

# Startup Innovation Ecosystems In Southern Europe

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JRC113872

Brussels: European Commission, 2018

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How to cite this report: Basso, A., Baltar, E., Andonova, E., *Startup Innovation Ecosystems in Southern Europe*, European Commission, Brussels, 2018, JRC113872.

## **Table of Contents**

DEFINITION OF A STARTUP INNOVATION ECOSYSTEM	4
ACTORS AND STAKEHOLDERS OF A STARTUP ECOSYSTEM	4
ROLE OF RESEARCH ORGANISATIONS AND UNIVERSITIES	4
ROLE OF SUPPORT ORGANISATIONS	5
ROLE OF CORPORATIONS	6
ROLE OF FUNDING ORGANISATIONS	6
THE ROLE OF GOVERNMENT AND POLICIES	7
IMPACT OF A STARTUP ECOSYSTEM	8
EXAMPLES OF STARTUP ECOSYSTEMS IN EUROPE	8
THE FINNISH STARTUP ECOSYSTEM	9
THE PORTUGUESE STARTUP ECOSYSTEM	9
THE CROATIAN STARTUP ECOSYSTEM	.10
EVOLUTION OF THE STARTUP ECOSYSTEMS	.11
THE EUROPEAN SCENARIO: MOBILITY OF STARTUPS IN EUROPE	.12
REASONS OF MIGRATION OF SOUTHERN EUROPEAN STARTUPS	.14
RECOMMENDATIONS FOR BUILDING A SUCCESSFUL STARTUP ECOSYSTEM	15
LIST OF ABBREVIATIONS	16

### Definition of a startup innovation ecosystem

Innovation systems are the regional or national structures in which startups, SMEs, large sized enterprises, universities, and public organisations interact on a technological, social, legal and commercial basis in order to produce knowledge, develop new technologies and new business opportunities. These interactions aim at developing and protecting new technologies, and financing and regulating new projects (Metcalfe, 2008)<sup>1</sup>.

## Actors and Stakeholders of a startup ecosystem

The key actors and stakeholders of a startup ecosystem are shown in Figure 1. They include policy makers, investors, academic institutions and business partners who are able to provide the necessary capacity and expansion opportunities (Edquist, 2006<sup>2</sup>).



Figure 1: Main components of a startup innovation ecosystem

#### Role of Research Organisations and Universities

Research organisations have a huge impact on startups, especially in the early stages of development. One of their key roles is to connect entrepreneurs with subject matter experts. In particular, universities can offer technical and business support and validation to startups, provide them with equipment and the associated technical expertise that is not easily available, or available at extremely high costs in the industry<sup>3</sup>, and also operate as proof-of-concept labs. In this specific context, one of the key issues for universities and their technology transfer offices (TTOs) is how to sponsor such proof of concepts, thus some of them are developing special funding and infrastructures for such activities. The benefits of university technology transfer include a) creation and fostering of an entrepreneurship culture that promotes faculty retention and recruitment, b) broaden the student learning experience through involvement in applied research, education on patenting and licensing, and in general in the entrepreneurial process c) addressing global challenges from theory to

<sup>&</sup>lt;sup>1</sup> Stan Metcalfe and Ronald Ramlogan (2008). Innovation systems and the competitive process in developing economies, The Quarterly Review of Economics and Finance, 48, (2), 433-446

<sup>&</sup>lt;sup>2</sup> In book: The Oxford Handbook of Innovation Publisher: Oxford University Press Editors: Jan Fagerberg, David C. Mowery

<sup>&</sup>lt;sup>3</sup> http://arrowheadcenter.nmsu.edu/blog/2016/11/15/understanding-universitys-role-startup-ecosystems/

practice in key areas such as technology, life science, health, environment, or food d) developing a monetary return via licensing revenue models and royalties from spin-outs and IP licensing agreements. Not all these benefits can be readily achievable everywhere in Europe as universities and associated TTOs are quite diverse and articulated. A lot still needs to be done and it is still missing as indicated in a recent study of the current European Technology Transfer landscape<sup>4</sup>.

#### Role of Support Organisations

Accelerators and incubators have grown in popularity over the last decade. Among all the different support services they offer, mentorship has proven to be key. In a 2013 survey by MicroMentor<sup>5</sup> it is reported that mentored businesses increased their revenue by 83%, whereas those without mentorship only increased revenue by 16%. Mentorship has also shown its value in helping entrepreneurs to have a smooth transition into their ventures as full-time jobs.



Figure 2. Single most important factor for startups Source: Authors' elaboration from data of Incubators and accelerators in Europe. Telefónica 2013

Mentorship is also indicated as the most important factor for startups in early stages, as highlighted in a report on incubators and accelerators in Europe from Telefónica<sup>6</sup>.

<sup>5</sup> https://www.micromentor.org/learn-more/impact

<sup>&</sup>lt;sup>4</sup> Capacity Building in Technology Transfer-The European Experience Editors: Granieri, Massimiliano, Basso, Andrea (Eds.) Springer International Publishing ISBN 978-3-319-91460-2

<sup>&</sup>lt;sup>6</sup> The incubator and accelerator ecosystem in Europe Telefónica 2013 https://lisboncouncil.net/component/downloads/?id=897

#### **Role of Corporations**

The integration of corporations in the startup ecosystem is a rational necessity. Large corporations are able to develop solutions, supply technology, provide mentoring, financial support, expert assistance, build distribution channels for startups and are also discovering that accelerators are an effective way to engage with them. It is reported in the 2018 Report on Global Startup Ecosystems<sup>7</sup> that more than half (52.1%) of accelerators are at least partially funded by a corporation, and 67.2% plan to get further revenues from them.

#### Role of Funding Organisations

**Banks and Alternative Finance** – these financial institutions are providing support to the development of startups and secure their investment needs. Banks provide loans and specialised support programmes. An emerging 'Alternative finance' sector also known as AltFi, needs to be considered. It includes peer-to-peer lending and crowdfunding. This sector has grown by more than 43% in the last two years. The biggest segment is business lending, with 72% of funds going to startups or SMEs. It is still a sector in its infancy as AltFi platforms emerge and disappear.

Startup incubators and accelerators - they link technology, capital and know-how to accelerate the development of new companies and speed the exploitation of technology. Accelerators are also an important vehicle to raise investment and to lead to potential exits and sales. But the biggest carrot these days when it comes to corporate involvement in accelerators is not acquisition. It is 'piloting': the possibility of deploying in a real-life scenario a company's products or services. Corporations associated to accelerator programmes effectively accept to operate as testbeds and often become initial customers (see London's COGNICITY accelerator) for startups. While in the past a majority of accelerators still indicated that they used the "cash-for-equity" model, it has now been abandoned by most, as highlighted by the recently published Global Accelerator Report 2018<sup>8</sup>. The report indicates that only 32.7% of accelerators forecast a revenue generation from future exits. The reason for the change is likely twofold: on one side the small number of exits is insufficient for funding their operations; on the other one the time for a startup to exit is of the order of three to five years, which does not allow accelerators a viable and timely profit on investment. Nearly all (90.4%) accelerators reported different models of revenue generation, including charging for mentorship, office space rental, even hosting and revenue from corporations, which has seen the largest increase. Current corporate revenues generated by accelerators come from corporate partnerships, often in the form of a white-labelled or jointly-run acceleration programmes, and corporate sponsorship packages.

**Clusters of Innovations** – have been defined in 2015 as "global economic hot spots where new technologies germinate at an astounding rate and where pools of capital, expertise, and talent foster the development of new industries and new ways of doing business<sup>9</sup>". The important role of the cluster is to provide incentives for the entry of new companies or startups. In clusters it is typical to have a rise in productivity of the participating companies

<sup>&</sup>lt;sup>7</sup> https://startupgenome.com/reports/2018/GSER-2018-v1.1.pdf

<sup>&</sup>lt;sup>8</sup> https://startupgenome.com/reports/2018/GSER-2018-v1.1.pdf

<sup>&</sup>lt;sup>9</sup> Engel, Jerome S, "Global Clusters of Innovation: lessons from Silicon Valley", California Management Review, winter 2015, Vol. 57 Issue 2, pp. 36-65

because of their increased access to information, technology and institutions. There is noone-size-fits-all solution. Cluster shape, development and evolution are strongly influenced by several local factors including economy, politics and culture. The commitment towards innovation is not enough to allow an ecosystem to have a healthy and strong development.

**Angel investors** – they are high net-worth, non-institutional, private equity investors who spend part of their assets in high risk, high-return entrepreneurial ventures in exchange for shares, income and capital gain.

**Venture capital funds** – venture capital (VC) is an equity investment aimed at supporting the pre-launch, launch and early-stage development phases of a company. The majority of venture capital firms intervene at a later stage of a startup lifecycle.

## The role of government and policies

Private industry is usually unwilling to take on the high levels of risk and uncertainty that characterise startups, therefore governments and public organisations are of key importance, in particular in ecosystems that are less developed. Government policies provide incentives that stimulate the development and sustainability of innovation environments and are aimed to yield long term benefits.

However, government support should not remain static but be able to adapt as ecosystems mature. At first public interventions should target the creation of startups, and later on help these companies grow, scale up and contribute to the development of their regions. There are numerous examples of such activities, including Hong Kong's Cyberport digital hub, the government-backed venture capital fund Infocomm Investments from Singapore, and MaGIC, the Malaysian Global Innovation & Creativity Centre.

The European Commission is supporting innovation ecosystems through Startup Europe<sup>10</sup>, which is connecting startups, investors, accelerators, entrepreneurs, corporate networks, universities and the media, as well as linking local startup ecosystems around Europe. Another initiative is the Executive Agency for Small and Medium-sized Enterprises (EASME)<sup>11</sup>, set up by the European Commission to manage on its behalf several EU programmes, among others, most of COSME<sup>12</sup> (the EU programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises) and part of Horizon 2020<sup>13</sup> (the EU Framework Programme for Research and Innovation), including the SME Instrument<sup>14</sup>.

The SME Instrument was the first ever attempt of EU Research and Innovation funding programmes to invest in high potential and high risk, disruptive innovations in single SMEs, having resulted so far in 3,200 investments, eight companies floating on the stock market, eighteen acquisitions, and a total of  $\leq 1.3$  billion of extra private investment leveraged (European Commission, 2018<sup>15</sup>).

<sup>&</sup>lt;sup>10</sup> <u>https://ec.europa.eu/digital-single-market/en/news/startup-europe-at-web-summit</u>

<sup>&</sup>lt;sup>11</sup> <u>https://ec.europa.eu/easme/en</u>

<sup>&</sup>lt;sup>12</sup> https://ec.europa.eu/growth/smes/cosme\_en

<sup>&</sup>lt;sup>13</sup> <u>https://ec.europa.eu/programmes/horizon2020/en/</u>

<sup>&</sup>lt;sup>14</sup> <u>https://ec.europa.eu/easme/en/sme-instrument</u>

<sup>&</sup>lt;sup>15</sup> European Commission (2018). Innovation kitchen. Horizon 2020 SME Instrument Impact Report 2018 Edition, available at <u>https://ec.europa.eu/easme/en/news/presenting-europes-innovation-kitchen-sme-instrument-report-2018</u>

There is no doubt that entrepreneurship and innovation is an essential driver for economic growth and social development, and for this reason it will remain a priority in EU policies and instruments.

## Impact of a startup ecosystem

The impact of an innovation startup ecosystem is manifold. Some of the key factors are detailed below.

Startups are becoming training workshops for young talents and local economies benefit from such a talented work pool. In addition, global mobility has greatly increased which have led to brain drain. A strong ecosystem allows local economies to retain top talent in their countries. Finally, having a great startup ecosystem has also been beneficial in attracting highly skilled global talent.

Corporations feel that a successful startup ecosystem is a good investment. This leads to the creation of more jobs and services and provides a boost for the local economy. Further, a good ecosystem, given its local talent and the capability to attract more skilled and talented individuals, can be the corporation's next headquarters. A good example of this is Google setting up its headquarters in Tel Aviv or in Zurich. In addition, a very active innovation startup ecosystem provides stimulus for SMEs to grow and become more innovative thanks to cross-fertilisation.

As of 2017, 830,000 companies are active across 20 key European startup hubs, employing altogether over 4.5 million people and generating over €420 billion in revenue<sup>16</sup>. Jobs created by the ecosystem bring economic benefits to the local economy that will continue as startups evolve and grow in size.

Economies where tech startups were born and developed are the first to receive their innovative initiatives, which benefits both the city and country. Good examples of urban regeneration are HERE EAST<sup>17</sup> and MIND<sup>18</sup>.

A government that have provided tax benefits to encourage development of startups and invested in helping them to grow, in time and with an increasing number of successful startups may benefit from tax revenue coming from such companies.

Countries like Israel, Estonia, Finland, Switzerland or Germany have become famous globally for their successful startup ecosystems. This not only helps economic relations among countries, but also enhances the country's prestige and self-image.

## Examples of startup ecosystems in Europe

In the following section we will describe synthetically the snapshot of three ecosystems, the Finnish, the Portuguese and the Croatian one. We selected these three examples to showcase how different factors with different weights can play key roles for the success of a startup innovation ecosystem.

<sup>&</sup>lt;sup>16</sup> http://startupeuropeclub.eu/over-4-5-million-people-working-in-830000-companies-in-20-eu-startup-hubs/
<sup>17</sup> https://hereeast.com/

<sup>&</sup>lt;sup>18</sup> http://www.mindmilano.it/mind-milano-innovation-district/

#### The Finnish startup ecosystem

As highlighted in the Global Startup Ecosystem Report 2018, Helsinki's startup ecosystem, one of the 43 assessed worldwide in the report, is blooming in the areas of AI, health, life sciences and gaming. The healthy state of Helsinki's startup ecosystem can be attributed to four key factors: world-class universities, the pool of entrepreneurial and technical talent coming in particular from Nokia, a strong support from the Finnish government, and finally easy access to funding.

In recent years Finland has become a very strong academic research pole with a larger market and a more entrepreneur-friendly environment, which has produced a considerable number of startups and growth-oriented businesses. Today Finland offers a good environment for competence-based entrepreneurship.

The Finnish government very early realised the importance of the local startup phenomenon and introduced favourable fiscal conditions for innovative companies as well as created TEKES, the Finnish Funding Agency for Technology and Innovation, through which Finland has invested considerably in innovation and startups.

Finally, the last factor is the easy access to funding that Finnish startups receive at the early stage of development. Based on figures published by the Finnish Business Angels Network (FiBAN) and the Finnish Venture Capital Association (FVCA), the total investment in Finnish early-stage growth companies was of €253 millions in 2015 – one of the highest in Europe. Recently FiBAN significantly raised the number of investments with increments that reached almost 100% in 2014.

#### The Portuguese startup ecosystem

The Portuguese ecosystem, that has its capital in Lisbon, has now climbed to top five in the Startup City Index<sup>19</sup>, which lists the best places to start a new business. According to the Startup Europe Partnership report<sup>20</sup>, Portugal's startup ecosystem is now growing twice as fast as the European average.

One of the key drivers of this growth is related to the cost versus quality of the labour, in particular in the ICT context. The quality and cost of Portuguese tech services continues to be appealing, with increasing numbers of foreign and international companies returning to Portugal to establish their tech hubs.

Portugal has very competitive software development prices<sup>21</sup>. For example, a junior developer similarly skilled from Germany or Sweden is two-and-a-half times more expensive than a Portuguese one; the equivalent from the U.K. will cost three times more and a Swiss developer will cost almost four times more.

Another advantage of Portugal is the real estate costs. Despite recent price rises, Portugal's property market is still highly competitive, with an office in Lisbon<sup>22</sup> costing considerably

<sup>&</sup>lt;sup>19</sup> https://digitalcityindex.eu/

<sup>&</sup>lt;sup>20</sup> http://startupeuropepartnership.eu/portuguese-scaleup-ecosystem-2017/

<sup>&</sup>lt;sup>21</sup> https://talent.balderton.com/European\_Tech\_Talent\_Landscape.pdf

<sup>&</sup>lt;sup>22</sup> http://download.ei-ie.org/Docs/WebDepot/EaG2016\_EN.pdf

less than Berlin (almost 150% more per square meter, per year), 300% more in Stockholm, 400% more in Zurich and a whopping 600% more in London.

With an annual inflation rate of just 1%, the cost of living in Lisbon is half of what it would be in London, a fifth lower than Berlin and 60% cheaper than New York, San Francisco and Zurich.

In addition, education, cultural adaptation, geography and resilience are some of the key aspects that have characterised the history of Portugal, and that are nowadays making this country very attractive for startups. Portugal has historically always invested in education. With a workforce and a population proficient in English, its eight universities produce more than 100K graduates every year, of which 53% are graduates<sup>23</sup> in engineering or math related disciplines. This pool of tech talent is attracting the attention of global companies such as BNP Paribas and Mercedes Benz that have set up operations in Portugal. In addition, a considerable number of successful startups and tech agencies are now actively collaborating with clients worldwide.

The Portuguese government has put in place a series of instruments to make the life of innovative companies easy and convenient. From a fiscal perspective, investments of up to €5 million can take advantage up to 20% tax deductions. In addition, the government eased residency programmes for foreign startups and the process for setting up a company has been greatly simplified<sup>24</sup>. In order to help foreign companies to invest and to potentially relocate to Portugal, the government has also allocated €200 million<sup>25</sup>.

From a funding perspective Portugal's local innovation startup ecosystem is relatively small with respect to the rest of Europe, but it is growing rapidly with a six-fold increase from 2015 to 2016<sup>26</sup>.

Finally, Portugal's geographical location is also playing a part as it is well positioned with respect of key cities such as Zurich, London, Stockholm and New York.

### The Croatian startup ecosystem

Croatia is characterised by a startup innovation ecosystem that is still in its infancy, as relatively little attention is given to investing in innovation and development.

It is essential to develop a dynamic mind-set that accepts failure, that is flexible and agile, to allow ideas to flow easily from university and research centres to companies as well as from one company to another.

Croatian innovators and researchers struggle to find support and funding for development which is causing an inevitable brain drain. Patient investments are needed to create and foster entrepreneurship that is able to drive meaningful economic growth.

<sup>&</sup>lt;sup>23</sup> https://www.reuters.com/article/us-portugal-economy-incentives/portugal-rolls-out-tax-incentive-to-boostinvestment-idUSBRE94M0WP20130523

<sup>&</sup>lt;sup>24</sup>https://bde.portaldocidadao.pt/evo/Templates/GeralEO.aspx?NRNODEGUID=%7B0AB79FDE-92FE-4BEF-84CE-962D954F4D59%7D

<sup>&</sup>lt;sup>25</sup>https://www.geektime.com/2016/11/08/portugals-antonio-costa-unveils-new-e200-million-venture-fund-for-lisbonstartups-at-web-summit/

<sup>&</sup>lt;sup>26</sup> https://techcrunch.com/2017/02/14/in-2016-lisbon-fired-up-its-startup-engines-2017-will-hear-them-roar/

Furthermore, the unfriendly bureaucracy is an obstacle to business creation, as the process is long, complicated, lacks stable procedures and policies, and is expensive. Such structural conditions are discouraging and lead many entrepreneurs to giving up.

Nevertheless, the startup ecosystem in Croatia is on the move and is seeing an increasing number of activities, measured by the number of startup and venture funding events that take place. This is mainly due to the solid base of young entrepreneurs active in the region.

### Evolution of the startup ecosystems

Startup ecosystems evolved on the premises of different ingredients and in diverse locations. It is safe to assume that Europe has in general been a follower in setting up startups ecosystems, where the lead was taken by the US. As one of the pioneering ecosystems, the Silicon Valley had several contributing factors, such as research organisations, venture capital and heavy national defence budget<sup>27</sup>.

Europe has had a strong scientific basis which made it possible for many science based spin outs ('spin out' and 'startup' could sometimes be used interchangeably but spin out by definition involves more shareholders than the founders, for example a university<sup>28</sup>) to be set up in the past few decades.

While the Bayh–Dole Act<sup>29</sup> has made it possible for researchers to claim ownership of their inventions and thereby unlocked the potential for large scale technology transfer activities to take place, the initial process of creating new companies was limited to high tech research organisations and universities. Thus the ecosystems started evolving around these research powerhouses.

With the digitalisation and the Internet boom the status quo changed as we saw many new companies being born to take advantage of new markets, web products and web based distribution channels. Having seen the benefits that startups bring to the local economy, governments have rushed to support startup development, either with financing, incubation or mentoring and training programmes.

It is important to remember that entrepreneurs are essentially at the centre of any startup ecosystem. When their companies succeed, investors get paid, economies grow, jobs are created, and communities evolve socially. Therefore, ecosystems are created where various players seek to collaborate with entrepreneurs and make them successful.

Most recently, driven by the development and sustainability goals ahead of us, policy is inclusive and engaging citizens in the most crucial problems that need to be solved. The emergence of citizens' science means that innovation is becoming ever more open, and that the citizen and the user is becoming an intrinsic part of the innovation creation process. Therefore ecosystems can now also be grown around cities, municipalities, organisations and individual researchers, such as living labs, increasing the number of parties involved and the impact such ecosystems can generate.

<sup>&</sup>lt;sup>27</sup> Castells, Manuel (2011). The Rise of the Network Society. John Wiley & Sons. p. 52. ISBN 978-1-4443-5631-1.

<sup>&</sup>lt;sup>28</sup> https://www.morton-fraser.com/knowledge-hub/spin-out-or-start-whats-difference

<sup>&</sup>lt;sup>29</sup> https://en.wikipedia.org/wiki/Bayh%E2%80%93Dole\_Act

## The European scenario: Mobility of startups in Europe

The choice of location of a startup's headquarters is one of the most important factors for its future success, thus, the mobility of startup founders is a crucial element to understand the dynamics of such ecosystems. According to Heatmap Europe<sup>30</sup>, 23% of survey participants have founded their company in a country that it is not the one of their origin. There is a considerable portion of them that left their home region (85%) and in terms of gender, 90% of founders who have moved are male while just 10% female, which are less inclined to move.

startup/location/region	Net % inflow	Net % outflow
Western Europe	+10%	
Northern Europe	+10%	
Southern Europe		-4%
Eastern Europe		-3%

Figure 3: Percentage of migrants compared to original founders Source: Startup Heatmap Europe survey

<sup>&</sup>lt;sup>30</sup> https://www.startupheatmap.eu/



Figure 4: Inflow and outflow of founders in European regions Source: Startup Heatmap Europe survey

startup/location/description/country	Net % inflow	Net % outflow
Netherlands	+31%	
Austria	+20%	
United Kingdom	+17%	
Bulgaria	+13%	
Poland	+11%	·
Germany	+11%	
Portugal	+3%	
Italy		-29%

Figure 5: Net migration flows on country level Source: Startup Heatmap Europe survey Overall, there is a trend, as expected, to move to economically strong countries and a clear geographical separation between the Northwest and the Southeast. The Baltics appear to be the strongest region of startup migration with a 14% net inflow, whereas the Mediterranean (-2%) and CEE (-3%) export a great part of the founders. On a country level, the Netherlands stand out with a 31% inflow while Italy stands out worryingly with a loss of founders at a staggering -29%.

Such movement of founders across Europe is creating a strong competition among regions and startup hubs. In addition, the data indicate that each region does not have a leading regional hub, but that there are several strong contenders in almost every region. Finally, competition extends at country and sub-regional level as 85% of mobility takes place across regions.



### Reasons of Migration of Southern European Startups

![](_page_13_Figure_4.jpeg)

The Startup Heatmap Europe survey underlines that access to talent (71%) and the quality of the ecosystem (access to support, partners, and customers) (69%) are considered the most relevant factors for moving, as shown in figure 7. In comparison, access to capital and monthly costs/burn rate are less important. Around 16% of the entrepreneurs in an early stage consider access to capital as non-essential in their considerations of the location of their startups. Similarly, 15% say the burn rate or monthly costs are not a key factor. Surprisingly, access to capital is ranked the lowest among all four factors, indicating an interesting trend: investments will follow the founders and not vice versa.

### Recommendations for building a successful startup ecosystem

Along the points already discussed in this paper, here are some recommendations to consider in order to establish a successful startup innovation ecosystem<sup>31</sup>:

- It is a team play: As we have seen in previous sections, there is no single recipe to build a successful startup ecosystem. Several factors need to be taken into account including cultural and institutional differences, geographical position, and political context. In addition one key factor is that all the stakeholders indicated in Figure 1 need to operate together to reach success. It is, in short, a team play.
- Focus on local strengths: There will be a limited number of top-performer ecosystems worldwide, but it is likely that we will see the creation of many smaller ecosystems in specialised areas (Fintech, Life sciences, etc.). One possible strategy for smaller ecosystems is, thus, to focus on vertical development or technical expertise where they have existing local strengths<sup>32</sup>. For example, Frankfurt is developing significantly the Fintech sector thanks to the proximity to regulators and banks that enable partnerships and cross-fertilisation. The Frankfurt ecosystem offers the best conditions for starting and growing a Fintech business thanks to easy access to experienced workforce, investors and the right mind-set.
- Focus on great and viable business ideas: It is key to have access to not only great ideas, but also ideas that can lead to a viable and successful business.
- **Get access to market:** Access to market is essential for the success of a business. The ecosystem must develop a fertile environment that attracts market and customers to it.
- **Get the right skillset:** As shown in the previous section it is very important to have the right mix of skills and talent in the ecosystem to make it attractive, and to favour strong cross-fertilisation to allow the ecosystem to grow.
- Get the funding for all stages: In addition to excellent talent, proper funding is essential to reach success. It is critical that the capital is available to support each stage of the startup journey, from seed, to early, and growth stages. As the community of local investors becomes experienced in the startup investment cycle, investments will increase in volume and in value, as well as confidence in the process, as it will be evident that to generate more profitable businesses the ecosystem needs to be nurtured and supported financially.

<sup>&</sup>lt;sup>31</sup> https://www.entrepreneur.com/article/302488

<sup>&</sup>lt;sup>32</sup> https://startupgenome.com/reports/2018/GSER-2018-v1.1.pdf

## List of abbreviations

- AI Artificial Intelligence
- AltFi Alternative Finance
- CEE Central and Eastern Europe
- EU European Union
- ICT Information and Communication Technologies
- IP Intellectual Property
- SME Small and medium-sized enterprises

The European Commission's science and knowledge service Joint Research Centre

#### **JRC Mission**

As the science and knowledge service of the European Commission, the Joint Research Centre's mission is to support EU policies with independent evidence throughout the whole policy cycle.

![](_page_16_Picture_3.jpeg)

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