Startup Hungary

Hungarian Startup Report 2022

Discovering what makes Hungarian startups succeed

Startup Hungary
Hungarian Startup Report 2022
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Csongor Biás
Managing Director at Startup Hungary

Introduction

2022 was the most successful year so far for the Hungarian startup ecosystem. Thanks to aiMotive, the local startup community witnessed its biggest acquisition in history, which was about twice as large as our significant previous exits of Balabit and Ustream.

The growth is also displayed in the funding volume: the total investment reached €180M, an impressive 60% increase to that of 2021. SEON's record high, $94M Series B round lead by IVP contributed hugely to the above-mentioned overall success of the year. Other notable rounds included Turbine's €20M Series A, Shapr3D's $14.5M Series B, and Craft's $12.2M series B rounds.

These never-before-seen successes will be what move the needle in the future of the ecosystem. The knowledge stemming from them will be channeled back into the creation of more achievements and even more importantly, their founders have already made their debut as angel investors, becoming the main driving force behind further local triumphs.

However, the ecosystem is showing signs of a downturn: the overall number of deals has decreased and local funding has slowed down. Moreover, we predict a decline in the next years as the year-over-year growth since 2020 was caused by outlier rounds of the largest scaleups and these companies will not be fundraising within the next 1 - 2 years. Not to mention the fact that the market conditions have also changed for the worse, and local funding opportunities have decreased.

2022 is the third year we surveyed startups, 165 startups completed the questionnaire as opposed to over 200 in past years. In addition, 100 respondents who have filled out the survey in previous years now have what we call dead or zombie startups, meaning that they have either actually closed their operations or did so seemingly. It is not uncommon for teams to be dragging their ventures for longer than what might be needed, which can be due to the lack of the much-needed fail-fast mindset.

Once again, we have defined two categories to distinguish startups. These are 'champions', similar to last year, and 'rising stars', a new, rather subjective category created for startups showing signs of following the footsteps of the champions. 23 champions and 17 rising stars were identified.

The "champions" are startups that:

- have average monthly revenue over of 80K EUR, in the
- last 6 months, **AND**
- have been growing at an average of 5% or more per month
- in the last 6 months, **OR**
- have a well-known international VC backing them.

The "rising stars" are startups that:

- have a strong founder-market fit, started by proven founders and going after a large market opportunity, **OR**
- are backed by an international VC at the pre-seed stage.

Overall, we ended the year on a high note, with significant achievements such as noteworthy acquisitions and successful funding rounds. Undoubtedly, these accomplishments have planted the seeds of future startup successes and we at Startup Hungary have proudly taken on the task of providing the platform that facilitates knowledge transfer between successful founders and the rest of the community.

Executive Summary

1. Startups raised a record amount of capital

The Hungarian startup scene has experienced one of its most successful years to date in terms of total funding. Local startups raised over €180M, a remarkable 60% increase compared to the previous year. It's worth noting that 2021 was also an exceptional year, with the total volume of investment raised growing by 30% from the previous year. However, it's important to point out that it's not a case of an increasing number of startups raising funds, but rather a few outlier funding rounds that have contributed to this steep growth. In fact, SEON's record-high $94M Series B round accounts for almost half of the total raised amount in 2022. Looking into the future, another exceptional year is quite unlikely concerning that most local scale ups will most probably not raise funding in the next 1-2 years. Additionally, gov-backed funding has slowed down significantly which is indicated by the 37% decrease in the number of deals in the last 4 years.

2. Fewer startups and champions, but new rising stars were identified

165 startups filled out the survey this year, 25% less than in 2022. We identified 100 dead or zombie startups from the respondents of the previous two years who either officially shut down the business or show signs of closing operations. Also, from the past 3 years, we can see a gradual decrease in the number of newly established startups - 18.3% of startups were founded in 2020, 13.9% in 2021, and only 12.2% in 2022. Furthermore, the growth rate of some of the previously identified 27 "champion" startups slowed down, resulting only in 21 champions in 2022. This year we identified 17 "rising star" companies, which is a new segment we analyze to better understand the needs and challenges of some of the most promising pre-seed and seed stage companies.

3. AI is undoubtedly here to stay; two-thirds of startups are building web and mobile apps

With 6 out of 10 startups being in the B2B SaaS space, this category further consolidates its position as the most common product type and segment among Hungarian startups. The popularity of web and mobile applications increased to an all-time high of 66%. Simultaneously, the number of consulting firms, software houses, and companies offering customized solutions saw a decrease of 16% in total. This shows signs of maturity in the local ecosystem as more startups turn towards more scalable business models. Also, fewer businesses with hardware and IoT solutions were identified. The popularity of this category might be affected by the fact that during the crisis, it's even harder to get larger investments upfront, and global supply chains also took a hit in recent years. AI remained the top vertical and with the current hype around GenAI, it's expected to grow further. Education came in second, and other hot verticals were Fintech and Analytics/BI, reflecting the current trends.

4. Despite the crisis, war, and macro dynamics, startups are growing

Similarly to the largest global tech companies, some of the local scale-ups had to adjust to the new macro environment, and went through significant downsizing last year, often decreasing the number of their employees by double-digit numbers. However, 54% of survey respondents stated an increase in company size, and only 16% reported a decrease. We tracked 20 handpicked startups with a headcount of over 30 people to provide an additional data point and complement our findings. These 20 companies together employ more than 2300 people, 16% more than last year. Although their growth has definitely slowed down by the second part of the year, out of the 20, only 4 scale-ups had a net decrease in headcount in 2022. Even some of the companies that went through layoffs ended up with overall growth in team size by the end of December as they were massively growing at the beginning of the year.

5. Founders are more bullish than ever

Despite the challenges startups faced in 2022, founders have never been more optimistic about the future. Similarly to last year, 42% of the respondents believe they are building a future unicorn, 86% see themselves becoming a key international player, and 39% envision an IPO, 14% more than last year. However, this year 2x more founders, 12% ticked the box saying their startup will very likely or most likely fail. The growing optimism and ambition level is a key requirement for the growth of the ecosystem, however, we don't see indicators showing that we have more startups getting serious international traction or international VCs on board. While in 2021 more than 90 startups said they will raise from international VCs in the next 12 months, we only track 9 startups that were able to achieve that. More about this in the following takeaways.

6. Founders say they think global, but more than half of them act local

Although more than two-thirds of startups claimed they have international users, only 43% of them generate over half of their revenue coming from abroad. Additionally, many of these startups only have a regional focus, with 63% reporting significant traction from the CEE region. Almost half of them reported they will prioritize Hungary and the region in the next year too. The most common reasons for not selling or selling enough on international markets are that founders want to test locally (44%), they think they are too early, or they don't have the right financial, human resources, or competence (36%). This means that most startups would like to expand internationally, however, only a small number of them are succeeding. Drawing a conclusion from the local champion startups and rising stars, it is important to emphasize that the "recipe" for success seems to be thinking and acting globally from the moment of inception. 86% of the former and 65% of the latter segment have >50% export, they validated their products abroad and most of them have been focusing on Western European and US markets from day one.

7. Over half of the startups say it's more challenging to fundraise now than a year ago

The largest change that occurred in 2022 impacting startups was the change in the fundraising scene. 53% of founders say it has become more difficult to raise funds than it was in 2021.
Zooming out, with the downturn of the stock market, startup financing has slowed down on a global as well as a local scale. Despite this unfavorable situation, local startups are still well-financed with 72% of them have received funding, a 4% decrease compared to the result of 2021. 28% of the respondents that have not fundraised yet plan on doing so at a later stage, 23% of them are bootstrapping, and only 15% of them have attempted to raise a round but did not succeed. Three out of four startups that raised external funding, raised from local VCs which were still dominated by govermental fund.

8. Traction and growth are still difficult for startups to tackle

Based on our research over the past three years, the number one obstacle that startups face is related to sales and customer acquisition. In fact, 1 out of 5 startups experienced difficulties in drawing in potential customers. The second most significant challenge, identified mainly by the champion segment, was growth (16%). 12% of startups reported struggling with finding the right product-market fit, with the rising stars being the group most affected. Surprisingly attracting the right type of employees seems to be less of a top priority challenge for champions, just like last year, but it remains in the top category for rising stars and the rest. Although the majority of startups think it's more difficult to raise money in 2022, less than 5% reported fundraising as a top challenge.

9. Half of the startups flipped or planning to, mostly because of legal barriers

Half of the startups moved their legal HQ outside of Hungary or are planning to do so in the next 12 months. The most popular flipping destination is still the US (33%), the UK comes second (16%), followed by Estonia (12%). The most common reasons for flipping are fundraising and regulations related. The difficulty in creating an ESOP under Hungarian jurisdiction is a great example of this kind of legal barrier. Nearly half of the entrepreneurs surveyed have ESOP, and only 9% stated that they do not have it due to not believing in its importance. The remaining respondents expressed a desire to create ESOP but encountered difficulty in implementing it within a Hungarian entity, and therefore aim to do so at a later stage. The importance of regulatory changes shows in the changes in what startups expect from the government; in a nutshell, fewer startups expect funding or acceleration programs and more require founder-friendly regulations and less bureaucracy.

10. What startups say about IP

This year, we added a section to determine startups' perspectives on IP protection. Our findings indicate that over half (52%) of startups surveyed did not pursue any form of IP protection, including patents or trademarks. Of the startups that opted against acquiring IP protection, almost one-third expressed uncertainty about the effectiveness of patents in safeguarding their solutions, while others felt that their product was not suitable for IP protection. On the other hand, 58% of the founders who pursued IP protection and successfully received it did so because they consider patents as valuable assets that contribute to their business worth. 39% of those who obtained patents stated that it made them feel safe and comfortable when discussing their product with potential partners. Additionally, 22% of startups that opted for patents did so because their partners or investors requested them to protect their innovation in this manner.

CHAPTER 1

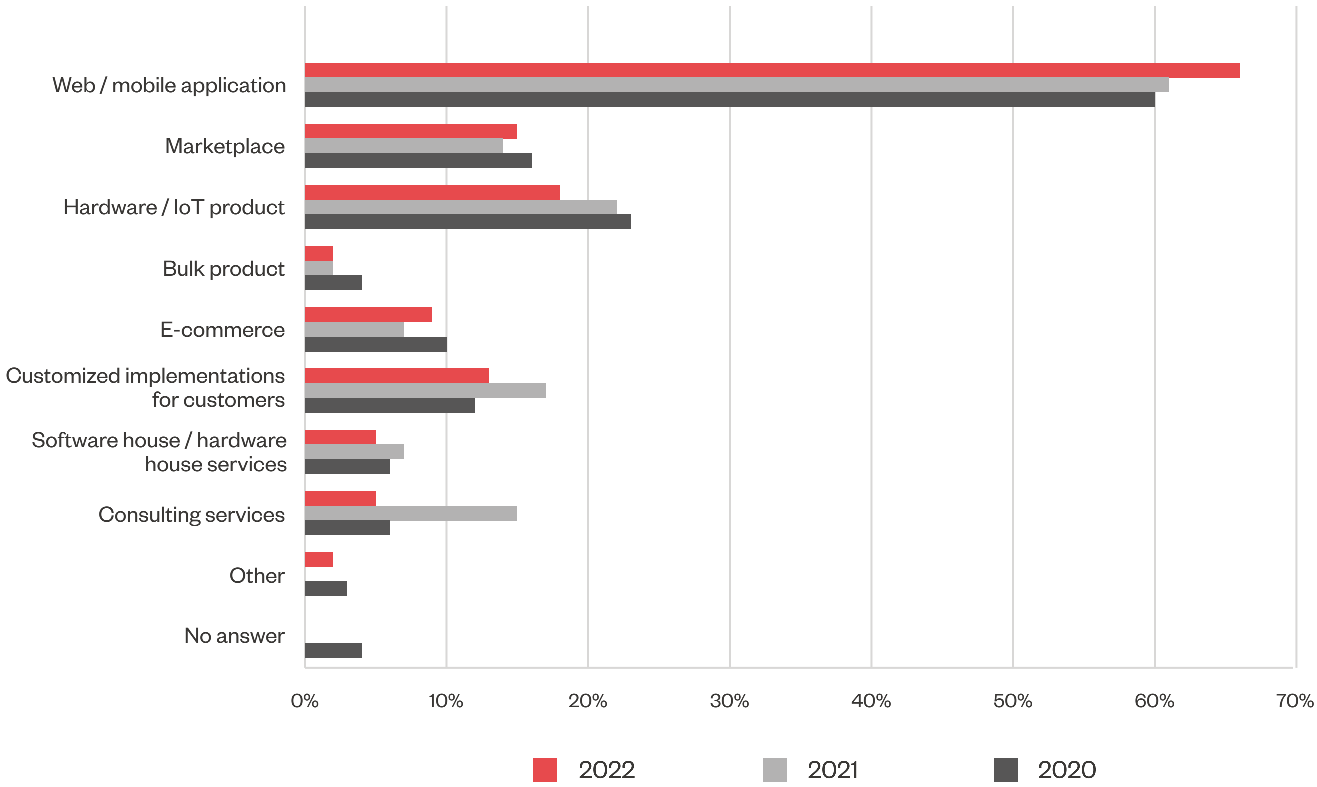
Founders, Teams, and Startup Profiles

Web and mobile apps are the future
AI remains the hottest vertical
B2B over B2C customers
Founder duos and trios are the most common
It's still a man's world
Over a third of startups are run by part-time founders
Nearly half of the startups were founded in the past 3 years
Despite the crisis, war and downturn, startups are growing
Most startups can feed their entire team with a pizza
Everybody wants ESOP, but it's complicated

Web and mobile apps are the future

Choose a category that best describes your product or service
% of all respondents, n_{2022}=165, n_{2021}=212, n_{2020}=232

Source: Startup Hungary

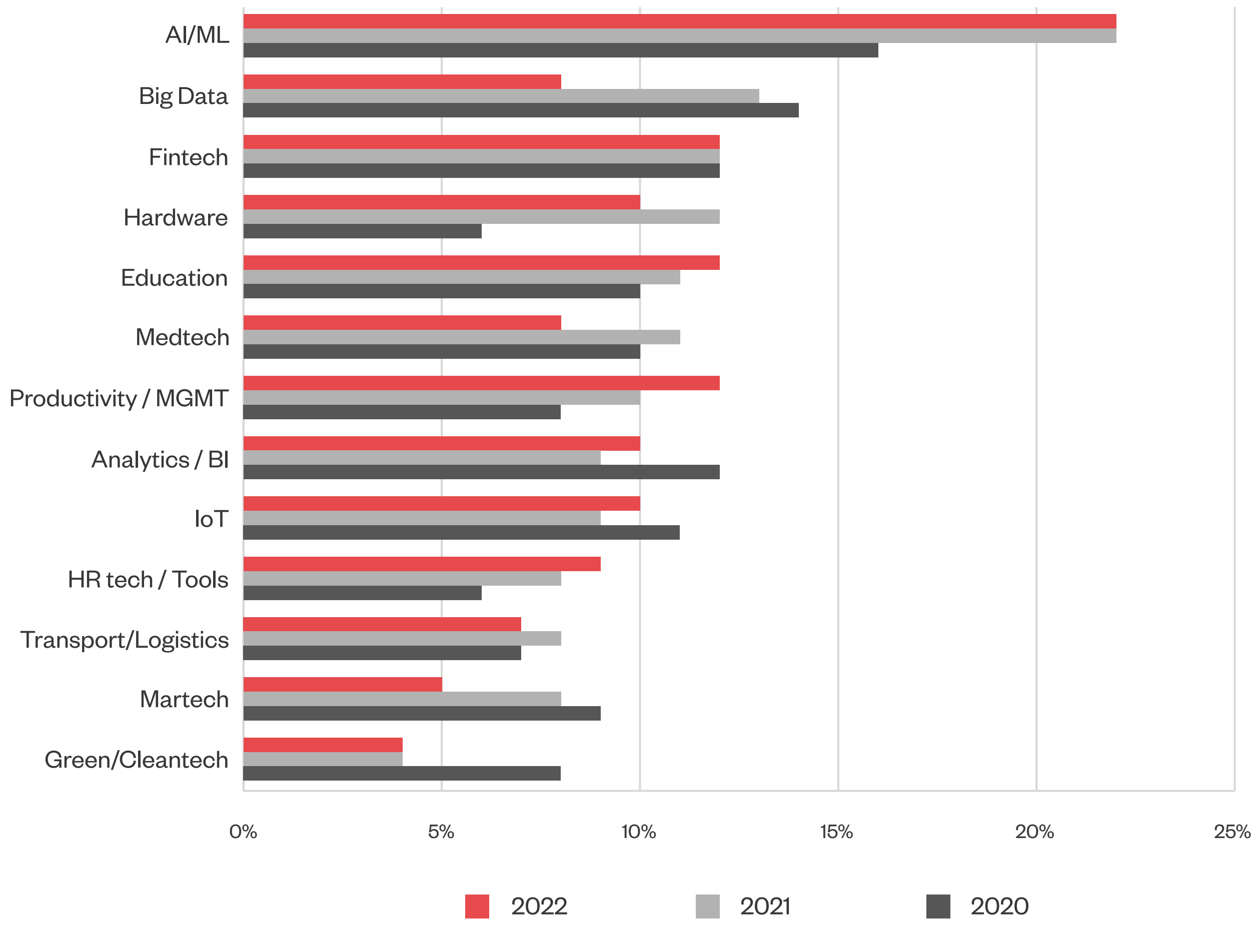


AI remains the hottest vertical

Which vertical best describes your company?

% of all respondents, n_{2022}=165, n_{2021}=212, n_{2020}=232

Source: Startup Hungary



Editorial comment

Policymakers in Europe are actively discussing a regulation about AI - called the AI Act - as we publish this report. And as they ponder pulling more and more forms of AI, even general purpose technologies such as Generative AI, into the so-called high risk category which comes with numerous obligations and restrictions for developers, they run the serious risk of discouraging the entrepreneurial motivation that is so vibrant according to our survey. It has never been more important to find the right balance between regulation and innovation!

Péter Szabó
Managing Director at
Microsoft Hungary

AI is the defining technology of our time leveling the playing field for startups

What makes an SME a startup? Both are enterprises, but startups are considered pioneers in utilizing modern technology, especially AI to disrupt the market, challenge old practices and bring services, efficiency and customer experience to a new, higher level. Sometimes a business idea is established to become a startup from scratch. Other times an SME is evolving into a startup to boost efficiency and gain higher market share. And sometimes, a big company establishes a quasi-independent enterprise within its organization to foster innovation and gain momentum from the entrepreneurial spirit that such enterprises can deliver. All these scenarios underscore the importance of small and medium sized enterprises in the Baltics and Eastern Europe, too. Startups have the flexibility, the expertise and spirit to quickly adjust to new circumstances and grab the opportunities lying ahead.

Nonetheless, many of the Hungarian enterprises (59%) lack the strategic vision of how to develop IT, as revealed by a Hungarian ICT Report by BellResearch. According to another study by Fortune Business Insights,

only 26% of Hungarian enterprises use cloud technology as opposed to Estonia where this proportion is 58%. What these figures suggest is that Hungarian enterprises also lag in AI adoption, as cloud is a prerequisite for that.

All data and studies confirm that AI plays a crucial role in fostering competitiveness.

The World Competitiveness Yearbook ranked Estonia the 22nd, Hungary the 39th in 2022. Therefore, I am positive this is the way forward for Hungarian enterprises and the key to turn their operation into startup mode. The good news is that the afore-mentioned Fortune Business Insights predicts demand and adoption of cloud computing solutions to pick up and become the main drivers in Hungary. The study projects the second highest increase rate in the cloud for manufacturing and retail market revenue in Hungary (19.2%) from our region (the Baltics and Eastern Europe).

The study sees great opportunities in the application of advanced technologies such as AR/VR, and the PaaS (platform as a service) model accelerating at a significant pace across the region, but most notably in Hungary and Bulgaria. Increasing adoption of online grocery and e-commerce, also creates lucrative opportunities for cloud players. B2C e-commerce growth rate was the highest in Hungary with a rate of 35%, followed by Croatia (32%) and Slovenia (21%), in 2020.

At Microsoft, we believe AI will revolutionize life as much as the Internet did in the 90s. It gives hope to mankind in tackling the most pressing global challenges of our time.

I find it important to highlight that AI is leveling the playing field for individuals as well as SMEs, especially startups that can develop disruptive innovations at an increased speed with AI-based technologies, displacing established competitors.

Microsoft's approach to AI is determined by its mission – to help every person and organization on the planet to achieve more. We have invested heavily in AI in the last decades and we have integrated powerful, innovative AI technologies into our products, like Windows, Xbox, Microsoft 365, Teams, Power Platform, Dynamics 365 and Microsoft Defender, all powered by Azure cloud infrastructure. This means that the Microsoft AI platform, Azure AI offers infrastructure optimized and purposely built for running large AI models, like the recently launched Chat GPT. Our researchers have pioneered AI breakthroughs in **conversational speech recognition, machine translation, image captioning, natural language understanding** and **commonsense question answering.** We have committed to building Azure into an AI supercomputer for the world available to any developer who wants to build the most state of the art AI services into their products.

Finally, in every AI related discussion concerns arise about the safety, security and reliability of AI systems. In the case of Microsoft, it comes from our mission that we develop - AI by the "Responsible AI principles", that are: fairness, reliability and safety, privacy and security, inclusiveness, transparency and accountability. This means that systems and services we build on and the AI platform services we are offering are designed to decrease the level of unfairness in the world (fairness).

> ***These systems must be trustworthy and not create harm in the world and even if they make inaccuracies or mistakes, the risk associated must be clearly understood (reliability and safety).***

Responsible AI must naturally protect privacy and data security, while at the same time transparency to understand the way these systems work has to be available. Most importantly, inclusiveness has to be intentionally at the heart of AI to serve the full spectrum of different communities equally.

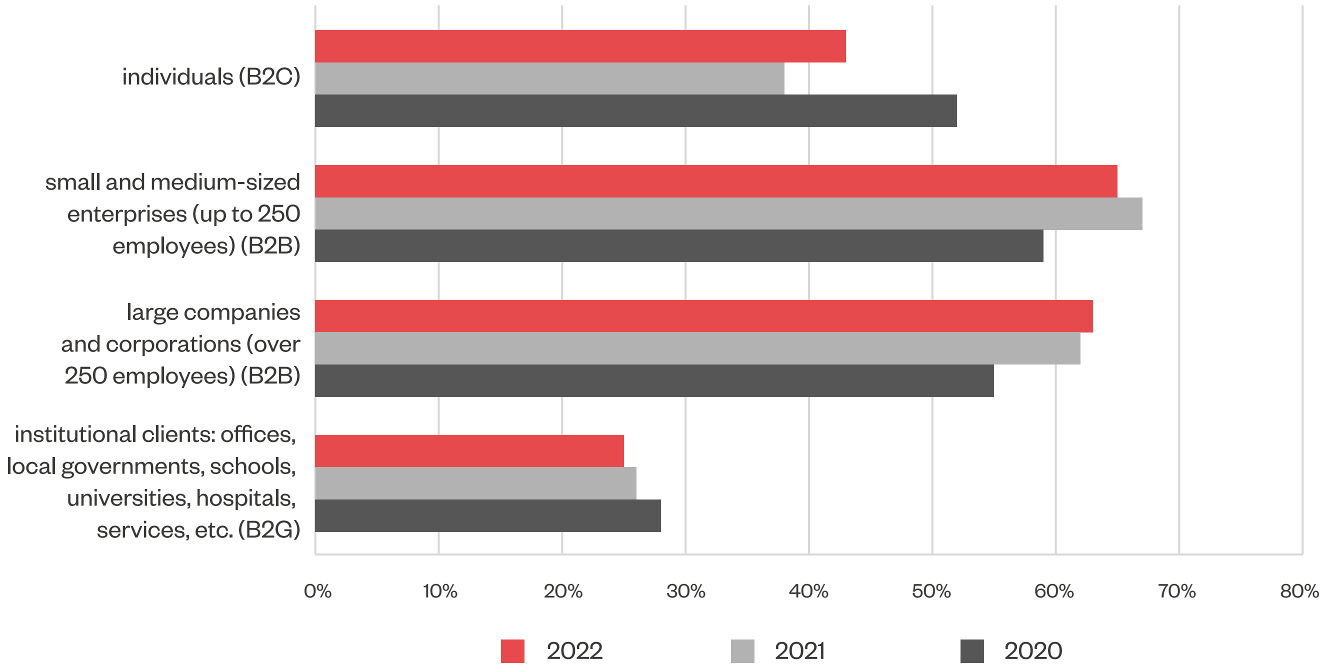
We believe that for these principles to become reality, actionable norms and laws must be elaborated in cooperation with industry players, academia and civil society. AI systems built by such great principles can give users and developers a piece of mind when designing their own solutions built on Microsoft technologies.

B2B over B2C customers

What kind of customers/users are you targeting?

% of all respondents, n_{2022}=165, n_{2021}=212, n_{2020}=232

Source: Startup Hungary



Editorial comment

Many companies have stated that they are focusing on B2B, yet a significant proportion of startups are aiming to reach both businesses and consumers simultaneously. B2C-focused startups are becoming less common, and they often face greater challenges when it comes to securing funding, since many local VCs are concentrating their efforts on B2B SaaS and Deep Tech startups. This trend among VCs is prevalent throughout the region, despite the fact that small European countries such as the Nordics have produced highly successful global consumer companies. It is worth noting that one of Hungary's most prosperous exits, Drops, was also focused on the B2C market.

Alfredo Giannattasio
Regional Marketing
and Operations Director
at Microsoft Multi-Country cluster

Regional startups are utilizing technology to boost economic output

Collaborating within Central and Eastern European (CEE) countries represents great potential for the digital era. The competition is strong, however leveraging the strengths of neighboring countries could lead to the creation of centers of excellence.

Currently, there are 150 million startups worldwide, with 50 million new startups launching every year. Central and Eastern European startups are increasingly attracting the world's attention, with estimations showing that startup value has increased 19 times in the last decade, and 34 unicorns have been born in the region. Data from our Digital Future Index shows that the more a country's startup sector grows, the higher it ranks globally for innovation, which is key to fueling economic growth.

The Hungarian startup ecosystem is rapidly expanding, with many companies providing cloud services to over 100 million users. **LogMeIn**, **Ustream** and **Prezi** are the more well-known, more established ones, but there are emerging newcomers as well, like **EDUardo Business Simulation**, which created an engaging business simulation platform, based on Microsoft technologies, and **Tresorit** a cloud-based, secure file-synchronizing software designed to share confidential data among business users. Hungarian startups also dominated the Microsoft CEE Startup Award competition last year; **Volteum** won for Sustainability and **FintechX Technologies** in the Fintech category. Both enterprises rely heavily on Microsoft Azure.

In Hungary most of the startups operate in the B2B business, developing SaaS products and services. However, the acceleration of e-commerce and online grocery suggest they would have a better chance in the B2C market, if they were assisted in marketing and sales.

Startups drive innovation and progress across every part of the economy by solving problems or unlocking new ways of working. They drive digital transformation of traditional industries and players and create a virtuous circle of talent development and, consequently, more opportunities for employment. Despite these facts, it is estimated that over 90% of startups go out of business in their first year, as their journey is unpredictable and filled with uncertainty.

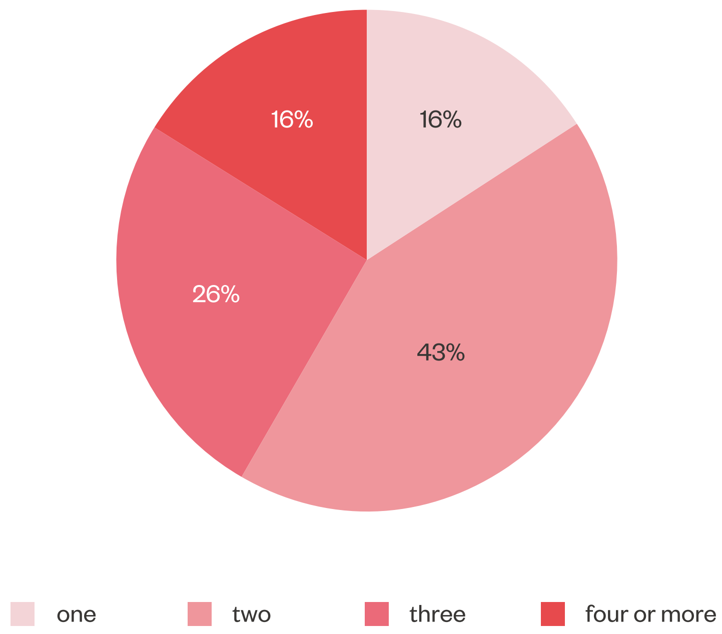
In order to survive, more than capital and investments; they need the right skills, experienced mentors, networking opportunities, and, especially in our region, easier access to global markets and customers.

The stars of tomorrow are being born today, right here in the region, and we have a unique opportunity to play a key part in helping them grow. Programs like Microsoft for Startups Founders Hub and ISV Success program can help them along this journey. Digital technologies such as cloud, AI, big data, modern networks, and the digitization of every experience and business process will provide the keys to delivering economic output and growth.

Founder duos and trios are the most common

How many founders do you have?
% of all respondents, n=165

Source: Startup Hungary



Csanády István
Founder & CEO at Shapr3D

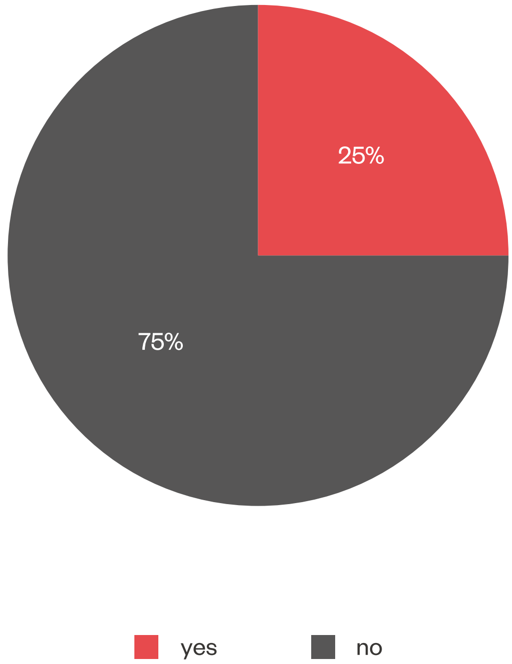
Expert comment

Many people believe that the ideal startup team consists of multiple founders with complementary skills. However, the reality is that some of the most successful tech companies have been founded by solo entrepreneurs. Going solo eliminates the potential for founder conflict, which is a top reason for startup failure. From my own experience, I can say that starting alone was the best choice for me. I didn't have the right co-founders at the time, and going it alone allowed me to maintain control of my vision and avoid any potential distractions or disagreements.

It's still a man's world

Are there women among the founders?
% of all respondents, n=165

Source: Startup Hungary



Nóra Várady
CEO at WeAreOpen

Embracing diversity: why it matters and how you can make a difference

Although some baby steps have been taken, entrepreneurship still remains a strongly male-dominated domain in Hungary. The root causes are complex and they need to be strategically addressed one by one to achieve substantial change. All the more so, because data suggests that homogeneity stifles innovation. In this article, I intend to talk about five of these root causes, and give some recommendations on how to change the status quo towards a more equal representation of women in the Hungarian startup ecosystem.

1. **There is no general understanding about the importance of gender diversity in startups.** However, evidence shows that companies that embrace diversity make better returns. As McKinsey's study showed, those companies that belong to the top quartile regarding gender diversity are 15% more likely to drive higher-than-the-average profitability than companies in the fourth quartile. Similarly, those executive teams that are gender-diverse will financially outperform the least diverse teams in terms of EBIT margin with 48% likelihood.

Why? Because diverse views and ideas drive disruptive innovation. Diverse teams understand consumption patterns much better, simply because consumers are also diverse. Diverse teams embrace diverse ideas. A stunning 56% of leaders do not back ideas that they don't see a personal need for. This means that when a leadership team is homogenous, in terms of gender, ethnicity, sexual orientation, or physical ability, certain ideas simply stay under the radar and never make it to market even if they have potential.

Changing the mindset is not impossible. What we need to do is to educate the ecosystem about the need-to-have nature of gender diversity across all entrepreneurial programs in Hungary.

Even more so, because GenZ seems to have receptors tracing gender diversity within companies. If a startup intends to attract young talent, it has to be aware that 83% of GenZ applicants will take the company's diversity & inclusion efforts into consideration when making a decision where to work.

2. **Female access to entrepreneurial networks is limited due to cultural norms.** We are much more used to male founders, male investors, male angels, simply because men outnumber women in our ecosystem. To overcome this, some women-only networks have emerged in Hungary, too, but these might even be counterproductive if they continue to preserve gender gaps.

We should strive to create inclusive and not parallel ecosystems.

Male allyship is crucial and it would be great if men understood that changing the status quo in the direction of a more equal representation of men and women would serve us all. Male entrepreneurs and investors could and should join female entrepreneurial organizations to open doors for women through their networks. Similarly, male-dominated organizations and networks should strategically seek ways to balance out gender proportions.

3. **Cultural biases still prevail regarding female inclination and abilities in STEM fields.** To overcome this,

> ***we need to make systematic efforts to bring down these preconceptions in education and within company cultures.***

It is especially important that tech firms demonstrate diversity in upper and lower management levels and that they revise their hiring practices to make tech jobs more easily accessible and retainable for women.

4. **Gender bias is still strongly present in entrepreneurial education and media representation of female entrepreneurs.** Female achievements are still often depicted from an angle of work-life balance, something that we do not usually see with male achievements. We need to change the narrative about female entrepreneurs and build up relatable role models.

5. There is also **a significant gender imbalance in the availability of financial capital, such as angel and VC investments.** Fewer women seek funding than men, and those who do, face significant obstacles raising money. The causes are simple. As Harvard Business Review points out, VC is one of the most gender-homogenous industries, with only 8 percent of investors being women. Non-diverse investing teams tend to support non-diverse founders, whereas diverse investors fund more diverse teams. It's as easy as that.

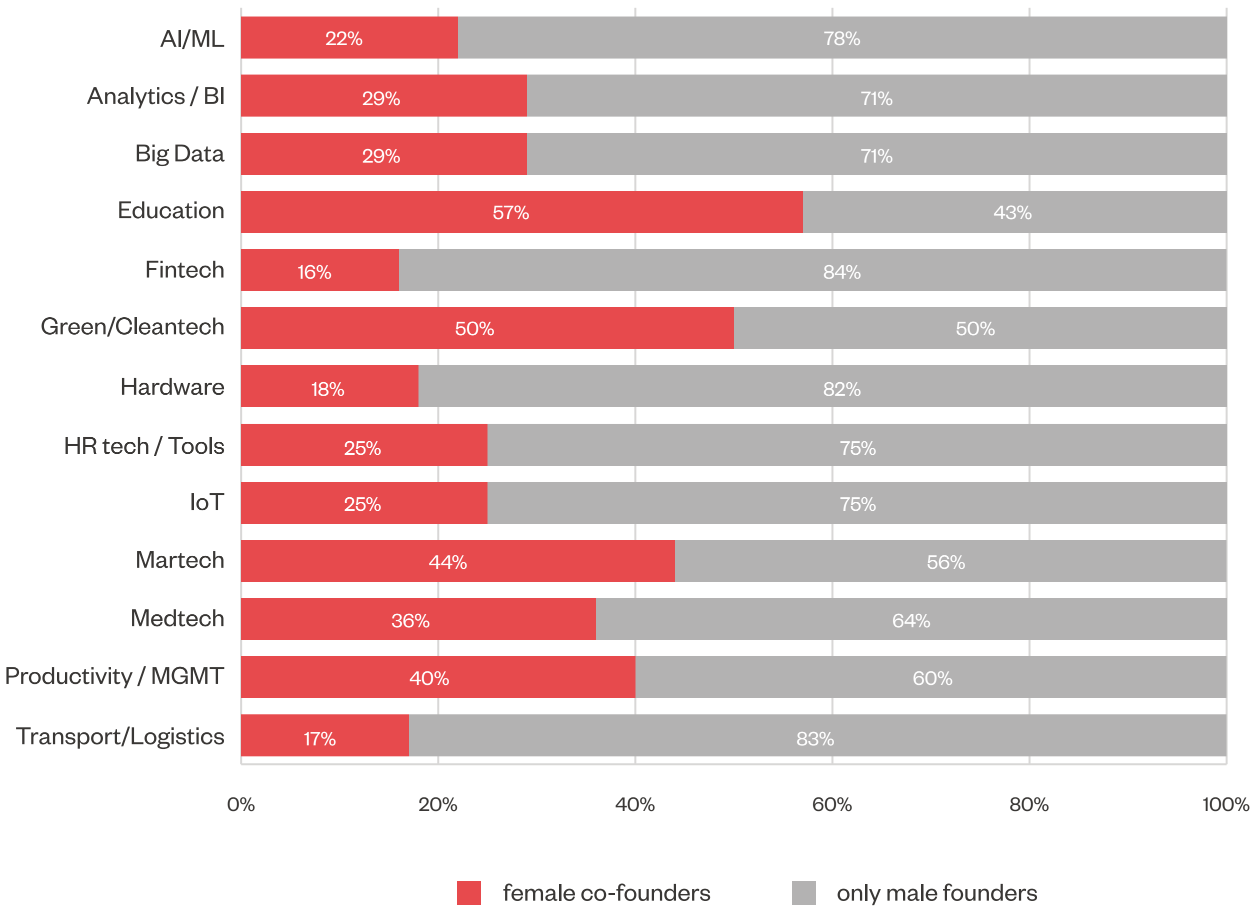
> ***We need to further examine gender bias behind investment decisions and open a constructive dialogue with investors about gender diversity. And all this not only to make a favor for women but also because more diversity will make investments more successful:***

as evidence suggests, gender-diverse investment teams drive better returns, and they make 9.7% more profitable exits than their non-diverse counterparts.

It's still a man's world

Which vertical best describes your company?
% of all respondents / top verticals, n=165

Source: Startup Hungary



Krisztina Tajthy
Secretary General at IVSZ

Women power needed

Although there has been an increase in recent years, it is still true in the IT sector, and in general, that the number of female entrepreneurs and professionals is significantly lower than that of men. This under-representation of female entrepreneurs and professionals is not only a disadvantage for individuals, but also reduces the potential for economic and social growth. In fact, a large number of research shows that the diversity of a company's workforce translates into improved financial results, increased innovation and better customer experience.

Lack of confidence, motivation and role models, fear of failure, or just simply prejudice. According to the research and industry experience of IVSZ, the ICT Association of Hungary, these personal factors, alongside socio-cultural and systemic motivations, are among the factors that prevent women from starting a digital business. In many ways, this is a barrier to economic and social development.

> ***Today, a large body of research has shown that teams with different backgrounds, knowledge, experience, age and culture are more effective and innovative than their homogeneous competitors because of their different experiences and can therefore be more successful in growth and business development.***

It is therefore particularly important to encourage startups as well to integrate female professionals and managers, and to provide role models who can motivate those interested in technology. Additionally, recruiting women can help overcome and reduce the labour shortage that has been present in the IT field for years.

Businesses need to understand what motivates women to work in technology in the first place.

> ***Based on our Femintech research, companies must provide flexible working conditions (e.g., home office hours or remote work) as well as training and growth opportunities to attract female talents.***

Moreover, active participants of the digital economy must take every opportunity to encourage young women, girls and even older career changers to build a career in IT and technology, and even dare to start their own businesses in this field. While women in the workplace may face the glass ceiling phenomenon, whereby they can only progress up to a certain level within the organisation, entrepreneurship can give them the opportunity for self-fulfilment.

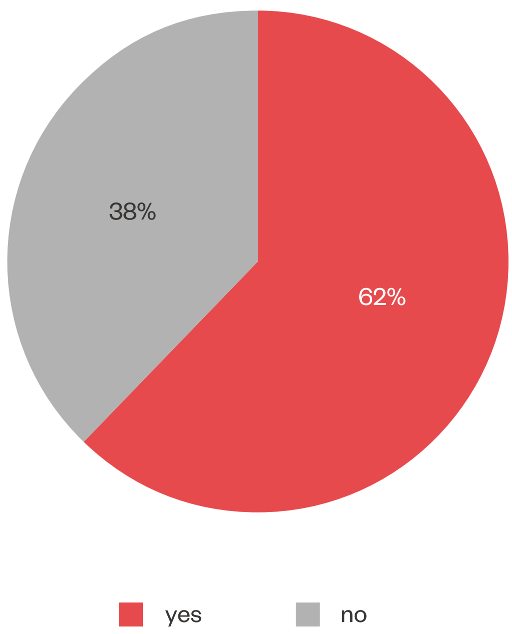
We're working to make it easier for them to get started, whichever path they choose – as employees or entrepreneurs – and to build a digital economy with their active participation.

Over a third of startups are run by part-time founders

Are the founders working on the startup full-time?

% of all respondents, n=165

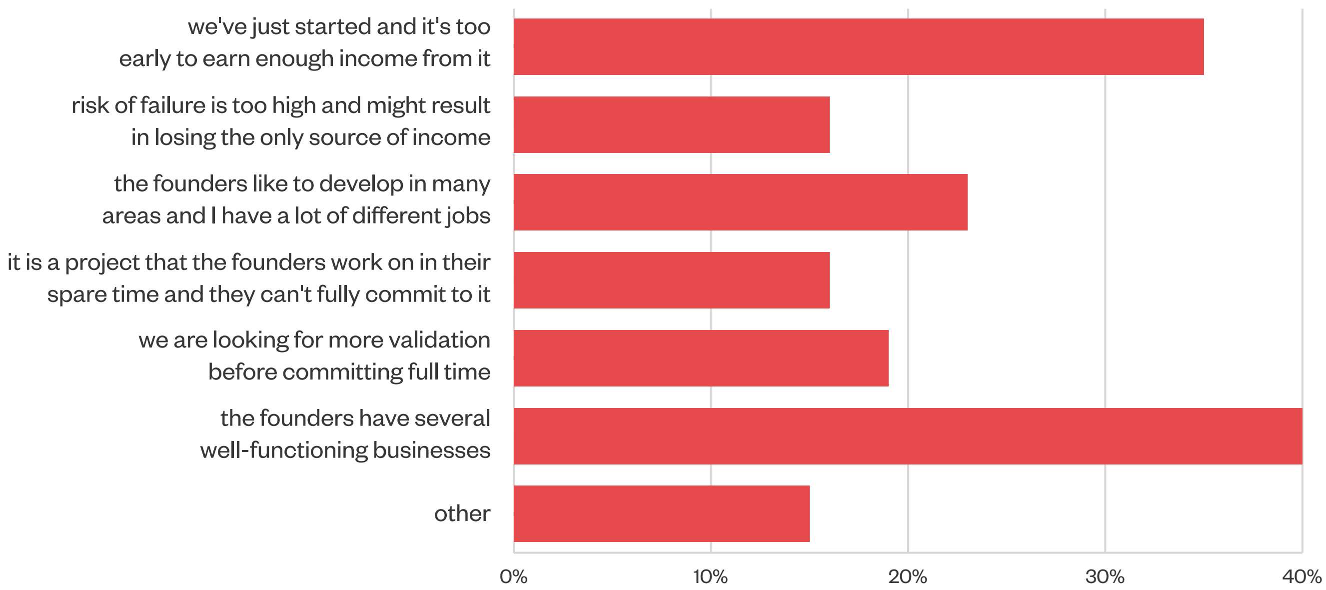
Source: Startup Hungary



What are the reasons for not working full time on your project?

% of part-time founders, n=62

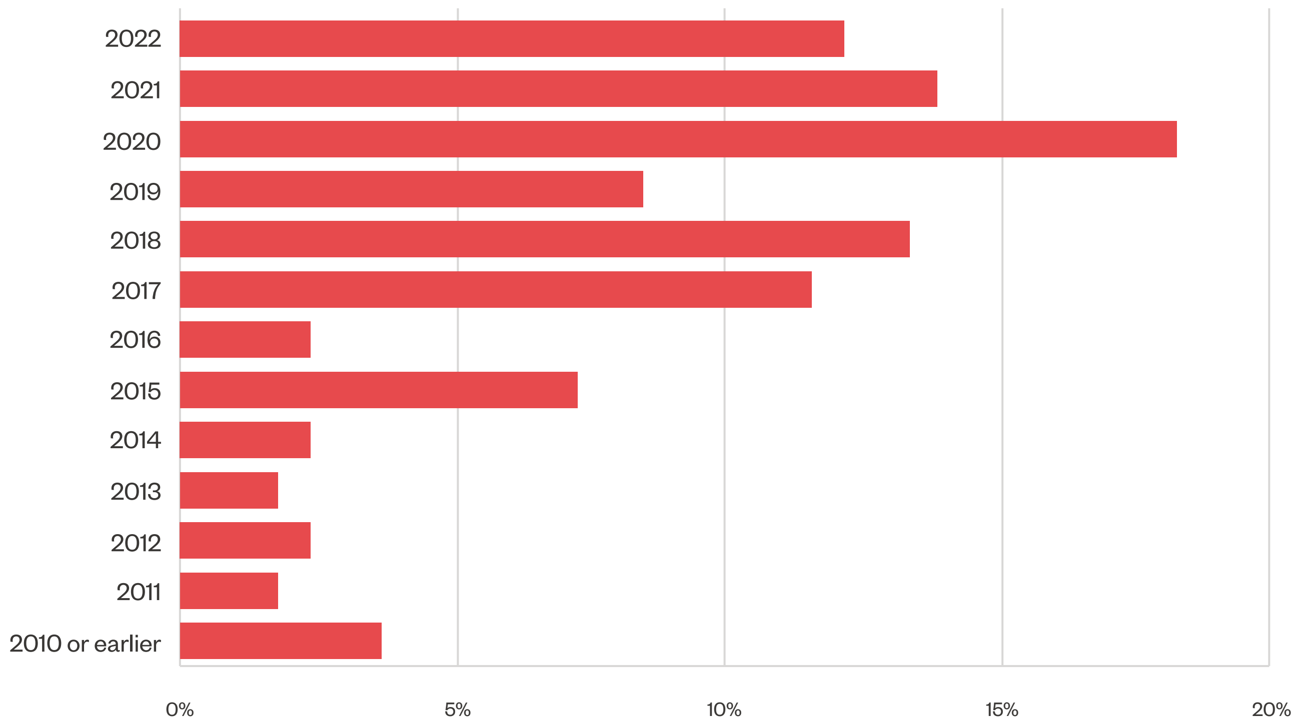
Source: Startup Hungary



Nearly half of the startups were founded in the past 3 years

When did you start to work on your startup?
% of all respondents, n=164

Source: Startup Hungary

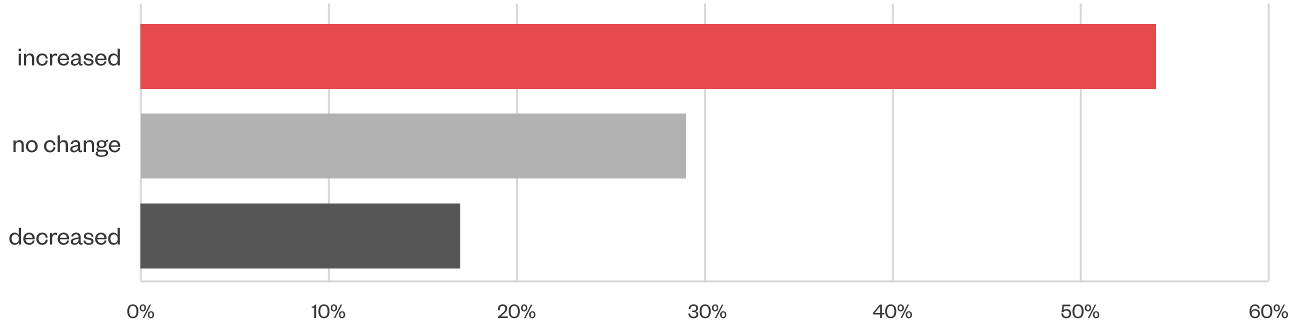


Despite the crisis, war and downturn, startups are growing

Did the size of the team change in the last 6 months?

% of all respondents, n=164

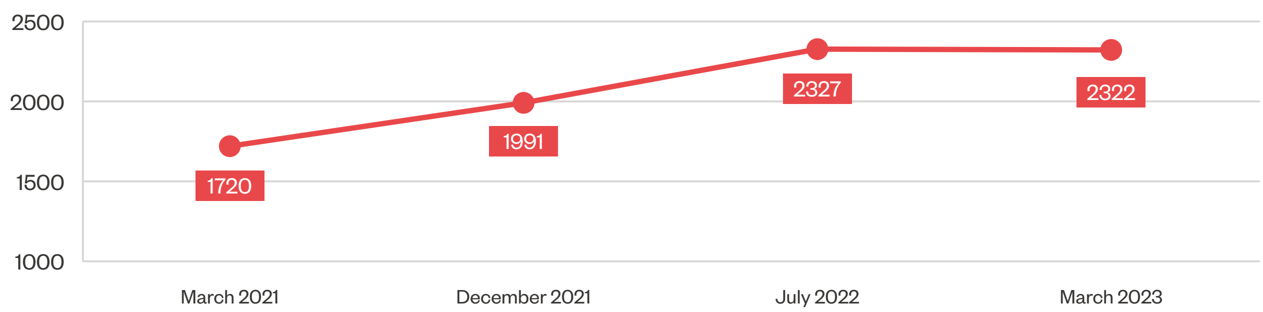
Source: Startup Hungary



Startup jobs

Staff headcount in 2022 among 20 handpicked startups with >30 employees

Source: Startup Hungary



324 New jobs in 2022

76% Greatest growth in 2022 (SEON)

16% Overall increase

75% Employees based in Hungary

Source: LinkedIn (data from official company profiles), analysis by Startup Hungary

Editorial comment

Like big tech companies, local scale ups also downsized last year, but 54% of surveyed companies reported growth and only 16% reported a decrease. We tracked 20 startups with over 30 employees and found that they employ over 2300 people, 16% more than last year. Despite some slowdowns in growth, only 4 out of the 20 startups had a net decrease in headcount in 2022, and even companies that had layoffs ended up with overall growth in team size by the end of the year due to early-year expansion.

Adrienn Kenyeres
Head of The Spot Budapest

Changing times requires flexibility – even at our office desks

Since the onset of the pandemic, two terms have come to define the world of working: hybrid and remote working.

For the past three years, we have been speculating about the advantages and disadvantages of these modes of work, researching and surveying employees about the real and perceived effects: on our productivity, mental health, social relationships and many more.

The coworking office industry is no exception to this trend.

> ***In recent times, the watchword for these spaces has been flexibility. Short rental period, fast and simple contract process, inspiring environment. It is not a coincidence that many startups choose these offices.***

But why do these companies like to work in such a place?

The answer is multiple:

Networking and building relationships: the community office space provides a place to meet other entrepreneurs and founders working in the same field, get to know each other or foster potential partnership.

„Attracting" new colleagues becomes easier: coworking offices not only provide a great place to find talent, but because a company does not have to spend a lot on renting real estate, they have more budget for recruiting and hiring the right people.

Business flexibility: as a startup enters a growth phase, it is important that the space and rental conditions can be flexibly designed for them, providing suitable working conditions.

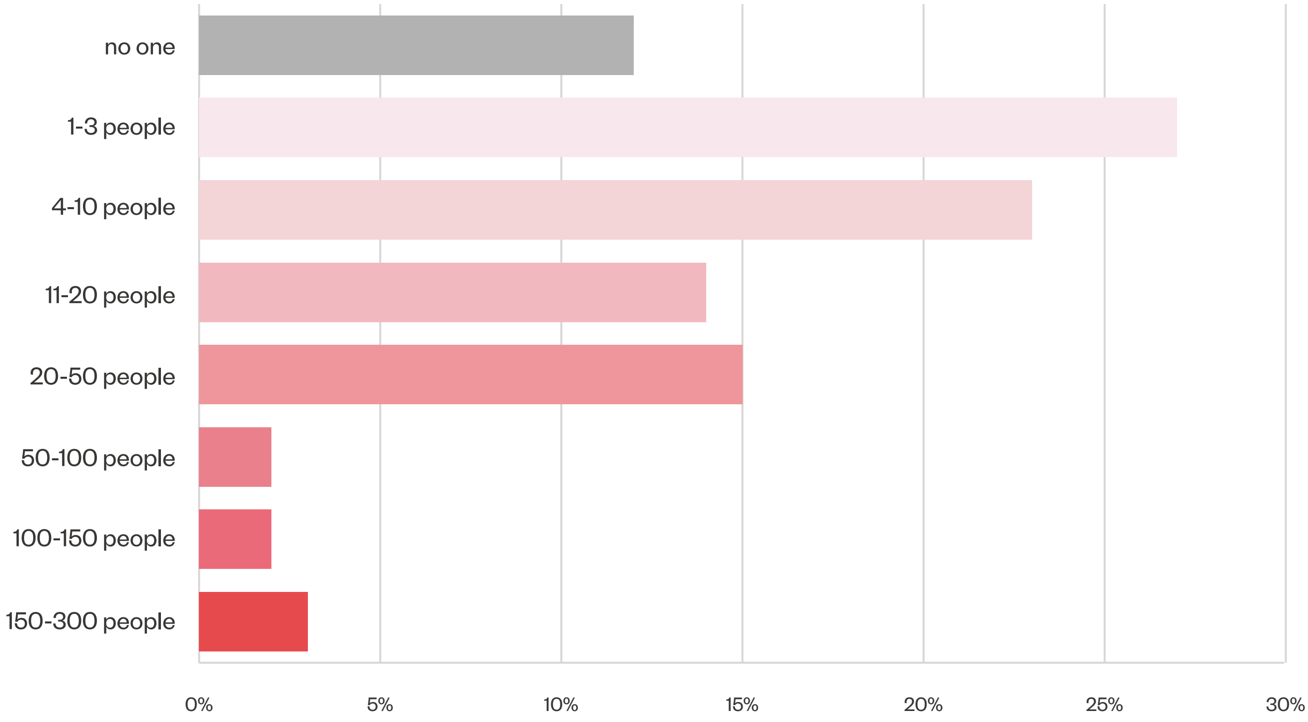
Motivation: coworking offices have a stimulating effect on employees, which is not necessarily the case in a home office environment. Not only the space, but also the interaction with people has a positive effect on their mental health and productivity.

It is difficult to predict what the future will bring, and whether these two ways of working will remain with us in the coming years and decades. One thing is certain, the transformation of the world of work, including coworking offices, is happening right before our eyes.

Most startups can feed their entire team with a pizza

How many full-time team members do you currently have in the company?
% of all respondents, n=163

Source: Startup Hungary



Ákos Deliága

Co-Founder and CEO
at Talk-A-Bot

Gergely Kalydi

Co-Founder and Special Agent
at Talk-A-Bot

Driving on a bumpy road: our journey from startup to scale-up

Over the past 5 years, we have grown significantly. We went through a lot of challenges and changes, raging from big losses to great wins. One of our biggest challenges was organizational and human resource change.

As we transitioned from a startup to a scale-up, we saw the need for continuous development on every level of our organization without losing our startup attitude.

In the beginning, we were just a handful of entrepreneurs with big dreams but limited financial resources. Our hiring options were limited to junior-level staff members. Thus,

> ***we needed employees who were eager to learn, willing to take on new challenges, and comfortable working in a fast-paced and ever-changing environment.***

Why was that challenging? Imagine a race car with tremendous horsepower, but no brakes, the driver is a newbie and even the racetrack is unknown. We tried to stabilize this car by hiring senior, experienced colleagues from big multinational companies. Unfortunately, they were unable to adapt to this kind of setup, and as a result, they failed, and so did we. However, failures helped us to learn and improve. We consumed a few colleagues and a lot of funds, and as result, the phrase *"Hire slow, fire fast"* became part of our culture.

Eventually, we asked for the help of outside experts to take a fresh look at what we couldn't see from the inside. We rebuilt the company on clear goals, vision, and cultural rules.

It was liberating. Now every position has its clear definition. Vision is clear, simple and understandable. As founders, we decided

> ***to step back to let the new energies and competencies be part of the organization.***

We realized that we needed senior-level employees who had a deep understanding of their fields and who could bring in new insights and perspectives.

As a final result of rebuilding the company organization,

> ***we converted essential Talk-A-Bot values into simple rules to follow:***

Level-Up: Improve both as a team and as an individual. Deliver better, communicate better, serve 1000 customers as you serve 100, be healthier, dress better, or do anything that serves the vision.

NoBullshit: Speak clearly, communicate directly, engage in constructive debates, provide feedback, avoid offense or personal attacks, and stay on topic.

Unify: Ask for help when needed. Understand the other team's goals, motivation, and work.

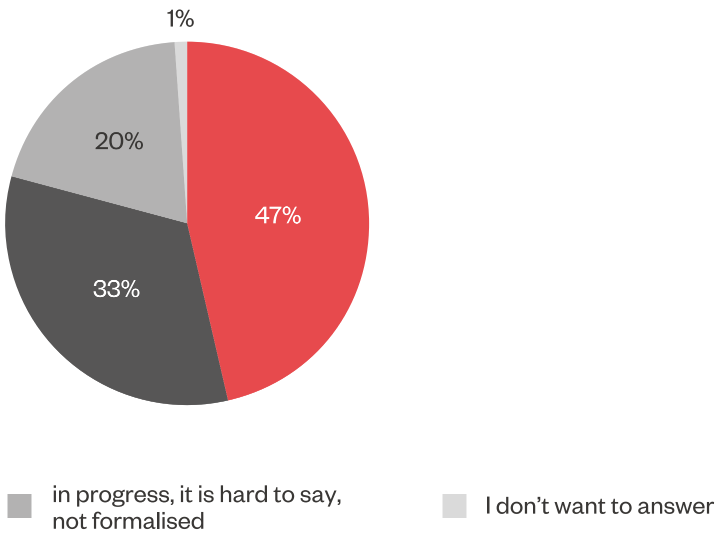
Hard Deadline: We define certain dates as hard deadlines. In such cases there's no excuse: deliver what you promised.

Everybody wants ESOP, but it’s complicated

Do you have team members who own “Employee Stock Options’ in your startup?

% of all respondents, n=163

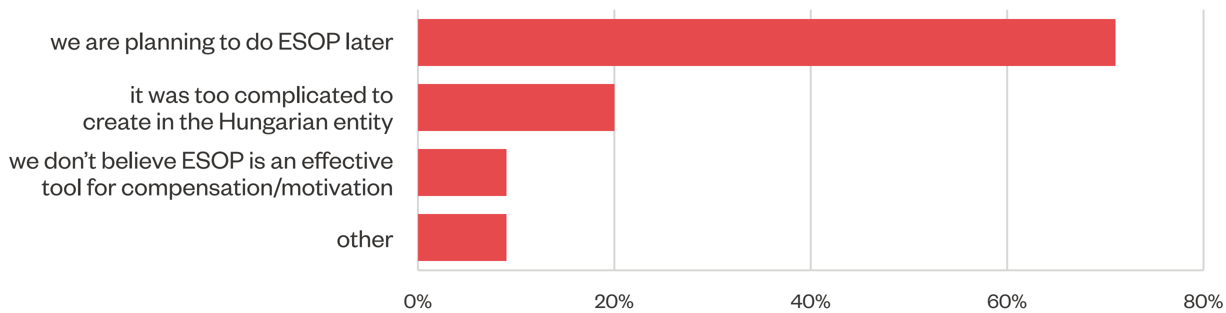
Source: Startup Hungary



Why don't you have an “Employee Stock Option Pool”?

% of respondents who said no or hard to say / in progress n=86

Source: Startup Hungary



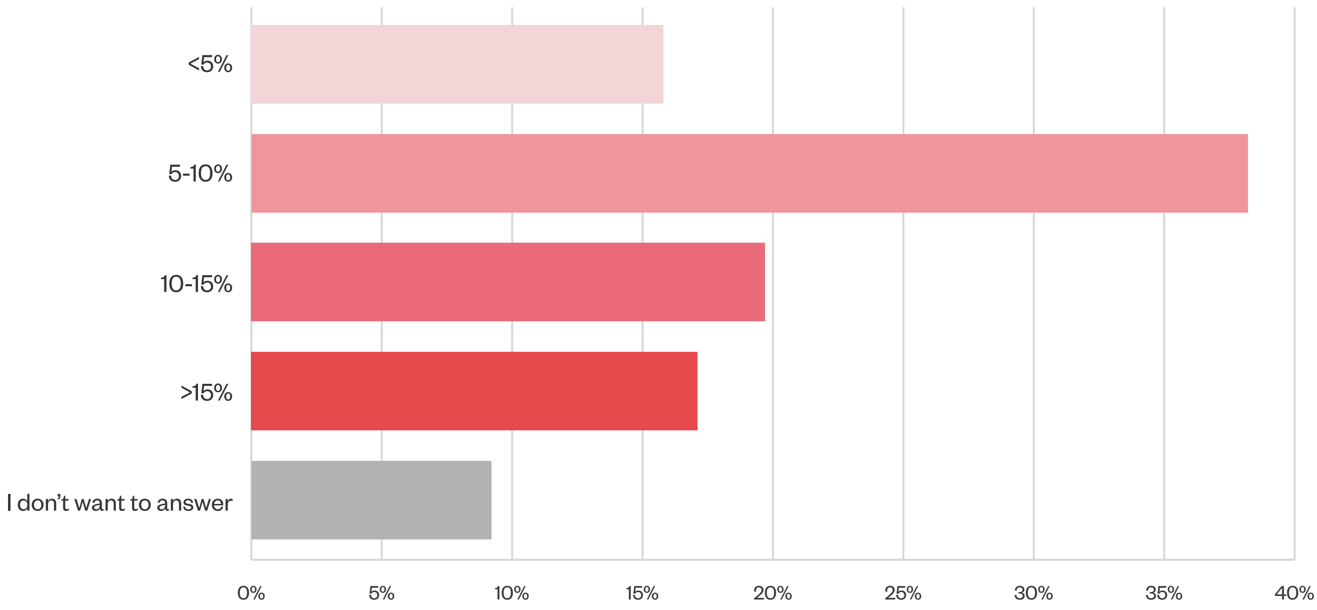
Editorial comment

About half of the surveyed entrepreneurs have Employee Stock Option Plan. Only 9% don’t have ESOP because they don’t want to. Most of them want to create ESOP but face challenges in implementing it in a Hungarian entity, so they plan to do it later or they plan to flip the company to another jurisdiction where they can do it under more favorable tax conditions and without complicated legal requirements, and administrative burdens.

How big is your "Employee Stock Option Pool"?

% of all respondents, n=164

Source: Startup Hungary



Barnabás Birmacher
CEO & Co-Founder at Bitrise

Expert comment

Introducing an Employee Stock Ownership Plan (ESOP) was an obvious decision for us. We believe it's crucial for our employees to see themselves not only as team members, but also as owners of the company. This approach is still uncommon in Hungary, which is why we've made ESOP education a part of our onboarding process. From day one, new hires learn all the details about our program, and we also explain the value of the "shares" aftereach investment round.

We don't have a traditional career path for our employees, so we encourage them to gain multidisciplinary knowledge and collaborate with each other. With an ownership mindset, we believe that professional development can take many forms. After an IPO, we would continue to see it as a great success if our excellent employees could turn their own ideas into reality.

Dária Szabó
Senior Associate
at Bird&Bird

While we wait for reforms, let's use what we already have

Many things have been said about the obstacles that founders and investors alike find themselves facing in Hungary when it comes to founding a new business, getting investors on board and navigating the early days of a fragile startup company. Among the most well-known complaints are the fact that (i) issuing registered shares or convertible bonds is not possible in Kfts (Hungarian LLCs), (ii) opening securities accounts and creating shares in Zrts (Hungarian PLCs) present unexpected and frustrating administrative burdens (iii) putting in place ESOP programs in a seed startup company may be a real headscratcher and does not benefit from tax exemptions otherwise available for larger PLCs (through the employee shareholder program known as the MRP program) and (iv) providing convertible notes and SAFEs may pose regulatory issues for investors.

Over the last few years, the criticism of the Hungarian legal system has been vocal to the point that consistent lobbying is shaping in an effort to push through legislative changes. The aim is to free up the path to a company that is both easy on the founders (with inexpensive incorporation, minimum initial capital requirements, low cost operation and the ability to put in place ESOP programs without having to create complex contractual relationships that may be tricky to enforce and do not enjoy tax benefits) and the investors (with various funding methods and a more robust protection of investors' preferential rights). In essence,

the argument is that by creating a new company form or adopting changes to existing company forms catering to these needs, legal solutions, that are now provided by an intricate web of contractual provisions (the enforceability of which is yet to be tested), would become enacted legal instruments.

We note that some progress has been made with Kfts, the go-to company form for start-up founders. Although initial capital requirements remain high, the amount can be paid up at a later stage. Also, as of 2021, the incorporation itself is free of stamp duty. Furthermore, it is now possible for one quotaholder to hold different classes of quotas (e.g., ordinary quotas and separate preferential quotas), due to a recent legislative change. Despite these reliefs, it seems unlikely that other, more drastic changes will be introduced, or a new company form will be created anytime soon. Accordingly, one of the most frequently raised issues, i.e., that quotas of a Kft. are essentially a stack of rights and obligations not appearing in the form of shares and that a Kft. is barred from issuing convertible bonds, will likely remain unresolved.

We can only guess what lies behind the legislator's reluctance to consider a more comprehensive reform. However, one counterargument could be that the existing legislative environment provides solutions to almost all concerns in question.

One must simply broaden its perspective and look past the confines of Kfts.

If we follow this train of thought and examine the logic from which Hungarian company forms emerged, we can see that

Kfts are designed for one to around five founders and are generally recommended in less capital intensive industries. As a general rule, quotaholders have more control over who can join the company and Kfts are based on the principle of partnership and of pulling together people rather than capital. With Kfts, personal contacts, founder's insight into the business and a more closed cooperation is the norm. In that sense, it is a perfect fit for pre-seed startups, where the founder level and the management level is, in many cases, identical, where incorporation is speedy and cheap and administrative costs are low. With the ability to create different classes of quotas and with almost complete freedom in assigning all kinds of preferential rights to quotas, this company form can very well function even after seed investors having joined the company (acknowledging the fact that ESOP programs and financing with convertible notes remain contractual arrangements only, carrying a certain enforceability and/or regulatory risk).

The vehicle truly designed for investors, however, is the Zrt, which, to this day, remains a vastly underutilized company form. True, incorporating a Zrt. or transforming a Kft. into a Zrt. may have its difficulties (more on that below). However, once Zrts are up and running they reveal themselves to be adept at accommodating investors' needs. This is because, Zrts are more versatile than Kfts, i.e., are equally suited for a smaller as well as a larger group of shareholders and are based on the principle of pulling together capital, where the shareholder level is generally not involved in the business and where participation takes form in monetary investment rather than in anything else.

Zrts are of course more costly to incorporate than Kfts. For one, the incorporation is subject to stamp duty and the initial capital is also higher. Furthermore, there is less flexibility as to the deadline of paying up the full amount of the initial capital. These aspects are perhaps less relevant if a start-up company is incorporated as a Kft. and only transforms into a Zrt. at the time of a seed investment, or better yet, at the series A round. What may be frustrating however, is the fact that for dematerialized shares to be created, either at incorporation or when an investor steps in, a securities account must be opened in Hungary. In other words, shares cannot be created on the investor's existing foreign securities account. Because of applicable AML rules, the opening of a securities account can sometimes take months. It is also worth mentioning, that the creation of shares is relatively pricey (especially compared to Kfts, where obviously no such costs arise).

On the bright side, however, Zrts basically possess all attributes that make them a good fit for start-up companies, especially following the seed investment round.

Shareholders' rights and obligations for example are represented by shares (printed or dematerialized), and in addition to regulated classes of shares (ordinary shares, dividend preference shares, voting preference shares, employee shares, just to name a few) shareholders are free to create atypical shares, tailored to their business arrangement. Customary transfer restrictions set out in investment agreements also become easily enforceable by using escrow securities accounts instead of simply relying on contractual provisions (as is the case with Kfts). Furthermore, convertible loans can be granted through the subscription by investors to convertible bonds issued by the company. Laws regulating these securities are clear and easily applicable. In addition,

Zrts offer various options to incentivise employees, through well-developed legal instruments, such as the issuance of employee shares regulated in the Hungarian Civil Code, the issuance of atypical shares, created entirely by the shareholders and the MRP program, the main draw of which is that remuneration paid to employees through this vehicle enjoys favourable tax treatment.

While acknowledging the various challenges founders and investors are faced with in Hungary, in the absence of conceptual shifts in the legislator's approach, market players and especially their legal advisers are left with exploring the options that Hungarian law can offer. Considering that the year 2020 brought about the implementation of new FDI clearance regimes across the EU, which, in many member states, apply to a surprisingly wide range of sectors and transactions with often poorly drafted rules and with regulators having been granted excessive discretionary rights, the FDI regime is now perhaps the biggest uncertainty when it comes to investing in Hungarian startups. One might even say that, a legal environment, which may be a bit rough around the edges but still has a lot to offer, seems now the least of founders' and investors' worries.

CHAPTER 2

Growth & Development

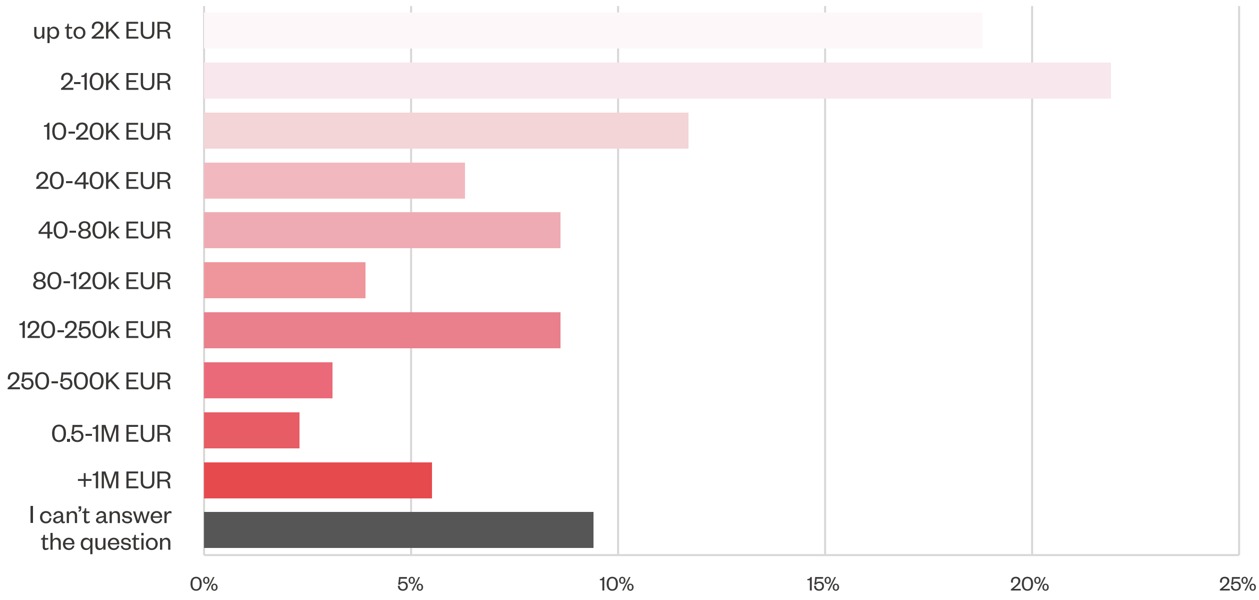
How much startups make
Startups are growing slower
Startups without borders
Reasons for remaining within the borders
Where local startups expand to
Half of startups are incorporated abroad or planning to do so
Main challenges of startups
Startups vs. the government
How founders envision the future

How much startups make

What was the average monthly revenue for the last 6 months?

% of all respondents, n=128

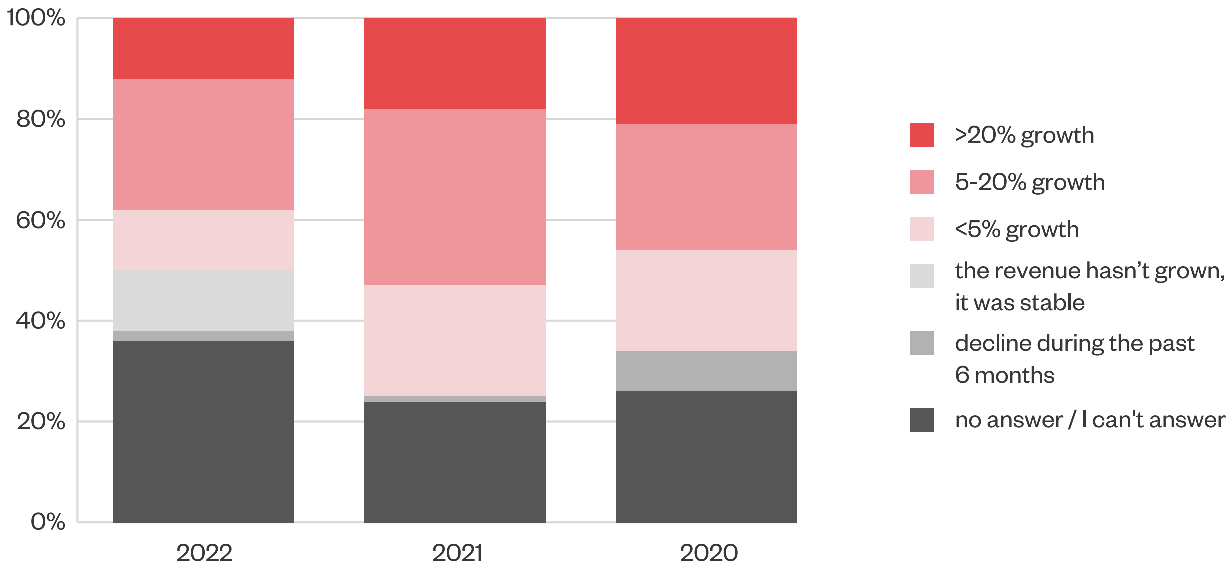
Source: Startup Hungary



What was your average monthly revenue growth rate over the last 6 months?

% of respondents with revenue, n_{2022}=165, n_{2021}=168, n_{2020}=168

Source: Startup Hungary

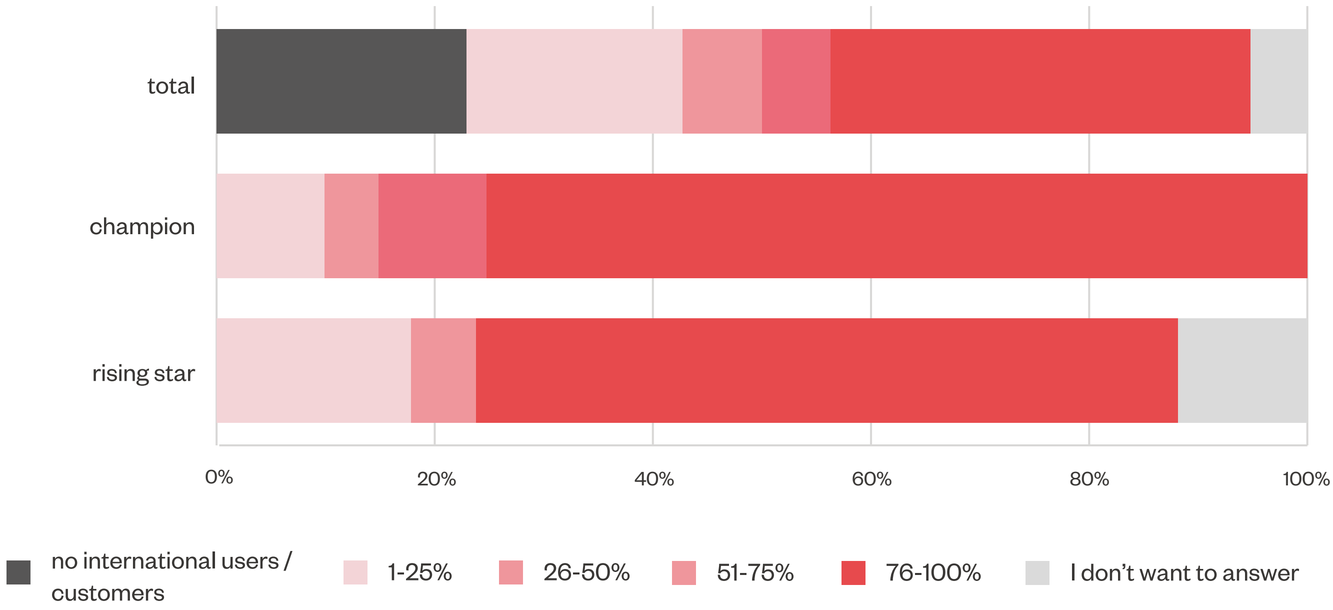


Startups without borders

What percentage of your sales comes from abroad?

% of all respondents, total n=165, vs. champion n= 23, vs. rising star n= 17

Source: Startup Hungary



Zsolt Weiszbart

Partner at Day One Capital

Expert comment

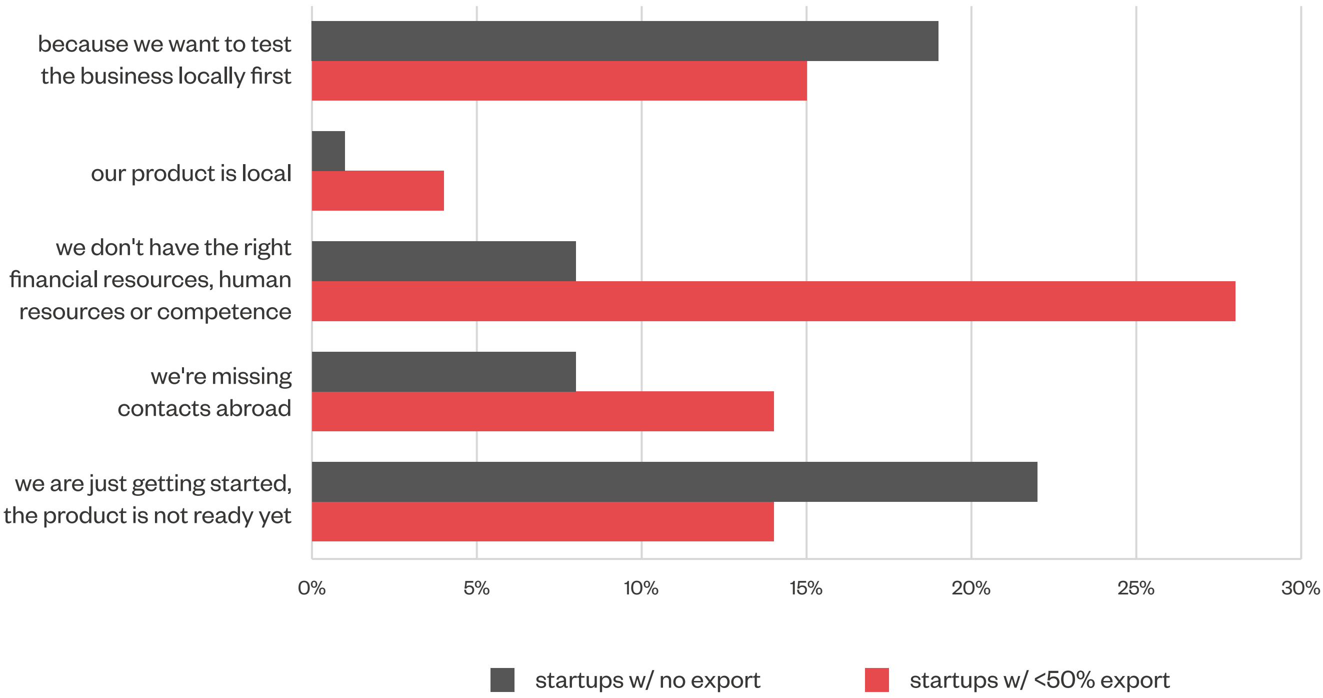
Successful startups aim for an international market presence right from the start, driven by a mind-set focused on winning and becoming a major player. Merely scaling up in local or regional markets is inadequate to build an enterprise that can generate sufficient returns and meet VC expectations.

Reasons for remaining within the borders

Why do you do less than 50% of your sales abroad (including zero sales)?

% of startups with 0-50% export, total n=79

Source: Startup Hungary

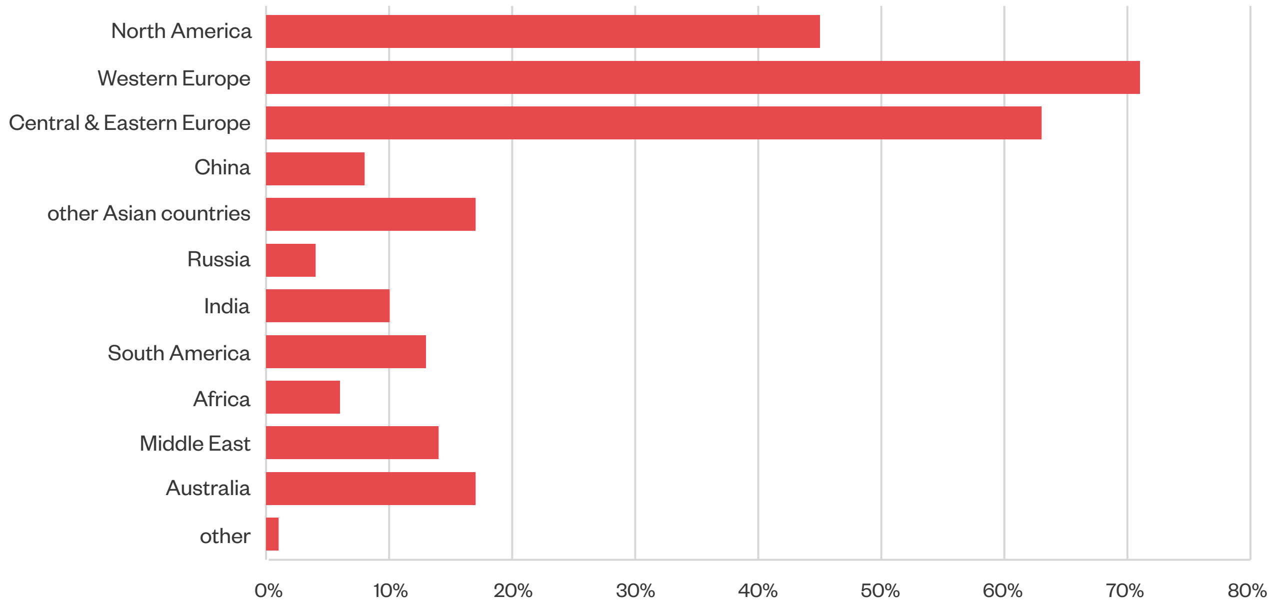


Reasons for remaining within the borders

In which regions do you generate revenue from international customers?

% of startups with export, total n= 123

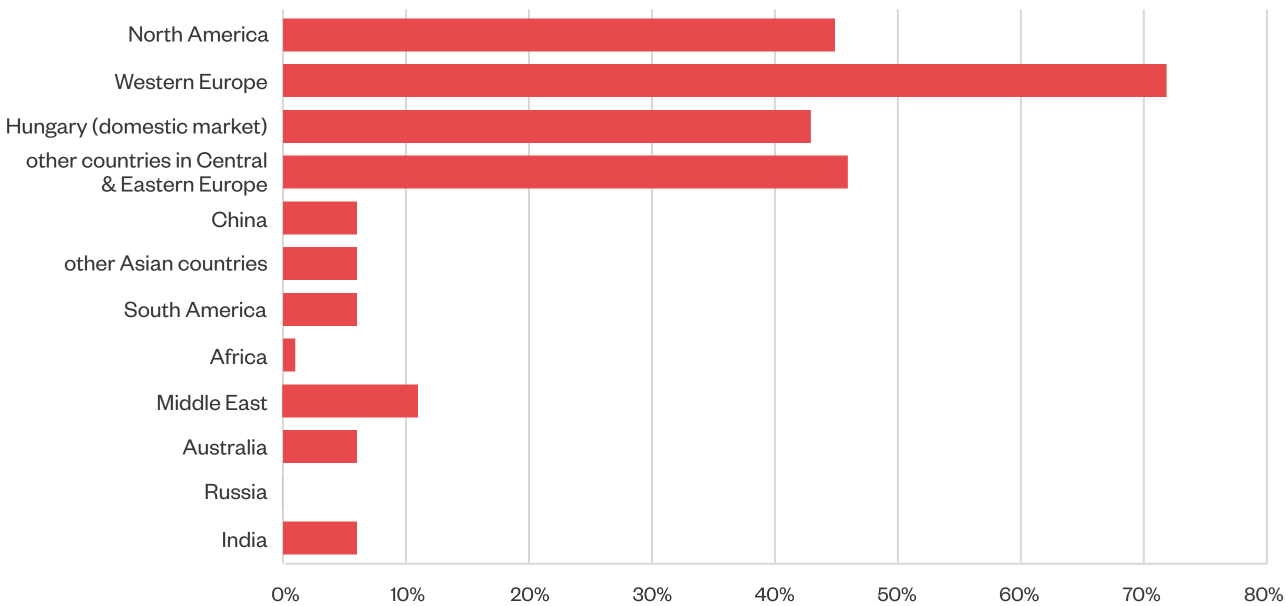
Source: Startup Hungary



Which regions are you planning to prioritize in the next 12 months?

% of all respondents, total n=157

Source: Startup Hungary

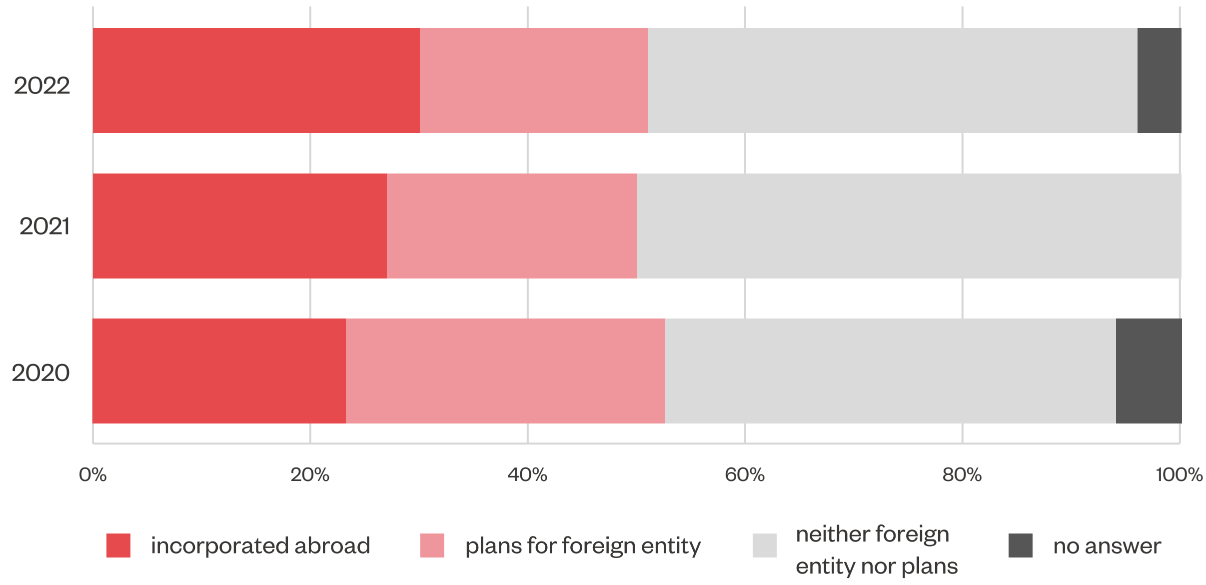


Half of startups are incorporated abroad or planning to do so

Is your startup incorporated abroad or are you planning to incorporate a foreign entity in the next 12 months?

% of all respondents, n_{2022}=161, n_{2021}=212, n_{2020}=232

Source: Startup Hungary



Zoltán Györkő

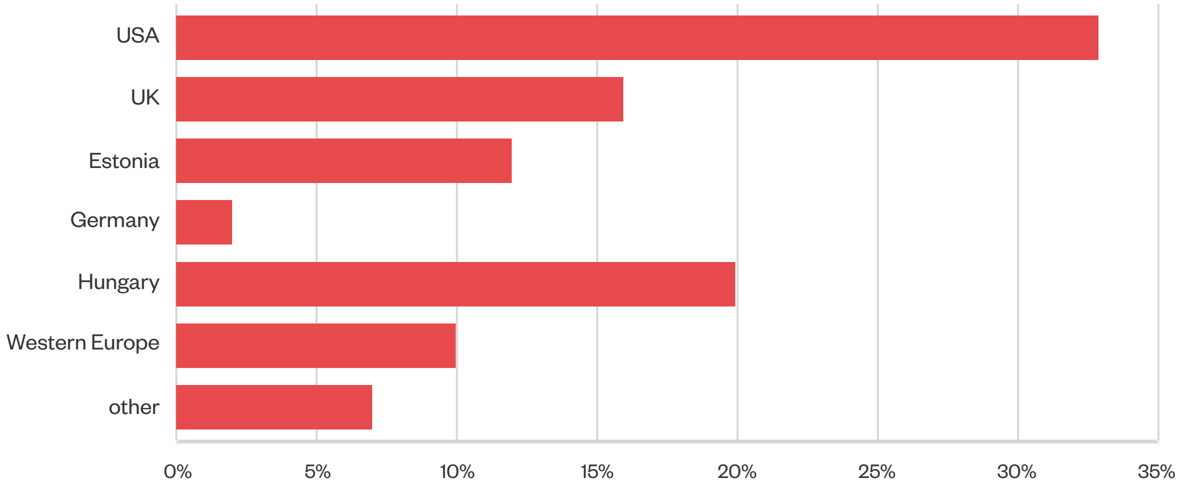
Ex-BalaBit, angel investor,
Startup Hungary board member

Expert comment

Together with our Series A fundraising in 2014, BalaBit also flipped its holding center outside of Hungary because investors were dissatisfied with the stability and safeguards of the Hungarian legal system. After conducting a thorough investigation, we ultimately chose Luxembourg. Flipping to a new jurisdiction is not a straightforward process, regardless of the chosen location. Many people think that setting up a Delaware entity is quick and easy, but in reality there are a lot of factors to consider. For example, will our customers mostly come from the US? Will we have US or Hungarian employees? How will we handle IP development and intercompany contracts? How will the lack of tax treaty protection impact possible transactions like winding up, acquisition, declaring dividends, or paying SOP? These are just a few of the many questions we have to answer. While entity set up or basic flip can be bought as a "standard product", the tax and operational knowledge is still dependent on expensive custom tax advisory services.

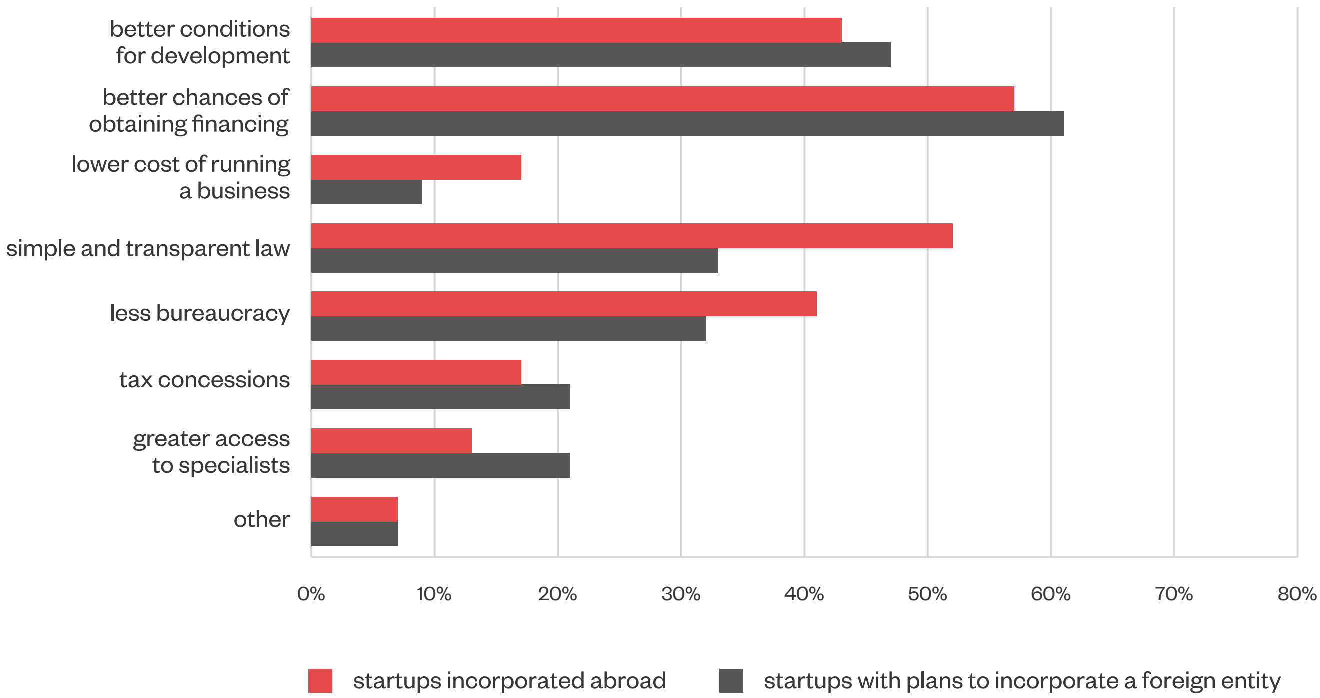
Where is your legal HQ?
% of startups incorporated abroad, n=49

Source: Startup Hungary



Why did you or why do you want to establish a foreign entity?
% of startups incorporated abroad n= 46, % of startups planning a foreign entity n=57

Source: Startup Hungary

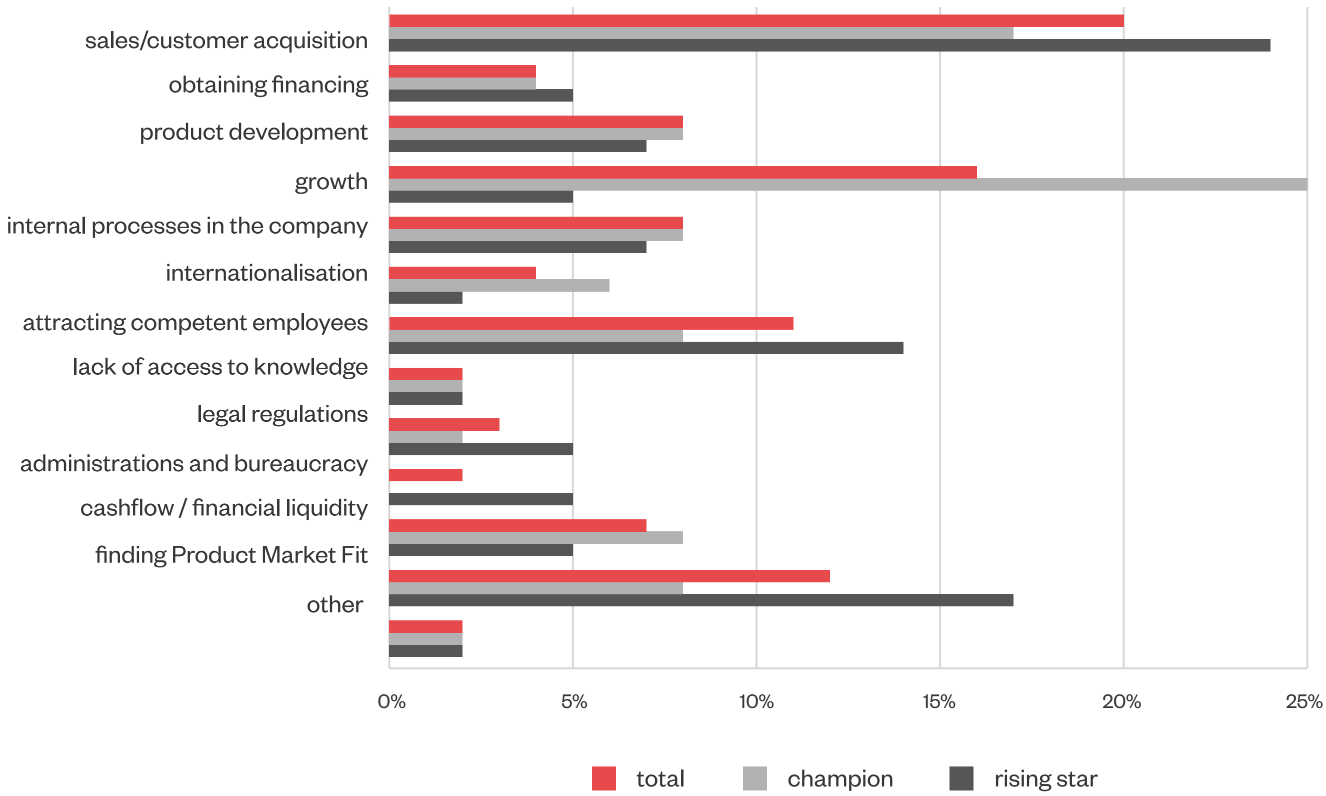


Main challenges of startups

What are the main challenges facing your startup?

% of all respondents, total n= 165, champion n=23, rising start n=17

Source: Startup Hungary



János Mátyásfalvi

CFO at SEON

Dávid Weidlich

Digital Solutions Specialist, Markets, Hungary, Balitcs and Balkan at Citi

'Act as a sounding board' - a CFO's testimony on navigating a startup

An interview with János Mátyásfalvi (CFO, SEON) on the financial side of the startup life, questions raised by Dávid Weidlich, Digital Solutions Specialist, Markets, Hungary, Balitcs and Balkan at Citi .

DW: Let's go for the first question, which actually dates back to the years when you were in a more traditional company and you started your finance career there. What were your biggest surprises when you made this change to the startup environment? What were the preconceptions that you had before joining the ecosystem? Were they justified?

JM: I started my CFO journey in an unconventional way, first as an auditor. So that was already covered before the startup scene. Because we, as auditors, are usually very rigid in our thinking and our methodology, and how we do things. And then you go to a startup and you are expected to be more flexible. Now, for startups, the earlier stage you go the more chaotic it gets. The degree of chaos increases as you move further away from a bootstrap company and towards a more VC-backed organization. My first foray into this arena was with Flixbus, which was already a sizable company with 1200 employees and €700 million in revenue when I joined. This helped prepare me for the transition to smaller and less-established companies such as Supercharge, which was a bootstrap company that was much more structured in its decision-making process, given the need to be frugal and minimize errors.

When I joined SEON, it was a completely different world altogether: you have a big amount of funding, and basically, your goal is to grow at all cost, not even looking at efficiencies. The most important thing is to gain solid market share.

Moving from a 50-person company, where each team member had to function as a one-man army, to a 300-person company within a year, required us to implement processes rapidly, delegate responsibilities, and develop a global reach, given our expansion into four different regions. I never quite thought about the magnitude of this change we delivered, and that is probably the best answer I can provide.

Interestingly, you mentioned the perceived chaos of the startup environment, as it is often associated with the world of finance, which is usually viewed as rigid and structured. What is your perspective on the relationship between finance and business within a startup? Do you believe that this relationship can be improved by involving finance in business decisions? Or is this an ever-evolving dynamic within a startup?

First and foremost, I don't think there's a massive difference between traditional companies and startups in the sense that finance is always there to support business decisions or enable business decisions. The question is, how much input does it need to give? Traditional companies usually are not growing that fast. Meanwhile,

> ***at the beginning stages of a startup, finance may not be crucial as the focus should be on establishing product-market fit. Once product-market fit is achieved, finance can help with scaling quickly. Before that, finance can be too structured and slow down progress.***

When investing in something like a specific channel for €3 million, it's essential to sit down with all the teams to discuss if it's the right decision: does it actually add up? Because it could be that you have a great idea, and then you put the numbers behind it, and it doesn't even add up in theory, certainly will not add up in practice. So I think that's the step change that you need to make and that's good finance team comes into the planet.

So let's get a bit more personal here. Let's see what you do on a daily basis as a CFO. Are there any thoughts that you enjoy and you wish to keep them as long as you are having this role? And are there any things that if you want to really get rid of the daily tasks that you need to do and rather you would like to delegate?

Over the past few years, my perspective on finance has changed a lot. As someone who used to work alone (a one-man army at Supercharge), I've learned the importance of having a team in place to handle daily operations (at SEON). Understanding this allows me to focus on strategic decision-making and prevents me from making mistakes by getting too deep in the details. While I still love numbers, I believe it's important to have a holistic understanding of the context behind them. This helps me provide the most value to my colleagues in project management.

How to deal with conflicts between finance and business in startups? These conflicts can arise when finance people want stability while others aim for growth. Any best practices to share?

I don't have silver bullet advice, but I always say that make sure you have a seat at the table at management meetings, and

> ***act as a sounding board. It's important to speak up to the right people if the numbers don't add up or if there are better directions to take.***

At Supercharge, profitability was the focus and I challenged the team to grow revenue. At SEON, it was the opposite and I emphasized the importance of effective sales. Alignment with strategy is crucial but sales effectiveness shouldn't be overlooked.

I was always the one who pointed to my fellow management team members: "Okay, you're going to do this, but there are going to be consequences. Are you happy with this? It's not up to me but it's my job and responsibility to shed light on other aspects of the decisions that you're making." At the end of the day, the CEO needs to make a decision.

When we think about CFOs, we usually think that those people are obsessed with financial figures and numbers, but I believe there is much more to it. What do you consider as a success as a CFO?

Well, look at my experience at Supercharge. I was indeed the one who put revenue into focus. So it's still gonna be numbers, your company's success is super important obviously.

On a team level, I think the biggest success is when you see people who you've hired 2 or 3 years ago, grow into a role at the startup. And the truth is that after a while you just realize these people are not up to the job, not because they are bad or they're not good enough, it's just that the qualifications necessarily have changed. It's all about mindset. I think if there's anybody who can get a company from Seed or Pre-seed to Series C or D that's super rare because the mindset just changes so significantly.

Let's go beyond this and talk about the Hungarian startup ecosystem as well. What are your experiences here regarding the field of finance? How is best to share knowledge or do you see any improvement in this field?

This is a great question because

> ***in the startup ecosystem, usually founders are in the focus of attention. However, the people who make their dreams a reality are the ones who do the heavy lifting. Unfortunately, investors often overlook these individuals.***

In Hungary, we are trying to address this issue by creating personal connections and knowledge-sharing opportunities for operators, including people from Shapr3D, Tresorit, Craft Docs, and Colossian. We have started a Slack group called „The Operators" (yeah, it's a joke but had to come up with a name) to facilitate these connections, and we are trying to invite people from around the world to join us. We also have an initiative to connect finance professionals within the network, but it is a gradual process that requires building personal relationships and trust first (which is quite challenging sometimes with the 'shy finance guys'). And last but not least, this is why we are also trying to come to events organized by Startup Hungary: to make sure that founders of the future or the already successful founders understand why finance, operations in general and project management might be so important to succeed.

It's very good to hear all these initiatives. And I think this is something that would be really useful for all of us to move ahead.
Let's move back to my first question, which was startup vs. traditional companies. Based on your experience, what should it look like for a fresh graduate or for someone who's looking for a finance job: to go for a more traditional company or for a startup? Which one do you believe gives more edge to those people? Why would you advise someone to join SEON or any other local startup company on the finance side?

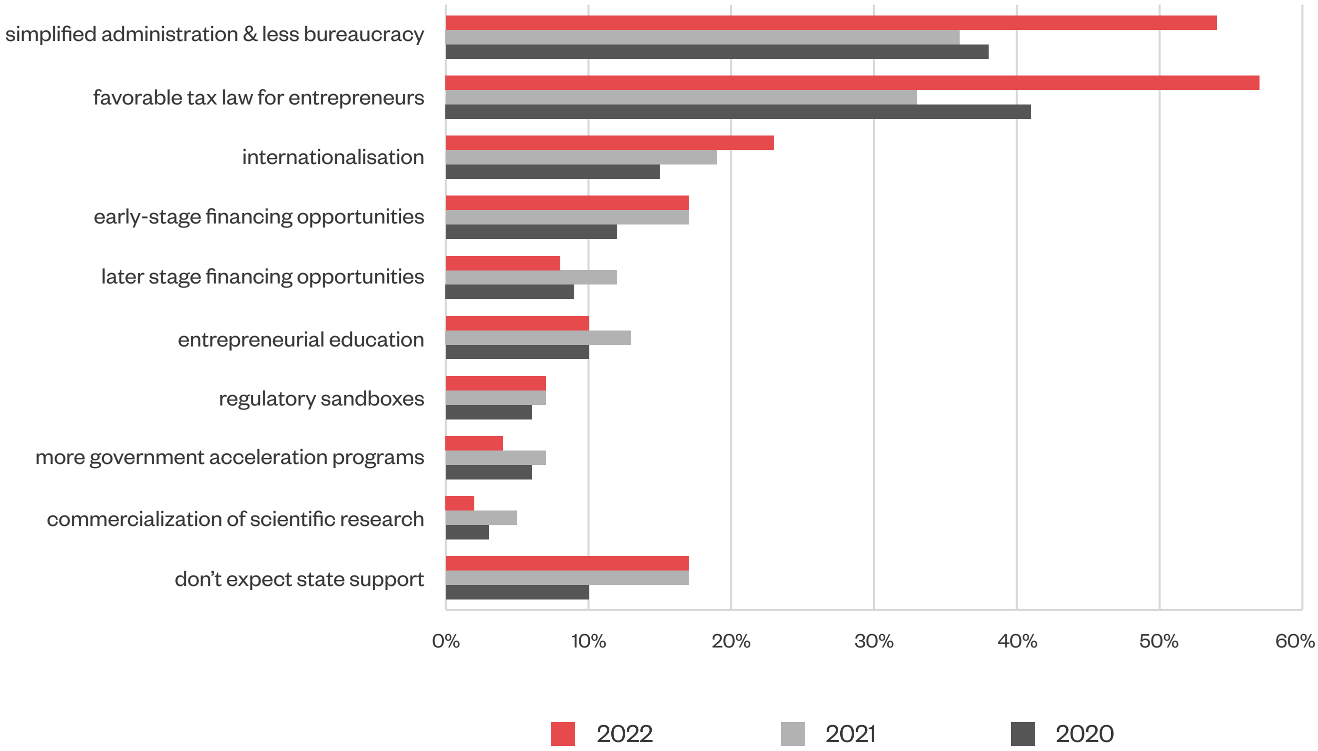
I think there is no right way here. Traditionally, what happens is finance only becomes significantly more important probably after Series A, and that's when the hires come in. It's rare that you will have someone starting on day one as a finance member of a startup, and stay on as a finance lead until Series C.
If you're interested in that, I would advise to do three or four years in a more traditional role and then try to look for a startup. At the same time, if you come up from graduate school and have two friends having a great idea who want you to join, why not do that? You will not only do finance, you will do operations in general because usually at the beginning, you will focus less on finance. You will do people. You will do management. You will do everything that nobody else wants to do. See how you can grow out from that. There's no right or wrong here.

Startups vs. the government

In which areas do you want to see increased governmental support?

% of all respondents, n_{2022}=134, n_{2021}=212, n_{2020}=232

Source: Startup Hungary



László Jónás
Head of Strategy
at Design Terminal

We need more university researchers in the startup world

The Hungarian innovation ecosystem has made significant progress in the last decade with the availability of courses, events and programs aimed at individuals establishing startups. However, the key to sustaining this development is to involve those who we have not reached yet.

The world of academic research is the most untapped area today that could be integrated into the startup scene. Perhaps because of the different personalities required for academic research and startup entrepreneurship.
It is a more immersive, introspective world where results occur after years or decades of hard and meticulous work. Yet, for Hungary to make a meaningful improvement in its innovation performance, we need to build a bridge between the startup scene and academia. It's worth having a look at the results of the European Innovation Scorecard published annually. It shows that countries supporting academic and entrepreneurial innovation on the same level score better on the scale of being innovative.

So-called deeptech innovations are often not quite as „sexy" as easy, quick-to-implement solutions, but they are the type of innovations that can significantly benefit the world. A famous example from Leiden University in the Netherlands is Introgene, later known as Curcell and now Janssen Vaccines (after its acquisition by Johnson & Johnson). The name should be familiar: their vaccine has been used worldwide against Coronavirus.

We need to ensure that innovations such as these are not just left in a drawer somewhere, and that those who generate these ideas have the basic knowledge needed to start a business and, through a network of contacts, get to know professional partners.

What we need to do: we need to create opportunities for researchers in universities to learn about the methodological basis for business development. We also need to develop a process of creating companies where researchers have the motivation to succeed, and one that the university also benefits from in the long run. We need to create space for business players to learn about planned or ongoing research, and the scientists behind it, thus helping to build personal, trusting relationships between actors. Moreover, making results known as widely as possible can also serve as a model for those who choose to take the bumpy road of creating a business.

Hungary's innovation ecosystem in the next decade will be significantly shaped by whether we have successfully connected the world of startups with the universe of researchers.

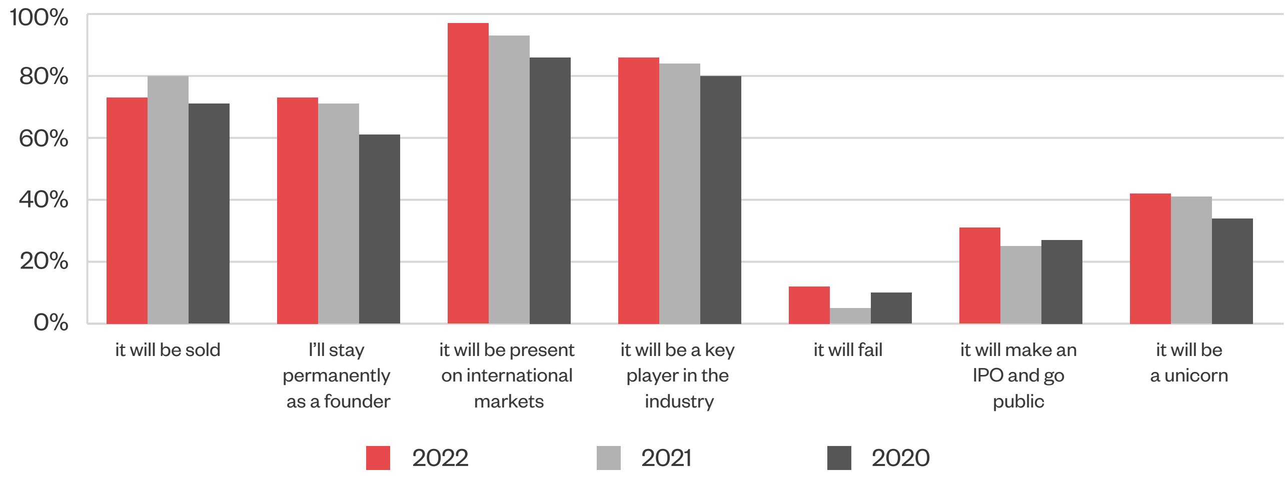
As challenging as the task is, it is just as exciting. We will do our part to ensure that the first Hungarian unicorn comes from this world.

How founders envision the future

How likely are the following scenarios for your company?

% of all respondents with "very likely" & "rather likely" answers, n_{2022}=154, n_{2021}=212, n_{2020}=232

Source: Startup Hungary



Aurél Pásztor

Expert comment

Partner at PortfoLion Capital Partners

Founders' expectations regarding the future of their startups and reality still do not align completely. It's important to recognize that this mismatch can occur and instead of drawing the conclusion that such aims are unattainable, we need to have more conversations about it. Since becoming a unicorn or going public are major goals for many startups, we should openly discuss the requirements for achieving them within the community and track our progress towards these objectives.

Zoltán Györkő

Expert comment

Ex-BalaBit, angel investor,
Startup Hungary board member

Based on the data, there is a conflict between founders' bullish ambition and their current priorities.. While over 80% envision themselves becoming a key international player, 60% are focusing on the CEE region. However, conquering the CEE region is not a high priority recommendation of "How to build a unicorn?" books. Sure, it's certainly an improvement over selling solely in Hungary, it can still result in a slow start. Why are we still afraid of targeting much larger markets right away? Funding may be a massive factor of course, since Hungarian angels and VCs write smaller checks than their US counterparts. On the other hand I believe that the main issue lies in e the lack of diverse, international founder teams and exposure to the target market's culture. To sell to these markets, one must first understand them.

Tamás Kádár
Co-Founder and CEO
at SEON

Bence Jendruszák
Co-Founder and COO
at SEON

When hard work pays off: the pillars of SEON's success

In the local and CEE startup ecosystem, SEON is a quite a well-known name – the Hungarian fintech startup founded in 2017 by two ambitious university students has kept on growing and become the go-to fraud, fincrime prevention and anti-money laundering solution for FinTech industry leaders, like Revolut, Wise, NuBank, Patreon and mollie. The name of SEON could be considered as a synonym to a simple, modern way to fight fraud, by offering rapid integration and pay-as-you-go flexibility. The company's industry-leading solution uses AI and fully explainable machine learning to adapt across sectors. With the last year's $94m Series B funding, the SEON journey was taken to the next level with more aspiring goals – Tamás Kádár CEO and Bence Jendruszák COO, the two Co-Founders of the company are giving insights how their idea has earned international recognition and what startup founders shall focus on should do to raise investment for their business.

The very first thing Tamás and Bence highlight is the importance of the clear definition of your product and the problems it can solve. As they also fell victim to fraud attacks, data breaches early on – and that was the fact which triggered the foundation of SEON -, they knew exactly what the pain points of the customers were, what kind of threats and challenges they face day by day.

> ***Having clear vision, knowledge about your industry, finding product-market fit, defining its purpose and features, your target audience could be considered as the step zero to adequately represent it to your potential clients and investors.***

The other fact Tamás and Bence would point out is that from the beginning, they aimed for the international market as they knew that would bring them more opportunities regarding prospects and investment possibilities. The local startup ecosystem is quite small, with less chance to raise money – as there are simply too few local investors;

> ***businesses should rely upon foreign investors if they wish to considerably grow after the first phase of investment.***

The two Founders add that to gain investment,

> ***it is really important that the market, the investors know your name, your product – the very first years of SEON went by constant brand building.***

Tamás and Bence attended lots of conferences to meet new people and expand their network, they wrote blogs and articles to promote their product, to get people to know its features, to earn trust and acknowledgement. It was a long, time-consuming process which required a lot of patience, but now they are at the stage where SEON is a recognized well-known name in the market which helps to gain new clients too.

Once a business can earn its first – bigger – clients, it will have references with which it is easier to convince prospects and potential new customers, just as it was the case with SEON. After Wise had put trust in SEON, it was easier to get into discussion with Revolut, they were more open and curious about the product, as they could see that SEON's solution can support businesses with similar profiles.

As the business grew step by step, and got more and more customers, they became more and more visible to a larger audience – including the decision-makers, investors.

Their vision is the idea of democratizing fincrime and making it accessible to every kind of businesses. So as to create a fraud free world, SEON launched last year in November a free forever, no-card-required-trial product version, also enabling small businesses to help them fight against online fraud and secure their returns while minimizing opportunities for crime. This free version of the SEON platform could provide a solution to all kinds of companies around the world to protect themselves effectively against fraudsters.

Overall, it is easy to see that success depends on so many things, besides a well-built product, business strategy, goal definition and brand building.

> ***One of the most important contributors to success is definitely finding the right team, people who fit well into the company culture and whose expertise drives the company to scale up.***

Apart from the colleagues, the advocates, supporters of the company, an external network of connections were also proven to be essential to help boost SEON's growth.

Tamás and Bence are convinced that hard work always pays off – they have been also facing many challenges, hard times, but they keep on trusting the mission they work on diligently every day.

CHAPTER 3

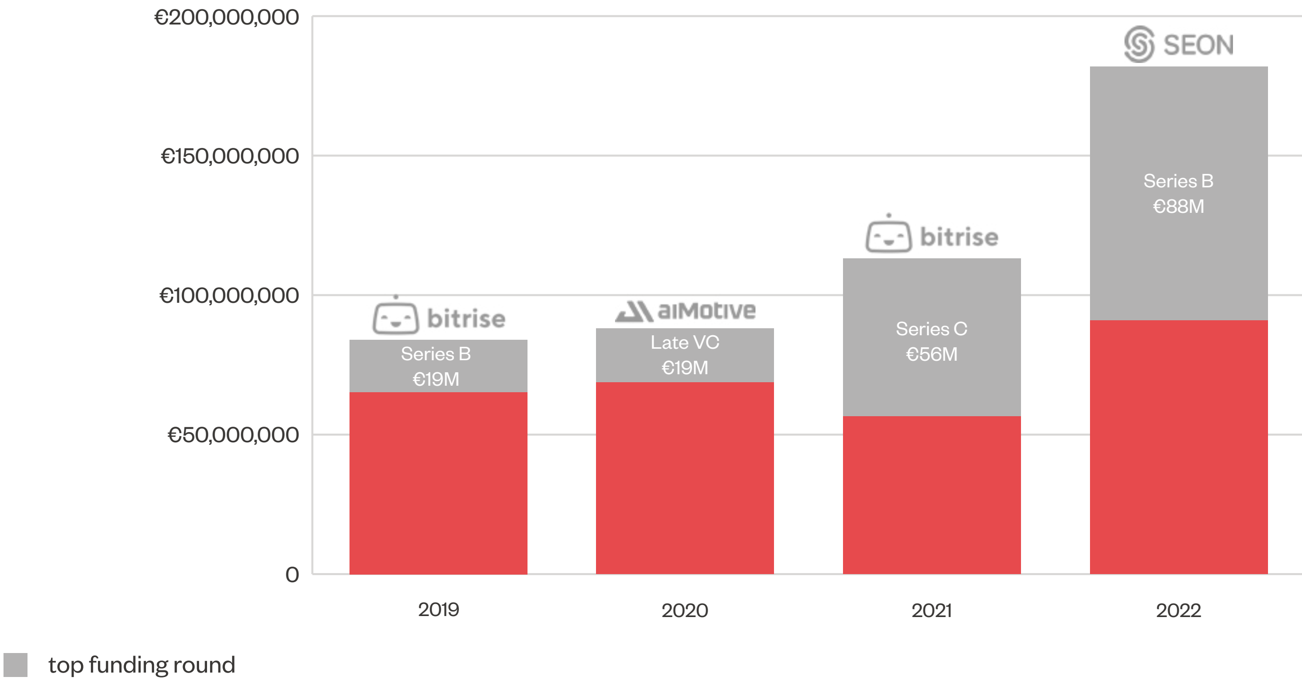
Startup Financing

Total capital raised by Hungarian startups
Today's fundraising scene
Two-thirds of startups received funding
Where startups get money from
Number of funding rounds
Half of the startups are pre-seed
Total amount of funding raised by startups
Startups give up a different amount of equity at different stages
How VC meetings convert to term sheets
What startups look for in an investor

Total capital raised by Hungarian startups

between 2019 and 2022

Source:
Startup Hungary



	2019	2020	2021	2022
number of deals	46	44	32	29
percentage of capital from Hungarian VCs	59%	74%	32%	33%

Source: crowdsourced Hungarian funding database managed by Startup Hungary

Veronika Pistyur

Expert comment

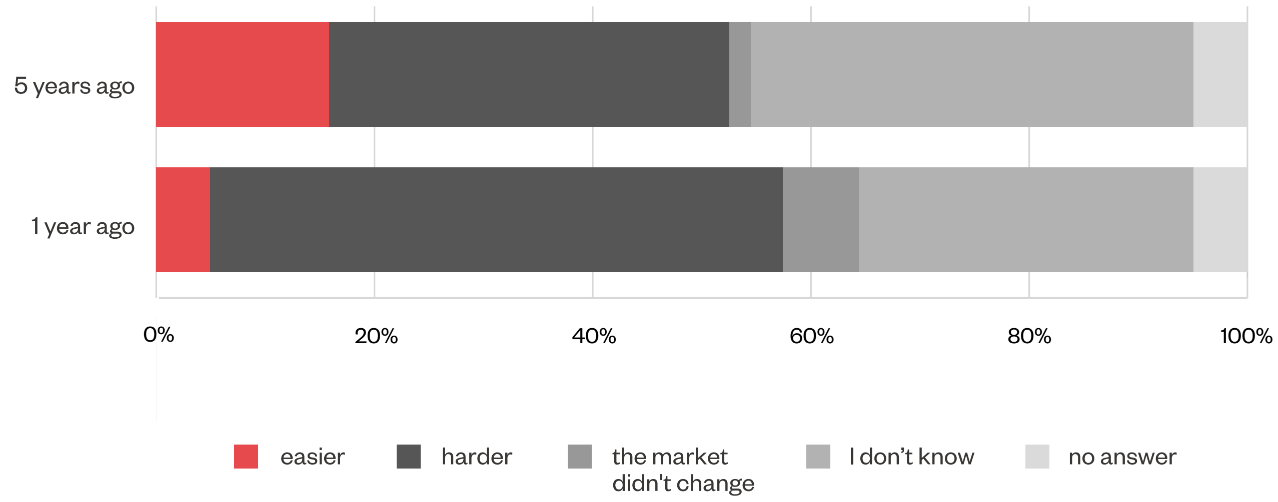
General Partner at Oktogon Ventures

I anticipate a slowdown and decline in fundraising due to the fact that many startups will try to avoid it if possible. In the current environment, only startups that absolutely need to fundraise will do so. Most startups are instead reducing their costs in order to extend their runway. Unfortunately, conditions have become more challenging than what startups have become accustomed to, and they will need to adapt accordingly. I don't anticipate the situation improving anytime soon, which means that startups will ultimately need to raise capital under more difficult conditions and with lower valuations. However, we are currently in a phase of adjusting to the current climate, and startups are hoping for an improvement by the time they need to raise funds. Ultimately, this could lead to a "clearing of the slate" for startups, with many failing and being unable to sustain their operations.

Today's fundraising scene

Perception of change in available capital
% of all respondents, total n=157

Source: Startup Hungary



Róbert Hegedűs

Expert comment

Founding Partner at Fiedler Capital

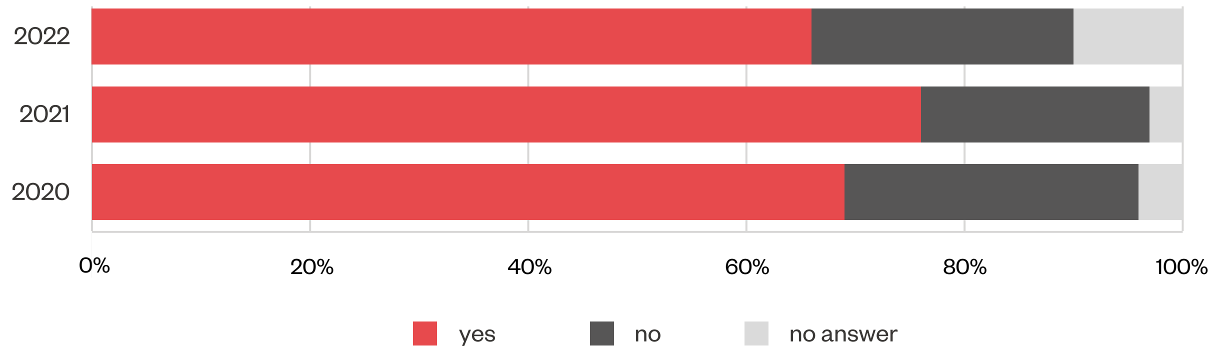
Although the fundraising environment has clearly gotten tougher over the last year, it is mostly impacting Series A and later stages. Seed and particularly pre-seed stage deals still can attract capital relatively easily. In fact, we observe that many later stage investors across Europe also started doing seed deals as a way to mitigate the valuation risk in their 2020-2021 portfolios. However, what will get significantly more challenging over the next 12-18 months is for seed companies to "graduate" successfully to Series A and beyond. Here, we expect to see a flight to quality. There will be much more substance required and VC dollars will flow towards fewer deals. These companies will still be able to raise at very attractive terms, while there will be few a huge crunch in the rest of the market, leading to higher failure rates than in the past. Founders need to be mindful of this, plan milestones accordingly and manage their runway very carefully. Having early investors who have the network and reputation to put you in front of the best Series A VCs will be more important than ever.

Two-thirds of startups received funding

Have your ever raised external funding?

% of all respondents, n_{2022}=158, n_{2021}=212, n_{2020}=232

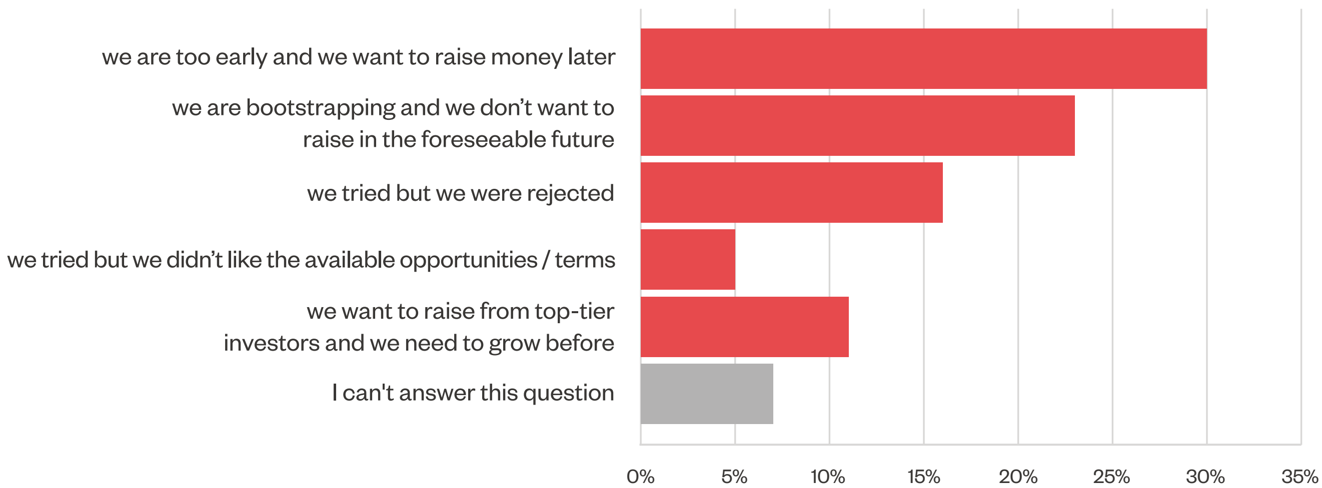
Source: Startup Hungary



Why didn't you raise money?

% of bootstrappers, n=44

Source: Startup Hungary



Gyula Fehér

General Partner at Oktogon Ventures

Expert comment

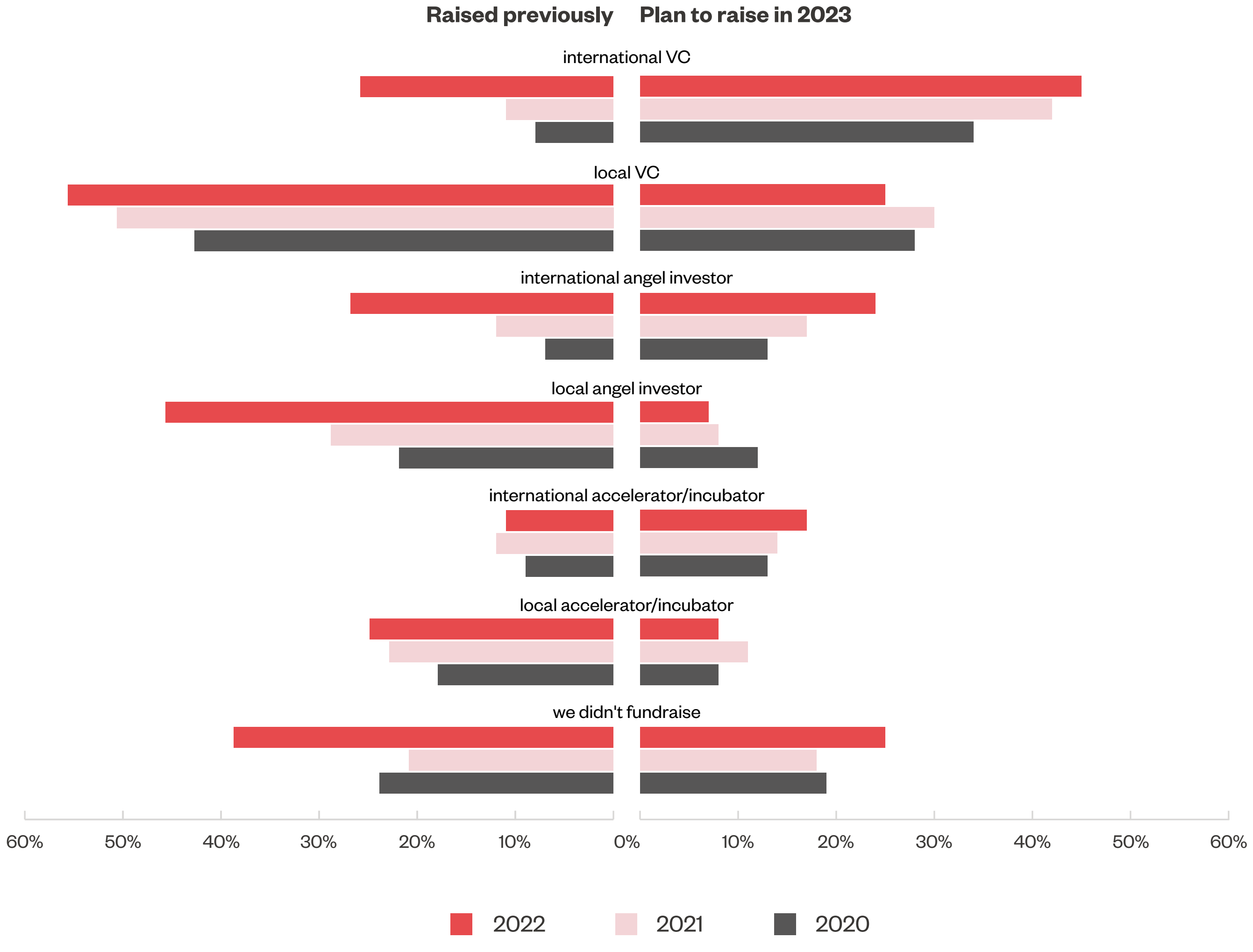
From a founder's perspective, taking money from a VC is a calculated risk. Rather than spending years accumulating revenue, it's like saying I am willing to give away equity to accelerate growth by investing in the team, marketing, and other crucial areas. It's a bet that every founder must make for themselves. The decision to take VC money ultimately depends on the founder's appetite for risk and their willingness to trade equity for faster growth.

Where startups get money from

Where did you raise money from vs. where are you going to raise from in 2023?

% of all respondents, n_{2022}=114, n_{2021}=212, n_{2020}=232

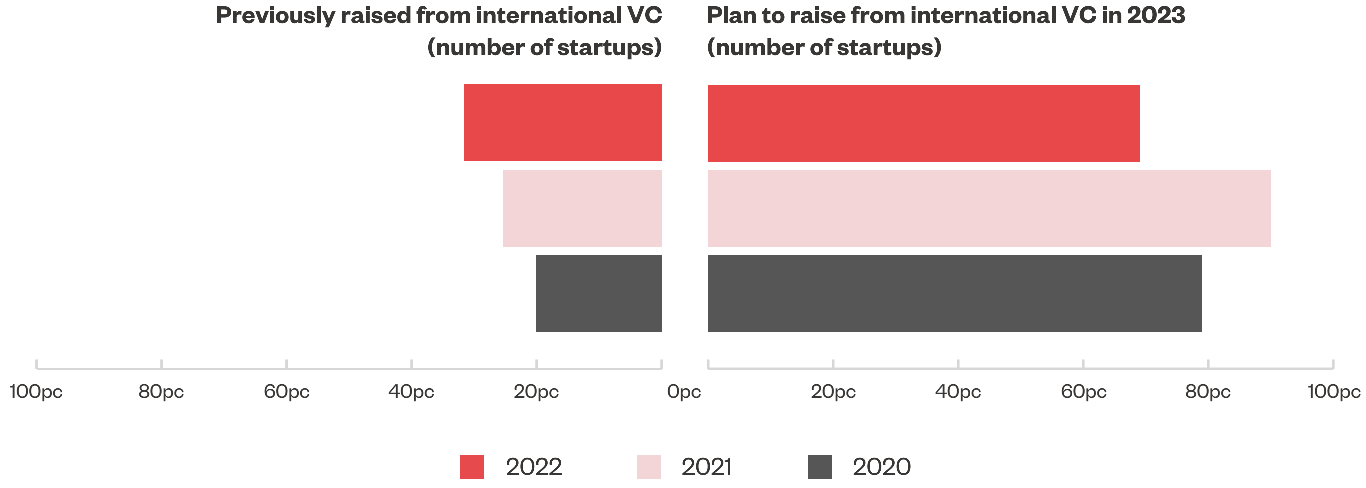
Source: Startup Hungary



Did you raise money from international VC or are you planning to in the next 12 months?

number of startups, n_{2022}=114, n_{2021}=212, n_{2020}=232

Source: Startup Hungary



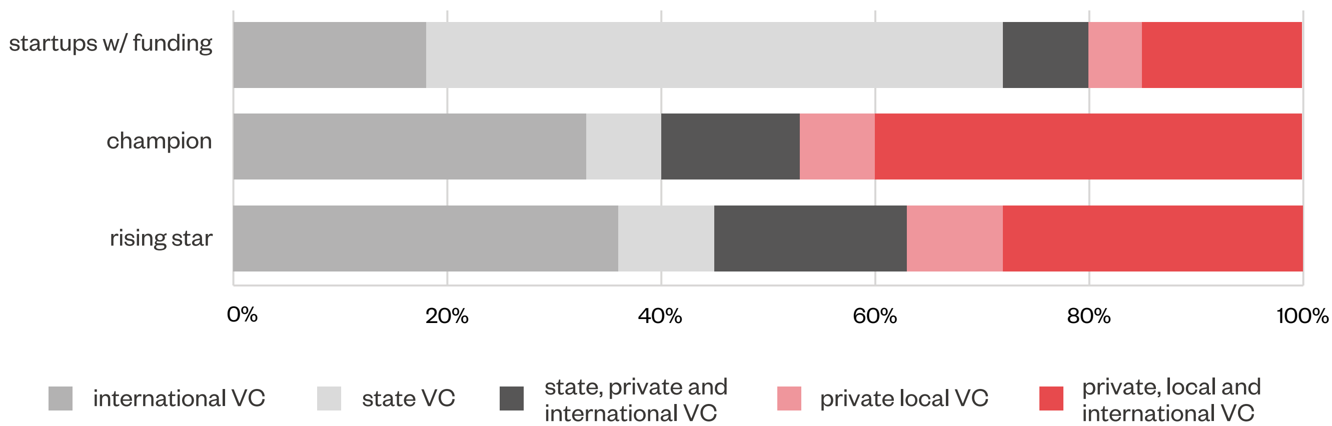
Editorial comment

On the previous chart it is misleading that it looks like a much higher percentage of startups raised from international VCs. In reality, there were fewer respondents this year and the second chart that is displaying it with the number of elements is a better representation of the data. Altogether this year we identified 30 startups (24 last year) that have ever received investment from an international VC. We identified 9 that got funding from an international VC in 2022, only 10% of last year's respondents who predicted a round from international VCs.

Where did you raise money from?

% of startups w/ external fund raising, total n=114, champion n=19, rising start=16, startups with state funds n=35

Source: Startup Hungary



Jared Schrieber
Co-founder of Numerator
(a Silicon Valley unicorn),
Hungarian Angel Investor

Lack of convertible notes and SAFEs – an interview with Jared Schrieber

How does an angel investor see the Hungarian startup ecosystem when it comes to funding, especially in case of early stage startups? Many players say that the critical importance of these early stage investment vehicles is not understood by policy makers, and their legal status must be clarified to enable local startups to source pre-seed capital. Jared Schrieber answers.

How do you see the Hungarian funding scene as an investor coming from the US? What do you think about the proportion of governmental/EU funding and private funding?

There is a significant lack of funding available to founders from the time that they found the company to the point of achieving enough business traction necessary for a Seed stage investment from a venture capital firm. There is, however, a lot of capital available for startups at the Seed stage from many different sources within Hungary and coming from outside of Hungary as well. By the time startups are ready for a Series A, they most typically have to look for funding outside of Hungary.

There has been a huge growth in pan-european funds and US funds ready to invest in Europe, including CEE. Lack of Seed funding and Series A funding is not the issue here.

> ***Lack of funding from the time founders start the company (or even before starting it, from the FFF stage), all the way to the formal Seed stage – that is the problem! There simply isn't enough capital here to fund pre-Seed startups.***

The total amount of capital invested by angels in Hungary is very, very small. This is a big problem because Hungarian founders have not had the benefit of making huge salaries from Google or Facebook, nor from working at successful startups whose stock options resulted in a million-dollar payday. As a result, Hungarian founders lack the financial resources themselves to properly launch their new ventures.

> ***Compared to more developed ecosystems, Hungarian founders also lack the experience of having grown their careers within a startup, and they lack access to angels who are ready to invest in them from the very beginning. That's where I focus my energy, filling that gap.***

Over the last several years, Hiventures jumped with both feet into trying to fill the gap from first check to seed. Founders need the money to get started, so having public money is fine, but due to a number of legal restrictions the investment terms by which this was done were not appropriate (for example, taking veto control of the company). As a result, this has not been as helpful to the ecosystem in generating successful startups as we have seen in the countries where government VC involvement has worked.

There is a lot of government money on the market. Do you see any problems with this?

Some people argue that this money is too easy to get and companies are funded which should not be funded. That may be a governmental inefficiency, but I don't see it as a problem for the ecosystem. The problem for the ecosystem is that some good founders end up taking that money on bad terms and it prevents them from growing and scaling in the way that they could have with healthy terms and healthy funding. As an ecosystem we also lack VC's and angels with successful entrepreneurial experience themselves who come with an entrepreneurial mindset as opposed to a finance mindset. People who are focused on helping startups find product-market fit versus ones who are focused on creating cash-flow businesses. That mindset difference is also a big part of the gap here. Mindset, and the experience associated with it.

> ***We need more investors who have built startups themselves. Ones who have had success and learned from those experiences in terms of what's been important for an early-stage founder to focus on to build a successful startup versus coming at things from a finance and corporate management perspective.***

What are the biggest dysfunctionalities in the current funding scheme in Hungary?

In my view, the greatest dysfunction is that good founders cannot get good money to get off the ground – to create prototypes, to do early market validation, and get to the point when they have 20 thousand EUR/month in revenue. If they find a way to get through those early stages and achieve that level of business traction then there's plenty of Seed-stage capital available from solid VC's with sufficient competition in the market to make such investments. From that point on it's fine, it's good enough. What's not good enough is the availability of good money on decent terms for pre-Seed startups that properly aligns incentives between the founders and investors to even get to the Seed stage.

How do you see the Hungarian ecosystem when it comes to investment related regulations and incorporation?

The vast majority of Hungarian startups incorporate here as a Kft. I think this is a very big mistake made by most founders. Why? A Kft. cannot handle different classes of shares and cannot create new shares as the company grows to support bringing in new executives and employees and stock options, nor can it allow a SAFE note angel investment. The structure of shares in Hungary (whether it be Kft. and its ownership units, or Zrt. and its actual shares) is based on the principal of a zero-sum pie. You set a number of shares, and if you want to give shares to somebody else, you have to take them away from people who already have them. That's a terrible approach for startups and it does not work.

> ***Startups have the potential to create infinite value, and as we create more value, we should be able to create more shares. That's an approach that works and is proven around the world to work.***

Estonia and Lithuania changed their laws to support that approach and they now have well functioning startup ecosystems.

> ***First and foremost the laws around the creation of new shares must change in Hungary's laws. There has to be a clean and simple way to issue more shares in a company – just as it is done in more developed markets.***

Can this also be a reason why there are not so many angel investors in Hungary?

It's clearly part of the problem. However, I believe the primary reason why there are not many angel investors in the country is because there have been so few successful exits of startups in Hungary. Founders were not fully diluted by the time they sold their company so that they walked away with enough money to risk a meaningful amount investing in newly founded startups. If you look at the sizable exits that have happened in Hungary (valued at 250M EUR or more), there are less than a handful of them. Some of those successful founders have started focusing on completely different areas, while some of them have decided to invest in 1 or 2 startups/year. A few good exits produces a few good angels. And then, of course, the laws in this country don't make it easy to be an angel investor.

For some local investors the lack of these vehicles is not a problem, because they have their regular procedure of requiring the startup to get incorporated in Delaware (USA). This happens later when a Seed stage investment comes in. But at the angel level these flips are not happening. There are so many obstacles in our way, while in other countries these are not there. All these are slowing down startups.

A challenge we have here is that there is no alignment in perspectives on what are the key factors and initiatives to improve the ecosystem.

Estonia solved this when their prime minister pulled together two key deputies, linked together leaders of key VC's, leading angels, founders of key startups, and they met on a very regular basis to discuss what were the issues holding back the ecosystem. They would leave the meetings with action items the prime minister would delegate and then they would come back and review them a few months later. And they went systematically from the founding of a company, to the issuing of shares, to the issuing of stock options, to the handling of IP, to SAFEs and convertible notes, and broke down the barriers bit by bit. No wonder they have such a thriving ecosystem at this point. They put a policy focus on figuring out what were the legal barriers, and removed them. Lithuania saw what their neighbor had done and how well it was working, so they just went and copied a bunch of the new laws and implemented them. Now take a look at how rapidly their startup ecosystem has become a growth driver for their entire economy.

This needs to happen on a minister level. The Minister of Finance, Minister of Economic Affairs, and the Central Bank all need to be a part of making the changes necessary for Hungary to thrive. This isn't just about startups and the startup ecosystem. This is about the competitiveness and strength of Hungary's economy for decades to come.

Do you see any activities in order to incentivize private investment in Hungary?

There have been some schemes but they resulted in an ineffective use of government money (for instance, Jeremie funds).

But there are no special incentives for angel investors to invest in startups versus investing in private stocks.

My suggestion is to make convertible notes and SAFEs legal so that we can align the interests of the founders with those of their initial angel investors and with the needs of their future investors.

For SAFEs, we need to change the laws around the issuance of shares (stock) which would have the added benefit of creating a cleaner way of offering stock as an effective recruiting tool for hiring new employees. In terms of money or other financial incentives, I don't think tax breaks are the way to go here. I think the tax breaks offered in the US are scandalous.

Instead, in Lithuania for example, the government VC would match the investments of private investors on the same terms. They were not competing with the private sector for deals and they were not setting the terms of deals. If private investors were going to invest their own money and put their own money at risk, then the government VC was willing to also invest on those terms. This helped ensure that the market was picking the best startups and putting in the right amount of capital on healthy terms. This program helped ensure the most promising startups had enough capital and runway to be successful in a market where there had not been enough early stage capital previously. This was a very successful program that gives a good example of what works.

We have a government VC, and it has funds, so instead of having it lead investment deals and dictate the terms, I would prefer to see it choose which private deals it wants to co-invest in and then match the terms set by the private investors.

I am very hopeful that this could be a great public-private collaboration opportunity going forward.

Is there any progress in solving these problems?

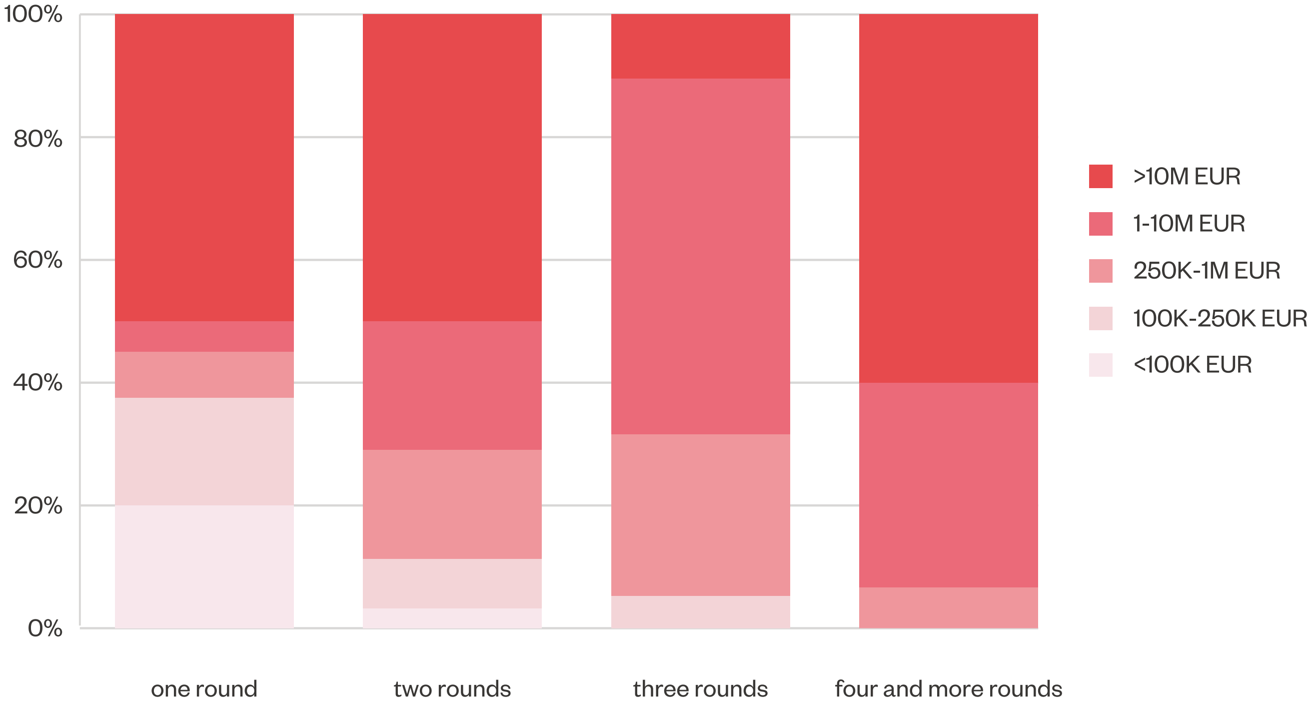
I don't know if the message has gotten through to the key policy makers.

A joint letter is being worked on from HVCA, Startup Hungary, HUNBAN, key VCs and angels - basically the key players in the ecosystem – to request very specific laws be changed to support convertible notes, SAFEs and the issuance of new shares of stock and stock options for employees. There is alignment across all of those different organizations to sign such a letter – we just need to make it happen. We must change the laws. They are the real barrier to a thriving startup ecosystem in Hungary.

Number of funding rounds

Number of rounds by total funding amount
% of startups w/ external funding, n=113

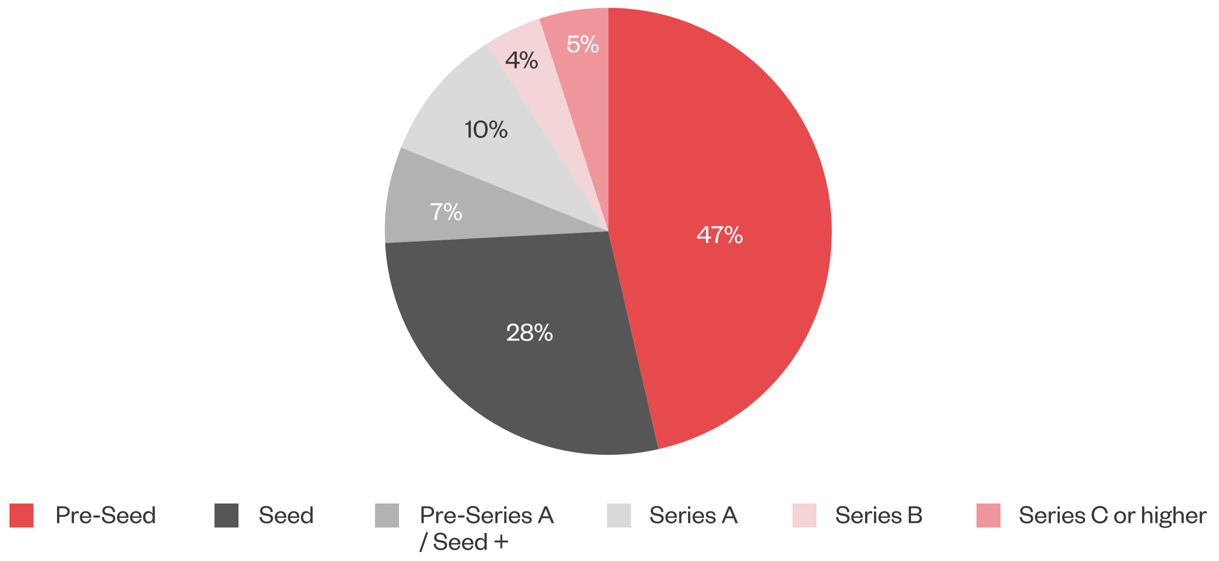
Source: Startup Hungary



Half of the startups are pre-seed

What stage was the most recent round of investment you raised?
% of startups w/ external funding, total n=109

Source: Startup Hungary

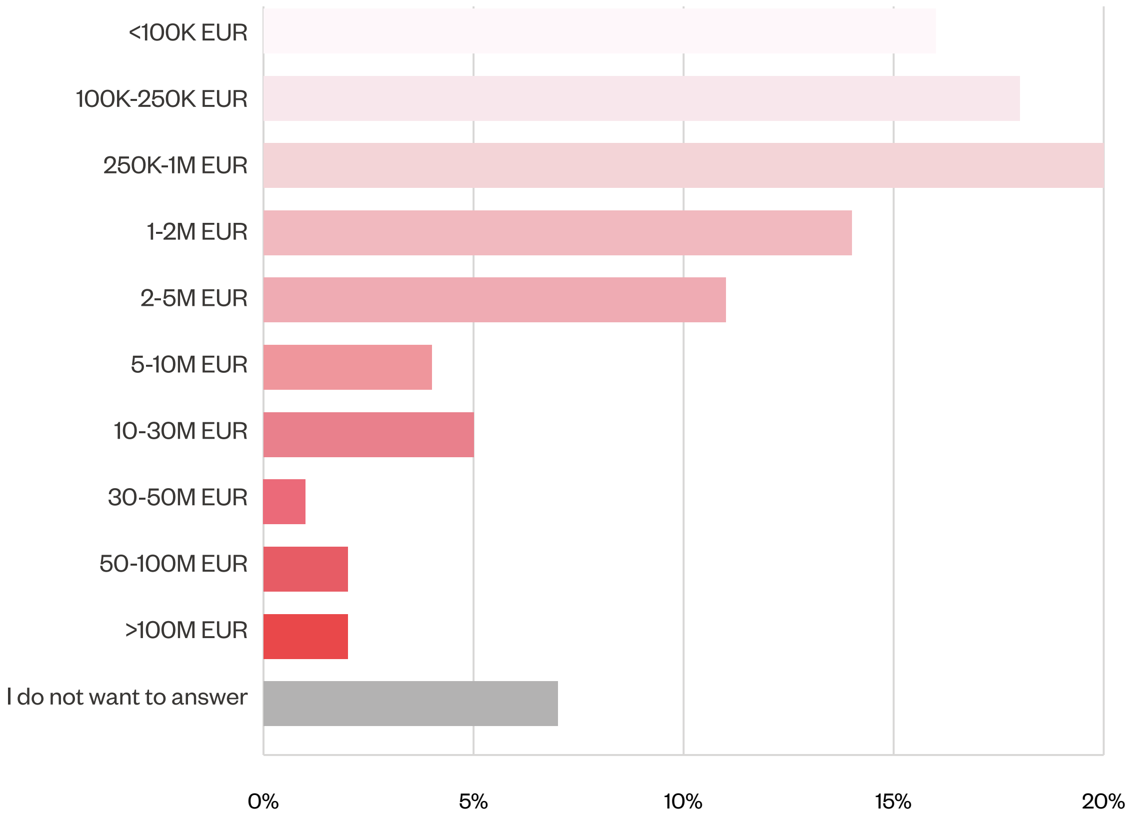


Total amount of funding raised by startups

What is the total amount of funding you've raised in EUR to date?

% of startups w/ external funding, n=113

Source: Startup Hungary



Kristóf Székely

Partner at Lead Ventures

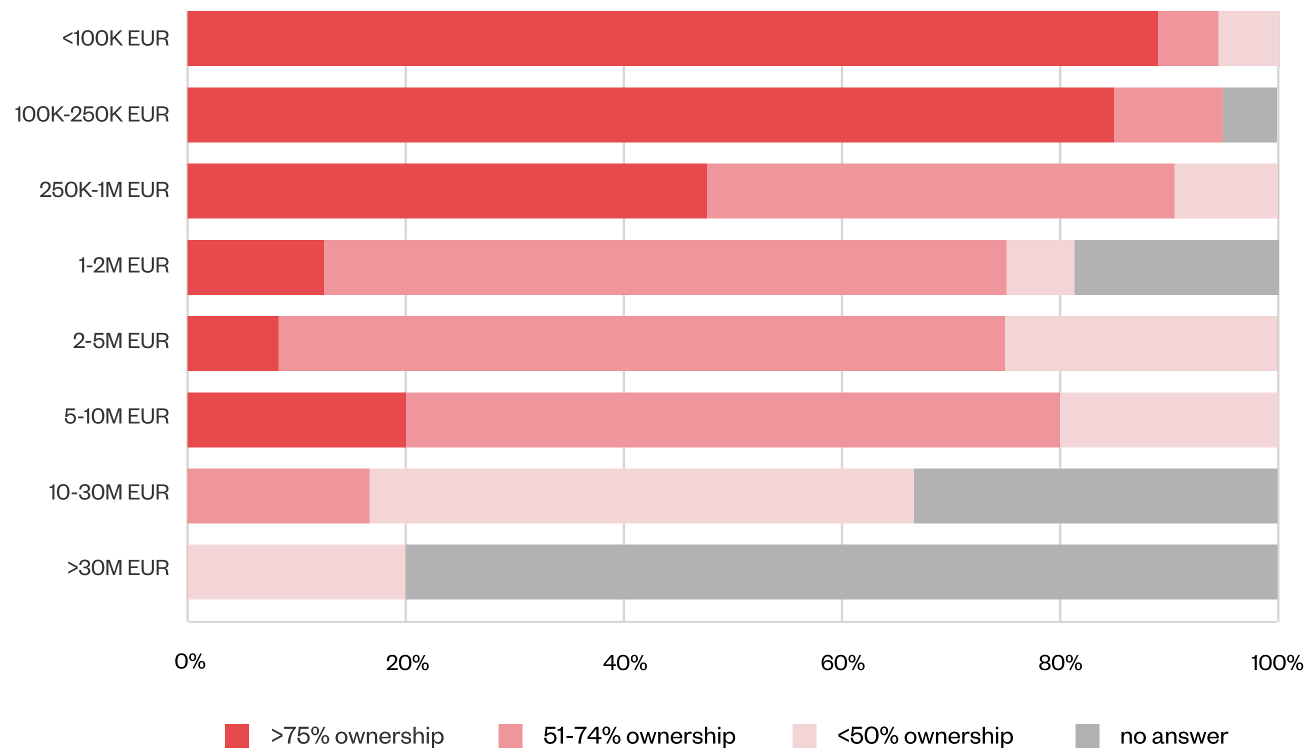
Expert comment

Fundraising is a crucial aspect of the startup journey, and every startup should look for the most fitting approach based on their current stage of development. While it's essential to aim high and showcase your potential during fundraising, overestimating your capabilities or overwind yourself creates future problems for your startup. It's crucial to strike a balance and be realistic about your expectations, as the outcome of fundraising can determine the fate of your business.

Startups give up a different amount of equity at different stages

Equity ownership by funding volume
% of all respondents / funding volume, n=105

Source: Startup Hungary



Róbert Hegedűs

Expert comment

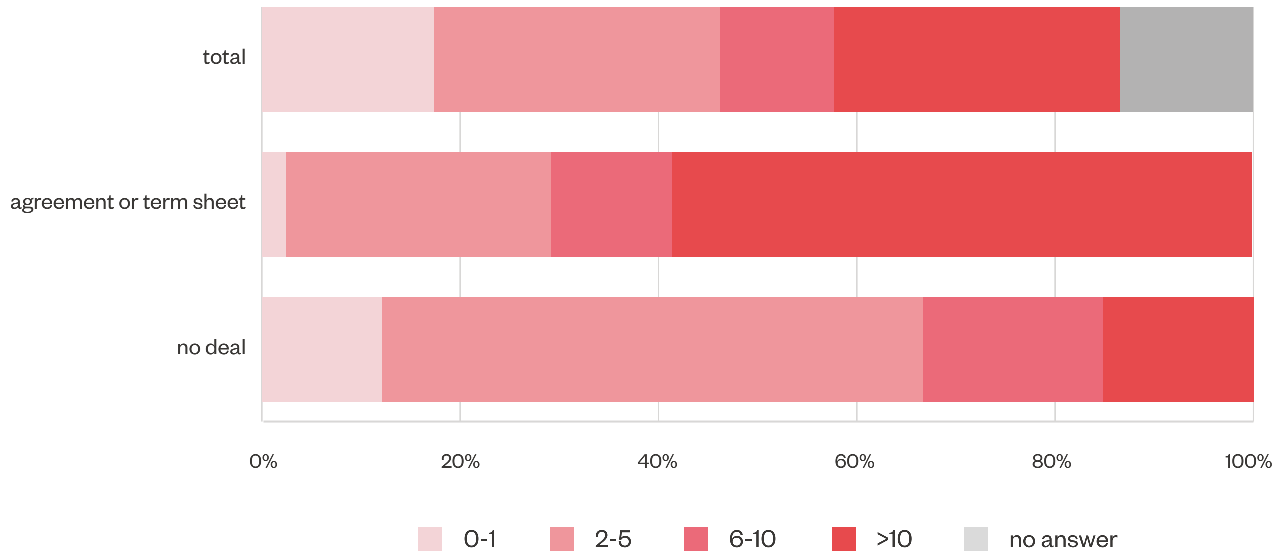
Founding Partner at Fiedler Capital

While the situation is improving, founders still tend to give up too much equity early on in their journey. Initially, this may not seem to be a big issue, but it may actually scare off top investors as early as seed, who understand that having sufficient founder equity down the line is a crucial motivating factor for the team, and who simply don't want to deal with cleaning up messy cap tables. The general rule is that founders should still own more than 50% of the company after the Series A stage. The math around this will get very challenging if someone gives up 10-15% equity in an angel round, combines it with a 7% accelerator ticket, and then still needs to raise pre-seed and seed round from VCs. And this is a very typical scenario that we tend to see in CEE. Founders should maximise dilution at 20% at each stage (pre-seed incl. angels, seed incl. angels, etc) and / or try to skip one or the other stage, which of course is easier said than done.

How VC meetings convert to term sheets

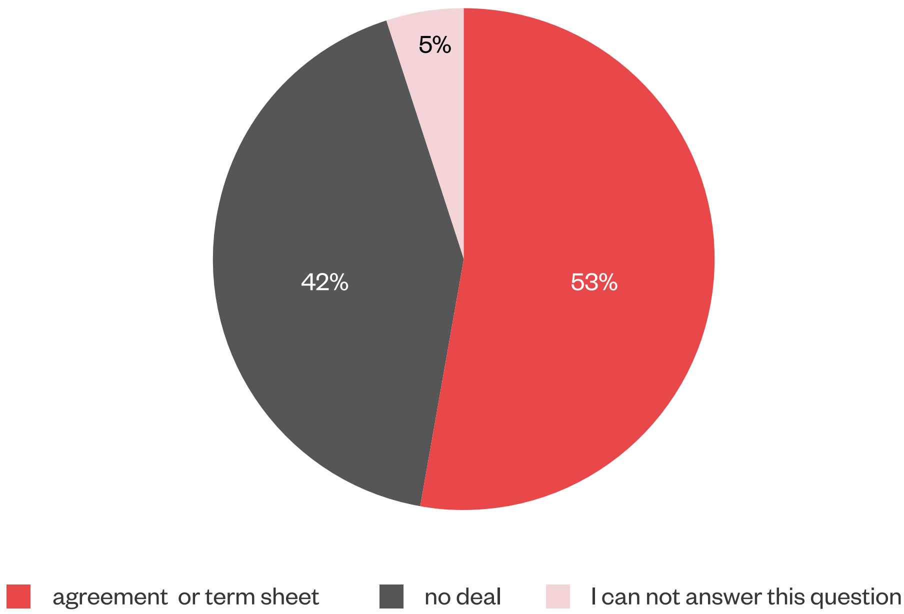
How many investors did you meet last year? How many convert to a term sheet?
% of all respondents, total n=141, agreement/term sheet n=64, no deal n=51

Source: Startup Hungary



Did any of your meetings result in an investment agreement or term sheet?
% of startups with at least 1 investor meeting, n=121

Source: Startup Hungary

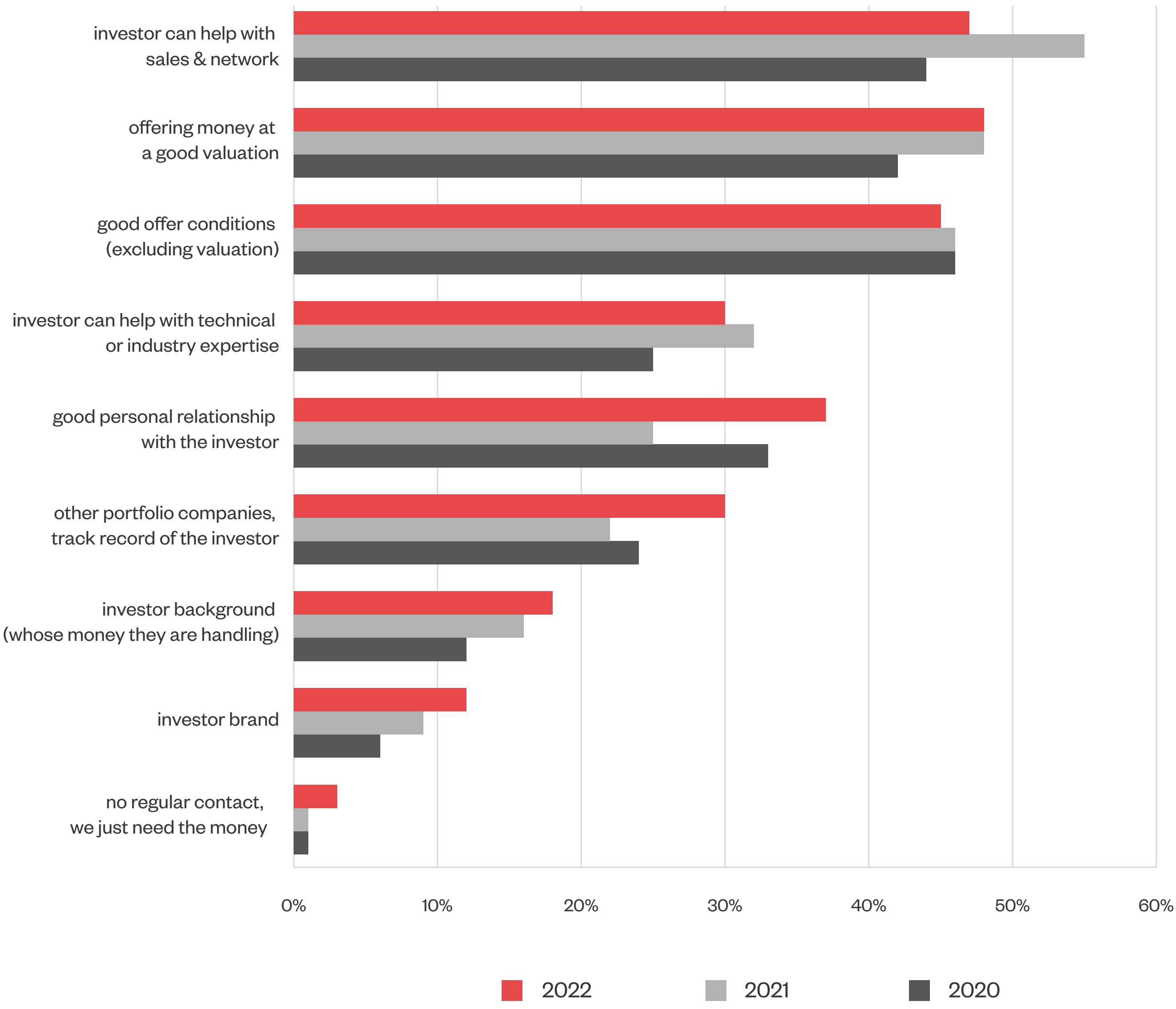


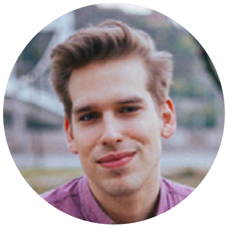
What startups look for in an investor

What are the top factors you take into account when choosing an investor?

% of all respondents, n_{2022}=158, n_{2021}=212, n_{2020}=232

Source: Startup Hungary





Balázs Besenyei
Research Team Member of
"A study on the role of local venture capital investment in supporting businesses"

Different kaleidoscopes: two different lenses through which VCs and ventures view the role and value of venture capitalists

As a startup founder, you're no stranger to the importance of effective communication. But have you considered how critical it is to communicate with your investors from the outset of your partnership? Our latest research delves into the perceptions of both investors and founders regarding the role of investors, highlighting the domains where differing viewpoints can lead to discrepancies in value creation.

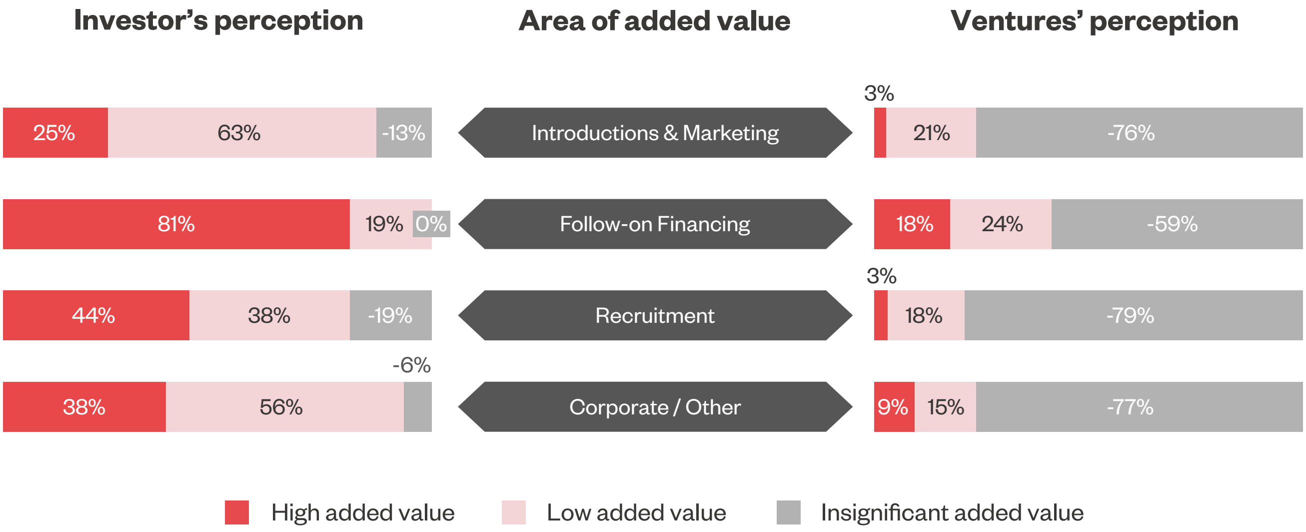
When entering an investment process, every founder must consider what they can expect from their investor and what they want to expect. The success of the relationship between an investor and a founder depends on the harmonious partnership between the parties involved. Effective communication is paramount to articulate their respective needs, anticipations, and offerings from the outset of the association.

Added value is a critical concept in venture capital investments. Our research team has comprehensive knowledge of entrepreneurship and research approaches, decades of hands-on experience, and a strong commitment to the topic, enabling us to conduct a deep analysis using multiple qualitative and quantitative approaches. Our objective was to create a benchmarkable study, recognizing that while our focus is on the Hungarian market, there are valuable lessons to be learned from other countries.

Our research investigates the perceptions of venture capital investors and startup founders regarding the role of investors in Hungary. (See the summary here.) We presented our initial findings on the views of investors in the first phase of our study, while in the second phase, we explored the perspectives of startup founders.

> ***Our research has shown that there is a notable discrepancy between the viewpoints of investors and founders in Hungary, particularly in the domains of „Introductions & Marketing" and „Recruitment."***

Investors tend to overestimate the added value they provide in these areas, while founders do not share this perspective. In the domain of „Introductions & Marketing" 88% of investors believe that they offer added value, while 76% of startup founders reported that their influence is insignificant. Similarly, in the area of „Recruitment", 82% of investors believe that they provide added value, while 79% of founders reported that their impact is insignificant. Notably, the only domain where the difference in perceptions between the investors and the ventures is not significant is "Follow-on Financing", with investors achieving a high score in this area.



The findings of our study are consistent with those reported by the Creandum research, albeit with less significant differences in responses. The domains of „Recruitment" and „Introductions & Marketing" are again identified as the areas where the divergence in perceptions is most significant, while „Follow-on Financing" is highlighted as the domain where investors achieve the highest score.

During the interviews we conducted, it has been repeatedly mentioned that founders tend to set high expectations for investors that are unreasonable. Many venture capital investors are openly not inclined to provide added value to their portfolio companies. In such cases it is not reasonable to expect them to do so. However, as for founders, not all of them want significant involvement from their investors in their company's affairs; some just seek investment to achieve their goals independently.

VC firms with a strong network, decades of experience, and low employee turnover rates are more likely to provide greater added value than those with less experienced employees, limited time, and higher employee turnover rates. The relationship between founders and investors is also vital to the value creation process of VC investment, where conflicting viewpoints and deteriorating relationships can limit the added value that investors bring.

Although venture capitalists commonly believe that disclaiming added value to portfolio companies may diminish the quality of their pipeline, the results of Creandum's research reveal that personal chemistry between investors and founders is the most influential factor in the latter's decision-making process.

In conclusion, it is crucial to have honest communication between investors and founders about what they can offer and what assistance the founder requires beyond investment. It is important to set realistic expectations and have open communication about what each party can offer. Our research highlights the domains where differing viewpoints can lead to discrepancies in value creation and emphasizes the need for founders to carefully consider their investors' value proposition. Ultimately, a strong relationship between founders and investors, based on mutual trust, respect, and honesty, is critical.

The research outcomes will be published in a publication and several articles.

The research team comprises Dr. Judit Karsai, József Török, Dénes Nagy, Gergely Gazdag, and Balázs Besenyei.

CHAPTER 4

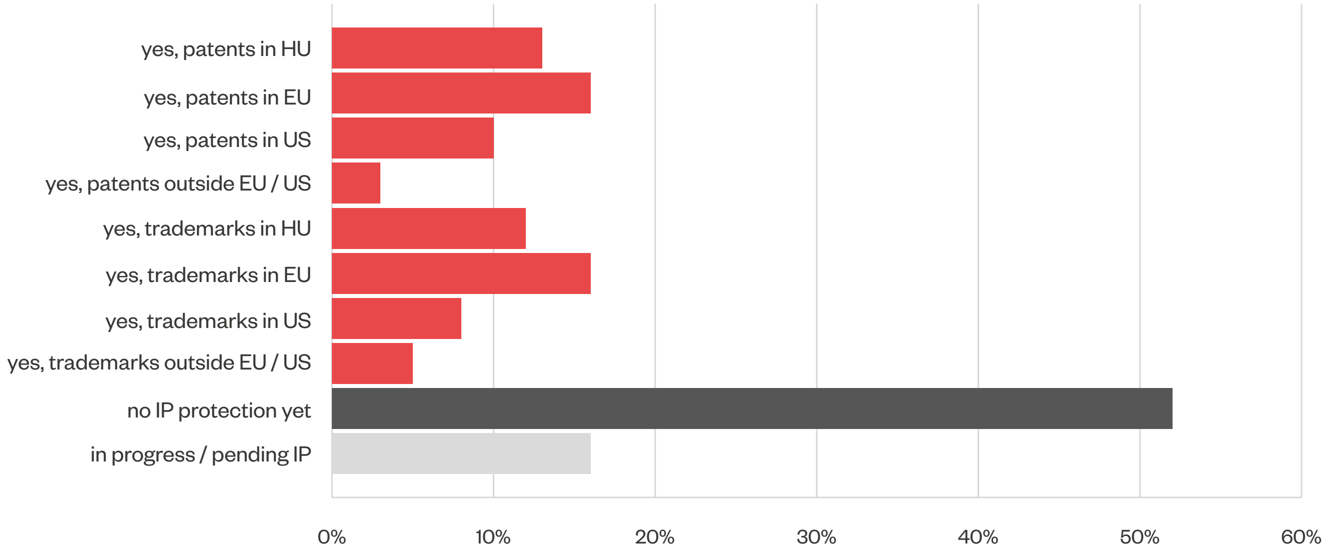
Startups on IP Protection

Did you obtain any IP protection before?
What are the primary reasons why you decided to do IP protection?
What is the primary reason why you don't pursue IP protection?

Did you obtain any IP protection before?

% of respondents , n=154

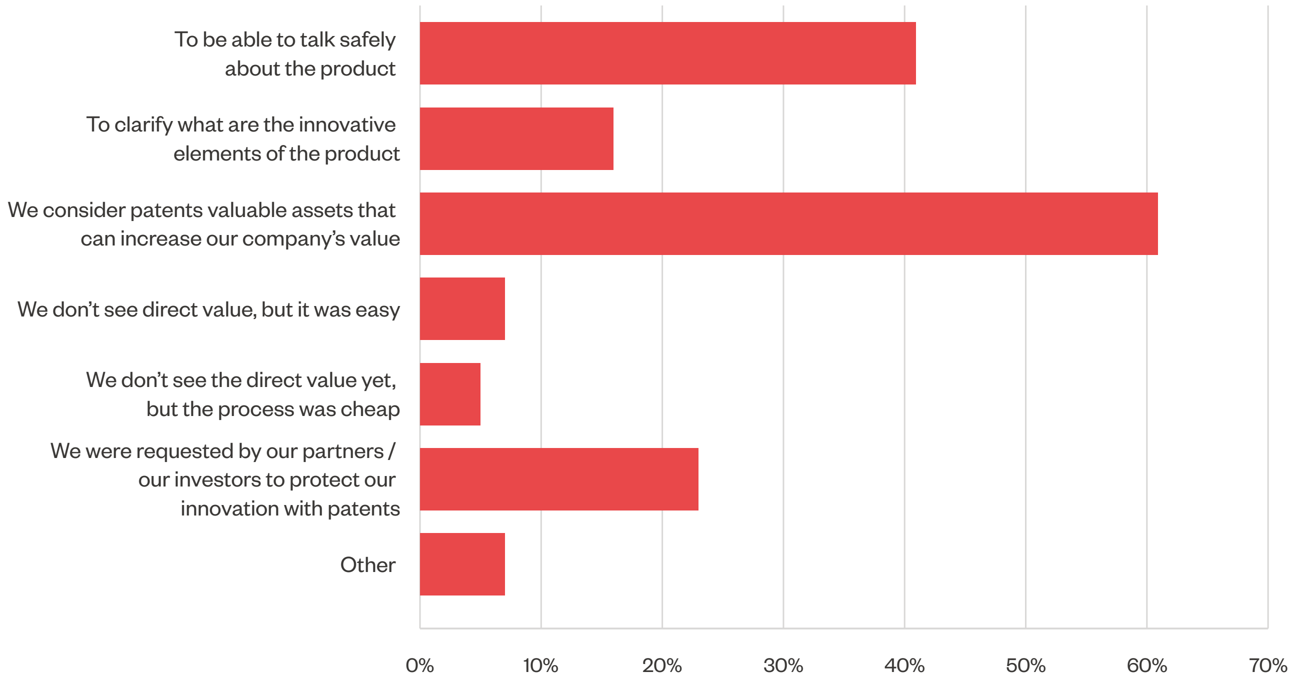
Source: Startup Hungary



What are the primary reasons why you decided to do IP protection?

% of respondents with IP Protection n=74

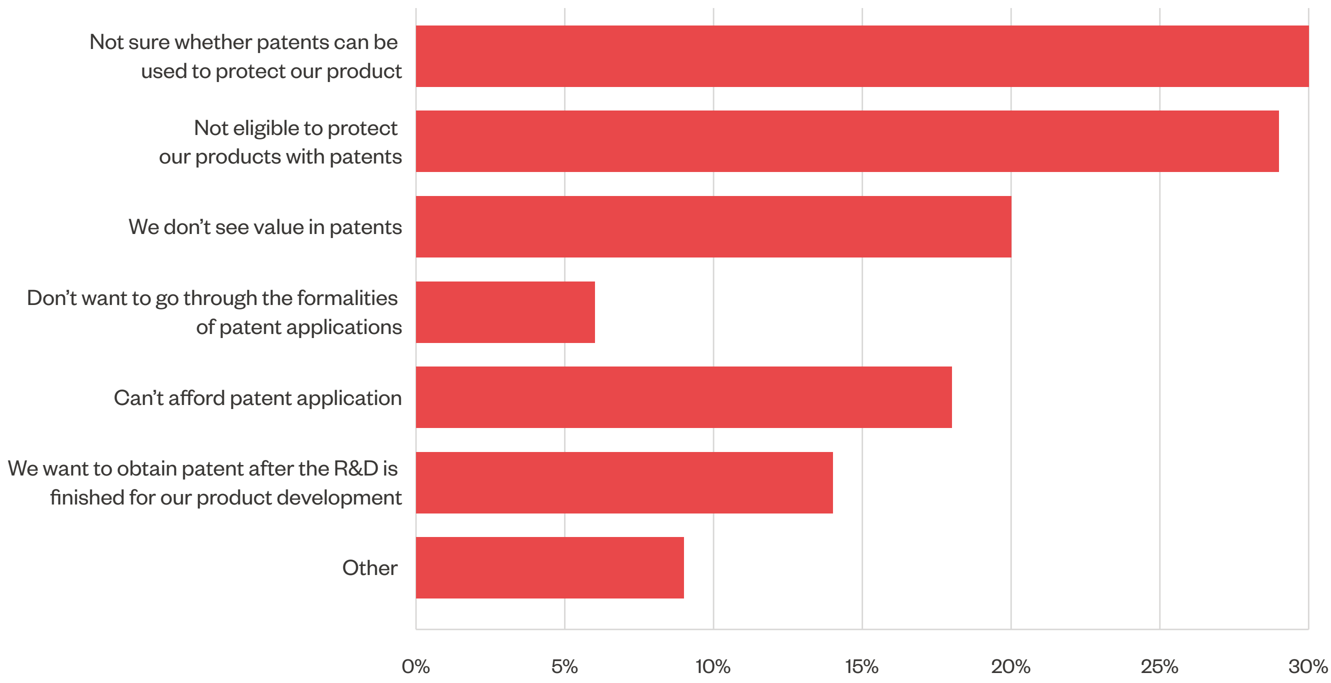
Source: Startup Hungary



What is the primary reason why you don't pursue IP protection?

% of respondents without IP Protection, n=80

Source: Startup Hungary



Gyula Pomázi
President of the Hungarian
Intellectual Property Office

Small business, big dreams – how can a startup become more valuable?

Startups are usually newly founded companies, making it difficult to price them accurately. While they have few material assets, they possess innovations and valuable ideas. However, many fail to appreciate the power of protecting their own intellectual property, and therefore do not fortify their position with trademarks, designs, patents, or utility models.

Whereas in the 1980s, roughly 80 percent of the value of a business was accounted for by tangible assets such as machinery, buildings, or fleet of vehicles. However, since 2020, this share is less than 10 percent, and

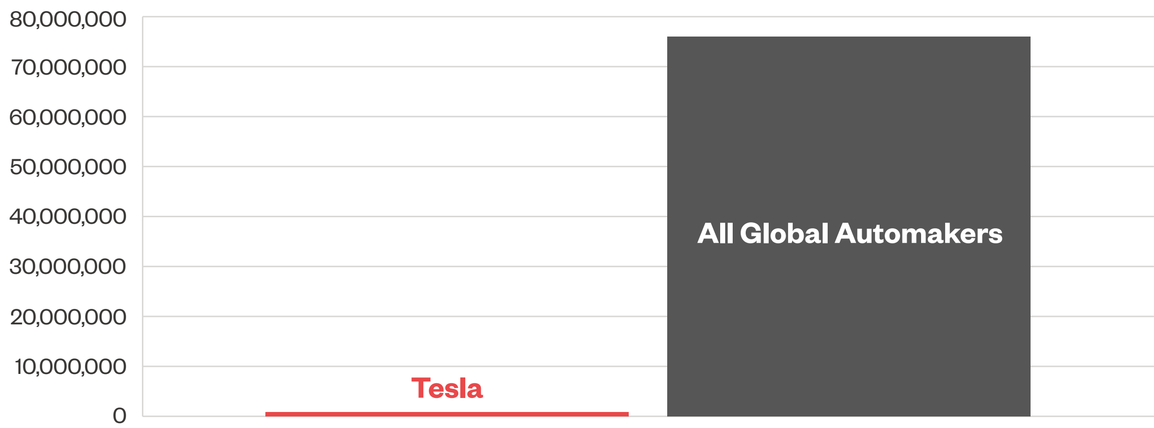
> ***the value of a company is largely determined by its intellectual property such as software, know-how, or brand equity.***

An excellent example of this trend is the valuation of Tesla. The first chart below shows that in October 2021, Tesla's production capacity was 900,000 vehicles, just 1.2 percent of the 75 million planned by all car manufacturers. However, the market did not value Tesla on the basis of its tangible assets, but 99 percent on the potential of its technology or brand. The second chart shows that on the same day, Tesla's stock market value alone was the same as the combined value of all other car manufacturers.

And for Elon Musk to build and maintain such a strong and stable brand (and following), or to take on the competition, he needed to confidently communicate Tesla's value proposition, what makes it special or why it is turning the car industry around. This required securing the technology and brand with various forms of intellectual property protection.

Global Deliveries in 2021 (est.):
Tesla v. All Automakers

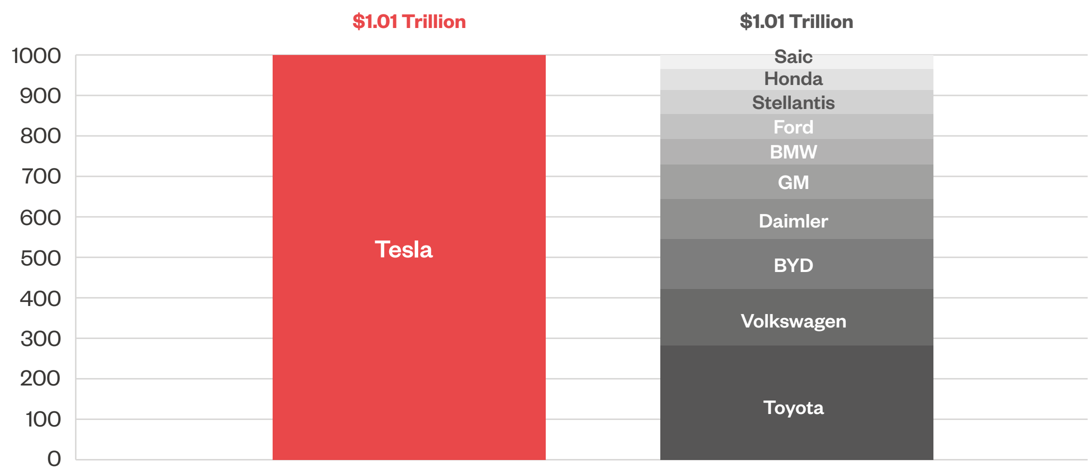
Source: wolfstreet.com



Market Capitalization, USD, Oct 25, 2021

Tesla v. Next 10 Automakers

Source: wolfstreet.com



It is thought-provoking that when starting a company in Hungary, there are hardly any conscious managers who not only consult an accountant to ensure financial security, but also an IP lawyer with whom they can assess which elements of their innovation can be protected and are of value to the startup and investors.

Of course, it is not possible to protect an idea or function by itself, but the idea becomes a prototype during the research and development (or, in the case of software, for example, the construction of the algorithm logic and the design of the software architecture), which is the first protectable form of the idea. However, many businesses do not know that if someone talks about their innovation in public (e.g. at a conference(t), it automatically becomes public knowledge and is therefore not protectable. For this reason, it is important to know in advance what elements of our innovation we can protect, what we can talk about safely, and what, if leaked, could cause serious damage to our startup. The aforementioned consultation with

an IP lawyer or the free IP Scan service of the Hungarian Intellectual Property Office (HIPO) can help to identify these, and tailor the most effective IP protection strategy for your business:

companies can gain a clear picture of the intellectual property associated with their technology, the related enforcement options, and the potential risks they may face, to help them develop their IP protection strategy.

In addition to IP Scan, HIPO can also assist to protect innovations, company or product names and logos: on the one hand, this allows you to protect your own brand, and on the other hand, by the time a product is in production, the protection proceedings are underway for all elements that can be protected and brought into the company as a value. But it is important to be aware that if the object of our development is software, it is protected by copyright, and no specific protection procedure needs to be conducted: in this case, the finished software (not simply the idea) is already protected at the initial stage of innovation.

It is crucial that if a company wants to sell its product abroad, it also needs to know what protection it needs to obtain in that country – because in those markets it will have to compete with products and companies that are likely to already have it. Start-ups often encounter challenges when their company name or logo already exists in the foreign market. This situation can prevent them from establishing themselves in that market.

Many innovative companies fail to protect their products and services because they perceive the process as complicated or expensive. Therefore, it is worthwhile to visit HIPO where experts can give you advice, position your startup according to its strategy, what protection you should apply for, and training courses and free books can also help you understand these procedures. The proposed IP procedures will also be supported by calls for proposals: the SME Fund, available to EU Member States, can help fund IP activities, including the financing of protection procedures.

Methodology

Startup Hungary conducted a survey between between January and March 2023, which is the basis of this report. The survey was completed by 165 startup founders, and its methodology was designed by Dr. Agnieszka Skala, an Associate Professor at the Faculty of Management, Warsaw University of Technology. Startup Poland, our partner organization, has been using this survey method for over 7 years to create similar reports.

To define the research sample, Startup Hungary utilized last year's criteria for defining potential survey respondents, rather than creating a new definition of the term „startup."
Respondents of the survey had to be companies that

1. **create new technological solutions**

OR

2. apply new technologies to **create products or services in the following areas:**

a. IT / ICT
b. energy technologies
c. industrial technologies
d. material technologies (including nanotechnology)
e. biomedical technologies

OR

3. **have a scalable business model.**

There were no restrictions on the number of years a company needed to be on the market to participate in the survey. The scalability criteria allowed for software agencies and similar companies to be analyzed separately from other respondents, which provided additional data for comparison.

The data was obtained by conducting a broad awareness campaign and individual invitations to local startup founders, and all participants completed the questionnaire voluntarily and without any compensation.

The data was obtained from 165 voluntary participants who completed the questionnaire following a widespread awareness campaign and individual invitations to local startup founders. The data set was cleansed of non-startup companies and duplicate responses, and any missing responses were due to some questions not being mandatory. The differences in the number of respondents per question were due to the logical path employed in the survey.

Acknowledgements

Now in its third year, the Hungarian Startup Report is the most in-depth survey of the local startup ecosystem. It is the result of a united effort by the Startup Hungary team, its founders, board members, partners, and friends, as well as the network of local startups who took the time to complete the questionnaire. The creation and completion of the survey is a significant achievement towards creating a measurable benchmark for stakeholders to make better informed decisions around launching, growing, investing in, creating legislation for, and acquiring local startups.

We are committed to publishing this report annually in order to document data-backed trends as accurately as possible. The results provide a north star that shows us what ecosystem players need to focus on, how they should define their future activities, and where they can maximize their impact.

The project could not have been completed without the support of our founding partners, Google, Design Terminal, IVSZ and without our new strategic partners, Microsoft, PortfoLion and our supporters, Citi, Lead Ventures, Day One Capital, SEON, SZTNH, Bird & Bird and The Spot.