using new technologies are affected to a much smaller degree - it affects only one in three of them. This is a result comparable to that of the European countries with a low level of fear of failure, though one should bear in mind that in African and Latin American countries the results often dip below 20%.

⁴⁷ The value of the indicator refers to the entire adult population, Chapter 2.2 describes in greater detail the indicator referring to persons seeing an opportunity to start their own business.

4. Financing a new business activity: the perspectives of an entrepreneur and informal investors

4.1. Introduction

Starting one's own business never comes easy. As we know from the previous Chapters, it is a long way from intentions of starting one's own business to the actual start of real operations.

One of the reasons for which people drop the idea is access to financing. The entrepreneurs at the very beginning of this path, who only have an idea and no evidence that they will make it, are not in the range of interest of financial institutions. At this moment they are forced to rely on their own resources or family and friends. It is related to high risk and fear of the unknown, which an entrepreneur must face.

The surveys of Polish startups indicate that when financing a business almost 60% of them used their own funds, 23% used grants, 20% used financing from business angels, 18% used venture capital financing and only 8% relied on bank loans⁴⁸. The companies using only their own resources start making money immediately after entering the market twice as often as other startups⁴⁹.

The reports from entrepreneurs who consciously decided to use only their own capital confirm that this is a difficult path, requiring a lot of sacrifice⁵⁰. At the same time, it facilitates finding hidden potential in oneself and one's employees⁵¹. And most importantly, it helps to retain control over one's own company⁵².

There is an ongoing debate on the advantages of using only one's own capital in the US, where the market is saturated with VC and BA investors. A category of *zombie startups* has even been created, i.e. companies which generate just enough income to barely cover operational costs⁵³. The emergence of this category of companies is related to far too easy access to financing and defies the principle of "*grow big fast or fail fast*". Some VC funds from the Silicon Valley have already arrived at the conclusion that "the more money a company gets, the less value it will create"⁵⁴. Getting a lot of cash results in a situation where an entrepreneur loses discipline.

Though it seems that in Poland we are far from having the market saturated with high risk capital, the truth on pros and cons of using only one's own capital is universal.

The next part of this Chapter focuses on the presentation of data on financing business activities of not only startups, but all companies.

Alongside the topic of financing activities, we will also discuss the opposite, i.e. informal investments in companies. It is the funds of informal investors that companies use first. This category could include first of all families and friends of entrepreneurs, but also "business angels", i.e. private persons (less often companies),

⁴⁸ A. Skala, E. Kruczkowska, M. Olczak, *Polskie Startupy. Raport 2015*, p. 24.

⁴⁹ Ibidem, p. 25.

⁵⁰ D. Sweeney, *Four Lessons I Learned About Bootstrapping After I Bought My Business*, Startup Nation, <http://www.startupnation.com/articles/four-lessons-learned-bootstrapping-bought-business/>, accessed: 09.03.2016.

⁵¹ R. Smith, *Why Every Startup Should Bootstrap*, Harvard Business Review, 02.03.2016, <https://hbr.org/2016/03/why-every-startup-should-bootstrap>, accessed: 09.03.2016.

⁵² Ibid.

⁵³ T. De Kerros, *Why zombie startups will rise from the tech bubble*, The startup illusion, <https://startupillusion.wordpress.com/2016/02/23/why-zombie-startups-will-rise-from-the-tech-bubble-2/>, accessed: 09.03.2016.

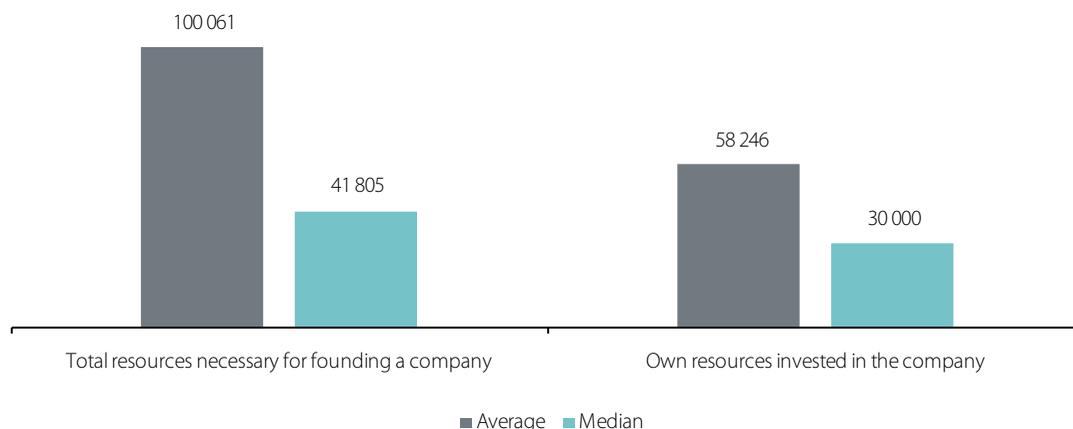
⁵⁴ An interview with Jim Goetz (partner in Sequoia Capital) in: *How Unicorns Grow*, Harvard Business Review January–February 2016 issue, p. 28–30.

usually affluent, who offer financing to others, primarily for profit. Informal investors would normally offer lower interest rates and more flexible forms of repayment than formal investors⁵⁵. As “business angels” are usually experienced and successful entrepreneurs themselves, they can offer advice and a network of contacts. At a later stage of company’s development they can sell their investment, e.g. to VC funds⁵⁶.

4.2. Financing of the beginning of activities

According to the GEM data for 2015, an average company starting activities⁵⁷ in Poland had on average PLN 100,000 at its disposal. However, 50% of these companies have spent no more than PLN 42,000 (median) to start. On average ca. PLN 58,000 came from one’s own resources. However, 50% of these companies have spent no more than PLN 30,000 from their own funds (median) to start operations. At the same time, about one half of companies starting activities used only their own funds.

Diagram 30. Funds needed to start a business (in TEA group) in Poland (PLN)



N = 114

Source: The authors’ own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

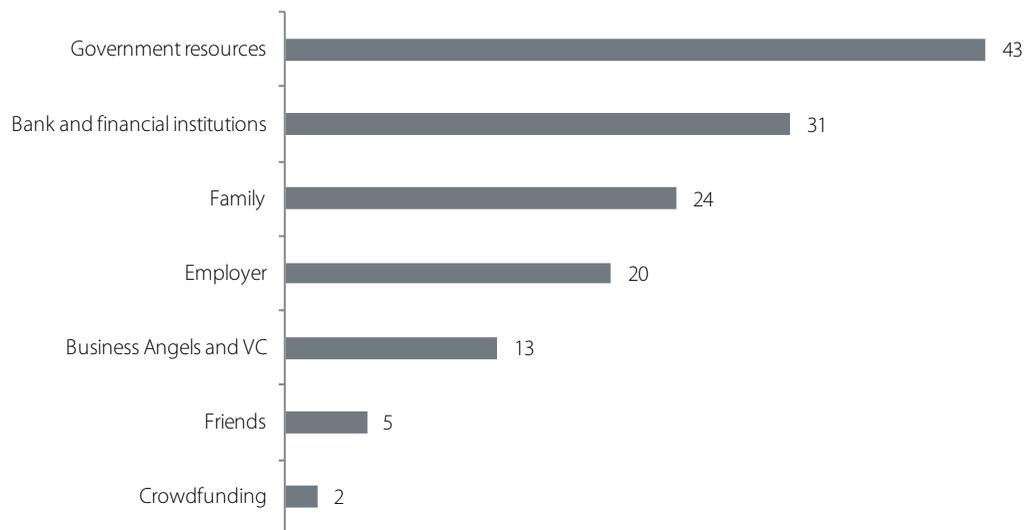
The primary source of external financing for starting activities were public funds (43%). Every third company used financing from banks. In total, around 50% future businessmen used funds provided by persons whom they knew privately, i.e. a family member, an employer, or a friend (informal investors). Most of the companies used only one source of financing (46%), less often two or three (24% and 19%, respectively), while every tenth company used as many as four sources.

⁵⁵ *Formal and informal investors: A blessing or a curse?*, Startupticker.ch The Swiss Startup Monitor, 23.07.2014, <http://startupticker.ch/en/news/july-2014/formal-and-informal-investors-a-blessing-or-a-curse>, accessed: 10.03.2016.

⁵⁶ *Informal investors and high-tech entrepreneurship*, Innovation Papers No. 12., Cordis, https://cordis.europa.eu/innovation-policy/studies/studies/section3_3.pdf, accessed: 10.03.2016.

⁵⁷ In the case of this Chapter, it is a company belonging to TEA (*Total early-stage Entrepreneurship Activity* – see p. 16) - taking steps to start operations or operating for no longer than 3.5 years.

Diagram 31. External sources of financing new business activities in 2015 in Poland (%)



N = 127, the data come from multiple-response questions – the percentages do not add up to 100.

Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

The study also analysed whether the attributes of entrepreneurs had an impact on the amounts spent on starting a business. Demographic attributes (i.e. gender, education, size of a town), motivation to start activities (opportunity or necessity), and attributes related to the specificity of an activity (technological advancement of the sector, export activities, technology applied, competition in the market, and the method of market expansion) have been checked. It turns out that neither demographic attributes, nor motivation, significantly diversify the amounts for starting a business. Significant differences result from the specificity of activities, but only in certain aspects⁵⁸.

First, the method for market expansion⁵⁹ has an impact on the amounts drawn from one's own resources. It turns out that an average expenditure from one's own funds with no market expansion are twice as high as an average expenditure of entrepreneurs who decided to go for medium or significant market expansion (PLN 72,000 and PLN 37,700 respectively).

Also the level of novelty of a product had an impact on the allocation of one's own funds (whether it is offered by many, some, or none of the competitors). It turns out that almost twice as much has been spent from one's own funds on products which had many competitors than in the case of products with few or none competitors (PLN 71,000 and PLN 37,500 respectively).

The total expenditure of starting an activity has also been influenced by how modern the technology applied has been. Technology has been classified in three ranges: present in the market for less than one year, between 1 and 5 years, and longer than 5 years. It turns out that in the case of companies using technologies older than 5 years, the initial expenditure has been more than twice as high than in the case of companies using newer technology (PLN 113,500 and PLN 53,500 respectively).

⁵⁸ In order to compare statistical relevance of differences between averages, t test has been used with 95% confidence level.

⁵⁹ The method of market expansion is a combination of three factors: application of a new technology, introduction of a new product / level of competition on the market regarding a certain product/service, entering a new market / sales to new clients. No market expansion means that none of these novelties have been implemented. Significant market expansion means that the company has applied new technology, entered a new market, offered its product to new customers.

The summary of the data brings the conclusion that the entrepreneurs-beginners are more inclined to spend their own resources for much more traditional activities than for those more innovative or envisaging larger market expansion. We shall come back to this thread in the final summary.

Table 15. Factors influencing the level of funds involved in starting a business in Poland

	Average in PLN
The method of market expansion	Own funds
No market expansion	71 807
Medium or significant market expansion	37 680
How modern is the technology	The total expenditure to start
Technology newer than 5 years	53 540
Technology older than 5 years	113 404
How many competitors offer the same product	Own funds
Many	70 899
Some or none	37 469

N = 114

Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

4.3. Informal investors

Further in the Chapter we shall focus on the perspective of investors. In 2015, 4.5% of adult Poles were informal investors, i.e. ca. 1 million persons invested in someone's early stage company over the past 3 years. In recent years, this share has been slowly, but systematically, increasing from the level of 3.1% in 2013. In earlier years, we were slightly below (by ca. 0.5-1.5 p.p.) the average in the European countries, while in 2015 we reached the same level.

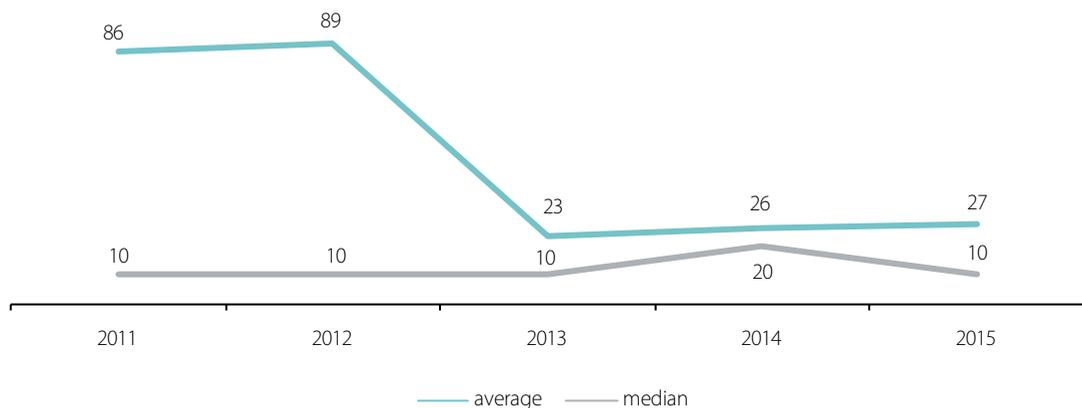
Diagram 32. Informal investors in Poland and Europe in 2011-2015 (% of adults)



Source: The authors' own elaboration based on Global Entrepreneurship Monitor 2011–2015 data.

In 2015, 50% of informal investors in Poland invested not more than PLN 10,000 (median) in new enterprises. The average value of an investment amounted to ca. PLN 27,000. In 2013-2015, the average value of an investment increased slightly - by ca. PLN 4,000 (in 2011-2012 the average had been much higher, but the median had remained at the level of PLN 10,000 - it results from the fact that in those years the research sample included very large investments, above PLN 1 million, which had an impact on the value of the average). The value of the median in the past five years remained at the level of PLN 10,000, which means that over this period 50% of investors invested not more than this amount. The exception is 2014, when 50% of informal investments amounted to not more than PLN 20,000.

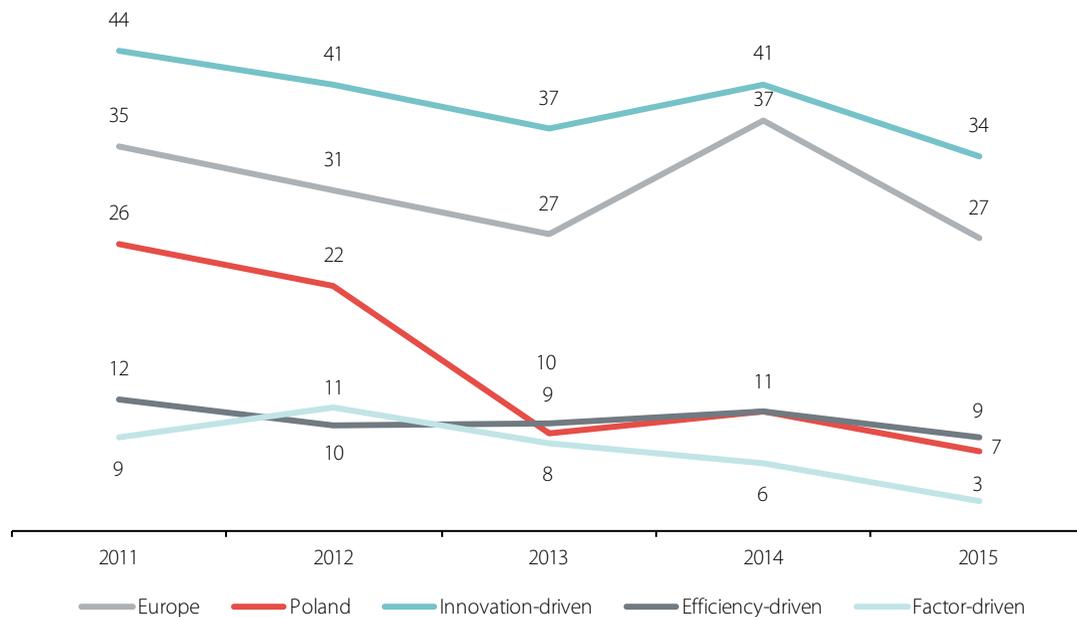
Diagram 33. The value of investments of informal investors in Poland in 2011-2015 (PLN thousand)



Source: The authors' own elaboration based on Global Entrepreneurship Monitor 2011–2015 data.

In 2013-2015, the average value of informal investments in Poland remained at the level very close to the level of other efficiency-driven economies (Poland is included in this very group). It was also a level significantly lower than the average in Europe and the average in innovation-driven economies (the biggest difference was in 2014: USD 26,000 in the case of Europe and USD 30,000 in the case of innovation-driven economies). Higher values in 2011-2012 have already been discussed in the previous paragraph.

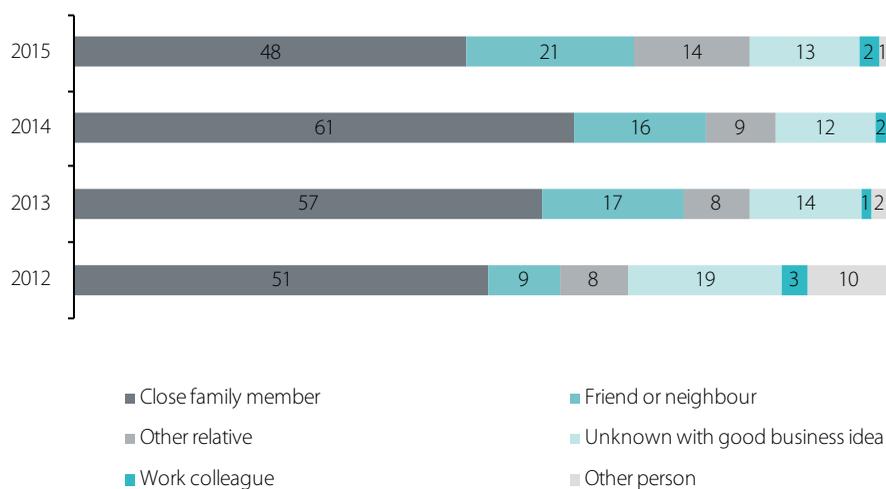
Diagram 34. Average values of informal investments in Poland and globally in 2011-2015 (USD thousands)



Source: The authors' own elaboration based on Global Entrepreneurship Monitor 2011–2015 data.

Informal investors invested primarily with a closer network. In 2015, 48% of recipients of investments were close family members, 20% were friends or neighbours, 14.5% other relatives, and 2% - work colleagues. In the case of 13% of investors, a recipient was a stranger with a good business idea and these investors may be categorised as “business angels”.

Diagram 35. Investment recipients of informal investors in Poland in 2012–2015 (%)

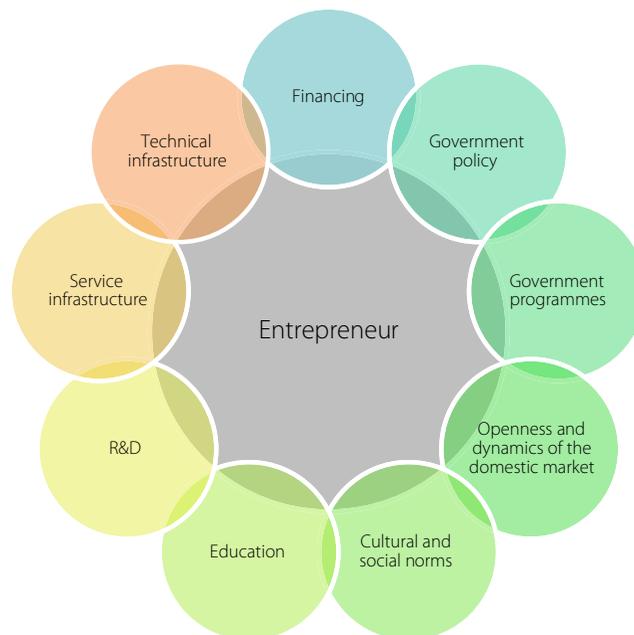


Source: The authors' own elaboration based on Global Entrepreneurship Monitor data.

In comparison to previous years, in 2015 the share of investors investing in companies of close family members decreased (by ca. 13 p.p.), while the share of investments in friends' undertakings and other relatives increased (both by ca. 5 p.p.). The share of investments in business ideas of strangers has been stable since 2013.

5. Determinants of entrepreneurship

The picture of entrepreneurship in Poland is supplemented by the conditions of establishing and running companies. In order to investigate this area, the National Expert Survey (NES) is conducted within GEM. In 2015, 36 experts took part in this survey; they were asked to fill a questionnaire, in which they stated to what extent they agreed with various statements grouped in 9 areas⁶⁰:



In the opinion of experts, in 2015 the quality of technical infrastructure was conducive to new entrepreneurs or those wanting to develop their companies. Fast and inexpensive access to telecommunication services (internet and phone) was particularly supporting. According to the experts, five years earlier new entrepreneurs had been experiencing much worse quality of infrastructure, in principle in all its aspects. Roads as well as media or telecommunication services have been largely improved over this period of time. As it can be seen, technical infrastructure became widely available and inexpensive.

The second area, which in the opinion of the experts was conducive to new entrepreneurs in 2015, was the access to financing. Among all sources, beginning entrepreneurs had the best access to public support, primarily in the form of subsidies. They could also, according to the experts, quite easily use capital and debt financing. Access to funding from friends and relatives was also good. Also in the area of finance, comparing

⁶⁰ Each area included 3–8 statements on the subject on which the expert was to give his/her opinion, using the following scale: 9 points - completely true, 8 - true, 7 - moderately true, 6 - somewhat true, 5 - neither true nor false, 4 - somewhat false, 3 - moderately false, 2 - false, 1 - completely false.

In previous years, the results of NES were presented on a five degree scale. Because all statements were positive, i.e. they reported that a given aspect in Poland has a positive impact on entrepreneurship, the more points were attributed to a given area, the better the situation was assessed. Then, average answers of all experts were calculated for given statements. The higher the value of the average, the better assessment of a given aspect. Then, the respective statements were aggregated to areas specified above and averages were calculated for them as well. This analysis used both: the average results for the respective statements and the averages for the respective groups – depending on the context and the possibility of presenting the problem in an interesting way. In addition, the results for Poland were compared with the average results in innovation-driven economies. In all analyses in this Chapter, the situation in Poland has been presented against the background of the situation in innovation-driven economies.

More detailed descriptions of all areas can be found in Global Entrepreneurship Monitor - Poland 2012.

entrepreneurs starting their businesses in 2015 and those doing so in 2011, one could make a claim that the former had substantially better access to practically all sources of financing. A particularly significant change was related to public support and the support from private persons.

The impact of openness and market dynamics on the conditions for starting a new business is an interesting area. Quickly evolving market, with no substantial entry barriers facilitates easy entry of new enterprises. In the opinion of the experts, in 2015 the dynamics of the domestic market - both for customer goods and services and b2b - was high enough to help new entrepreneurs enter it. On the other hand, five years earlier the dynamics had been assessed higher and gave even more opportunities⁶¹.

Unfortunately, certain areas made it difficult for new and developing entrepreneurs to run their businesses. The area of research and development has been assessed as definitely causing problems, particularly when we compare the quality of R&D conditions for the companies from innovation-driven economies. Against this background, we see that Polish new entrepreneurs are in unfavourable position. The following were negatively assessed: knowledge transfer from scientific institutions to new enterprises, disadvantaged situation of SMEs, when it comes to access to R&D in comparison to large entities, the quality of scientific and research infrastructure or poor support for commercialisation of scientists' ideas. It is hard to assess unequivocally, whether five years earlier this area functioned worse or better. One could claim that in general the entrepreneurs have not seen a substantial change here, it was equally poor all the time, though e.g. the assessment of access to government grants for R&D has improved substantially, but both the situation of SMEs against large enterprises and access of young enterprises to the newest technologies deteriorated.

Table 16. General picture of determinants of entrepreneurship in Poland in comparison to innovation-driven economies (X_t) and in comparison to the previous year (Y_t)⁶²

Year	Summary index of y/y changes in determinants of entrepreneurship in Poland (Y_t) ⁶³	Summary index comparing situation in Poland to innovation-driven economies (X_t) ⁶⁴
2015	-2.72	-1.03
2014	4.80	-1.64
2013	4.85	-2.71
2012	-3.63	-4.76

Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor data for 2011–2015.

⁶¹ In all these areas we did well also in comparison to innovation-driven economies.

$$X_t = \sum_{i=1}^n \left(\frac{PL_i^t}{inno_i^t} \right)$$

$$Y_t = \sum_{i=1}^n (PL_i^t - PL_i^{t-1})$$

where:

i - subsequent questions in the questionnaire;

PL_i^t - the average from answers of experts for question i in Poland in period t;

$inno_i^t$ - the average in innovation-driven economies for question i in Poland in individual countries in period t;

t - subsequent years of GEM surveys;

X_t - summary index comparing situation in Poland to innovation-driven economies;

Y_t - summary index of changes in determinants of entrepreneurship in Poland.

⁶³ Index shows differences in values in a given and the preceding year. Positive value means improvement, negative value - deterioration of the situation.

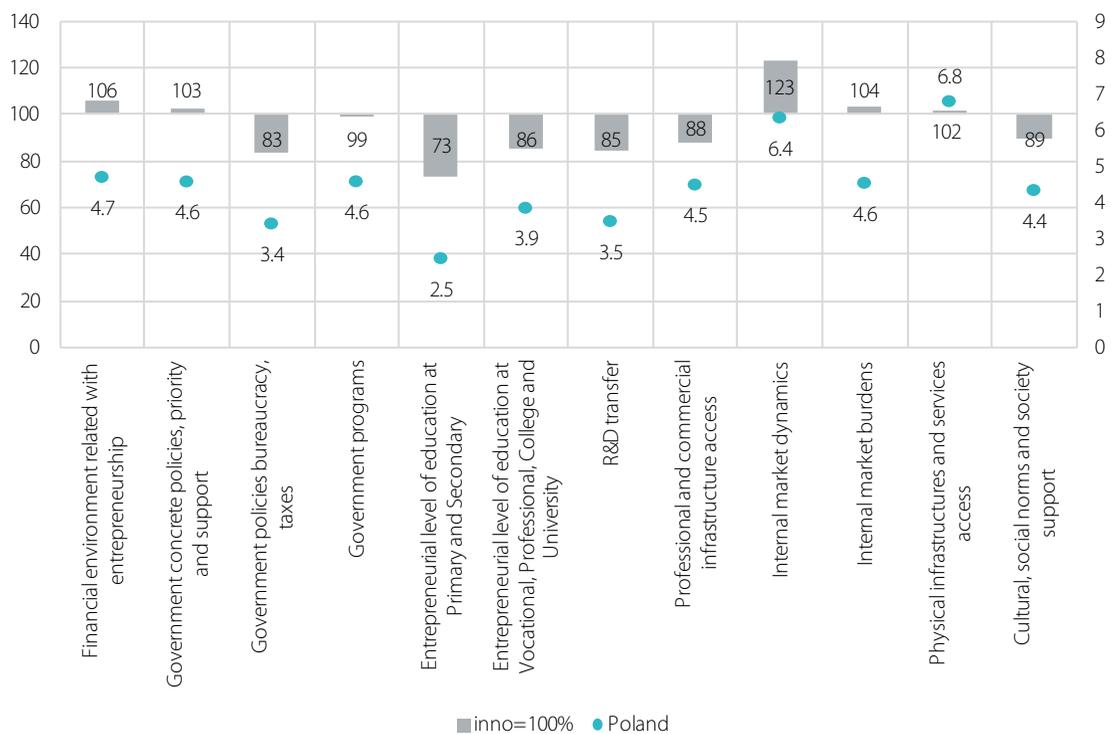
⁶⁴ Index shows the situation in Poland in comparison to innovation-driven economies. The lower the value, the worse Poland performs in comparison to innovation-driven economies.

Education is sort of a separate area, particularly at primary and secondary levels, which have an influence on the level of entrepreneurship in future. Here, the experts draw a quite disturbing picture. In 2015, students of primary and secondary schools were encouraged to be creative and independent only to a very small degree. They were not acquiring satisfactory knowledge either on functioning of the economy, nor on entrepreneurship and starting a company. Anyhow, preparation for starting one's own business at universities has been assessed only slightly better. Despite the fact that we have been putting this problem in the spotlight for several years now, it has been continuously getting worse since 2011 (when the GEM survey was conducted in Poland for the first time).

According to the experts, the impact of other areas on starting and developing companies has not been so clear. Most of the time, the answers of the experts oscillated around the value of 5, that is the answer "neither true, nor false".

Looking globally at the determinants of entrepreneurship in Poland in 2015, it needs to be stated that we still lag behind the innovation-driven economies. However, over the past five years this distance has been systematically shrinking. The determinants of entrepreneurship in Poland has been changing; unfortunately, in 2015, after the two years of general improvement, the situation got worse and at least slight downturns were recorded in most areas.

Diagram 36. Determinants of entrepreneurship in Poland in comparison to innovation-driven economies (inno = 100)



Source: The authors' own elaboration on the basis of Global Entrepreneurship Monitor 2015 data.

6. Summary

GEM Poland 2015 presents entrepreneurship through the prism of beliefs and choices of individuals, adult residents of our country. However, whether an individual wants to take the risk of running one's own business, whether he or she is able to identify and take advantage of a business opportunity and then develop it, depends on the system and cultural determinants, in which such person operates, and on the attitudes in the society, to which he or she belongs. The environment of a human being plays an important role in shaping entrepreneurial attitudes and stimulating the development of enterprises. What is interesting, as shows the example of the most developed countries with innovation-driven economies, is that the environment is necessary not only to achieve the desired level of entrepreneurship, but also its quality. Thus, let us have another look at key indicators used in the GEM model and the information resources they carry.

Environment

On the one hand, still more than a half of our society presents a positive attitude towards entrepreneurship. We are more willing than other residents of Europe to agree that one's own business is a good choice in terms of fulfilment of occupational plans. On the other hand, this support for entrepreneurship as a way of life has significantly diminished over the last five years. We also perform worse than other Europeans in terms of the image of an entrepreneur and the involvement of the public media in disseminating positive information on entrepreneurship. It is clear that as a society we are rather sceptical about the merits and the role of entrepreneurs.

As regards the system and cultural determinants, which are subject to expert assessment under the GEM project, it is worth noting that according to this assessment the conditions for starting and developing new companies are not satisfactory, and they are even deteriorating. The areas in the need of changes and improvements include: R&D, particularly knowledge transfer from scientific institutions to new enterprises; access of SMEs to the results of R&D (now it is much worse in comparison to large entities); support for commercialisation of scientific ideas; quality of scientific and research infrastructure (although in this area a slight improvement has been recorded, especially in terms of the availability of grants for R&D); and education. The latter area is particularly criticised for the absence of creativity and independence of students at the level of primary and secondary schools; shortage of knowledge on functioning of the economy and starting businesses; unsatisfactory preparation to business activities on the part of universities. On the other hand, certain areas necessary for the development of enterprises are functioning very well or have improved over the past five years. Here, the stimulating role of technical infrastructure should be emphasised (in particular, the improvement of roads and access to telecommunication services in comparison to the situation from 2011), access to financing in the form of public support, capital financing, etc., and still high dynamics of the market, which facilitates the entry of young enterprises. Availability of public support for R&D has also been assessed favourably.

Person and his/her decisions

Entrepreneurship in Poland could be considered "young" – in comparison to the average for Europe or innovation-driven economies, we are characterised by a higher share of young enterprises (TEA), particularly those in the creation phase, as well as a slightly lower share of the established enterprises (present on the market for more than 3.5 years)⁶⁵, which became even lower in 2015⁶⁶. The share of young enterprises (TEA) is stable and relatively high - since 2011 it has oscillated at the level of slightly more than 9% of the popula-

⁶⁵ Young enterprises in Poland and Europe: 9.2% against 7.8%, while the established ones: 5.9% against 6.6% of the adult population. The distance is even bigger from the average in innovation-driven economies (where TEA represents 8.5% of the population, and established enterprises 6.8%). Presently, almost 1.5 million Poles are at the stage of starting a company or have collected remuneration from this source for no longer than 3 months, 895 thousand persons run new businesses, ca. 1.5 million persons have run their businesses longer than 3.5 years - these are the established enterprises (calculated on the basis of GUS data on persons aged 18-64 in 2015).

⁶⁶ From 7.3% to 5.9%.

tion of adults. Polish companies continue to cope with the market increasingly well, which can be seen in a decreasing percentage of persons closing their businesses⁶⁷.

We are also more eager to start up a new company and have more faith in our capabilities to run our own business than other Europeans or the residents of the most developed countries. Presently, 20% of Poles declare the intention to establish a company in the next 3 years (in Europe 13%), while 56% of us think of our entrepreneurial capabilities as satisfactory (43% Europeans think so).

This positive image is distorted by our concerns. The most important of these is fear of failure - for this reason, 48% of those who believe that they have good conditions to start a business in their environment decide not to take this step. It is one of the highest results in Europe, where on average 39% of adults experience fear of failure. We are also much more prudent, when it comes to the identification of business opportunities - 33% of Poles, with 37% Europeans and 40% of residents of innovation-driven economies, perceive their environment as conducive to start a company in the next 6 months.

At this point, it is worth noting that in 2015 the value of the indicator measuring the entrepreneurial intentions in the society increased, while the indicator pertaining to the fear of failure weakened. At the same time, in 2015 a governmental programme "New opportunity policy" was published and works continued on the amendments to the composition and bankruptcy law, which led to an implementation of two acts: "Bankruptcy Law" and "Reorganisation Law", which came into force on 1 January 2016. The intention of the legislator was to adjust possible restructuring solutions to the needs of an entrepreneur in a difficult financial situation, i.e. in fact to put the objective of saving a company in the first place. It is possible that mitigation of the fear of failure recorded in the last year of the survey was in part related with this information getting to public awareness. However, we will have to wait to see, if these changes bring a permanent positive impact, particularly in view of the fact that still in our country, in comparison to Europe, leaving business means liquidation of a company rather than leaving it in the hands of new owners. This in turn points to the need of the dissemination of knowledge on new regulations and their application.

Let us now have a look at the motivations driving persons starting their own business and aspirations of young enterprises, operating for up to 3.5 years. Presently, the dominating motivation to establish companies in Poland is the will to use an opportunity provided by running a business, rather than the necessity, i.e. the absence of a possibility to find a satisfactory job (the ratio of young enterprises established on opportunity vs. out of necessity is 46% to 28%)⁶⁸. Still, the share of companies established out of necessity is higher than the average for Europe or innovation-driven economies⁶⁹.

Polish young entrepreneurs have higher aspirations as regards the increase in employment than the European average. Presently, 34% of companies in the early stage declare a creation of minimum 5 new work places within 5 years, while 20% declare minimum 10 jobs and employment increased by the minimum of 50% in the same period (in Europe, it is 25% and 16%, respectively). Less Polish than European young enterprises do not have plans for increasing employment (40% against 46%). As regards the level of internationalisation of our young enterprises it is to the contrary: the majority of young enterprises in Poland focus solely on the domestic market, while those exporting raise rather low revenues from this activity. In comparison to a group of the most developed countries, we have 50% more non-exporters, $\frac{1}{3}$ less medium scale exporters, and significantly less numerous group of more advanced exporters. The gap between Poland and Europe is similar.

Increasing number of young enterprises in B2B services

Presently, the dominating sector as regards the activities of young enterprises are services, whose significance constantly grows from year to year (an increase from 49% to 61% TEA). On the other hand, the role of the

⁶⁷ A decline by as much as 40% y/y: from 4.2 in 2014 to 2.6% in 2015 of the adult population.

⁶⁸ It is a good ratio, recorded since 2014, earlier it was a necessity that was the dominating motivation to start a business.

⁶⁹ By 6 and 10 p.p.; when it comes to an opportunity, we rank similarly to Europe and lower than innovation-driven economies (1 and 6 p.p.).

manufacturing - processing sector is on the decrease, though still 37% of enterprises operate in this area. The above changes bring us closer to the sectoral structure typical of the innovation-driven economies.

Entrepreneurial finances

According to the data for 2015, the Poles starting businesses had on average the amount of PLN 100 thousand at their disposal, while 50% of them spent no more than PLN 42 thousand at the beginning of their activities. Primary sources of financing at the early stage of activity included one's own resources (50% of TEA companies used them), while the external financing came from the informal investors and public funds. So high involvement of one's own funds at the early stage of activity is to a great extent dictated by the necessity rather than an opportunity, which is the case in the West (and particularly in the US). However, the pros and cons of this solution remain the same, irrespective of the motivation. On the one hand, one's own capital facilitates discovering one's own hidden potential and more efficient use of resources, as well as helps retain control over one's own company. On the other hand, it often forces an entrepreneur to drastically cut expenditure and puts him or her under constant psychological pressure. Smaller capital may also limit investment and thus the innovativeness of the company.

The data also show that one's own capital is invested more cautiously, in more traditional forms of activity. In the case of the newly established companies operating on the international market or offering innovative products/service, the starting expenditure was respectively lower.

In recent years, we have been closing on Europe in terms of the percentage of informal investors (1 million Poles in 2015⁷⁰). As regards the forms of financing of new undertakings by informal investors, investment in the closer network is dominating (primarily family members, neighbours, and friends). The average value of an investment continues to be substantially lower than in Europe (PLN 27 thousand against USD 26 thousand). This is related to the wealth of the society and availability of financial surplus, which could be invested. At the same time, the share of "business angels" among informal investors has remained at the stable level over the past five years. In 2015, there were ca. 140 thousand of them.

This proves the importance of the high risk capital. It is clear that one's own funds and the funds acquired from informal investors are characterised by risk aversion, which in consequence translates into lower innovativeness. Hence the conclusion that the public support, which is to fill the gap between the resources of informal investors and the needs of enterprises, is justified. We shall leave the question open: whether the public funds should be invested in the creation of all companies to the same extent, or whether there should be a focus on a certain group of companies, which will stand better chance in the European competition. Unfortunately, the survey does not provide enough data to decide upon this.

Data on innovativeness – first conclusions

Young enterprises are more innovative than the established ones. Other countries send the similar message, but it is good to see Poland as a part of this trend. In-depth GEM data also show that young enterprises run by younger owners are more innovative, they have higher growth aspiration and tend to export more often than those established by older persons. In turn, the GUS data show that new companies are established by increasingly younger persons and that this is the most numerous group in the age structure of owners of new enterprises (pertains to person up to 30 years of age). They also tend to place their companies in modern sectors, which is also confirmed by the GEM survey. We may then believe that the diffusion of innovativeness shall indeed be taking place thanks to young enterprises, which dynamically seek an important place for themselves on the market. What will these companies need, is a good ecosystem of innovation, which will stimulate them in their pursuits.

⁷⁰ In the past three years, 4.5% of adult Poles invested in starting a company. Calculations have been made with the use of the GUS data on the adult population.

Intrapreneurship – the bridge to innovativeness and growth

Organisational entrepreneurship, which is an effective method of competing in the most developed countries, is a phenomenon emerging at the stage of transition from efficiency-driven to innovation-driven economy, in which Poland is right now. This can be seen in the data for 2015, where the indicators demonstrating the involvement of Poles in undertakings for the benefit of employers substantially increased in comparison to the previous year. Presently, 5.8% of employees in Poland are entrepreneurial, while in Europe – 5.7%, and in innovation-driven economies - 6.2%. Also entrepreneurial activity of employees in the past 3 years has been at the level close to that of innovation-driven economies.

GEM picture of startups

In this year's report we made an attempt to single out attributes characteristic to startup owners, defined as persons starting or running a business for no longer than 3.5 years and using new technologies (not older than 5 years). We have compared the startups to the remaining companies - equally young, but using technologies older than 5 years. As a result, it turned out that:

- these are persons on average younger than other entrepreneurs, the average age is 33.7, 27% of them are not yet 25;
- more often than other entrepreneurs they live on their own - 19%;
- often they have additional employment - 46% of them work full-time or part-time;
- much more often than is the case with other entrepreneurs, these are students - one in thirty;
- much more often than is the case with other entrepreneurs, they are motivated by the pursuit to take the advantage of an identified business opportunity, much less often they start their businesses out of necessity;
- they introduce innovative products and services to the market much more often - only one in five offers a product completely known to customers (among other entrepreneurs - two in five);
- twice as often as other entrepreneurs they operate in B2B services sector;
- three times as often as other entrepreneurs they operate in ICT sector;
- they are characterised by lower level of the fear of failure than other entrepreneurs;
- they are characterised by average growth aspiration - more than 28% of technological entrepreneurs declare employment growth by at least 10 persons and 50% within 5 years;
- comparing results of the total of newly established companies to the group of startups (i.e. companies applying new technologies, available on the market for a period shorter than 5 years), one may conclude that the startups used more often their own funds than public funds.

The above list thus shows that there are significant differences between the entrepreneurs using new technologies and the others. This indicates that they take a different approach to running a business. This also gives room for solutions supporting the creation and development of startups, for example, supporting the establishment of companies by students or persons in other employment.

Entrepreneurship of men and women

Though there are no substantial differences in men's and women's perceptions of market opportunities, less women than men assess favourably their capabilities for running a business, women are also more afraid of failure than men are. What is even worse, since 2013 the concerns among women have been growing. In comparison to Europe, both genders in Poland rank better only in terms of self-assessment of their entrepreneurial capabilities, the biggest difference to their disadvantage pertains to the fear of failure - this type of concerns is voiced by 64% of women in Poland and 49% in Europe.

The level of economic activity of men is twice as high as that of women - this pertains to Poland and the European average, while in Poland there are slightly more young enterprises run by women and men than in Europe and less established enterprises (it refers to both genders).

The motivation structure of women running their own businesses for less than 3.5 years is still slightly worse than the motivation structure of men running such businesses in Poland. Furthermore, in comparison to the European average, the entrepreneurial motivation structure is less advantageous in our country; it particularly refers to the companies run by women. And though the data for the recent two years show the decline of negative motivations and the rise of positive ones, still the changes are more favourable for Polish men than women running their own businesses.

Another topic worth further analysis in planning the support mechanism for women in Poland as well as in other countries at higher economic levels, is the issue whether specific programmes related to support for women in starting their own businesses is the best model of providing support to this group, bearing in mind that a developed market may offer attractive conditions for both those in dependent work and those running their own businesses. Maybe more flexible programmes would be more effective, which would improve women's competences depending on their predispositions, capacities, and needs, rather than predefine the goal consisting in starting a company.

And finally...

Polish entrepreneurship is "young" and at a high level, which translates into high dynamics of the market, flexibility of our companies, and openness to new technologies. The example of innovation-driven economies shows that we also need established enterprises, of which we have relatively less. This need stems from a simple relation: it is the established (and often bigger) enterprises that are the key links in the chain of interdependency, generating cooperation with smaller entities. And what the GEM data and other statistics demonstrate, most of enterprises in Poland remain at the stage of one-person companies without employees and have lower growth aspirations. We need solutions which will awaken the ambitions of some entrepreneurs or fulfil those already declared but which remain so far unfulfilled because of the labour law not flexible enough or because of relatively high levies on remuneration, which closes the path to build a team or acquire talents necessary to build a team or launch development-related activities in a company. Equally indispensable are tools and strategies to support young enterprises in the process of entering international markets.

We should turn our attention to the areas which remain unadapted to the requirement of the modern market and its participants – present or future entrepreneurs, i.e. the improvement of knowledge transfer from science to business and the support for SMEs in access to R&D results, as well as a change in the approach to education and its content at each stage of the education process, so that it promotes creativity and independence, as well as the knowledge on running a business and the functioning of the economy. A separate, but important problem, constitute social attitudes to entrepreneurship, low status of entrepreneurs, unsatisfactory role of the media in shaping the image of entrepreneurs, and first of all the fear of failure. The above-mentioned amendments to the applicable law on bankruptcy and restructuring will undoubtedly result in an improvement in the latter area, but the examples of good practices are still needed, as is a cultural change in terms of perceiving failure and stigmatisation of entrepreneurs who failed to succeed. The persisting less favourable situation of women as compared to men also requires further action, in particular with regard to equal access to institutional care.

We have strong assets, such as the certainty of having entrepreneurial skills, optimism, and higher risk appetite, as well as the willingness on the part of the startups to seize the opportunity and use new technologies, increasing inclination to get involved in undertakings for employers, growing engagement in financial support for undertakings of relatives and friends, and primarily the increasing willingness to establish companies. This is what we should keep in mind and reinforce by providing friendly laws as well as flexible and effective ecosystem of entrepreneurship, which would be ready to respond to the needs of persons at various stages of becoming an entrepreneur, developing a business or closing such activity.

7. Bibliography

Balcerzak-Paradowska B., Bednarski M., Głogosz D., Kusztełak P., Ruzik-Sierdzińska A., Mirosław J., *Przedsiębiorczość kobiet*, PARP, 2011

Block J.H., Kohn K., Miller D., Ullrich K., *Necessity entrepreneurship and competitive strategy*, Small Business Economics, 2015, 44

Block J., Wagner M., *Necessity and opportunity entrepreneurs in Germany: Characteristics and earnings differentials*, Schmalenbach Business Review, 2015, 62(2)

Bosma N., Wennekers S., Amoros J.E., *Global Entrepreneurship Monitor 2011 Extended Report: Entrepreneurship and Entrepreneurial Employees Across the Globe*, London, GERA 2012

Cieślak J., *Przedsiębiorcy solo*, http://www.kozminski.edu.pl/fileadmin/wspolne_elementy/Jednostki/sfop/Artykuly_expertow/14_Przedsiębiorczosc_solo.pdf, accessed: 28.04.2016

Collins Ch.J., Hanges P.J., Locke E.A., *The relationship of achievement motivation to entrepreneurial behaviour: a meta-analysis*, 2004, accessed: 04.05.2016 <http://digitalcommons.ilr.cornell.edu/articles/>

De Kerros T., *Why zombie startups will rise from the tech bubble, The startup illusion*, <https://startupillusion.wordpress.com/2016/02/23/why-zombie-startups-will-rise-from-the-tech-bubble-2/>, accessed: 09.03.2016

Dencker J.C., Gruber M., Shah S.K., *Individual and opportunity factors influencing job creation in new firms*, Academy of Management Journal, 2009, vol. 52, No. 6

Entrepreneurship at a glance 2013, OECD 2013

Entrepreneurship and beyond, Flash Eurobarometer 354

Formal and informal investors: A blessing or a curse?, Startupticker.ch The Swiss Startup Monitor, 23.07.2014, <http://startupticker.ch/en/news/july-2014/formal-and-informal-investors-a-blessing-or-a-curse>, accessed: 10.03.2016

Freytag A., Thurik R., *Entrepreneurship and its determinants in a cross-country setting*, SCALES, 2006

Gorynia M., *Eksport szansą dla Polski*, Rzeczpospolita, 13 lipca 2012, http://mariangorynia.pl/prasa/RZ_Eksport_Gorynia_13_07_12.pdf, accessed: 01.04.2016

Grilo I., Thurik R., *Determinants of entrepreneurship in Europe*, Discussion Papers on entrepreneurship, Growth and Public Policy, 2004

Grossinger P., *Scandinavia is a land of unicorns*, http://www.slate.com/blogs/moneybox/2015/12/18/the_nordic_startup_scene_is_second_only_to_silicon_valley.html, accessed: 06.05.2016

Hessels J., Van Gelderen M., Thurik R., *Entrepreneurial aspirations, motivations, and their drivers*, Small Business Economics, 2008

How Unicorns Grow, Harvard Business Review January–February 2016 issue, p. 28–30.

Informal investors and high-tech entrepreneurship, Innovation Papers No. 12., Cordis, https://cordis.europa.eu/innovation-policy/studies/studies/section3_3.pdf, accessed: 10.03.2016

Kelley D.J., Singer S., Herrington M., *The Global Entrepreneurship Monitor. 2011 Global Report*, 2012

Kelly D., Singer S., Herrington M., *2015/16 Global Report*, Global Entrepreneurship Monitor

Liñán F., Fernandez-Serrano J., *National culture, entrepreneurship and economic development: different patterns across the European Union*, Small Business Economics, 2014

Reynolds P.D., Bygrave W.D., Autio E., Cox L., Hay M., *Global Entrepreneurship Monitor: 2002 Executive Report*, Kansas City, MO: Kauffman Center for Entrepreneurial Leadership, 2002

Singer S., Amoros J.E., Moska D., *Global Entrepreneurship Monitor 2014 Global Report*, London, GERA 2015

Skala A., Kruczkowska E., & Olczak M., *Polskie Startupy. Raport 2015*

Smith R., *Why Every Startup Should Bootstrap*, Harvard Business Review, 02.03.2016, <https://hbr.org/2016/03/why-every-startup-should-bootstrap>, accessed: 09.03.2016

Sweeney D., *Four Lessons I Learned About Bootstrapping After I Bought My Business*, Startup Nation, <http://www.startupnation.com/articles/four-lessons-learned-bootstrapping-bought-business/>, accessed: 09.03.2016

Tominc P., Rebernik M., *Growth aspirations and cultural support for entrepreneurship: a comparison of post-socialist countries*, Small Business Economics, 2007

Van Gelderen M., Jansen P., *Autonomy as a startup motive*, Journal of Small Business and Enterprise Development, 2006, vol. 13, No. 1

Zaufanie społeczne, Komunikat z badań nr 18/2016, CBOS, Warszawa, luty 2016

The Polish Agency for Enterprise Development (PARP) is a government agency that has been providing support to entrepreneurs since 2000. The objective of PARP is the development of small and medium-sized enterprises through financial support, training, information as well various schemes aiming at strengthening the competitive position of Polish entrepreneurs and their potential for growth.

Over the years, PARP has become a forerunner in creating new support areas with the use of modern approach to public policy design. One of them is inno_LAB – a laboratory of new schemes for innovation driven entrepreneurs and a platform engaging business, science and administration in common projects that help to create efficient and flexible innovation ecosystem in Poland.

PARP is also a leading public institution that analyses the condition of Polish SME sector and evaluates the effectiveness of granted support. Several years ago, the Enterprise Research Centre was established at the Agency to conduct research on entrepreneurship, innovation, human resources and services supporting business activity. The research outcomes serve as the basis for assumptions to entrepreneurship and innovation strategies and subsequent support programmes that respond to the identified needs of entrepreneurs.

In 2011 PARP together with the University of Economics in Katowice joined **Global Entrepreneurship Monitor (GEM)**. GEM is the largest and most prestigious entrepreneurship-related research project which focuses on early-stage entrepreneurship. It allows:

- to measure the differences in entrepreneurial attitudes, activity and aspirations across economies,
- to uncover factors determining the nature and level of national entrepreneurial activity,
- to identify socio-economic policy implications for enhancing entrepreneurship.

GEM has been dynamically developing since its inception in 1997 and the first research in 1999, when around 10 countries took part in the project. In 2015, the surveys covered 62 countries worldwide. At present GEM is a trusted resource on entrepreneurship for key international organisations like the United Nations, World Economic Forum, World Bank, and the Organisation for Economic Co-operation and Development (OECD), providing custom datasets, special reports and expert opinion.

This year **GEM Poland Report** is the 5th edition of a national report on entrepreneurship prepared by PARP and University of Economics in Katowice. It is also available at the website of PARP Enterprise Research Centre <http://badania.parp.gov.pl/global-entrepreneurship-monitor-gem>.