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- Why is it that expansion is so crucial for startups?
- Export startups go full throttle
- Incomes of exporting vs. non-exporting startups
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- Patenting not always a priority
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Right from the outset, Startup Poland has tried to speak for all startups, not only those operating in the capital.

- Startup map of regions
- Zachodniopomorskie
- Lubuskie
- Wielkopolskie
- Dolnośląskie
- Opolskie
- Śląskie
- Małopolskie
- Podkarpackie
- Lubelskie
- Podlaskie
- Warmińsko-mazurskie
- Pomorskie
- Kujawsko-pomorskie
- Mazowieckie
- Łódzkie
- Świętokrzyskie

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About Startup Poland

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Acknowledgements
EXECUTIVE SUMMARY

ON THE UP

The number of startups taking part in Startup Poland’s annual survey is growing year on year. In the third edition published this year, there were as many as 621 startups, up from 539 in the previous year and 423 in 2015. In statistical terms, this means the scope of the survey is increasing by approximately 20% on an annual basis.

MORE MATURE

The startup generation is coming of age, with 58% of respondents in their 30s, up from 53% last year. The 40s age bracket also grew by a few percentage points. On the flipside, the proportion of entrepreneurs in their 20s and younger dropped from over 33% last year to just 26% in 2017. A challenge for the ecosystem is the promotion of high-tech activities among younger entrepreneurs.

GOING PRO

Corporations, sole proprietorships and other startups are the main places of employment where startup founders gain their experience. One in three entrepreneurs has already founded a startup in the past, while serial entrepreneurs account for 35% of the surveyed group. As many as 82% of startup founders have a higher-education degree, with 7% holding an academic degree of PhD or higher.

DOMINATION OF BUSINESS SALES

76% of startups operate in a B2B model, meaning they sell technologies and services to other companies.

POLISH SPECIALISATIONS

The majority of startups build technologies in the areas of: big data, analytics, internet of things (IoT), developer tools and life sciences.

RAPID REVENUE

Fashion and design, developer tools and marketing technologies are areas in which Polish startups most often achieve regular income.

NO QUICK RETURNS IN BIOTECH

Startups engaged in the areas of life sciences, healthcare and biotechnology are the least likely to receive a regular income. No wonder – these areas are often heavily dependent on investment, in terms of manpower as well as time. Despite this, these areas come in the top five in terms of popularity.

1 Projects that met the definition (see chapter: Methodology, page 94) and defined themselves as startups.
INTRODUCTION

SELF-FUNDED

In relation to previous years, in 2017 fewer startups developed with the help of external capital. The main financial model was bootstrapping, which emphasises internal cash flow and the reinvestment of startup income. As many as 62% of the surveyed startups are maintained through self-funding, up from 50% last year.

WILLINGNESS TO ATTRACT FOREIGN INVESTORS

Among startups which gained external capital for development, one in five took advantage of foreign sources of capital: accelerators, business angels or venture capital funds. Among startups planning to gain investment capital, as many as 44% are planning cooperation with a foreign investor in the next six months.

GROWING INTERNATIONAL APPEAL

The majority of startups in Poland are still focused on the domestic market, with one in every eight startups having a founder from another country. By comparison, that figure is one in two in Silicon Valley. Foreign workers are employed by 28% of surveyed startups (up from 23% in 2016). Specialists are recruited from Ukraine, the United States and the United Kingdom.

EXPORTS STORMING AHEAD

Almost half of Polish startups sell their goods and services abroad. Exporters develop at a quicker pace, are better earners and gain investors with greater ease. Among exporters, as many as 60% have regular income and over half are in the group of the best earners.

MORE INNOVATION AT THE NEXUS OF BUSINESS AND ACADEMIA

As many as 46% of surveyed startups declared cooperation with academic centres, up from 42% last year. Formal partnerships with academic institutions are becoming more popular (almost half of startups which cooperate with academia), even though in previous years such partnerships were generally of a more informal character.
INTRODUCTION

“Poland is like a startup,” – so heard the participants of the Impact CEE 2017 conference in Kraków and most in the audience wondered whether that is a good thing or a bad one.

“Startups often have to do dubious things.”
– Paul Graham, founder of the prestigious YCombinator incubator

“Doing startups is all about making mistakes.”
– Biz Stone, founder of Twitter

JuliKrysztofiak-Szopa
CEO, Startup Poland

STARTUP IS A STATE OF MIND

Startups often have to do dubious things.
– Paul Graham, founder of the prestigious YCombinator incubator

Doing startups is all about making mistakes.
– Biz Stone, founder of Twitter
Those who only know the word startup from the media often assume that it is a fashionable English moniker meaning any newly created company. But not every new company is a startup. Startups are undertakings with a very high growth potential which they owe to having a technological advantage or recognising a market niche. Startups are meant to scale up to an enormous extent in a short period of time. Comparing Poland to a startup most likely refers to the country’s startup-like development ambitions.

Anyone who has built a startup, however, knows well enough that success is only one side of the startup story. Creating a scalable, fast-growing organisation is a true roller coaster of passion and defeat, ambition and compromise. It’s a dynamic game of high stakes (such as launching a successful IPO or being taken over by a giant corporation) with a substantial risk of complete failure.

Creating a startup carries risk, but it is a risk worth taking. Poland needs startups today more than ever. Only startups stand a chance of rapidly changing the Polish economy so that it is able to compete globally in terms of innovation and human resources, not with low labour costs, as it has been the case thus far.

Today’s pillars of global information and commerce infrastructure - such as Amazon, Facebook, Google, or Alibaba – were startups or did not exist at all only 20 years ago. California, with its startup hub Silicon Valley, is the world’s sixth largest economy\(^1\) just behind Germany and ahead of France.

What about the huge risk of failure? Most startups do not even scale up, while many go bust before selling anything. But the very process of startup creation, regardless of the financial results, increases the level of business, technology and managerial competence of the founders. It can be compared to scientific research: most lab experiments fail. Most research programmes do not discover a cure for cancer. But no one in their right mind will give up funding research because experimenting, as long as it is not secondary, is valuable in itself and can produce beneficial, even if unintended, results.

Startups also mean a certain attitude and culture. Their core values are openness, cooperation, ambition, growth, risk, and dedication. It is precisely the risk of failure, written into the very nature of startup experiments, that breeds the spirit of unwavering, responsible entrepreneurship in startups.

Startup culture rests on an imperative to pay it forward: pay back what you owe to those who helped you by helping someone else. Thanks to this attitude, subsequent generations of startups keep growing. Once successful, older entrepreneurs support the projects of the young and less experienced by becoming mentors and investors. One can draw a genealogy tree to trace the origins of Onet, one of the first Polish web portals, to the hardware company Optimus. Onet’s founders have subsequently become investors themselves and have supported a new generation of global entrepreneurs: Estimote, UXPin or Elmodis. More than two thirds of the respondents of the “Polish Startups 2017” survey say mentors are the main source of knowledge and motivation for development. And while the mentor ethos is disappearing in academia, I am glad to see it is still cultivated among innovative entrepreneurs.

The challenge facing startups in Poland today is the lack of smart money, or investment capital that goes hand in hand with expert knowledge and international business relationships. However, we can see harbingers of change. The richest Poles – the examples of Sebastian Kulczyk and Krzysztof Domarecki come to mind – are beginning to establish startup-focussed investment funds of their own. 2017 also saw the creation of the first Polish corporate venture capital fund, PGE Ventures.

\(^1\) World Economic Outlook Database, International Monetary Fund.
Startups in Poland have access to incomparably more diverse financial instruments today than five years ago. **Business angels are increasingly active** not just individually, but also through crowdfunding platforms. Beesfund, the oldest facilitator of startup investment and startup IPOs will have completed 20 offerings by the end of 2017. There is a new alternative to IPOs as well: the initial coin offering. In Poland, Golem successfully carried out an ICO recently, **having raised $8.6 million in just 29 minutes, the third largest ICO in the history of blockchain platforms.**

Polish startups are getting better all the time: half of them boldly compete in the global market. More and more frequently founded by experienced managers, they are getting increasingly professional. That said, they are experiencing staff shortages already: especially when it comes to **programmers and salespeople.** It is therefore very important that in parallel with programmes funding innovative entrepreneurship, high-quality professionals are trained in these fields to foster the ambition of creating new businesses.

The vision of Startup Poland is **one of a strong startup ecosystem in our country.** However, when striving to build it, one must not forget the need for the reliable and regular assessment of its development. Startup Poland is the only organisation to monitor the level of startup development in Poland on an annual basis; our data is included in international reports such as the European Startup Monitor².

I present you with the third Polish Startups Report, a survey based on a sample of 764 entities. In the report, you will find out who are the Polish startup entrepreneurs, what companies they have set up, how they are financing them, what is the size of investment they are able to attract, how fast they are growing, and how they are functioning in the global economy. With this data we can help you piece together a picture of the Polish startup ecosystem, with all of the advantages and challenges we will face in the coming years.

The Polish Startups Report 2017 survey and the publication of the resulting report would not possible without the support of an elite group of Project Partners: the Kronenberg Foundation at Citi Handlowy, Google, PGE, and PFR Ventures. In the DNA of each Partner, we can find what startups need most: capital, knowledge, energy, and growth.

I hope you enjoy reading this report.

INTRODUCTION

Courtesy of Michał Mazurek
The US TV series Silicon Valley, in which a group of programmers launches a startup in Northern California, has been running for four seasons so far. Poland is among the top countries where the series has been popular, behind the US, Canada, and Finland. California’s startup culture is well received in Poland.
WHO IS LAUNCHING POLISH STARTUPS?

The US TV series Silicon Valley in which a group of programmers launches a startup in Northern California, has been running four seasons so far. Poland is among top countries where the series has been popular, behind the US, Canada, and Finland. California’s startup culture is well received in Poland.

But an average founder of a Polish startup does not sport quite the same image as that seen in the HBO series.

NEW POINTS ON POLAND’S STARTUP MAP

More than half of the surveyed startups were registered in one of the five agglomerations: Warsaw, Wrocław, Krakow, Poznan, of Tri-city. New locations on the map include cities like Kielce or Olsztyn. This year’s survey also saw Wrocław, Toruń, Łódź and Lublin mark their presence in the startup industry particularly stronger than last year.

Geographical locations of respondents for the Polish Startups 2017
Source: Startup Poland

1 Taco Hemingway, Głupi byt from the album Szprycer, Taco Corp, Asfalt Records, 2017.
WHO ARE THE POLISH STARTUP ENTREPRENEURS?

At 58%, people aged 30-39 dominate in the surveyed group of startup CEOs or founders. A quarter (26%) of managing directors or founders are under 30 years old. People over 40 years of age make up only 16% of the respondents.

As many as 82% of the respondents graduated from higher education institutions. Only 3% are students, which defies the stereotype of a startup entrepreneur being a young and inexperienced person. Among this year’s respondents, the group with scientific degrees is clearly bigger, at 20% compared with 12% the previous year.

The data show that the respondents decide to found a company with a partner more often (36%) than on their own. 39% respondents said they cooperated with more than two founders.
EXPERIENCED ENTREPRENEURS STAND A BETTER CHANCE OF SUCCEEDING

For the first time, we have asked startup founders and managers about their experience. Half of the surveyed entrepreneurs ran a company of their own or a family-owned business before founding a startup. One in three were in another startup, worked in a corporation or in a private company. 17% were in scientific or teaching jobs, while 15% studied.

Interestingly, 46% of the 99 most developed startups (going through an expansion phase) were founded by people with business experience gained in family-run companies; 43% of those startups are managed by people with previous startup experience. Former corporate employees are also making it happen in the startup sector (they founded 36% of currently expanding startups); 27% of business currently scaling up were founded by people with experience from private companies, while only 15% of startup founders have experience from higher education institutions, and 10% exclusively from academia.

Data concerning people with academic experience - scientific or teaching work - proved interesting. The conclusion from the obtained material is that an academic background does not help build efficient startups, as 66% of respondents with academic backgrounds have founded startups that are not profitable or are profitable only sporadically; only 7% made a profit regularly. There was a woman founder in as many as 29% of the surveyed startups.

Previous activities of startup founders
Source: Startup Poland

- own or family company: 50%
- corporation: 36%
- previous startup: 35%
- work at a private company: 33%
- scientific or didactic work: 17%
- studies: 9%

29% of surveyed startups have a female founder
WHERE DO STARTUP FOUNDERS COME FROM?

There is a foreign co-founder in one in eight surveyed startups. Many of those foreign co-founders are citizens of the US or Ukraine. Most startups with foreign co-owners work in creating solutions in the segment of virtual and augmented reality (VR).
It is great that nearly 30% of startups were founded by women. Such a high and growing ratio makes Poland stand out in comparison to other countries.

Looking at women among entrepreneurs in general, we can see that one in three companies is run by a woman so the ratio of women in the startup sector is only slightly lower. Polish women are very entrepreneurial when compared to their European peers!

A recent survey “Profession: CEO” (carried out by DE-Lab for the Women’s Entrepreneurship Foundation in 2017) brought some interesting results as well. More and more Polish women start their own businesses as they are looking to change in their professional path or improvement in their economic situation. Starting one’s own business is often the next step in one’s professional life after working in a company or institution and is driven by the desire to be “on one’s own” and achieve professional progress. It is, then, a promotion of sorts.

Among the surveyed women company owners 2/3 worked in another company or institution before starting own business.

More than half of the surveyed women said they were in a formal or informal relationship when starting their own business, while 45% already had kids. A quarter of women were single when they decided to start a business, while one in eight was a single mother, having one or more children.

In our Network of Entrepreneurial Women we see many examples of ambitious startup founders who are successful on the domestic and foreign markets. There are women scientists, researchers, inventors, programmers among them. Some work individually, others in larger teams.

They set an example and inspire other entrepreneurs and startup founders.
A model Polish startup develops *big data* analysis software and sells it to companies, mainly small ones.
WHAT DO POLISH STARTUPS DO?

A model Polish startup develops big data analysis software and sells it to companies, mainly small ones. That said, it keeps corporations on its radar as well. Why is software our greatest strength? It is a natural way for ecosystems in emerging markets. It is easy to start software development by mobilising one’s own savings, as well as those of family or friends, without waiting for external capital. Software development is also a natural direction for Poland because we still are a breeding ground for engineering workforce (which includes software development) so it is easier to create businesses relying on those types of skills. It remains to be seen whether the profiles of Polish startups undergo change as the ecosystem develops or whether software continues to be our national speciality.

#CUSTOMERS, OR WHO IS BUYING FROM STARTUPS?

The majority (76%) of Polish startups continue to sell their products and services to companies. Micro-enterprises and small and mid-sized companies dominate in the B2B client group at 61% of the total. Corporations make up 40% of startup customers but it is clear that startups are ever more willing to sell to bigger players. The number of products targeting “Mr Smith” is declining, however, with individual clients making only 37% of startup customers. There is a business rationale behind the trend to focus on B2B sales, as 44% of startups selling B2B can boast stable revenue, while only 37% of products sold B2C achieve similar results.

76% of startups sell to companies.
CHAPTER 2 - WHAT DO THE POLISH STARTUPS DO?

The top-selling products have not changed in comparison to previous years. The top five are: big data, analytics, IoT, programming and development tools, life sciences/health/biotechnology. Startups selling big data solutions are the best performers. They post high revenue (over 1 million PLN in the past six months) more regularly than others. Companies selling marketing technologies also perform well, with 40% declaring regular revenue. One in three startups working in analytics/research tools/business intelligence segments also posts regular profit.

Production of technologies for the energy sector as well as augmented and virtual reality are most difficult segments in terms of profitability.

Most projects in the above-mentioned sectors are created in Warsaw. There is an exception, however. Most IoT startups are located in Wroclaw (16% of all IoT projects), followed by Kraków with its Beacon Valley (15%), leaving Warsaw in third place (14%).

CO SPRZEDAŻĄ STARTUPS?

The top-selling products have not changed in comparison to previous years. The top five are: big data, analytics, IoT, programming and development tools, life sciences/health/biotechnology. Startups selling big data solutions are the best performers. They post high revenue (over 1 million PLN in the past six months) more regularly than others. Companies selling marketing technologies also perform well, with 40% declaring regular revenue. One in three startups working in analytics/research tools/business intelligence segments also posts regular profit.

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**HOW DO STARTUPS SELL?**

Software as a Service (SaaS) is the most popular sales model among startups. As many as 90% of startups selling in the SaaS model report regular revenue. Other popular sales models include e-commerce, marketplace, web services, and mobile applications.

**Business models**

(most popular sales models)

Source: Startup Poland

- **SaaS**: 39%
- **e-commerce**: 16%
- **marketplace**: 15%
- **web services**: 15%
- **mobile applications**: 14%
CHAPTER 2 - WHAT DO THE POLISH STARTUPS DO?

PUBLIC PROCUREMENT: ONLY FOR THE BRAVE

Back in 2016, we were already wondering why so few startups sell in the B2G (Business to Government) sector (with 80% of startups saying that they had never taken part in a public tender). Was it that the officials did not need any novelties from startups, or perhaps the startups steered clear of public procurement procedures? So this year we asked: why don’t you take part in public tenders? Most answers - 39% of the total - were that “We have a product for which there are no tenders anyway.” The second most common explanation - at 25% - was that tender procedures were too time-consuming, while 18% said they “lacked knowledge” about tenders or that “information about tenders did not reach them.”

We know of 70 startups that completed public procurement projects. Upon closer inspection, it transpired that it turned out that B2G is hardly a cash cow as revenue from public procurement did not exceed 25% of total turnover for two-thirds of the surveyed companies. Only 16% had over 50% of revenues coming from public procurement projects.

WHAT IS POLISH HARDWARE LIKE?

Why do we take a closer look at startups producing hardware? Because these are companies with a development dynamic that differs from other startups: they typically need more time and money to fine-tune their products.

25% of the surveyed startups manufacture or design hardware. Data confirm that these companies start being profitable later than others, owing to the unique nature of their work. It is also a fact that as many as 75% of the surveyed hardware startups do not have regular revenue, while the percentage is 54% in the group of companies offering software solutions.

In one in four surveyed startups hardware is an element of the product.
Hardware has not enjoyed good global PR recently. It would be fair to mention brands like Fitbit, GoPro, Jawbone, Skully, or Juicero. It would seem that the numerous failures we have seen recently should discourage business models in which physical products are made.

However, as many as 25% of Polish startups indicate that hardware makes part of their product. That is a lot. Silvair, Elmodis, Bivrost, Nestmedic, Inteliclinic, Photon, Seedia, Remmed VR, First11, 3DGence, Datarino, Bine, or Inmotion are examples of hardware startups that secured varying degrees of financing last year. Most of them are working on a prototype or a first version of the product. That - together with the fact that only 20% of companies that produce hardware declare that part of the process takes place abroad - indicates the hardware segment is still at a very early stage of development.

From my point of view that also means there is only limited knowledge in Poland on how to cope with the challenge of scaling up those companies. So the immediate goal should be to transfer that knowledge from the most successful locations. I do not mean Silicon Valley here, but Shenzhen, China. Out of 18 hardware startups that deserve the “unicorn” moniker, two-thirds come from China. That is where we should look for examples to follow if we want to utilise the potential of Polish startups well.
Regardless of how optimistic we may be about the Polish startup ecosystem, there is one thing we have to be straight about (...)

Regardless of how optimistic we might be about the Polish startup ecosystem, there is one thing we need to be straightforward about: we are lagging far behind in terms of investor resources available in mature ecosystems, such as Silicon Valley or Berlin.

The year 2017 might prove interesting, however, as a step forward towards an ecosystem rich in capital.

Following the example of other regions facing the problem of the so-called valley of death – where startups without customers or financing end up – the Polish government is about to create a fund of funds. The result is expected to be a considerable improvement in access to financial means for innovative companies, attracting foreign capital, and buoying the domestic investment market.

The private sector also seems to be changing its mind about startups. The media claims that investing in startups is becoming a kind of fashion with Polish business elites. How will startups react to capital inflow? What will change in the structure of financing, given that Polish startups prefer to develop more slowly but in their own way and without external financing? In the next few years, we are certainly going to follow news on startup financing in great detail (popcorn will also come in handy).

SELF-FINANCING ON THE INCREASE

Despite the recovery on the investment market, bootstrapping remains the main financial model, which emphasises internal cash flow and the reinvestment of startup income. As many as 62% of the surveyed startups are maintained through self-funding, up from 50% last year.

62% of the surveyed startups have relied only on self-financing so far.

17% of startups grow at a monthly rate of over 50%.
#CUSTOMERS ARE THE MAIN SOURCE OF FINANCING

41% of the surveyed startups post regular profits thanks to finding customers for their products and services.

60% of startups that make regular profits achieve turnover of up to 100,000 PLN per month, while 15% boast monthly revenue of 500,000 PLN or more.

The most popular source of external capital is venture capital (domestic or foreign), followed by public financing available from EU funding (via PARP or NCBiR). Equally popular is financing through private capital raised from domestic or foreign business angels. Slightly fewer startups use capital obtained from acceleration programmes.

A fifth of the surveyed companies uses foreign financing – acceleration, business angels, or venture capital funds.

Sources of capital
Source: Startup Poland

---

Do you generate revenue from the sales of your main product/service right now?
Source: Startup Poland

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>30%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>41%</td>
</tr>
<tr>
<td>Regularly</td>
<td>29%</td>
</tr>
</tbody>
</table>

Average monthly income over the previous six months
Source: Startup Poland

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 100,000 PLN</td>
<td>58%</td>
</tr>
<tr>
<td>100,000-200,000 PLN</td>
<td>14%</td>
</tr>
<tr>
<td>200,000-500,000 PLN</td>
<td>13%</td>
</tr>
<tr>
<td>over 500,000 PLN</td>
<td>15%</td>
</tr>
</tbody>
</table>

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"..."
Out of the startups using external financing, ones that received support from a domestic VC fund are the biggest group to post regular profits, at 39%. Within that group, 19% secured financing from a domestic business angel, 16% from PARP and 9% were supported by a foreign business angel or VC fund. Within the group of 18 startups with the biggest turnover (at over 1 million PLN monthly revenue on average in the past six months), there were four supported by domestic VC obtained in the last round of financing, while three startups were supported by a domestic investor and another three by a foreign investor.

40% of startups that secured external financing raised over 1 million PLN.

The data show that 80% of the surveyed startups that use external financing are at least 50% owned by their original founders.

What type of financing is on the radar for the surveyed companies? In the coming six months, 23% of respondents are not going to pursue the securing of extra financing. Among those who will do so, however, half plan to obtain venture capital, while one in three will attempt to obtain financing from a business angel (domestic or foreign) or via public financing programmes.

As many as 44% of the surveyed startups want to secure financing abroad (not including EU funding, however), targeting foreign venture capital funds, accelerators, and business angels.

44% of the surveyed startups want to obtain foreign financing.
CHAPTER 3 - FINANCING

What kind of external sources of financing do you intend to gain over the next six months?
Source: Startup Poland

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>local or foreign VC</td>
<td>55%</td>
</tr>
<tr>
<td>local or foreign business angel</td>
<td>37%</td>
</tr>
<tr>
<td>PARP or NCBiR</td>
<td>37%</td>
</tr>
<tr>
<td>strategic investor</td>
<td>30%</td>
</tr>
<tr>
<td>local or foreign accelerator</td>
<td>19%</td>
</tr>
<tr>
<td>bank (credit)</td>
<td>13%</td>
</tr>
<tr>
<td>crowdfunding</td>
<td>11%</td>
</tr>
</tbody>
</table>

MORE MILLIONAIRES

This year, we also asked about the number of financing rounds. Most of the surveyed startups went through a single financing round. A total of 60% of startups using external financing received up to 1 million PLN from all financing rounds. As many as 17 respondents raised above 10 million PLN (again, that is a figure from all financing round undertaken by the surveyed companies).

How many rounds of financing did you use?
Source: Startup Poland

<table>
<thead>
<tr>
<th>Number of Rounds</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>one</td>
<td>23%</td>
</tr>
<tr>
<td>two</td>
<td>12%</td>
</tr>
<tr>
<td>three</td>
<td>5%</td>
</tr>
<tr>
<td>four or more</td>
<td>60%</td>
</tr>
</tbody>
</table>

What is the amount of financing from all financing rounds to date?
Source: Startup Poland

<table>
<thead>
<tr>
<th>Amount of Financing</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 500,000 PLN</td>
<td>35%</td>
</tr>
<tr>
<td>500,000-1,000,000 PLN</td>
<td>26%</td>
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<tr>
<td>1-3 million PLN</td>
<td>21%</td>
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<tr>
<td>3-10 million PLN</td>
<td>11%</td>
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<tr>
<td>over 10 million PLN</td>
<td>9%</td>
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EXPERT COMMENTARY

Grzegorz Dąbrowski
Head, Corporate and Commercial Banking, Citi Handlowy

From the perspective of a bank that is part of a global network, I notice the importance of foreign funding for the local startup environment. Nearly 20% of respondents found external capital abroad through accelerators, business angels, or venture capital funds. Poland’s share in the global “cake” is still small, however. According to the March 2017 report from Citi GPS, Europe accounts for only about 10% of global VC investments in the fintech industry. The trend of looking for investors abroad is not anything unique, then, but rather a part of the greater phenomenon of importing global novelties and tendencies. The total value of VC investment in Europe came in at just $1 billion in the first nine quarters of 2016. We remain far behind the US or China.

For banks, startups pose a challenge but also provide a motivation to improve solutions. The change affects the very essence of banking, as it means reducing the distance between the bank and the customer, faster processing, and ad hoc digital interactions. Looking at data from the Startup Poland report, we are optimists. The local startup environment seems to be in a good shape, as up to 62% of the surveyed companies – that is an increase from 50% the previous year – self-financed. We will cast a favourable eye on the startup industry and seek solutions with business potential.
Financing is one of the key challenges facing each company. This report lets us understand better how Polish startups – 62% of them self-financing - respond to that challenge. Worth noting is the relatively low share of startups that benefit from external financing, including venture capital funds and business angels. Apart from financing, investors of this type bring in know-how that is essential for the expansion of every startup aspiring to go global. The second important piece of information in the report is the very high share of the surveyed companies – at 77% - declaring plans to obtain external financing in the next six months.

2016 saw a decline in the financing of startup activities by external investors. This was due to the fact that most VC funds - which were among main providers of capital - obtained their funds from the public sector and, in practical terms, wrapped up their investment period at the end of last year. VC funds that source capital from public means have more than a 50% market share, therefore limiting their activity has had a significant impact on the entire market in 2017.

The situation should change significantly in 2018, when funds financed by PFR Ventures will become operational. As we launch subsequent funds of funds that rely on the best market benchmarks, we want to provide funding for startups at any stage of development. At the same time, we try our best to attract the know-how of foreign investors that is so necessary for the venture capital sector as a whole and for Polish startups as well.
EXPERT COMMENTARY

Barbara Nowakowska
Managing Director
Polish Private Equity and Venture Capital Association

“Most startups will at some point reach out to external sources of funding.”

The results of this report confirm the above remark on the global startup community. As many as 77% of respondents declare a willingness to obtain external financing in the next six months, a result that is similar to last year’s figure of 75%. Does that mean that others do not need external financing? Probably not. They may be the strongest and fastest-growing companies that have recently acquired external financing and their cash needs are planned over time horizons longer than six months. There is also a group of entities at a very early stage of development, at the problem-solution fit stage, that are not ready yet to seek external funding. Representatives of those two groups will go after external financing at some point as well, however.

Venture capital remains the preferred source of future funding (declared by 55% of respondents compared to 59% last year), followed by financing via business angels (37% versus 35% in 2016). Given that these groups of investors seek companies with the potential for great growth and global expansion, it is to be hoped that the startups intending to acquire funding from VC funds or business angels meet those expectations indeed. A drop of as much as 20 percentage points (from 56% to 37%) in the interest in public funding may come as a surprise. While we do not know what is behind the fall, we can assume it is due to poorer access to grants and the shift of public funding towards financial instruments.

Interest in obtaining financing from strategic investors is also clear, with 30% of respondents declaring it a preferred way of funding. Those may be companies with interesting products and outstanding technologies, the global implementation and distribution
of which require gigantic financing, international competence, and a global contact network. That is the path chosen a few years ago by Iwona, currently part of the Amazon group. Gaining a strategic partner also gives one a chance for an exit in order to build new business. Will the creators of ZenCard, initially funded by venture capital and then sold to PKO BP, go the way of the Inteligo founders to become “serial entrepreneurs”?

For most of the surveyed startups, external financing is still a thing of the future. Relative to the previous year, the percentage of self-financing companies grew to 62%, compared to 50% in 2016. We do not know whether this is due to the increase in the number of young companies that are not yet ready for external financing, or to the ability to generate revenue under SaaS, respondents’ most popular business model.

The fast growth in the share of venture capital and business angels in financing companies that have already acquired external financing is very important. The share of funding from these sources increased almost twice over (from 22% to 40% in the case of venture capital and from 17% to 33% in the case of business angels).

VC funds and business angels are professional investors, focussed on expansion, who in addition to funding also offer startups support in building strategy, complementing missing competences, networking, and securing further funding rounds. This year, 60% of respondents went through one financing round, while 23% completed two rounds. I hope next year the latter group will grow significantly.

Money is priority if young startups are to develop. I remember last year’s question about the resources that startups needed the most. As many as 63% of respondents put financial resources in first place. People and contacts followed, at 44% and 42%, respectively. What the surveyed startups said fully reflects the needs which we learned about during our meetings with young entrepreneurs. We are able to respond to those needs and offer companies comprehensive support in any critical aspect of their work.

We can also note that despite a marked increase in the number of startups that self-finance (50% last year), over 77% of them plan on acquiring external financing, including more than 50% setting their eyes on venture capital funds. Clearly that is a trend on the market and we are fully prepared to establish business relationships with these entities. PGE Ventures’ own fund, as well as entities through which we intend to obtain funding via the available PFR Ventures programmes, will operate dynamically and respond quickly to market needs. It is important to note that the common problem of the time-consuming process of raising capital often discourages young entrepreneurs at a very early stage of product development.
From a macro perspective, a strong startup ecosystem is one in which new ideas keep coming up and teams are ready to execute them.
From a macro perspective, a strong startup ecosystem is one in which new ideas keep coming up and teams are ready to execute them. The ideas then go through the path of product formation, finding a market niche and scaling up, or super dynamic growth that comes about by winning customers in foreign markets. In line with typical startup dynamics, only a small percentage of projects will go through the whole process and reach the expansion phase.

**WHAT ECOSYSTEM?**

Data on the development stages of Polish startups allow us carry out annual checks on the effectiveness of the ecosystem; where it is strong, and where support is needed. In this year’s survey, we again used the concept of four development stages in the life cycle of a startup:

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<th>Stage</th>
<th>Percentage</th>
<th>Description</th>
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<tr>
<td>1</td>
<td>14%</td>
<td><strong>PROBLEM-SOLUTION FIT</strong>, or formulation of business model assumptions and team building.</td>
</tr>
<tr>
<td>2</td>
<td>41%</td>
<td><strong>SOLUTION-PRODUCT FIT</strong>, or intensive work on the product, registration of the company, prototyping, first revenue and/or users.</td>
</tr>
<tr>
<td>3</td>
<td>29%</td>
<td><strong>PRODUCT-MARKET FIT</strong>, or stable sales and user base, functioning business model.</td>
</tr>
<tr>
<td>4</td>
<td>16%</td>
<td><strong>SCALING / EXPANSION</strong> or rapidly growing the number of customers and/or users, and revenue.</td>
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Startups in medium stages of development are best represented in Poland. The majority (71%) of the startups surveyed are still refining their products in the solution-product fit stage or stabilizing their sales and user base, reaching the third stage of product-market fit.

At 16%, the relatively small percentage of startups in the scaling up phase deserves particular attention. Based on the results of last year’s survey, the Startup Poland Foundation emphasised the importance of supporting Polish startups in the globalization of their products. This year, the fact that an unimpressive percentage – just 14% - of startups are in the first development stage, which is formulation and team building, is worth noting as well. Ensuring the influx of new ideas and people with skills to convert problems to market products, seems another great challenge facing Poland’s startup ecosystem.

11% of respondents registered their business activity this year. As many as 43% of startups are companies that entered the market between 2015 and 2016. 17% of the surveyed startups were created in 2013 and 2014, while one in six respondents started in 2012 or earlier. There are no surprises when comparing the age of the companies with the stages of their development: the vast majority of older startups are at a later stage of development. It is worth noting that 71% startups are registered as a limited liability company, 15% operate as sole-proprietorships, and only less than 5% operate as a joint stock company.

When asked about their current needs, the surveyed startups most often pointed to money (65% of answers). Almost one in two respondents needs employees and 40% want to expand their contact network. When asked about their most urgent needs in terms of acquiring knowledge, the most frequent answer is marketing training (49%), mentoring (41%), and management training.
We also asked startups to assess the value of knowledge and networking resources available on the market. It turned out that individual mentoring has the biggest impact on business development, which was also confirmed by conclusions from the previous issue of this report. Comparable value was attached to industry meetings, such as Aula, Hive, Startup Stage, or OpenReaktor, participation in startup and hacking competitions (for example, Startup Weekend), as well as in the national accelerator or receiving the help of a business incubator or national technology park.

**WHAT YOU KNOW ABOUT YOUR CUSTOMERS IS GOLD**

Where do startups seek knowledge about their customers? They regularly interview individual clients (73% of respondents), gain knowledge from internal team sessions (65%) as well as from building and testing prototypes (61%). Startups run or commission qualitative research much less frequently (more than 50% do not do it at all), while hardly any derive insights from quantitative research (75% have never used it). Using expert advice is slightly more popular, with 45% of the surveyed companies using it only occasional and 32% on a regular basis.
Networking is another problem. For example, we have found out that students of the Warsaw School of Economics do not talk much to peers from the Warsaw University of Technology, even though those higher education institutions are just one subway stop from one another. Business people do not know how apps are created, how much they cost, and where to find people who know those details. If we do not talk to each other at such an early stage, it is easy to guess why so few Polish startups boast an interdisciplinary team consisting of an industry expert, a programmer and a designer. Innovation requires sectorial and technical knowledge. What we need is much stronger emphasis on training at an earlier stage than a typical accelerator can provide. We need to help people with sectorial know-how enter the startup circle so that they can get to know the technical people they might do business with. We also need to show students they will never succeed unless they cooperate with people with different competences. The Startup Weekends and the ReaktorX pre-accelerator I co-founded are not enough. We need a systemic change: the cooperation of the education and digitisation ministries dealing with agencies such as PAED or the Polish Development Fund.

People educating entrepreneurs are few and far between in Poland. Little is done to teach cooperation as well. If we want to be a nation of startups, we need to address these shortcomings.

I meet professionals at startup events. They are educated people with professional experience - bankers, psychologists, physiotherapists, architects and so on - who have a great understanding of their respective industries and an idea how to change them. They lack technical skills and entrepreneurship basics. At the same time, there are a lot of great programmers, technical university students, who do not have the specific knowledge to be able to verify their own ideas. So professionals spend months agonizing over how to carry out their ideas, while the students get on with coding instead of talking to potential customers. The end result is always the same: a waste of time and money.

So education is a problem. We have some good acceleration programmes with proven quality, such as T-Mobile’s hubraum, Huge Thing, or Orange Fab. But there is no one these programmes could give a push to. We need education at an earlier stage. The state does not provide it, probably because it is lacking the requisite competence. Investors do not provide it, either, because setting up schools is not their role and simply does not pay off.
Over the past year, Poland has undertaken a number of initiatives to improve the conditions for innovative activity both on the government level – by passing the law on innovation - as well as on the institutional level of the PFR Group.

In effect, we have consistently climbed up the World Bank’s Doing Business ranking, moving ahead of countries such as the Netherlands and France this year. International companies also pick Poland as the location for their R&D centres more and more frequently.

More than half of the existing startups were created in only the last two years. This is a good sign for foreign investors too, as they should account for our market in their analysis, because of the number of new ideas that are emerging here.

In many cases, the most time-consuming and difficult phase of startup development is fine-tuning the product. That is why PFR has spent a lot of time designing the right tools to support entrepreneurs at this stage - acceleration programmes or VC funds dedicated to the seed phase.

Entrepreneurs surveyed in this report indicate they need funding the most. This is good news because that is where we can help them through investment in venture capital funds. That will allow them to continue investing in further projects.

I hope that the investments by PFR-supported VC funds will also have a positive impact on the second most indicated need, the ability to employ additional staff.

Poland educates about 400,000 graduates annually, half of which are engineers. That is a solid foundation for educated staff, translating into numerous foreign companies picking Poland as a location for their research and development centres. Over the last few years, ABB, Credit Suisse, GSK, Microsoft, and Volvo have chosen to build innovation centres in our country. PFR wants to contribute to an environment conducive to innovators and help young people in their professional development in their home country.

Together with its business partners, PAED has launched 10 accelerator programs within the ScaleUP framework. These programmes give entrepreneurs substantial knowledge on product design, marketing methods and finance, as well as opportunities to establish new contacts. Company founders often point out that access to experts and mentors is the most valuable element of the programmes. We are pleased we can contribute to the creation of additional platforms for exchanging experiences.
Startups increasingly see collaborating with large market players - corporations and large companies - as having the potential for development and scaling up. Big firms, meanwhile, see startups as partners in creating new branches of core business and designing solutions for new markets. Given a properly designed model of such cooperation, both sides benefit, in my opinion.

Testing and prototyping are definitely one of the most important reasons why startups are interested in working with large companies. If a startup has developed its own technology or a new business model, there appears a great need to test its solutions on a large scale, under real conditions, during the initial stage of development. Large organizations allow access to market and customers. Moreover, in the case of technology solutions, they often provide a unique infrastructure for further development.

Mentoring support and business contacts, as well as knowledge about the market and specialized competences, are also important drivers of cooperation with large companies. Access to sectorial and business knowledge as well as to the right people at the right time are extremely important success factors. References from a trustworthy company make it possible for unknown startups to become desirable business partners and to scale up their venture more quickly.

Of course, there are only some reasons why startups are increasingly eager to seek large partners for early stage acceleration. As a member of the board of PGE Nowa Energia I am pleased to be a witness and participant to a process in which corporations can not only provide support for start-up innovators but also create a mutually beneficial model of cooperation.
Half of Polish startups export - this year’s survey matches data from previous years.
How Global Are Polish Startups?

Half of Polish startups export - this year’s survey matches data from previous years. It is an excellent result when compared to Polish small and medium-sized enterprises, of which only 4.4% export products, and 1% export services. Before we celebrate, though, we should ask ourselves a question: why in the Internet era, where global sales are becoming easier than ever, more than half of domestic startups fail to market their products abroad? We had been wondering, so this year we asked about the reasons that startups sell only domestically. The most frequent answer was: “First we want to test our business locally” (the answer given by as much as 57% of respondents that sell only on the domestic market).

Of current exporters, 35% passed the test of the local market before starting to sell globally. The presumption can be made that part of startups that want to “try locally” will never reach outside the domestic market. This type of conservative approach to building international product strategies (the attitude of “first locally, then globally”) and putting off the expansion for later stages of development is apparently a serious hindrance to the creation of a larger group of global startups in Poland.

Reasons for not undertaking sales abroad
Source: Startup Poland

- first we want to test our business locally: 57%
- we don’t have the financial, human resources or relevant skills: 33%
- we lack contacts abroad: 27%
- we have a local product: 11%
- our product isn’t ready yet / we are not selling yet: 10%

WHY IS EXPANSION SO CRUCIAL FOR STARTUPS?

A substantial number of Polish startups are aware that they are giving up the chance to multiply their market chances. For when testing a product on a larger number of markets, we get fuller picture on the customer needs. We also give such products much bigger chances of succeeding - what doesn’t catch on in the Polish market may very well fill a niche in the South American one. Many Polish entrepreneurs are still skeptical of these arguments.

EXPORTS STORMING AHEAD

Those who have overcome some hurdles to reach foreign markets are coping pretty well there: 55% generate more than half of their income on foreign markets, a 10 pp growth against the previous year (only 45% exporting startups then enjoyed such results).

Exporting startups have much better financial standing: among the exporters 60% recorded regular income (vs. only 22% non-exporters), with 28% of them reaching an income exceeding 100,000 PLN (a threshold crossed only by 3.7% of non-exporters!). 51% of the best earners were among exporters (with an average monthly revenue exceeding 500,000 PLN), with the figure for non-exporters at a low 19%.

How much of your sales are generated abroad?
Source: Startup Poland

<table>
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<tr>
<th>next to nothing</th>
<th>ca. 10%</th>
<th>ca. 20%</th>
<th>ca. 30%</th>
<th>ca. 40%</th>
<th>ca. 50%</th>
<th>ca. 60%</th>
<th>ca. 70%</th>
<th>ca. 80%</th>
<th>ca. 90%</th>
<th>almost all/all</th>
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<tr>
<td>6%</td>
<td>9%</td>
<td>8%</td>
<td>1%</td>
<td>5%</td>
<td>5%</td>
<td>8%</td>
<td>12%</td>
<td>13%</td>
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<td>21%</td>
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30% 15% 0%
Over 90% of exporting startups mainly sell in Europe and the United States. In the EU alone, exporters generate most revenue on the German and British markets (a total of 44%).

The quickest to enter foreign markets are products of big data segment as well as programmer and developer tools (1 in 5 startups got involved straight away in these sectors). The largest percentage of exporting companies (over 60%) can be found in the group of startups offering marketing technology products (as much as 75% exporters in this segment alone) and programmer/developer tools. Of companies offering products based on big data, analytics/business intelligence, IoT (internet of things), electronics/robotics, games/entertainment, design/project design and education half the number exports. In terms of the number of exporters, the weakest figures are recorded in the life sciences/health sector (below 40%). Almost 20% of surveyed exporters (one in twelve respondents) used public support for export. However, no significant improvement in export intensity as compared to startups not using public support has been observed.

**Average level of monthly revenues in the last six months among startups that post regular earnings: exporters and non-exporters**

Source: Startup Poland

**Sales abroad that generate the most income**

Source: Startup Poland

"Already 1 in 4 exporters owns a company incorporated abroad!"
The result shows how strong the tendency among startups to export goods and services is. Part of our office’s clients assumed upon setting up their businesses that they would sell their services or goods only on foreign markets, especially in the EU and USA. Also apparent is the fact that startups headquartered in Poland register offices abroad, not only for the purpose of marketing or prestige.

Another visible tendency, documented by our office’s practice, is a foreign entity investing in a company operating in Poland or in a party jointly established by Polish company and foreign partner abroad. Alternative form of “investment” in a Polish entity is its purchase and creation of R&D, service development centre or IP for foreign entities.

Business contacts with foreign partners, in my view, require legal sanctioning right upon signing a NDA (non-disclosure agreement) or a letter of intent. A crucial aspect that has to be taken into account is the regulatory environment in states, where Polish startups run their businesses and sell their goods or services. Therefore, concurrent use of services offered both by Poland-based and foreign law firm in order to secure such party’s interests might turn out to be necessary on numerous occasions.

The issues of the optionality of the so-called competent state, that is, the law that will govern the performance of executed agreements, needs to be considered at this point. When dealing with a German partner, for instance, we can choose Polish or German law but also the law of other country, like France. Furthermore, one can choose a competent court for the settlement of potential disputes. In minor cases, in particular, if a foreign partner is unwilling to consent to the competence of a Polish court, one might consider choosing a court from a third country, which should be equally “inconvenient” for both parties. The choice of governing law will obviously be most vital in case of court dispute between contracting parties but might have its significance for contract performance as well.
EXPERT COMMENTARY

Rafał Plutecki
Managing director, Campus Warsaw

The startup support ecosystem in Poland has significantly developed in the last five years. The Intricate machinery of connected vessels comprising entrepreneurs, mentors, investors, universities, corporations, as well as leaders of startup communities, is becoming increasingly functional, whereas the success achieved by a significant number of Polish startups provides strong grounds for optimism.

Thinking of the future, we need to bear in mind that the rating of Polish economy, currently ranked 25 worldwide in terms of GDP, while sharing only 0.6% of global wealth, exposes Polish entrepreneurs to fierce competition right upon setting up their businesses. Even if a domestic entrepreneur does not have global aspirations, his global competitors can boldly enter the Polish market. Pracuj vs Monster, Allegro vs Ebay, iTaxi vs Uber, Goldenline vs LinkedIn... and there are many more examples.

Currently, and in the years to come, the biggest challenge for startups is obtaining the competence to scale up development internationally.

Otherwise, building the long-term value of enterprises globally is simply out of the question. This report confirms the substantially better position of exporters vs. local enterprises - for some of them it is the issue of survival whereas others see that as a great chance to become involved rather as acquiring than the acquired party on merger and acquisition market in the future.

"It’s the culture, stupid!" has become the main slogan of international scaleups. Once a company creates an organisational culture which highly praises and caters for its employees, trusts them and offers them autonomy of action, provides an inspirational workplace where people get a chance for self-fulfilment, then it should attract the very best Polish and global talents. It will start to outdo the competition by a quickness of operation. It will charm clients and investors. And this is the exact moment when a founder starts the process of pushing the limits of growth - first personal, then of its company.
Do startups have an impact on the domestic labour market?
Do startups have an impact on the domestic labour market? Among the surveyed startups 71% hire employees (in low numbers, however number, though), 42% indicated that access was the most desired resources at the current development stage, and 70% have hired an employee in the last six months. Impact of startups on domestic labour market can be better expressed in the number of hired specialists.

Who are the startups looking for? As shown by this year’s data, employees most desired by startups include sellers, especially those competent and experienced in foreign sales, programmers and marketing people. 60% of the startups surveyed who are employers provide regular employment contracts, at least for part of its employees.

Half of the surveyed Polish startups are micro-enterprises that employ up to 10 people. When compared with general domestic data, where 96% of domestic entities are micro-enterprises (according to REGON business registry data of June, 2017), the percentage of medium- and large-sized companies among startups is substantially higher: 22% vs 4%.

The largest companies in terms of employment are in the group of startups that offer marketing technology solutions (as much as 16% of them employs more than 50 people). On the other hand, the highest share of enterprises which do not employ at all (42% and 39%, respectively) can be found among companies providing products for energy or life sciences/health sector. Less numerous teams of employees are characteristic of startups that are exclusively self-funded: 37% of them do not hire any employees, whereas 28% - 1-3 employees. The conclusion from two previous survey editions, that obtaining external funding positively influences employment level in startups, holds true.
DO STARTUPS HIRE FOREIGNERS?

This year we once again asked about employing foreigners. International teams are created in 28% of startups.

Foreigners are mainly hired by startups that export, have foreigners as founders or are incorporated abroad. Employees mainly come from Ukraine, USA or the UK. In-depth data analysis supports the thesis that employees from the UK, and even more so from the USA, are the consequence of foreign expansion of startups, whereas employees from Ukraine are more related to the deficiency of qualified human resources in Poland, in fact making for additionally required staff.

28% startups employ foreigners.

MORE PEOPLE, BETTER RESULTS

Startup businesses are characterised by the possibility to develop without expanding their workforce. They search for employees only at the stage of maturity. This is confirmed by our survey results: 62% with the largest workforces, that is, over 50 people, are business at the expansion stage.

There is a correlation visible among startup enterprises: more employees translates into better financial standing. Startups employing the highest number of people are most numerous among enterprises with the highest revenues: 72% startups that posted revenues exceeding 1 million PLN for the last six months employ more than 50 people.
Thanks to advancements in terms of economic parameters, we have joined the club of ageing societies. As McKinsey puts it, the so-called demographic overload will increase before our eyes, from 20 to 30% in 2012–2025. Add to this a weak rate of natural increase and negative migration balance (deficiency of people with peaking creativity), and the question of attracting talents to the high-tech market becomes a prerequisite for further growth. It is clearly seen in rankings of innovativeness: there is quite a disparity between the top twenty countries and position 38 in the Global Talent Competitive Index (GTCI 2015).

Employing foreign specialists offers a double benefit - the startup not only gains a competence but also access to the network and insight into the needs of the markets that they come from. In industries where the need to react flexibly to changing conditions is not only a virtue but also a necessity, a diversity of viewpoints, action methods and community relationships becomes an advantage.

The Benefits of international personnel are not usually as much visible in a bookshop or a car mechanic’s workshop but in a startup, which regards its investment valuation as determined by foreign expansion capability, this is a clear advantage.

General economic benefits coming from business internalisation are also invaluable. A career in a startup rarely lasts until retirement age. Upon reaching an important stage, the chances of a foreign specialist staying in the country and launching his/her own undertakings increases. If he or she succeeds, such an arrival could translate into measurable fiscal gains, not to mention demographic, social or cultural benefits. The Best developing innovation markets, such as American, Israeli or Canadian, thrive on talent migration, including that of Polish engineers or managers.
There is a higher number of startups patenting their solutions among this year’s respondents.
While studying the innovativeness of startups, we try to allow for the voluminous nature of the term to capture products and services that introduce change, as well as the processes that precede them. That is why each year we ask startups not only about patents but also about cooperation with academic centres.

We realise, however, that the indicators that we use to describe innovations are imperfect: not all innovative startups patent and that running an innovative process in the company does not always require huge financing or collaboration with an academic center. Nevertheless, better “hard data” are hardly available, and hence – as other researchers focused on the area of innovative activity of enterprises do – we treat them as our main reference points. We also value opinions of startuppers, therefore asking them whether they consider their products to be copies or a market novelty.

The Number of startups patenting their solutions among this year’s respondents grew against last year’s figure of 14%. This represents a high level of patent activity as compared with domestic small and medium-sized enterprises as a whole: in the years 2013–2015 patent activity of all domestic enterprises totalled 17.6% for industrial and 9.8% for service companies, respectively.²

19% startups patent their solutions.

Among patenting startups, most numerous are clearly those that manufacture products in the following sectors: life sciences/health sector/biotechnology, Internet of things (IoT), electronics/robotics and big data.

Of the surveyed startups that own their patents or are in the process of their registration, almost 68% register them in Poland, whereas more than half (57%) are protected by patents abroad. One in four patenting respondents has both Polish and foreign exclusive right to invention.

Non-patenting startups claim that their solutions are non-patentable (61%) and one in five respondents does not see any benefit in patenting. It should be emphasised that a relatively small number of solutions in digital industry are generally patented. Startups claim to be building their competitive edge in a different way than by registering industrial property.

Like in 2016, half of the respondents claim to be developing a “completely new product”, and a comparable figure to be “enhancing existing solutions”. A small change occurred in the figure of respondents creating a slightly innovative product that is a copy of the existing solution (3%).

COLLABORATION WITH SCIENCE

As many as 46% of surveyed startups (their share is significantly growing). It is interesting that slightly more respondents than in 2016 declared to have their own research laboratories: in this year’s survey this is already one in three (29%) respondents collaborating with academia (i.e. one in seven of the entire startup population surveyed).

As much as half of respondents collaborating with academia decide to formalise such cooperation. Furthermore, 76% respondents who did not give this relationship an official shape either explain that such move is not needed or cannot provide reasons for such state of affairs.
The Majority of economies base their development on knowledge. Intellectual capital has also become a factor which determines a competitive edge both on the level of state and other different entities. At the end of the 1970s, intangible goods represented a mere 5% all of the assets of the 500 companies with the highest capitalisation level, listed on the New York Stock Exchange (S&P 500 Index). The trend has now reversed - among the assets of enterprises leading in global business rankings as many as 80% are intellectual goods. The Intellectual property system is vast, covering industrial property (inventions, industrial designs, trademarks, etc.), copyright and derivative rights but also personality rights, trade name rights, database rights, right to new varieties of plants, and trade secrets (know-how). There is a frequent phenomenon of cumulation of these rights. One product may combine technical solutions in the form of patented inventions, with their market strength reinforced by a trademark that is well-recognised and reputed among customers, as well as product usability and aesthetics obtained through the application of modern industrial design.

In this context, the adequate protection of intellectual property and effective management of exclusive rights is extremely vital. For it must be remembered that even if an enterprise does not use intangible goods protection in its activity and thus not invest in it, it does not mean that it can freely operate on the market. There is a considerable risk that by entering new products it infringes upon the intellectual property rights of other enterprises.

Data presented in the report illustrate a growing tendency in the number of patenting startups. Most of all, it indicates a growing awareness of industrial property protection among startup sector representatives. Furthermore, it can be noted that the majority of startups have a technological profile which substantially increases the innovative potential of the domestic economy. It also confirms the fulfilment of a business strategy that assumes gaining a competitive edge based on commercialisation of technical solutions, and not only copyright protection of software programme, e.g. application. The popularity of domestic protection certainly stems from its low cost, though it should be emphasised that Polish startups are very active in this respect also abroad. The phenomenon of the internationalisation of IP (Intellectual property) is particularly significant for gaining a competitive edge on other markets, as it
frequently turns out that patent protection in Poland is insufficient, especially in the case of enterprises applying an expansive export strategy. Data from the Patent Office published in annual reports indicate that, in terms of filing patent applications for inventions and the number of received patents, business entities constitute a dominating group\(^1\). Not using patent protection by respondents and explaining this fact by the lack of patentability of a given solution (innovation) is paradoxically a good symptom showing considerable awareness of the startup environment regarding intellectual property protection, and, in particular, the ability to identify intangible goods and indicate the right path to protect them.

Effective commercialisation, especially technology transfer, requires good collaboration at the intersection of business and academia. The figure indicated by the report, of 46% startups engaging in such collaboration, should be regarded positively. Also, the successive restriction of intellectual piracy - unoriginal reproduction of somebody else’s solutions - is an optimistic sign. The issue of “upgrading” existing solutions which, being already on the world level in technical terms, are devoid of patentability due to the lack of novelty, seems quite different, though. However, the situation does not destroy the positive result of the creative process. The result might be an innovation which, even if not subject to patent protection, will contribute to the growth of the intellectual capital value of a given enterprise. Recently, much has been said about the positive role that can be played in an innovative economy even by... imitation\(^2\).

The dynamic growth of startup sector in Poland will surely depend, besides other factors, on the ability to effectively use the intellectual property system. Extremely important is entrepreneur awareness, both in terms of the possibility of protecting one’s intellectual property and respect for the effects of someone else’s creative output. There is always a dilemma in the background of how to use and not to infringe; how to protect without restricting. Undoubtedly, organising all sorts of undertakings: seminars, conferences, and workshops, pointing to the importance of IP in the organisation, and, in wider terms, in the whole economic system, is an effective tool for raising such awareness. The patent Office of the RP, that I have the honour to represent, engages in these types of initiatives.

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\(^1\) It should be noted that not more than few years ago academic units (including universities and research institutes) topped the ranking. Cf. http://www.uprp.pl/raporty-roczne-urzedu-patentowego-rp/Lead03.68.3909,1.index.pl,text/ (access on 17.08.2017).

\(^2\) e.g.: J. Cieślik, Iluzje innowacyjnej przedsiębiorczości, „Kwartalnik Nauk o Przedsiębiorstwie” 2014, nr 3, s. 7 et seq.
The market of Polish innovations in the financial sector is specific as compared with other countries. Initiators and catalysts of innovation are solely banks or big-tech companies. That is why it is hard to find startups in this area. On the other hand, the high level of understanding of the role of innovations in financial institutions provides quite a different starting point.

Banks in Poland are open to implementing new solutions and testing new services, which is also favoured by client expectations focused on mobile solutions, maximum availability and the security of transactions. This makes the Polish market highly competitive and therefore banks are eager to be inspired by others and collaborate with them, sharing their resources via Developer Portal and API (e.g., Citi Developer Portal, Singapore, Hong-Kong), whereas patent issues are left to the developer.

New solutions often come from the market of startup companies which, due to their capability of "agile actions," are able to quickly switch from one action model to another, frequently from a different business area, and create a new product or service. In majority of banks there are works in progress to implement new technologies in order to increase the security and comfort of clients, with spectacular artificial intelligence (AI), biometry and fingerprint recognition at the forefront. A good example might be Wayver, a video-marketing/affiliation platform, successfully used in the pharmaceutical sector, now finding great applications in the banking sector.
Right from the outset, Startup Poland has tried to speak for all startups, not only those operating in the capital. Today the Startup Poland Foundation has at least one representative in each province.
Right from the outset, Startup Poland has tried to speak for all startups, not only those operating in the capital. Our founders included activists from Warsaw but also from Olsztyn, Kraków or Szczecin. Thus the Start-up Poland Ambassadors emerged as a subsequent, natural step.

In each province we would like to have an active representative of the foundation who could work as a cementing element, mobilising the local startup community and entrepreneurs. Someone who could represent the interests of innovative businesses before authorities and institutions. An enthusiast fostering the startup ecosystem in his/her own province but also capable of seeing a chance of and eagerly entering into collaboration with other regions. A person who can look both from the perspective of his/her own province and the whole country, considering the goals and objectives of the foundation. We have searched for our Ambassadors among the leaders of local startup communities, heads of Science and Technology parks, organisers of conferences and startup events, businessmen who willingly offered their mentoring support to less experienced colleagues, practitioners and theoreticians who explore the creation and operation of startups from scientific perspective.

We have been lucky to have many wonderful people believe in our mission. Today the Startup Poland Foundation has at least one representative in each province. We have filled our ranks with individuals full of passion and commitment. Startup Poland’s regional network consists of 25 activists who meet twice a year to share their experience and plan further steps together.

In this year’s report we let them speak since they are the ones to best know and present their regions, indicating regional strengths and their greatest needs. Thanks to them, the startup map of Poland clearly extends beyond Warsaw, as startups emerge everywhere.
CHAPTER 8 - STARTUP REGIONS

STARTUP MAP OF REGIONS
CHAPTER 8 - STARTUP REGIONS

ZACHODNIO-POMORSKIE

SZCZECIN

Main technological specialisations of the region:

- ICT, IT, KPO
- tourism and health
- marine activity and logistics
- metal and machine industry
- bioeconomy

What’s in the regional calendar:

Netcamp
Startup Weekend Szczecin
Światowy Tydzień Przedsiębiorczości (World Entrepreneurship Week)
TechKlub
Aula Polska
Geek Girls Carrots
TEDxSzczecin

Key startups:
Pixel Legend/Emb3d, Tidio, Tap2C, Wedding.pl, Wspieram.to, Wellserved

Funds and accelerators:
Seed capital funds: Pomeranus Seed, IQ Pomera-nia. A few "business angels". No acceleration programmes.

City and the startups:
The City of Szczecin supports events that pro-mote technological entrepreneurship, such as Startup Weekend or Netcamp meetings. The strategy/programme of collaboration between the city and startups is being developed with Startup Poland’s participation.

Young technological companies may use the space provided by Business Link Szczecin, AIP or Technopark “Pomerania”, while academics/doctorate students are supported by Regional Centre of Innovation and Technology Transfer of the West Pomeranian University of Technology in Szczecin and Innovation Centre of the Maritime University of Szczecin. IT Cluster and West Pomeranian Creative Cluster are also active in the region. On the other hand, the Marshal’s Office of Zachodnio-pomorskie (West Pomeranian) province participates in the iEER’s project – Boosting Innovative Entrepreneurial Ecosystem in Regions for Young Entrepreneurs, the aim of which is exchanging experience and good practices of supporting young entrepreneurs in Europe in order to implement optimum aid forms and prepare a startup support strategy in the region.
In the Zachodniopomorskie province there are over 4,000 IT companies present. They employ several thousand specialists. The IT industry is among the key ones for the development of Szczecin, and many foreign technological concerns have their offices here. Also companies that develop software for the automotive industry are seeing dynamic growth. There are over 2,500 students of IT majors in the region, with roughly 400 graduates each year. The city is also situated not far from Berlin - one of the leading startup hubs in Europe. For the last ten years in Szczecin, the Netcamp foundation has been building the largest tech/startup community in western Poland, organising inspiring IT meetings (which received a European Enterprise Award).

Each year, a Polish-German Startup Weekend Szczecin is held.

Our city has an impressive intellectual potential. However, to develop a local startup ecosystem, more practical educational efforts are needed in the area of entrepreneurship, as well as a stronger commitment from academic institutions and support/mentoring at creating/selling/marketing of technological products (pre-acceleration programmes).

I hope that the startup support programme/strategy that we are working on together with the City Hall of Szczecin and appointment of CTO in order to coordinate and expand forms of startup support will result in the creation of a “Silicon Beach” in a few years.
CHAPTER 8 - STARTUP REGIONS

LUBUSKIE

ZIELONA GÓRA

Main technological specialisations of the region:

- Health and life quality
- green economy
- Innovative industry (ICT, metal, automotive, wood, paper and furniture industry)

W kalendarzu regionu:

<table>
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<tr>
<th>Time to startup</th>
<th>Lubuskie Economic Forum</th>
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Key startups:
Centrum Projektowania i Budowy Prototypów Malpol sp. z o.o., Fiber Glass & Decor sp. z o.o., Reprezentuj.com, Idea Pro sp. z o.o., Konfrotuj.pl, Hard Metal sp. z o.o., Adips.

Funds and accelerators:
Business Angel Network “Interior HUB”, Incubator of Innovation in Nowa Sól, public investment corporation “Interior”.

City and the startups:
The Technology Park “Interior” was created in Nowa Sól, and acts as the most important development hub for startups in the region. It is here where all key economic nodes intersect.

The Park is provided with a modern office, production and laboratory infrastructure. The facility runs research and development activity in the scope of production quality, corrosion resistance and ICT. Business Angel Network and incubator of innovation operates in the park. This is the only beneficiary of measure 3.1 of the Operational Programme Innovative Economy in the province. The Park has recorded several dozen effective investment inputs totalling over 10 million PLN. It has also incubated startups which were leaders in their respective industries, successfully exporting products to CEE or Middle Eastern markets. Heard in the corridors of one of the events: “So, today we have three capitals of the province: the provincial government capital in Gorzów with the provincial governor, the local government capital in Zielona Góra with the Marshal and the startup capital in Nowa Sól with Interior”.

Łukasz Rut
Zielona Góra

Lubuskie province has lagged behind in terms of startups. In spite of a good relationship network, social capital and financing, which translates into emerging startups with impressive results, statistically speaking their number is low. Supply of capital and support alone cannot compensate needs. The Authorities of the region have not been bold enough so far to invest public means through capital instruments, such as seed capital or venture capital. Business ideas are then left unused. However, good examples from Nowa Sól, referred to as the startup capital of Lubuskie province, lead us believe that the current state of affairs will improve and future startups will be added to a dozen or so existing ones.

This is also the purpose of the province-wide startup support project carried out by the Technology Park “Interior”, already in 2017 involving dozens of key regional economy leaders. The latter are supposed to prepare young entrepreneurs for a conscious entry into the financing phase, also through crowdfunding. The future in Lubuskie belongs to startups.
CHAPTER 8 - STARTUP REGIONS

WIELKOPOLSKIE

POZNAŃ

Main technological specialisations of the region:

- bio-materials and bio-food
- interiors
- industry
- logistics
- ICT

W kalendarzu regionu:

- Startup Poznań 2017
- Hive61
- Startup Community Poznań
- Startup Weekend

Key startups:
Jakdojade.pl, Qpony.pl, Omni3d, Legimi, Stethome, dobrymechanik.pl, SmartPharma, IC Solutions, InStream, Swimmo, BuyBox, Zylia.

Funds and accelerators:
SpeedUp Venture Capital Group, Bridge Alfa By You Nick Mint, Garvest Investment, Fund of the Incubator of Poznań Science and Technology Park of Adam Mickiewicz University Foundation, Huge Thing.

City and the startups:
Running Startup Poznań website and coordinating Startup Poznań project, providing free of charge co-working and event space, organising the annual conference: "Startup Poznań 2017", supporting the organisation of theme events held in Poznań.
Poznań is among the key startup hubs in Poland, which is documented by the startups formed here, such as Qpony.pl, Legimi or dobrymechanik.pl. What is more, investment funds (belonging to SpeedUp Group or You Nick), Poznań Science and Technology Park and Poznań Incubators of Entrepreneurship are active in the city. The number of people who want to work in co-working spaces (Cowalski Aleja Inspiracji, Coworkingness or Business Link) is increasing. Another pleasing factor is the involvement of the city, which still tries, even if less intensely than in previous years, to support both the entrepreneurs and organisers of local startup-related theme events. Other institutions, such as Stary Browar or Concordia Design, engage in supporting startup community, too.

They readily provide spaces to organisers of events for young entrepreneurs. Nevertheless, there is observed a slight slowing down of startup community’s activities, which were previously much more numerous in Poznań. The reason is generational change. The new generation, however, is slowly getting on the right track, as shown by Hive61, Geek Girls Carrots events, known from previous years, and the new series of Startup Community Poznań meetings. It is good to experience in person all that is going on in Poznań, for instance by taking part in one of the organised meetings, to which we kindly invite you!
CHAPTER 8 - STARTUP REGIONS

DOLNOŚLĄSKIE

WROCŁAW

Main technological specialisations of the region:

- ICT
- chemical and pharmaceutical industry
- natural and secondary raw materials
- production of machines and equipment
- automotive/mechanical engineering
- spatial mobility

Inne ważne wydarzenia/spotkania:

Key startups:

Funds and accelerators:

City and the startups:
Wrocław Technology Park and Barbara (i.e. info-point / café / urban culture) are spots connecting the city with startups.
Wrocław is a city portrayed as ‘easily accessible’ by western clients, and as ‘having large potential’ by investors. It stands out with a few unique aspects.

You can meet people of different nationalities on its streets, and if they are not tourists then they are almost certainly either entrepreneurs participating in a project in Wrocław or programmers who have come to share their experience.

Wrocław is full of jobs, especially for programmers. Google, Microsoft, Nokia or IBM are but a few companies strongly marking its presence in our region. Some of them are already running acceleration programmes. As a startupper, I can tell that the number of incubators and accelerators is impressive. One of the biggest assets of Wrocław is its City Hall’s collaboration in the scope of smart city schemes, providing an ideal framework for new projects.

See you in Wrocław!
Wrocław is a melting pot of people who have created and are still creating an extraordinary tale of the city. Over 10% of the employees in local IT companies and the offices of international corporations are foreigners. The Cosmopolitan character of the city is best reflected in the fact that people of over 120 nationalities work here. Numerous awards emphasise the benefits of running a business in Wrocław. In the ranking of cities’ significance for global economy, Wrocław topped Kraków, Poznań, Katowice and Łódź. It was one of the two Polish hubs (Warsaw being the other) classified in the Quality of Living Index by Mercer (consulting firm) listing greatest cities to live. In the fDi Strategy Awards 2016 ranking, Wrocław, as the only Polish city, was awarded for the activity of the Wrocław Agglomeration Development Agency (supporting investors at creation of new jobs) and Wrocław Academic Centre (collaboration at the intersection of business and the academia). It is the first initiative of this kind in the country. We are also leading in the prestigious ranking of 10 most attractive cities for business in Poland by “Forbes” magazine. There are 3,67 companies per thousand inhabitants in Wrocław, whereas we scored best in the category of a city’s image abroad.

It is the Wrocław Agglomeration Development Agency that plays a crucial role in the mapping and animation of Wrocław startup environment - from the website www.wroclaw.pl/startupy through monthly thematic meetings to big conferences like Startup Wrocław or Smart City Wrocław. Also informal groups, such as #rushWRO, Startup Founders or PLUGinWrocław, are responsible for a creative ferment in the environment. The LiveChat company, valued at over 1 billion PLN, organises open days and hackatons, whereas Nokia Wrocław has opened its “startup garage”. New office projects are in the pipeline, also with a view to accommodating young business and startups, as well as organising events: the modern Pin Park office scheme or new office investment of Skanska to name just two.

The Wrocław 2030 strategy, that is under consultation, reads: “Sustainable growth based on the high quality of life of current and future inhabitants as well as creativity, innovativeness and entrepreneurship”. Wrocław received an award at the Smart City Forum 2016 with the following summary of the jury’s decision: “The vision of Wrocław’s development as a smart city is based on several pillars: Strategy, that is, a complex approach to smart actions; Inhabitants and communication with them; Attractiveness of life; Creative development, i.a. displayed in opening data and promoting the startup environment.”
OPOLSKIE

OPOLE

Main technological specialisations of the region:

- automotive
- IT/ICT
- wood industry

W kalendarzu regionu:

Startup Mixer

Key startups:
Great Wood, PiastCode, Blackstar, Ppa Ental.

Funds and accelerators:
none

City and the startups:
Science and Technology Park in Opole, Academic Business Incubators: at WSB (AIP Foundation), University of Opole (university incubator)

Michał Różański
Opole

AMBASSADOR’S COMMENT

Opolskie province (the city of Opole in particular) put a strong emphasis on the development of innovative startup undertakings, for instance by building Science and Technology Park (PNT) in Opole and supporting local initiatives, such as Startup Mixer, where young entrepreneurs present their businesses before a special guest, investors and the audience (100–200 people), counting on a valuable feedback. In 2006 incubators of entrepreneurship were founded in the Opolskie province. The majority of them are still active today.
The Startup environment of our province is mainly centred in Opole. However we are more frequently hearing about initiatives in Kędzierzyn-Koźle, Kluczbork or Nysa. Startups meet the biggest support at the above-referenced Science and Technology Park (PNT), where as part of the incubator of entrepreneurship the young (in spirit) may count on a comprehensive support: pre-incubation, acceleration (industry contests), incubation, virtual office. Furthermore, PNT in Opole provides conference rooms, specialised laboratories, and an engineering design centre. Regional Development Institute and patent agent operate here as well. Cyllical events include: Startup Mixer (once per quarter), PiastCode (annual programming marathon) and DevOpole (monthly meetings of programmers).
CHAPTER 8 - STARTUP REGIONS

ŚLĄSKIE

KATOWICE

Main technological specialisations of the region:
- ICT
- automotive
- graphene
- renewable energy
- games

W kalendarzu regionu:
- European Startup Days
- Startups.Garden
- Upgrade Your Business
- Social Media Thursday
- Open Coffee KTW
- Gardens of Entrepreneurship
- Quality Excities

Key startups:
Versum, Whitepress, Abyss Glass, Chirurgia 3D, KartingManager, SMS API, SARE, Anshar, Artifex Mundi, Jujubee, Sprawy24, CMOAR.

Warto obserwować:
CardioCube, MovStat, EON Beacon, Promovolt, SOS App, Messenger Fox.

Funds and accelerators:
TDJ Pitango Ventures – Tomasz Domogała (PLN 210m in equity), Hedgehog Fund, Business Link Katowice, Technological Accelerator Euro-Centrum, Pilot Maker by Tech Brainers, Fund - Avanu Venture Capital Management, SPIN-US - special purpose vehicle of the University of Silesia

City and the startups:
Katowice Startup Europe Week is held in the region under the honorary patronage of the Executive Board of Silesia province and Katowice City Mayor. In addition, Academic Incubator of Entrepreneurship of the University of Silesia and Young Entrepreneurs Forum of the Regional Economic Chamber operate in Katowice, whereas Regional Development Agency is active in Bielsko-Biała. The City Hall on the other hand is eager to get to know the startup world and offers a helping hand in building the ecosystem for them. The Department for Small and Medium Enterprises, represented by Barbara Miś and Aleksandra Monsioł-Szatkowska, is also intensively involved in Katowice.

SPIN-US sp. z o.o. is a special purpose vehicle of the University of Silesia. Its basic tasks cover the commercialisation of scientific research results, development work and technologies created at the University of Silesia and knowledge transfer from the university to the economy, to build cooperation between science and business.
Wojciech Bachta
Bielsko-Biała

The High level of entrepreneurship in our region has so far resulted in the situation that the development of the ecosystem for technological startups has either receded to the background or was entrusted to people without any understanding of this environment. It is gradually changing now. Interesting projects and organisations are emerging, as well as institutions that support the development of startup Silesia.

Organising European Startup Days in “Spodek” during the Economic Congress may be a wonderful illustration of this process. We are getting started and invite you to come. Silesia is yet to show its strength.

Dawid Pacha
Katowice

Katowice is startup friendly. Organisers may count on the city’s support in terms of event promotion or finding adequate space for it. In June 2017, Katowice opened its representative office in Silicon Valley at 2479 East Bayshore Rd, Suite 205, CA 94303 and organised the trip of the agglomeration’s startups to Palo Alto.

Startups created in Silesia are not only situated in Katowice, but also in the more technologically-oriented Gliwice, where many students and graduates of (Gliwice-based) Silesian University of Technology live. Although startup events are mainly organised in Katowice and Bielsko-Biała, the companies that may be referred to as startups have their seats in the entire agglomeration.
KRAKÓW

Main technological specialisations of the region:

- beacons
- Bluetooth Enabled Devices
- B2B SaaS
- games

There are a lot of high-quality manufacturing companies in the region, such as Maspex (sweets and beverages), Oknoplast, Wiśniowski (gates), Zasław (trailers), 4F (sportswear), Tarnów-based Azoty Group (chemicals), and significant number of western companies with its factories, e.g. MAN, Valeo, and Coca-Cola. Kraków alone is however a globally recognised, global ranking-winning location of shared service centres & business process outsourcing companies. They provide about 50,000 jobs in total. Another of Krakow’s natural specialisation is IT. Creative industries have always been strong in Kraków, which, combined with IT, gives the region the important status of a gaming industry hub in Poland. Interesting companies from medtech and life science sector are more frequently emerging as well. Detailed specialisations of IT industry and startups: beacons and bluetooth enabled devices, B2B SaaS solutions, games.

W kalendarzu regionu:

Over 500 events are held per year with startup and technology-related themes. Several hackatons, hundreds of technological meetups, huge number of industry-related meetings, at least a few initiatives specially dedicated to women in IT. Key annual events in Kraków:
- Bitspiration – the event is back in Kraków with a new formula
- Digital Dragons – each year in May, the biggest B2B event of gaming industry in this part of Europe.
- Smogathon – technology against smog
- Startup Week – a week packed with startup events.

Cyclical:
Open Coffee KRK, Startup Stage, Hive53, Startup Weekend.

Events worth attending:
Impact CEE, Open Eyes Economy Summit, TEDxKraków i TEDxKazimierz.

Key startups:
Base, Brainly, Estimote, Kontakt.io, Silvair, SALE-Smanago, Synerise, Elmodis, Ganymede, Blooperteam.

Worth following:
Reality Games, Airly, Autenti, 2040.io, Contelio, DrOmnibus, CallPage, edrone, FlyTech UAV, Codewise.

Headquarters of interesting startups in Krakow:
Uber, AirHelp, Azimo, Revolut.

Funds and accelerators:

Besides, a number of other smaller programmes are present in the city, as well as a fair supply of startup-friendly space.

City and the startups:
For the last couple of years both the regional and Kraków’s authorities have been aware of the large
startup potential and tried to support this sector, various events and meetings in particular. The provincial authorities display startups in official promotional materials, take them to fairs and events, including the Economic Forum in Krynica, as well as planning their own actions and considering startups in regional EU programmes. In recognition of these activities Małopolska was awarded the title of European Region of Entrepreneurship 2016. The city of Kraków organises the Startup Week - an umbrella event combining many initiatives, tentatively supporting several initiatives and meetups and organising its weekly acceleration programme for startups from Ukraine. Kraków’s startups are still waiting for the City Hall to keep the promises it made. Collaboration is not free from hurdles or misunderstandings but both sides try to benefit the most from the relationship. There is still a need for more complex and more deeply seated support instruments than event budgets and grant programmes for startup events but Kraków and Małopolska.

#omgkrk - Krakow startup environment is one of the most vigorous in Poland. It also has a relatively rich history. Kraków is a melting pot bustling with incredibly gifted engineers, programmers and foreigners who visit the city, come to study here or to take up jobs in a corporation. Thanks to the people who created this environment already a decade ago, locals have been able to recover from the first wave of startup-related naive enthusiasm and hyper-optimism. Currently, they are building solid projects, whereas meetups are becoming highly professionalised. At least 0.5 billion PLN has flowed through startups to Kraków in investment runs. Many companies are real competitors for global leaders. We are still waiting for a great success - or, in other words, for Kraków’s unicorn. The way Kraków’s startup environment is maturing leads us to believe that it is only a question of time. The biggest challenges that startups are going to face in the coming years are increasingly high wages in the IT sector, a trend dictated by international concerns. Human capital, naturally Kraków’s biggest strength, may become too pricey. All challenges external to the startup environment may also prove tough. These include easier flow of foreigners to Poland, necessary serious changes in education system or changes to the narrative concerning entrepreneurs. They are seemingly independent factors though with a huge impact on the condition of startup environment. To cope with these challenges, the community set up the Startup Poland foundation.

AMBASSADOR’S COMMENT

Bartosz Józefowski
Kraków
PODKARPACKIE

RZESZÓW

Main technological specialisations of the region:

- Aviation and aerospace
- automotive
- bio-food
- renewable energy
- IT
- IoT

W kalendarzu regionu:

- Internet Beta
- Startup Weekend Rzeszów
- Warsztathlon
- Hackathon Rzeszów
- Rzethon
- IT Academic Day
- DevFest 2017

Key startups:
Sprzedajodpady.pl, Essell, Splentum, Behive.be, JITIV, ControlCold, Swiper.

Funds and accelerators:
IDEA Global Accelerator (program Scale UP), Samsung Incubator (IT/IoT, collaboration with the Aviation Valley and Rzeszów University of Technology), startup platform: TechnoparkBiznesHub, Rzeszów Startup Accelerator, funds: InnoFUND i Sale-nov, Kwadrat – Podkarpacka Przestrzeń Kreatywna (financed from crowdfunding).

City and the startups:
The city co-finances startup events, including hackathons and startup weekends. Furthermore, it finances its own acceleration programme: Rzeszów Startup Accelerator. The position of startup officer has been also created within the city’s administration. The officer is involved in the development of startup community.
Rzeszów is very intensively developing its startup community. Startup support organisations operate in the city and the region, including Podkarpacka Koalicja Startu (Subcarpathian Startup Coalition) and Academic Incubators of Entrepreneurship. Local government administration and local institutions are also involved in the development of the region. They include the City of Rzeszów developing Rzeszów Startup Accelerator and Podkarpackie Science and Technology Park in Jasionka and the project: Start in Podkarpackie. Other startup initiatives are also emerging in Rzeszów - Samsung opened its first incubator in Poland while Ideo, as part of the Scale Up programme, opened the IDEA global accelerator. The Proximity of big companies and industrial background allows the building of a development environment which is not restricted to IT projects.
CHAPTER 8 - STARTUP REGIONS

LUBELSKIE

LUBLIN

Main technological specialisations of the region:

- bioeconomy
- ICT
- health
- renewable energy
- automotive/mechatronics

W kalendarzu regionu:

- Startup Weekend Lublin
- Merytorycznie o marketingu (Essential marketing talks, MoM)
- Google Developer Group Lublin
- dev.js Lublin
- Geek Girls Carrots Lublin
- WordCamp Lublin
- TechKlub Lublin
- Lublin IT Days
- TEDxLublin
- #MadebyLubelskie
- Expert Summit

Key startups:
- Nexbio, Infinum3d, InteliDesk, Edu-sens, OneMeter, Predictail, Froebel.pl, HDAirStudi.

Funds and accelerators:

City and the startups:
The city of Lublin supports startups through its startup officer Marcin Kęcko, as well as via a subsidy programme targeting the ICT sector. The city was a LPNT’s key partner in launching the Connect platform, while also implementing the so-called Startup Card, a program giving startups discounts on services and products of municipal companies and partner firms. The Lublin city hall also opened a coworking space in the city centre by the university campus.
Lublin’s startup ecosystem is strengthening, while the city becomes a friendlier place to run innovation business every year. There are also more and more coworking spaces and startup events, during which young entrepreneurs can seek inspiration, find investors, partners, and customers. It is easier to find business development financing as well. Startups can negotiate with investment funds, apply for EU subsidies and receive support from private investors.

Apart from the financing environment, a professional and customised support programme is also important. One such programme was the Connect startup platform carried out by the Lublin Science and Technology Park. We engaged startup practitioners, trainers, mentors, and business analysts. Thanks to their work, we have a group of active, dynamic, and perfectly trained young entrepreneurs in Lublin. Apart from Nexbio - a startup specialising in molecular analysis allowing the early detection of diseases threatening crops, this year’s finalist of Chivas The Venture – there is an increasing number of young companies in Lublin that are successful in their market niches. One of them is Plantalux that deals with enhancing plant growth in greenhouse production with LED illumination. Their main product is a state-of-the-art LED lamp that allows a four-fold reduction in the cost of greenhouse production. Predictail has also created an interesting solution. Their system predicts downtime of equipment and vehicles, while a web application allows remote diagnostics and access to reports and notifications.

I hope that the further development of the startup ecosystem will make Lublin a new breeding ground for numerous startups.
BIŁYSTOK

Main technological specialisations of the region:

- mechanical engineering
- boat building
- medical sector/health
- eco-innovations and green economy
- agriculture and food industry

Key startups:
iTaxi, ERPos, Upoluj Ebooka (e-books price comparison website), tookapic, Photon, OwnedOutcomes (formerly TangramCare), Opentopic Technologia.

Funds and accelerators:
Białystok Science and Technology Park (BPNT), Podlaski Innovation Accelerator (PAI), Hub of Talents - Startup Platforms.

City and the startups:
The city supports the development of technology entrepreneurship mainly with programmes and events organised by BPNT, such as Hub of Talents - Startup Platforms.

BPNT was also the organiser of the Podlaski Innovation Accelerator competition. The project supported the development of innovative ideas relying on modern technology.

W kalendarzu regionu:

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<th>Event</th>
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<tr>
<td>Programistok</td>
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<td>Eastern e-Business Forum</td>
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<td>EastBiz</td>
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<td>GISspot</td>
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<td>Mobile Białystok</td>
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<td>EastMedia</td>
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<td>BiałQA</td>
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<tr>
<td>Data Science Meetup Białystok</td>
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Cykliczne:
The city also hosts a number of other startup events, such as TechKlub, Aula Polska, Geek Girls Carrots, Social Media Thursday, Meet.js, JavaScript Meetup, OpenCoffee, or Rails Girls Białystok.
A few years ago, as the ICT segment began rapid development, there appeared opinions that Bialystok could make a developmental leap thanks to new technologies. Companies like Transition Technologies, Infinity Group, SoftwareHut, Instapage, Isobar, TangramCare (now OwnedOutcomes) grew into important players not only on the regional market. We would joke back then that - because of the region’s natural landmarks - we are going to have a Silicon Forest - not Valley - here. We were confident that if there’s a sector that stands a good chance of development, it is IT.

Some of the biggest IT companies in Bialystok have evolved from employing 5–10 people to employing 50–60 or even over 100. The regional startup ecosystem is developing step by step and, what’s important, is that there are more and more ICT and new technology companies and startup events, mainly in the development segment. People are finding jobs not just as typical developers, but also in related specialisations: ux design, web design, content marketing, content creation.

The Bialystok University of Technology also does its bit. The Faculty of Computer Science has post-graduate courses in front-end development, internet marketing, data science, ICT technologies and coding or ux design and web analysis. Some of those courses have already had four editions. Bialystok Science and Technology Park is a crucial element of the startup ecosystem. BPNT (previously as Podlaski Innovation Accelerator, currently within the framework of Startup Platforms) is behind key acceleration activities, such as Hub of Talents. The majority of the best-known regional startups are headquartered in BPNT, for example Photon, RoftCat, or OwnedOutcomes. The ICT sector in the region might have evolved from software houses and development outsourcing, but we are currently seeing new specialisations such as big data and machine learning or, as the media call it, “artificial intelligence.” I am talking in particular about companies like OwnedOutcomes (formerly TangramCare) and Opentopic Technologia.

OwnedOutcomes is an IT company from Bialystok servicing the largest hospital chains in the US. Their solutions allow the detection of correlations that the best analysts overlook. The company worked in big data before it became fashionable. It created an advanced big data platform in 2000 and was looking for new ways of using it. It turned out that the platform is perfect for analysing medical data. Opentopic is a child of softwarehouse TJ Software, which is still a global player. In cooperation with IBM, the company is creating Watson solutions for digital content marketing, and systems for content recommending and personalisation. The company is selling its services in the SaaS model, using so-called machine learning, for magazines such as “Time” or “The Economist”, as well as for Unilever and Dove.

The region does not have enough practitioners, trainers, mentors, and business analysts who could activate young entrepreneurs. The following key clusters are particularly active: Metal Processing Cluster and Eastern Construction Cluster, which have also contributed to the reactivation of an ICT InfoTech cluster.

I hope for another startup accelerator in the region so that we will see more star startups like Photon.
WARMIŃSKO-MAZURSKIE

OLSZTYN

Main technological specialisations of the region:

The region is characterised by a large number of companies in the segments of food production and wood production and furniture manufacturing as well as so-called water economy, including tourism or yacht building. While those companies do use technology, they are often not technology companies in how we - the startup sector - understand the term. Hardware companies such as Zortrax, Polyend, and Globe of Things, have been going strong recently in the region. Companies from the e-learning segment, for example ArsLege, E-korepetycje.net, and online retailers have also left their mark. Apart from that, some companies work in big data, and offer services or social media.

Key startups:
Zortrax, ArsLege, Polyend, Slavic Monsters, Globe of Things.

Funds and accelerators:
InQbe (in the IQ Partners framework).

City and the startups:
The city supports the development of technological entrepreneurship mainly through programmes and events organised by the Olsztyn Science and Technology Park, such as Hub of Talents Startup Platform.

W kalendarzu regionu:

- Startup Weekend Olsztyn #4
- Startup Poland Camp #1 i #2
- BMC Workshops
- OpenCoffee
- OpenBeer
- Startup Show Case
AMBASSADOR'S COMMENT

Paweł Harajda
Olsztyn

Despite the fact that the region’s development relies mainly on tourism, food, and furniture industries, the rising tide of tech entrepreneurship is clearly visible. Each year sees a growing number of people interested in startup issues, carrying out projects that aim at solving the problems of selected target groups in the region’s towns, regardless of the towns’ size. Thanks to the consistent commitment of many people, our local ecosystem is complemented with subsequent elements conducive to the development of small firms trying to take on the world.
CHAPTER 8 - STARTUP REGIONS

POMORSKIE

GDAŃSK

Main technological specialisations of the region:

- SaaS
- artificial intelligence and augmented/virtual reality
- modern technology in recruitment
- design
- hardware and 3D printing

W kalendarzu regionu:

- InfoShare 2018
- Venture Day 2017
- Gdansk Business Week
- European Financial Congress
- BeZee – trendy w edukacji
- IT Academic Day
- Product Camp
- Pipeline Summit
- Bioinnovation International Summit 2017

Key startups:
- CT Adventures, Nuadu, Hospicare, Dlabs, Dr Pocket, Arbuzz, Blue Sunset Games, Poltreg, UXPin, GetResponse, Everytap, PituPitu, Quantum Lab, VR Visio, Airhelp, AssisTech, BlastLab, SentiOne, Better Solutions.

Funds and accelerators:
- BlackPearls VC, Business Angel Seedfund, Incubator Starter, Space3ac, Clipster, O4, Inventity Foundation, Platinum Seed, strefa Startup Gdynia, Alfabeat, Taylor Economics.

City and the startups:
- There are two science and technology parks in Tri-City: The Gdansk Science and Technology Park and the Pomeranian Science and Technology Park. The region also hosts The Baltic Port of New Technologies, Constructors’ Park, Starter incubator, Clipster, the Gdynia Business Incubator, O4, Economic Foundation, the AIP Gdansk Business Incubator, and Business Link Tri-City. Poland’s biggest key ICT cluster is also located in Tricity.
Tri-city is the biggest startup centre in northern Poland. The regional startup ecosystem is developing robustly but first of all in a stable and systemic manner, thanks to the support of local authorities. Gdansk, Sopot, and Gdynia are important centres of the Baltic Sea Region (BSR) and are natural gateways to the Scandinavian and German markets.

Two science and technology parks are located here: the Gdansk Science and Technology Park (GPNT) and the Pomeranian Science and Technology Park (PPNT). Also, on the former premises of the Gdynia shipyard there is the Constructors’ Park, which is a space for creators, designers, and engineers. Idea originators can actively develop at the Gdansk business incubator, known as Starter, or at the Gdynia Business Incubator. The Space3ac Accelerator provides complex support to whose who plan on implementing new solutions in satellite technology.

There is no shortage of coworking space as well. There is even an entire building, O4, dedicated to innovators. Clipster, in turn, is an absolutely unique place for those who want to develop their ideas while remaining constantly in an inspiring coworking and living space. The Tri-City startup ecosystem is complemented by capital funds, such as Black Pearls VC, Business Angel Seedfund, Platinum Seed, Alfabeat, and Taylor Economics.

The startup community has plenty of opportunities to meet, exchange ideas, share experience, or present to investors. Central and Eastern Europe’s biggest InfoShare conference takes place in Gdansk. For 10 years now, the beginning of each month sees barcamp meetings, known as 3camp. Together with the Pomeranian ICT Cluster, 3camp organisers have also initiated meetings in English so that guests from various parts of the world are listened to, feel important and contribute to social fabric of the region. These meetings are known as 3camp powered by Interizon. The fifth edition of Venture Day 2017 will be a development opportunity for all those active in digital healthcare and marine technology. Of course, those are not the only events; the calendar is brimming with specialist meetings.
CHAPTER 8 - STARTUP REGIONS

KUJAWSKO-POMORSKIE

TORUŃ

Main technological specialisations of the region:

- space technology
- medical sector/health
- food technology
- chemical technology
- tools and materials
- transport
- eco-innovations
- industrial automation
- pharmaceuticals
- ICT
- electrical engineering

W kalendarzu regionu:

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<tr>
<th>Event</th>
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<tr>
<td>Startup Weekend Torun</td>
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<td>#TRNon the Party</td>
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<td>TEDx Toruń</td>
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<td>Pog(R)adajmy</td>
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<td>Leaware</td>
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<td>Internetowe rewolucje Google</td>
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<td>Toruń Jug Day</td>
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<tr>
<td>European Week of SMEs</td>
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<td>Testwarez: Complexity in Testing</td>
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Key startups:

- InsBird
- Neurodio
- Exea
- Bionitec
- Bacto-Tech
- Copernicus Computing
- Ortopedio.pl
- SPE Global Solutions
- Sensetag
- Nova Tracking
- Torqway
- Tickerence
- Własny Elektro Pojazd
- Tickeo
- Sybilla Technologies
- Saveseo
- IoT North Poland
- BusinessForecast sp. z o.o.

Funds and accelerators:

- Exea Smart Space
- Fundingbox sp. z o.o.
- Neukubator NEUCA
- Data Invest
- BusinessLink
- AIP UMK
- Hanza Trade
- KPFP Regional Business Incubator

City and the startups:

The city is home to the Torun Technology Park, which actively supports young companies during large cyclical events, for example the Innovation Forum, as well as through regular training and advisory projects. Over 60 companies are headquartered in the Torun Technology Park, majority of them working in the ICT sector. The Park is also home to the Smart Space incubator and Enterprise Europe Network, which are active in supporting startups. The Centre of Technology Transfer, affiliated with the Copernicus University in Torun, is also active in liaising science with business, supporting scientists in commercialising scientific projects and spin-off creation. Set up by the city of Torun, Business Support Centre is another initiative tasked with helping entrepreneurs and investors. The centre is active in promotion and participates in initiatives of the startup community.
At the onset, each system of supporting innovators and young entrepreneurs needs solid foundations and a strong impulse for action in order to flourish. The ecosystem comes of age in time and moves from "evangelisation" to measurable business profits for its participants.

As a young startup centre, Torun became active only a short time ago. The city organised events like Startup Weekend and TEDx in 2015, as well as launching its first acceleration programmes. Numerous actions and activities have since led to the successful promotion of entrepreneurship and indicated the route of further development of startup community and the ecosystem of startup support. Regularly-held initiatives, public projects, and the involvement of private capital influence attractiveness and possibilities of further development.

The region’s location in the centre of the country also helps while the city itself is large enough to have become an attractive alternative to big and expensive agglomerations. The nearby industrial city of Bydgoszcz is an ideal match to Torun’s cultural and academic spirit. Torun also has much lower operating costs – which is an important factor in the early days of any project. An important stage in the future development of the region is the creation of a regional seed fund so that the region’s chances are better identified than they would be by an outside entity.
MAZOWIECKIE

WARSAWA

Main technological specialisations of the region:

- analytics
- advertising
- fintech
- sales/marketing
- media

W kalendarzu regionu:

- OpenReaktor
- Startup Wednesday
- Social Media Thursday
- Płockamp
- Startup Płock
- Startup Marathon Workshops
- IT Security
- Wolves Summit
- Aula Polska
- Bitspiration
- Młodzi Innowacyjni

Key startups:

Funds and accelerators:

City and the startups:
“Smolna” Centre for Entrepreneurship, “Targowa” Creativity Centre, other centres coming up, Speed Up! Europe project.
In Płock, the Startup Płock initiative won the town hall’s support in organisation of events for startups and new tech sector.
It takes a lot of effort in small towns, even though local authorities are willing to help. Budget remains an issue, however.
The region is certainly taking advantage of the capital’s proximity, but the affluent Warsaw muddles the regional picture, as it did to the disadvantage of smaller centres when EU funding was decided for the region. Similarly, the regional startup ecosystem can develop better than elsewhere in Poland thanks to Warsaw but the rest of the region remains a blank space on Poland’s startup map, as the presence of business environment institutions is not enough. There is a need for the regular education of the startup community as well as to stop the young leaving for larger agglomerations. We need to identify participants in the startup ecosystem and their needs. First of all, however, we need to build trust between them.

Warsaw is the most vibrant startup ecosystem in Poland. It is the political, economic, and cultural centre of Poland. The biggest number of higher education institutions is reflected in the level of education in the startup community. The activity is what attracts and encourages people to start business in Warsaw. The city’s huge population offers the best odds for new products to find buyers. The central location and convenient transport links facilitate doing business with different regions of the world. Personally, what I like best in the Warsaw ecosystem is its activity and numerous events allowing to exchange knowledge and meeting other leaders. It is incredible that there are so many experienced entrepreneurs willing to share their knowledge. Thanks to that, the entire ecosystem.
ŁÓDZKIE

ŁÓDŹ

Main technological specialisations of the region:
- textile industry (smart clothes)
- medical sector
- chemical and pharmaceutical industry
- design
- IT
- BPO
- construction

W kalendarzu regionu:
- We’re Making Startups
- OpenCoffee
- Agile Lodz
- Lodzkie promotes design thinking
- FabLab

Cykliczne wydarzenia:
We’re Making Startups, OpenCoffee, Agile Lodz.

Konkursy:
The Young in Lodz - I Have a Business Idea

Key startups:
Listonic, Superhot, BlueRank, Tap To Speak, ShareHire, UnitDoseOne, Cheefo, Booyka.

Funds and accelerators:
Accelerators: Startup Spark, EIT Health.
Funds: Avalon.

City and the startups:
The regional initiative Lodzkie promotes startups actively and progressively supports companies in every way possible. The Marshal’s Office of the Lodzkie region - especially its Entrepreneurship Department - tries to support startups as well. The office has a budget earmarked for the organisation of startup events and is an organiser of such events as well, for example the Lodzkie Innovation Days. Startups can count on promotional support from the city hall and the Marshal’s Office, which are willing to use their communication channels to promote startup-related events and initiatives. The Marshal’s Office plans to launch a startup hub for innovative projects in the Lodzkie region at the end of the year.
Ch 8 - STARTUP REGIONS

Jakub Musiałek
Łódź

AMBASSADOR’S COMMENT

The Lodz startup scene has been developing consistently for many years. The city is often called Poland’s design capital. Unfortunately, that is yet to give startups a real push, even though the Lodz technological park is home to some, for example the famous One One Lab. The startup community is also developing dynamically with the support of private initiatives, where a leading project is the Startup Spark accelerator in the Lodz Special Economic Zone. Startup Spark also liaises between startups and large companies. The Lodz City Hall is also active, having organised the programme Young in Lodz for many years now. One of the programme’s elements is a contest for the best business plan I Have a Business Idea. The city authorities have noticed the startup ecosystem in our region and are actively participating in its creation. The role of the Lodz Fab Lab must not be overlooked, either. Fab Lab does not typically get involved in startup events, but is fuelling interest in mechanics, mechatronics, or IT, by running courses and training. That may result in later growth in the number of new startups.

Each year sees growth in interest in startup creation, although the region still lacks a strong mechanism to engage young people in the culture of building their own, scalable business.

Michał Izydorczyk
Łódź

AMBASSADOR’S COMMENT

Lodz has huge development potential. The young, talented people benefit from quality higher education in Lodz, while investors and large corporations notice opportunities offered by the city and set up research and logistics centres here. The startup community’s relationship with the city is improving and Lodz is home to many startups in their early stages of development. What the region certainly lacks is pre-seed funding for startup projects and a proper integration of the community.
ŚWIĘTOKRZYSKIE

KIELCE

Main technological specialisations of the region:
- agrotourism
- health
- heavy industry
- conventional and renewable energy
- digital B2C products

W kalendarzu regionu:

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<th>Event</th>
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<tr>
<td>Startup Poland Camp</td>
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<td>TechKlub</td>
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Minione wydarzenia/spotkania:
Startup Weekend Kielce, Geek Girls Carots, KielceCom, startup breakfasts, numerous workshops on creation of business ideas, Java Meetups, .Netowe.

Key startups:
GAIa, Lyofood, IC-Project, Alef-bet, Tabletowo, Okuaku, Letme.ai, Podopharm, Synthos.

Funds and accelerators:
Columbus Pro Equity Fund (a fund run by Michał Sołowow), specialising in chemistry and bio segments, the Kielce Science and Technology Park, TechnoparkBiznesHub startup platform.

City and the startups:
The city provides financing for events promoting startup events, for example Startup Weekend Kielce. Another event, TechKlub Kielce, is in development. Trade fairs in Kielce offer startups free stands.
A Facebook page "Invest in Kielce" gathers all available information about entrepreneurship, investment, as well as startups and the Kielce Science and Technology Park. There is also a startup officer working in the Kielce City Hall.
Our region is a valuable and beautiful area, where wonderful people live. The last three years have seen an influx of knowledge and technological development, which allowed many people to carry out their ideas. Infrastructure and resources facilitate finding a business niche and supplying new products and services.

Key areas in the coming years will be agrotourism, health care, and ICT services. Young people and students are the region’s big hope. We have the Kielce University of Technology and Jan Kochanowski University.

New courses of study attract many talented people from other Polish regions and even from abroad. Cooperation of universities, institutions, and private companies will be important next year, as we have to build an ecosystem to engage all segments of business and science. We need dedicated people and access to mentors and knowledge. We need to know how to build a prosperous business and how to sell on the domestic and foreign markets. We need funds and private investors.

We are striving to stop migration to other regions so that people can develop their ideas in the Świętokrzyskie province.

Startups might not be a hot topic yet but the situation has been improving, especially in the past two years. Two editions of Startup Weekends and the activity of TechnoparkBiznesHub have certainly helped that. Another fruitful event turned out to be Startupunity Kielce, which gathered representatives of all local institutions, organisations, and foundations active in the startup t-ucommunity. Following the signing of a framework smart city strategy for Kielce, the city will link its startup focus to smart city ideas. We will also discuss smart cities during the next Startup Weekend.
This report sums up the third edition of the Polish Startup Survey. The survey aimed at describing and recognising development directions of startups in the digital sector (so-called IT/ICT) in Poland.

In the survey, startup is defined as an undertaking that meets at least one condition:
• belongs to the digital economy sector,
• data processing or derivative technologies represent a key element of its business model,
• creates new technological solutions in the IT/ICT area.

A Polish startup is an entity operating in Poland or registered abroad as long as it has at least one partner being a Polish citizen, and runs its business, in the main part, in Poland (e.g. produces software). A branch office of a company headquartered abroad does not meet the Polish startup definition.

The questionnaire of the research survey was, as is the case each year, updated and extended with additional information, including, for the first time, financial data. Startups answered up to 68 questions, whereas access to many questions depended on the answer given to preceding ones. Besides a few questions, answers were optional.

Answers were collected from 14 June to 30 July, 2017. To conduct the survey, the webankieta.pl website was once again used. 764 entities responded to the call to answer the survey. Of this number 621 entities (82%) were classified as startups and the report was prepared based on their answers. The number of respondents is higher than in 2016 for which the authors would like to thank the whole startup community.

The survey is unrepresentative, though a large sample size allows generalisations. The values of key indicators stay at similar levels, which proves the reliability of survey results. In as much as 90% of cases, questionnaires were answered by startup founders or co-founders, partners or CEOs, all the more making us view the data obtained as highly credible.
The development of startups in the digital sector is worth following and supporting based on reliable data, and not on conventional wisdom. Our reports for a third successive year provide knowledge that draws a true picture of the startup market. As the author of the survey methodology, I would like to pay attention to the most important, as far as I am concerned, conclusions from the analyses to date.

The startup market is clearly maturing and becoming more professional. The advantage of business solutions is growing, including, in particular, the case of larger, whatever you say, more stable and solvent companies. Grown up, in terms of life and professionalism, startuppers can afford longer self-funding of their business, the more so as they are sooner and sooner able to get their first revenues. Entering the stage of scaling-up the business makes it necessary to reach for external financing that clearly tends to be deferred in time. Investor funds first of all enable the employment of new specialists, availability of which becomes an increasing challenge for founders. This favours the importation of foreign staff, which in turn stimulates the positive trend of growing (though still low) cultural diversity and openness to countries abroad. And export is the most effective springboard for startup development, which our survey has confirmed for the third time in a row.
ABOUT
STARTUP POLAND

The Startup Poland Foundation is a non-govern-
mental organisation founded in 2015 with the
intention of assisting the development
of the startup ecosystem in Poland. More
startups means more capital, as well as greater
competitiveness of the Polish economy.

Formed by a group of young Polish entrepreneurs
and startup founders, the foundation is the voice
of Polish startups in dialogue with government,
parliament, the European Commission, self-gov-
erning unitary authorities, as well as business.

Startup Poland’s mission is to: create and promote
an image of Poland as a country which nurtures
startup growth; professionalise the domestic
venture capital market; initiate cooperation
between large corporations and startups; popu-
larise business angel investments; attract foreign
investment capital to Poland as well as opening
new export markets.

STARTUP POLAND
FLAGSHIP PROJECTS

Thanks to wide-ranging relations with the ecosys-
tem of innovative companies in Poland, every year
Startup Poland undertakes a nationwide survey
of Polish startups. It is the only such in-depth
report on companies operating in the technology
sector in Poland. In 2017 the survey took in 760
companies, And up to 86% of the questionnaires
were filled out by the startups’ CEO or board
member.

Twice a year, in cooperation with the Presidential
Chancellery of the Republic of Poland, Startup
Poland organises the prestigious Startups at the
Palace event. Each edition comprises ten startups
chosen during an open call, which then go on to
pitch their startups at the Presidential Palace’s
Column Hall in the presence of the Polish Presi-
dent, government representatives, investors and
representatives of the largest Polish companies.
Startups then get a chance to take part in eco-
nomic delegations abroad which are headed by
the President.

COOPERATION
WITH STARTUP POLAND

Startup Poland connects big business with start-
ups through the organisation of Startup Con-
nector meetings, which are individually tailored
to corporate clients’ needs, or which take place
during high-profile events such as Impact CEE
or 590 Congress. Startup Poland’s clients include
Ericsson, ING, Boston Consulting Group and
Microsoft, among others.

Startup Poland also offers business intelligence
and innovation monitoring services: complex
reviews, trend analysis and extensive startup pro-
fileing across all sectors allow corporate clients
to make well-informed decisions as to coopera-
tion with innovative companies.
The Startup Poland Foundation also runs corpo-
rate workshops in the areas of new trends in IT,
effective cooperation models with startups and
best practices in terms of investments.
Technology entrepreneurship is a popular career path among graduates of STEM majors, and thanks to entrepreneur-friendly and stable legislation, foreign teams are launching startups in Poland.

80% startups in Poland export

Polish venture capital funds co-invest in startups together with foreign funds, facilitating young companies access to other markets and accelerating their growth.

100 exits of Polish startups per year

Acquisitions by Polish companies, share issues on the Polish and international stock exchanges and not relying on EU funds ensure the greater fluidity of innovative enterprise market.

Technological edge of Polish enterprises

Thanks to collaboration with startups, large Polish companies compete globally through new technologies and more efficient business models.
AUTHORS

MAGDALENA BEAUCHAMP

Specialises in public policies that support the ecosystem of innovation. Author and co-author of numerous expert’s reports, including *Visa policies for startups* (Startup Poland, 2016) and *Visegrad Startup Report* (Startup Poland, 2017). Since 2006 she has been involved in Polish and European economic diplomacy.

A graduate of European Single Market at the College of Europe and international relations and economy at the European University and Université de Fribourg in Switzerland. She has gained experience in the area of economic policies at the Trade Department of the Royal Danish Embassy in Warsaw, European Commission and Permanent Representation of the Republic of Poland to the European Union.

At Startup Poland she is responsible for projects in the area of public advocacy (legislation consultancy, preparation of positions with respect to draft EU directives) and Startup Poland’s presence in Brussels.

AGATA KOWALCZYK


Graduate of the Faculty of Journalism and Political Science at the University of Warsaw. She has managed the communication strategy of technological brands like Samsung, Logitech and Dyson. She knows startup inside out: in the very first years of startup development in Poland she co-created three such companies, as well as having experience in the media, too. She has reported for “Rzeczpospolita”, “Polska The Times”, TVN and Gazeta.pl.

At Startup Poland she is responsible for communication strategy, public image and relationship with media, as well as selected projects, including *Startups in the Palace*. 
SCIENTISTS

DR AGNIESZKA SKALA

PhD in Economics from Warsaw School of Economics, Assistant Professor at the Faculty of Management of the Warsaw University of Technology and lecturer at Kozminski University. Graduate of the Lean Launchpad Educators Program at the prestigious Haas School of Business of Berkeley University in California.

In her work, she deals with startups and education for entrepreneurship. She is one of the first, and still not numerous, university teachers in Poland that give management lectures in the spirit of “lean”. In her academic work, she has recently focused on formulating a definition of a startup, her latest publications being dedicated to this topic.

She co-created the Innovation Nest Entrepreneurship School (SPIN) and, since 2011, has been in charge of it. At Warsaw University of Technology she runs her own cycle of seminars: High-Tech Entrepreneurship. She is a member of the Programme Board at Startup Poland, and since 2015 has been coordinating the Polish startup research run by the Foundation.

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