

WOMEN IN THE STARTUP ECOSYSTEM OF POLAND



InnovationsLab
CENTRAL
EUROPEAN
UNIVERSITY

FOREWORD



In the last 7 years I have been mentoring entrepreneurs coming from different parts of the World, but mostly from Hungary. It struck me that despite all our efforts to attract women participants, female founder applications to our incubation programs were significantly lower compared to male applicants. Also, the number of female mentors active in our program were multiple times lower than males. Most of my program staff were female - it just happened that way - and I thought that it should in itself send the signal, that we are most welcoming to female founders. We also ran campaigns prominently displaying our - few - female founders, mentors, partners in the program. The response was amazing, yet, the ratio in the applications remained unchanged. Clearly, something more needs to be done. The reasons that hold women back from the entrepreneurial space are complex. This study attempts to uncover some of the underlying issues, and our goal is to use this knowledge to create avenues for women in entrepreneurship.

Andrea Kozma
Director
CEU InnovationsLab

INTRODUCTION

The entrepreneurial scene is deeply gendered in Europe. The old continent has the lowest female involvement in early-stage entrepreneurial activity in the world (5.7%), and the lowest gender parity, according to the Global Entrepreneurship Monitor (GEM) 2020/21. Central and Eastern Europe does not constitute any exception: only a minority of startup founders are female (29% in Hungary; 26% in Poland, 30% in Slovakia, and 5% in the Czech Republic).¹

Also, from the fact that only 7% of all funding goes to startups with at least one female founder (Atomico 2018) in Europe, we must conclude that women entrepreneurs were deprived of 3bn € in 2020 alone, as this would have been the 15.5% of all funding that would be proportional to the number of women entrepreneurs. In the CEE region, all women founded companies received only 1% of the capital, while 5% went to mixed founding and 94% to all male teams.² At the same time, VC partners investing in the CEE region are predominantly men (93%), while women are heavily underrepresented counting for only 7%. Yet, women founded companies outperform by 96% compared to male founded companies when looking at the revenue to funding ratio.

However, on a global level, the state of play is changing. A World Bank report found that women entrepreneurs represent about one in three growth-oriented entrepreneurs active in the world today, and their numbers are growing.³ Female entrepreneurs have a huge potential in shaping the future: according to a recent report, women started 49% of new businesses in the US in 2021, up from 28% in 2019. However, regional growth differs greatly, and obstacles for women still remain.⁴

¹ [Global Entrepreneurship Monitor 2020/2021](#)

² [Nicol-Schwarz, Kai. Female founders received just 1% of funding in CEE region in 2020.](#)

³ [Halim, Daniel. Women entrepreneurs needed- stat! Worldbank. March 5, 2020.](#)

⁴ [World Economic Forum. Here's what women's entrepreneurship looks like around the world. 2022.](#)

THE PURPOSE

Thus, the potential of female entrepreneurs is in huge imbalance compared to their ratio in the startup scene. For closing the gender gap, first there is a need to understand the problem in smaller, specific settings, for example, on country-level. Here, we attempt to do exactly that with Poland. Thus, the main aim of the present research is to identify both the barriers to entry and the factors which facilitate success amongst female entrepreneurs in Poland.

THE METHODOLOGY

Albeit the overall Polish startup ecosystem has been the research subject of several studies, research concentrating on female entrepreneurship and the startup scene are scarce. Even less are integrated into broader efforts to understand the issue, such as the [Women Entrepreneurs in Regional Inclusive Ecosystems - WeRin Project](#) funded by the ERASMUS+ Knowledge Alliance program.

Thus, this report aims to map out the Polish entrepreneurial ecosystem from a gendered angle basing its insight on the methodological backbone formulated by the WeRin Project in their [Regional Scans](#). These scans analyze key elements that form an entrepreneurial ecosystem on three levels. Considering the macro-level, the regulatory environment, social norms, and overall culture for female entrepreneurship is taken into account. On the meso-level, the structure of direct and indirect financing, the development of human capital through education and training programmes, and a range of institutional and infrastructure support systems targeted at women are researched, while on the micro-level, individual backgrounds, such as family and other social backgrounds, as well as personal attitudes and characteristics are investigated.

MAIN FINDINGS & RECOMMENDATIONS

The initial findings based on global, European, CEE and country trends, were formulated into recommendations which will feed into the Energeia program's curriculum design, ensuring a data led approach to the project overall.

ON THE MACRO-LEVEL, we found that the highly unstable regulatory environment coupled with significant administrative and taxation burdens might discourage Polish from starting their own business. Day-to-day operations require much administrative activity, while the insolvency procedure remains lengthy hindering fast re-start after failing. For women of childbearing age, becoming an entrepreneur is costly compared to being an employee, while too few childcare services are in place to offer women real options.

Still on the macro-level, considering social norms we found that in Poland, its still a deeply rooted belief that both women and men should contribute to the household's income but women should care for family responsibilities as well - this creates a palpable tension between work and family life. It significantly adds to the picture that successful entrepreneurship role models are mainly men. Thus, we recommend the strengthening of visibility for female entrepreneurs: role models are needed for women, potentially closer to their own circles, so that they can realize their own potential for startup founding. On the other hand, the acceptance of care work for men through financial or social incentives might be popularized so that women would not have to choose between career and family in the long run.

ON THE MESO-LEVEL, educational networks and financing structures were taken into consideration, and as a barrier, we found that formal entrepreneurship education was considered rather insufficient. Although accelerators and incubators took up the role of formal education, strengthening middle and high school entrepreneurial education might be a beneficial step into fostering the Polish ecosystem.

Also, low percentage of VC funding goes to women in Poland as well as Central and Eastern Europe, however, a research found that gender bias is less prevalent in early-stage funding for serial founders with entrepreneurial experience, which also reaffirms that strengthening primary and high school entrepreneurship efforts of young girls would significantly benefit them in the future. In large companies or SMEs, the career choice as an entrepreneur seems more viable for both men and women. This might be an untapped resource for post-degree entrepreneurship programs. Also, very low percentage of VC funding goes to women in Hungary as well as Central and Eastern Europe, however, a research found that gender bias is less prevalent in early-stage funding for serial founders with entrepreneurial experience, which means that strengthening primary and high school entrepreneurship efforts of young girls would benefit them in the future.

ON THE MICRO-LEVEL, we identified various barriers that might come from the family background and personal beliefs. A lack of female entrepreneurs in the family might discourage building a business as a viable career path, but successful family examples greatly enhance the chances of young women going into the startup world. As personal beliefs, the tendency of having less confidence, less positive self-efficacy image and the fear of failure was identified, which might be lessened with a supporting startup community. We also found that over 80% of CEOs are above 30, and among the most successful, close to half are above 40, which means that the targeting of over 30s with work experience or even women over 45-50 who are fed up with their current life situations might be considered for a successful female entrepreneurial program

FIRST CHAPTER

Women on the ground

Entrepreneurs play a significant role in the economic performance of a country: they contribute to employment growth and to meeting specific local demands. Being an entrepreneur offers an opportunity for men and women to create equal opportunities: while the glass ceiling phenomenon in the workplace restricts women from personal fulfillment, entrepreneurship offers the gate to equality.

Considering gender ratios, Poland ranks 77th on the Global Gender Gap Index 2022 with a 0.709 score on a 0-1 scale, which benchmarks progress towards gender parity and compare countries' gender gaps across four dimensions: economic opportunities, education, health and political leadership. Compared to the Global Gender Gap in 2022, which is 0.681, Poland performs better, and it is near the European average, which has the second-highest level of gender parity, currently standing at 76.6 percent.⁵

With 56.6 out of 100 points, Poland ranks 23rd in the EU on the Gender Equality Index, its score being 11.4 points below the EU's score. Since 2010, Poland's score has increased by only 1.1 points, and its ranking has dropped by 9 places. Since 2018, Poland's score has increased by 0.8 points, due to slight improvements in the domains of power and money. However, its ranking remains the same as in 2018.⁶

The gender employment gap has kept increasing over recent years, reaching 15.7% in 2020. However, care responsibilities for children are one of the key barriers to female employment. Poland has one of the lowest childcare⁷ enrolment rates in the EU, with 10.2% of children under the age of 3 in formal childcare. The employment rate of older workers, despite recording a steady increase, is still 7.8 pps below the EU average (59.6%), with a much bigger gap for older women, at 12.4 pps below the EU average (53.4%). The reversal of the pension reform, bringing the statutory pension age of women to the lowest in the EU, played a major role in this.

⁵ [Warsaw Business Journal. Poland Only 77th in World Economic Forum's 2022 Global Gender Gap Index. 6 July 2022.](#)

⁶ [European Institute for Gender Equality. Gender Equality Index: Poland. Accessed: 22 October 2022.](#)

⁷ [Commission Staff Working Document. Country Report 2022 - Poland. 23 May 2022.](#)

According to the Global Entrepreneurship Monitor's Poland edition in 2020, when it comes to starting up a business, the share of women running young enterprises is 5.1%, while the same for men is 5.7%. However, the ratio is also almost the same, when it comes to running an already established enterprise (operating for over 3.5 years): 13% for both women and men. There are also no significant differences between men and women in terms of motivation to set up a business – the predominant incentives being the desire to continue family business and make a difference in the world.⁸

WHEN CONSIDERING THE STARTUP ECOSYSTEM SPECIFICALLY, according to Startup Poland's Polish Startup Report 2021, the Polish startup sector has largely solidified by 2020.⁹ And one of the most defining characteristics is its huge internal market, already producing its own unicorns. Overall, according to DealRoom data, Poland has around 3-3200 startups, and in the last 1-2 years, the ecosystem has been experiencing a huge boom. The best indicator for that is the number of new unicorns: in 2016, Poland only had 2 unicorns, but in 2020, it acquired a further one and in 2021, another 7, while having 2 future unicorns on its startup map. Polish unicorns include Allegro, InPost, 4 companies from the gaming industry - CD ProjektRed, Huuuge, PlayWay, Ten Square Games, and DocPlanner, Wirtualna Polska, the shoe brand, CCC, and LiveChat.

One-fifth of the Polish startups (22 percent) operate in the artificial intelligence and machine learning subsectors, and slightly fewer (18 percent) chose "e-commerce".¹⁰ The third place was taken by services in medicine and health (13 percent). And as the fastest growing sector, the gaming industry has to be mentioned, which set off 4 unicorns in the last couple of years. According to the Startup Poland report, although many startups operate on the huge Polish market, many are outward-looking: almost eight out of ten startups plan to enter new foreign markets within the next year (78%).¹¹

FEMALE FOUNDED STARTUPS ALSO EXPERIENCE A BOOST. Similarly to other CEE countries, there's a huge gender imbalance in Poland when it comes to founders: only 24.6% of startups have a female founder.¹² According to DealRoom data, Poland has around 123 startups with female founders as of 2022, the first emerged in 2012 - thus the landscape shows an exponential growth rate. Such examples

⁸ [Global Entrepreneurship Monitor. Poland. 2020.](#)

⁹ [Startup Poland. Polish Startup Report 2021.](#)

¹⁰ Ibid.

¹¹ Ibid.

¹² Ibid.

stand out as [Appsviso](#), an app developer for various stages of software development, [CasDirector](#) operating in the fintech market, [Yosh.AI](#), a startup with a mission to re-invent communication between companies and their clients through conversational AI, [Prowly](#), a B2B platform for managing PR communication, or [Ulala Chef](#) for hiring well-known chefs for any location. According to [Crunchbase](#), since 2011, female Polish startups have raised 103.4 million USD altogether in 130 founding round, the half of which in the last two years - which points to an exponential increase in female participation.

SECOND CHAPTER

The macro-level environment: Economy & Regulations

The defining characteristic of the Polish economy is its sheer size, benefiting from European Union standards and free markets since the beginning of the 1990s. The country has been building up a strong internal market - working as an incubator for startups aiming for the global stage. Also, Warsaw has multiple regional quarters for international corporations, Google, Siemens, Huawei, or Microsoft covering the entire Central European region. It helps startupper a lot: if a startup offers a proof of concept, they are in place to test it.

However, as for the latest developments, the European Commission's European Semester Country report notes that the investment climate continues to be hindered by an **unpredictable and burdensome regulatory environment**. Frequent changes to key laws (for example the Polish New Deal introduced in 2022) create uncertainty and leads to compliance costs for businesses, mainly due to poor consultation of social partners and stakeholders during the lawmaking process. Private investment is also limited by significant skill mismatches in the labour market, which are constraining the economy's ability to restructure towards high expanding and high productive sectors.¹³

Startup Poland found that trying to keep up with chaotic changes in the law is indicated as the **main regulatory barrier by more than half of startups (55%)**. This is, by the way, a thread directly related to bureaucracy. The growth of the bureaucratic apparatus destabilizes the law – also the officials themselves cannot keep up with the rapidly changing law. This problem was exacerbated during the pandemic, when successive anti-covid legislation introduced completely new regulations virtually overnight.¹⁴

¹³ [Commission Staff Working Document. Country Report 2022 - Poland. 23 May 2022.](#)

¹⁴ [Startup Poland. Polish Startup Report 2021.](#)

WIND OF CHANGE: AN UNPREDICTABLE AND COMPLEX TAX SYSTEM

According to the European Commission, a Polish business owner has to deal with the tax authorities as many as 18 times a year - that's more than one and a half times the EU average. A further obstacle is the complexity of the tax system, both for income tax and VAT. As a result, Polish companies have to spend an average of 286 hours per year on tax bureaucracy, compared to an average of 189 hours in the EU.¹⁵

Startup Poland's report found that 11% of companies complain about rapidly changing and unclear regulations, and one in ten about the formalities associated with running a business.¹⁶ For most startups, the biggest problem in day-to-day operations is excessive bureaucracy – as many as 69 percent of them point to this aspect. And this should not come as a surprise – there are calculations showing that the costs of bureaucracy borne by companies in Poland amount to several dozen billion PLN every year.

Almost every second startup points out that investment incentives in the segment of young technology companies are insufficient (46 percent). The startup community has been calling for tax breaks for investors for years. The Ministry of Finance is working on introducing such a solution as part of the Polish Order. As we read in the government's communiqués, the plan assumes that an investor who wants to multiply his resources by entering a startup with his own capital will be able to take advantage of a tax relief amounting to 50 percent of the total investment. He will deduct this sum from his income, up to a maximum of 250 thousand PLN. If this provision comes into force, it could significantly improve access to funding for startups and companies that invest in innovation.

EASE OF ESTABLISHING A BUSINESS

For measuring the complexity of the administrative and business environment, the World Bank worked out its Ease of Doing Business Index measuring a country's performance on a scale of 0-100 where 100 indicates a very high ease. On this scale, Poland ranked 40th with 76.4 points.¹⁷ While it is **relatively easy to establish a business**, Poland received the highest points (82.9) in this area, the two most problematic issues were enforcing contracts and resolving insolvency.

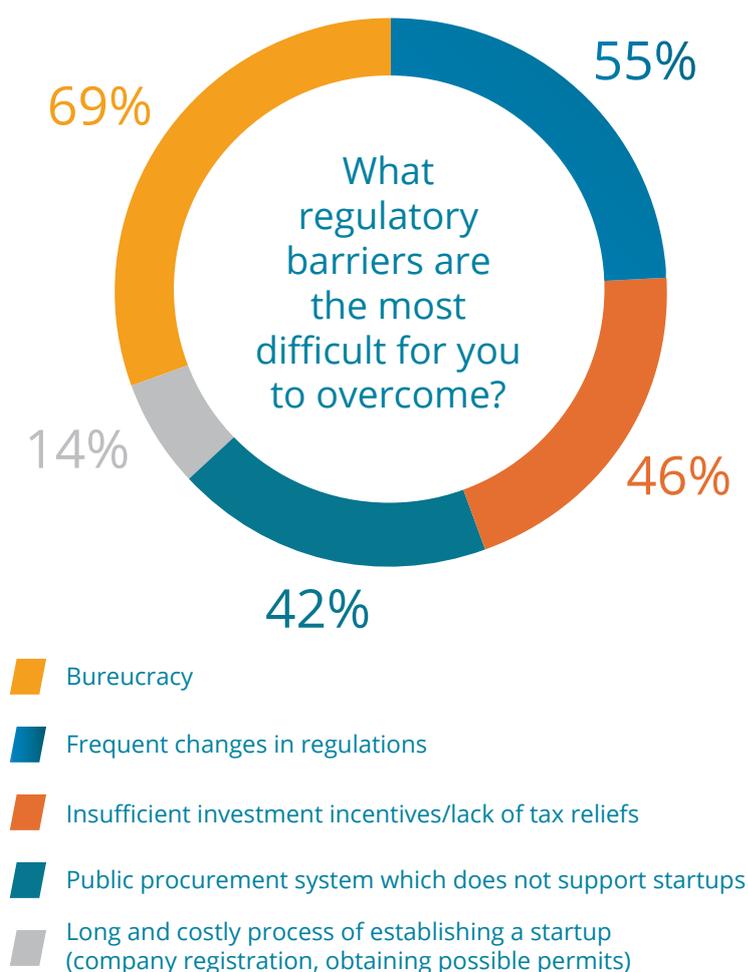
¹⁵ [Polityka Insight. Small and Medium Enterprises in Poland. Obstacles and Development.](#)

¹⁶ [Startup Poland. Polish Startup Report 2021.](#)

¹⁷ [World Bank Group. Doing Business 2020. Country Profile: Poland.](#)

These findings are in line with Startup Poland's Polish Startup Report 2021, where only 14 percent of the startups indicated that a long and costly process of formal establishment of a startup, e.g. the problem of the registration of the company, obtaining permits, etc. mean a barrier. The administrative procedure takes approximately over a month, where e.g. a company agreement must be notarised before depositing capital into a bank account, filing at the National Court Register, and setting up VAT payments. The solution which was to help is a PSA (Simple Joint Stock Company). **A significant benefit is simple and cheap establishment of the company via online registration.**¹⁸

On the other hand, a burdensome part for starting businesses might be getting electricity: on average, it takes 186 days and involves 6 different processes according to TMF Group, a global venture helping clients with the administrative services they need to run legal entities compliantly and efficiently.¹⁹



Source:
Polish Startups Report
2021. pp. 98

¹⁸Startup Poland. The Polish Tech Scene: 5 Years. 2020.

¹⁹TMF Group. Top 10 Challenges of Doing Business in Poland.

THE ADMINISTRATIVE AND REGULATORY COSTS OF BEING A FEMALE FOUNDER

According to an interview in Startup Poland's Polish Tech Scene, questions of maternity leave and childcare might discourage women who are running an early-stage company: the budget is usually tight, and company policies are undefined.²⁰

While female employees are entitled to 20 weeks of maternity leave if they give birth to a child, and the pregnant woman can take six weeks of maternity leave before the due date, startupper may not have the budget for this, so women of childbearing age might be discouraged from running a business. Moreover, any of the parents working as employees may receive an additional 32-week parental leave (for a total of a 52-week period), and the parent on childbirth-related leave is entitled to 100% of their basic remuneration for the first six months and 60% for the second six months.²¹ Regarding the needs, in 2011, female [entrepreneurs emphasized the need for more and better institutional childcare opportunities](#) e.g. nurseries or extending the legal regulations on maternity or parental leave.²²

However, another research showed that the financial support to women needs to be provided wisely. Otherwise, [it may be the reason for diminishing professional activity of women](#) like it was in terms of the Polish Family 500+ program which provided parental benefits of PLN 500 for any child.²³

LABOUR MARKET SPECIFICS

According to Startup Poland, 30 percent of entities complain about the [high costs of hiring an employee](#) due to the high tax and administrative burden, a problem affecting the entire Polish economy. However, the pressure on wages affects young, emerging businesses to a greater extent than corporations and large enterprises, where the room for manoeuvre to raise wages may be greater.²⁴

Assistance during job search amounts to 6-12 months in Poland, and the sum is proportionate to previous employment terms. However, you have the opportunity to take advantage of a one-off grant from the Polish Labour Fund to start a business coupled with financial incentives from EU funds, which many take advantage of.

²⁰[Startup Poland. The Polish Tech Scene: 5 Years. 2020.](#)

²¹[Bruce Gilbert. Employee Benefits in Poland: All you need to know.](#)

²²[Kundera, Cecylia. Facilitating female entrepreneurship: A case study on how to design tools using Service Design, Open Innovation and Lean Startup. Master Thesis, March 2022.](#)

²³Pasternak-Malicka, M. 2019. Professional activity of women in light of the Family 500+ Program. Problems and Perspectives in Management, 17 (4), 214-225

²⁴Startup Poland. Polish Startup Report 2021.

CULTURAL FRAMEWORK AND SOCIAL NORMS: STILL A TRADITIONAL SOCIETY

Overall, Poles support entrepreneurship and its culture. According to the Global Entrepreneurship Monitor in 2020, 78% of adult Poles believe that self-employment is a good career path, with 77% believing that people who have successfully set up new companies deserve recognition. Among the 21 European countries surveyed these are the 2nd and 6th highest scores, respectively.²⁵

However, social norms such as **men work, women care for the family** are still prevalent in Polish society in spite of the fact that women appeared on the labour market in socialist times, and nowadays Polish society is based on two-earner household models instead of one-earners. One of the reasons for that is still a dominance in Poland of the traditional family model in which a mother is expected to take responsibility for looking after small children. According to the [Generations and Gender Survey \(GGG-PL\)](#), **more than 64% of Polish respondents agreed with the statement that a child suffers if his/her mother works.**²⁶ This traditional model is gradually changing but it's still prevalent: the number of women who are willing to resign from work to occupy a household and bring up their children if their husbands would earn enough decreased from 58% in 2006 to 42% in 2018. 52% of women are of opinion that they would not do it compared to only 34% in 2006.²⁷ Although more than half of men still wish to have their wives resign from work if they earned enough, the number of those definitely convinced about that decreased by 9% compared to 2006, which is an additional sign of change.²⁸

Another major issue in Poland as well as other countries regarding gender is called **occupational segregation: men tend to concentrate in primary sectors or segments with higher productivity and higher wages, while women concentrate in secondary ones, in low-productivity sectors or less profitable businesses with lower wages.** And segmentation theory indicates that barriers between labour segments are rigid; individuals cannot freely move between them, while worse wages cluster with poor working conditions.²⁹ There are several explanations of female occupational choices, among them limited female possibilities, **domestic responsibilities, the higher importance of job security and employment benefits rather than higher remuneration.**

²⁵[Global Entrepreneurship Monitor. Poland. 2020.](#)

²⁶[Panova, Ralina&Buber, Isabella. Attitudes towards parental employment: A ranking across Europe, Australia, and Japan. 2016.](#)

²⁷[CBOS. 2018. Kobiety i mężczyźni na rynku pracy. Accessed 10 October 2022.](#)

²⁸[Kundera, Cecylia. Facilitating female entrepreneurship: A case study on how to design tools using Service Design, Open Innovation and Lean Startup. Master Thesis, March 2022.](#)

²⁹Mroczek-Dąbrowska, K., & Gaweł, A. (2020). Determinants of female entrepreneurship in male- and female-dominated sectors in selected European countries. *International Entrepreneurship Review*, 6(2), 55-68. <https://doi.org/10.15678/IER.2020.0602.04>

Female representation in some occupations is also **explained by a self-enforcing cycle as an effect of past representation**. Moreover, feminist theory indicates that occupational segregation is an outcome of the **gendered socialization processes**.

Against this background come the cultural notions about “who can be an entrepreneur”. The starting point for entrepreneurship is that Polish culture deeply rooted in European tradition has a gendered social view on who is a stereotypical entrepreneur - men -, but this view might be fostered through Western media **representations of the most successful entrepreneurs**. In her 2013 book, Dafna Kariv says that generally, in the ‘collective mind’, entrepreneurs are ideally still men: Bill Gates, founder of Microsoft; Steve Jobs, founder of Apple; Marck Zuckerberg, founder of Facebook; William Edward Boeing, founder of The Boeing Company - or the controversial Elon Musk, founder of SpaceX and Tesla.³⁰ In their research, Bird and Brush (2002) establish the same, meaning that traditionally, entrepreneurs are men, while Shan and Venkataraman (2000) says that entrepreneurs must have characteristics that are generally considered to be in the possession of men.³¹

Thus, **better social acceptance of taking up family responsibilities might turn women to traditional employment jobs, even lower-status jobs** instead of entrepreneurship. The **lack of role models from high performing female entrepreneurs** strengthen the notion that successful entrepreneurs are men, and help undermine women’s confidence in becoming successful startupper and entrepreneurs, while the (in)ability to raise funds further discourages women from moving on to the next fundraising round.

THIRD CHAPTER

Meso-level analysis: Networks and education

Within the promotion of entrepreneurship, special attention is paid to youth’s and especially university students’ entrepreneurial activity and their competencies. This is partly due to the notion that **education positively affects the probability of trying to be an entrepreneur** and the belief that higher education can influence entrepreneurial ideas of these young people under the right conditions.³²

³⁰Kariv, Dafna. *Entrepreneurship: An International Introduction*. Routledge. February 2011.

³¹Kézai, Petra Kinga & Konczosné, Márta Szombathelyi. *Nők a startup-vállalkozások világában Magyarországon. (Women in the world of startup entrepreneurs in Hungary)*. *Vezetéstudomány/ Budapest Management Review*. Vol. 2020. Nr. 10. October 2020. DOI: 10.14267

³²[Andrea S. Gubik \(2021\). Entrepreneurial career: Factors influencing the decision of Hungarian students. *Entrepreneurial Business and Economics Review*, 9\(3\), 43-58.](#)

³³[Global Entrepreneurship Monitor. Poland. 2020.](#)

GEM data from 2019 indicate that [78% of Poles think running a business is a viable career choice](#). This is the second highest result among 21 surveyed European countries and tenth highest among 50 countries surveyed around the world (the highest result was recorded in Madagascar: 94%).³³ On the other hand, [88.2 per cent of entrepreneurs believe that Polish schools do not teach the basic laws of economics](#) and do not help in understanding the economy, while 91.4 per cent indicate that schools do not develop the creativity and independence needed for running a business.³⁴ Teaching in primary and secondary schools has been rated poorly in recent years by Polish experts when it comes to imparting knowledge about the functioning of the economy, paying attention to entrepreneurship and creating its new forms or encouraging creativity, independence and initiative.³⁵ At the same time, as observed in recent years, [experts' rating for the area of entrepreneurial education at university level and lifelong learning has deteriorated](#). In 2019, it was 3.3 points³⁶, which accounted for 70% of the average rating in the surveyed European countries and 68% of the rating in high income economies. In 2018, the experts gave this area on average 4.0 points, and in 2017 – 4.4 points. However, it should be added that a rating similar to 2019 was given to this area in 2016 (3.3 points). Thus strengthening formal entrepreneurial education would be one way to facilitate the Polish ecosystem but [informal education in the form of incubators, accelerators, other programs teaching entrepreneurial skills successfully fill the hole in the Polish education system](#) regarding building up the entrepreneurial mindset.

PLACES FOR STUDY, SUPPORT AND COMMUNITY: INCUBATORS AND ACCELERATORS

Incubators/ accelerators mean an environment where startups are present in huge concentration, and which have the purpose to help ensure growth and survival by providing necessary infrastructure and supporting services. According to DealRoom data, there are 83 incubators and accelerators working in Poland, the biggest are [Venture INC S.A.](#) and [Cobin Angels](#) in Warsaw, and for example [Space3ac](#) in Gdansk, and [Startup Spark](#) in Lodz. These privately run and owned organisations are complemented by other NGOs and government initiatives aiming to foster startups. According to DealRoom data,

³³[Global Entrepreneurship Monitor. Poland. 2020.](#)

³⁴[Polityka Insight. Small and Medium Enterprises in Poland. Obstacles and Development.](#)

³⁵[Global Entrepreneurship Monitor. Poland. 2020.](#)

³⁶ibid.

there are 52 such institutions in Poland, the most important for startups being the [National Center for Research and Development \(NCBR\)](#). It runs as the largest R&D funding agency in CEE in terms of diversity of activities, financial resources, territorial and institutional outreach.

There are some [countrywide events supporting entrepreneurship](#) as well, free market and entrepreneurial learning such as the Entrepreneurship Contest²² by the Polish Foundation for Economic Studies Promotion, the Economic Knowledge Contest²³ by the Polish Economic Society, the Economic Education Programme²⁴ by the National Bank of Poland and the Global Entrepreneurship Week.³⁷

Moreover, Poland actively supports immigrants integrating into the country's startup ecosystem, no matter whether it concern refugees coming from Belarus or the Ukraine. For example, the [Poland Business Harbour](#) was launched two weeks after the 2020 elections in Belarus supporting people with high talent potential to receive work permit and resolve visa issues. The initiative started as a non-governmental program but it is now under the authority of the Polish government. Such initiatives are also present for Ukrainian refugees aiming to connect with the Polish startup ecosystem. The [Ukrainian-Polish Startup Bridge](#), for example, deals with successful relocation and expansion of Ukrainian startups to Poland.

WHERE THE MONEY COMES FROM: FINANCING STRUCTURES

According to the Startup Poland Foundation survey, as many as 73% of startups relied on founders' own funds. It seems, however, that this is not the most growthfriendly financing model. When it comes to external sources of capital, which Polish startups have used so far, the majority (30 percent) points to domestic VC funds (without distinguishing between public-private and private ones). A similar percentage (28 percent) received a financial injection from a domestic Business Angel, and almost one in four (23 percent) benefited from the support of a domestic gas pedal. The same percentage of respondents pointed to funding received from NCBR. Slightly fewer (22 percent) obtained support from the Polish Agency for Enterprise Development (PARP).³⁸

³⁷[OECD. Inclusive Entrepreneurship Policies: Country Assessment Note: Poland. 2018.](#)

³⁸[Startup Poland. Polish Startup Report 2021.](#)

It must also be noted that [access to external financing, especially to bank loans, is currently much easier in Poland on average](#) than in the EU. According to a study by the European Commission and the European Central Bank only 4 per cent of micro-, small- and medium- -sized enterprises obtained no credit, compared an average of 8 per cent in other EU countries.³⁹

And the most important feature of the Polish ecosystem at the moment is that [the venture capital market is breaking records](#). Market analyses show that in the first three quarters of 2021, Polish startups raised (excluding megarounds) PLN 1.46 billion, while in the entire 2020 it was PLN 1.23 billion. The number of transactions after 3 quarters of 2021 has already managed to exceed the number of transactions made in the whole 2020, and in the third quarter alone it was higher by almost a quarter than in the same period in 2020⁴⁰. Despite the fact that there is more and more money available on the market, still for more than 1 in 3 startups (34%), it is acquiring financing in the next phases of development that is the biggest problem.⁴¹

WHAT TO KEEP IN MIND AND CHANGE WHEN RAISING FUNDS AS A WOMAN

Researchers found that while CEOs of female and male tech startups had the same characteristics - had great leadership skills and greatly valued their team -, they experienced huge differences in their abilities to raise financial funds. [Female CEOs overwhelmingly are financed by the 3 Fs - family, friends and fools, while women only teams had low negotiation abilities to raise funds](#) in comparison to mixed teams. They also found that when fundraising is successful, men raise more money than women. That could be associated [with the social stereotype that women cannot manage money, finances well](#). That was the finding of Gheradi-Poggio in 2005 as the reason why the lack of financing from banks/bankers hinders women in entrepreneurship - although that social norm might be fading out 17 years later.⁴²

In Europe, [the total funding for female-led startups received during the years started to grow from 6% in 2008 and increased to 16% in 2017](#). In Poland, it was 10.9 percent considered all

³⁸[Startup Poland. Polish Startup Report 2021.](#)

³⁹[Polityka Insight. Small and Medium Enterprises in Poland. Obstacles and Development.](#)

⁴⁰[Startup Poland. Polish Startup Report 2021.](#)

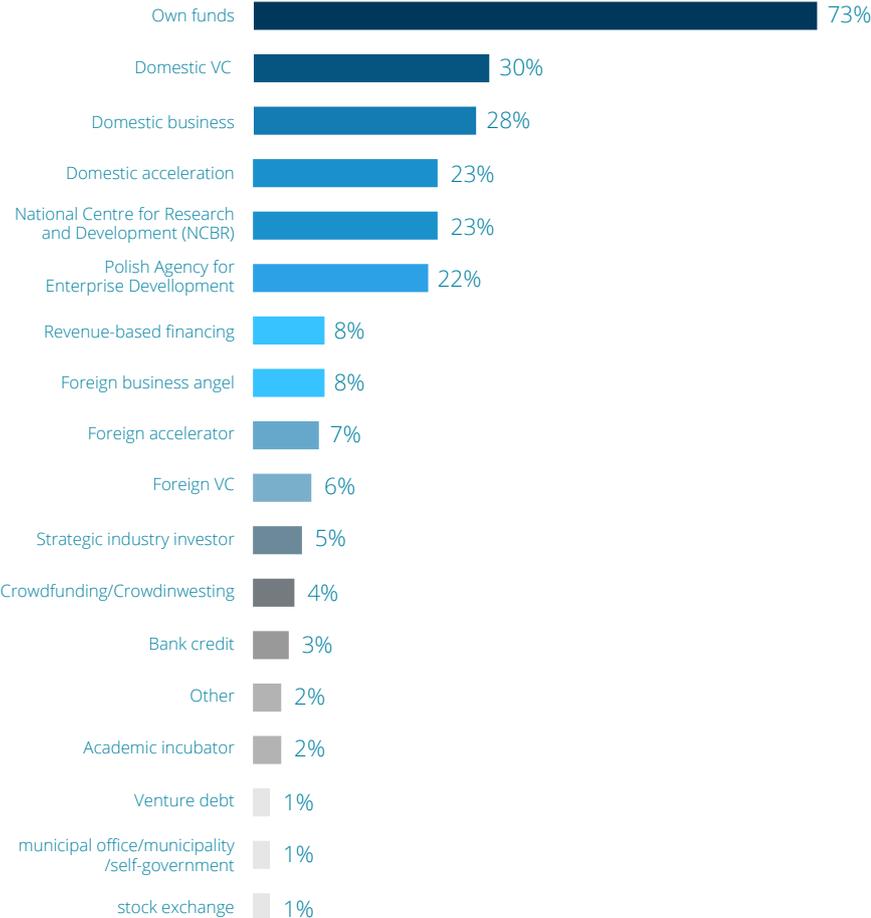
⁴¹Ibid.

⁴²[Gódány, Zsuzsanna. Female entrepreneurs - research areas. Theoretical overview. 2018.](#)

foundings rounds between 2008-2018.⁴³ That is a huge difference in funding compared to their male counterparts. However, Faerber & Klein notes that with the number of female founders increasing and, thus, likely joining the so-far male-dominant VCs and angel investors, we expect a development towards gender equality on both supply- and demand-side in the future.

They also found that the relative amount of **female founders in itself has a negative impact on the funding raised. Considering other founder characteristics and fixed effects across industries and countries, the negative impact persists. In contrast, serial founders** seem to have a positive impact on the funding amount, and most significantly, female founders seem to profit three times as much from having already founded a startup. This shows that gender bias in early-stage funding is less prevalent for serial founders with entrepreneurial experience. Furthermore, we found that female founders raise larger rounds when graduating from a top 100 university or holding an MBA degree, whereas only male founders seem to benefit from a PhD.⁴⁴

What sources of capital have you used so far?



Source: Polish Startups Report 2021. pp. 45

⁴³Faerber, Michael & Klein, Alexander. [Are Investors Biased Against Women? Analyzing How Gender Affects Startup Funding in Europe. December 2021.](#)

⁴⁴ibid.

FOURTH CHAPTER

Micro-level analysis: Family, personal characteristics and entrepreneurial attitudes

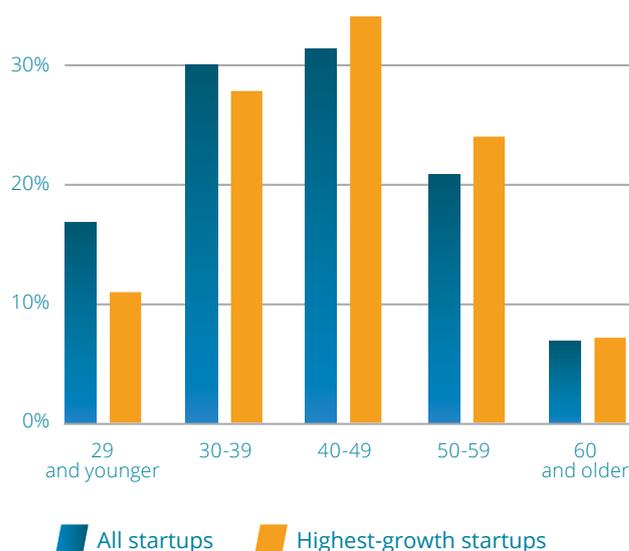
Research conducted in previous years has shown that startups are founded by increasingly older people, however, in 2021, the trend seemed to be the opposite. The number of founders from the youngest generation has increased from 28% in 2020 to 37% in last year. However, the largest group among startup owners are still 30-year-olds (43 percent). There are fewer 40-year-olds among those surveyed (13 percent of indications). And there are only 4 percent of those who founded their own startup over the age of 50.⁴⁵

Regardless of gender, **the largest group of young entrepreneurs in terms of age are individuals in the following age cohorts: 25–34 and 35–44.** Other age groups are to a lesser extent involved in new business ventures.⁴⁶

On the other hand, and regarding gender, after Sweden and Luxembourg, Poland is the third in the ranking of the Global Entrepreneurship Monitor where women are the most opportunity-driven and the least necessity-driven regarding their total early-stage entrepreneurial activity, setting up a company.⁴⁷

The Age of Startup Founders

Percentage of founders by age group



Source:
Polish Startups Report,
2021. pp. 15.

⁴⁵Startup Poland. Polish Startup Report 2021.

⁴⁶Global Entrepreneurship Monitor. Poland. 2020.

⁴⁷Kundera, Cecylia. Facilitating female entrepreneurship: A case study on how to design tools using Service Design. Open Innovation and Lean Startup. Master Thesis, March 2022.

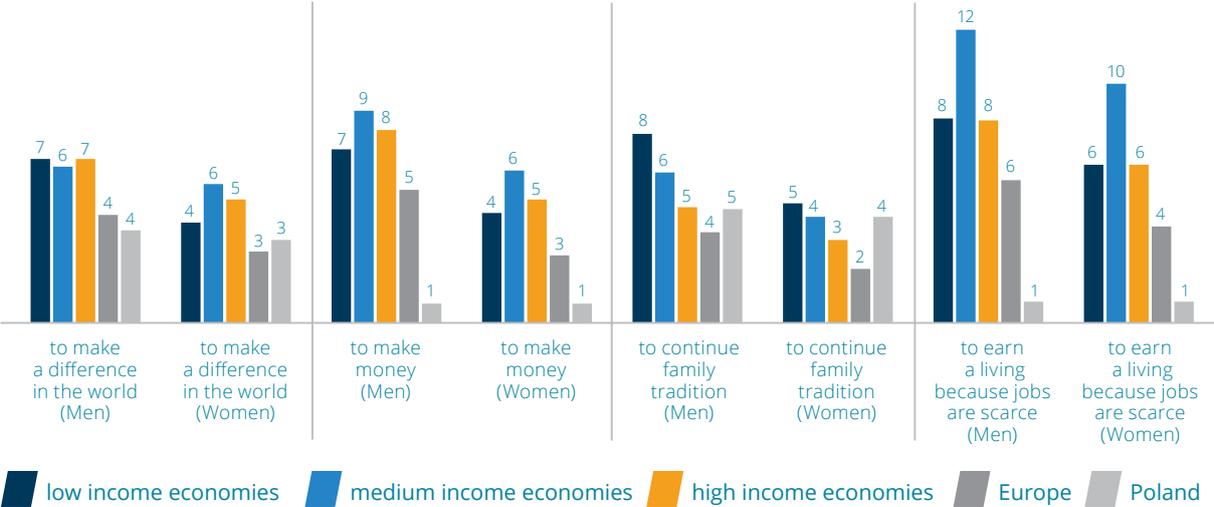
THE FAMILY AS AN INCUBATOR

The institution of the family has a huge impact on entrepreneurship - either as a booster or as a barrier. For example, what prompts Poles to set up companies is primarily the desire to continue a family tradition (82%) and to make a difference the world (65%).⁴⁸

Motivations of women and men to start a business in 2019

% women or men running young enterprises-TEA
TEA-total of early stage companies

Source:
Global Entrepreneurship Monitor
(GEM), Poland, 2020.



Researchers haven't found significant differences between men and women regarding their motivations for starting a business, the main differentiators were the need for a supporting partner and for flexible childcare - mostly declared by women. Thus, family might be a double-edged sword for a woman: on the one hand, family and childcare duties may be a catalyst for deciding to become an entrepreneur as it is associated with better income and work flexibility regarding time and the way of doing one's job, on the other hand, better maternal leave benefits and traditional gender roles might foster them more into the direction of becoming an employee. The key is to facilitate reconciling work and family duties.⁴⁹

⁴⁸Global Entrepreneurship Monitor. Poland. 2020.

⁴⁹Kundera, Cecylia. Facilitating female entrepreneurship: A case study on how to design tools using Service Design, Open Innovation and Lean Startup. Master Thesis, March 2022

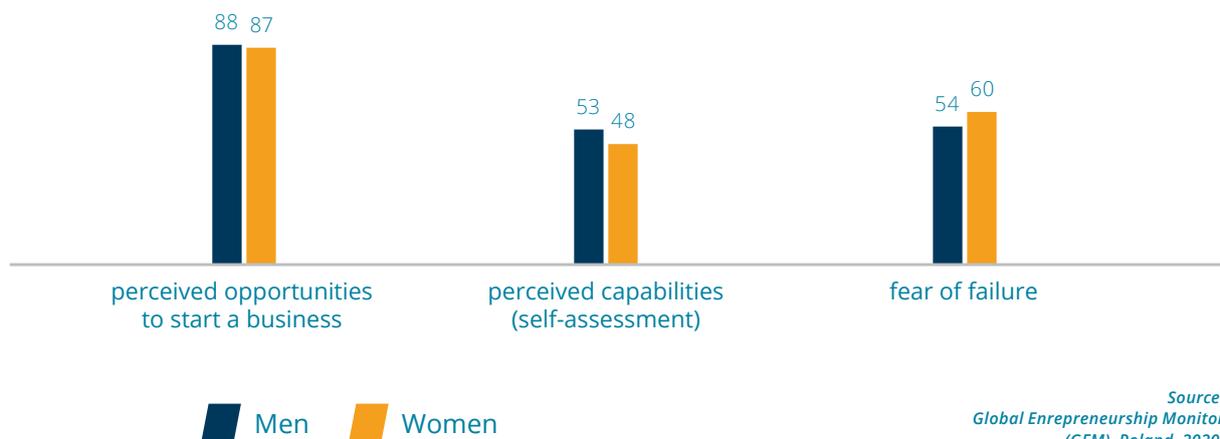
THE ROLE OF PERSONAL CHARACTERISTICS AND ENTREPRENEURIAL ATTITUDES

Entrepreneurial personality traits emerge in the literature as critical individual characteristics.⁵⁰ The **ability to take risks** and the **desire to become independent** are especially crucial entrepreneurial characteristics. In Poland, in the case of people running young enterprises, **the most frequent factor influencing the decision to start a business was the desire to become independent (27%)**, as well as the desire to build on the experience gained in their earlier work (23%).⁵¹

In the case of Poland, some differences in favour of men can be seen in the self-assessment of business skills and the **fear of entrepreneurial failure** – 48% of women vs 53% of men believe they have sufficient skills to run a business; and the proportion of people who would not choose to start their own business because of fear of failure is 60% for women and 54% for men.⁵²

Another interesting characteristic of a Polish female entrepreneur is **the approach to risk**. Research revealed that women, slightly less than men, believe that an entrepreneur should like risk though they do not have larger aversion to risk than men. This matches the findings from GEM research regarding the fear of failure which discovered that Poland is among six countries, next to Iran, Madagascar, Qatar, the Russian Federation, and Sweden in which women are more likely not to be discouraged by fear of failure by at least 5% more than men.⁵³

Entrepreneurial attitudes among women and men in Poland (%)



⁵¹[Global Entrepreneurship Monitor. Poland. 2020.](#)

⁵²[Global Entrepreneurship Monitor. Poland. 2020.](#)

⁵³[Kundera, Cecylia. Facilitating female entrepreneurship: A case study on how to design tools using Service Design. Open Innovation and Lean Startup. Master Thesis, March 20.](#)

Other studies suggest that in addition to examining individual characteristics, the issue of **entrepreneurial mindset** should also be addressed. Because while the former is not, or is difficult to modify, the latter can be shaped and demonstrate what behaviours and attitudes can be expected from individuals during an entrepreneurial process.⁵⁴ Another study emphasized a correlation between entrepreneurial attitudes and startups. This hypothesis was verified by a survey and in-depth interviews. For item 15 on the survey, "What would you do in the event of the startup's bankruptcy?", the answer, "I would try it again with a new startup", was given by 72 percent of males and 38.5 percent of females.⁵⁵

This highlights that skills and abilities alone are not enough, **emotional charge must be present, a positive attitude and a sense of confidence in achieving goals** are necessary conditions for intentions and then action.

The **concept of self-efficacy** meaning "people's sense of personal efficacy to produce and regulate events in their lives" is especially important for entrepreneurs. People with a strong sense of efficacy make a greater effort to master challenges. In the entrepreneurship literature, entrepreneurial self-efficacy is relevant, which is the "strength of a person's belief that he or she is capable of successfully performing the various roles and tasks of entrepreneurship"⁵⁶. This is lower in case of female entrepreneurs. As **women also tend to have less confidence** and question themselves more throughout the startup journey. These need to be changed very fast for the better. We hope this study can show relevant stakeholders, how.

⁵⁴Jeffrey Gauthier, Sinéad G. Ruane & Gregory R. Berry (2019) Evaluating and extending SCALERS: Implications for social entrepreneurs, *Journal of Small Business & Entrepreneurship*, 31:4, 349-370, DOI:10.1080/08276331.2018.1498260

⁵⁵Kézai, Petra Kinga; Szombathelyi, Márta Konczos. Factors Effecting Female Startups in Hungary. *Economics & Sociology; Ternopil Köt. 14, Kiad. 4, (2021): 186-203. DOI:10.14254/2071-789X.2021/14-4/11&*

⁵⁶Andrea S. Gubik. (2021). Entrepreneurial career: Factors influencing the decision of Hungarian students. *Entrepreneurial Business and Economics Review*, 9(3), 43-58. <https://doi.org/10.15678/EBER.2021.090303>



The project was funded by Nasdaq.

The report was written by Nóra Radó, researcher, CEU InnovationsLab.
