

# European Startup Monitor

2015



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German Startups Association

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# Greetings from the European Commissioner for Digital Economy and Society



We are all looking to Silicon Valley, to its vibrant startup scene. No doubt, Silicon Valley is unique: But we can do a lot to push Europe's ecosystem. First of all, we need to be supported by the right policies - the Digital Single Market is needed for them to grow and scale, and the environment should welcome failure as a learning experience. Our legal regimes should be streamlined and simpler to navigate for our startups. Hiring talent from all over the EU should be simpler, as should getting access to finance. Policies should be focused on achieving measurable results, and decisions made simpler to take by access to quality information and data. If you can't measure it, you can't manage or understand it. We all realise the potential of startups, their significance to the economy and their role in education. It is very rewarding to see young people take the risk of starting their own company and learn so much about business processes. Our continent becomes closer knit together when people from different countries collaborate around creative ideas. However, we need to focus on the impact of startups, to make sure we stay on the right

track. We should not be carried away by a general feeling that startups are good, but be able to demonstrate how they are good and what they have achieved. In an increasingly connected economy, we also need to be able to connect initiatives - with people, with technologies, with regions and with the development of the industry. Without having concrete indexes based on which real decisions can be taken, we run the risk taking the wrong turns. Toward this end, it is a pleasure to welcome the European Startup Monitor. It is an effort toward reaching concrete goals, while at the same time acting as a motivation for people who want to build their own future and an excellent example for cooperation between European startup-ecosystems.

Günther H. Oettinger - European Commissioner  
for Digital Economy and Society

A handwritten signature in black ink, which appears to read "Günther H. Oettinger". The signature is stylized and written in a cursive-like font.



# Overview

**The European Startup Monitor (ESM) represents more than 2,300 startups with more than 31,000 employees in all 28 European (13 in-depth analysis) member states and further important countries.**

**Startups are defined by 3 characteristics: Startups are younger than 10 years. Startups feature (highly) innovative technologies and/or business models. Startups have or strive for a significant employee and/or sales growth (definition of startups, p. 15).**

**Objectives of the 1st ESM: To present the development and significance of startups and to understand European founders. To identify and compare country-specific and common challenges that startup ecosystems face in Europe. To foster communication between European entrepreneurs.**

# Facts from the 1st ESM

## European startups are job engines

European startups create on average 12.9 jobs (incl. founder/s) after 2.5 years. Moreover, the average startup plans to add 6.8 more jobs within the next 12 months.

## Focus on high-tech

Most startups in the European Startup Monitor form part of the digital economy.

## Startups are innovation drivers

Almost 2/3 of the startups in the European Startup Monitor rate their products and/or services as novel across the European or global market.

## Startups are founded in teams

Most European founders are between 25 – 34 years old. 14.7 % of the startup founders in the ESM are female.

## International markets

More than half of all startups already serve international markets, with 8 out of 10 startups planning further internationalisation in the next 12 months.

## European startups are international

11.9 % of startup founders and 31.6 % of their employees are from countries other than the location of the startup.

## ESM startups have raised € 2.5 million

ESM startups have raised on average € 2.5 million in external capital. As part of the growth process, startups plan to raise an additional € 3.3 million in external capital on average.

## Satisfied & Positive atmosphere

More than 90 % of startup founders are satisfied with their present business situation: 72 % assume positive business development over the next 6 months.

## Important challenges

Sales/customer acquisition, raising capital and product development are the most

important current challenges for European startups.

## Bureaucracy & regulations

Political expectations: European founders hope for more financial support and improvements in political regulations and bureaucracy.

## Room for improvement

The European startup environment is rated as satisfying, but there is room for improvement and there are significant differences between countries.

# Introducing 8 European startup ecosystems

## Austria

Austria has a vibrant and fast growing startup scene. Many co-working spaces and networking events are the perfect opportunity to find the right team. The state provides excellent financial support for startups & young entrepreneurs and offers its comprehensive services in 15 languages. Vienna with its own startup festival (Pioneers Festival) is becoming a magnet for talent. The infrastructure for startup founders is a perfect combination of internationality and affordable living. Recent exits and the new VC Speedinvest show that startups can find the right investors in town.

### **Christoph Jeschke**

Co-Founder Austrian Startups

## Belgium

Belgium offers a high density of skilled entrepreneurs and business people in areas such as healthcare, media, fintech, IT as well as creative industries and fashion tech. A wide variety of experienced mentors and business angels are contributing to a fast growing and maturing startup ecosystem and entrepreneurs have found a common voice through Startups.be. Startup.be has mapped out 1,400 startups and scaleups, with Sirris, a local research centre. This is an estimated 40% of all startups in Belgium. The country offers an excellent test market for multi-language and multi-stakeholder businesses, a

mature SME market and many corporate headquarters reside in Brussels. Most other startup hubs are 3 hours' travel distance away, so Belgium is considered the hotspot from which to conquer Europe.

### **Karen Boers**

CEO Startups.be

## Germany

Germany is an economy in which the "mittelstand" has a longstanding tradition and an important meaning, especially in engineering and technology. Furthermore, the German startup scene is full of potential, creating highly qualified and forward-looking jobs, driving innovation and growth across large sections of the German economy. In the face of the digital transformation, the information and communication technologies (ICT) sector is gaining more importance in the light of digital transformation. This trend is reflected in the high percentage of startups with



innovative business models in the digital economy. Against this background, a Young Digital Economy Advisory Board was established as part of the Digital Economy Action Programme to strengthen the young digital economy in Germany. The number of startup foundations has also grown over the last two years. This was a positive trend reversal after decreasing or stagnating startup activities following a boom period in the job market around 2005/2006 (*Metzger 2015*). The German startup scene is located primarily in Berlin, Munich, the metropolitan region Rhein-Ruhr, Hamburg and Stuttgart/Karlsruhe (*Ripsas & Tröger 2015*).

**Prof. Dr. Tobias Kollmann**

Young Digital Economy  
Advisory Board

## Israel

Israel is well known as “The Startup Nation” with over 4,000 startups operating mainly

in an increasingly maturing startup ecosystem developing around Tel Aviv and Jerusalem. Israel is ranked 1st in the world for innovative capacity in 2014 by the IMD Global Competitiveness Yearbook. In 2014, a banner year Israel broke all records: over 70 public issues of Israeli companies for the total amount of 15 billion US dollars. The data shows that Israeli startups are being acquired faster than any other startups, and the average time between startup and acquisition stands at 3.95 years. Furthermore, Israel is a highly rated country in being trusted by investors, second only to the United States. On a per capita basis, the Israeli high-tech and venture capital sectors were larger than in any other country in the world. What’s even more surprising, is that the Israeli high-tech startup exit amounts increased by 980% over the past five years to a record of \$9.2 billion in 2014 (*like Mobileye, Viber and Waze are examples of recent*

*record exits*). Israel’s ecosystem consists of smart, eager, tech savvy, native speakers of a variety of languages including Spanish, Portuguese, French, German, Italian, and Russian, are always around.

**Noam Band**

CEO Algomizer

## Italy

Italy is an increasingly maturing startup ecosystem developing around the city hubs of Rome and Milan. Abundant talent and energy in the startup pipelines, flowing from the Italians’ innate creativity as well as the financial crisis are the main entrepreneurship behaviour changers. The youth need help and education on what a startup is and how the venture business works. A public registry of 4,000+ startups includes hundreds of agencies, consultancy firms and local SMBs. Recent directives from the Bank of Italy cancelled many

syndications and investment clubs who were covering the seed stage equity offering. Issues are over-regulation, excess incubators, lack of accelerators, lack of VC operators, while research spin-offs are struggling to use their grants productively. Talented resources are competitively priced, quality of life is excellent and Italy leads well in several markets, but there is room for more innovation. Returning entrepreneurs can increase international practices and help the ecosystem mature.

### **Gianmarco Carnovale**

President Roma Startup

## **Netherlands**

The Netherlands is a small country with big tech footprint. It all happens in 10+ innovation hubs that are 90 minutes apart, giving entrepreneurs access to one of the most highly educated, flexible and motivated workforces in Europe. The Dutch startup ecosystem

has more than 2,600 tech startups and with more than 44 accelerators the Netherlands has a unique proposition as a ‘testbed’ and ‘launch pad’ for international startups and scale ups. In this testbed a startup can find his problem solution fit and test how well their product lands with its future customer base. The Ecosystem’s success stories include a Startupbootcamp, which is a global accelerator program now operating in more than ten countries, and the first Dutch tech unicorn called Adyen. Moreover, in 2015, Dutch startups raised 430 million euro with a number of 150 deals, and an average deal size of 2.85 million euro, placing the Netherlands at the third rank of the total amount of VC deals in Europe. To further enhance the ecosystem’s global impact the Dutch government launched the StartupDelta initiative, which is assigned to tackle challenges that hinder growth for startups and create favorable regulations. StartupDelta, led by Special Envoy Ms. Neelie Kroes,

former European Commission Vice-President for the Digital Agenda, closely collaborates with the 10+ tech hubs to make the Netherlands one of the top three most attractive startups ecosystems in Europe in one and a half year time.

### **Sigrid Johannisse**

Director Startup Delta

## **Spain**

Due to the crisis and the high rate of unemployment (*50 % for young people*), between 2012 and 2013 the term „entrepreneur“ became trendy in Spain. A country where until then the most preferred professional career was public worker, suddenly was full with inexperienced founders. This attracted to the growing ecosystem good people without much experience but willing to put a lot of effort promoting initiatives that could help improve the sharing of knowledge, and opportunistic people trying to take advantage of these new

founders. In 2014 and 2015 the situation started to improve very fast, in part because founders were gaining first hand experience, and because some startups found the winning formula of finding investment and clients outside Spain but keep the development team there, where the quality of living is high and the cost of living is low. An increasing number of Spanish talent that had been working on startups outside Spain for a few years, started to come back, bringing with them their expertise and the contacts. One of the main challenges for startups in Spain are personal relations and family connections, making newcomers in disadvantage regardless of the quality of their product or service.

### **Carmen Bermejo**

CEO Spanish Startup Association

## **Sweden**

Sweden is a mature ecosystem with hubs such as Stockholm, Gothenburg, and Malmö.

Stockholm, having produced six unicorns to date, is the second most prolific tech hub globally - beaten only by Silicon Valley. Successful entrepreneurs are re-investing time and money into the many exciting startups in various phases and the community is a vivid, tight-knit one. Entrepreneurs and other stakeholders share knowledge and experience through several different initiatives, like recurring events and natural meeting places. The pros of the Swedish ecosystem is that it is easy to start a company, capital is ready and available with Angels and VCs congregating, the country is filled with early adopters and we have the fourth highest internet rate in the world (*94 % use the internet*). We have top notch programmers at good prices and the flat organisations encourage innovation and creativity in the workplace. The cons are that, especially in Stockholm, it is tough to find accommodation. The taxes are high and there is also a funding gap between

seed and series A. The limited communication between different startup support organisations means there are many silos and not enough coherence in the ecosystem.

### **Nils-Erik Jansson**

Co-Founder Swedish Startup Association

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# Motivation

## The European ecosystem as a location for startups

Startups are important drivers of the European economy. By creating new ventures, entrepreneurs generate new wealth, add products or services to the market and create jobs.

In the worldwide comparison however, Europe is lagging behind the global pace in terms of new business creation: Compared to Asia or North America, where early-stage entrepreneurs make up around 13 % of the adult population, in the European Union only 7,8 % of adults pursue early-stage entrepreneurial activities (*Global Entrepreneurship Monitor 2014*). Moreover, according to a 2012 issue of *The Economist*, European founders still focus very much on small businesses built primarily to ensure the livelihood of their founders (“*corner shops, hairdressers and so on*”).

In order to keep up with globalised markets however, Europe must foster innovative startups that positively contribute to European economies by creating products, services and jobs. The European Startup Monitor (*ESM*) 2015

examines European startups that pursue innovative business models. It evaluates entrepreneurial activities, motives and attitudes of entrepreneurs across European and other countries relevant to the European ecosystem and startup landscape. The ESM explores the role of startups, their growth throughout Europe and national characteristics that influence entrepreneurial activities.

The goals of the ESM are to assess the current situation of startups throughout Europe and selected countries, to identify country-specific differences and common challenges. It also explores the future of European startups by noting current trends and developments in the European startup ecosystem.

Overall, the ESM aims to identify factors that are crucial to fostering entrepreneurial activities throughout the European startup ecosystem. The study may also encourage communication between European entrepreneurs.

# Definition

Building a startup is a special form of business. According to well-known Silicon Valley serial entrepreneur Steve Blank, a startup is “an organisation built to search for a repeatable and scalable business model”.

Based on this concept, the European Startup Monitor only selected businesses with the following features to participate:

- 1. Startups younger than 10 years**
- 2. Startups that feature (*highly*) innovative technologies and/or business models**
- 3. Startups that have or strive for a significant employee and/or sales growth**

A venture qualifies as a startup for the ESM when the first point of definition above is met, along with one or both of the other two definition points. The ESM’s definition differentiates startups from conventional businesses and SMEs that do not

promote innovative products or services, or exist primarily to secure the livelihood of founders, without a growth perspective (*hairdresser example*). In contrast to such “mice companies” that are started to generate income but without ambition to grow, the ESM conceives startups as “gazelle companies”, meaning growing young ventures that are built to create wealth (*Aronsson 2004*).

So far, the startup concept is most often used when talking about businesses in the digital economy (*as they make up the majority of startups*), but there are also other industries in which startups flourish, such as medical technology or education. All of these kinds of startups are taken into consideration in the ESM 2015.

The ESM provides a full-scale picture of the promising and high-potential new ventures in Europe that are built to achieve growth and drive innovation in the following years.

# Academic framework

The academic framework of the ESM focuses on established approaches to research on entrepreneurial ecosystems and is based on the Babson Entrepreneurship Ecosystem Project (*BEEP*) by Daniel Isenberg (*Isenberg 2010/2011*). Entrepreneurship ecosystems are characterised by several impact factors on startup activities. These include (FIGURE 1):

**Policy** – Government, regulatory framework, etc.

**Finance** – Financial capital in general, venture capital, etc.

**Culture** – Societal norms, acceptance, etc.

**Support** – Financial support, advisory support, etc.

**Human capital** – Employment, professional training, educational institutions, etc.

**Markets** – Customers, market perspectives, etc.

The ESM report evaluates the European startup ecosystem with recourse to these central factors. The six impact factors on startup activities and the sections in which these issues are addressed in this ESM report are displayed in Figure 1.



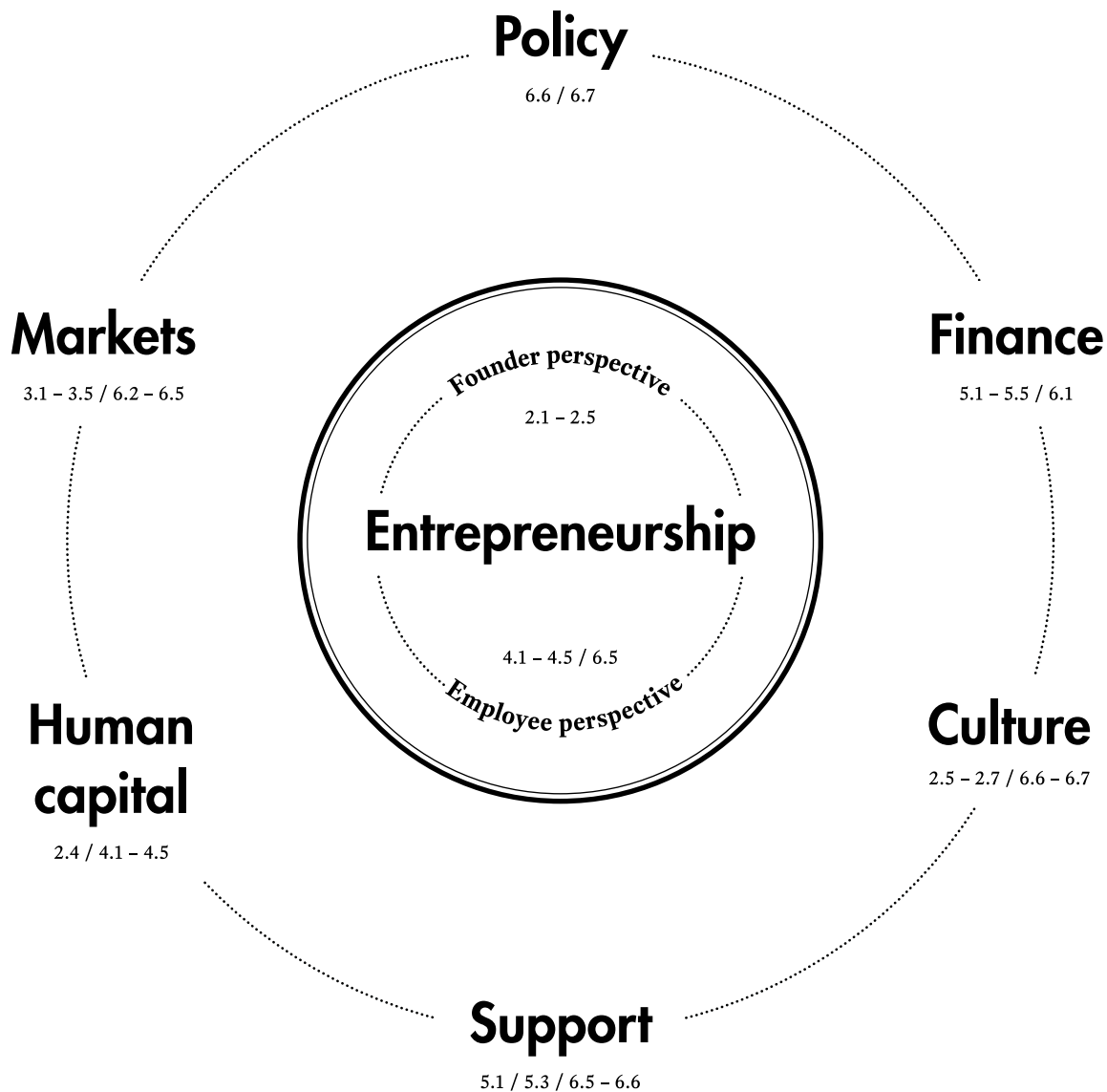


FIGURE 1. Academic framework

# I. Basic characteristics of European startups

Location of startups: The European Startup Monitor encompasses data from 2,365 startups from all 28 European member states and further important countries in the European startup ecosystem (e.g. Israel). The map (FIGURE 2) shows all participating countries (*light shading*) and all countries for which we are able to make detailed statements due to a sufficiently large sample of startups (*dark shading*). The 13 major countries that are analysed in more detail in this report include Austria, Belgium, the Czech Republic, France, Germany, Israel, Italy, the Netherlands, Poland, Romania, Spain, Sweden and the United Kingdom<sup>1,2</sup>. The highest number of participating startups is located in Germany. Major regional hotspots represented in the ESM are Berlin, London, Paris and Tel Aviv.

● major ESM hotspots

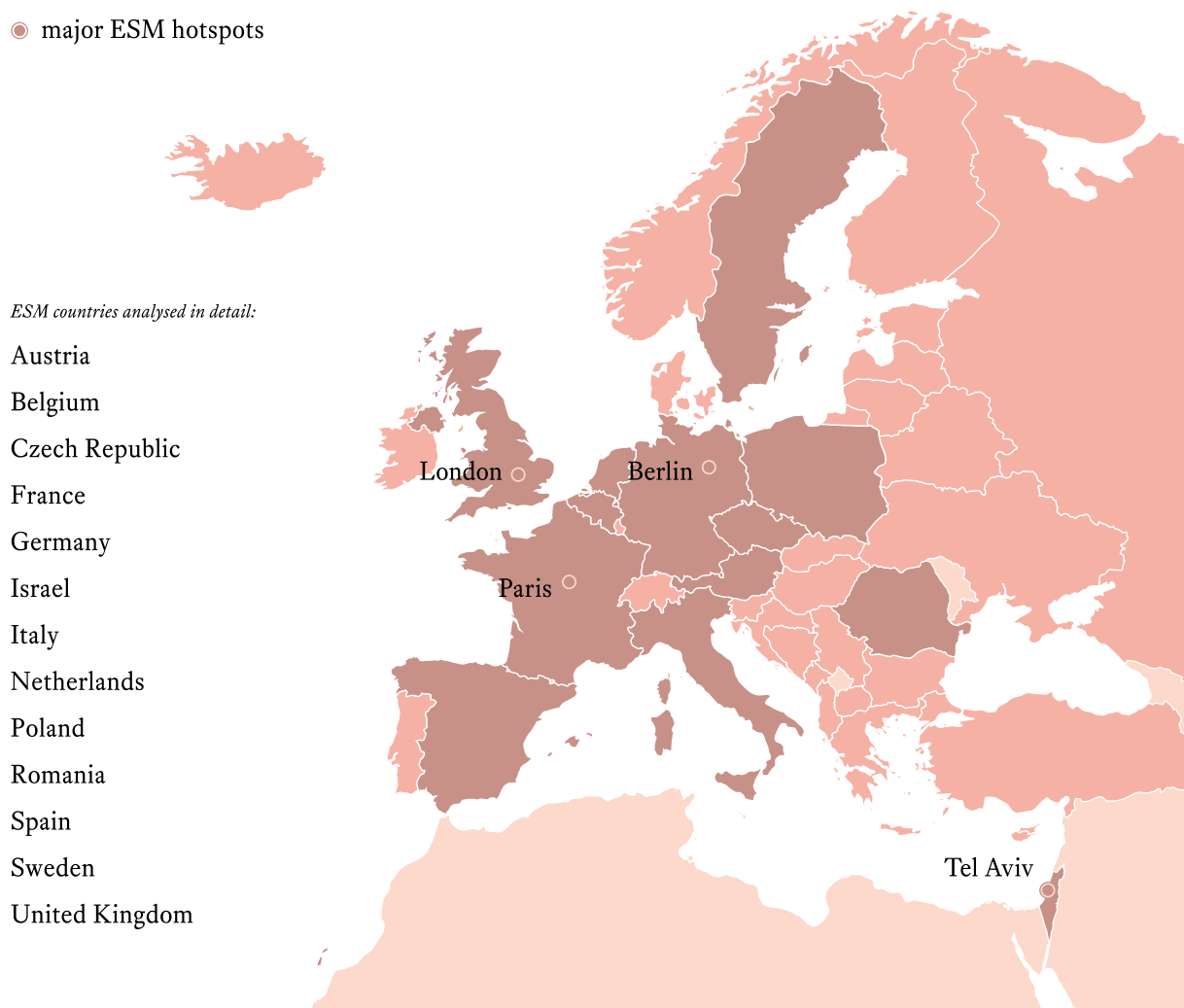


FIGURE 2. The European ecosystem / Countries analysed in the ESM 2015

# Startups are on average **2.5** years old

The participating startups that were analysed were on average 2.5 years old (FIGURE 3). The startups that reflected the highest age on average were located in Sweden (5.3 years), followed by Spain (3.8 years) and Belgium (3.7 years). The youngest ventures were located in Romania (1.3 years) and Italy (1.7 years).

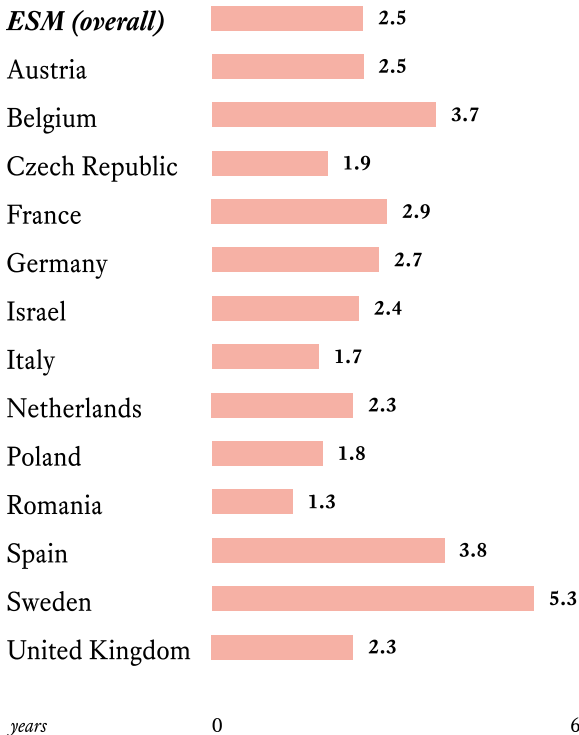


FIGURE 3. Average age of startups (ESM countries) <sup>3</sup>

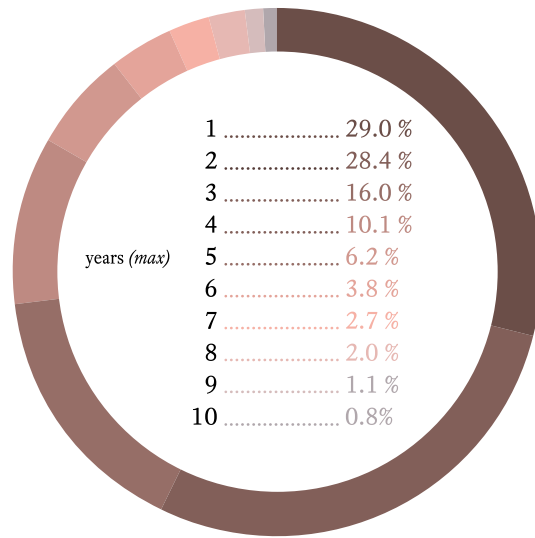


FIGURE 4. Age ranges of startups (ESM overall)

Of the responding founders, 29.0 % stated that their European venture was not more than a year old. Almost three-quarters (73.4 %) of the founders reported that their startup was no more than three years old. Most of the startups (83.5 %) were no more than four years old (FIGURE 4).

There was a noticeable predominance of young startups no more than a year old in the southern ESM countries (Spain: 49.5 %, Italy: 43.7 % and Israel: 32.5 %). We observe many of these very young startups in rather small economies as well (Israel: 32.5 %; Czech Republic: 39.3 %; Romania: 36.7 %).

## Most ESM startups are in the *startup stage*

Developmental stages: The model applied in the ESM comprises five stages (*Ripsas & Tröger 2015*). As demonstrated (**FIGURE 5**), 21.2 % of the ESM startups are in the seed stage, in which founders are still developing their business idea and have not yet generated any revenue.

Most of the startups (48.5 %) are in the startup stage and have succeeded in generating revenue. The third strongest category comprises startups in the growth stage (23.9 %), where they have reached market maturity and robust user and revenue growth.

Only 1.6 % of the startups are in the later stage, established in the market and likely to seek further growth through a trade sale or an IPO. Lastly, 3.0 % of the study participants responded that their startup has already reached the steady stage.

It is noticeable that Romanian (50.5 %) and Israeli (43.4 %) startups have predominantly stated that they are at the seed stage. Israel also features a relatively high number of startups in the later stage (6.6 %). Overall, startups in the ESM all follow the same trend.



FIGURE 5. Current developmental stages of startups (ESM overall)



## **II. Founders and teams**

## 14.7% of the startup founders in the ESM are *female*

85.3 % of the European startup founders are male, while 14.7 % are female. Considerable differences between countries (FIGURE 6) can be observed. The countries indicating the highest percentage of female founders are Sweden (33.3 %) and Romania (28.1 %). The ESM sample did not include any female founders (0.0 %) for the Czech Republic.

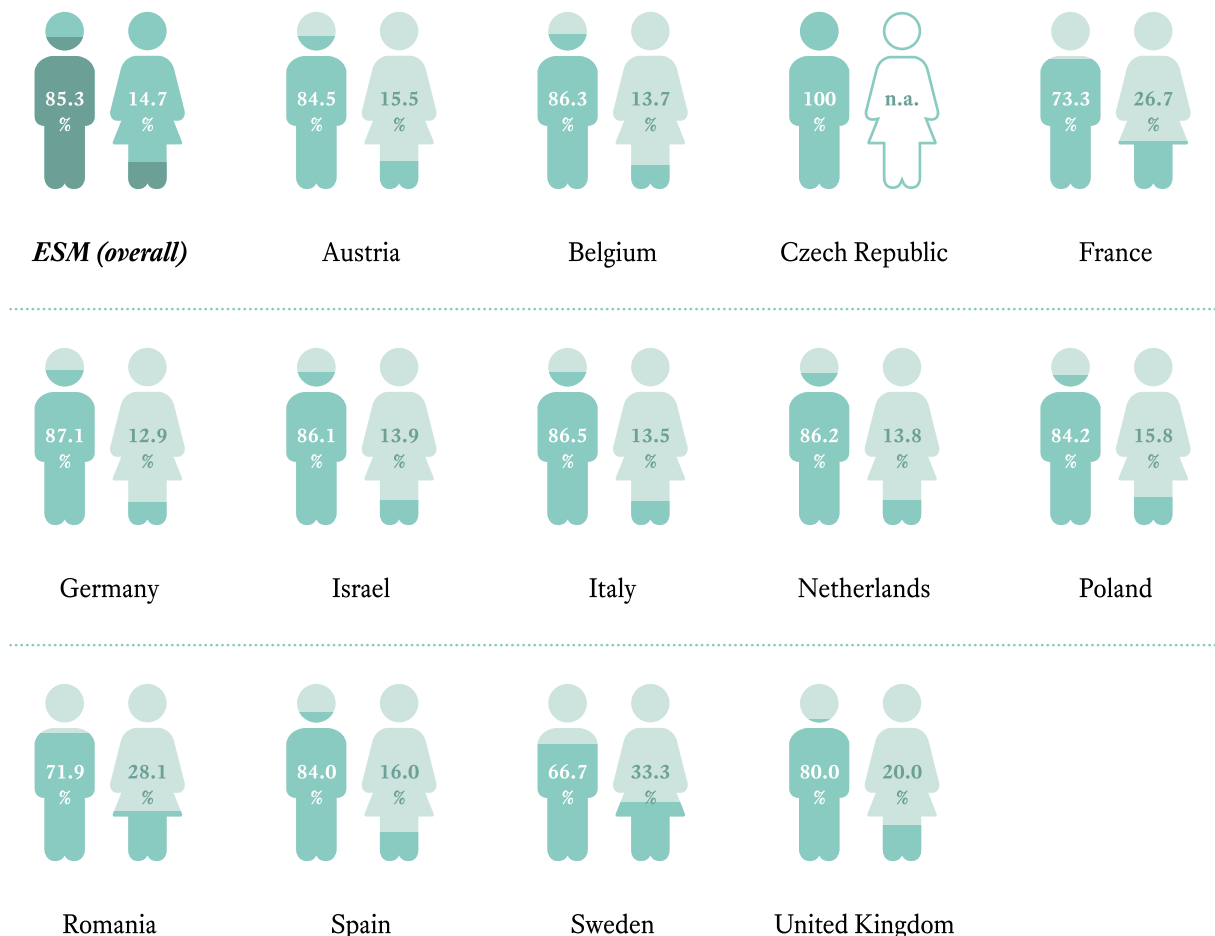


FIGURE 6. Gender of founders (ESM countries)

# Most European founders are between 25 and 34 years old

The founders responding to the survey were on average 34.6 years old, with 14.3 % of the founders older than 45 years (FIGURE 7). ESM countries with a comparably high percentage of very young founders (< 24 years) are Belgium (17.6 %), the United Kingdom (15.0 %) and Italy (12.9 %). Individuals between 25 and 34 years often build startups in eastern ESM

countries such as Romania (68.8 %) and Poland (64.1 %). Countries in which comparably many individuals decide to start a business in their advanced adult age (35–54 years) are Sweden (60.6 %), the Czech Republic (50.0 %) and Spain (46.8 %). ESM countries with the highest percentage of founders in the oldest age category (> 55 years) are Israel (16.9 %) and Sweden (12.1 %).

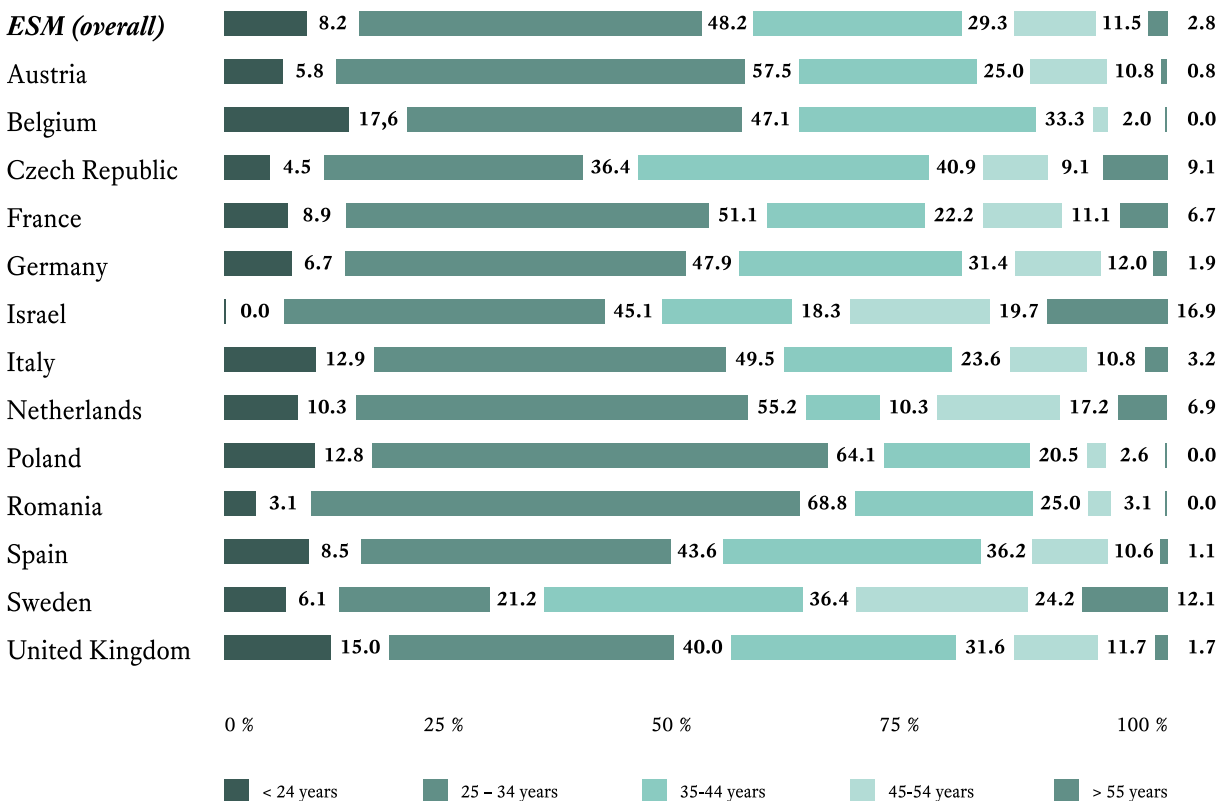


FIGURE 7. Age ranges (ESM countries)



Most of the European founders come from their country of residence (88.1 %), while 7.6 % of the founders come from other European countries and 4.3 % come from non-European countries. There are differences between gender with respect to origin. While 89.4 % of the male founders come from their country of residence, 83.8 % of the female founders are citizens of the country their startup is located in. Compared to only 6.7 % of the male founders, 10.8 % of the female founders come from other European

Most startups are *founded by residents*, but there is a significant influence of founders from different EU and non-EU countries

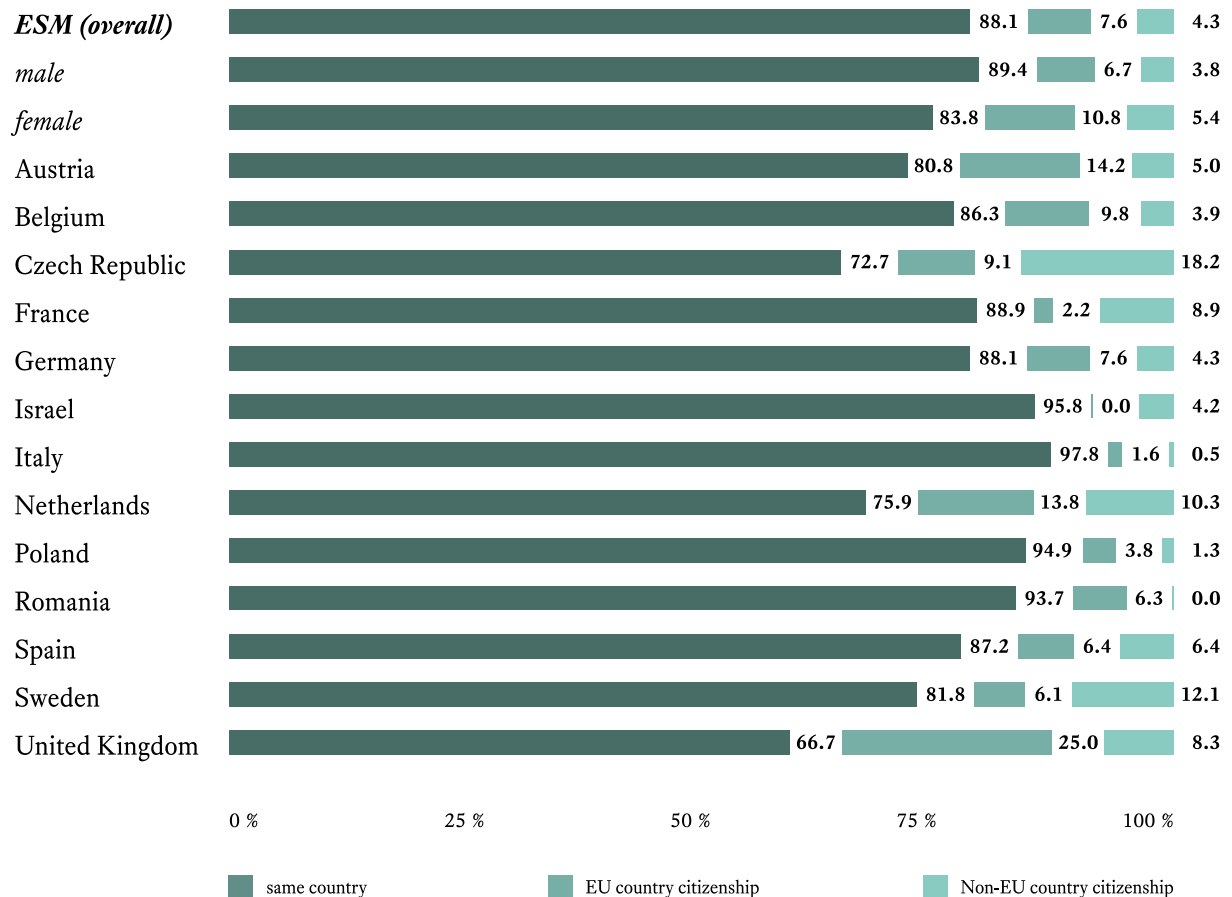


FIGURE 8. Citizenship and gender (ESM countries)

countries. Compared to 3.8 % of the male founders, 5.4 % of the female founders come from non-EU countries (FIGURE 8). The northern ESM countries feature a relatively high rate of founders from non-EU countries (*United Kingdom: 8.3 %; Netherlands: 10.3 %; Sweden: 12.1 %*). Among these countries, the United Kingdom and the Netherlands comprise a relatively high rate of founders from other EU countries (*25.0 % and 13.8 % respectively*). In contrast, two southern ESM countries indicate the highest rate of founder from the same country of residence (*Israel: 95.8 %; Italy: 97.8 %*).

## The majority of startups are *founded in teams*

Most (79.1 %) of the founders responded that they started their venture as part of a team. Only 20.9 % stated that they founded their startup on their own (FIGURE 9). While founders from northern ESM countries preferred to begin their startups alone (*United Kingdom: 29.7 %; Netherlands: 29.7 %; Sweden: 26.8 %*) southern ESM countries preferred to start their businesses in teams (*Italy: 88.6 %; Israel: 87.5 %; Spain: 82.1 %*). Just over a third (36.3 %) of the participants stated that they founded their venture in a team of two. Almost a quarter (24.4 %) of the founders started their venture in a team of

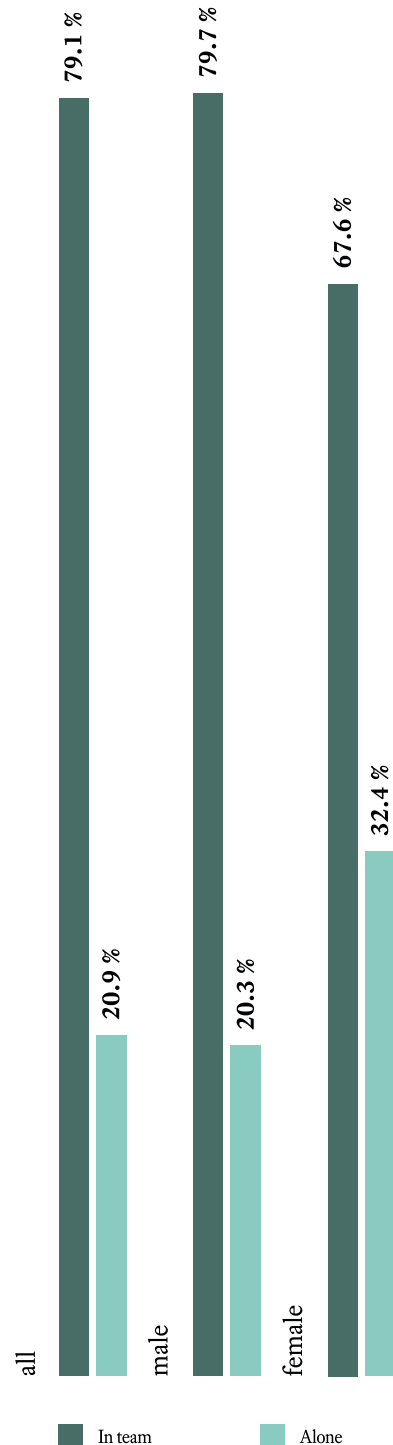


FIGURE 9. Founding in teams by gender (ESM overall)

three, while 18.4 % founded their venture in a team of four or more people. The average team size is 2.7 individuals in the ESM countries. The largest average founding team size is indicated by Italy (*3.1 team members on average*). The smallest teams are found in Belgium (**FIGURE 10**), the Netherlands and the Czech Republic (*2.2 team members*). A larger percentage of female founders (32.4 %) preferred to start their business alone, compared to only 20.3 % of the male founders.

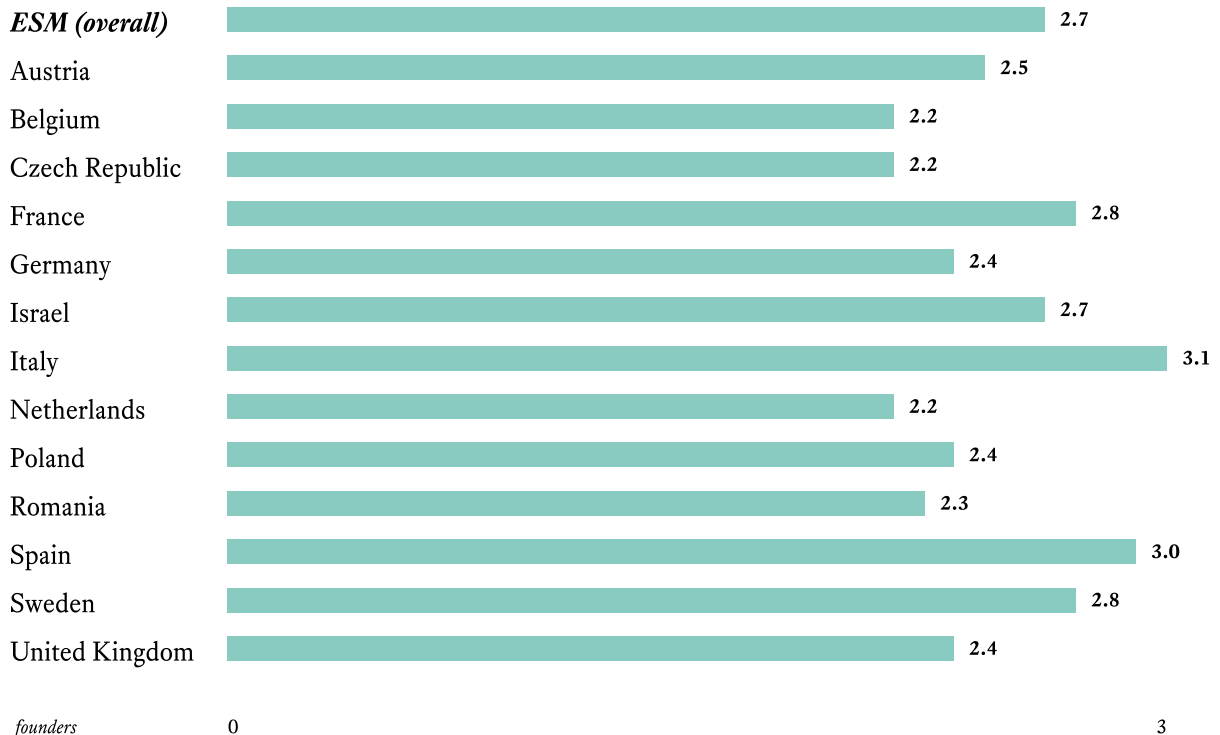


FIGURE 10. Average number of founders (ESM countries)

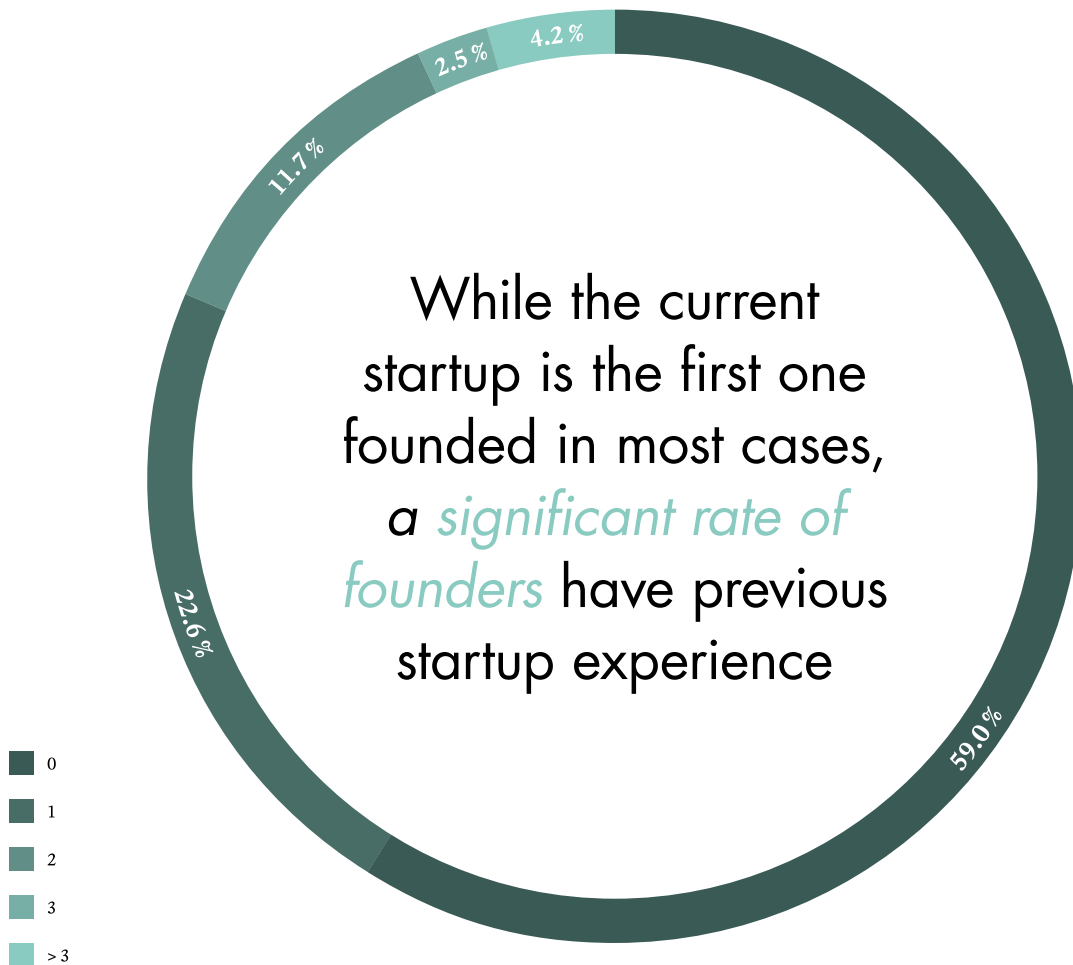


FIGURE 11. Number of previously founded startups (ESM overall)

Of the founders, 41.0 % reported that they already began at least one other startup before they started their current business. About 18 % founded 2 or more startups before (FIGURE 11).

Most of the founders with previous startup experience come from the Czech Republic (10.7 % of all ESM founders with previous startup experience).

Founders from the United Kingdom also form a

large proportion of all founders with previous startup experience (9.8 %).

The smallest percentage of founders with startup experience comes from Belgium (4.1 % of all ESM founders with previous startup experience), followed by Germany (5.1 %).

Relationship to the previous startup: Most founders (37.0 %) stated that they are still shareholders and that the venture still exists as an independent unit. A slightly smaller percentage of founders (28.3 %) responded that the business operations of their former startup were discontinued voluntarily, followed by founders who sold their company completely (16.0 %). Lastly, 14.2 % of the participants were shareholders and left while the venture still exists. Only 4.5 % of the founders stated that business operations were discontinued due to insolvency

(FIGURE 12 AND TABLE 1). In detail, founders from the northern ESM countries most often stated that they sold their last company (*Netherlands: 23.1 %; Sweden: 20.0 %; United Kingdom: 18.2 %*). Founders from larger economies tended to respond that they sold their last company (*France: 21.4 %; United Kingdom: 18.2 %; Germany: 15.5 %*). Countries with smaller economies showed the lowest rate of insolvency (*Israel: 3.6 %; Czech Republic: 0.0 %; Romania: 0.0 %*).

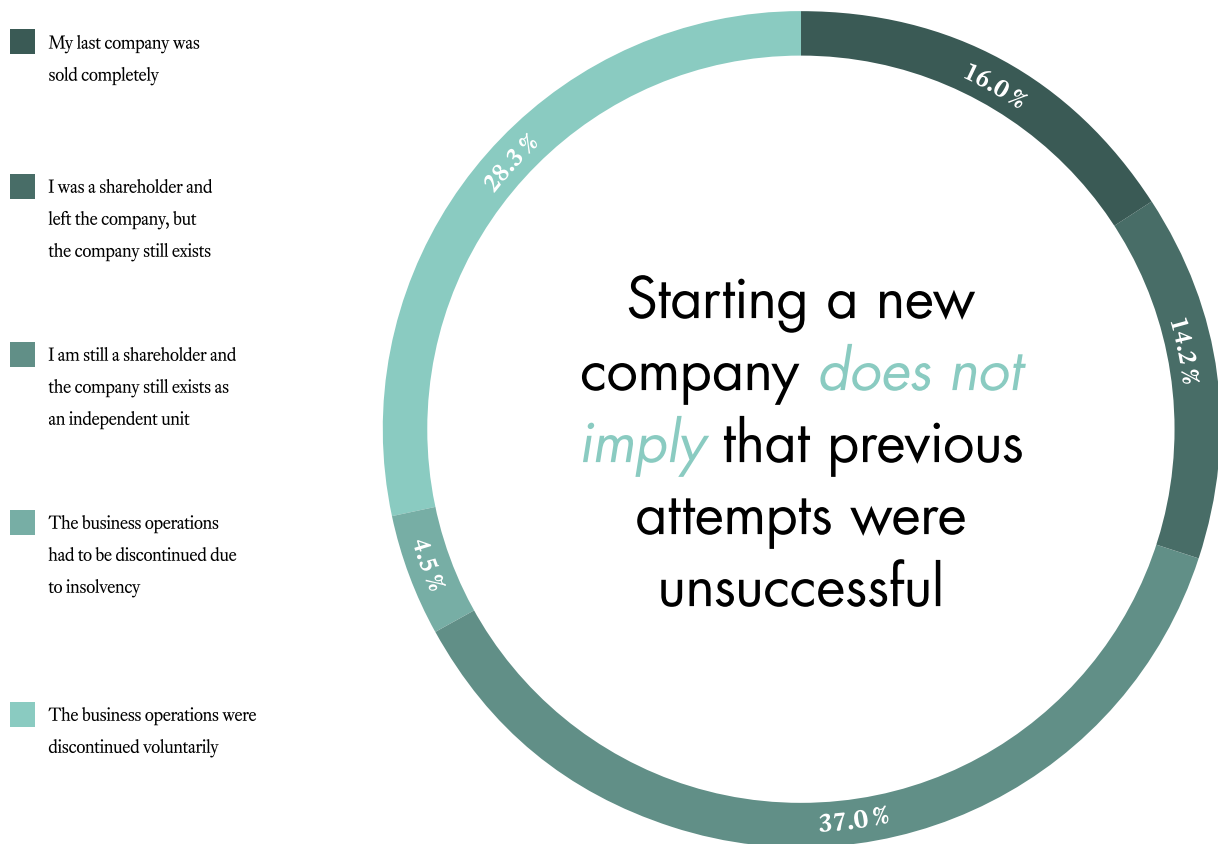


FIGURE 12. What happened to your last startup? (ESM overall)

ESM (overall)	Still a shareholder	Business operations discontinued voluntarily	Company sold
Austria	Still a shareholder	Business operations discontinued voluntarily	Company sold
Belgium	Still a shareholder	Company sold	Business operations discontinued voluntarily
Czech Republic	Still a shareholder	Left the company	Business operations discontinued voluntarily
France	Still a shareholder	Company sold	Left the company
Germany	Still a shareholder	Business operations discontinued voluntarily	Company sold
Israel	Business operations discontinued voluntarily	Still a shareholder	Company sold
Italy	Still a shareholder	Left the company	Business operations discontinued voluntarily
Netherlands	Business operations discontinued voluntarily	Company sold	Still a shareholder
Poland	Still a shareholder	Insolvency	Company sold
Romania	Business operations discontinued voluntarily	Still a shareholder	Left the company
Spain	Still a shareholder	Company sold	Business operations discontinued voluntarily
Sweden	Still a shareholder	Company sold	Business operations discontinued voluntarily
United Kingdom	Still a shareholder	Business operations discontinued voluntarily	Company sold

TABLE 1. Top 3 responses to the question "What happened with your last startup"

## Failing with the current business would not discourage most founders from founding another business

The founders were asked what they would do if they failed. The largest response category (69.9 %) comprises the statement that the founder would found another startup in case of failure, while 10.6 % responded that they would work as a freelancer or consultant. Another 3.0 % would engage as business angels or investors. Only 15.4 % would work as an employee, while 1.0 % stated that they would no longer work at all (FIGURE 13). Founders from countries with small economies do not become discouraged and stated that they would continue by founding a new startup (Romania: 90.3 %; Czech Republic: 73.6 %; Israel: 71.2 %). In Romania especially, founders would not consider working as an employee (3.2 %) in case of failure.

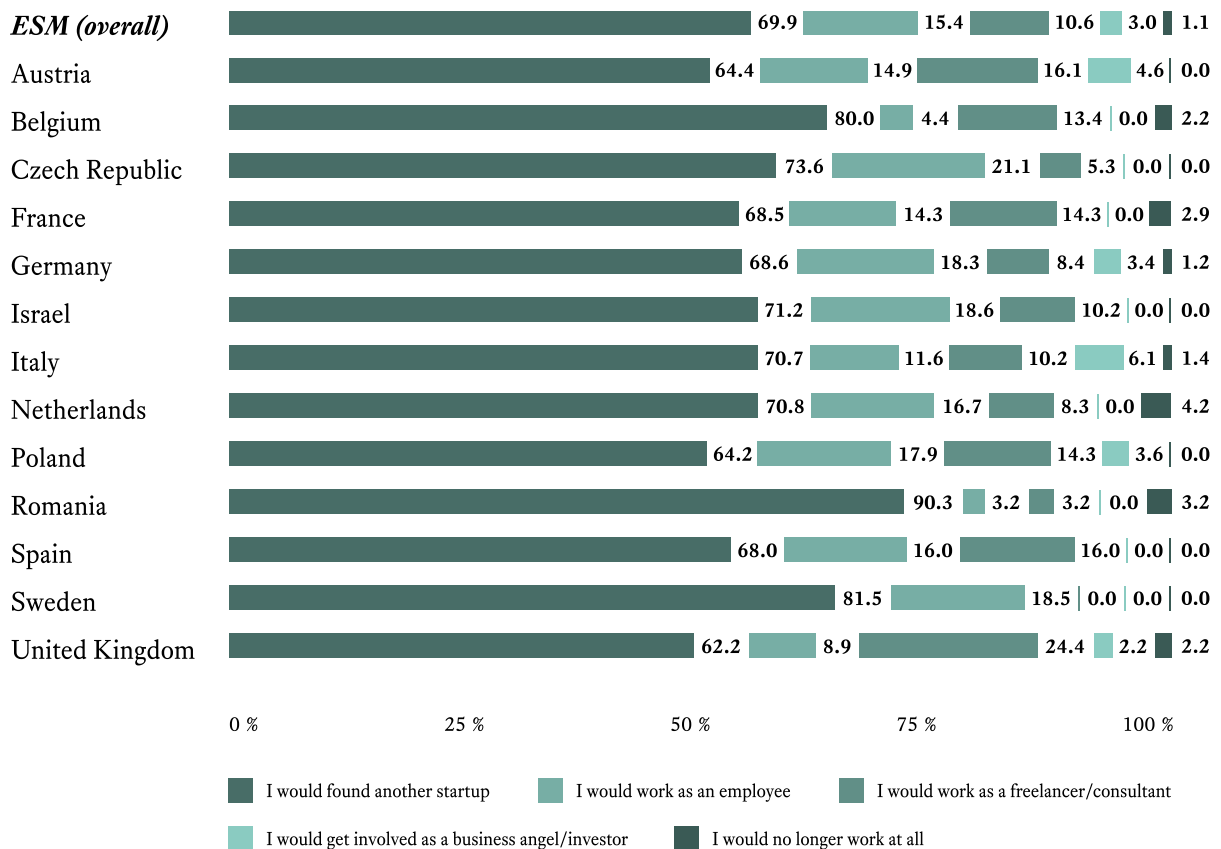


FIGURE 13. Future scenarios following potential failure of the current startup (ESM countries)

# III. Industry, customers and markets



## The industry categorisation of startups emphasises the *importance of the digital economy* in Europe

The participants were asked to choose the industry category that represents their business model best from a list of 18 industry categories (FIGURE 14). Most participants stated that their venture belongs to the category software as a service (16.4%). This was followed by startups that are assigned to the category IT/software development (9.1%). These results emphasise the relevance and importance of the digital economy in Europe. Southern ESM countries (TABLE 2) tended to answer that their startup was categorised as an online marketplace (Israel: 8.0%; Spain: 9.0%; Italy: 7.9%). Eastern ESM countries predominantly put their startups in the software as a service category (Poland: 20.3%; Czech Republic: 30.8%; Romania: 21.2%).

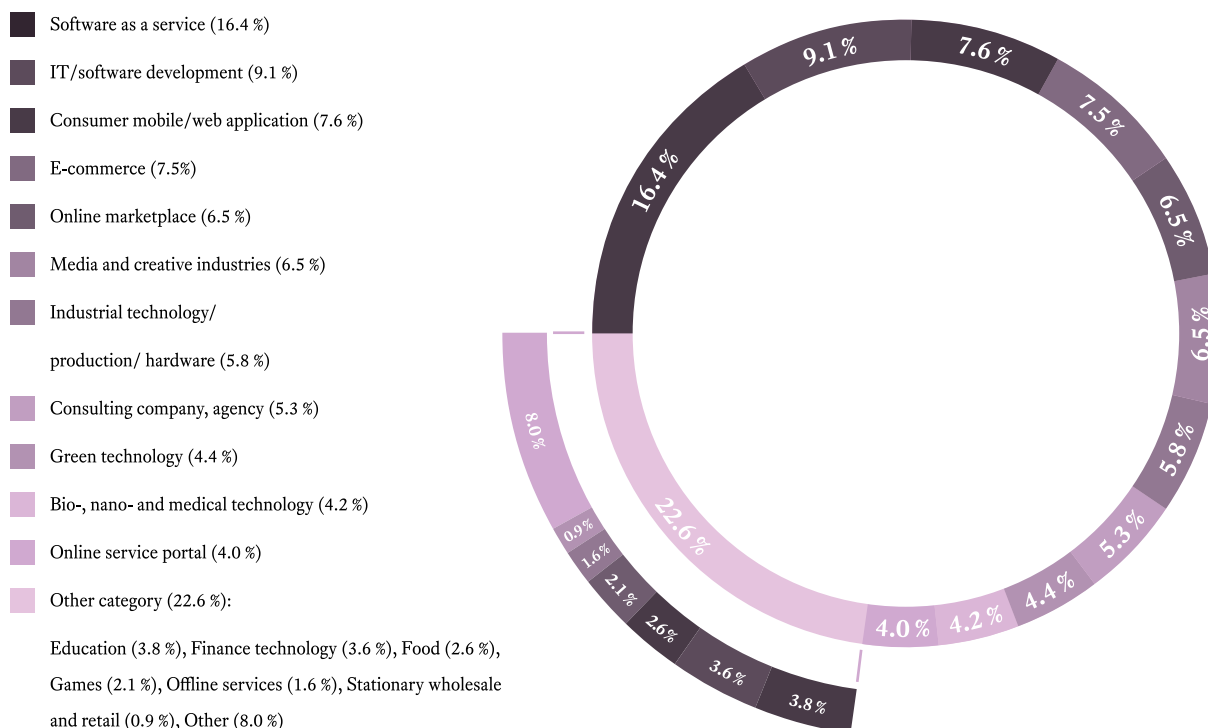


FIGURE 14. Categorisation of startup industries (ESM overall)

ESM (overall)	Software as a service	IT/software development	Consumer mobile/web application
Austria	Software as a service	IT/software development	Food
Belgium	Software as a service	Media and creative industry	IT/software development
Czech Republic	Software as a service	Consumer mobile/web application	Industrial technology/production/hardware
France	Bio-, nano- and medical technology	Software as a service	E-commerce
Germany	Software as a service	E-commerce	IT/software development
Israel	Software as a service	Consumer mobile/web application	Online marketplace
Italy	Software as a service	IT/software development	Online marketplace
Netherlands	Software as a service	Industrial technology/production/hardware	Consulting company, agency
Poland	Software as a service	IT/software development	Media and creative industry
Romania	Software as a service	Consumer mobile/web application	IT/software development
Spain	Software as a service	Consumer mobile/web application	IT/software development
Sweden	Consulting company, agency	Software as a service	IT/software development
United Kingdom	Consumer mobile/web application	Software as a service	Media and creative industry

TABLE 2. Top 3 startup categories per country

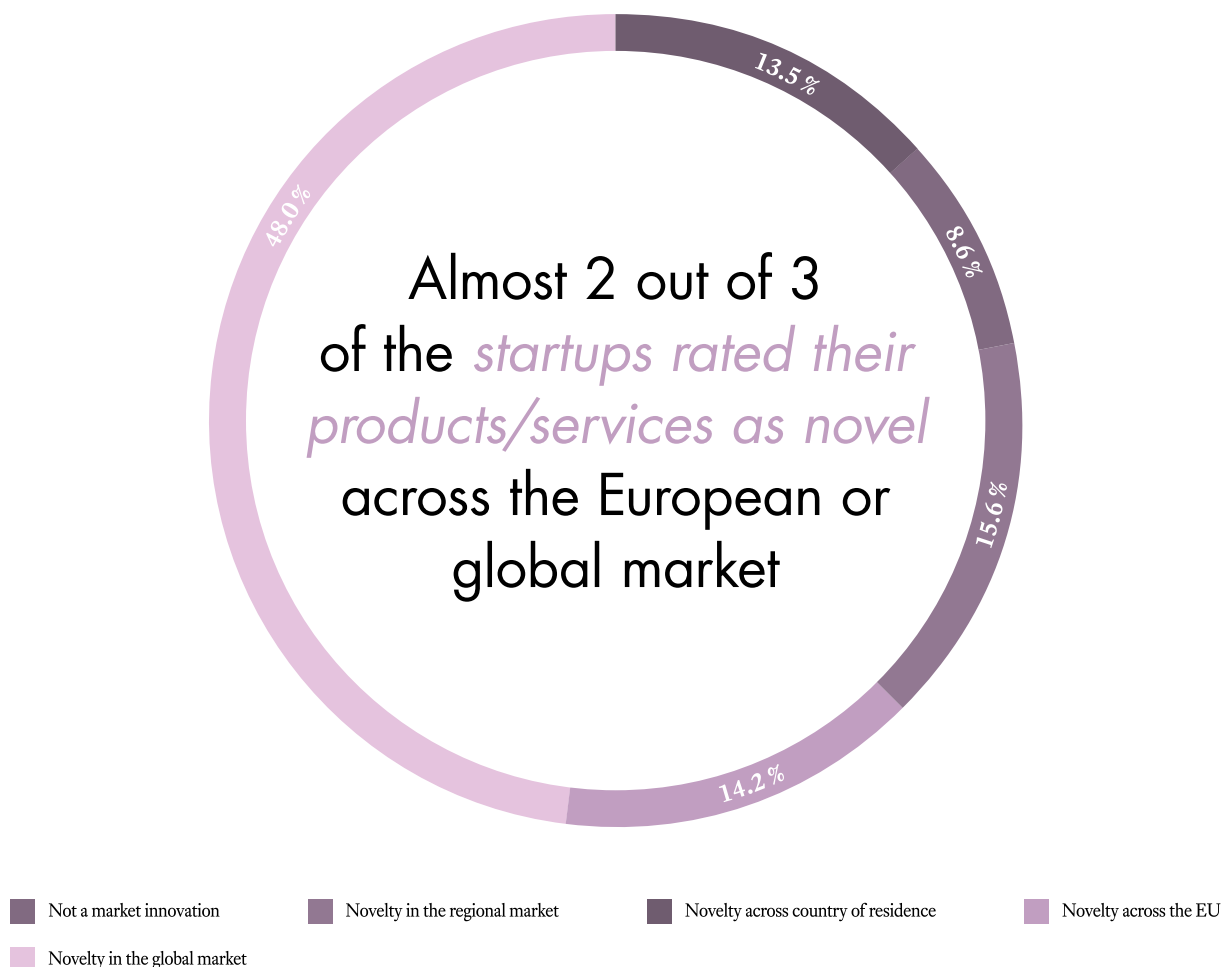


FIGURE 15. Novelty of startups' products or services at the time of foundation (ESM overall)

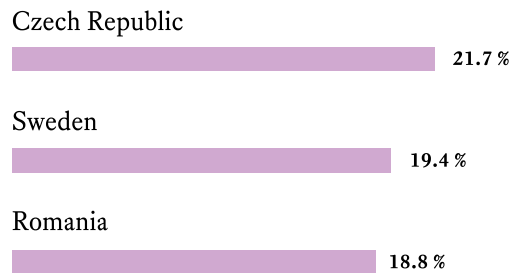
Novelty is a pivotal feature of startups, therefore participants were asked to rate their products' and services' degree of novelty with regard to the regional market, the country of residence, the EU and the global market. About half of the participants (48.0%) stated that their startup represents a novelty in the global market (FIGURE 15). Another 14.2% and 15.6% of the startups were rated as re-

presenting a novelty across the EU or the country of residence respectively. Only 13.5% stated that their startup does not comprise any novelty in any market (FIGURE 6).

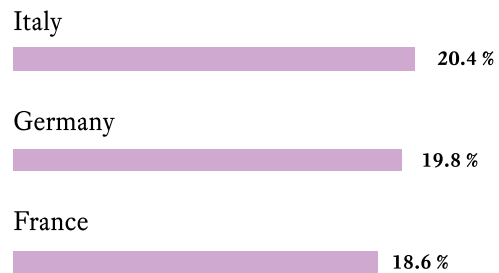
The Czech Republic is the country with the highest percentage (TABLE 3) of startups with global market innovation (21.7%). Italy (20.4%) and Belgium

(25.0 %) have startups with the highest percentage of novelty in the EU or across the country of residence. Small economies estimated their startups to focus more on regional novelty (*Israel: 11.3 %; Czech Republic: 21.7 %; Romania: 18.7 %*) than larger economies (*Germany: 7.4 %; United Kingdom: 8.6 %; France: 5.1 %*).

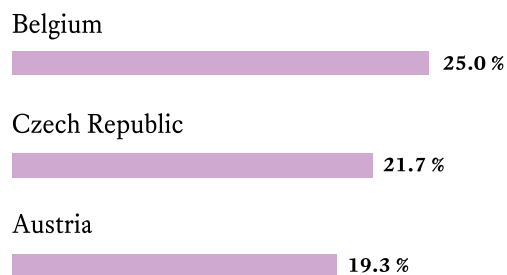
**Countries with the highest percentage of startups providing a novelty in the regional market are primarily from ...**



**Countries with the highest percentage of startups providing a novelty in the market across their country of residence are primarily from ...**



**Countries with the highest percentage of startups providing a novelty in the market across the EU are primarily from ...**



**Countries with the highest percentage of startups providing a novelty in the global market are primarily from ...**

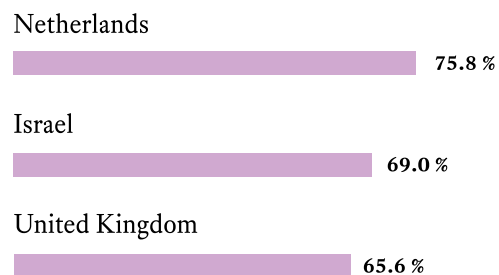


TABLE 3. Novelty of products and services: Top 3 countries

## Most European *startups address* customers/users mainly in *the B2B sector*

In total, 6 out of 10 ESM startups (59.0 %) address the business to business (B2B) sector as their most important market (FIGURE 16). The business of 9.6 % of all startups is evenly distributed across private and corporate customers (B2B and B2C equally). About a third of startups (31.4 %) operate primarily on the business to consumer (B2C) market. Startup locations with a primary focus on the B2B market include Belgium (84.7 %), Sweden (72.2 %) and the Czech Republic (70.8 %). The B2C sector is an attractive market, especially for startups from Romania (48.5 %), the United Kingdom (44.8 %) and Spain (43.2 %).

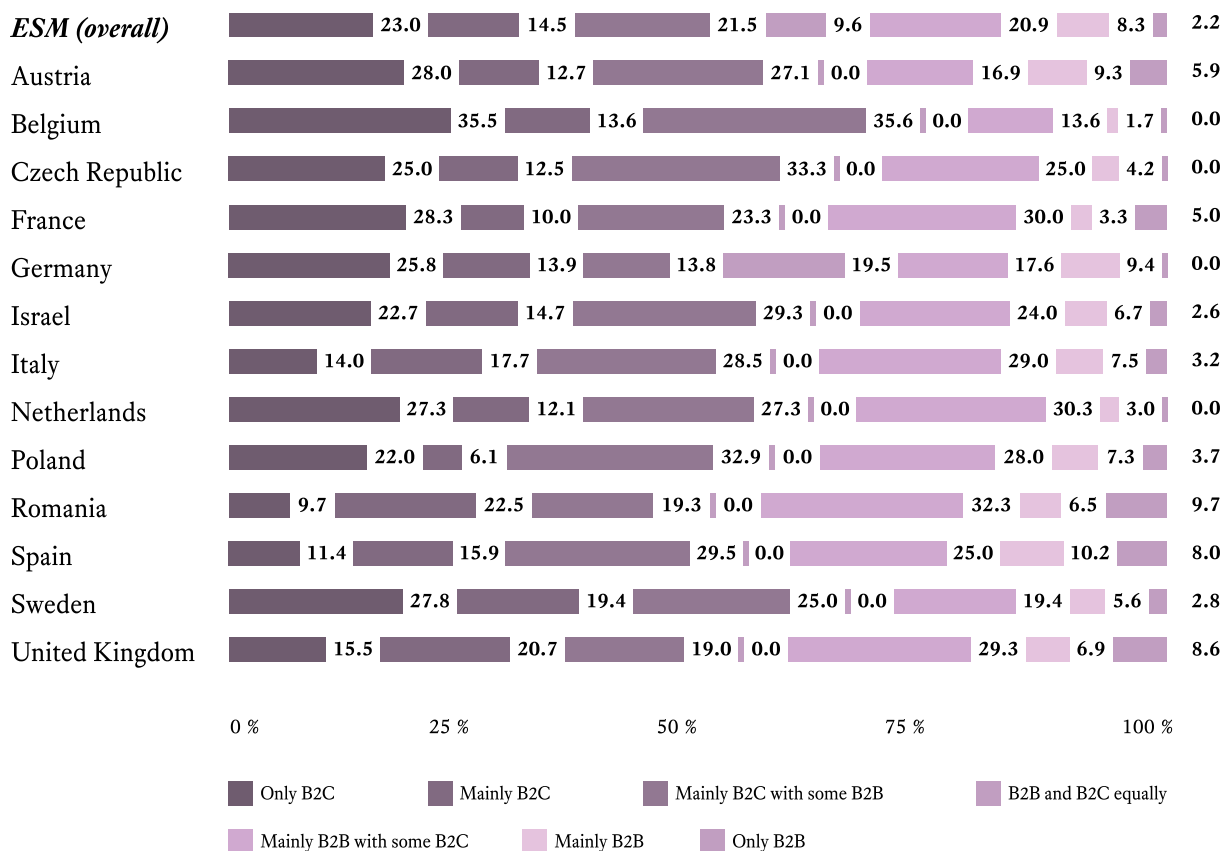


FIGURE 16. Customers and/or users addressed by the ESM startups (ESM countries)

## More than *half of all startups serve international markets*

To date, around half of the ESM startups (49.0%) focus their business activities on their home country only (FIGURE 17). The other half of the startups have entered markets in other European countries (21.2%) or even operate worldwide (29.8%). When comparing the market penetration of all ESM countries (FIGURE 17), it is clear that startups in economically powerful nations in terms of GDP, such as Germany or France, focus primarily on their strong domestic market. This is not surprising, given a high purchasing power and sales potential in these countries. In contrast, startups in countries with a rather small economic or geographical market, such as Israel, the Netherlands or Austria, tend to focus more on European or worldwide markets.

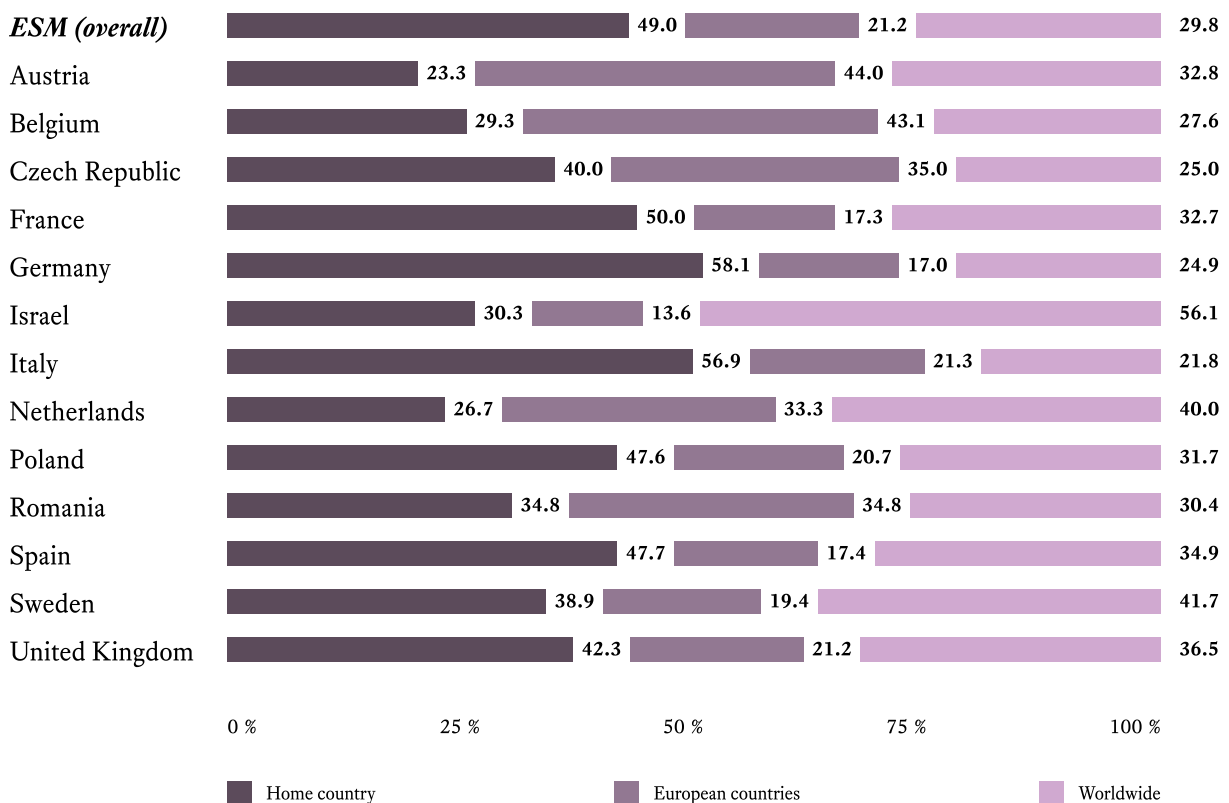


FIGURE 17. Current markets in which startups generate revenue (ESM countries)

Planned internationalisation is *higher* than current internationalisation.

When asked about their internationalisation plans for the next 12 months, only 18.4 % of all startup representatives indicated that they would not plan any internationalisation (FIGURE 18). More than 3 out of 4 participants plan to expand to other European countries (35.5 %) or even worldwide (46.1 %).

Out of the startups that currently operate only in the home country market, most (72.3 %) plan to expand to other international markets in the following 12 months. Out of the startups that already operate in global markets, a large majority of 87.7 % plans further internationalisation.

In all ESM countries, the planned internationalisation is higher than the current internationalisation. Figure 19 shows that especially startups from countries with a low current internationalisation rate are planning to expand to international markets. Startups from southern ESM countries such as Italy (*current internationalisation rate = 43.1 %; planned internationalisation rate = 90.2 %*) and Spain (*current internationalisation rate = 52.3 %; planned internationalisation rate = 91.4 %*), but also eastern ESM countries such as the Czech Republic and Poland are planning enormous expansion in international market activity.

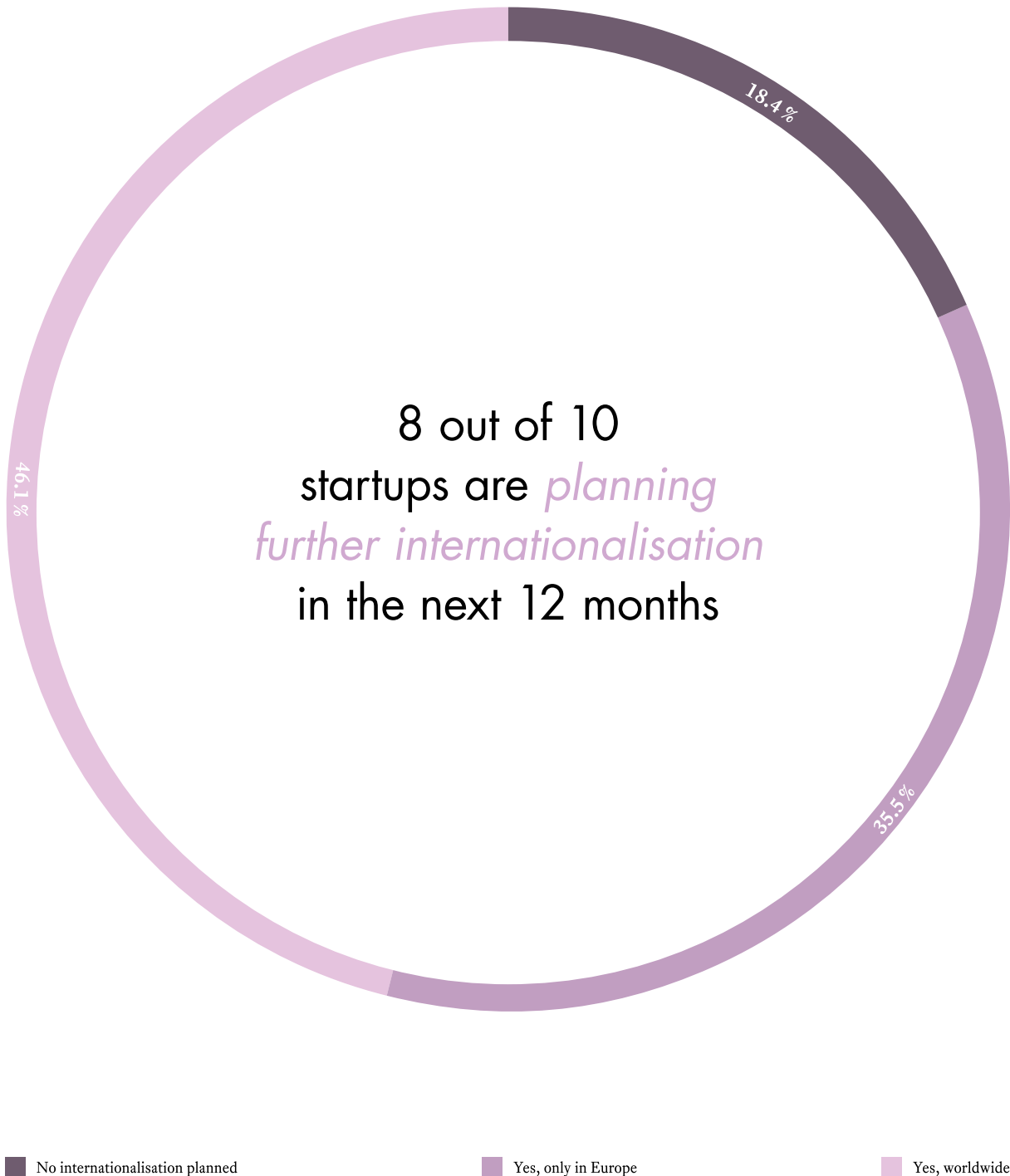


FIGURE 18. Future markets/planned internationalisation (ESM overall)