Spolufinancováno Evropskou unií

Innovative training module for startups

2021-1-CZ01-KA220-VET-000028157

The main aim of the module is to develop the role of VET in entrepreneurial ecosystems.

Spolufinancováno Evropskou unií

Promoting "e-VET" participation in the Digital Economy (Promoting the inclusion of digital vocational education (e-VET) in the economy)

Project number: 2021-1-CZ01-KA220-VET-000028157

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Who is this form intended for?

The training module will increase the quantity and quality of digital entrepreneurial skills and abilities of ICT students and increase VET teachers' knowledge of digital enterprises and SMEs, starting business activities, industry ICT and cross-sector opportunities. Additionally, entrepreneurial mindset will be developed and ICT entrepreneurship will be encouraged among ICT students.

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Skills VET students need for a successful entrepreneurial ecosystem

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Part 1 - Skills VET students need for a thriving entrepreneurial ecosystem

1.1-Realizing the importance of developing entrepreneurial skills, looking for best practices

Changes in economies, career options and workplaces pose challenges to education policies and organizations and have long been the focus of intense debate. In particular, the increasing importance of promoting 'entrepreneurial skills' has been noted by researchers and has recently been included in many education and/or innovation policy statements.

The EU 2020 strategy emphasizes the need to integrate creativity, innovation and entrepreneurship into the curriculum and proposes a set of actions to unlock Europe's entrepreneurial and innovative capacities through the following initiatives: "Youth on the Move", "An agenda for new skills and jobs" and " Innovation Alliance". Moreover, in the work program of the General Directorate of Education and Culture (Education and Training 2020), increasing innovation and creativity, including entrepreneurship, at all levels of education and training is one of the four strategic goals.

In the context of primary and secondary education, entrepreneurship education is an extracurricular activity that often involves visits to companies to "understand the business world" or inviting them to intervene in schools.
Projects that involve more focused activities or mini-business type programs tend to be rare. In general, entrepreneurship education is less available at the initial stage. Responsibilities vary significantly. For example, in some countries local authorities have authority over the definition of teaching, while in other countries their ability to intervene is limited to, for example, school buildings and non-teaching staff. At the high school level, entrepreneurship education is also included as an extracurricular activity, but electives become more important and subjects such as economics and business may include entrepreneurship as a subject of study. Experiential learning held in a real company or mini-company is important. In vocational education and training, entrepreneurship education is often included in business and economics programmes.

http://antonioviader.com/phocadownloadpap/userupload/toni/Innovation_Policies/EU_SME_Support/EC%20Guidebook%201%20Entrepreneurial%20Mindsets.pdf

Teacher training is clearly a vital component in helping them deliver effective entrepreneurship education.

Investments are needed to raise the standards of teaching professions and attract highly qualified graduates to the profession.

Above all, it involves investing in both pre-service teacher training and support for continuing professional development, including for already in-service teachers who are not yet teaching entrepreneurship education.

In Finland, where entrepreneurship education was introduced relatively early (1994) and included in all disciplines, pre-service training in entrepreneurship education for teachers is mandatory in three teacher training institutions (University of Oulu Kajaani Department of Teacher Training, University of Oulu Kajaani Department of Teacher Education). It is optional in the University of Turku Rauma Department of Teacher Education and Åbo Akademi University Vaasa Department teacher programs) and many other programmes. Additionally, measures have been taken to include more people with an entrepreneurial background and personal entrepreneurial experience in teacher training. All universities that train teachers offer entrepreneurship training courses as electives for trainees. They are usually offered at faculties of economic and management sciences and focus on entrepreneurship and business know-how.

In Cyprus, secondary school teachers receive compulsory initial training at the University of Cyprus, where the program includes 10 teaching modules on entrepreneurship education. Optional seminars are offered by the Cyprus Pedagogical Institute to teachers, school administrators and policy makers. These are organized by the Ministry of National Education in cooperation with other organizations such as universities. Where appropriate, instructors collaborate with industry to ensure courses are highly relevant.

In Poland, "Dynamic Entrepreneurship" is a national program to develop entrepreneurship education in higher education institutions. The aim of this program, launched in 2004, is to develop methodologies and tools for teaching entrepreneurship courses at an academic level. Teaching methods, tools and case studies were tested for the first time at the Leon Kozminski Academy of Entrepreneurship and Management (business school) during an EU-funded project for 120 students from 32 higher institutions (mostly non-business) in Mazovia. area. This led to the preparation of the textbook “Dynamic Entrepreneurship”. How Can You Start Your Own Business?, published in 2006 and aimed at the academic community.

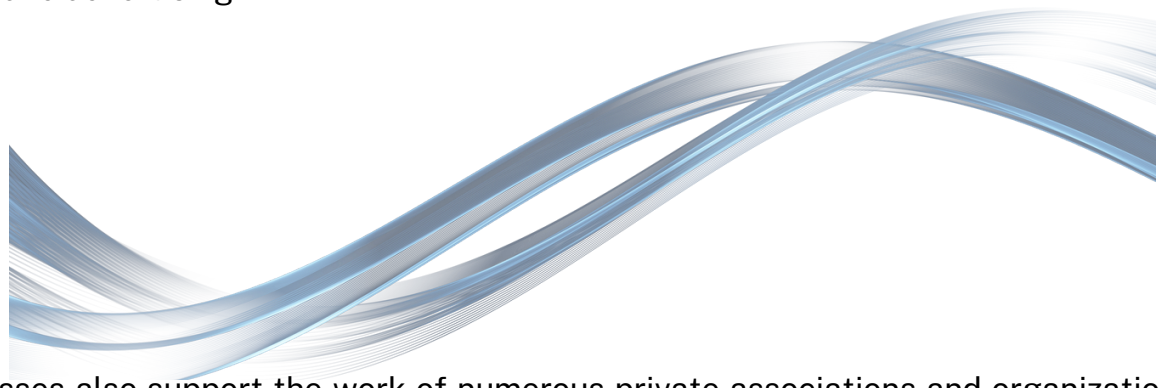
In Slovenia, the Center for Vocational Education launched entrepreneurship training for teachers in vocational secondary schools. Teachers are trained through workshops that focus on how to use active learning methods and different activities to “encourage and develop an entrepreneurial mindset.” To achieve this, the focus is on structured processes based on creative problem solving and critical thinking, aiming to stimulate learning through practice, imitation and productive exchange of ideas.

The main learning outcome of these techniques applied in the classroom is to develop in students an entrepreneurial spirit and corresponding skills, understood as the general skills of individuals, in order to increase their productivity in both their professional and private lives.

Entrepreneurship is understood as the promotion of personal skills that are the basis of entrepreneurial activity. The collaboration with secondary school teachers has so far led to the creation of numerous teaching materials and guides: "entrepreneurship in the world of vocational education"; “opportunity to work for oneself”; A guide for teachers on “Understanding the entrepreneurial lifestyle” and the promotion of entrepreneurship in secondary vocational education.

In Austria, the Initiative for Teaching Entrepreneurship (IFTE)(f) was created to develop and provide teacher training and organizes an entrepreneurship summer school in Kitzbühel every year. The course lasts one week in July and is aimed at teachers in both vocational schools and universities, as well as general secondary education courses. The program is broad and topics include philosophy of education, business ethics and entrepreneurship in the context of idea generation, while there is also a strong emphasis on experiential learning through practical studies on how to use implementation and change management processes to create innovative and innovative educational organisations. . The fact that the course team consists of companies, universities and schools reflects the fact that IFTE is supported by a variety of public and private sector sponsors.

Active businesses are a vital component of entrepreneurship education strategies: they are a source of real-life examples and experiences that students need to learn. Dialogue between entrepreneurs and educators is crucial to ensure that entrepreneurship education is fit for purpose and to raise students' awareness of the scope and nature of entrepreneurial activity both generally and in their own region. However, work engagement is piecemeal and unstructured, which is reflected in the starting point of the progression model. There are a number of barriers to participation in business, particularly a lack of time and resources, as well as incentives for their participation and a vague understanding of how they can be most useful in entrepreneurship education. One way to increase their participation is to propose supporting various aspects of corporate social responsibility, underlining that the growth of entrepreneurial people is at the service of the whole society, including businesses. Participation can also provide companies with advantages in terms of profile and advertising.



Businesses also support the work of numerous private associations and organizations (e.g. JA-YE and EUROPEN) that have played a crucial role in the development of the application to date; These bodies offer strong support to the private sector and can directly benefit from concrete business practices and make them available to schools and teachers as practical and experiential learning opportunities. However, to date, the use by schools and teachers of expertise provided by private associations and organizations has largely been ad hoc for specific situations. The progression model, which aims to provide entrepreneurship education to every student, will lead to a significant increase in demands from businesses and private associations and organizations. Business involvement is voluntary and is unlikely to support the increases requested without consideration of:

(i) a higher degree of structured involvement and long-term and sustainable relationships with schools, as envisaged in the progression model; and

(ii) the development of innovative initiatives to engage businesses, including the wider use of local partnerships and the development of intermediary functions by local business organizations (an easier task in countries such as Germany with established organizations such as chambers of commerce).

Likewise, it is important that business organizations are involved in the development and implementation of the strategy at the national level. Business associations and organizations, such as chambers of commerce, have valuable expertise and experience in introducing entrepreneurship education and ensuring that schools and teachers adequately consider the needs of businesses. There are many areas where the role of business can be expanded to support the development of entrepreneurship education.

Businesses contribute to entrepreneurship education in various ways and have been doing so for many years. One of the most powerful approaches is to connect students with real entrepreneurs.

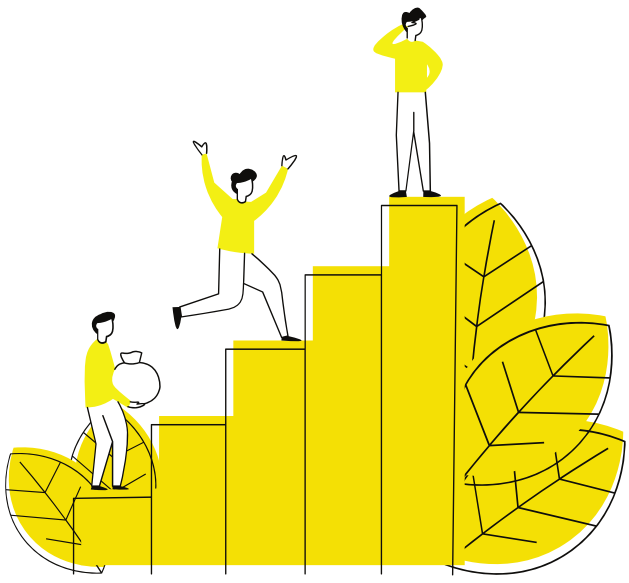
DREAM(h) is a Belgian-supported youth project for young people aged 16-19, which allows volunteer entrepreneurs or employers to share their experiences in the classroom or workplace. It was developed and organized by the small business department of the Brussels School of Management (part of the Institut Catholique des Hautes Etudes Commerciales), known as ICHEC-PME. DREAM's four goals are:

1. Encourage young people to think about what job they want to do or what job they actually “dream” about;

2. Advise on the skills needed to achieve your dream;

3. Encourage and teach entrepreneurial spirit and attitude;

4. Strengthen relationships between schools and business communities.



In Slovenia, the “Design Thinking School” or d.school initiative, led by JAPTI, the Public Agency for Entrepreneurship and Foreign Investment, brings together interdisciplinary groups of students, teachers and innovative companies to deliver solutions to real business problems. In addition to regular visits to the school by company advisors, students also visit the headquarters of participating companies to learn about the business world and receive presentations on their products and technologies. Companies also offer students their research infrastructure to help them create prototypes. Another example of this “hands-on” approach comes from the Netherlands, where in 2004 the University of Groningen, together with ID Media, developed an educational online game for students of secondary vocational schools. The aim of the "Entrepreneurship Starter Game" (KvK Startersspel) is to inform students in a fun way about the steps required to start a business and to direct them to appropriate organizations that play a role in business creation, such as the Chamber of Commerce. The game was first tested by five schools in 2005 and is now available to all schools in the Netherlands; Approximately 80 schools are currently registered. Last year, 5,000 people visited the site where you can play the demo version of the game.

The ultimate goal of the progression model is for every school at every level to be involved in entrepreneurship education.

Key elements for developing the local entrepreneurship education ecosystem
• Creation of experiential learning environments (often in addition to and/or complementary to “traditional” classroom-based educational contexts).
• Developing clusters, partnerships and broader relationships covering all levels of education and a wide range of stakeholders.
• Development of local and regional support centres.

Create experiential learning environments. An illuminating example of how experiential learning environments can be created is provided by the Italian "Impresa Formativa Simulata" (IFS) system. IFS is used to deliver a new type of entrepreneurship education based on purpose-built software that facilitates virtual simulation of the business environment, including government agencies, banks and chambers of commerce. Approximately 731 schools and 370 companies have participated in this initiative so far. Fifteen regional centers have been established in cooperation with some regions of Italy to support the implementation of the system at the local level. The new educational model that emerges from this teaching method focuses on the development of entrepreneurial and innovation skills and abilities within and across schools. It also demonstrates the benefits of creating alternatives to the traditional classroom model.

Broader clusters, partnerships and connections. In countries with a relatively long tradition of entrepreneurship education, the path of development in some regions has led to schools developing their own clusters, perhaps later to the development of education-business partnerships under the auspices of local governments and business organisations.

Regional action has been significant in some parts of Europe. At this scale, it is possible to involve a wider range of actors, including higher education and regional sector organisations, as shown below. In Spain, for example, the Valencian Institute of Small and Medium Enterprises (IMPIVA) and the Valencian University and Enterprise Foundation (ADEIT) have joined forces to offer technical and educational institutes in the region better access to business. . The project involves a consortium of entrepreneurs from the city and aims to promote entrepreneurship in schools and universities. This aim is achieved mainly through the provision of training and targeted activities financed by company consortiums. An example of this is a summer school aimed at training university teachers and motivating students for entrepreneurship. This program includes a classroom workshop and online training.

Other examples of good practice:
Good practices have been selected from the catalog of good practices of the European SME policy available at:

https://ec.europa.eu/growth/tools-databases/sme-best-practices/SBA/index.cfm?fuseaction=welcome.detail

1.2-Develop entrepreneurial skills through VET

Entrepreneurship refers to the ability to act on opportunities and ideas and transform them into values for others. It is based on creativity, critical thinking and problem solving, initiative, perseverance and the ability to work collaboratively to plan and manage projects of cultural, social or financial value.

The EntreComp framework, which can be seen in this image, proposes a common definition of entrepreneurship as a qualification, with the aim of gathering consensus from all relevant parties and building a bridge between the world of education and the world of business. The framework can be used as a basis for developing curricula and learning activities that promote entrepreneurship as a competence.

It can also be used to define parameters to evaluate the entrepreneurial skills of students and citizens.

EntreComp Opportunities and Ideas

1. **Identifying Opportunities**
2. **Creativity**
3. **Vision**
4. **Evaluating Ideas**
5. **Ethical and Sustainable Thinking**

resources

1. **Mobilizing Resources**
2. **Mobilizing Others**
3. **Financial and Economic Literacy**
4. **Self-Awareness and Self-Confidence**
5. **Motivation and Persistence**

Action

1. **entrepreneurship**
2. **Coping with Uncertainty and Risk**
3. **Taking Initiative**
4. **Planning and Management**
5. **Working with Others**
6. **Learning Through Experience**

https://www.cedefop.europa.eu/files/background_paper__entrepreneurship_competence_in_vet.pdf

Entrepreneurship and entrepreneurial behavior are important objectives of education and lifelong learning policies in the European Union (EU) as a whole (European Community, 1999) and in individual Member States. Entrepreneurship is seen as a source of resilience, innovation and job creation for the economy, as well as an attractive prospect for individual development, self-fulfillment and citizenship.

Special skills: financial sales, marketing, IT, management.

Entrepreneurial competence or expertise is the structured and integrated ability to competently carry out entrepreneurial activities and solve entrepreneurial problems.

Competence refers to the individual performance of professionals, entrepreneurs or employees; This refers to all professional or entrepreneurial problems that professionals or entrepreneurs can address. A competent entrepreneur must be able to use knowledge, attitudes and skills to deal effectively with tasks, problems, dilemmas and contradictions arising, for example, from strong competition or changing customer demands. Based on the International Consortium for Entrepreneurship Education (ICEE, 1998), Gibb (1998) and Tolentino (1998), the following competencies can be distinguished.

The first important skill is the ability to recognize and analyze market opportunities. It consists of a specific combination of risk, content and market management. Entrepreneurs need to redefine “risk” not as a possible cause of failure but as an opportunity to use their expertise.
They may "find" opportunities by seeking better ways to accomplish a task through inventions, new services, and new approaches, or by discovering a segment of the population that might respond to a new product (or a new version of a product). By offering a cheaper product or service than currently available, applying new technology to solve customer problems differently, or finding a business location that better suits customers' lifestyle or needs.

A second skill is the ability to communicate, mentally identify, persuade and argue with customers, suppliers, competitors, service providers and other stakeholders in the business environment; is to better understand their needs, expectations, concerns and requirements. Stakeholders are not the only context for direct engagement with the market; there is also a wider social environment (Gibb, 1998).

The entrepreneur must act responsibly towards the social environment and society. Responsible business management is a prerequisite and basis for a society in which self-regulation of business activities can take place.

A third skill is networking, or the ability to connect with other entrepreneurs and other interested parties for mutual learning, collaboration, and other joint activities aimed at achieving common goals. Entrepreneurs have their own communities of practice (Gielen et al., 2003). An important point is the development of a global orientation and sense of the world as a potential field of study and influence on business (Gibb, 1998).

According to Gibb, entrepreneurs will have to deal with developments at a societal level, such as the expansion of the international market, increased competition, the spread of communication technologies, the internationalization of quality standards, a wider and more complex range of technologies. business processes, the consumer need for greater differentiation, innovation, service and added value, and the strong influence of a limited number of companies on international trade.

The fourth competency highlighted by Gibb (1998) integrates the core skills of resourcefulness with the core ability to cope with the entrepreneurial lifeworld. Entrepreneurs must be able to live with, and even enjoy, daily insecurity. The entrepreneur must develop personal entrepreneurial behavior and characteristics by effectively learning from business interactions and the personalization of global information (the circulation of information in personal networks and networks supported by the Internet/e-mail).

Another set of skills relates to the development of business and learning organizations, management of business development processes and stakeholder networks, and a flexible strategic orientation.

At the organizational level, entrepreneurs are increasingly faced with increasing responsibilities and insecurities as a result of the restructuring, downsizing and decentralization of organizations. The biggest challenge is stakeholder management at national and international levels, with a high degree of insecurity and unpredictability. They should also take into account the growing number of small and medium-sized businesses and become more competitive with new configurations of specialized skills and services, while also opening up new opportunities.

According to Tolentino (1998), this is why team building is so important for a beginner entrepreneur. Delegating responsibilities to a team of employees or even outside consultants allows the entrepreneur to focus on his core competencies, but also paves the way for increased efficiency and the generation of creative ideas in management. A “smart” entrepreneur organizes a diverse, compensatory and synergistic skill base.

https://www.researchgate.net/publicati
on/228728181_Entrepreneurship_and_
Vocational_Education/link/54256ad10
cf26120b7ac97f6/download

1.3-How to develop entrepreneurial skills

Personal characteristics of an entrepreneur

Do you have the mindset to be a successful entrepreneur? For example, entrepreneurs tend to have a highly innovative vision and can take risks that others would avoid.

Examine your personal characteristics, values, and beliefs and ask yourself these questions:

Optimism	Are you optimistic? Optimism is a value and will help you get through the difficult moments that many entrepreneurs face when finding a business model that suits them.
Attempt	Do you have initiative and instinctively initiate problem-solving or business development projects?
Spirit of initiative and perseverance	Are you motivated and energized? So, are you willing to work hard for a long time to achieve your goals?
risk tolerance	Are you able to take risks and make decisions when the facts are uncertain?
Durability	Are you resilient enough to get back on your feet when things don't go as planned? Do you learn and improve from mistakes and failures?

entrepreneurial interpersonal skills

As an entrepreneur, you will likely need to work closely with others; Therefore, it is very important to establish good relationships with your team, customers, suppliers, shareholders, investors and other stakeholders.

Some people are more skilled than others in this area, but it is possible to learn and develop these skills:

Leadership and motivation	Can you lead and motivate others to follow you and realize your vision? So, can you delegate the work to others? As an entrepreneur, you will have to rely on others to get you through the early stages of your business; There are so many things you can do alone!
communication abilities	Are you skilled in all forms of communication? You must be able to communicate well to explain your vision for the future to a wide audience, including investors, potential customers and team members.
Listening	Do you know how to listen to what others tell you? Your ability to listen and absorb information and ideas can make you an entrepreneur. Make sure you are skilled at active and empathetic listening.
personal relationships	Do you have good “people skills”? Are you self-aware, able to regulate your emotions, and respond positively to feedback or criticism?

Discussion	Are you strong negotiators? You will not only need to negotiate fair prices, but also resolve differences between people in a positive and mutually beneficial way.
Ethic	Do you deal with people based on respect, honesty, fairness and trust? Can you drive ethically? It's hard to build a happy, productive company if you treat staff, customers, or suppliers badly.

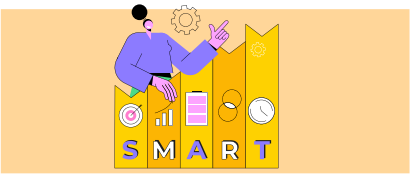
Critical and creative thinking for entrepreneurs

As entrepreneurs, you need to have new ideas and make good decisions about potential opportunities and projects.
Many people think that you are either born creative or you can't be creative. But creativity is a skill that can be developed, and there are many tools available to inspire it.

Creative thinking	Are you able to look at situations from different perspectives to generate original ideas? Tools like the Reframing Matrix can help you do this.
troubleshooting	You'll need solid strategies to solve the business problems that will inevitably arise. Tools like Cause and Effect Analysis, the 5 Whys Technique, and CATWOE are a good place to start.
Get to know the opportunities	Can you recognize opportunities when they arise? Can you spot a trend? And can you create a workable plan to take advantage of the opportunities you identify?

Practical skills and knowledge that entrepreneurs need

Entrepreneurs also need solid skills and practical knowledge to effectively produce goods or services and run a business.

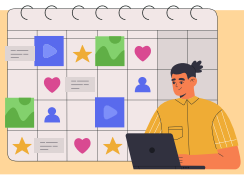


Definition of goals

Setting SMART (Specific, Measurable, Achievable, Relevant and Time-bound) goals will focus your efforts and enable you to use your time and resources more effectively.

Planning and organization

Do you have the talents, skills and abilities needed to achieve your goals? Can you coordinate people to reach them efficiently and effectively? Strong project management skills are important, as are basic organizational skills. You will also need a coherent, well-thought-out business plan and adequate financial forecasts.



decision process

Business decisions should be based on good information, evidence and weighing of potential consequences. Key decision tools are decision tree analysis, grid analysis, and six thinking hats.

When starting or managing a business you need to have knowledge in many different areas. Be sure to include the following:

			
business information	Entrepreneurship knowledge	Specific information about the opportunity	Company specific information
Make sure you have a working knowledge of a company's main functional areas: sales, marketing, finance and operations. If you cannot perform all these functions yourself, you will need to hire other people to work with you and handle them competently.	How will you finance your business and how much capital do you need to raise? Finding a business model that works for you may take a long period of experimentation and hard work.	Do you know the market you are trying to enter and what you need to do to bring your product or service to market?	Do you know what it takes to make this type of business successful? So, do you know the specific features of the business you want to establish?

You may also learn from others who have worked on projects similar to those you are considering, or find a mentor who has been there before and is willing to guide you.

Resources::
[1] Forbes (2021). Pandemic Boosts Global Growth of Entrepreneurship and Startup Craze [online]. Available here. [Accessed May 23, 2022.]

1.4-Causes of startup failures

In this section, we will examine examples of failure. An overview of the reasons why startups fail to succeed will be presented.

Start-up is a temporary status or term for an organization whose main goal is to launch a new business model or open a new market.

Most start-ups fail, especially those born after a pandemic. Competition is one of the biggest challenges for startups to survive.

The truth is that starting a business is risky, which means the entrepreneur must have a solid business plan and risk management [3]. The first failure of a commissioning usually occurs on day 120 [2].

Planning and research are key to creating a start-up. They ensure that the business idea is viable, the price is competitive, and there is sufficient return on investment.

Start-ups need a carefully thought-out business plan, which should be realistic and include informed predictions for the future. Businesses that do not turn to a professional may find themselves facing increasingly serious financial difficulties.

If a company does not have capital and a contingency plan, it cannot thrive. Having a team of quality people to support is fundamental to the success of the company.

Hiring requires careful consideration to ensure that each employee brings a new skill to the company. Businesses that do not consult a professional may find their financial problems worsen.

If a company does not have capital and a contingency plan, it cannot thrive. Working with a team of quality people is critical to the success of the company.

Hiring requires careful consideration to ensure that each employee brings a new skill to the company. Using all marketing channels, such as professional websites and social media, will move your business forward, but many businesses may suffer. You can prevent bankruptcy by protecting your business with the right insurance.

Case 1

Scott Ferber founded Videology in 2007. Videology's goal was to find promoters to place their ads on digital platforms to reach their target consumers. Additionally, it provided tools for video efficiency ratio. Total funding was $201 million. The idea of videology was too futuristic for its time, and this caused the industry to fail to implement it. Videology could not adapt to the conditions and went bankrupt. Another problem that arose was the advertising policy of Google and Facebook, which did not allow foreign companies to buy advertising. Everything had to be sourced from Google.

Situation 2

Exec was an online cleaning service. His main job was cleaning houses, but employees performed all kinds of tasks for $25 an hour. Exec initially earned $3.3 million and managed its own finances: base cost for software engineers, 30% of overhead and $25 per hour, 80% for the on-service team member, and the rest for the company.

The flaw was that the company offered refunds for employee errors, which quickly ate into profits. Moreover, very high costs for software engineers. The manager needs to get the software development costs at a reasonable price.

Situation 3

Jawbone is one of the biggest failed startups. Headphones, fitness trackers, etc. It produced electronic devices such as. It raised $930 million in venture capital and quickly launched, discontinuing sales of fitness trackers in 2016. Excessive financing pushed the company into the abyss. It caused discrepancies between appearance and actual values. Moreover, Jawbone's products were not suitable for the market.

Situation 5

Hoop was a successful start-up launched in 2016 by a group of caring parents. Dance lessons, creative workshops, etc. They have developed a platform to connect local events and families such as. Hoop was successful until it ran into trouble in 2020. The pandemic hit him hard as family activities became extremely stale during quarantine times. To survive, Hoop launched a new offering: online activities for kids. Unfortunately, the app did not recoup the losses until it was finally shut down.

Case 4

Lytro is a technology company that develops light field imaging technology and has raised $215.8 million in funding. Unfortunately, technology has never adapted to photographers' needs. So Lytro moved to virtual reality and repeated the same mistakes: failing to recognize the need for a quality product.

The five start-ups we present reveal that the main reasons for start-up failure are lack or excess of financing and inability to meet market needs. This study listed the top three causes of business failure.

Why do start-ups fail?

Some reasons why startups fail are: lack of market needs (42%), running out of funding (29%), and not having the right team (23%). Other reasons are; Lack of focus on the customer, bad product, bad timing or bad marketing.

But there are other reasons:

A start-up needs a well-organized activity, roles and rules for every individual involved.
Business model is the basis of creating a business. The strength of a business model determines the success or failure of a start-up. Existing businesses should continue to regularly review their business models to respond to future trends and challenges.

Securing financing: To secure financing, the start-up needs to research the most suitable financing route, investors and design the company presentation accordingly.

Financial Planning: A common mistake beginners make is poor financial planning. Underestimating startup costs, ongoing expenses, and mispricing a product/service can cripple a company.
Understand in detail the cost reality of all expenses from the start: Review your pricing structure to ensure it covers your costs and generates a profit.

People and talent: People at the start-up will significantly influence the success or failure of the venture. Collaboration and open communication with the team is the key to the success of a start-up.

Competition: For a startup, this may be the biggest challenge, but it can also be a huge advantage if the company manages to innovate and differentiate itself from its competitors. Competition fosters creativity, innovation and product quality.

Leadership: To be a leader, you need to have a vision and keep the team moving in the same direction. Leadership is not a single performance, but a partnership between the leader and the team. Leadership is about implementing innovative strategies to solve problems and create a productive work environment.

Market Demand: Lack of demand for products or services is one of the challenges faced by startups. Researching the question of the problem you are trying to solve is critical to avoiding this problem. A start-up needs to have a target audience for the product/service and find a way to monetize the product/service, penetrate the market, and achieve measurable growth.

Planning: Having a plan helps the start-up make better decisions and prevents them from making hasty decisions. A good business plan not only helps entrepreneurs focus on the specific steps needed for the success of their business idea, but also helps them achieve short- and long-term goals.

Scaling the Business: Transitioning from a small operation to an enterprise-scale business is often a critical moment for most startups. It is important to improve distribution, customer service and other critical business functions to support growth.

Senior mentors and guidance: A start-up may need help making the right business decisions or focusing on the right strategy areas to scale the business. Consulting a business consultant can provide invaluable insight and support. A start-up can also access information in other ways, such as podcasts, articles, and books written by business experts.

Bottom line: Most start-ups fail because they fail to identify market needs, run out of cash, and don't have the right team. To be an entrepreneur, you need to be prepared to face any challenges and always make the right decisions.

EPISODE 02

Startup ideas in the ICT sector

CONTENTS

Part 2 Startup ideas in the ICT sector

The ICT sector is a rapidly growing sector due to technological advancements and increasing demand for digital solutions in various fields. ICT initiatives can be broadly classified as software-based initiatives and hardware-based initiatives.

Software-based startups may focus on developing new applications or improving existing applications. Some possible ideas in this area could include developing innovative software solutions for industries such as healthcare, education or finance. For example, a startup could create a platform to help hospitals manage patient data more efficiently or a mobile app that provides personalized financial advice to users.

Hardware-based initiatives may focus on developing new hardware technologies or improving existing hardware. This may include developing new types of devices or sensors that can be used in sectors such as agriculture, manufacturing or transportation. For example, a startup might develop a new type of IoT (Internet of Things) sensor to be used to monitor soil moisture levels on a farm, or a new type of robotic arm to be used in the manufacturing industry.

Artificial intelligence (AI) and machine learning are emerging as a focus area in software-based startups. Start-ups in this sector may focus on developing new algorithms or creating intelligent systems that can learn from data, make predictions or make decisions. For example, a startup could develop an AI-powered chatbot that can help customers solve problems with a product or service, or a machine learning system that can detect fraud in financial transactions.

Here are other software-based startup ideas in the ICT sector:

Mobile application development	With the increase in smartphone usage, the demand for mobile applications is increasing day by day. A mobile app development startup can focus on developing innovative applications for different sectors such as healthcare, education, entertainment and e-commerce.
Cyber security	With the increasing number of cyber attacks, cyber security is becoming more important than ever. Some startup ideas in the field of cybersecurity include the development of antivirus software, firewall, and security analysis software. Various solutions include network security, threat detection and incident response.
cloud computing	Cloud computing is a rapidly growing industry that involves the provision of computing services over the internet. Some cloud computing startup ideas include cloud storage solutions, cloud-based software, and development of cloud-based infrastructure. For example, cloud computing startups can develop competitive solutions that help businesses securely store and process large amounts of data.

Overall, opportunities for start-ups in the ICT sector are numerous and the possibilities are almost endless. The important thing is to identify a problem or need that can be solved with technology and then develop an innovative and practical solution.

2.1 Education and Vocational Training Opportunities in the Entrepreneurship Ecosystem

Entrepreneurship is a vocational education and training (VET) opportunity that provides students with essential skills that increase their employability, support their personal development and encourage active citizenship. VET promotes business performance, competitiveness, research and innovation. VET systems in Europe are based on a well-developed network of VET stakeholders.

The ICT sector offers a range of opportunities for vocational education and training (VET) within the entrepreneurial ecosystem. Below you can find some examples.

Digital skills training	VET providers can offer training programs to help entrepreneurs and startup teams develop the digital skills needed to succeed in the ICT sector. This may include training in programming languages, cloud computing, web development, data analytics or cybersecurity.
Incubation and acceleration programs	VET providers can create incubation and acceleration programs that provide startups with access to mentorship, funding and networking opportunities. These programs can be tailored to the specific needs of ICT startups and help create an environment conducive to entrepreneurship.
Collaboration areas	VET providers can create collaboration spaces such as co-working spaces that provide ICT initiatives with access to shared resources, including offices, equipment and technologies. These spaces can also facilitate networking and collaboration between startups.
Industrial partnerships	Partnerships are formed between VET providers and industry organisations, such as technology companies or industry associations, to ensure start-ups have access to industry expertise, resources and finance. These partnerships can also help ensure that VET programs are aligned with industry needs and trends.
Internship and apprenticeship programs	VET providers can create internship and apprenticeship programs that provide access to a pool of talented and motivated students or recent graduates for ICT initiatives. These programs can help create a pipeline of skilled workers for the ICT sector and provide valuable talent to startups.

Overall, the ICT sector offers a range of opportunities for vocational training providers to support entrepreneurship and innovation. By providing training, mentoring, funding and networking opportunities, VET providers can help create a vibrant and supportive entrepreneurial ecosystem that supports the growth and success of ICT startups.

2.1.1 Vocational education and training opportunities in the Czech Republic entrepreneurial ecosystem

The Czech Republic has a well-developed vocational education and training system that promotes work-based learning in companies and supports graduates' transition from school to work.

There are various institutions in the Czech Republic that deal with vocational training opportunities in the local entrepreneurial ecosystem.

National Institute of Technical and Vocational Education	The National Institute for Technical and Vocational Training (NÚOV) is a research and development institute dealing with vocational education and training. It offers a variety of programs and services to support vocational education and training in the Czech Republic.
National Education Fund	The National Training Fund (NOZV) is a non-profit organization that provides programs and services that support vocational education and training, including training courses, seminars and workshops.
CzechInvestment	CzechInvest is the investment and business development agency of the Czech Republic. It offers a range of programs and services that support entrepreneurship and innovation in the Czech Republic, including support for vocational education and training.

2.2 Opportunities for specific sectors

Vocational education and training providers can offer a wide range of training programs and resources tailored to specific industries. Vocational education and training providers can help create a vibrant and supportive entrepreneurial ecosystem by providing entrepreneurs with the knowledge and skills they need to innovate in their sectors.

2.2.1 Health care

The use of ICT in healthcare has created new opportunities to improve patient care and outcomes. The advantages of these new technologies can be summarized in the following main factors: improving the quality of patient care, increasing the efficiency of the healthcare sector and making available to patients, healthcare professionals and managers the necessary information and tools to manage and strengthen healthcare systems, provide better care and improve treatments and survival rates .
Technologies such as augmented reality (AR) and 3D printing are already widely used in medicine today.
Augmented reality technologies are being used in the healthcare industry to give doctors instant access to patients, assist first responders with treatment instructions, diagnose a patient's current medical conditions, and directly interface with emergency responders. AR applications in healthcare are not limited to AR glasses. Nowadays, doctors use AR very effectively during interventional procedures. AR technology is used in the healthcare industry in a variety of ways, including:

medical education	AR is used to provide realistic and interactive educational experiences to medical students and healthcare professionals. With AR, medical students can practice procedures and techniques virtually, allowing them to gain experience and confidence before working with real patients.
Surgical planning	Today, AR is used to aid surgical planning and visualization. Surgeons can use AR to project digital images and information onto a patient's body, providing them with real-time visual guidance during surgery.
imaging medico	AR can truly improve medical imaging and diagnostics, allowing doctors and clinicians to better understand complex medical images, allowing them to more accurately diagnose and treat medical conditions.
Rehabilitation	AR helps improve treatment in physical rehabilitation. AR can help patients recover faster from injury or illness by providing them with interactive and engaging exercises tailored to their specific needs and abilities.
patient education	AR is used to educate patients about medical procedures and treatments. It can provide patients with interactive, immersive experiences that help them better understand their medical conditions and treatments, improving overall health outcomes.

3D printing is revolutionizing healthcare and improving surgical techniques through the development of organ models, bone and joint implants, and precision instruments. 3D printers are used to produce a variety of medical devices, including those with complex geometry or features that fit the patient's unique anatomy.

Research on the use of technology to produce medicines, skin tissues and organs is also ongoing.

3D printing technology is transforming the healthcare industry in many ways. Here are some examples of how 3D printing is being used in the healthcare industry:

Personalized prostheses	3D printing is used to create customized prosthetics that adapt to patients' unique needs and anatomy. With 3D printing, prosthetics can be created faster and at lower costs than traditional methods.
Surgical planning	3D printing is excellent for creating patient organ and tissue models to aid in surgical planning. Surgeons can use these models to perform complex procedures and develop customized surgical plans tailored to each patient's unique anatomy.
dental applications	Dental implants, crowns and braces can also be created using 3D printing methods. With 3D printing, dental prostheses can be created faster and at lower costs than traditional methods.
medical devices	Medical devices such as hearing aids, surgical instruments and drug delivery systems can be rapidly developed with 3D printing. With 3D printing, medical devices can be customized to fit each patient's unique needs and requirements.
tissue engineering	3D printing is being used to create three-dimensional tissue structures that can be used for research and regenerative medicine. Researchers are using 3D printing to create tissues such as bone, cartilage and skin that can be used for transplants and regenerative therapies.

Overall, 3D printing technology is revolutionizing the healthcare industry by offering new opportunities for personalized, cost-effective healthcare solutions. With continued progress, 3D printing has the potential to transform many areas of healthcare in the future.

2.2.2 Mobility

Modern mobility has created new opportunities to improve transportation systems with modern information technologies. The proposed classification is based on a literature review and review of scientific documents on policies and technologies for urban mobility and smart mobility, particularly in European cities.
ICT loosens the connection between activities and fixed places and times, simultaneous use of time, multitasking, etc. It expands the ways to conduct activities, including: As a result, the concept of temporal and spatial boundaries is changing.
The integration of information and communication technologies (ICT) into mobility is transforming the transportation sector in many ways, creating new opportunities for innovation and growth.

autonomous vehicles	The development of autonomous vehicles that use ICT to navigate and operate without human intervention creates new opportunities for transportation services and infrastructure. As this technology becomes more widespread, companies specializing in software, sensors and other components of autonomous vehicles are also poised to grow.
Intelligent transportation systems	Using ICT to create intelligent transportation systems creates new opportunities to improve the efficiency and safety of transportation networks. Companies that specialize in traffic management systems, predictive analytics, and real-time data analytics are well positioned for a successful business.
Ride sharing and mobility as a service (MaaS)	The growth of ridesharing services that use ICT to connect passengers with drivers and coordinate transportation creates new opportunities for companies that provide ridesharing platforms, data analytics and other related services. MaaS platforms, which combine different modes of transportation into a single service, also create new opportunities for innovation and growth. These services also lead to ecological improvements.

electric vehicles	Electric vehicles use information technologies to manage battery charging, tracking and other functions; This creates new opportunities for companies that provide charging infrastructure, software and other related services.
Connected vehicles	The integration of ICT into vehicles creates new opportunities for connected services such as in-car entertainment, navigation and security functions. As demand for connected vehicles continues to grow, companies specializing in these areas are well positioned for growth.

Overall, the integration of ICT into mobility creates new opportunities for innovation and growth in the transport sector. As technology continues to evolve, many more opportunities will emerge for companies specializing in software, sensors, data analytics, and other related areas.

2.2.3 Communication

Information technologies in communications create new opportunities for innovation and growth in the communications sector. As technology continues to evolve, opportunities will increase for companies specializing in software development, data analytics, information security (including cybersecurity), information and knowledge management, and other related areas.

Social media management	The growth of social media platforms, which rely heavily on ICT to connect people and facilitate communication, creates new opportunities for companies providing social media management, analytics and other related services.
instant messaging software	The popularity of instant messaging applications such as WhatsApp and Facebook Messenger is creating new opportunities for companies specializing in messaging software and other related services.
video conferencing	Remote working and virtual collaboration are a new part of our lives. Our situation therefore creates new opportunities for video conferencing services that rely heavily on ICT to facilitate real-time communication and collaboration.
Cloud based communication	All communication services mentioned are based on storage and cloud services. The growth of cloud computing is creating new opportunities for companies that provide cloud-based communications services such as email, messaging and collaboration tools.
Internet of Things (IoT)	The growth of IoT is truly massive. Every tiny object connects to the internet every day, allowing communication between servers and cloud storage. All of this creates new opportunities for companies that provide IoT devices, software and other related services.
unified communications	Unified communications (UC) technologies, which combine voice, video, messaging and other communication tools into a single platform, create new opportunities for companies that provide UC software and related services. People use these platforms every day in their personal lives and workplaces, so the popularity and demand will increase.

The world as we know it is driven by communication, but in recent years the development of new technologies has led to a shift in how communication happens, both in terms of human connections and industry. Digital transformation is at the heart of the communication technology of the future. Technology, which enables the continuous transfer of data and information, is changing the way we communicate and interact with each other.

2.2.4 E-commerce

Information and communications technologies (ICT) have revolutionized the way businesses operate, and e-commerce is no exception. The growth of e-commerce mainly depends on strengthening the ICT infrastructure. The smartphone market and the proliferation of the Internet have proven to be a catalyst for the growth of the e-commerce industry.

ICT has enabled businesses to reach a wider audience and e-commerce has made it possible to sell products and services online. E-commerce has created new opportunities for businesses to expand their reach and increase revenue.

The E-Commerce and Digital Economy Program continued to fulfill its mission in 2021 to help developing countries increase their preparedness for participation and integration in the digital economy.

E-commerce platforms	The growth of e-commerce platforms such as Shopify and WooCommerce creates new opportunities for companies that provide these software platforms, web design and other related online services.
mobile trading	The increasing use of smartphones and other mobile devices for online shopping creates new opportunities for companies developing mobile commerce solutions such as mobile shopping applications and mobile payment systems.
Data analysis	The use of data analytics in e-commerce is really important. E-commerce requires a lot of analysis. This brings new opportunities for companies that provide data analytics software and services, including predictive analytics, customer segmentation and sales forecasting.
supply chain management	The growth of e-commerce is creating new opportunities for companies that provide supply chain management software and services, including inventory management, order fulfillment and shipping logistics.
customer experience	Customer experience in information technology is creating new opportunities for companies that provide customer experience software and services, including personalization, chatbots, and virtual assistants. These technologies also make e-commerce easier for customers.
Digital marketing	E-commerce creates new opportunities for companies that provide digital marketing services, including search engine optimization (SEO), social media marketing and email marketing. Businesses use these services daily to increase their profits and awareness.
Cyber security	E-commerce creates a potential avenue for attackers. This brings new opportunities to companies that provide cybersecurity software and services, including fraud detection, secure payment processing and data protection.

2.2.5 Tourism

The advancement of ICT is influencing the growth of the travel and tourism industry in all types of business. Multimedia is a way to promote the travel industry, such as Instagram, Facebook and TripAdvisor. Computer technologies can create the photographs and graphic designs that tourism service providers need to promote their products.

However, ICT use can also significantly disrupt tourism experiences and challenge well-being goals for tourists and those around them. The relationship between ICT and well-being is therefore vital not only in everyday contexts, but above all during holidays.

Online reservation systems	The growth of online booking systems such as Booking.com and Airbnb creates new opportunities for companies that develop these services, provide web design and other related online and cloud services.
mobile app	The increasing use of smartphones and other mobile devices in travel planning creates new opportunities for companies that provide tourism-oriented mobile applications such as travel guides, language translations and location-based services.
virtual reality	Virtual reality can be useful in tourism. It creates new opportunities for companies that offer virtual reality experiences, such as virtual destination tours, virtual reality theme parks and virtual reality museums.
Data analysis	The use of data analytics is almost the same as that of other business sectors. Analytics in tourism creates new opportunities for companies that provide data analytics software and services, including predictive analytics, customer segmentation and personalized recommendations.
smart tourism	Smart tourism technologies such as the Internet of Things (IoT) and artificial intelligence (AI) are creating new opportunities for companies that provide smart tourism solutions, including smart hotels, smart planning applications, smart cities and smart transportation and travel.
Digital marketing	Tourism creates new opportunities for companies that provide digital marketing services, including search engine optimization (SEO), social media marketing and email marketing. Tourism has nothing special about digital marketing. It requires the same digital promotion methods as other businesses.
sustainable tourism	The use of ICT in sustainable tourism creates new opportunities for companies that provide sustainable tourism solutions, including green hotels, responsible tourism practices and carbon footprint reduction technologies.

2.2.6 Education

Information and communication technologies (ICT) have revolutionized the way education is delivered and received. The use of ICT in education has the capacity to improve the education sector and outcomes, attract out-of-schoolers, reach students in remote and hard-to-reach areas, and improve educational content.

ICT tends to expand access to education. Thanks to ICT, learning can take place anytime and anywhere. For example, online course materials are available 24 hours a day, seven days a week. Teleconferencing classes allow students and teachers to interact simultaneously.

ICT has the potential to improve the quality of education by making it more interactive and engaging. They can help teachers create more engaging and interactive lessons; this can help students learn more effectively and improve learning outcomes by collaborating with each other and with teachers.

ICT can also help reduce the cost of education. By using ICT, schools and universities can reduce the cost of textbooks and other teaching materials. ICT can also help reduce travel and accommodation costs for students who have to attend classes in person.

Examples of opportunities offered by ICT in education:

Online learning platforms	Online learning platforms like Coursera and Udemy are becoming more popular than ever. This creates new opportunities for companies that provide online learning software, web design, and online material creators.
E-learning resources	The growing use of online learning platforms and other educational technologies creates new opportunities for companies and individual creators who provide e-learning resources such as digital textbooks, e-learning applications and online educational games.
Learning management systems	The growth of e-learning; It creates new opportunities for companies that provide learning management systems, including course management, student tracking and assessment management. Over time, traditional schools have used multiple management systems to streamline their systems for student reporting, test scores, and more.
educational software	The use of educational software in classrooms is increasing. Students and teachers demand modern solutions for modern education. This creates new opportunities for companies that provide educational software solutions, including virtual labs, digital whiteboards, and collaboration tools.
Virtual and augmented reality	Virtual and augmented reality are bringing new ways to learn about many non-technical subjects to schools. This situation in schools creates new opportunities for companies that provide virtual and augmented reality experiences such as virtual field trips, augmented reality textbooks, and virtual reality simulations.
Digital assessment tools	E-learning creates new opportunities for companies that provide digital assessment tools, including quizzes, exams and online assignments.

2.3 Analysis of the Current Market with unmet demand under certain sectors

2.3.1 Health care

Startups are leveraging technology to deliver innovative solutions for medical education and training in Europe. These initiatives help healthcare providers improve their skills and knowledge by offering online courses, training programs, and other learning resources, ultimately leading to better outcomes for patients.

Medic Creations is a digital health education platform based in Sweden that offers online courses for healthcare professionals. The platform offers courses in a variety of areas, including medical coding, clinical research, and patient safety.

360Medics is a Spain-based medical education platform that offers online training courses in areas such as anatomy, radiology, and cardiology.

Medmastery is an Austrian medical education platform. It offers online courses for healthcare professionals. The platform offers courses in emergency medicine, cardiology and radiology.

Meducation is a UK-based medical education platform that provides online learning resources for medical students and professionals. The platform offers resources in anatomy, pharmacology, and clinical expertise.

Open Medicine Institute is a medical education platform based in Austria. It offers online courses and training programs in cardiology, gastroenterology and oncology.

InSumu is a Czech startup that uses artificial intelligence to improve diagnostic medical education. The company has developed a platform that can help medical students and professionals learn to diagnose health conditions more accurately.

Medicus AI comes from Austria. A startup that uses artificial intelligence to help people understand their health data. The company has developed an application that can analyze health data and provide personalized health information.

Turkish startup Meditopia uses meditation and mindfulness to improve mental health. The company has developed an app that can help people reduce their stress and anxiety.

2.3.2 Mobility

These initiatives use modern technologies to deliver innovative solutions for mobility education and training in Europe. These initiatives help mobility professionals develop their skills and knowledge by offering online courses, training programs and other learning resources, ultimately leading to more efficient, sustainable and safe mobility and transportation systems.

EasyMile Academy is a France-based startup that offers education and training courses for professionals working in the autonomous vehicle industry. The platform offers courses in areas such as vehicle technology, security and maintenance.

A startup called CodeMob was founded in Germany. Provides coding and programming courses for mobility professionals. The platform offers courses in various fields, including mobile app development, software engineering and web development.

Dutch startup Hyperion Robotics offers robotics education and training courses for professionals working in the mobility and automation sector. Courses are given on the platform in areas such as robot design, programming and automation.

Urban Mobility Academy is a Belgium-based startup that offers online courses and training programs for professionals in the urban mobility sector. The platform offers courses in a variety of areas, including sustainable mobility, smart cities and public transport.

2.3.3 Communication

Start-ups in the field of communication offer innovative technological solutions in language education and communication, especially in Europe. These startups offer online courses, tutoring services, and other learning resources to help people improve their language skills and communicate better with others, leading to greater opportunities and success in their personal and professional lives.

Duolingo is a startup founded in the United States but also operates in Europe and other continents. Duolingo offers language learning courses for people of all ages. The platform offers courses in many languages, including English, Spanish, French, German and many more.

There are other startups specializing in language learning for adults: Speakly from Estonia, Lingoda and Babbel from Germany.

2.3.4 E-commerce

E-commerce startups are using modern technology to deliver innovative solutions for e-commerce education and training. These startups help e-commerce professionals improve their skills and knowledge by offering online courses, training programs and other learning resources. E-commerce can ultimately lead to the most successful businesses and a thriving ecosystem in Europe.

Ecommerce University is a Dutch startup that offers online courses and training programs for professionals working in this industry. The platform offers courses on topics such as online marketing, customer service and logistics.

The initiative called Kooomo Academy was founded in Ireland. It is a startup that provides e-commerce education and training to business owners. It offers courses in a variety of areas, including e-commerce strategy, platform management and online sales.

The Spanish E-commerce Institute is an initiative that offers online courses and training programs to anyone working in the e-commerce industry. The platform offers courses in online marketing, web design and e-commerce technology.

E-commerce Training Academy is a UK-based startup that offers e-commerce training courses for entrepreneurs and e-commerce professionals. E-commerce strategy, online marketing and website optimization are the main topics of all courses.

Ecommerce Mastery is a Germany-based startup that offers education and training to business owners and e-commerce professionals in areas such as online sales, customer service and logistics.

2.3.5 Tourism

Startups help tourists better understand local cultures and traditions and ultimately have more authentic and meaningful travel experiences around the world.

TrekkSoft is a Switzerland-based startup that provides online booking and management software for tour and activity operators. The platform also offers a range of educational resources, including blog articles, webinars and online courses.

Dutch startup Withlocals provides a platform that allows tourists to book local experiences and tours with local hosts. It also offers educational blogs and videos about local cultures and traditions.

Welcome Pickups is a startup that offers personalized airport pick-up service and travel experiences to tourists. The startup was founded in Greece and offers educational resources such as travel guides and destination recommendations.

GetYourGuide is a German initiative. Their aim is to provide tourists with a platform where they can book tours, activities and experiences around the world. The platform also offers travel guides and destination recommendations.

There is a startup in France called TourScanner that provides a search engine for blogs containing tourism articles and guides to events around the world.

2.3.6 Education

In Europe, innovative education and training solutions are very popular areas for startup creation. What these startups have in common is offering online courses, educational resources, tools and features to help educators and institutions improve their teaching and recruitment efforts, while also helping to improve access to education and training for students and professionals across Europe.

FutureLearn is a UK-based startup that provides online courses and materials from leading universities and institutions around the world. Everyone can find a course according to their interests. A wide range of topics are offered on the platform, from informatics to business, from history to literature.

The EdTechX initiative was founded in France. Develop a platform where educators can discover and share educational resources and learning materials. The platform also offers a suite of tools and features to help educators create and deliver engaging and effective online courses.

Code Institute, an Irish startup, offers coding bootcamps and online training programs for individuals and businesses. The platform offers courses on various traditional programming languages as well as web development tools.

StudyPortals is a Dutch startup that offers students a platform to explore and compare study options around the world. The platform offers information on a wide range of programmes, from undergraduate courses to postgraduate research opportunities.

Estonian startup DreamApply provides universities and educational institutions with an online web service to manage student applications. The platform also offers a number of features to improve student recruitment activities and related processes.

World Mastery is a Spanish initiative that uses education to develop the sports industry. The company has developed a platform that can help sports industry workers learn new skills and improve existing skills.

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EPISODE 03

Needs of SMEs regarding digital technologies

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Part 3: SMEs' needs regarding digital technologies

Digital transformation is the incorporation of information technologies into an organization's products, processes, strategies and models to better serve its workforce and customers and thereby increase its competitive capacity. Digital transformation has become a major challenge for SMEs as it involves recalibrating business strategies to innovate to meet the demands of new markets. According to the OECD, only 60% of SMEs have adopted new digital technologies during the COVID-19 crisis.

Digitalisation reduces transaction and communication costs between staff, suppliers and customers, among other things. Moreover, digitalization brings more value to customers, increases efficiency, stimulates innovation and, above all, finds new opportunities to generate revenue.

Digital business transformation is considered an effective business strategy that attracts attention today, when businesses are forced to constantly improve their business practices and capabilities. The use of digital technologies can reduce the impact of external crises and lead to major changes in business operations, enabling better business models. Additionally, the adoption of digital technology can impact the economic sustainability and social value of businesses and improve regional socio-economic conditions. There are few recent studies on how technology can empower businesses at different stages of growth and sustainability.

3.1 - Digitalization needs based on strategic leadership, products, operations, culture, people, governance and technology.

A basic strategy and the right technologies can help you digitize your business, but transformation requires the right mindset and guidance. Therefore, strategy combined with the right leadership is the first and most important component of an effective digital transformation strategy.

Forward-thinking leadership and the right digital transformation strategy can lead to a better, smoother, more cost-effective and time-efficient transformation plan, always keeping your company's North Star in mind.

It is imperative to ensure that the company's direction is clear when writing strategies in order to achieve goals unhindered in the later stages of the digital transformation process.
So, to formulate your company's digital transformation strategy, you need to make sure you build or hire the right team of bold leaders led by innovative-thinking executives.

Some qualities that transformational leaders should have include:

Agility of leaders ready for change	With the digital landscape changing so rapidly, a successful leader must be willing to experiment with new technologies and be more adaptable and flexible in their approach. Leaders must nurture a culture that embraces change.
Ability to implement targeted changes	Leaders who can answer the "why" questions of digital transformation are more likely to move their companies forward. Successful digital leaders need to have every reason to rethink the way they do business. They should present change not as "we add technology just to say we have new technology" but as "we use technology to stay competitive and push ourselves towards innovation."
far-sighted vision	The most successful leaders not only have a clear vision of the company's future, but also must be willing to dedicate the necessary resources and implement the necessary changes to realize that vision. This is possible with a clear and consistent digital transformation strategy with a forward-looking vision that outlines the current needs of the organization.
Risk takers and experimenters	Taking risks is the hallmark of a successful digital leader. The biggest risk is not taking any risks. In this ever-changing world, if leaders do not have the ability to take risks, it is impossible for any innovation to occur. Agile change leaders and risk takers or experimenters are those who create opportunities to experiment and innovate.
Ability to seek collaboration	An agile leader proactively embraces partnership. You can have the most innovative people and technologies working for you, but without partnerships and collaboration your competitiveness will suffer.

"We can do little by ourselves; "Together we can accomplish a lot." -Helen Keller.

Now let's move on to the next and most important component of a digital transformation strategy that often determines its success or failure.

Cultural exchange and communication

Get ready for a major cultural change. Typically, a company's customers and employees are reluctant to make major changes, making any transformation difficult to achieve. Culture is the cornerstone of a successful digital transformation program. Therefore, it would be useful to prepare employees in advance. Effective communication can help you achieve this goal.

- Talk to your employees about your digital transformation strategy and how it can benefit all stakeholders.
- Hold training sessions to prepare your employees in advance.
- You will be able to prepare your employees in advance by showing how necessary it is to align the culture with new initiatives.

Formulate clear training programs, provide regular updates, and be consistent in your efforts to reassure them. Communicate as much as possible, even if it means exaggerating!

Every business has a multitude of processes and operations that can be transformed to make workflows smoother and easier.

Therefore, you need to consider business process optimization when creating your digital transformation strategy.

The strategy must guarantee the optimization of business processes, respecting the goals set for customers and the internal team. To achieve maximum results, all interconnected business processes need to be included in the digital transformation strategy.

In addition to optimizing business processes, it is also necessary to make good use of the data collected over the years.

Data analysis and integration can help you identify them. People often choose the technologies they like before analyzing data and creating conversion strategies. This isn't how things are supposed to work. If you don't analyze your data, you may know what gaps your internal team needs to fill, but you may miss the gaps that customers deal with on a regular basis.

Analyzing data and disseminating results can help your team identify the best solutions to problems, lead to a better digital transformation strategy, and get the most out of the transformation process.

Technologies to be applied

Determining the technologies most suitable for your company is one of the most important stages of creating your digital transformation strategy. Implementing technologies in your company will require a lot of financial investment. Therefore, you need to do this correctly to eliminate the need for extra funds.

An effective digital transformation strategy will always include some options as well as budget requirements to make the best decision.
Whether it's upgrading legacy systems, modernizing applications, or implementing completely new digital systems, you need to find the right technology.

Here are some next-generation technologies that should be integrated into your digital transformation strategy:

1. Cloud and Distributed platforms

Cloud and distributed platforms will be common technologies in the coming years. Gartner predicts that by 2025, most cloud service platforms will offer at least some portion of distributed services that run on demand.
Companies are making strategic choices by adopting technological solutions based on API (Italian for "application programming interface"). Being culturally and strategically prepared to build and use API is critical to achieving business agility, accelerating new ideas to market, and unlocking new value in existing assets.
Additionally, the pandemic has accelerated digital transformation in many sectors, especially with the use of next-generation technologies such as blockchain or distributed ledger technology.

2. Data Analytics and Artificial Intelligence

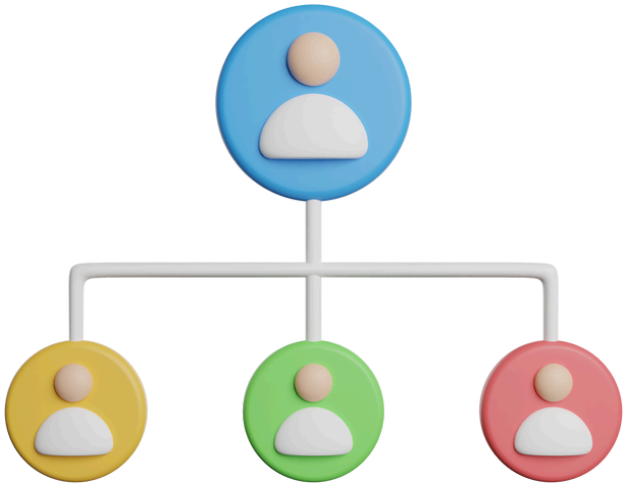
Data is at the heart of any digital transformation strategy and helps us eliminate guesswork and face facts. With Machine Learning overhauling decision-making and business operations, these tools and techniques are helping organizations transform increasing volumes of data into a new-age-ready foundation where machines will not only enhance human decision-making but also perform actual decision-making. At times, large-scale decisions that people cannot make if they want to remain agile.

3. Digital experience and digital reality

The world's largest experiment in unplanned working from home continues. A dynamically adaptable and resilient business will pave the way for the redesign of digital business moments, automated operational activities, new business models and, last but not least, new products, services and channels. Leveraging the power of these next-generation interfaces, smart displays with increasingly smart algorithms, and technologies such as the Internet of Things (IoT), organizations are optimizing the performance of individuals and teams while personalizing the customer experience by offering personalized solutions. offers. Such intelligently structured organizations become better decision makers by accessing more precise information and responding with greater expertise.

Having a clear idea about the implementation of technology in your digital transformation strategy will help you:

Complete the conversion process smoothly.
Make sure the investment takes place within your limits.
Overcome ineffective processes and build a future-ready company



Team composition

“Digital transformation is not about tools, it is about people,” says Harvard Business Review. Therefore, the composition of the team is a decisive factor in achieving the results you expect from your digital transformation strategy.

The composition of the team should be appropriate to the size of the project.
Your digital transformation plan should be well-balanced and your team should understand:

A group of leaders	Given the digital business model and a well-thought-out implementation plan, your team needs to have an agile leader as a torchbearer; This leader can be: Chief Digital Transformation Officer, Chief Digital Officer, Chief Digital Officer, or Chief Technology Officer. Officer or Chief Information Officer etc. as needed.
I Ninja del work	The core of the digital experience team consists of professionals who are experts in different technologies and different business sectors. Some of the qualifications that fall into this category include: Product Manager, Program Manager, Customer Experience Lead, Customer Success Engineer, Solutions Architect, and Senior Manager of technical and business teams.
A staff of Coders and Designers (CoDe)	To have skills and abilities in development, design, coding and data science and to get the most out of the Digital Transformation plan, the team needs to rely on the contribution of all stakeholders, be it developers, designers, graphic designers, data scientists. , AI and ML engineers etc.

The methodology chosen will also affect the composition of the team. For example, if you prefer agile methodology, you will need a larger team with several smaller sub-teams with specific goals. Whether you choose from your existing talent pool or work with an expert team, you must ensure that you create a team that moves smoothly towards Digital Transformation. The ultimate goal is to create high-performance teams where everyone is responsible for the success of the team and the organization. It is important that the leader and project managers are effective, encourage teamwork and communicate well. The leader's role is to eliminate bottlenecks so that the team can move towards the common goal.

Digital transformation strategies

The results of your company's digital transformation will be greatly influenced by how you define your strategy.

Results may differ depending on the applications selected and the technologies applied. To scale your digital transformation and achieve new goals as your business grows, you need to evaluate results from the beginning and plan long-term strategies.

Your team should be flexible enough to review the results and make changes if necessary. Agility is the key to the success of your digital transformation strategy. You should follow the detailed strategy you created, but also be open to changes if it does not match expectations.

Digital transformation strategy is about meeting prerequisites. By creating an effective, clear and solid digital transformation strategy, you can ensure that your business transitions to digital transformation as smoothly as possible. A digital transformation strategy is like a customized map for making major changes to your business operations. It requires a lot of financial investment, time and technical skills. To reduce risks, it is always beneficial to ensure that teams are led by highly trained and experienced technical leaders.

Advantages of digitalization processes

Digitalization can improve processes by providing the company with new methods and opportunities. New digital tools for design, project management and sales, combined with access to customer data, will allow companies to create or reinvent products and services based on specific customer needs, making the process much more efficient. New digital tools:

Increase customer satisfaction:	Digital technologies are forcing us to think differently about the customer, the key influencer of every company, and how we understand and satisfy them. SMEs can reach more customers thanks to the correct use of technology. In a study conducted by DELOITTE in the United States, more than 40% of all SMEs report customer growth and attribute some of this growth to the use of digital tools.
They accelerate innovation by:	Innovation is recognized as the engine of future economic growth, with a wide range of new technologies acting as accelerators. Today, many effective innovations are being created by new generation companies that do not have physical offices and operate entirely in a digital environment. These companies use technology to create more advanced products and services, changing the competitive landscape.
They reduce operating costs:	They can help small and medium-sized enterprises (SMEs) integrate into global markets by reducing costs associated with transportation and border operations and significantly increase the ability to trade services.

Digitalization is a key component of the European Union's response to the economic crisis caused by COVID-19. The pandemic has shown how digital skills support both economies and societies. The need for information and communications technology (ICT) skills within companies to face the challenges posed by COVID-19 is also highlighted in a report by the Learning and Knowledge Development Facility (LKDF) of the United Nations Industrial Development Organization (UNIDO) and the European Training Foundation (ETF). As seen in Figure 1 of the report, 76.2% of the 105 companies interviewed believe that their improvement needs are mainly related to ICT skills, followed by design thinking and creative approaches.

That's why digital or ICT skills are becoming increasingly important for both work and life.

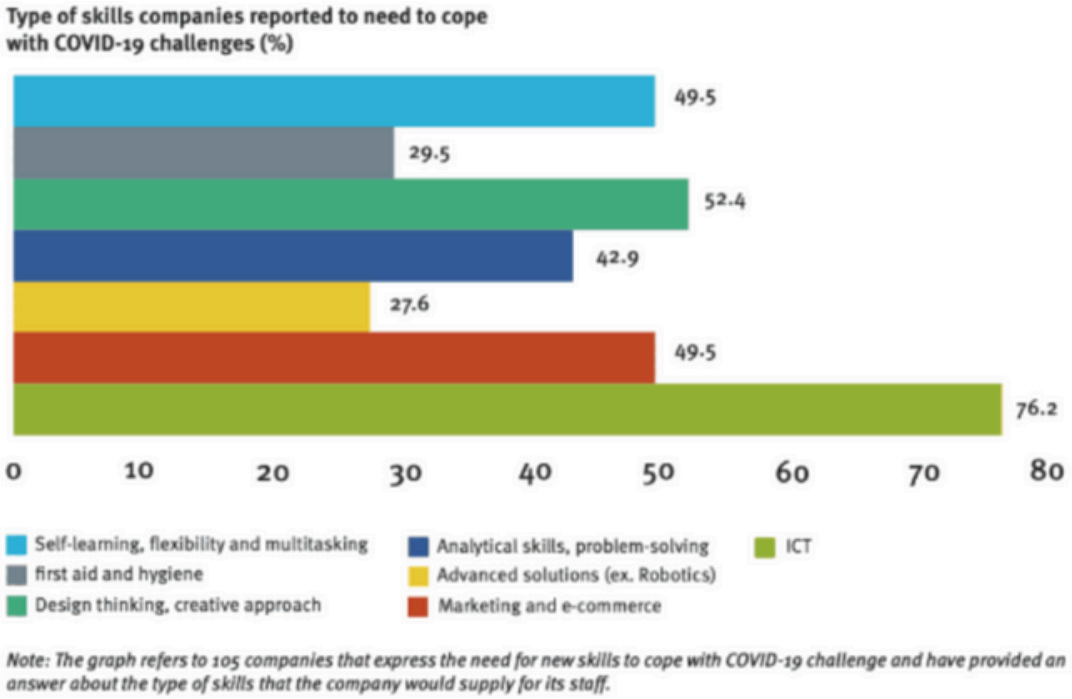


Figure 1. Changing skills development needs due to COVID-19

Digital skills range from basic usage skills that enable people to participate in the digital society and consume digital products and services, to advanced skills that enable the workforce to develop new digital products and services. These skills can be acquired in different contexts, such as work or private life, and at different stages of life, for example at school for young students, adults or the elderly.

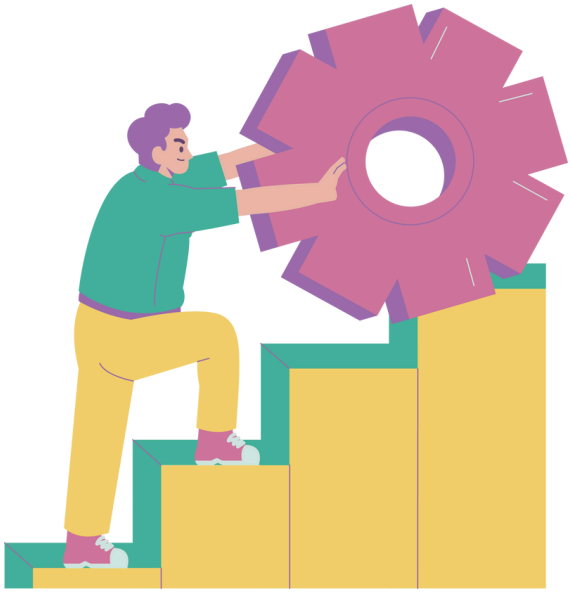
In recent years, companies are increasingly offering employees training to improve or update their ICT skills. The results of the global business survey published by the International Labor Organization in 2021 revealed the following: In 2018, 24% of companies organized ICT training courses for their employees. Considering the size of the company, 70% of large enterprises actively provided training, while only 23% of SMEs provided training. Therefore, ICT training is less common among SMEs. As SMEs are the backbone of the economy and digital skills are increasingly linked to the way of doing business, it is important to facilitate both teaching and learning digital skills in SMEs.

It can be thought that digital skills are even more important in developing countries. As highlighted in an article by Cristina Duarte, Under-Secretary-General and Special Adviser to the Secretary-General of the United Nations for Africa, there is the possibility of advancing Africa's development through digitalisation. Harnessing innovation and raising the level of ICT skills among citizens in countries like Nigeria has enabled emerging economies to rapidly develop skills for the digital economy of the future and gain international recognition as a technology hub.

Challenges for developing digital skills in SMEs

Digital skills can be taught in different ways: online, offline or hybrid. According to UNESCO, nearly half of the world's population (about 3.6 billion people) still does not have an internet connection. But the digital divide is not the only obstacle SMEs face in acquiring digital skills.

According to the 2019 European Commission Digital Skills New Professions, New Training Methods, New Jobs report, from an operational perspective, the biggest obstacle to providing digital skills training to SME employees is lack of time. Other barriers include the availability of training programs with inflexible hourly costs and inability to fully understand the training content due to the limited information provided, as well as distance cited as the main barriers to participation. Other barriers are summarized in Figure 2 below, taken from the 2019 SME Skills Report co-produced by DIGITAL SME, Capgemini Invent and Technopolis.



A. DIFFICULTY OF SME NEEDS AND TRAINING OFFERS
- Content that meets demand-need
- Training costs
- The form that meets the demand-need
- Standardization and recognition of qualifications

B. POOR ACCESS TO GUIDANCE, EDUCATION AND TRAINING
- Availability
- availability
- Fragmentation

C. LOW DIGITAL MATURITY
- Internal: understanding of ICT, sense of urgency, knowledge of technology
- Internal: Lack of vision, focus on business as usual
- External: (Infrastructure, open data, APIs, cloud,...)

D. FINANCIAL CONSTRAINTS
- Limited financial resources
- Funding availability
- Access to fund
- Indirect: Return on investment

E. LACK OF HUMAN RESOURCES
- Availability of specialist skills in the labor market
- Competitiveness in the labor market
- retention
- Leadership
- aging workforce

F. STRUCTURED APPROACH TO SKILLS DEVELOPMENT WITHIN THE ORGANIZATION
- Lack of human resources department
- Understanding the roles required
- Understanding role profiles
- Recognition of qualifications
- Awareness of the make-buy decision

G. DISCONNECT FROM THE ECOSYSTEM
- Availability of (support) networks
- Structured approach across the EU
- Availability of facilities (e.g. testing, learning,...)
- Regulation of shared services/common use
- Availability of knowledge (e.g. informal learning)
- Ability to anchor in nets

Figure 2: Summary of barriers to skills development in SMEs

The “European Education and Training Environment and Training Needs Report for Citizens and SMEs” prepared for the “Digital SkillUp” project recommends that efforts should be made to explain developing technologies in a simple and accessible way and to provide practical and real use cases. Experts who contributed to the report also emphasized the importance of obtaining certification and having detailed information about the quality of the courses. These two aspects will allow individuals to access the learning that best suits their needs and choose their own learning path.

3.2-Requirements to achieve digital transformation

Successfully addressing the digital challenge for the benefit of European citizens will require multiple regulations and various investments. Europe's digital transformation must also be guided by a set of European values that will serve as a compass and guardrail for the fourth industrial revolution.

Based on the results of the DSM, the EU could commit to making a European-style digital policy that creates a “third way” balanced with state-led development, people-centred and based on respect for fundamental rights and European values. and let them do it.

This defining set of principles will strengthen trust and privacy while promoting an inclusive digital society and a sustainable economy as the basis for creating the next competitive advantage for European companies operating globally in the digital age.

European initiatives can benefit from digital technologies and can be based on four social objectives that can guide their development and adoption. Creating and implementing digital solutions to society's challenges.

Digital technology can be an important tool for improving the quality of life in Europe and finding solutions to some of the most pressing societal challenges.

For example, connectivity will be a key driver for many, if not most, climate solutions that create new and sustainable value chains and reduce the amount of natural resources used in the production process.

Many solutions already exist in the energy, building, transportation, security, agriculture and food sectors. Europe can now encourage and accelerate the diffusion of these solutions on a global scale.

At the same time, the ICT sector itself must recognize its role in social challenges and help solve them. For example, the ICT sector must take action to reduce its footprint in terms of resources consumed, whether energy or rare materials.

Technology has narrowed the distance between people and decision-makers, revitalized democracy, trust and cultural diversity, and given everyone the tools to share ideas instantly. However, if left unchecked, it can weaken the social fabric; For example, it can allow misinformation to spread rapidly, interfere with electoral processes, or lead to cultural uniformity.

The EU can respond to this trend by promoting a people-centred approach to digital; High-quality EU digital media content or digital tools and services that enable EU citizens to participate in politics, for example by promoting transparency and trust in public institutions through easily accessible and user-friendly digital public services, offering citizens equal access to digital technology and reliable information. Ensuring digital technological sovereignty and cyber security.

Digital technologies and data are becoming strategic assets for society, and their control can become a condition of prosperity and sovereignty. Europe currently depends on technology assets developed and owned abroad for a significant part of its digital economy. As entire sectors are about to be radically reshaped by the combination of connectivity and data, and digital technology is at the heart of this transformation, Europe may want to reduce its dependence on foreign technology.

To reverse this trend, the EU can take urgent measures to increase support for key enablers of the digital economy (e.g. connectivity, semiconductors, hardware, data access and sharing, cybersecurity), especially where their place in the supply chain is weak or fragile. .

Digitalization is a unique opportunity for European industries to create a new generation of innovative products and services, sustain jobs and create new ones. To capitalize on this potential, the overall aim should be to create high-quality education in Europe, world-class research facilities, an innovative legal framework that encourages entrepreneurship, experimentation and innovation, support for start-ups and a strong digital ecosystem that fosters innovation. Financing and supporting industrial clusters for scale-ups and growth across the EU. In this sense, data fuels competition. Much of the economic potential for innovation and the development of new business services depends on the availability of large amounts of quality data and the infrastructure and know-how required to organize and process it.

resources

https://www.ospi.es/export/sites/ospi/documents/documentos/Sstudy_Shaping_the_digital_transformation_in_Europe_Final_report_202009.pdf

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Start-up models

CONTENTS

Part 4: Starting models

What is a startup?

Organizations have a life cycle in their existence. A startup is a company that is in the early stages of business. These companies are generally small and designed to grow quickly. Many startups focus on developing innovative products or services to establish themselves as leaders in their industry. Because startups are often small and have limited resources, they can be more agile and respond faster to market changes. However, they also have a higher risk of failure than more established companies (Čalopa, Horvat & Lalić, 2014).

The organizational life cycle refers to the stages of development that a company goes through, from its founding to its eventual dissolution. These stages may include the startup phase, growth phase, maturity phase, and decline or exit phase. In the initial phase, the company focuses on gaining a foothold and establishing itself in the market. This may include developing a product or service, finding customers, and building a team. The growth phase is characterized by rapid expansion and increasing income. The company may add new products or services, enter new markets, and hire more employees. In the maturity stage, the company has established itself as a market leader and may experience slower growth. This phase may include streamlining operations and focusing on efficiency. The decline or exit phase is characterized by a decline in revenue and market share. The company may consider restructuring, downsizing, or exiting the market altogether (Jawahar and McLaughlin, 2001).

According to Maurya (2012), start-ups go through three stages of development during their life cycle. The first phase is the problem/solution fit phase, which examines whether the market has a problem that needs to be solved. Problem/solution fit refers to the degree to which a startup's product or service successfully addresses a specific problem or need of the target customer. Problem/solution fit is important for startups because it helps them validate their product and make sure it meets a real market need. There are a variety of ways startups can work to adapt to the problem or solution; Let's look at them below.

1. Customer Development: This is about actively trying to talk to potential customers to understand their needs and problems and testing the product or service with them to see if it can solve those problems.
2. Lean Startup Methodology: This approach involves quickly building the minimum viable product (MVP) and testing it with a small group of customers to gather feedback and iterate the product.
3. Market Research: Startups can also conduct market research to identify potential problems and needs of their target markets and develop products or services to solve them.

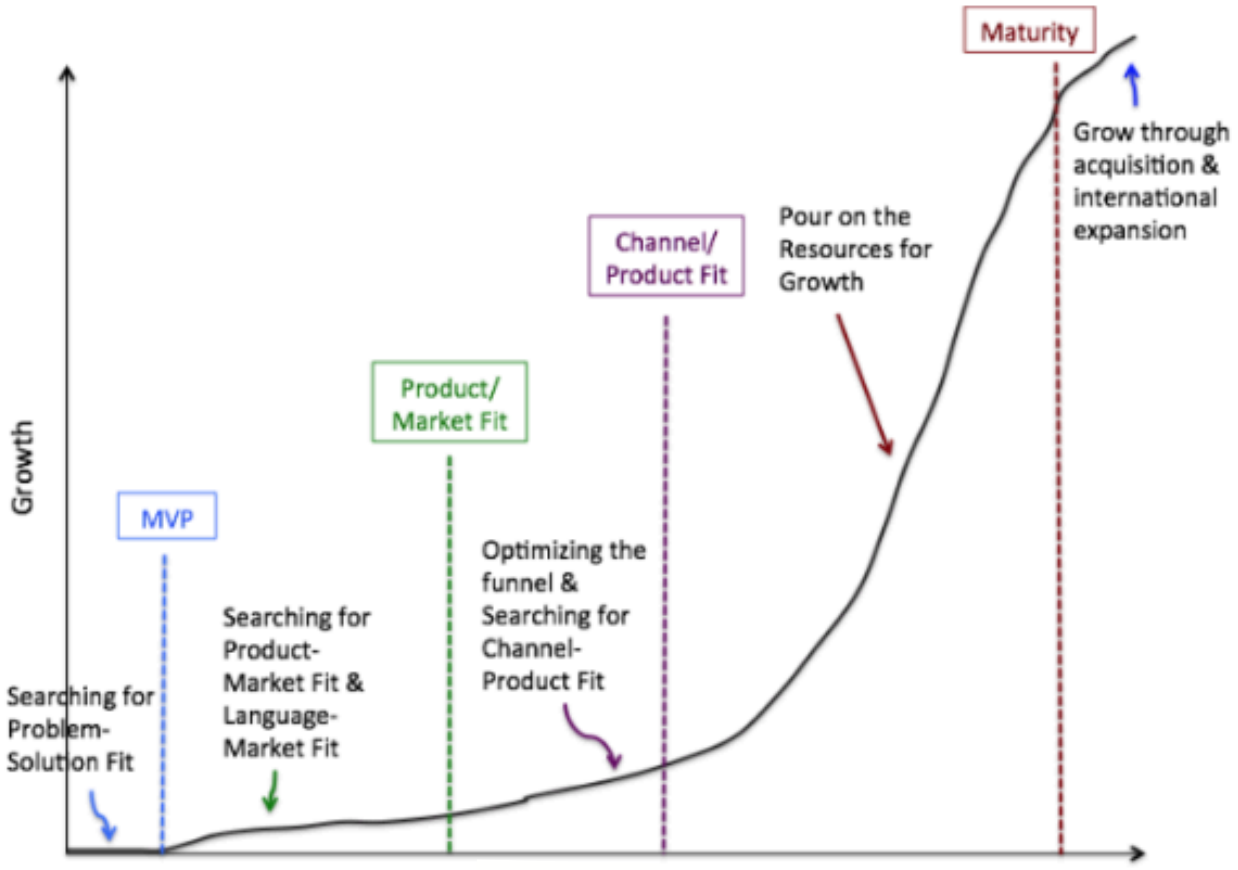


Figure 1: Life cycle of a startup

Defining Problem/Solution Fit is critical to a startup's success as it helps the company develop a product that its customers truly want and need and ensures it appeals to a viable market. The second Product/Market Fit phase should answer the question of whether the implemented idea is really what users need. Product/market fit refers to the degree to which a product meets the needs and wants of a particular market. This is an indicator of how well a product meets the needs of its target audience and is considered an important factor in the product's success. A product with strong Product/Market Fit is one that is widely adopted by its target market and has the capacity to generate significant demand and revenue. On the other hand, a product with poor market fit may have difficulty establishing itself and may ultimately fail in the market. The third stage is Scalability and involves the expansion and growth of start-ups; This leads to an increase in the number of employees, an increase in market share or an increase in revenue. The scalability phase is a phase of startup development where the company focuses on rapidly growing its customer base, revenue, and operations. This is the phase that usually follows the growth phase and is typically characterized by a strong focus on efficiency and profit maximization.

In the scalability phase, a startup may invest in marketing and sales activities to stimulate demand for its product, as well as infrastructure and processes to support its growing operations. The ultimate goal of the scalability phase is to make the company a dominant player in its market and ensure long-term sustainability (Čalopa, Horvat & Lalić, 2014).

Nurcahyo, Akbar, and Gabriel (2018) specifically explain that startups generally follow a similar life cycle as other businesses, but they can move through stages faster because they focus on rapid growth. Specific stages of the startup lifecycle may include:

Thought	It is the first stage where the founder has an idea for a product or service and begins validating it through market research and customer feedback.
Development	At this stage, the startup begins developing its product or service and creating a prototype. The team may also begin developing a business plan and securing financing.
Lunch	Once the product or service is ready, the startup starts selling it to customers and gaining a foothold in the market.
Growth	If the product or service is successful, the startup will experience rapid growth as it expands its operations and expands into new markets.
Maturity	Eventually, the startup may reach a point of maturity where it becomes an established player in its industry. At this stage the focus may shift to maintaining market share and maximizing profits.
Decline or exit	If the startup cannot sustain its growth or adapt to market changes, it may enter a decline phase or decide to exit the market altogether.

A startup is a company that is in the early stages of its business (Gürel and Sarı, 2015). Start-ups attempt to enter an existing market or sometimes open a new market with innovative products or services. But there are more and more start-ups in traditional industries and business sectors. There is a growing body of research on the importance and methods of financing entrepreneurial ventures (formal and informal) at the international level, especially in the era of intensified globalization. According to Nurcahyo, Akbar, and Gabriel (2018), a startup is an organization in its early stages. This type of organization has some features. These characteristics are classified into 4 dimensions: Organization (character of the startup organization), Ownership (characteristics of the owner, decision-making and control), Strategy and Innovation, Finance.

According to research by Startup Genome Report, the vast majority of startups (more than 90%) fail. Only a small portion of the 3,200 respondents (about 8%) were able to successfully launch their product or service and continue to grow and make a profit. Many entrepreneurs struggle to achieve business success and may need guidance on how to overcome uncertainty to achieve their goals. New theories, methods, and ideas are constantly being developed to provide guidance to entrepreneurs and help them increase their chances of success (Zlatarek, 2012).

Types of Startups

There are various ways to classify startups, and specific types of startups depend on the criteria used for classification. Let's see some common ways to classify startups below (Conti, Thursby & Thursby, 2013; De Haas, Sterk & Van Horen, 2022; Lee & Noh, 2014).

Development stage: Startups can be classified according to their stage of development, such as early stage, growth stage or late stage. The development phase refers to the growth and expansion phase a startup is currently in. Here are some common development stages for startups: Early stage: Early stage startups are generally startups that are developing their product or service and do not yet have a minimum viable product (MVP). This phase is also known as the “idea phase” as the startup focuses on defining and developing its concept. Growth stage: Startups in the growth stage have developed an MVP and are focused on increasing their customer base and revenue. This phase is also known as the “product market fit phase” as the startup works to gain a foothold in the market and demonstrate its value to customers. Late stage: Late-stage startups have achieved significant growth and are preparing for the next stage of their development, such as an initial public offering (IPO). This phase is also known as the "scaling phase" as it focuses on expanding the startup's operations and increasing its presence in the market. A startup's specific development stage depends on its progress and goals, and startups may progress through these stages in different steps.

Sector: Startups can be classified by the sector in which they operate, that is, the sector or market in which they operate (e.g. technology, healthcare or energy). Some industries are more common for startups; This concerns, for example, startups operating in the technology sector and able to offer products or services related to software, hardware, the Internet and other emerging technologies. Healthcare startups operating in the healthcare industry may offer products or services related to the diagnosis, treatment or management of health conditions. Energy startups are startups that operate in the energy sector and can offer products or services related to the production, distribution or consumption of energy. Financial startups operate in the financial sector and may offer products or services related to banking, investments or financial management. Retail startups are startups that operate in the retail industry and can offer products or services related to the sale of goods or services to consumers. There are many other industries in which startups can operate, and the specific industry of the startup will depend on the products or services it offers and the market it serves.

Business model: Startups can be classified according to their business model, such as B2B (business to business) or B2C (business to consumer). Business model refers to how a startup generates revenue and profits. Some common business models for startups include B2B (business to business). B2B startups sell their products or services to other companies rather than selling them directly to consumers. B2C (business-to-consumer) startups sell their products or services directly to consumers. P2P (peer-to-peer) initiatives facilitate transactions between individuals, rather than between businesses or between businesses and consumers. Freemium startups offer the basic version of their product or service for free and offer the option to upgrade to a paid version with additional features or benefits. Subscription startups offer their products or services on a subscription basis, and customers pay a regular fee to access the product or service. A startup's specific business model depends on its product or services, target market, and revenue goals.

Size: Startups can be classified according to their size as small, medium and large. Size refers to the number of employees, revenue, or other measures of scalability. Some commonly accepted size categories for startups are: small, those in the early stages of operation and those with a small team and limited turnover; medium-sized startups are startups that have achieved significant growth and may have a larger team and higher income than small startups; Larger startups have achieved even greater growth and may have a significant market presence and a large team. The specific size of a venture depends on its stage of development and level of success, and ventures can change size as they grow and expand.

Funding: Startups can be classified by their funding status, such as bootstrapped (self-funded), venture-backed, or crowdfunded. Funded status refers to the capital resources a startup can access to finance its operations and growth. Some common financing categories are: "bootstrapped" ventures that are self-funded and have no outside investors, and may rely on founders' personal resources, sales proceeds, or other sources of capital to finance their operations; venture-backed startups that receive investment from venture capital firms in exchange for shares in the company and funding in exchange for a share of the venture's future success; Crowdfunded ventures that raise funds from a large number of people, usually through an online platform. Investors may receive rewards or company shares for their contributions. A startup's specific funding situation depends on its needs and goals, and startups may have access to multiple sources of funding throughout their development.

Geographic location: Startups can be classified according to the geographical location of their headquarters or their target markets. Some common ways to classify startups by geographic location are: national startups that operate within the borders of a single country; international initiatives that operate in more than one country and may have a global orientation; regional initiatives that operate within a specific region or geographic area, such as a city, state, or country; Local initiatives that operate in a specific area, such as a neighborhood or community. A startup's specific geographic location depends on the target market and business objectives; these companies may operate in multiple locations or expand into new markets over time.

There are many other ways to classify startups, and the specific types of startups depend on the specific characteristics used to distinguish them. For example, Marmer, Hermann, and Berman (2011) conducted a study of more than 650 web-based startups in the United States and identified three main types. The first type, called "Automizer", is characterized by focus on customers, fast performance, automation of manual processes, the use of new technologies, high-tech-oriented development teams and the ability to compete in a large market. One such subgenre, called “Social Transformer,” includes startups that have a critical mass of subscribers, are fast-growing, and focus on networking. These initiatives often create new ways to connect people and can require more capital. In such initiatives, more frequent meetings may be held between business people and teams than in IT-focused initiatives (Čalopa, Horvat & Lalić, 2014).

An "integrator" is a type of startup that prioritizes security and profitability, usually targeting small and medium-sized businesses and smaller markets. These startups can maintain small teams even as they grow and expand. “Challenger” is another type of startup that operates in complex, rigid markets with high sales, customer loyalty, and repeatable sales processes. These ventures may need more time and capital to be successful, and their teams may focus more on business strategy (Čalopa, Horvat & Lalić, 2014).

Business models for startups

Description of the business model

Depending on the company's needs and history, startup business models may differ. Before providing an in-depth explanation about startup business models, it is important to explore what a business model is. A business model is the construction, distribution and extraction of value of an organization according to reasonable criteria (Osterwalder and Pigneur, 2011). These are critical decisions in generating value to make money. It is about uncovering the company's customer needs, value approach, value chain and cost structure. It includes four dimensions: “who”, “what”, “how” and “value” (Elana S., 2022).

Figure 2: Dimensions of a business model

The "who" dimension relates to consumers and their needs, the "what" dimension relates to the value proposition, the "how" dimension relates to the distribution of resources and value, and the "value" dimension relates to the adopted revenue model and value production (Elana) S., 2022).

Business model types

“The digital transformation that already characterizes our world is accelerating due to the COVID-19 pandemic, changing customer demands, digital participation expectations and the rapid development of technology. Most large companies have taken incremental steps to digitize their core services. "creating a digital sales channel or using digital tools to improve internal operations" (WEF, 2021, p.2). The literature covers various business models for startups. According to Ponomarev (2019), the business models of startups are “Marketplace, Aggregator, On-Demand Connected, Reverse Auction, Crowdsourcing and Traditional Software Products. Tomaro (2016) states 9 business models for startups, although some of them are similar to the models expressed by Ponomarev (2019), some of them are different. According to the models: Acting as an intermediary (aka "Warby Parker" Model), Trading in Virtual Goods, Being a Marketplace, Offering goods and/or services on a subscription basis, Freemium, Offering goods and/or personalized services. offering services, Streamlined direct selling, Offering of goods and/or services on demand, and Finally, University Lab Partners (2019) notes the following startup models: “Marketplace, On-Demand, Disintermediation, Subscription, Freemium, Virtual Product and Dealer". In line with the business models of University Lab Partners startups (2019), detailed information about each model is provided below:

marketplace model

The marketplace business model refers to a virtual marketplace that brings sellers and buyers into contact. The nature of the model includes a computerized system and an online network (Annisya and Rochman, 2020). An online marketplace is a platform that connects sellers and their customers. Simply put, it works like this: A seller exhibits his products on a third-party platform (marketplace) and the customer purchases these products (Nikonenko, 2022). The marketplace business model can include one-sided, two-sided or multi-sided platforms. What type of platform to adopt depends on the structure of the company (Syrotkin, 2017). Since the marketplace business model is online and aims to connect buyers and sellers, there are many advantages to adopting this model. The figure presented below summarizes these benefits (Clockwise Software, 2022).

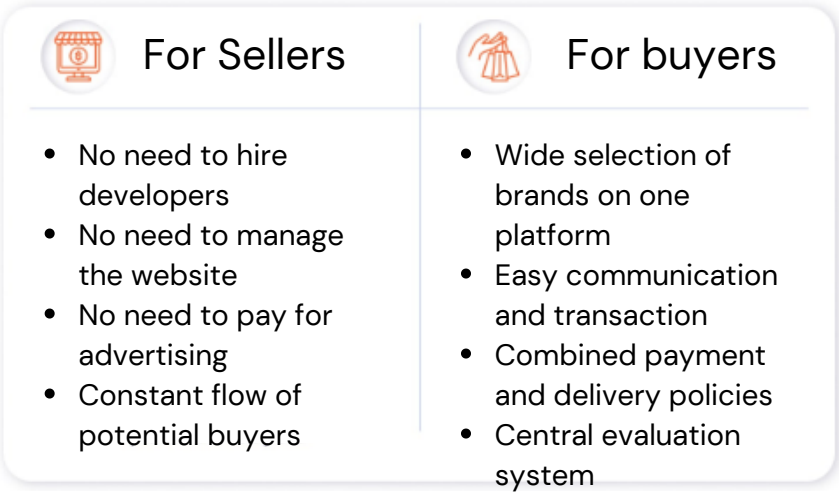


Figure 3: Benefits of adopting the online marketplace business model

As the figure suggests, from the seller's perspective, the online marketplace business model offers advantages regarding the need to hire developers, have a website, pay for advertising and have a customer base. From the buyer's perspective, it has the advantage of offering various brands on a single platform, including accessible communication, payment and delivery benefits, and a centralized system for reviews (Clockwise Software, 2022).

optional model

Maselli, Lenaerts, and Beblavy explain this model this way: “The expansion of the on-demand economy puts enormous pressure on regulators to adapt it to existing labor and tax frameworks. The industry's rapid growth also divides experts: by many it is. It is seen by others as a threat to working conditions and by others as an incredible opportunity” (2016, p. 1). As the name suggests, the on-demand business model focuses on meeting consumer demands immediately. It is a type of business model based on offering and producing value through innovative online platforms (Priem, Wenzel, and Koch, 2018; Taeuscher and Laudien, 2018). This is the result of “technological advances, investor interest and access to capital, changes in consumer behavior and demand, and new methods of service delivery” (Service, 2015). The On Demand model is based on the delivery time of the service or product. This time is usually between 15 and 45 minutes. The timing of the service or product can also be scheduled by the consumer (Juggernaut, n.d.). The categories of services offered under this model are “Transportation, home care (repair and maintenance, cleaning) and design, health, wellness and beauty, food delivery, e-learning and home tutors, etc.” (Murgai, 2022, p.39) .). Scooters, taxi services like Uber, grocery shopping and food delivery like "getir" in Turkey and "grap" in Singapore are examples of on-demand business models.

Disintermediation Model

According to the Cambridge Dictionary (2022), the term “Disintermediation” refers to “the situation where sellers and buyers of financial products transact directly with each other rather than using banks, etc.” In trade, “manufacturers sell directly to consumers rather than to stores, etc. (Cambridge, 2022). In keeping with the definition of the term, disintermediation occurs “when one or more existing intermediary functions are bypassed by suppliers and consumers” (Wang and Heng, 2017, p. 3240) The phrase “disintermediation model” has several meanings. In social terms, it means excluding one or more people from a supply chain, a transaction, and a managerial status. It means the exclusion of third parties, intermediaries or banks to increase personal autonomy in investments (Hayes, 2022).

High commissions, inconsistency of prices and costs, and repeated transactions for the same services are among the main reasons for the existence of this model (Ladd, 2022).

Subscription model

The subscription model is “a shift from the traditional pay-per-item model to recurring payments for ongoing goods and services” (Fanfarillo, Carlson, Fally, and Kelley, 2022, p. 1). The model dates back to the 17th and 18th centuries but has been expanded recently (Schuh, Wenger, Stich, Hicking, & Gailus, 2020). The number of companies adopting this model has increased in recent years. It can provide great benefits to customers due to real-time availability and convenience (Holm and Westin, 2021). The model also includes benefits for retailers, such as helping with revenue planning and increasing customer loyalty (Bertelsmann, n.d.).

free model

Another type of business model is the "Freemium model", which is one of the four free business models. Before examining the “freemium model”, it is useful to clarify other free business models. If the consumer ultimately pays for the product or service, this model is called "direct cross-subsidy model". If revenue is generated indirectly by the service provider through advertising, this is the "Three-Party Market" model that is frequently used today. The third is "non-monetary markets", which have various forms. The last one is the “Freemium model” (Anderson, 2009). Online, Web 2.0 and free are the keywords that basically describe this model. Its broadest definition is as follows: Offering a free service, potentially including advertising, to acquire customers through networks, marketing research, and word-of-mouth marketing. Then offer value-added services to customers at high prices (Avc, 2006). This model requires not only the constant acquisition of new users but also their retention. Therefore, it is essential for a company to constantly produce value to maintain its relationship with its customers (Sanitra and Jiang, 2019). One of the best examples of this model is "Skype" and "Spotify". Each of these platforms offers free services to customers (Reime, 2011). Even if customers do not directly pay the cost of the product or service, revenue is generated indirectly by the service provider.

virtual good model

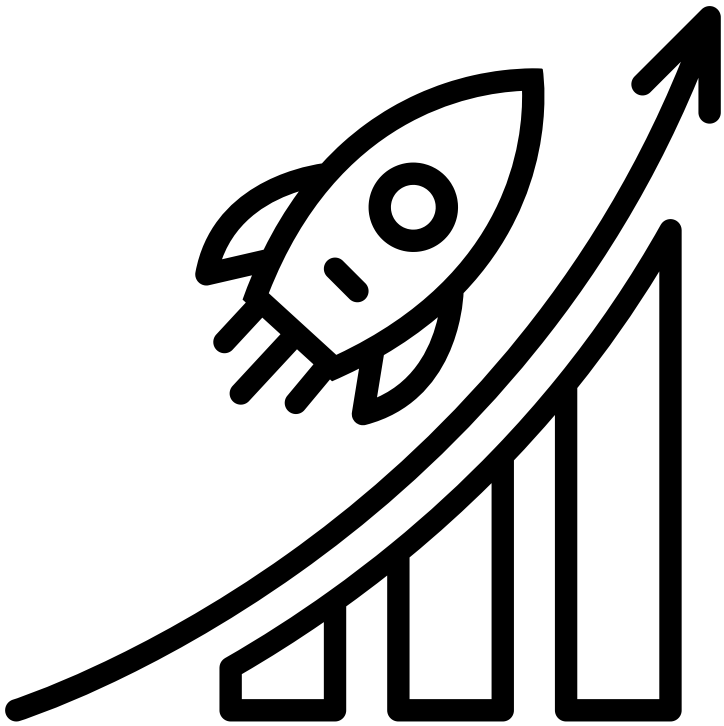
"Virtual good model" is one of the online business models. Before examining the model in detail, it is important to explain what a virtual good is. A virtual good is an intangible service or product that is exchanged in a virtual environment. Virtual goods include non-physical things. The value of virtual goods depends on how much customers are willing to pay for them (Fernando, 2022). Sundelin (2009) defines virtual goods as “non-physical objects (e.g., usage rights) that are purchased and exchanged over the Internet, represented by images, animations, or three-dimensional objects within platforms, communities, and online games, and subject to regulation.” ". Due to the nature of this model, goods are only available in the virtual environment. One of the best examples of this model is virtual games. Products and services related to gamification can only be used in the virtual space. For example, avatars, gifts and currencies are also virtual goods (Spacey, 2015).

Dealer model

True to the name of the model, the “dealer business model” involves purchasing products from the manufacturer/supplier and selling them to buyers. One of the best examples of this model is electronics retailers. They have the advantage of determining the price and promotion when reselling electronic products (Hagiu and Wright, 2015). Amazon and Gome are examples of this model (Tian, Vakharia, Tan, and Xu, 2018).

Startups: Historical context

Although the term startup has emerged very recently, the first known use of the word startup dates back to 1845 (MerriamWebster, 2022). Businesses and entrepreneurs of the last few centuries, such as Edison's General Electric, provide many examples of startups. In the 20th century, the term startup became associated with "Silicon Valley", which hosted technology companies around Stanford University in the 1970s. In 1980, "Silicon Valley" expanded to Sunnyvale and Mountain View. In the 1990s, the number of startups, including companies such as Amazon and Netscape, increased significantly. Technological developments and the spread of the internet have accelerated the birth of startups (Magalhão, 2019). After the millennium, in the 21st century, companies such as Air Bnb, Facebook, Tesla and Dropbox have proven themselves and have now become global. These companies have provided business opportunities and influenced the commercial sector (Minnalearn, 2022). Additionally, the global Covid 19 pandemic, quarantine, and reduced mobility and human interaction have increased the use of digital tools and products. This contributed to the acceleration of startup formation. The most obvious example of this is that platforms that provide virtual interaction, such as Zoom, are becoming increasingly attractive. This situation also had a positive impact on customers. The increase in opportunities and possibilities has increased competition and offered advantages to customers in terms of price and access.



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Creation and financing of a startup

CONTENTS

Chapter 5: Creating and Funding a Startup

Customer discovery, customer verification, customer creation

The origins of customer development and the Lean startup movement

In the process of implementing a startup project, the initial analysis structure usually takes into account key factors such as: resources, partners, the value of the product/service in the market (advantages and disadvantages), target customers, costs and revenues, distribution channel, etc.

However, it is necessary to understand customers better and outline their needs and problems, because they are truly responsible for the success of a product/service.

The customer development model suggests seeing the customer at the center of a start-up's development process, rather than focusing solely on "traditional" product development. The methodology is based on some stages. Each stage consists of different customer-related activities to achieve some goals. For example, the first phase is devoted to understanding customers and should focus on actions to verify whether the proposed product/service can represent a solution for customers, so the start-up should always be able to offer more solutions (product/service). In line with customer needs and problems. Additionally, the Customer Validation phase is necessary to develop a repeatable sales model that gathers the necessary feedback to create a “Minimum viable product” (the first prototype of a product) that will change and evolve step by step. "Agile engineering" process to meet customer needs.
To this end, each stage can and often does repeat. All activities are carried out through an iterative “explore and learn” process with adjustments at each stage until the success of the activities allows the startup team to move on to the next step.

Steve Blank was the creator of this methodology about 30 years ago, but even today the system is proving to be very effective, especially for the development of startups, and is considered one of the foundations of the so-called "Lean start-up movement". .

The main idea is that a startup cannot act like a “small company” because it does not have a business strategy, but must find a repeatable and scalable business model. From the beginning of the project, the startup team should understand that continuous changes are the driving force of the development process, following the "Make - Measure - Learn" feedback loop to decide where a change needs to be made. whether to make changes to the assumptions of the starting path or continue the same way. This change is called “pivoting” and may occur multiple times throughout the process of improving the product/service based on customer feedback.

The best solutions for a startup should be derived from the combination of Customer development methodology with Agile development methodology that encourages continuous interaction between development and testing. Testing should occur throughout the entire product/service creation phase.

This combination represents one of the core principles of Customer development cited by Blank as a guide for early-stage entrepreneurs. From the Customer Development Manifesto:

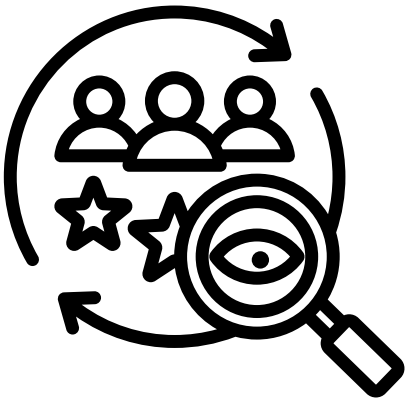
1. There is no certainty inside your building, get out.
2. Abbinate Customer Development with Agile Development
3. Failure is an integral part of the quest
4. Perform constant iterations and pivots
5. No business plan can survive the first contact with customers; so use a business model canvas
6. Design experiments and tests to verify your hypotheses.
7. Agree on the type of market. change everything
8. Startups' metrics are different from those of existing companies
9. Quick decision making, cyclic time, speed and rhythm
10. It's all a matter of passion
11. Job roles in startups are very different from job roles in startups.
    big companies.
12. Keep all money until needed.
    Then spend it.
13. Communicate and share learning
14. Successful customer development starts with interaction.

Customer discovery, customer validation and customer creation are important initial stages of the Customer development methodology and should be carried out by the initial informal team.

customer discovery

The first and most important stage of customer development is Customer discovery.

It is the process of developing hypotheses about potential customers of a proposed product/service, determining what problem the product/service can solve and who the people who need to solve that problem are to meet a specific need.



It is the process of developing hypotheses about potential customers of a proposed product/service, determining what problem the product/service can solve and who the people who need to solve that problem are to meet a specific need.

To test the product/service, it is necessary to prepare a list of potential early adopters; It is the stage of collecting information to create hypotheses about customers. These people may belong to the entrepreneur's own network or to external networks. For example, they can be identified after the preliminary definition of the so-called "Buyer Persona". This is the profile of the ideal customer created through data collection and interviews. Buyer persona is based on what is known about who the users might be, thinking about the product/service and going deeper to learn about them, such as their tastes, habits, age, level of education, work, interests, etc. Data such as these should be collected and defined. their expectations, what their favorite online channels are, etc. This can be done by conducting research, surveys, interviews, but there are also some tools available online to do this.

Then the entrepreneur needs feedback on the customer problem hypothesis, so it is necessary to present the idea realized based on the hypothesis to the identified potential customers and collect as much feedback as possible. This can be done through conversations where people need to know that the goal is not to persuade them, but to understand the problem they need to solve and how important it is to them. Starting with open questions, it is also possible to go deeper and talk about their daily life and habits and ask more specific questions: What other similar products can they use, what is the budget they spend on them, what do they think? Things that are missing from the proposed solution, things that make it difficult to find a new solution, etc.

From this feedback, the entrepreneur can outline a more specific problem for a more specific target market and combine this information with research on potential competitors to learn much that will likely change his hypothesis.

Taking into account the feedback, he may realize that his idea is too far from customer needs and decide not to continue the development of his project; otherwise, the entrepreneur, together with the start-up team, can provide a new product hypothesis based on specific changes. their analysis. Then, getting new feedback from its network, it will propose a new presentation to be validated and possibly repeated.

Customer discovery can bring an idea closer to reality. It can define the market and should be done by the entrepreneurs themselves, without outsourcing as Steve Blank suggests, because they can change the strategy if necessary, so they should be the ones who need to listen to customer feedback first. Write a business and product plan.

Customer verification

This is the second phase of the Customer development process and should ensure that the proposed solution is evaluated to solve the customers' problem and meet the needs identified in the first stage.

Here the start-up team must prepare to sell the product and write a business model, engage customers and produce a viable product.

A viable product is an initial prototype that becomes a Minimum Viable Product (MVP) that is evaluated by early adopters.

This is a test with real users to confirm the hypotheses and inferences made by the previous study and can give much more precise and specific information about the target market, the product itself and the customer problem.

Once the MVP is rolled out to early adopters, the analysis can begin with surveys and interviews, but this time the questions should be more focused on people's experiences and expectations with the product, understanding how the product works, what the notable features of the product are. product, what customers liked and didn't like, what was missing, whether they shared the product with someone else, etc.

All the information and insights resulting from a comprehensive customer validation process are essential to making product decisions and iterating on it. If it doesn't work, it's best to go back to the beginning of the scene and make changes.

At this stage, we also start to develop the positioning of the product. Analysis of the perception of the start-up and the product in the market, finding a definition of what the product differentiations or special innovations are, which market type they correspond to, and ensuring that customers have an idea about this. it is specific.

Create a customer

In this phase, after the success of the initial sale, the start-up continues adjustments to improve the product/service, maintain customer loyalty and enable other customers to try the product and therefore verify whether it is sustainable. The purpose of this stage is to create demand from end users. In this process, the start-up can become a scalable company.

The initial objectives, market type (existing market or new market makes a difference) and positioning of the product must be thoroughly examined and defined through several stages.

You can then prepare and implement a strategy to launch the product/service.

But after fully verifying the market type and launching, it is time to finally create demand and attract more buyers by developing a good demand generation strategy and analysis.

As with all other stages, you need to check whether the next step has been reached, otherwise it is better to go back to the beginning of the stage and repeat. Sometimes the entire process can result in an exit, that is, the sale of investment shares to a larger company.

The final stage of the customer development process is called Company formation and occurs when the start-up built around the “learning and discovery” system evolves into a more formal organization consisting of specific departments dedicated to different goals and able to face new challenges in the field. Sunday.

Feasibility considerations

Startups and innovative projects are not risk-free and have a high probability of failure. So how do you know if a good idea for a new product or service has a chance of survival?

An entrepreneur who is considering starting a new business must first conduct research and studies to analyze the feasibility of his project and decide whether to spend time, resources and money.

The first step in understanding whether a business project with a possibility of continuity can be created is a feasibility study. It involves a detailed and complete review of all critical aspects of a project to determine its likelihood of success.

During feasibility analysis, a proposed plan or project is evaluated for feasibility. This analysis serves to determine the likelihood of realizing an idea; for example, whether the project is economically justified, organizationally and logistically manageable, or legally and technically feasible.

An investment plan is necessary to start any business. Feasibility studies are one of the most common methods for creating a business plan and providing the information needed to understand whether a project is worth investing in. Project success can then be defined in terms of return on investment (ROI).

Advantages of feasibility study

Feasibility studies cannot completely eliminate risk, even if the calculations and premises are good. Determining risk factors such as the difficulties that may be encountered before starting the project implementation, who the competitors in the market are, how much capital will be needed for the start, offers idea owners the opportunity to be aware of the adventure they will face. and ultimately be in a position to make the right decisions.

Other important advantages of conducting a feasibility analysis are:

identify opportunities for the company, for example by gathering information about current and successful business models;
Finding aspects that differentiate the product or service offered by competitors;
understand what the challenges and success factors of the project are by evaluating different parameters;
determining valid reasons to continue with the project;
making strategic decisions;
focus on the entire project process;
Use the final valuation to convince potential investors.

Main elements that make up the feasibility study

A feasibility study usually begins with a detailed description of the proposed product or service and the target customers to whom it will be offered.

Next, a more in-depth analysis is needed to understand how and where the new venture will operate, including several important factors: what are the possible obstacles and possible competitors, and whether it is sustainable. The analysis is developed through market research and evaluations for the proposed concept, interviews with appropriate stakeholders, financial direction forecasts, evaluation of available resources and management team.

Various elements of the feasibility analysis must be studied to complete the evaluation of all important factors.

Market feasibility analysis. This study should determine the market for the proposed product/service, understand whether it fits there, and define the target market. Potential customers:

assess market demands, size and growth prospects, saturation;
Identify the location and availability of potentially interested customers/users.

The market can be segmented not only by geography but also by customer characteristics. It is possible to outline the ideal customer/user profile by reviewing market research or conducting direct interviews with potential customer groups.

Market feasibility analysis also includes research that can be conducted on competitors, particularly by exploring the business models of companies that have similar products/services and have performed well in the market for five years or more.

This part of the work helps the entrepreneur understand how to differentiate his product/service from other offers, find his position in the market and establish the right price. Additionally, this study provides a basis for planning an effective market strategy.

Financial feasibility analysis. This is a very important stage in planning a business. Starting from the assessment of the funds required for the start-up, it leads to the assessment of the potential economic return of the investment and, for example, helps the entrepreneur to understand through accurate calculations when the business will reach the break-even point. (the exact point where its revenues cover its costs) and will begin to generate a sufficient income.

In financial feasibility analysis, factors such as income and expenses are examined taking into account multiple time periods to create a projection of the financial structure of the business and try to find a balance between profit and risk. Additionally, the entrepreneur can calculate the break-even point by gathering information about fixed costs (costs that do not vary with the amount of sales) and variable costs.

Organizational feasibility. This study aims to understand whether non-financial resources are sufficient. Includes:

a) evaluate the skills of the management team in terms of area of interest, passion for the business idea, educational background, professional experience, for example, using a self-assessment model;
b) office space, high-quality employee collaboration, necessary licenses, connections, etc. to bring the product or service to market. Evaluating other non-financial resources such as

Results

Market feasibility, financial feasibility and organizational feasibility are the first important aspects to consider before starting a new business. The tips listed here are tools that can answer questions regarding a startup's sustainability in terms of market position, competitors, risk, revenue, potential profit, and growth. An introduction to understanding the benefits of having a planning structure and where to start.

However, other components of a broader feasibility analysis contribute to assisting the entrepreneur on his journey:

- technical feasibility (evaluation of available technical resources),
- provisional feasibility (project implementation times),
- Legal feasibility and analysis of risk management issues (licenses, permits, insurance, required certificates).

While developing all stages, the entrepreneur must be able to outline the structure of the project and highlight its strengths and potential problems, often with the help of a consultant or tools available online. He can then intervene with the right actions and necessary corrections and prepare for another phase of his project, which consists of trying to persuade financiers and banks to invest money in his new venture.

DEVELOPMENT OF BUSINESS AND MARKETING PLAN

Entrance

Today, the results of innovation are a determining factor for competitiveness and national progress. Innovation is also important to help tackle global challenges such as climate change and sustainable development. However, despite the importance of innovation, many OECD countries face difficulties in strengthening performance in this area. In recent years, many OECD countries have recorded little improvement in productivity, despite the new opportunities offered by globalization and new technologies, especially information and communications technologies.

The rise of the Digital Platform Economy has led to new business opportunities. In particular, the emergence of startups as a new business concept has radically changed the consolidated interpretation of the business world. The platform economy refers to an economic system in which digital platforms facilitate transactions and interactions between producers and consumers of goods and services. Platform economies are characterized by the use of digital technologies to connect individuals, businesses, and organizations in a networked environment. Startups are part of the new business approach emerging in platform economies. Startups can take various forms, including online marketplaces, social media, sharing economy platforms, and crowdsourcing platforms. These platforms provide a range of services including e-commerce, advertising, data analytics and logistics.

business development

Basically, business development can be defined as a set of ideas, initiatives and activities that help make a business better. This includes increasing revenue, growing the business, increasing profitability by establishing strategic partnerships, and making strategic business decisions. According to Forbes, business development is “the creation of an organization's long-term value from customers, markets, and relationships.” This is a simplistic definition and still faces the challenge of capturing the wide range of responsibilities that BD (Business Development) entails.

Broadly speaking, business development refers to the processes and strategies that organizations use to create and capture value. It is about identifying new opportunities, building relationships with potential customers and partners, and developing and implementing plans to achieve growth and profitability. Business development can encompass a wide range of activities, including market research, product development, sales and marketing, strategic planning, and mergers and acquisitions. The ultimate goal of business development is to create sustainable and profitable growth for the organization. The definition of business development depends on the type of company and its strategy.

Business development is associated with the expansion of companies. It's about developing collaborations, conquering the market and ultimately building good relationships with customers. Business development is a long-term strategy for building a company and achieving its goals.
Effective business development requires a deep understanding of the market, customer needs and competitive landscape. It also requires strong leadership, collaboration and communication skills to build relationships and align teams around a common vision and strategy. A good business development process consists of many elements shown below:

Project: Business planning is the process of developing and documenting a plan to stimulate business growth. One of the most important components of the business development process is planning. Without planning, startups cannot set direction in line with modern marketing strategies.

Investment: For startups, investments can be crucial to their success and growth. Getting investment for a startup can be difficult, and it's important to be consistent and patient throughout the process. Be prepared to answer tough questions and demonstrate a deep understanding of the business and industry.

Research: Investing in startups requires a combination of research, analysis and intuition. By considering these key factors and doing your due diligence, you can increase your chances of identifying promising opportunities to secure a startup investment. Here are some important steps to keep in mind:

- Determining investment goals and risk tolerance,
- Evaluate the management team,
- Look at the product or service,
- Evaluate financial data,
- Consider the investment conditions,
- Do a proper audit.

Strategy: Strategy refers to a plan of action designed to achieve a specific goal or objective. It is a systematic and structured approach that involves analyzing the current situation, setting goals, determining the necessary resources, and determining the necessary steps to achieve the desired result.

<u>Some tips for a good strategy:</u>

- Defining the vision and mission,
- Determining the target market,
- Creating detailed plans for products and services,
- Embracing innovation,
- Creating a strong team,
- Focused on customer acquisition and retention,
- Attend industry events, join startup communities.

Marketing: Marketing; It is the process of creating, communicating, presenting and sharing offerings that have value for customers, partners and society at large. It is about understanding customers' needs and wants, developing products or services that meet these needs, and promoting and selling them to the target audience. Marketing also includes branding, advertising, public relations, market research, and other activities that help a company establish and maintain relationships with its customers and stakeholders. The goal of marketing is to build strong customer relationships and build a base of loyal customers who will continue to buy from the company and recommend it to others. Effective marketing can help a company increase sales, improve its reputation, and achieve long-term success.

Innovation: Innovation and startups are closely related concepts, as startups are often created with the aim of bringing innovative new products or services to the market. Innovation refers to the process of developing new ideas, products or services that provide value to customers or society. Startups are new businesses generally characterized by high levels of innovation, risk-taking and agility.

Successful startups often rely on innovative ideas, business models and technologies to disrupt existing industries and create new markets. They are often founded by entrepreneurs who are willing to take risks and pursue bold new ideas, who can attract funding and assemble teams of talented people to help them bring their ideas to life.

Plan: A plan is a detailed proposal to achieve a specific goal or milestone. It usually includes a series of steps or actions to be taken, along with timelines, resources, and other details needed to ensure the goal is completed. Plans can be created for a wide variety of goals, from personal goals like losing weight or learning a new skill to professional goals like launching a new product or growing a business. They can be short-term or long-term, depending on the scope of the goal and the timeline required to achieve it. Having a plan is important because it provides a roadmap for achieving your goals and helps you stay focused and organized throughout the process. It also allows you to track your progress and make adjustments as needed to make sure you're on the right track to achieve your desired outcome.

Management: Management is the process of planning, organizing, directing and controlling resources (human, financial, material, etc.) to achieve specific goals efficiently and effectively. It involves making decisions, delegating tasks, and coordinating the efforts of individuals and teams to achieve desired results. Management is essential in both commercial and non-commercial organizations, including government agencies, non-profit organizations, and educational institutions. Successful management requires a range of skills such as communication, leadership, decision-making, problem solving and strategic thinking.

Marketing Plan: A marketing plan is a comprehensive document that outlines a company's overall marketing strategy, goals, and tactics for promoting its products or services to a target audience. It is a roadmap that helps companies define their target audiences, understand their needs and behaviors, and create effective marketing campaigns that will reach and engage them.
A typical marketing plan includes market and competitor analysis, definition of the target audience, positioning statement, an overview of the company's strengths, weaknesses, threats and opportunities (SWOT analysis), a detailed plan for the marketing mix (combination of controllable features). It includes variables such as product, price, location, and promotion, and a set of metrics and key performance indicators (KPIs) to measure the success of the plan.

A well-designed marketing plan helps companies deploy resources effectively, optimize marketing efforts, and achieve business goals. It is an indispensable tool for any business that wants to grow its customer base, increase sales and improve its brand image.

A marketing plan for startups usually includes the following elements:

- Define your target audience: Identify the people most likely to use your product or service and tailor your marketing efforts to their needs and preferences.
- Establish your unique value proposition: Determine what differentiates your startup from the competition and why potential customers should choose your product or service over others.
- Determine marketing goals: Decide on specific, measurable goals you want to achieve with your marketing activities, such as increasing brand awareness, generating leads (the lead generation process), or increasing sales.
- Develop brand identity: Create a distinct and recognizable brand identity that conveys your startup's values, personality and message.
- Create a content strategy: Develop a content strategy that provides value to your audience and aligns with your marketing goals, such as blog posts, social media content, videos, and infographics.
- Choose marketing channels: Choose marketing channels that are most likely to reach your target audience and align with your marketing goals, such as email marketing, social media advertising, search engines, and influencer marketing.
- Create a marketing budget: Determine how much you can spend on marketing and allocate resources accordingly to maximize your return on investment.
- Measure and optimize results: Constantly monitor your marketing efforts and measure results against your goals, adjusting your strategy as needed to improve performance.

Results

This project, implemented within the framework of E-VET, reveals the problems that startups encounter in their business development processes and the information and suggestions needed to solve these problems. It also focuses on the contribution of vocational education in promoting a sustainable entrepreneurial approach. Business development is about understanding your customers' needs and providing them with the right solution. It's about proactively asking their opinions and implementing changes that will make them happy when choosing your product.1 That's why business development and corporate planning help startups survive in a challenging market environment.
In summary, in the context of "startups and mass innovation", relying on the school-business cooperation platform to develop start-ups and innovation talents benefits the deepening of 'production and education' as well as supporting the employment and entrepreneurship of vocational school students. from vocational school.

Integrate and meet the talent needs of social enterprises. Vocational schools should strengthen the emphasis on vocational education, change their concepts and actively integrate innovation into the entire talent training process, and truly realize the benefits of schools, governments, enterprises, society and students.

Financing of startups

Startup financing refers to identifying different ways a new business can raise the capital needed to get started. These funding sources provide the financial resources a startup business needs to manage its operations, develop new products, fund marketing activities, launch a product under development, and grow the business.

Investing in startups is generally a three-step process and includes the following steps:

Seed Stage: In this stage, the entrepreneur or startup team is still in the product or service development phase; This is when investors typically provide the funds needed to bring the idea to life and work on the business plan, either through shareholders or equity investments.

Early Stage: The entrepreneur or startup team prepares to launch the product or service. At this stage, investors provide financing to develop the product or service, develop marketing strategies, and expand the customer base. Investors can choose investment types such as equity or equity investments, venture capital or mezzanine financing.

Growth Stage: The entrepreneur or startup team has established itself in the market and is providing the necessary financing to grow. At this stage, investors typically provide financing to help the company grow through equity investments, venture capital, mezzanine financing, debt IPOs (bond issues).

These stages may be different for each business and may depend on factors such as the size of the investment, type of investment, and return on investment.

Startup financing may vary depending on the size and stage of the business. Financing consisting of shares of company founders is one of the most effective ways to meet working capital needs. However, this method is a limited source of financing and can slow down the company's growth. After startup capital, businesses often move into a "serial" investment cycle.

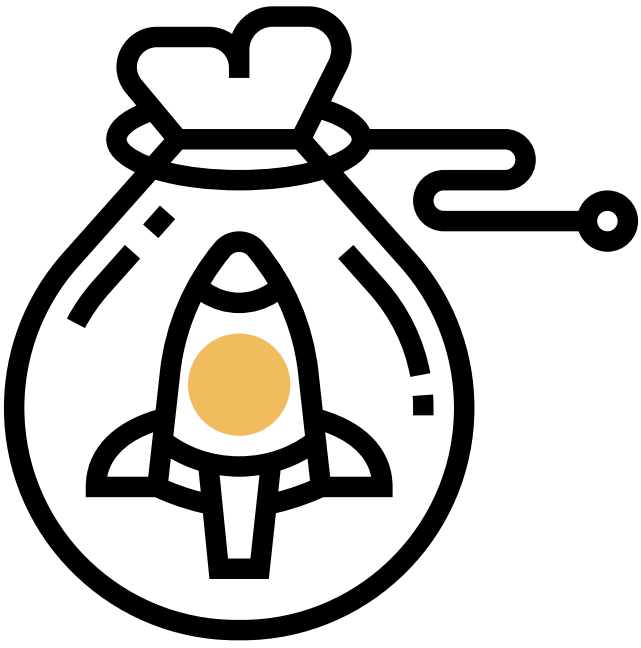
Series A This investment round is a phase in which the company implements its business plan and generates profits. It provides the capital needed to accelerate the company's growth, enter new markets and acquire more customers. This round usually consists of venture capital firms.

Series B: This investment round is used to further increase the company's growth rate. It provides the capital the company needs to expand its product line, enter new markets or scale up the business. A Series B investment round is typically provided by Series A investors, private equity firms or institutional investors.

Series C: This investment round is used to help the company grow rapidly and provide higher returns to investors. It is used to finance major investments that allow the company to expand worldwide, make large-scale acquisitions or increase competitive advantage. The Series C investment round can be provided by private equity firms, large institutional investors and hedge funds. The next stage is the initial public offering (IPO).

Public shares are publicly traded on the stock exchange and sold openly to investors. This allows the company to grow on a large scale and raise financial resources. However, going public requires a comprehensive legal, financial and regulatory process.

While this is a summary of typical startup financing cycles, each business may have different financing needs and funding sources may vary. Some businesses may turn to alternative financing sources, such as crowdfunding or lending, before applying for venture capital investment.



Providing financing to startups

There are several ways to obtain financing for a new venture or new business. Here are some common methods:

Bootstrapping: This involves using personal savings or business income to fund the venture. This is a low-risk approach but may limit the amount of capital available for growth.

Family and friends: This is a common option for entrepreneurs with a personal network who want to invest in their business. However, it is important to reach a clear agreement and communicate the risks involved.

Crowdfunding: A method used to finance a project, product or idea by raising small amounts from many people. This method, unlike traditional financing methods, provides financing through a platform open to a wide audience.

Crowdfunding has become popular in recent years with the spread of the internet. Entrepreneurs and creators looking to fund their projects, products or ideas raise small amounts from potential investors, backers or fans through internet-based platforms. This method allows those who want to invest to invest in many different projects with a small investment amount. Crowdfunding also offers entrepreneurs and creators the opportunity to test whether their product or idea will be accepted and attract the attention of their target audience. Crowdfunding is used in many areas. For example, it can be used to finance many different projects such as new product development, art projects, music albums, film productions, social aid campaigns and philanthropic activities.

Compared to traditional financing methods, crowdfunding requires fewer formalities to complete. However, this method also has some risks. If projects fail, investors may lose their investments. Additionally, crowdfunding projects may not be regulated in terms of financial regulations, which can increase the risk of fraud. Crowdfunding platforms like Kickstarter, Indiegogo or GoFundMe allow entrepreneurs to raise funds from large numbers of people who believe in their product or idea.

Angel Investors: An angel investor is an individual investor who provides capital and expertise to a venture or startup company, usually a new or early-stage venture. Angel investors invest in entrepreneurs because they believe in their ideas and business models.

Angel investors are generally high net worth individuals who offer their experience and commercial knowledge to entrepreneurs in addition to their investments. Therefore, these figures represent more than a simple source of financing for entrepreneurs.

Angel investors evaluate the potential of business ideas and invest in startups that they believe will be successful. These investments are often used in conjunction with your own capital as well as funds from other sources such as relatives, friends and business partners.

Angel investors can invest in companies operating in many sectors. These are sectors such as technology, healthcare, software, marketing and e-commerce. Angel investors also offer ideas and suggestions about the business model, business plan, revenue model and marketing strategies of the startups they invest in.

Investments from angel investors are often used to develop a business plan, product or service that entrepreneurs offer to larger investors or venture capital firms to succeed in the market. These investments provide financial resources and opportunities for the entrepreneur to develop his business plan and grow the company.

You can follow different paths to find an angel investor, such as:

- Attend events featuring angel investors. They often appear at entrepreneur events, investment conferences, business accelerator programs, startup fairs and similar events. You can attend these events to meet angel investors and promote your business or idea.

- Approach a group of angel investors: Angel investors often gather in groups. By appealing to these groups, you can promote your business or idea and gain investment.

- Online investment platforms: There are online investment platforms where angel investors publish their advertisements or startups seeking investment publish their advertisements. It is possible to reach angel investors and propose your business or idea through these platforms. For example, AngelList, Gust, and Seedrs connect angel investors and entrepreneurs.

- Approaching investment networks: Angel investors participate in investment networks (with private companies, venture capital firms and others). Therefore, by contacting investment networks, you will be able to promote your business or idea and obtain investments.

- Social Media: Social media platforms are another way to connect with angel investors and find investment in your business. LinkedIn, Twitter, Facebook and similar platforms can help you achieve your goal.

Venture Capital: Venture Capital (VC) is a type of investment that provides financing to ventures with high growth potential, usually through early stage investments. Such investments support startups with innovative business ideas in their growth and development processes.

Venture Capital firms are generally organized as private investment funds and invest in startups by examining their business plans, balance sheets and strategies in detail. Such companies may have a say in the management of startups and aim to generate returns on investments, such as dividends or shares.

Receiving VC investment not only provides startups with financial resources, but also gives them business experience, industry knowledge and industry connections. Therefore, venture capital investments not only provide funding to startups but also help them grow and market their business successfully.
VC investments are generally considered high risk, and investors assume the risk of losing some of their investment. However, when they are highly successful, venture capital investors often experience high returns.

Partnership with Venture Capital Firms: Venture Capital firms often invest in startups with high growth potential. These investments can be made in the form of share purchases or partnerships. However, some Venture Capital companies can also provide financing in the form of loans. You can contact the most suitable Venture Capital companies by reviewing their websites and questioning their investment criteria. Venture Capital firms are quite common in Europe and invest in many startups.

- **Accel Partners: Headquartered in the UK and the USA, Accel Partners invests in technology startups. The company has invested in companies such as Facebook, Dropbox, Etsy, Slack and Squarespace.**

- **Balderton Capital: Headquartered in London, it invests in technology startups in Europe and the United States. The company has invested in companies such as Citymapper, GoCardless, Revolut and The Hut Group.**

- **Creandum: Based in Sweden, invests in technology, mobile and internet startups. The company has invested in companies such as Spotify, iZettle, Kahoot and Tink.**

- **Index Ventures: Headquartered in Switzerland, the company invests in startups in technology, healthcare, fintech, consumer and other sectors. The company has invested in companies such as BlaBlaCar, Deliveroo, Farfetch, King and TransferWise.**

- **HV Holtzbrinck Ventures: The company, headquartered in Germany, invests in startups in the technology, healthcare, e-commerce and media sectors. The company has invested in companies such as HelloFresh, SumUp, Scalable Capital and Zalando.**

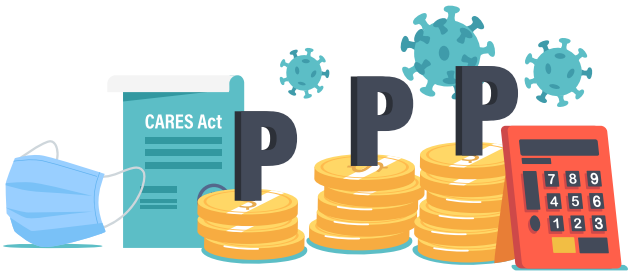
These are just a few examples, but Venture Capital firms in Europe are numerous and looking for startups to invest in.

Small Business Administration (SBA) Loans: The SBA provides loans to small businesses that cannot access traditional bank loans. These loans generally have lower interest rates and longer repayment terms.

The best option depends on the company's stage, industry, and entrepreneur's goals. It is important to carefully research and evaluate your options before choosing a funding source.

Every startup needs adequate funding at the beginning of the business. You must have tried the basic startup financing model i.e. the 3F (family, friends and fools) model. However, financing from friends, relatives and fools is often not enough and other means of financing need to be considered.

Credit limits for startups may differ from those of other businesses. Because startups are often new businesses, they may lack some of the criteria that traditional lenders need to grant loans. However, some lenders offer special programs and services for lending to startups.



Here are some steps to access loan facilities for beginners:

Apply for government-backed loan programs: Some countries offer government-backed loan programs to support startups. Through these programs, eligible enterprises can receive low-interest loans. To apply for these programs you may need to contact your country's Ministry of Economy or Development. State-backed loan programs for start-ups in Europe vary between countries and regions. Here are some examples:

1. European Investment Fund (EIF): The European Investment Fund is an investment instrument created by the European Commission and the European Investment Bank. EIF provides financing to SMEs, especially innovative and technology-based businesses. EIF offers SMEs a variety of financing options such as loan guarantees and venture capital.
2. Enterprise Europe Network (EEN): The Enterprise Europe Network is a service of the European Union for businesses. EEN provides support to SMEs in Europe in innovation, international cooperation and financing. EEN offers a variety of services to facilitate SMEs' access to government-backed loan programs.
3. KOSGEB: Turkey's SME support agency, KOSGEB offers state-supported loan programs to encourage the establishment of new businesses and the growth of existing businesses. KOSGEB offers various financing options to SMEs such as interest-free loans, grants, technology development supports and training programs.
4. National Innovation Fund (FNI): It is the research and innovation program of the European Union. It provides financing to support European businesses in innovation and growth. Horizon Europe offers grants and loans to SMEs to finance their innovative projects.
5. Horizon Europe: Horizon Europe is the research and innovation program of the European Union. It provides funding to support European businesses to innovate and grow. Horizon Europe offers grants and loans to SMEs to finance their innovative projects.
6. Researching alternative financing sources: Apart from traditional banks, alternative financing sources can also provide loans to startups. For example, peer-to-peer lending platforms or online lenders may offer loans for startups. By researching these alternative financing sources, you can find the right loan options for your startup.
7. Apply for business credit cards: Some banks offer financing to startups through business credit cards. These credit cards can offer advantages such as cash advance, low-interest loan options and payment flexibility.

European Commission funding for startups

The European Commission is making available a number of funds to support the development of startups within the European Union (EU). These funds aim to promote the competitiveness and growth of start-ups in EU countries. These include:

1. Horizon Europe: The European Union's largest research and innovation program for the period 2021-2027, Horizon Europe is designed to support technological innovation, finance innovative businesses, stimulate innovation and make the European Union more competitive.
2. COSME: The European Union offers a set of financial instruments designed for small and medium-sized enterprises (SMEs). He developed the COSME program to increase SMEs' access to finance, facilitate their access to European markets and support their exports.
3. European Innovation Council (EIC): The EU has launched a program called the European Innovation Council to encourage innovation and support creative ideas. This program aims to finance and support businesses and entrepreneurs with creative ideas.
4. European Investment Fund (EIF): The European Investment Fund (EIF) is a European Union institution that provides financial instruments to increase SMEs' access to finance. EIF specifically provides venture capital, venture capital and mezzanine financing to new businesses and entrepreneurs.
5. European Regional Development Fund (ERDF): ERDF is a European Union fund for implementing regional policies and supporting economic development. It provides financial support to regional development projects in EU countries and encourages businesses to play an important role in regional development.

These funds offer many opportunities to meet the financing needs of initiatives in the European Union. However, each fund has its own conditions and requirements, so it is important to carefully evaluate the types of startups and choose the most suitable funds.

Funding round for startups

The European Commission offers many different programs and funds for startups, and startup amounts may vary from program to program. While some of these programs can provide small amounts of support to startups, some can provide support worth millions of euros.

For example, the EIC Accelerator Program offered by the European Innovation Council is designed to support large-scale, high-risk innovative projects. The program includes different types of support and offers different types of financing such as grants, investments and mentoring. This accelerator program provides higher startup support than many existing programs, with total funding of €1.5 billion for 2021.

The European Commission's COSME program also provides financing to small and medium-sized businesses and includes different types of financing such as microloans, business loans and guarantees. This program provides financing in smaller amounts than startup financing, but can be beneficial for business growth and development when combined with the program's various supports.

Therefore, the initial amounts of the European Commission's support to start-ups vary depending on the programs and projects. More detailed information and starting amounts are available on special pages of the program websites where applications must be submitted.

If you would like to learn more about the European Commission's support for startups, the following links may be helpful:

- European Innovation Council (EIC): https://eic.ec.europa.eu/
- COSME: https://ec.europa.eu/growth/smes/cosme_en
- Horizon Europe: https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme_en
- European Investment Fund: https://www.eif.org/home/index.htm
- European Bank for Reconstruction and Development: https://www.ebrd.com/
- European Investment Bank: https://www.eib.org/

These websites provide more detailed information about the European Commission's support for startups and include more detailed information on applications and programmes. In the "Contact" or "Support" section of each website you will find information on how to contact a team that can help you.

What do investors pay attention to when investing in startups?

Investors pay attention to many factors when investing in startups. Some of the key factors for business success are:

- Management Team: Investors pay attention to the experience, skills and leadership abilities of the company's management team. A good management team is critical to a company's growth, and investors generally value the team's integrity and capabilities.

- Market Potential: Investors consider the size of the company's target market and its growth potential. A large enough target market is important for growth and increased investor returns.

- Product/Service Differentiation: Differentiating a product or service from other similar products or services can provide a competitive advantage. Investors consider the uniqueness and differentiation potential of the product or service they are asked to invest in.

- Revenue Model: Investors evaluate the company's revenue model. The company's revenue generation potential is critical to return on investment.

- Growth Strategy: The company's growth strategy may be interesting to investors. Investors evaluate the strategy and resources needed for growth.

- Financial Performance: Investors evaluate the company's financial performance and potential. The company's revenue, profitability, cash flow and costs are important factors when deciding whether to invest.

- Risks: Investors evaluate the company's potential risks and how it plans to manage them. It is important to identify the company's potential risks so that investors are aware of them when making investment decisions.

When asked to fund a startup, investors consider the above factors and do careful research to minimize risks.

What can a startup do to obtain financing more easily?

Securing financing is often a challenging process for a startup. However, there are also some measures that will facilitate access to finance. Below are some examples:

- **A well-prepared business plan: Investors are known to carefully examine startup business plans. A well-prepared business plan can attract investors by explaining the company's ideas, goals, marketing strategies, financial plans and potential risks.**

- **Join investment networks: The entrepreneurship ecosystem is growing and startups can join different investment networks to reach investors. Investment networks allow companies to communicate directly with investors.**

- **Target the right investors: Startups can use their time and energy efficiently by targeting investors who are most suitable for their business. Investors can specialize in different sectors, different sizes and different investment strategies. You can identify the investors most suitable for your startup's business by researching their investment networks and the companies they invest in.**

- **Look for the right funding sources: Startups can turn to investment networks, government backers, angel investors, venture capital firms and other funding sources. Companies can get financing more easily by choosing the most suitable one.**

- **Develop the ability to present themselves: Startups can present their business and ideas in direct meetings with potential investors. A good presentation can attract investors' attention and make it easier to find financing. Startups can attend training courses or mentoring programs to improve their presentation skills.**

- **Building a good team: Investors pay attention to the qualifications and skills of a startup's management team. A good team can help a company succeed and attract investors.**

Legal provisions

The legal rules that startups in Europe must pay attention to in order to receive support for their investments may differ from country to country. However, in general, the legal rules that startups in Europe must comply with to access financial contributions can be listed as follows:

- Company formation: The startup must be registered as a company. The establishment of a company is carried out by different organizations in different countries. For example, Companies House in England, the Chamber of Commerce in France, and the local court in Germany have the authority to register companies.

- Capital structure: The startup must have an adequate capital structure to be attractive to investors. For this, issues such as distribution of shares, shareholder rights, the structure of the board of directors and the audit committee must be defined.

- Legal Agreements: You need to prepare legal agreements to protect your startup from any scenario it may encounter during the investment process. It is important to prepare documents such as investment agreements, share purchase agreements, confidentiality agreements, and employee contracts.

- Tax Regulations: The startup's activities must comply with the tax laws of the country. Having knowledge about the tax laws applicable in the country where the startup operates will ensure that the startup complies with these laws.

- Data protection/privacy: Customer data and some personal information are collected and processed during the Startup's activities. Protecting and maintaining the confidentiality of this data is important for the reliability of the initiative. EU data protection regulations such as GDPR must be complied with.

- Investment support: Many European countries offer various investment programs to support startups. To participate in these programs, the startup must meet certain criteria. These criteria may differ from country to country, but factors such as innovation, growth potential and economic impact are generally taken into account.

Results

The important points of this section are:

- Startups can turn to different financing sources to establish or grow their business. These include angel investors, venture capital companies, crowdfunding, government funds and bank loans.

- To attract the attention of potential investors, startups need to create a solid business plan and revenue model. A good team, a proven market and a scalable business model are also important.

- The European Commission provides many funds and programs to support initiatives in Europe. In order to apply for these funds, the company must be established in a member state of the European Union.

- Angel investors often provide financing in the early stages of startups and often assist the company with consulting and business development.

- Crowdfunding involves many people investing small amounts of money to finance a specific project or business. It is often used by new businesses to raise startup capital.

- Venture Capital firms typically make larger investments and generally invest in more mature companies.

- Startups must comply with many legal regulations in order to receive financing. These include tax laws, investment treaties, intellectual property rights, copyrights, privacy and consumer protection.

- To build a successful company and secure financing, it is important for startups to build a strong network and actively communicate with investors. Additionally, a strong leadership team and business model are critical to the long-term success of the company.

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Digital transformation of start-ups and SMEs in the Czech Republic

As in many countries, start-ups and SMEs are experiencing a digital transformation in the Czech Republic. This shift towards digitalization involves the integration of technology into business processes to increase efficiency, increase productivity and foster innovation.

One of the main drivers of digital transformation in the Czech Republic is the increasing availability of digital tools and technologies. These include cloud computing, artificial intelligence, data analytics and the Internet of Things (IoT), among others. These technologies offer companies new opportunities to streamline their operations, automate processes and gain insights into customer behavior.

Another factor driving digital transformation in the Czech Republic is changing consumer behavior. With the rise of e-commerce, mobile devices, and social media, consumers are increasingly seeking digital experiences when interacting with businesses.
Start-ups and SMEs that can leverage digital tools to deliver personalized, convenient and seamless customer experiences will likely have a competitive advantage in the market.

The government of the Czech Republic has also recognized the importance of digital transformation for startups and SMEs. Various initiatives have been implemented in recent years to support the adoption of digital technologies, including financing programmes, tax incentives and research and development support.

Despite these positive developments, startups and SMEs in the Czech Republic continue to face some challenges during their digital transformation. These include issues such as data privacy and security, limited access to skilled technical talent, and the high cost of implementing new digital systems and processes.

Overall, digital transformation is an important trend shaping the future of startups and SMEs in the Czech Republic. By embracing digital technologies and finding ways to leverage them to gain competitive advantage, businesses can dynamically and continuously increase their chances of success. emerging market.

Fears and benefits of digital transformation

Digital transformation brings both concerns and benefits to startups in the Czech Republic.

While there are certainly challenges associated with the transition to digitalization, there are also many opportunities for startups that can successfully leverage digital tools and technologies to their advantage.

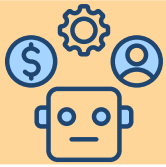
fears

job loss

One of the biggest fears about digital transformation is that it will lead to job losses. Automation and artificial intelligence have the potential to replace some jobs, and some workers may be concerned about job security.

Cyber security risks

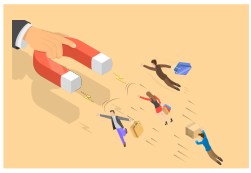
As companies become digital, their sensitivity to cyber security risks increases. Startup companies may be concerned about the potential for data breaches, hacks, and other cyberattacks that could harm their reputation and financial stability.



Implementation costs

Implementing new digital systems and processes can be expensive. Startup leaders may worry about the costs associated with upgrading technology and whether they can actually afford it.

Benefits

				
Increasing efficiency	Improved customer experience	Access to new markets	increased agility	Better data analysis
Digital transformation has the potential to streamline operations and increase efficiency. This can mean cost savings and increased productivity for startups.	Digital tools can help startups better understand their customers and deliver personalized experiences. This can increase customer satisfaction and loyalty.	By going digital, startups can expand their reach and access new markets. This can help them grow and scale their business.	Digital transformation can help start-ups become more agile and responsive to market changes. This can provide a competitive advantage in today's fast-paced business environment.	Digital tools can help start-ups collect and analyze data more effectively. This analysis can provide valuable insights into customer behavior, market trends and business performance.

Startup digitalization examples

We will compare the startups founded by our students and graduates. Startups are technically focused and also solve marketing problems in e-commerce.

Vertical Production

The newly formed Vertical Production is a company that offers a range of creative services, including photo and video production, animation, graphic design and audio production. Vertical Production's goal is to produce high-quality multimedia content for a variety of clients, including businesses, non-profit organizations and individuals.

The team of a multimedia studio startup usually consists of students, graduates and professionals with different skills. Everyone specializes in some part of development, such as videography, animation, graphic design, audio engineering, web design and project management. The team works collaboratively to develop creative concepts, produce multimedia content, and deliver high-quality final products to customers.

To start a multimedia studio, you need to have a solid understanding of the industry, know the latest trends and technologies, and have a passion for creativity. You will also need to invest in the equipment and software required for your services. Networking and building relationships with potential clients and industry professionals are also essential to building a successful media studio.

Overall, the Vertical Production initiative is dynamic and exciting and requires a lot of creativity, hard work and dedication in producing high-quality media content.

200 solutions

Web and app development startup 200solutions specializes in building websites and web, desktop and mobile applications. As the world continues to rely increasingly on technology, businesses' demand for an online presence is also increasing. This has resulted in increased demand for web development and automation services.

Starting a development venture requires knowledge of many development technologies, project management skills, and a strong understanding of the market.

Results

Technology startups can play an important role in assisting SMEs (Small and Medium Enterprises) in their digitalization efforts. SMEs often struggle to keep up with the rapid pace of technological change and may not have the resources to invest in the latest technologies or employ dedicated IT staff. Technology startups can fill this gap by offering a range of digital solutions and services that will help SMBs streamline their operations, improve customer experiences and remain competitive in their markets.

Here are some ways tech startups can help SMEs with their digitalization interventions:

Cloud based solutions	Technology startups can provide SMEs with cloud-based solutions that allow them to securely store and access data and applications over the Internet. This can help SMBs reduce their IT infrastructure costs and increase their scalability and flexibility.
E-commerce platforms	Technology startups can help SMBs build and manage e-commerce platforms, allowing them to sell their products and services online and reach a wider audience.
Digital marketing	Tech startups can offer SMBs digital marketing services such as search engine optimization (SEO), social media marketing, and pay-per-click (PPC) advertising to improve their online presence and attract more customers.
mobile applications	Technology startups can develop custom mobile applications for SMBs that improve customer experience and allow them to reach customers on the go.

Additionally, tech startups can offer SMEs access to cutting-edge technologies such as artificial intelligence, machine learning and blockchain that can further enhance their digital capabilities. This can help SMEs gain a competitive advantage and improve their overall performance.

In summary, technology startups can provide SMEs with the skills, resources and technologies needed to successfully navigate the digital landscape. By collaborating with technology startups, SMEs can benefit from greater efficiency, greater profitability and greater competitiveness in their sectors.

Startups in the Czech Republic

In recent years, the Czech Republic has emerged as a startup hotbed with a thriving ecosystem that attracts entrepreneurs, investors and talent from around the world. The country's central location in Europe, combined with factors such as its highly skilled workforce, low business costs and supportive government policies, has made it an attractive destination for startup founders looking to start and grow their business.

In recent years, there has been a significant increase in the number of startups operating in a wide variety of sectors in the Czech Republic, from technology to e-commerce, from biotechnology to energy. This growth is due to a number of factors, including the availability of funding, the presence of world-class research institutions, and a vibrant community of entrepreneurs and innovators.

Despite its relatively small size, the Czech Republic has had some success stories in the startup world, including leading cybersecurity solutions provider Avast and fast-growing travel technology company Kiwi.com. These and other initiatives have contributed to the recognition of the Czech Republic as a center of innovation and entrepreneurship.

In general, the startup scene in the Czech Republic is vibrant and dynamic and offers many opportunities for both entrepreneurs and investors. Whether you're looking to start a new business or invest in an existing one, the Czech Republic offers a supportive and welcoming environment that's worth exploring.

Failures of startups and SMEs in the Czech Republic

As in every country, startups and SMEs in the Czech Republic face challenges and failures throughout their journey. Some of the most common reasons for failure are lack of market demand, insufficient financing, poor management, and competition from large companies.

One of the biggest challenges for start-ups and SMEs in the Czech Republic is access to finance. While the number of investors and venture capitalists interested in backing startups is increasing, many companies are struggling to secure the financing needed to scale their business. This can make it difficult for startups to attract top talent, invest in research and development, or expand into new markets.

Another common problem is a lack of experience or skills among company founders and management teams. Many startups are founded by entrepreneurs who have little or no experience running a business, which can lead to bad decisions and poor management. All this can ultimately lead to the failure of the company.

Additionally, the small size of the Czech Republic market can make it difficult for startups and SMEs to succeed. With a population of just over 10 million, the domestic market is relatively small; This means that many companies need to expand into international markets to achieve sustainable growth.
Despite these challenges, there are many successful startups and SMEs in the Czech Republic, and the government has implemented various initiatives to support entrepreneurship and innovation. These include financing programs, tax incentives and support for research and development. Overall, although failures do occur, the startup and SME ecosystem in the Czech Republic remains vibrant and dynamic with many opportunities for success.

Main reasons for the failure of startups and SMEs

Lack of market demand	One of the most common reasons for startup failure is the lack of market demand for the product or service offered. This can happen if the startup fails to identify a gap in the market, misjudges consumer needs, or faces strong competition from existing players in the industry.
Insufficient funds	As with many startups and SMEs around the world, securing adequate financing is often a challenge for businesses in the Czech Republic. Limited access to investments, loans, or other financial resources can make it difficult for startups to grow their businesses or invest in research and development.
Inadequate management	Inexperienced or ineffective management can also contribute to the failure of start-ups and SMEs in the Czech Republic. This can include issues such as inadequate business planning, poor decision-making, and a lack of focus or direction.
Competition from big companies	Established companies with greater resources and market share can pose a significant challenge for start-ups and SMEs in the Czech Republic. These larger players may have greater brand awareness, economies of scale, or established distribution channels, making it more difficult for smaller businesses to enter. Market.
Limited domestic market	With a population of just over 10 million, the Czech Republic's domestic market is relatively small. This can make it difficult for startups and SMEs to achieve sustainable growth without expanding into international markets.

While these factors can certainly contribute to the failure of startups and SMEs in the Czech Republic, it is important to note that many successful companies also emerge from the country's vibrant and growing entrepreneurial ecosystem.

Which startups and SMEs are less successful in the Czech Republic?

In general, there is no particular type of startup or SME that guarantees less success in the Czech Republic, but there are some sectors that may be more difficult to penetrate due to factors such as competition, regulations or market demand.

For example, sectors requiring large capital investment, such as biotechnology or clean energy, may face greater difficulties in the Czech Republic due to limited financing resources and competition from established players. Similarly, heavily regulated industries such as finance or healthcare can also create further hurdles for startups and SMEs.

Additionally, given the relatively small size of the domestic market, new ventures that rely heavily on local market demand may face more difficulties in the Czech Republic. These include companies specializing in niche products or services that may have limited relevance outside the Czech Republic.

However, it is important to note that many successful startups and SMEs operate in the Czech Republic in a wide range of sectors. With the right combination of innovation, market demand and management skills, businesses in every sector have the potential to thrive and succeed in the Czech Republic's dynamic entrepreneurial ecosystem.

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