

PORTUGAL STARTUP OUTLOOK

2020

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01. Report Curators

01.a. EIT Digital & BGI



EIT Digital is a leading European open innovation organization that represents a partnership of over 200 top European corporations, SMEs, start-ups, universities, and research institutes. EIT Digital invests in strategic areas to accelerate the market uptake of research-based digital technologies and to bring entrepreneurial talent and leadership to Europe.

EIT Digital is a Knowledge and Innovation Community of the European Institute of Innovation and Technology (EIT). EIT Digital headquarters is in Brussels with co-location centres in Berlin, Budapest, Eindhoven, Helsinki, London, Madrid, Paris, Stockholm, Trento, Braga and a hub in Silicon Valley. For more information visit: www.eitdigital.eu

Building Global Innovators (BGI) is a deep innovation global accelerator based in Lisbon (Portugal) with operations in Cambridge (USA). BGI was born from the MIT Portugal Innovation and Entrepreneurship Initiative (IEI) – launched to support Portugal’s goal to strengthen its capacity in business education, technological innovation, and entrepreneurship. The initiative was born out of a collaboration between ISCTE-IUL, MIT Deshpande Centre for Technological Innovation, MIT Entrepreneurship Centre, and MIT’s School of Engineering.

In 10 batches BGI has accelerated 154 ventures, with a survival rate of 60.4%. BGI alumni have created 727 high tech jobs and raised over €206 Million. These results have led Valuer.ai to identify BGI as one of the top 50 accelerators in the world (2018) and Fundacity to pick BGI as one of the top 20 accelerators in Europe (2014). More recently, BGI has been strengthening its ties with the European Institute of Innovation and Technology, in 4 Knowledge Innovation Centres (KIC’s), namely EIT Digital, EIT Climate-KIC, EIT Food, and EIT Health. Some of BGI alumni, like Feedzai and Veniam, are now valued at several hundred million euros. Exits are expected to follow soon.

To date, BGI develops not only several accelerators (for startups working in different industries and different development stages), but also Open Innovation Programs (working closely with corporates), Education programs (including Hackathons and summer schools), and other initiatives aiming at developing innovation. For more information on BGI and its programs visit: www.bgi.pt



01.b.REPORT ENABLERS



Informa D&B is a specialist provider of business information. Through innovative analysis, the company provides access to relevant and up-to-date information about the activities of companies and managers, which is fundamental for the conduct of its customers' business dealings.

Informa D&B is part of the largest international business information network, D&B Worldwide Network, and has access to the data of over 284 million economic agents worldwide.

The Informa D&B business information database is the most frequently used platform in Portugal, serving more than 619,000 users through the two brands - Informa and EINFORMA. In Portugal, 95% of banking entities, 45% of large companies and 21% of SMEs are active customers of InformaD&B, viewing over three million reports on companies annually.

02.EXECUTIVE SUMMARY

This is the second edition of the Portugal Startup Outlook, a macro analysis of technology-based and technology-enabled startups originating from Portugal. In this edition the Portuguese startup ecosystem was evaluated across the following 5 themes; Startup Landscape, Funding Landscape, Founder Landscape, Investor Landscape and Market Landscape. This study relied on descriptive analysis to explain secondary data obtained from Informa D&B and Crunchbase. In total, 658 active startups, 908 investment transactions, 488 investors, 2,677 market transactions, and 622 founders were captured and analysed between 2015 and mid-2020. In addition to our analysis, we included commentary from industry experts to provide insights on each theme studied in the report. Furthermore, this summary provides the key observations and conclusions following our analysis.

Startup Landscape: There is a steady decline in the number of startups created between 2015 and 2020, due to market entry barriers, corporate hiring trends and the COVID-19 pandemic.

Funding Landscape: Startups originating from Portugal raised over \$2 Billion, between 2015 and 2020. Majority (92%) of this funding was from external sources. Even though the pandemic impacted several industries negatively, startups within the Enterprise Software and Marketing & Advertising industry experienced a boost in funding.

Investor Landscape: The United States continues to remain the largest contributor to the Portuguese startup ecosystem. There is a significant gap in the number of limited partners and corporate partnerships available to support both venture capital investors and startups in Portugal

Founder Landscape: Non-Portuguese founders (33%) contribute significantly to the Portuguese startup ecosystem as a result of incentive programs set up by the Portuguese government. However, the Portuguese startup ecosystem still appears to be un-diverse.

Market Landscape: There were 100 exits recorded between 2015 and 2020. Majority of the exits were acquisition deals done in the European region.

In summary, there are significant gaps in the funding landscape especially in regard to support for incubators and accelerators. In addition, more incentives should be provided to encourage a better investment culture in Portugal. Taking into account that the United States is a major development partner, more initiatives should be in place to strengthen this relationship. Furthermore, we conclude that it is important for startups to increase gender and ethnic diversity, which would give them a competitive advantage, and make them perform better.



03.ABOUT THE REPORT

03.a.Background

This is the second edition of the Portugal Startup Outlook (PSO) report. This report is a macro analysis of technology-based and technology-enabled startups originating from Portugal. The 2019 edition was built around two thematic categories - Internal and External Factors - which consisted of 5 elements. These 5 elements were Investment framework, Jobs & Skills Environment, Policy and regulatory framework, Market opportunities and Conditions, and Infrastructure framework. These elements were considered factors that impacted the growth of startups. Following feedback from stakeholders, we took a different approach in studying the Portuguese Start-up Ecosystem, in the 2020 edition. The PSO 2020 report is built around 5 themes.

| Themes | Description |
|---------------------------|--|
| Startup Landscape | An overview of the tech-based and tech-enabled startups currently established in Portugal and/or established by Portuguese founders. |
| Funding Landscape | An overview of all the investments made to the tech-based and tech-enabled startups currently established in Portugal and/or established by Portuguese founders. |
| Investor Landscape | An overview of investors both foreign and domestic, investing in tech-based and tech-enabled startups currently established in Portugal and/or established by Portuguese founders. |
| Market Landscape | An overview of market opportunities, acquisitions, and exits of tech-based and tech-enabled startups currently established in Portugal and/or established by Portuguese founders. |
| Founder Landscape | An overview of Portuguese and Non-Portuguese founders establishing tech-based and tech-enabled startups in Portugal. |

03.b.Purpose

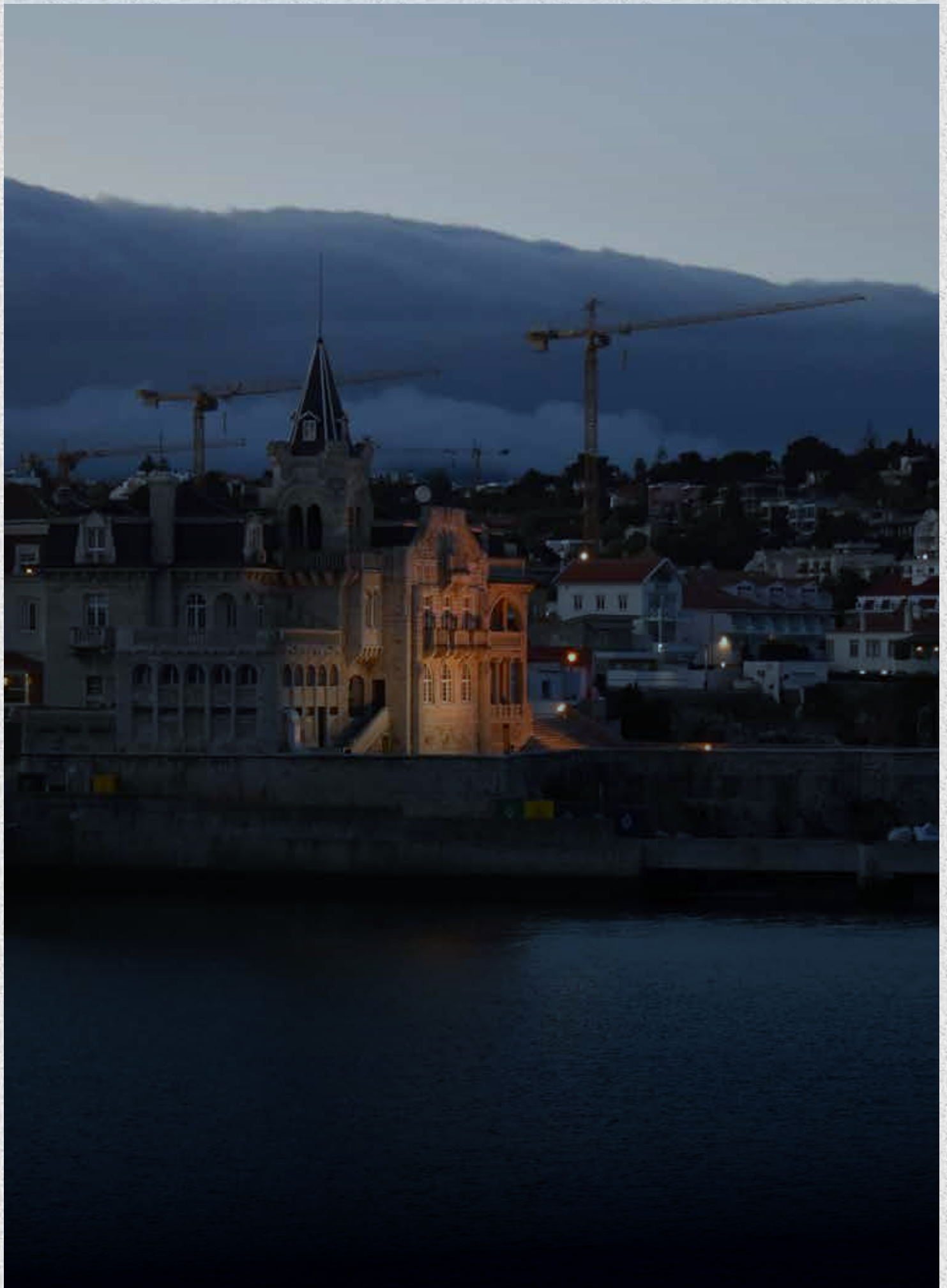
- ✓ To be a reference point for a variety of stakeholders at every level across the ecosystem.
- ✓ To reach out to a wider Entrepreneurial and Innovation (E&I) community in the EU and beyond, with the purpose of encouraging collaboration and partnerships.
- ✓ To showcase achievements and identify shortcomings within the Portuguese E&I ecosystem.
- ✓ To act as a guide for future entrepreneurs and other players interested in becoming actors of the E&I ecosystem, helping them run their activities more efficiently.

03.c.Data Source

This report relies primarily on secondary data sources. Data on initial capital requirements, revenues, exports, employment, production, capital, costs, profitability, and other company indicators were provided by Informa D&B. Data on venture capital investments and other funding information was sourced from CrunchBase. We also obtained insights from interviews with stakeholders such as founders, investors, and accelerator managers.

03.d.Methodology

This report uses descriptive analysis to explain data obtained from our data sources. The period of analysis was from 2015 to 2020 (July). We analysed startups originating from Portugal (i.e. Startups headquartered in Portugal and those no longer headquartered in Portugal). Following this methodology, we analyzed 659 active startups, 908 investment transactions, 488 investors, 2,677 market transactions, and 622 founders.



04. REVIEW OF PORTUGAL'S STARTUP OUTLOOK IN 2019

Investment framework

- ✓ Portugal lags significantly in venture capital financing compared to its European counterparts but has a positive outlook.
- ✓ The majority of Portugal's Venture capital financing is sourced from foreign investors (66.8%), however, domestic investors play a key role at the earlier stages of financing (contributing 70% of seed financing).
- ✓ Investors are willing to invest more in the following industries: Health (8.056x), Transportation (7.550x), and Media (6.190x), expecting greater rewards in the long-run.
- ✓ Lisbon, Porto, and Coimbra are major hubs for innovation in Portugal.

Policy and Job & Skill Environment

- ✓ Entrepreneurial education in Portugal grows, but still Portuguese entrepreneurs perceive that their skills and knowledge are not growing as fast as those of their European peers.
- ✓ There is still a significant gender gap in tech-startup employment in Portugal.
- ✓ Despite the Portuguese government's increased support of entrepreneurship, there is still a significant need for a reduction in bureaucracy.

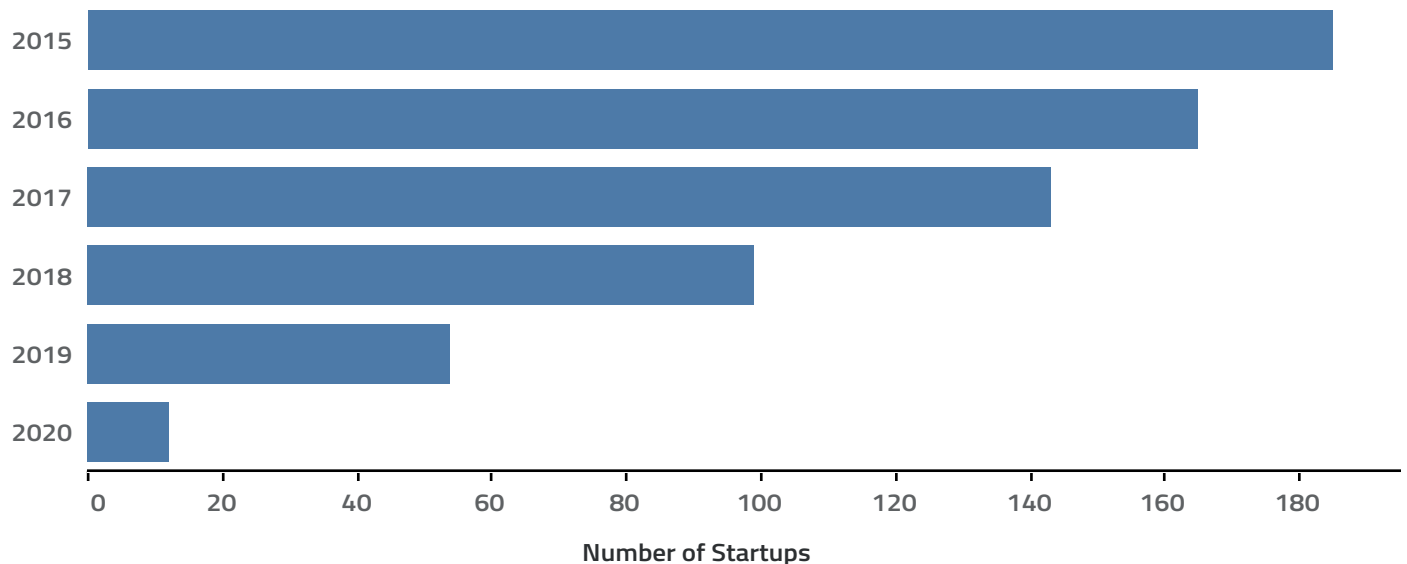
Market Opportunities and Conditions

- ✓ Since there is a relatively small domestic market for startups in Portugal, startups need to leverage on foreign market opportunities.
- ✓ Portugal trails behind its European counterparts in the availability of property rights, commercial, accounting, and other legal and assessment services.
- ✓ Even though Portugal lags behind on a variety of ecosystem indicators, it is viewed as a promising destination for startups by founders and stakeholders in Europe because of talent availability, and greater value for money.
- ✓ Portugal is on track for growth and development in the ecosystem and is poised to play a significant role in the European startup ecosystem.

05.STARTUP LANDSCAPE

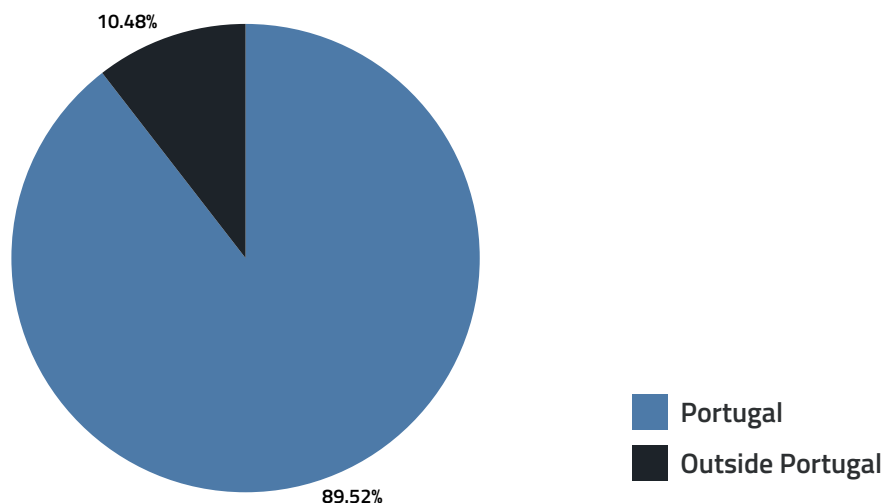
In this section, we present an overview of tech-based and tech-enabled startups originating from Portugal (i.e. Startups headquartered in Portugal and those no longer headquartered in Portugal) and founded between 2015 and 2020. The analysis was focused on 659 startups in total.

Fig 1: Startups Founded Yearly



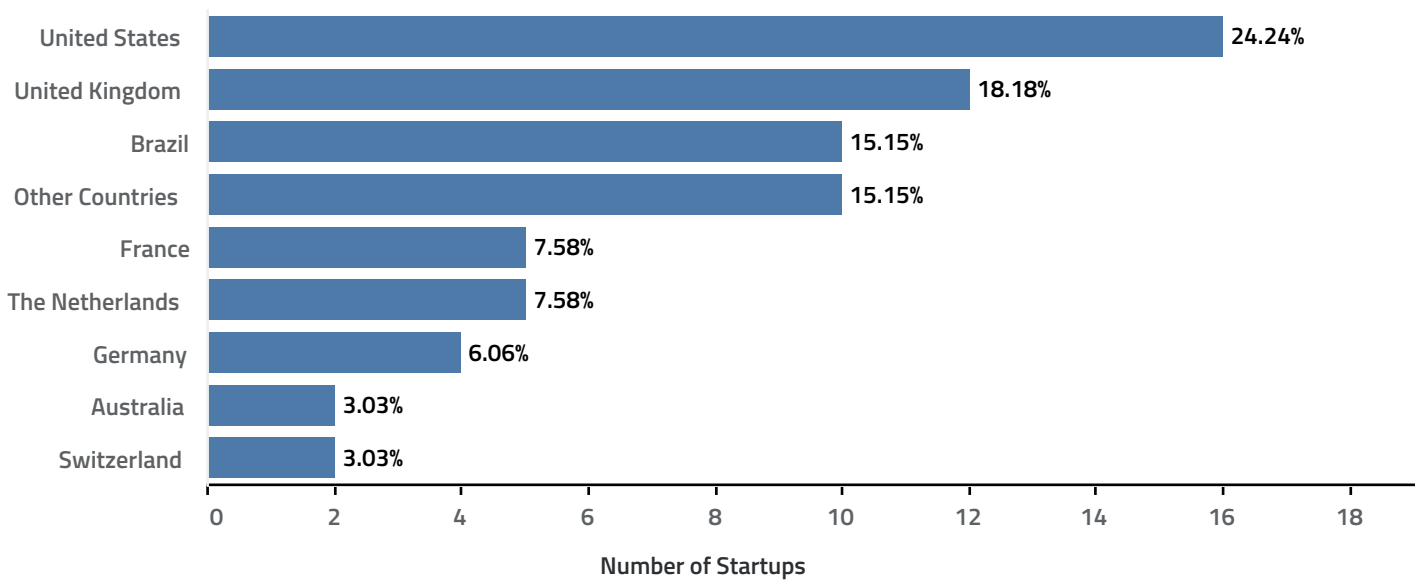
2015 was a good year with 185 startups created. However, there has been a significant decline in the number of startups created yearly from 2015 to 2020 (Fig 1). The overall decline can be attributed to 2 major reasons: (1) the absorption of entrepreneurial talent by large corporates, and (2) the increase in market competition, which makes it challenging for new firm entry. In spite of explanations for the overall decline, the decline in 2020 is particularly attributed to the occurrence of the COVID-19 pandemic.

Fig 2: Startup Headquarters by Region



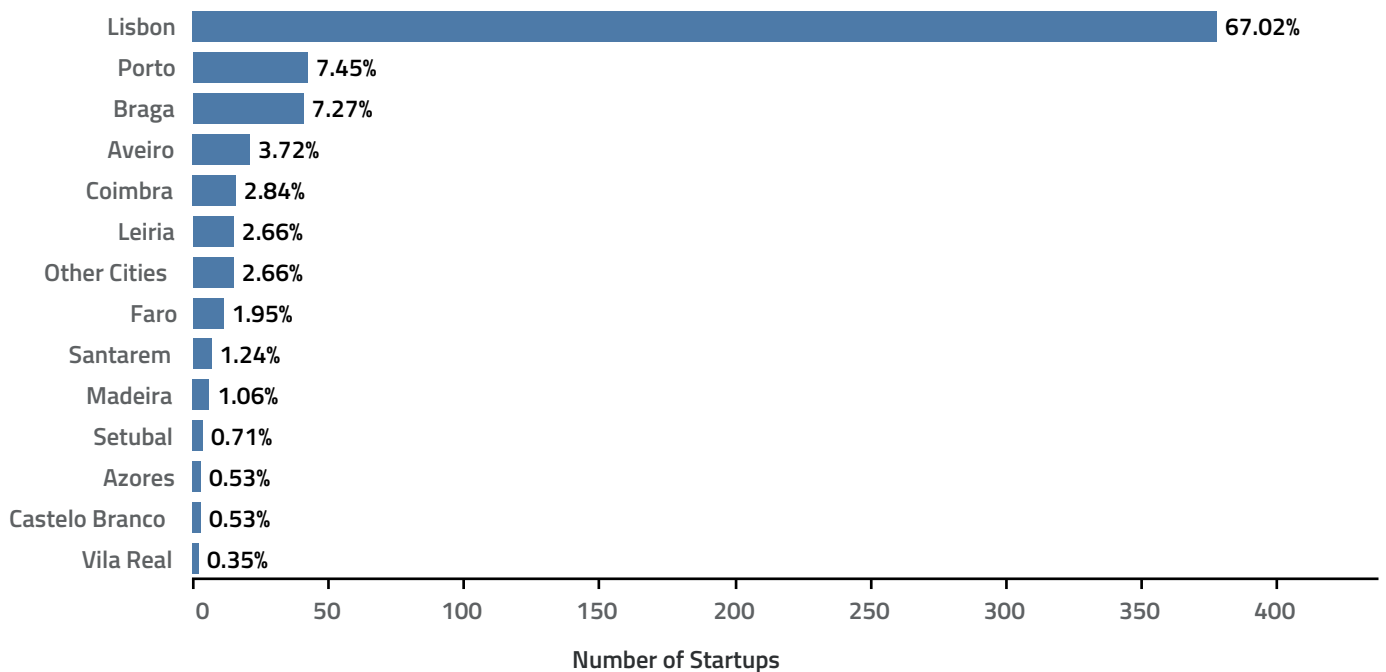
89.52% of startups are headquartered in Portugal, while 10.48% are headquartered outside Portugal (Fig 2).

Fig 3: Startup Headquarters by Country

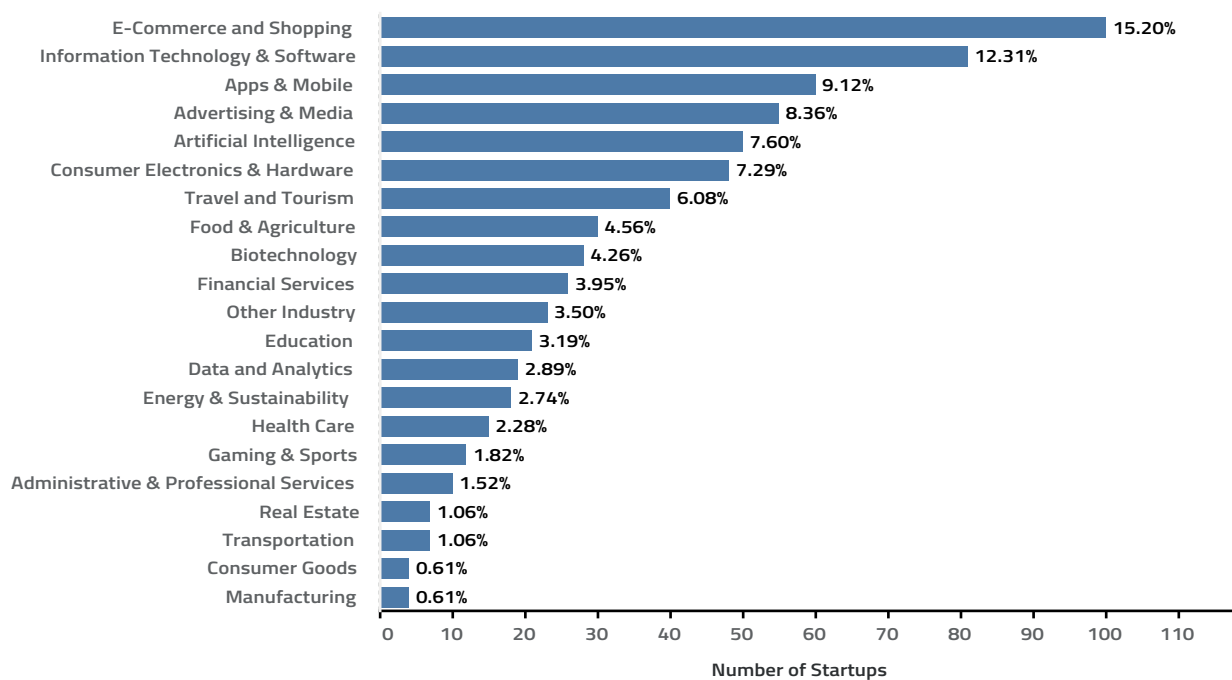


A detailed look at startups headquartered outside Portugal shows that the United States (24%), United Kingdom (18%) and Brazil (15%) are top destinations for startups switching headquarters from Portugal (Fig 3). Portuguese startups typically change headquarters for 3 major reasons: (1) access to larger funding, (2) access to a larger market and (3) legal requirements stipulated by lead foreign investors. It's a typical practice for startups originating from Portugal to leave their R&D teams in Portugal, but have their headquarters elsewhere.

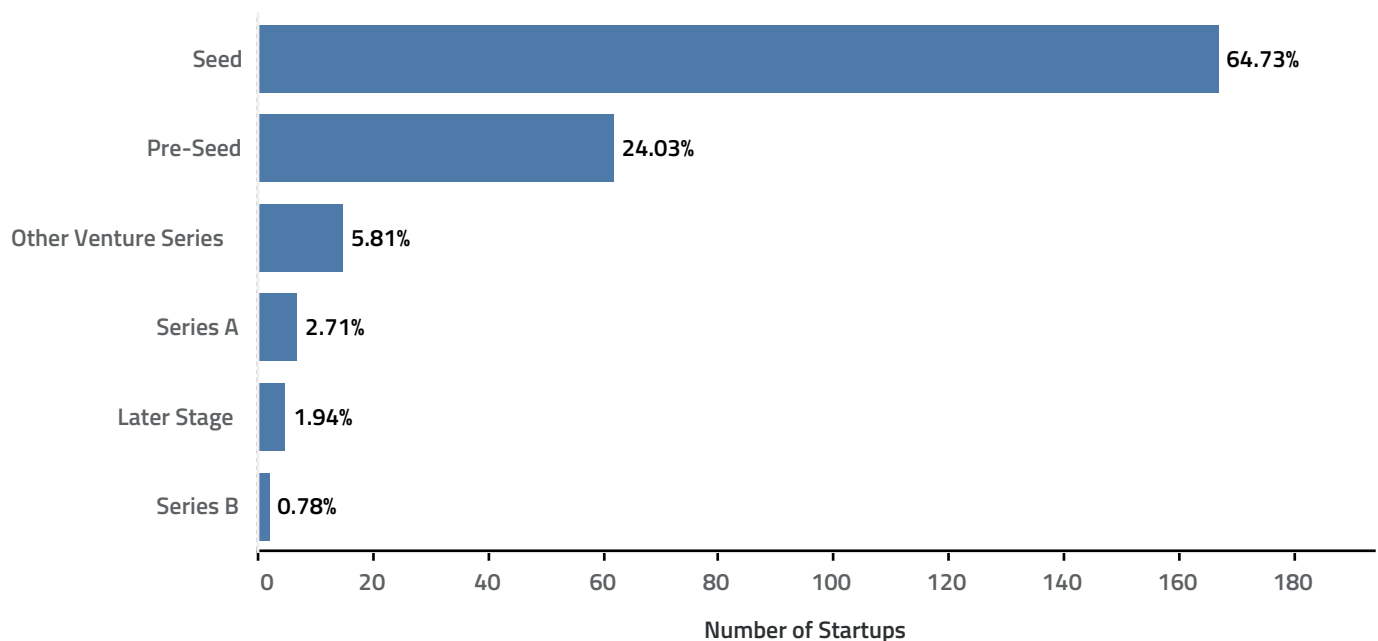
Fig 4: Startup Distribution by City (Portugal)



Lisbon (67.02%), Porto (7.45%), and Braga (7.27%) are the major innovation hubs in Portugal (Fig 4). These cities are the leading innovation hubs for the following reasons: (1) they host the largest population of entrepreneurial talent due to the number of higher education institutions in their domain e.g. Lisbon has over 20 higher learning institutions, while Porto has over 15; (2) The level of support the city councils provide to entrepreneurial talent is much greater than other cities.

Fig 5: Startup Distribution by Industry

The top 3 industries with the largest number of startups are E-commerce & Shopping (15.20%), Information Technology & Software (12.31%), and Apps & Mobile (9.12%) (Fig 5). Startups in these industries are relatively easier to set up because of lower CAPEX, and the abundance of human capital in the IT domain. For example, in 2019, the OECD reported that 21% of Portuguese graduates were from STEM. Also, these industries attract the most amount of funding, which is an incentive for founders to establish companies in these domains.

Fig 6: Startup Distribution by Growth Stage

The majority of the startups created between 2015 and 2020 are in the Seed (64.73%) & Pre-seed (24.03%) growth stage. There is a significant difference in the number of early and late-stage startups in Portugal, which can be explained by the overwhelming support early-stage startups receive from domestic investors and the government. The challenge for many Portuguese startups is transitioning into later growth stages, as will be examined in the following sections.

Startup Landscape summary:

- ✓ There is a significant decline in the number of startups created between 2015 and 2020.
- ✓ The United States, United Kingdom and Brazil are the top 3 destinations for startups switching headquarters from Portugal.
- ✓ Lisbon, Porto, and Braga are the major innovation hubs in Portugal.
- ✓ E-commerce & Shopping, Information technology & Software, and Apps & Mobile are the leading industries in terms of the number of startups created.
- ✓ Majority of startups created between 2015 and 2020 are categorised as early-stage ventures. There is a significant gap between early-stage and late-stage startups in Portugal.

Expert Commentary on the Startup Landscape



Teresa Cardoso de Menezes
Managing Director

INFORMA

“From a demographic perspective, the ICT sector has shown great vitality, with the number of new companies almost doubling in the last 10 years.

The digital transformation of the economy and the need to create solutions that allow a smoother transition for companies across all industries, has given the Information and Communication Technology (ICT) sector a leading role in this critical moment, through its great innovation capabilities, which placed its companies far from being significantly exposed to the Covid-19 pandemic. A recent study published by Informa D&B regarding the exposure to the pandemic among the different industries shows that 24% of ICT companies operate in activities with a low impact, 63% with medium impact and only 13% of the companies operate in highly impacted activities.

Informa D&B also analysed these companies and their financial resilience – which measures the capacity of a company to face an exceptional shock with a significant impact on its activity. This analysis shows that almost half of the ICT companies have high or medium-high resilience, far greater than the average of the total business universe. Despite being the industry with the highest percentage of young companies (up to 5 years old), this greater resilience predicts a robustness that will be necessary to face this crisis.

From a demographic perspective, the ICT sector has shown great vitality, with the number of new companies almost doubling in the last 10 years. Like all industries, the number of new companies has also declined since March 2020 compared to the previous year. However, it has been a less steep decline when compared to other industries (24% vs 30%). Among the various conditions imposed by Covid-19, the use of teleworking proved to be less penalizing for these companies, which have gained prominence among the new companies that were born during the last months.

The youth of these companies brings a greater capacity for innovation, operating in a highly competitive landscape, as they sell goods and services not only for the domestic market, but also to a globally digitalized market – a fact that gives them a great export propensity, well above the average of the remaining companies.

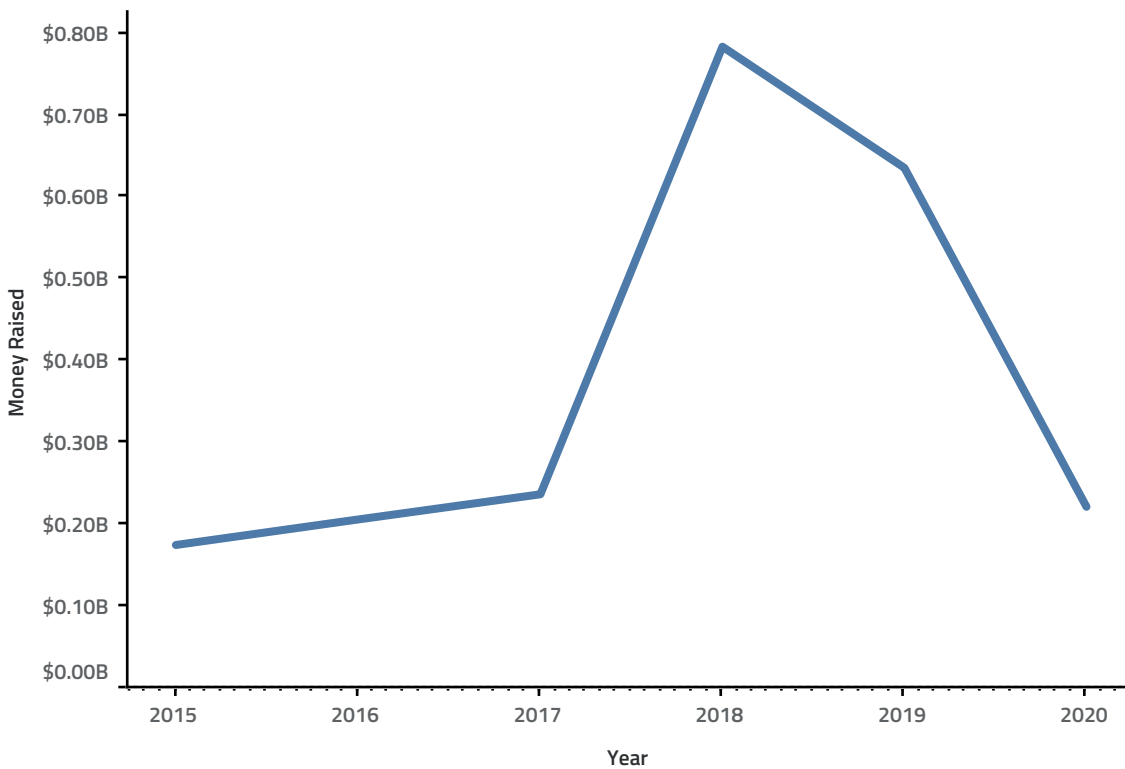
Our analysis shows that the impacts of the restrictions imposed by the pandemic were different and asymmetric across industries. Nevertheless, being less impacted by the pandemic, having greater vitality and above-average resilience allows the ICT industry to create more innovative and disrupting products and services.

This pandemic will probably reconfigure the industry profile, and will for sure increase the relevance of the ICT sector in the near future of our economy.

06.FUNDING LANDSCAPE

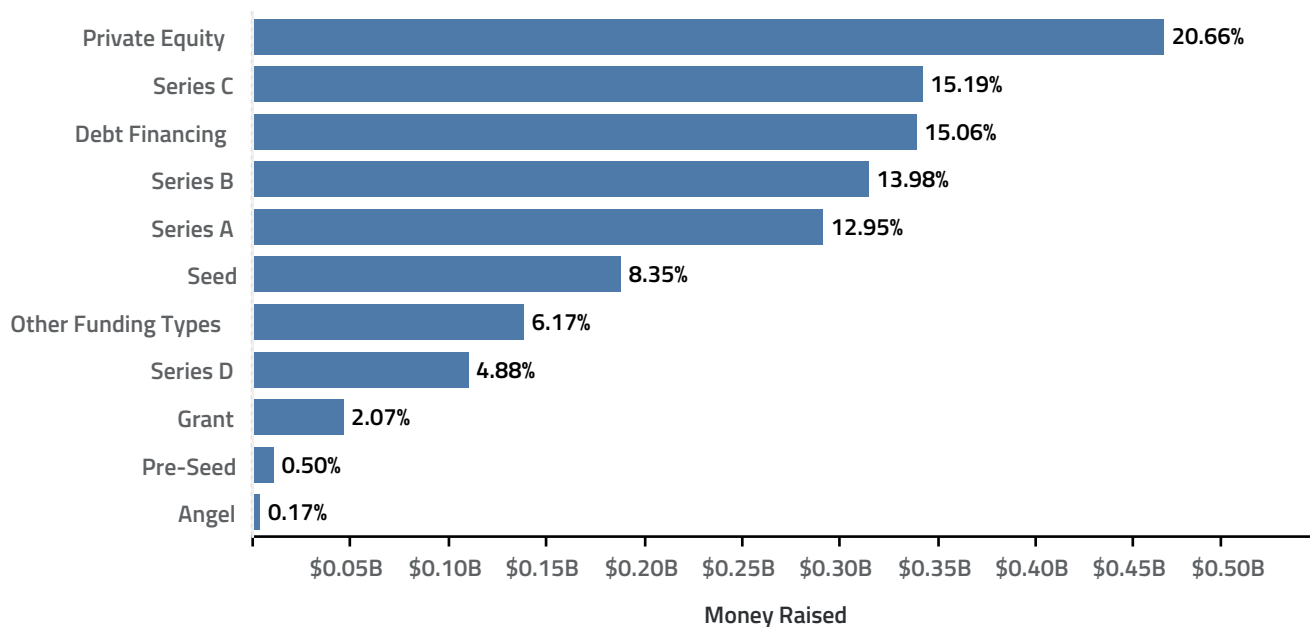
In this section, we present an overview of all the investments made between 2015 and 2020 to tech-based and tech-enabled startups originating from Portugal (i.e. Startups headquartered in Portugal and those no longer headquartered in Portugal). We captured 908 investment transactions in total.

Fig 7: Funding Received by Portuguese Startups



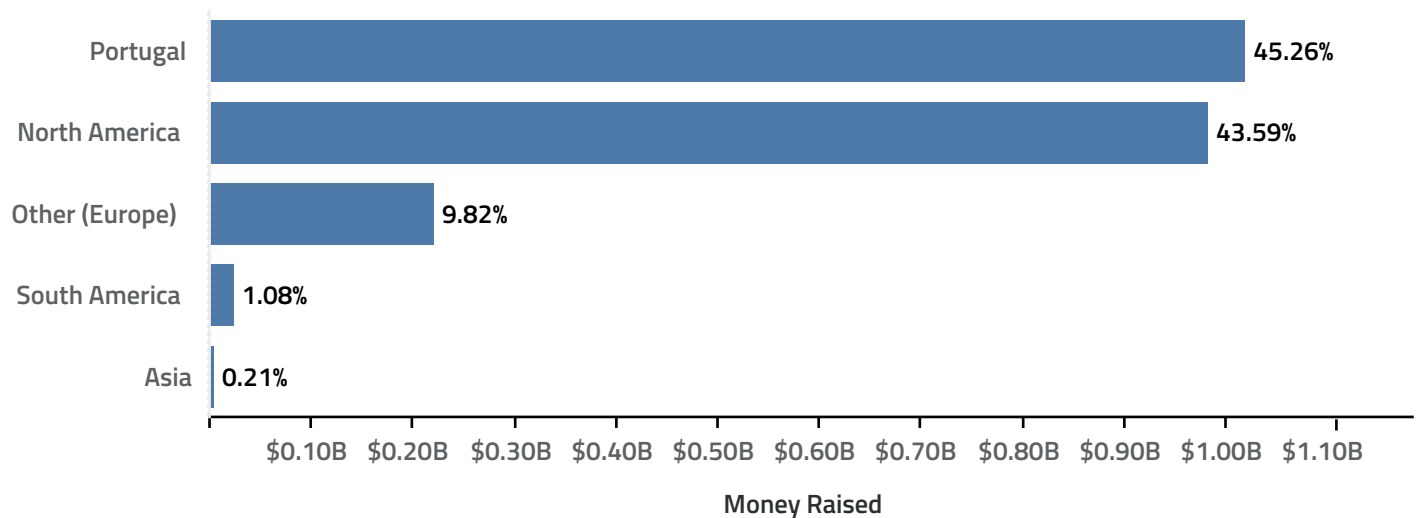
Funding received by startups originating from Portugal between 2015 and 2020 was \$2.25 Billion. Total funding received increased significantly from 2015 and peaked at 2018, followed by a decline over the past two years (Fig 7).

Fig 8: Funding Distribution by Funding Type



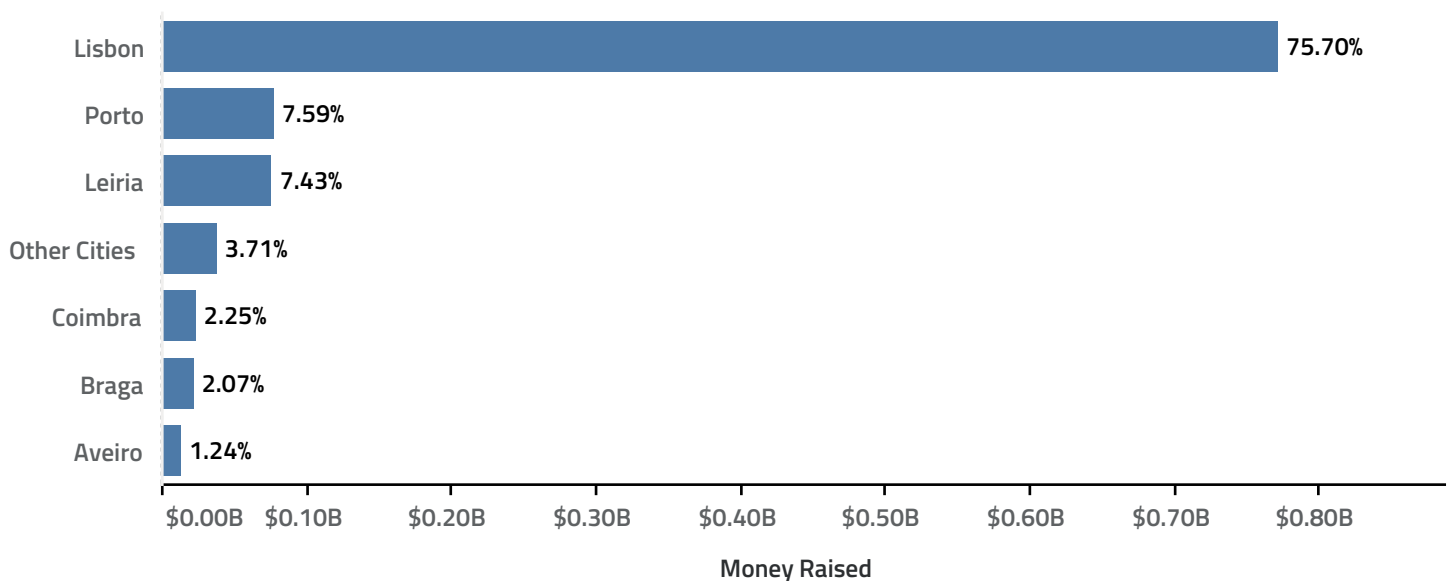
Most of the increase in funding was driven by later stage investment rounds (Fig 8) in companies such as OutSystems (360 Million - 2018), Talkdesk (243 Million - 2018 & 2019), Unbabel (60 Million - 2019), Feedzai (50 Million - 2017), and Liqui.do (169 Million - 2019). The decline in funding is likely attributed to the decline in the number of startups created (Fig 1), as well as the impact of the COVID-19 pandemic in 2020.

Fig 9: Funding Distribution by Startup Headquarters



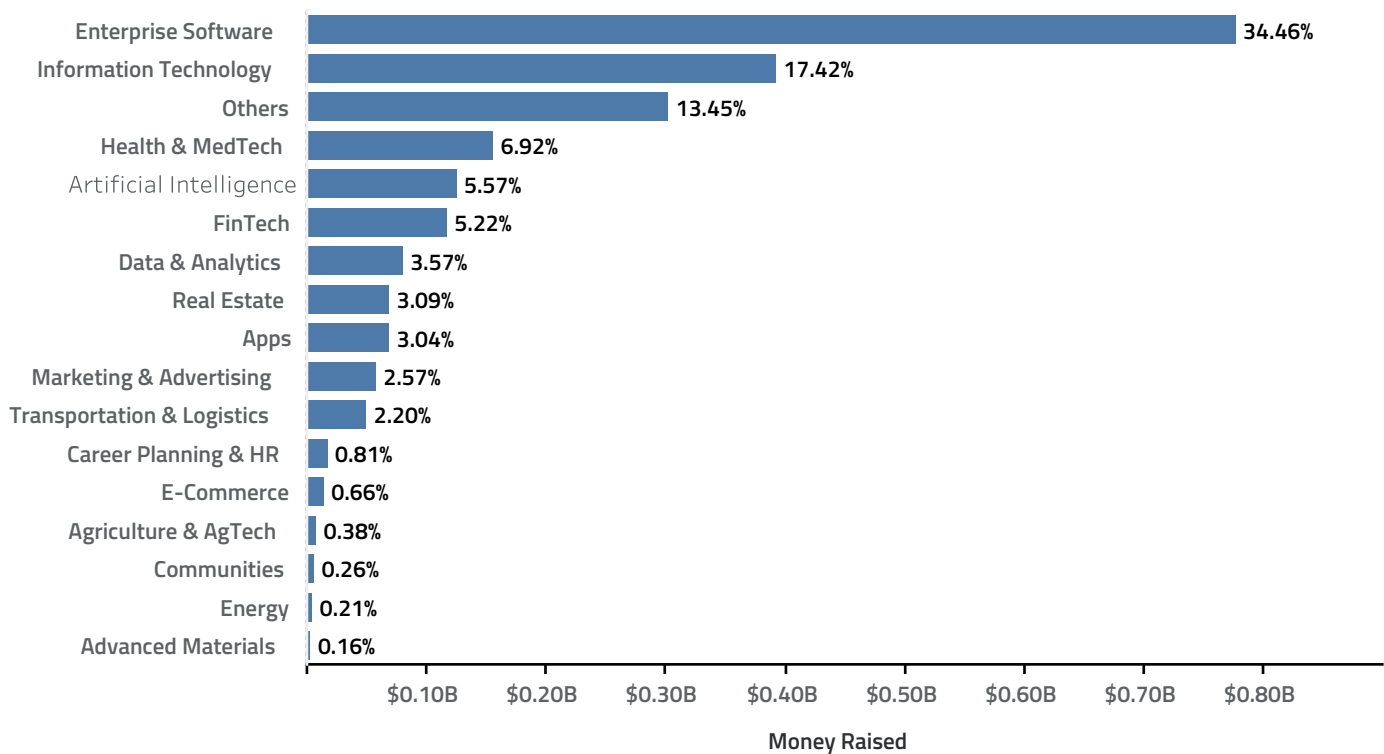
Startups headquartered outside Portugal received more funding (\$1.2 Billion) than those headquartered in Portugal (\$1 Billion) (Fig 9). A detailed breakdown of funding received by regions outside Portugal, indicates that startups headquartered in North America (i.e. U.S. & Canada) received the most funding (\$982 Million) (Fig 9). As mentioned in the previous section, Portuguese startups are incentivized to change headquarters in search of larger and later-stage funding rounds.

Fig 10: Funding Distribution by City (Portugal)

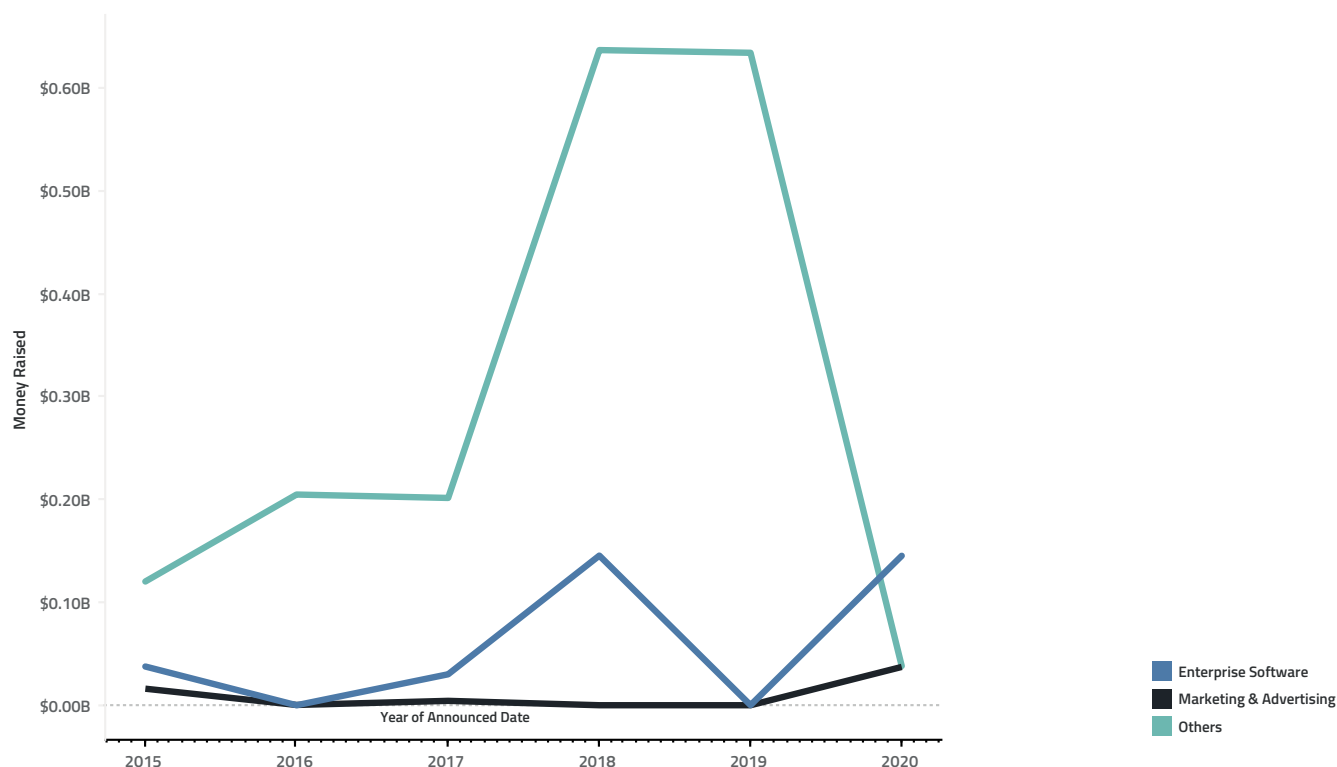


At the city level, startups based in Lisbon attracted the most funding (76%), followed by startups based in Porto (8%). In our 2019 report, we observed that startups based in Porto raised more money than those based in Lisbon, the case is reversed in 2020. This observation is primarily due to the number of startups headquartered in Lisbon (67.02%) and Porto (7.45%), as observed in Fig 4. Top regions outside Portugal for startups to get headquartered in, are California (Palo Alto & Silicon Valley) and Massachusetts (Boston), which is in accordance with the fact that these two regions are leading innovation ecosystems.

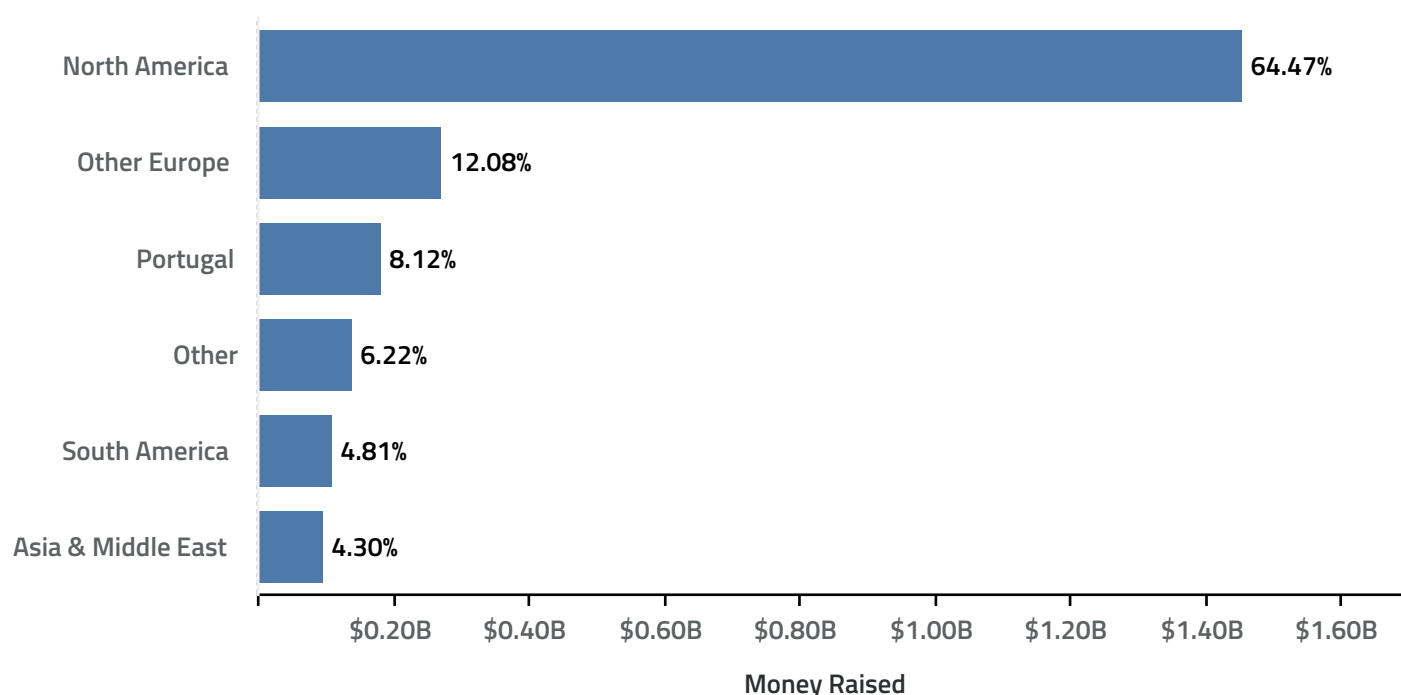
Fig 11: Funding Distribution by Industry



Enterprise Software (\$777 Million) and Information technology (\$393 Million) industries received the most funding (Fig 11). Other Industries such as Health & MedTech (\$156 Million), FinTech (\$118 Million) and Artificial Intelligence (\$125 Million) also received significant amounts of funding (Fig 11). These industries are growing quickly in Portugal because of the abundance and affordability of STEM talent. Furthermore, there is a "snow-ball" effect driven by the success of companies such as Outsystems. These success stories signal to entrepreneurs and investors about the nature of the industry. There is also a variety of coalitions that have been set up to support certain industries. For example, Portugal Fintech is a coalition of large corporates that support FinTech startups by creating an extensive network that helps startups to scale quickly and reduce the risks of the industry.

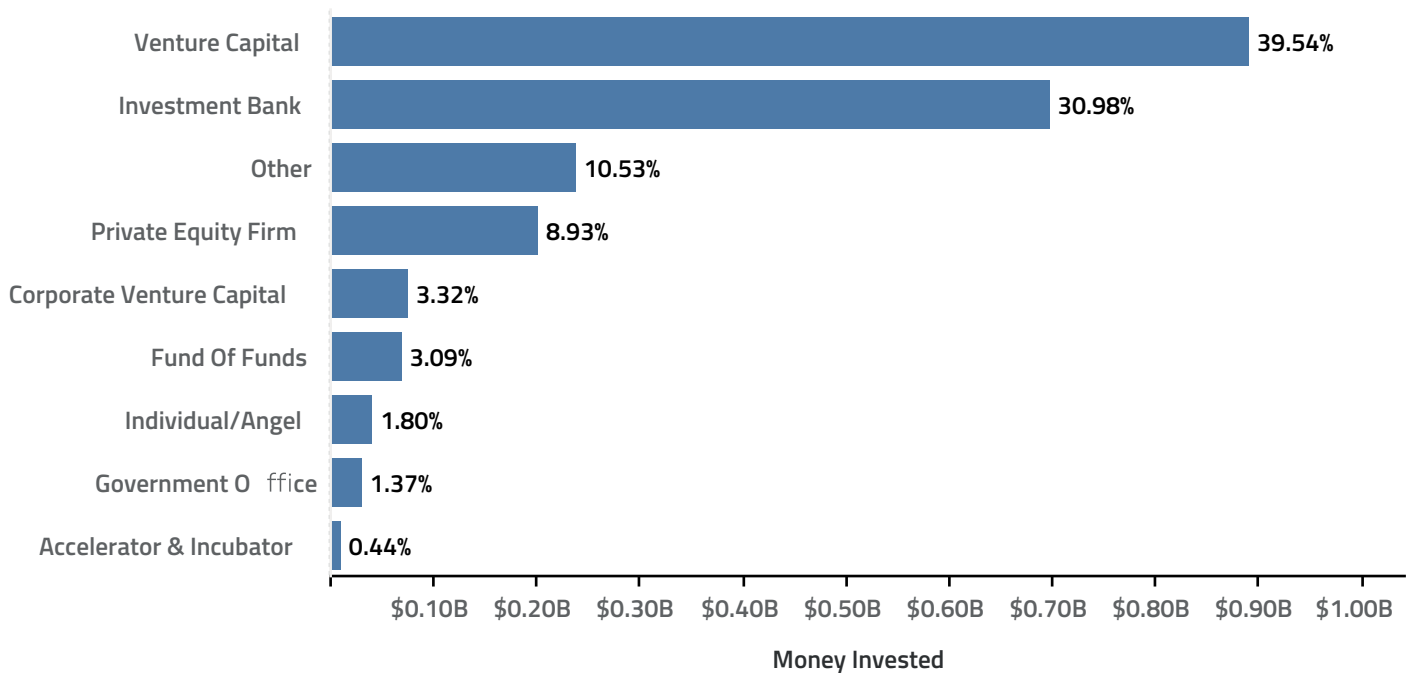
Fig 12: Funding Growth by Industry


While other industries were negatively impacted by the pandemic, there was an increase in funding received by startups within the Enterprise Software (>1000%), and Marketing & Advertising industry in 2020 (>100%) (Fig 12). The funding increase in these industries is driven by the fact that global operations are transitioning more into virtual modes given the pandemic climate, and Enterprise Software is needed to give companies a competitive advantage. Furthermore, companies have to figure out innovative ways to reach their consumers at home, hence there is an upsurge in financing for digital advertising and marketing ventures.

Fig 13: Origin of Funds Received


The majority of the funding (92%) received by Portuguese startups is from external sources, with North America (particularly the U.S.) contributing over 60% of the funds (Fig 13). Most of the funding for early-stage startups originate from Portugal and other parts of Europe, while funding for later-stage startups comes from the United States. This observation is similar to observations in our reports from previous years, and this trend is likely to remain the same in the long run.

Fig 14: Funding Distribution by Investor Type



Venture capital investors (39.54%), followed by investment banks (30.98%) contributed the most to funds received by Portuguese startups (Fig 14). This observation is driven by the large number of VC's that invested in Portuguese startups as seen in fig 16, as well as large multinational investment banks such as Goldman Sachs (fig 17). Figure 14 also shows that the contributions of Angel Investors (1.3%), Incubators and Accelerators (0.44%) represent only a small part of the total funding; however, they play a critical role at the early stages of a startup.

Funding Landscape Summary:

- ✓ Portuguese companies raised over \$2 Billion between 2015 and 2020.
- ✓ The steady increase of funding in Portugal was impacted negatively by the COVID-19 pandemic. However, Enterprise Software and Advertising & Marketing industry were not impacted significantly by the current crisis, but instead had an increase in funding.
- ✓ Startups headquartered outside Portugal raised more money than those headquartered in Portugal.
- ✓ Startups based in Lisbon and Porto raised the most money.
- ✓ The majority of funding received by Portuguese startups was from external sources, particularly from the United States.
- ✓ Venture Capital Investors and Investment banks contributed the most to funds received.

Expert Commentary on the Funding Landscape

**Joao Machado**Social Innovation Fund
ManagerPortugal
INOVAÇÃO
SOCIAL

“Here’s what worries me: the low level of Angel Investment...tells us a lot about the scarcity of investment culture in the pre-seed stage. Imagine a ladder without the 2 first steps

It is a well-known fact that the origin of funds invested in Portuguese startups is, predominantly, from abroad (Fig 13.). As in almost every situation, there is no single cause for such reality, but rather a puzzle of causes and contexts that altogether end up as the foundation of this paradigm.

First and foremost, there is no nationality in money. The available funding for startups is much higher in some countries than others and Portugal, due not only to the small size of the demand side (and the small size of the country), but also to a national economy that does not produce wealth as actively as others, does not have the available funding, particularly from private sources. Furthermore, the vast majority of investors (particularly VCs and PEs) fundraise from international institutions such as the European Investment Fund (EIF) under terms that include an active international deal-flow strategy and the requirement of investing a certain percentage of the overall size of the fund, outside the country in which they are headquartered.

Another key factor for this almost absence of national boundaries in investment is the high-level of investors’ specialization. Nowadays, it is hard to find an investor who doesn’t have its own well-defined investment thesis. Thus, in the name of pragmatism, efficiency and, above all, fiduciary duty, the investors keep their focus in potential investees that fit the thesis requirements and let all the other startups “on the roadside”. As the investment thesis gets sharper, the search for those startups goes further, leading to international VCs investing in Portuguese startups and the other way around. Also, let’s not forget about the co-investment scenario. Above a certain threshold, it’s rare to see investment deals being done without a pool of investors involved. The co-investment approach is acknowledged as a standard of this sector and it’s widely adopted in order to mitigate the financial risk and to allow different sets of skills and knowledge to be brought to the startups’ table. It’s important to underline though, that the lead investor is commonly from the same country as the biggest market of the startup for market-knowledge related reasons.

Nevertheless, it doesn’t worry me too much the fact that Portuguese startups are raising more money from foreign sources neither the fact that the funds deployment will be highly concentrated in just 2 cities (Lisbon and Porto). Instead, here’s what worries me: the low level of Angel Investment! 1,8% of individual/angel investment plus the 0,44% of funds coming from Accelerators and Incubators tell us a lot about the scarcity of investment culture in the pre-seed stage. Imagine a ladder without the 2 first steps. It would be more difficult to climb, right? Of course, there are other ways to get funding, such as governmental programs, contests, grants, crowdfunding, FFF, etc. and they’re good to test the startup’s resilience. However, way too often they are time-consuming and push the startup out of what should be its focus. Can we quantify how many viable and impactful startups we are losing each year due to the lack of pre-seed investors who are willing to wait, to have a quasi-equity approach and/or to have a hands-on approach? That would make some insightful statistics. There are some good examples of diligent Business Angels in Portugal, but we need more of them!

Finally, how to increase domestic funding and, in particular, in the pre-seed stage? The short answer would be a simple, but effective scheme of tax breaks. The UK does it well with the EIS Scheme Tax Relief which had helped the crowd in of private investors. Another solution could be the breaking of “first-time funders” paradigm. The public wholesalers and the co-investment mechanisms for pre-seed investors press hard in the “track record” button which leads us to the “egg and the chicken” dilemma. These mechanisms are not serving well this type of investors who want to start putting their skin in the game. There are several other potential solutions, but a long version of this answer would not fit in the number of words available.

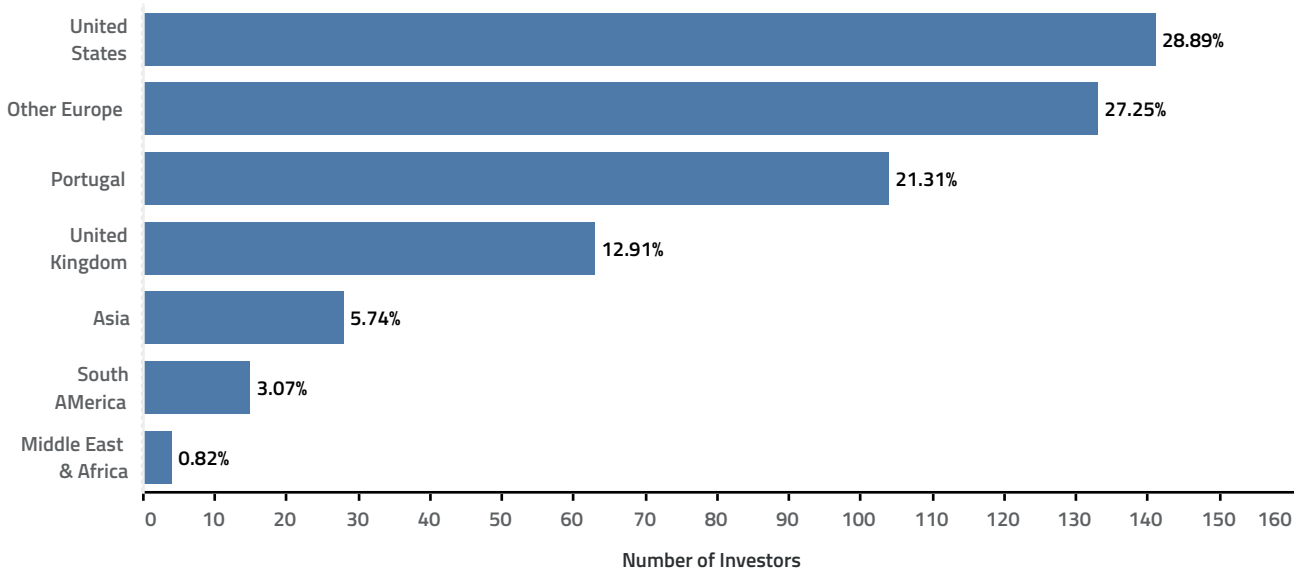
As Sir Ronald Cohen* used to say “Onwards and Upwards”! (...and, if possible, with a proper ladder). *Famous Venture Capitalist and a pioneer in the Impact Investing Field.



07.INVESTOR LANDSCAPE

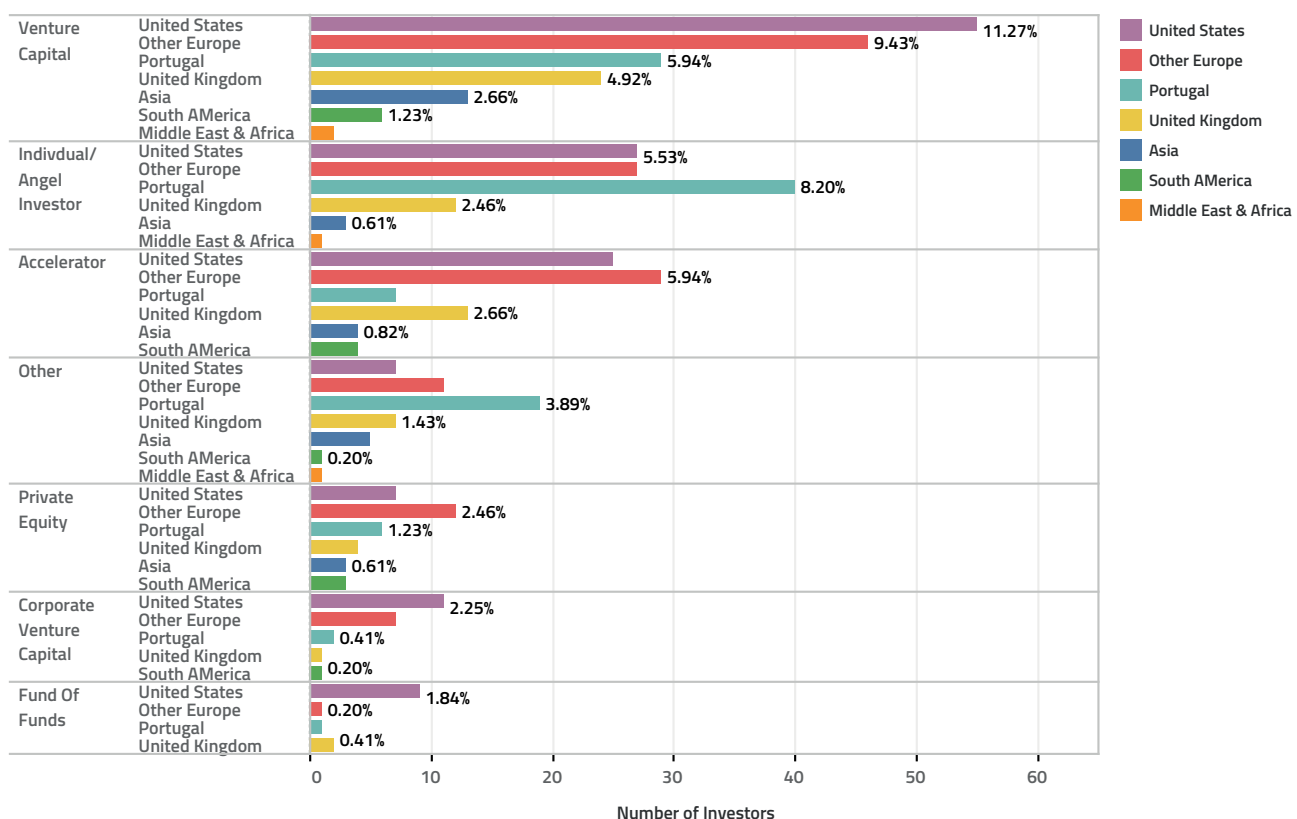
In this section we present an overview of investors both foreign and domestic, investing in tech-based and tech-enabled startups originating from Portugal (i.e. Startups headquartered in Portugal and those no longer headquartered in Portugal) between 2015 and July 2020. We analysed 488 investors in total.

Fig 15: Investor Distribution by Region



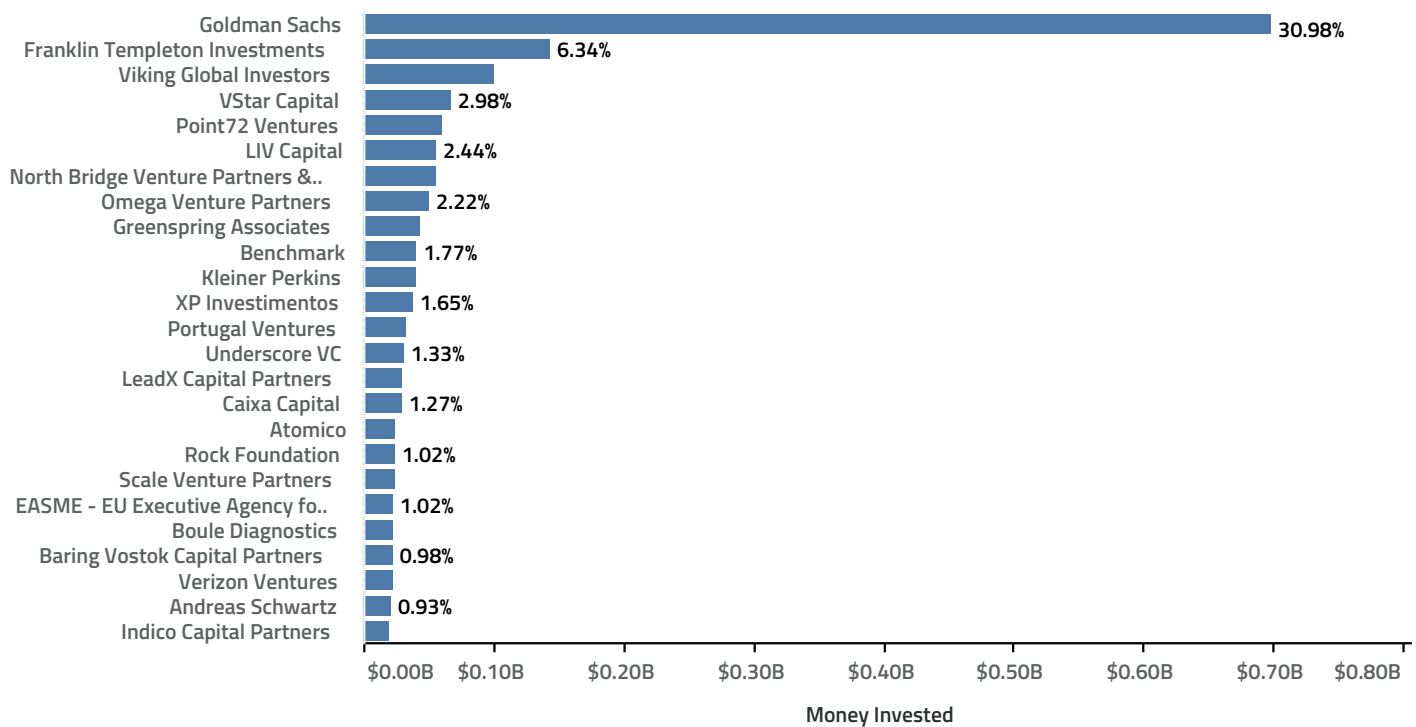
There were 488 investors that invested in startups originating from Portugal between 2015 and 2020, of these 384 were foreign investors, while 104 were domestic investors (Fig 15). The majority of foreign investors are from the United States (28.89%), followed by other European countries (27.25%). Figure 13 and 15 show the significant contributions of the United States to the development of the Portuguese Startup Ecosystem.

Fig 16: Investor Distribution by Investor Type



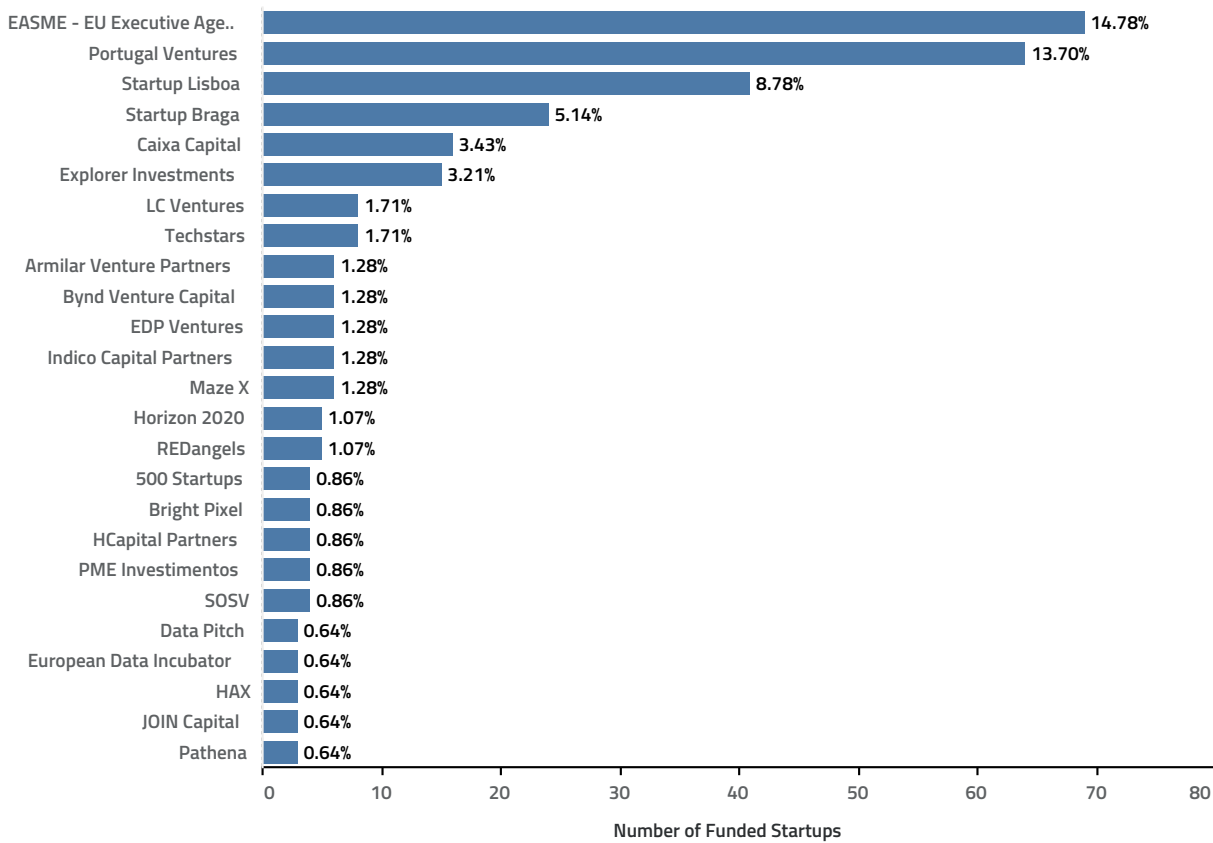
One of the major challenges of the Portuguese startup ecosystem is that it has insufficient limited partners to support venture capital funds, in order to support later-stage growth. This gap is highlighted by the minimal representation (0.20%) of Portuguese funds among funds investors (fig 16). Another criticism is the insufficient collaboration between corporates and startups, with a few exceptions such as Vodafone, KPMG, and Everis to mention a few. This criticism is highlighted by the minimal representation of Portuguese corporate venture funds (0.41%) between 2015 and 2020 (fig 16).

Fig 17: Lead Investors Distribution by Value of Investment



If we look into the top 25 lead investors according to the size of their investment, we observe minimal representation of Portuguese investors (i.e. 3 Investors) (fig 17), which are Portugal Ventures, Caixa Capital and Indico Capital partners.

Fig 18: Lead Investors Distribution by the Number of Funded Startups



However, having a detailed look into the top 25 lead investors based on the number (or frequency) of investments made, we observe a much larger representation of Portuguese investors (15 investors) (fig 18). This is because Portuguese investors invest smaller rounds in more startups, typically at the seed stage, while foreign investors invest larger rounds in less startups, usually at later stages. Portuguese investors are therefore critical for startups, when searching for their first funding rounds.

Investor Landscape Summary:

- ✓ The majority of investors that invested in startups originating from Portugal are foreign.
- ✓ There is a significant gap in the number of limited partners and corporate partnerships available to support both venture capital investors and startups in Portugal.
- ✓ Portuguese investors are more critical to Portuguese startups at the earlier stages of growth, while foreign investors are critical at the later stages.

Expert Commentary on the Investor Landscape

**Rafael A. Patiño**

Commercial Counselor



“Portugal is an excellent entry point to the broader European Union market and an attractive destination for American businesses.”

The United States is Portugal’s top non-European trading partner and source of foreign direct investment creating jobs and wealth in both countries. U.S. companies and investors all recognize the many opportunities Portugal offers from its entrepreneurial spirit, talented and qualified workforce, and a business environment that supports innovative and high-growth businesses; Portugal is an excellent entry point to the broader European Union market and an attractive destination for American businesses.

The United States continues to be the leading supporter and financier of the Portuguese startup ecosystem, fueling innovation and job creation. It is important to highlight that most U.S. companies have been operating in Portugal for more than ten years and much longer than that; making significant and long-lasting economic impacts. With shared values, the historical, cultural and economic ties make commercial cooperation between U.S. and Portuguese companies a natural fit.

Portuguese startups and tech companies can find the right location and connections to establish a successful presence in the United States. The blueprint for investment success lies in finding the right place to land, navigating local financial incentives, leveraging universities and labs, linking with incubator and accelerator programs, and much more. This helps young and pioneering Portuguese companies quickly become a part of the pro-growth business environment in the United States as well as position them to access venture capital and connect with business incubators and other partners that can help enable growth; the success has been phenomenal with a growing list of Portuguese-DNA ‘unicorn’ companies valued at \$1 billion plus and all include the United States central to their strategy.

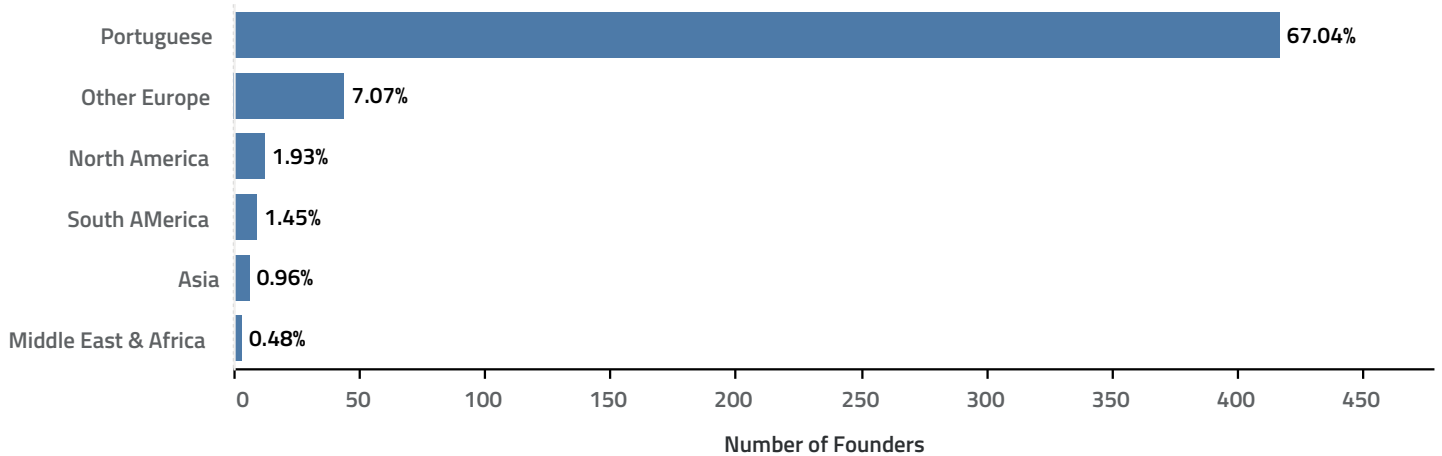
Portuguese start-ups and growing companies, many of them supported through the U.S. Embassy and by our SelectUSA foreign direct investment program, once ready to scale-up can find no better location than the United States for their first extra-European expansion. Ambitious companies decide to locate in the United States because the U.S. is the recognized leader in research and development (R&D), and registers more international patents than any other country. Today’s innovators are safeguarded by a robust intellectual property protection framework, while entrepreneurs of tomorrow are nurtured at leading universities and incubators across the nation. Companies of all sizes and from all over the world help make innovation in the United States a global enterprise, benefiting from – and contributing to – a flourishing ecosystem for invention and inspiration. These are few of the reasons why American firms are so invested in Portugal, and the U.S. continues to be the preferred international destination for Portuguese companies to develop and grow.



08.FOUNDERS LANDSCAPE

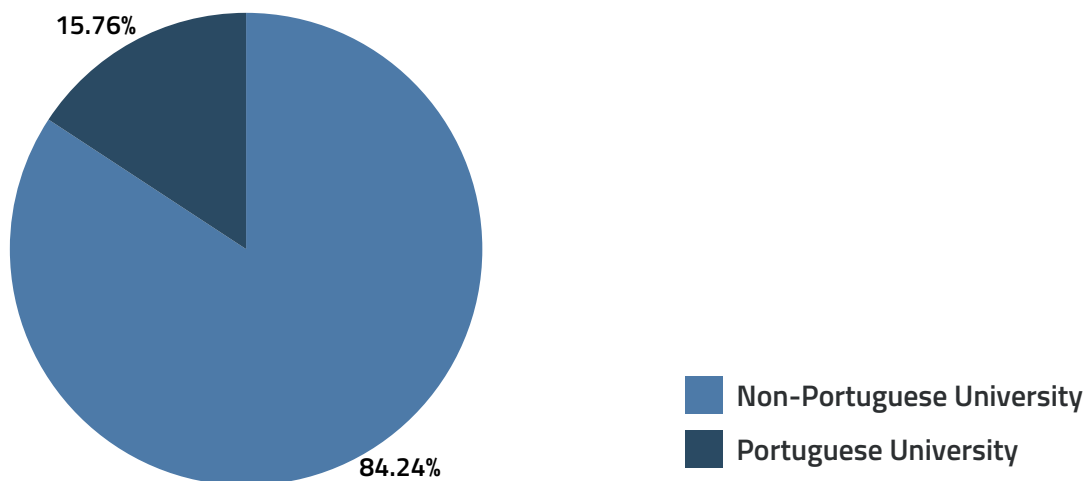
In this section we present an overview of Portuguese and Non-Portuguese founders that established tech-based and tech-enabled startups originating from Portugal (i.e. Startups headquartered in Portugal and those no longer headquartered in Portugal) between 2015 and 2020. We analysed a total of 622 founders.

Fig 19: Founder Distribution by Nationality



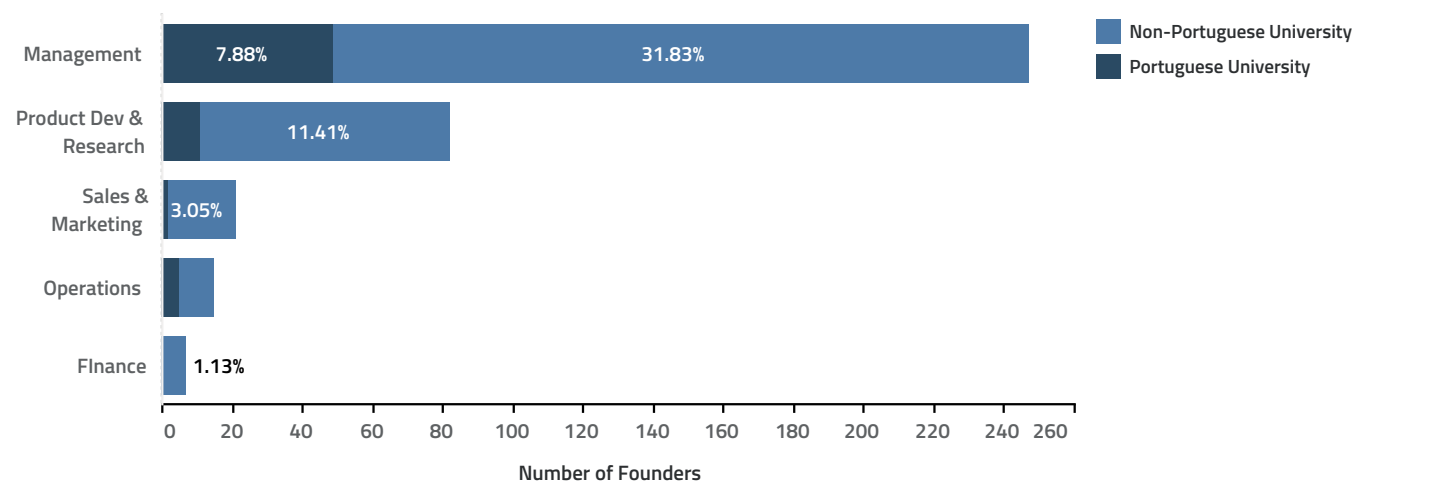
67.04% of founders that established startups originating from Portugal are of Portuguese nationality while 33.3% are Non-Portuguese (Fig 19). The proportion of non-Portuguese founders is significant, and is driven by the policies and programs set up by the administration to attract foreign talent. An example of such programs is the startup visa program, which allows foreign entrepreneurs to integrate their innovation to a Portuguese incubator, and benefit from other incentives provided by the government.

Fig 20: Founder Distribution by University Attended



All of the founders analysed had at least one degree or diploma from a higher institution. 84.24% of these founders had at least a degree from a non-Portuguese higher education institution, while 15.76% had their degrees only from Portuguese higher education institutions (fig 20).

Fig 21: Founder Distribution by Job Role & University Attended



39% of the founders work in management roles, while other founders operate in roles such as Product Development & Research (13.18%), Sales & Marketing (3.38%), Operations (2.41%) and Finance (1.13%) (fig 21). These observations indicate how well educated many founders operating in the Portuguese ecosystem are, however it also brings up questions regarding the education system for budding entrepreneurs. For instance, it raises the question of whether the Portuguese education system is enough to support tech entrepreneurs, as many seek additional learnings from abroad?

Fig 22: Founder Distribution by Gender

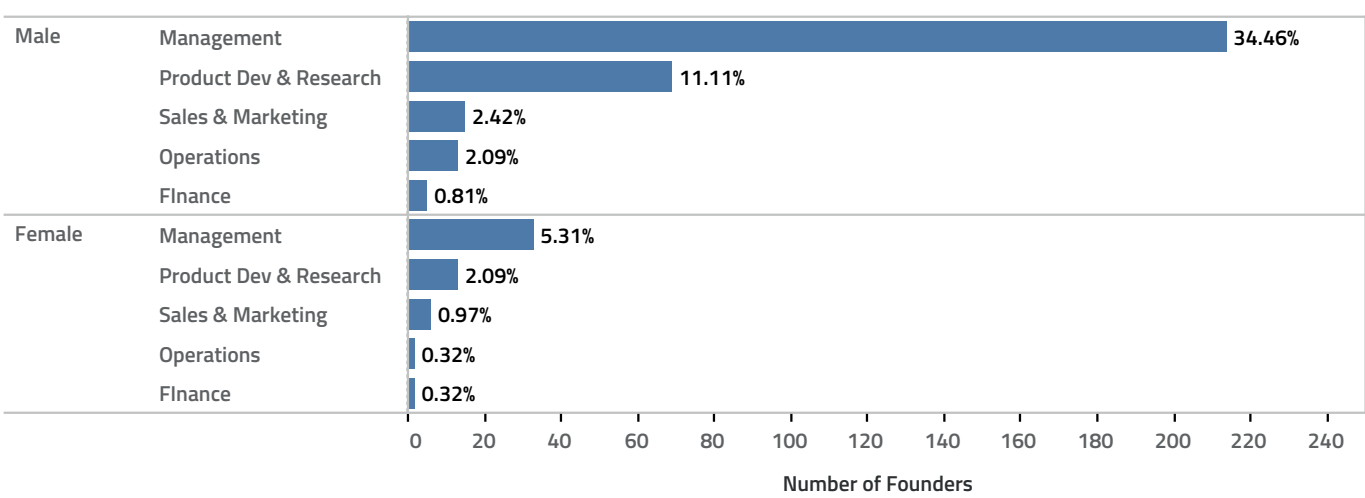
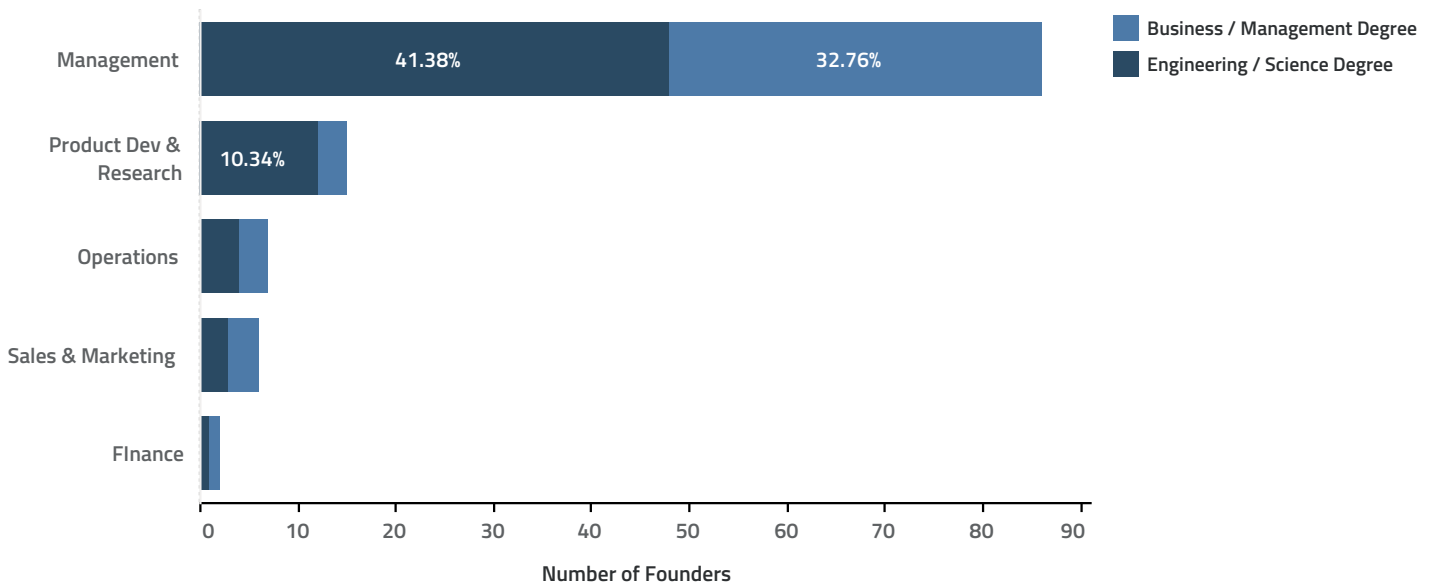


Figure 22 shows a significant gap in the number of male (537) and female (84) founders. This observation is no different from our observations in the previous year (i.e. 2019), however, we see a relatively larger representation of females (39%) operating in management roles (Fig 22). There is increasing awareness of how un-diverse the ecosystem is, and there are several initiatives by both public and private stakeholders to address these issues. Examples of such initiatives include, for example, Women in Tech by the Web summit, and Empowering Women in Agrifood by BGI, to mention a few.

Fig 23: Founder Distribution by Degree Type & Job Role



The type of degree held by founders was not critical to determining the type of roles founders performed, with the exception of technical roles. According to figure 23 founders with technicals degrees (41.38%) operated more in management roles than other roles, which can be explained by the fact that many founders had management degrees in addition to their technical degrees and thus feel more comfortable in managerial capacities.

Founder Landscape Summary:

- ✓ Non-Portuguese founders contribute significantly to the Portuguese startup ecosystem.
- ✓ Portuguese founders are well educated and trained, with most founders having at least one degree from a higher education institution.
- ✓ The Portuguese startup ecosystem is still very un-diverse as there is a significant gap in the number of male and female founders.
- ✓ Type of degree does not necessarily impact the type of roles founders perform in startups with the exception of technical roles.

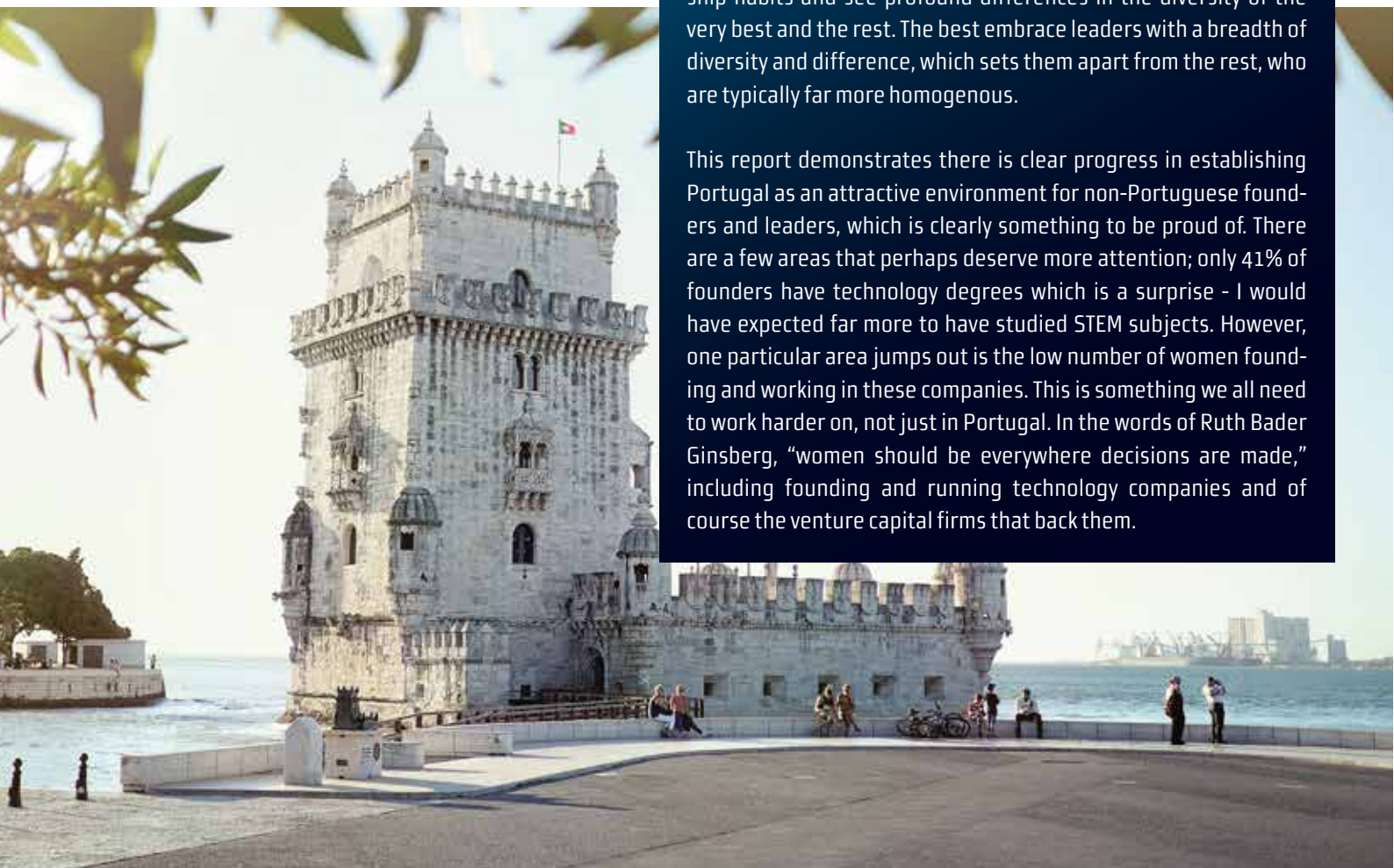
Expert Commentary on the Founder Landscape

**Stephen Millard**Operating Partner and
Chief Platform Officer**NOTION**

“companies in the top quartile for ethnic diversity are 33% more likely to have above-average profitability than companies in the bottom quartile

The importance of diversity in government, business, startups and indeed in all walks of life, in particular, is well understood. According to McKinsey's 2018 'Delivering through Diversity' report, companies in the top quartile for ethnic diversity are 33% more likely to have above-average profitability than companies in the bottom quartile. It's a similar picture for gender diversity, with companies in the top quartile for gender diversity being 21% more likely to have above-average profitability than companies in the bottom quartile. At Notion Capital, we have undertaken extensive research on the top-performing tech companies and their leadership habits and see profound differences in the diversity of the very best and the rest. The best embrace leaders with a breadth of diversity and difference, which sets them apart from the rest, who are typically far more homogenous.

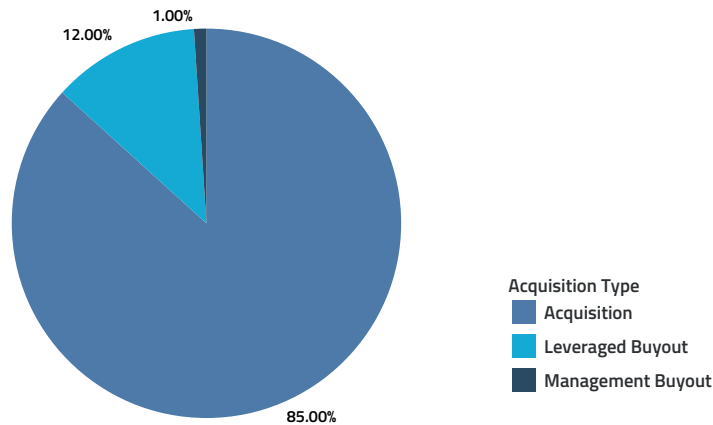
This report demonstrates there is clear progress in establishing Portugal as an attractive environment for non-Portuguese founders and leaders, which is clearly something to be proud of. There are a few areas that perhaps deserve more attention; only 41% of founders have technology degrees which is a surprise - I would have expected far more to have studied STEM subjects. However, one particular area jumps out is the low number of women founding and working in these companies. This is something we all need to work harder on, not just in Portugal. In the words of Ruth Bader Ginsberg, "women should be everywhere decisions are made," including founding and running technology companies and of course the venture capital firms that back them.



09.MARKET LANDSCAPE

In this section we present an overview of market transactions, acquisitions, and exits of tech-based and tech-enabled startups originating from Portugal (i.e. Startups headquartered in Portugal and those no longer headquartered in Portugal) between 2015 and 2020. We capture 2,677 transactions.

Fig 24: Startup Distribution by Exit Type



There were 100 exits recorded between 2015 and 2020, with an estimated value of over \$5 Billion. Of these exits, 85% were general acquisitions, while 12% were leveraged buyouts and 1% were management buyouts (Fig 24).

Fig 25: Startup Exits Distributed by Industry

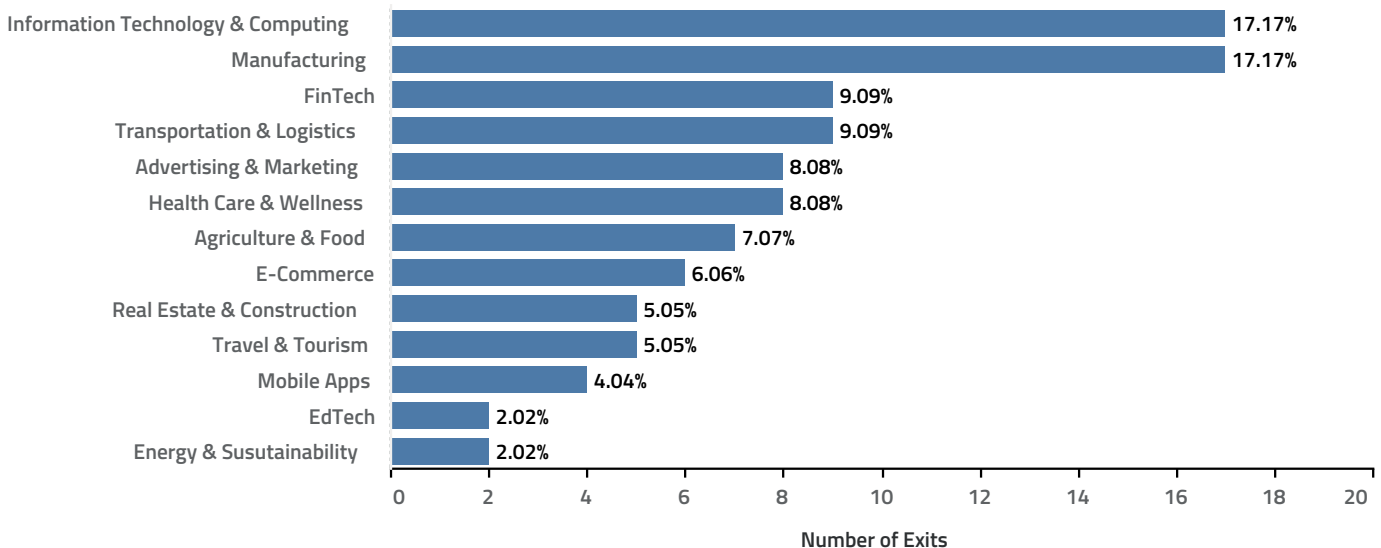
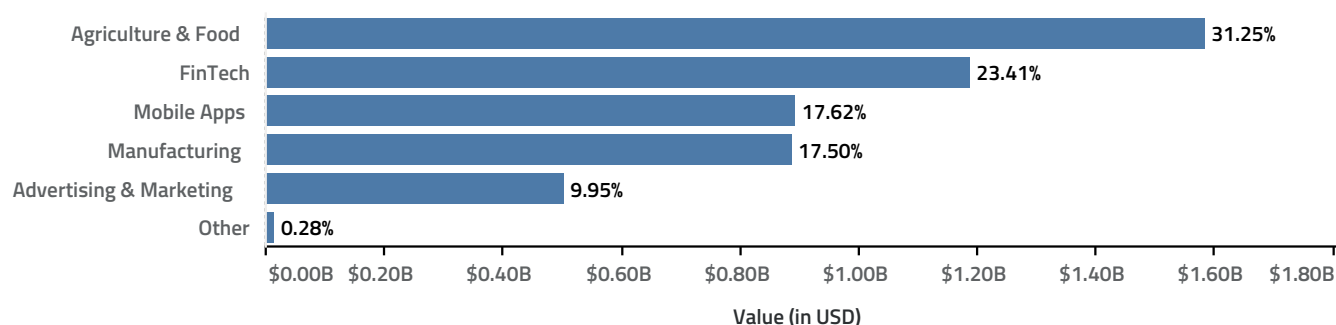
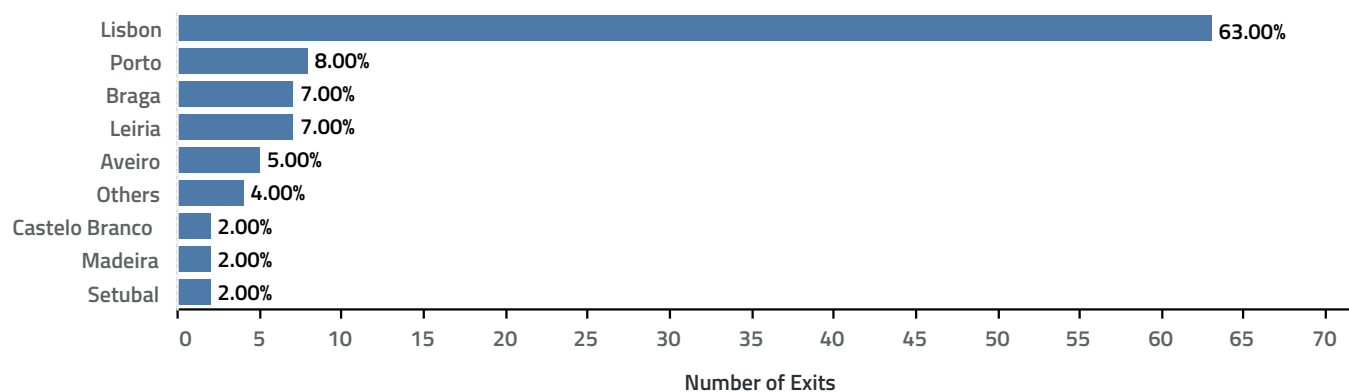
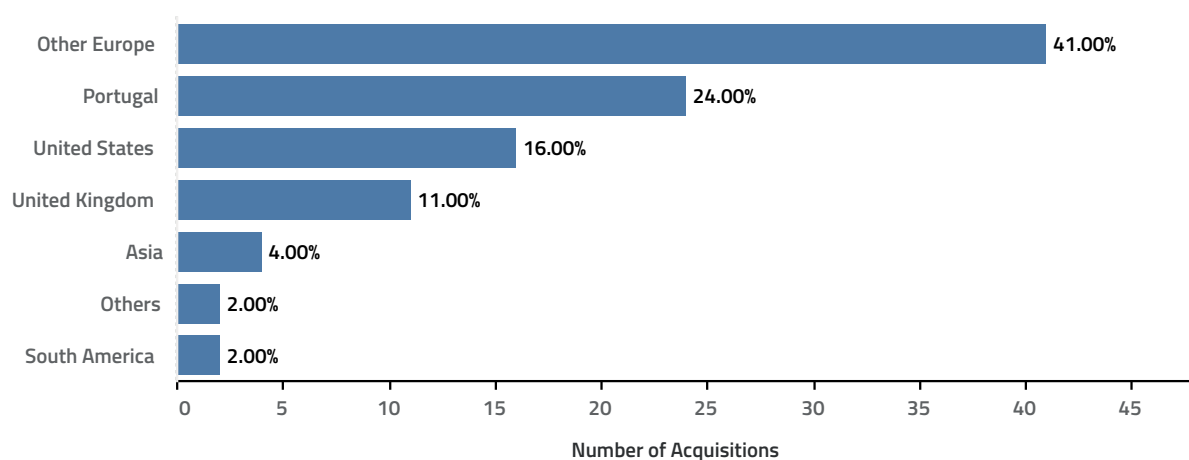


Fig 26: Exit Value Distributed by Industry

From figure 25, the Information Technology (17%) and Manufacturing (17%) industry had the most exits, followed by the FinTech (9%) and Transportation (9%) industry. However, when we look at the value of the exit by industry we see that Agriculture & Food (31%) and FinTech (23%) were the leading industries (Fig 26).

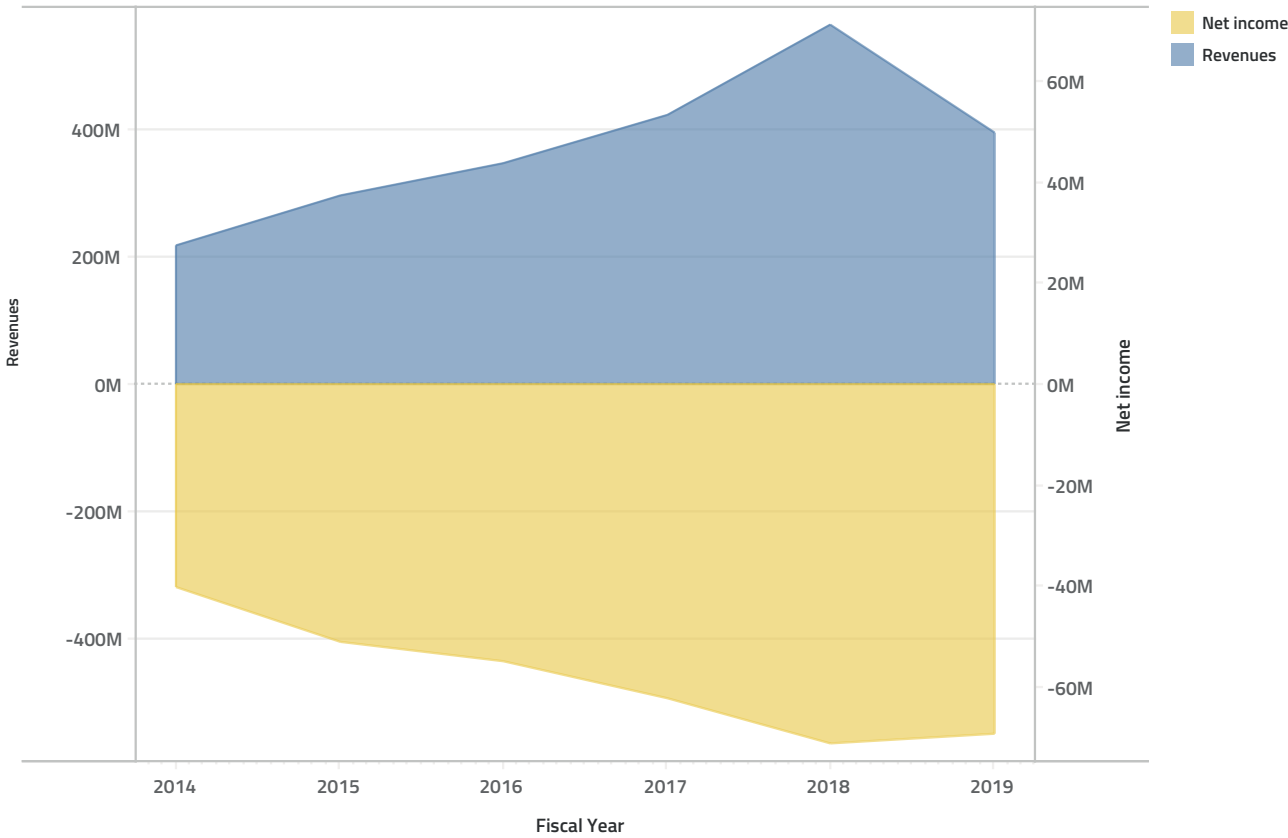
Fig 27: Startup Exits by City & Industry

Lisbon (63) has the most number of startup exits followed by Porto (8), and Braga (7). This aligns with our observations in regard to the number of startups created and amount of funding available in Lisbon, and Porto (Fig 4 & 10). As explained earlier these cities are positioned to have greater results, because of the amount of resources that have been made available to support entrepreneurship.

Fig 28: Acquirers Distribution by Region/Country

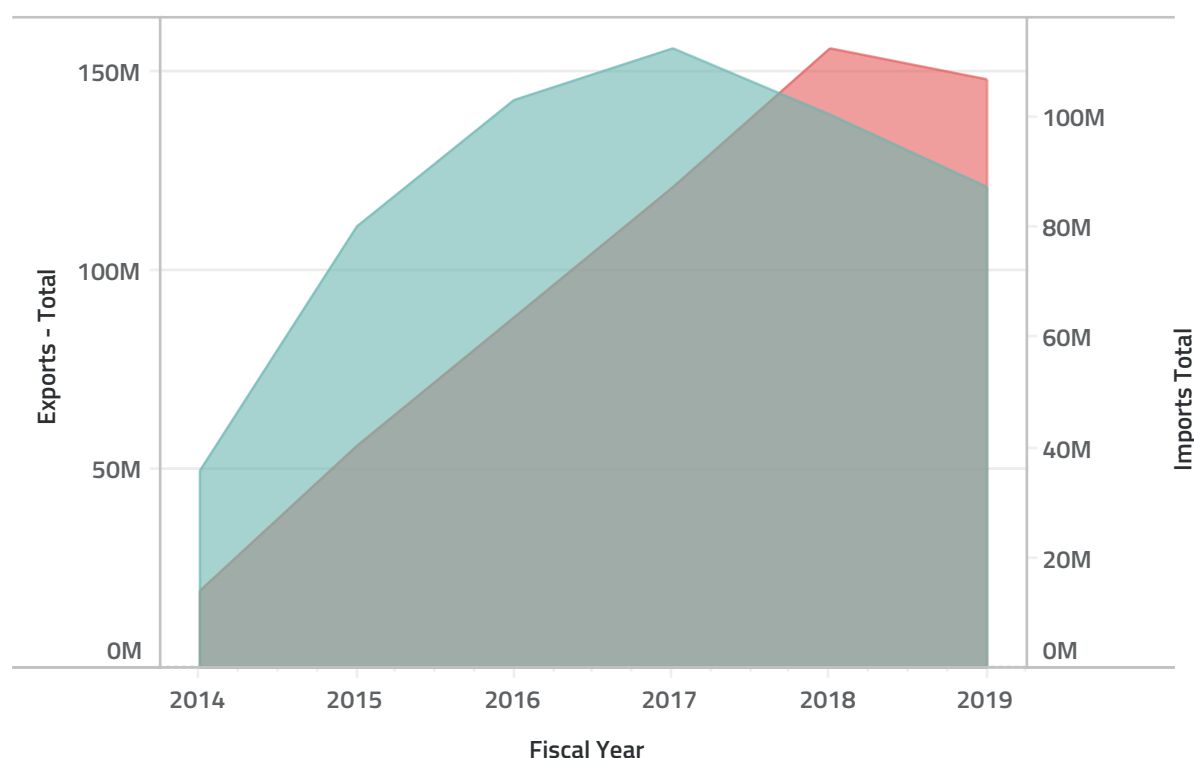
A further look into who is acquiring these Portuguese companies, shows that the majority of acquirers (41%) are from the rest of Europe, followed by Portugal (24%) and the United States (16%) (Fig 28).

Fig 29: Net Income & Revenues Received Yearly



The total value of sales and services between 2015 and 2020 was over \$2.2 Billion. Figure 29 shows a steady increase in annual revenue, which peaked in 2018, followed by a decline in 2019. Fig 29 also shows a steady decline in net income, with its lowest point in 2018. The decline in revenue from 2019 is partly attributed to the decline in the number of startups created from 2018 onwards (Fig 1). Given the nature of the venture capital industry, this trend of decreasing net incomes is not unusual, as startups and scaleups are expected to make losses, especially within the first 5 years of operations. It is also expected that these losses will be greater by the end of 2020 because of the Pandemic.

Fig 30: Exports vs Imports



From figure 30, we observe a balance of payment surplus between 2018 and 2019. This surplus is driven by the continuous increase in exports and the steady decline in imports after 2017. This observation is no surprise as Portuguese startups are built to service global markets due to a small size of the domestic market.

Market Landscape Summary:

- ✓ There were 100 exits recorded between 2015 and 2020.
- ✓ Information technology (17%) and Manufacturing (17%) industry had the most exits.
- ✓ Lisbon has the most number of startup exits followed by Porto and Braga.
- ✓ The majority of acquirers are from Europe, followed by Portugal and the United States.
- ✓ Portuguese startups will have to look to external markets to scale because of how small the Portuguese market is.

Expert Commentary on the Market Landscape



Claudia Carocha

Food & Sustainability
Manager



“*Our collective dependence on a functioning global food chain has catapulted agri-food tech startups to 'essential' status*

If anything is made clear by the global pandemic, it's that the world can change at any minute. Technology has proven crucial in enabling people and systems to change with it. We do everything online, work from home, order our food and transportation from an app. Our collective dependence on a functioning global food chain has catapulted agri-food tech startups to "essential" status. In the last 5 years, innovation in the world of agriculture has increased tremendously, as a result of technology startups. These startups have given rise to new economic models and less intensive or optimized modes of cultivation, and have become critical pillars in our society. From figure 5 it's easy to see the significant representation of the Food & Agriculture industry due to the number of startups created.

Agricultural lands play an important role in land use patterns in Portugal (as well as in Europe), as the forest and agricultural area represented 65% of all Continental Portugal in 2018. Over the last three years, investment activity has increased while many resources to support food and agri-food startups have been developed, including accelerators, incubators, government programmes and corporate initiatives. This increase in investment has also come as a response to the new European Green Deal, to meet the European climate neutrality goals in 2050. It is therefore no coincidence that we observe that the Food & Agriculture industry leads in exit valuations.

Weather sensors, predictive software, drones, etc, it is clear that agri-food tech startups can transform the future of food production, making it healthier and more sustainable. With a growing population expected to reach 9 billion people by 2050, we will most likely see a sharp increase in food demand, and technologies used to meet these demands. As a result, we expect that the Food & Agriculture industry will continue to remain one of the leading industries of the future.



10. FINAL CONCLUSIONS

Comparing our report in 2019 to the current edition, there are certain trends that are persistent and not likely to change in the long run. For example, foreign funding will always be critical to supporting later-stage startups in Portugal, while domestic funding will remain essential in supporting early-stage founders. The United States in particular is a significant development partner for the Portuguese startup ecosystem and it is imperative to create stronger ties via several initiatives with U.S. partners.

Furthermore, Portuguese founders will always be incentivized to switch headquarters to regions where they have access to more finance and large market opportunities. Even though it is impossible to match the funding contributions of the U.S. to the Portuguese Ecosystem, several initiatives should be set to improve the investment culture. For Portuguese startups to thrive in the next decade several initiatives need to be created in order to incentivize corporates to work with startups, and limited partners to invest in more venture funds. Taking this approach sets a great foundation for Portuguese startups and improves the competitive landscape for Venture Capital investors thinking of investing in Portugal. Even though there is significant funding for Portuguese startups at the early stage, especially from domestic investors, there is a significant gap in pre-seed financing, which is crucial for increasing the number of startups created. The EIT Digital Venture Program is a good example of initiatives designed to fill this gap. Accelerators and incubators, have also a great potential in helping early-stage startups grow and thus should be given greater support. For example, special funds should be provided to accelerators and incubators, which can be used to invest and de-risk startups.

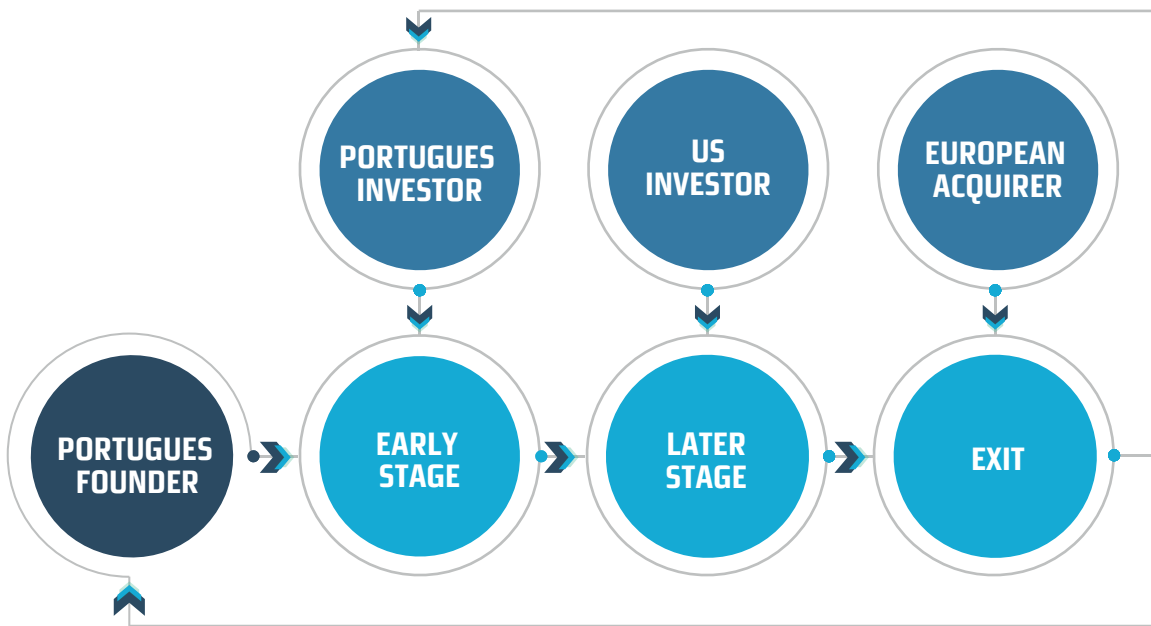
The information technology industry will always be a leading industry in the Portuguese startup ecosystem, because of the success stories, abundance of funding and affordability of entrepreneurial talent. We are beginning to see the first generation of successful founders giving back to the ecosystem by setting up their own funds, and providing mentorship to budding entrepreneurs.

What changed in 2020? 2020 has been a very peculiar year, with the occurrence of the COVID-19 pandemic, and the Portuguese startup ecosystem has been impacted significantly. The effects of the pandemic are expected to be long-lasting for the ecosystem. In spite of these negative impacts, some industries such as Enterprise Software and Advertising & Marketing industries came out as winners. It is very likely that current tech trends will see a significant shift, post-pandemic. Technologies that support remote working and virtual mode operations will receive greater support in terms of funding and entrepreneurial talent. Health-related startups are also expected to experience an increase in support.

In this 2020 edition, we also observe the contributions of non-Portuguese founders to the Portuguese entrepreneurial ecosystem. We expect to see the contribution of these founders to increase due to the programs the current administration has set up to attract entrepreneurial talent. Moreover, there have been greater calls for diversity in the Portuguese startup ecosystem, especially in 2020. As the population demographics continue to be more diverse it will be imperative for startups to actively embrace diversity or else they will not have a competitive advantage in the future. Moreover, we observe that more partnerships or programs linking Portuguese startups to key European stakeholders need to be created in order to have more exits, as those players are currently the major acquirers.

Following our observations, we summarise the pathway of the Portuguese founder in Figure 31. It can be seen that Portuguese founders need Portuguese investors for their first round of funding, after which they will need larger investment rounds typically from US investors. Later on, Portuguese startups get acquired by larger European companies. After an exit Portuguese founders can either set up another venture or become investors.

Fig 31: Illustration of a pathway to a Portuguese exit

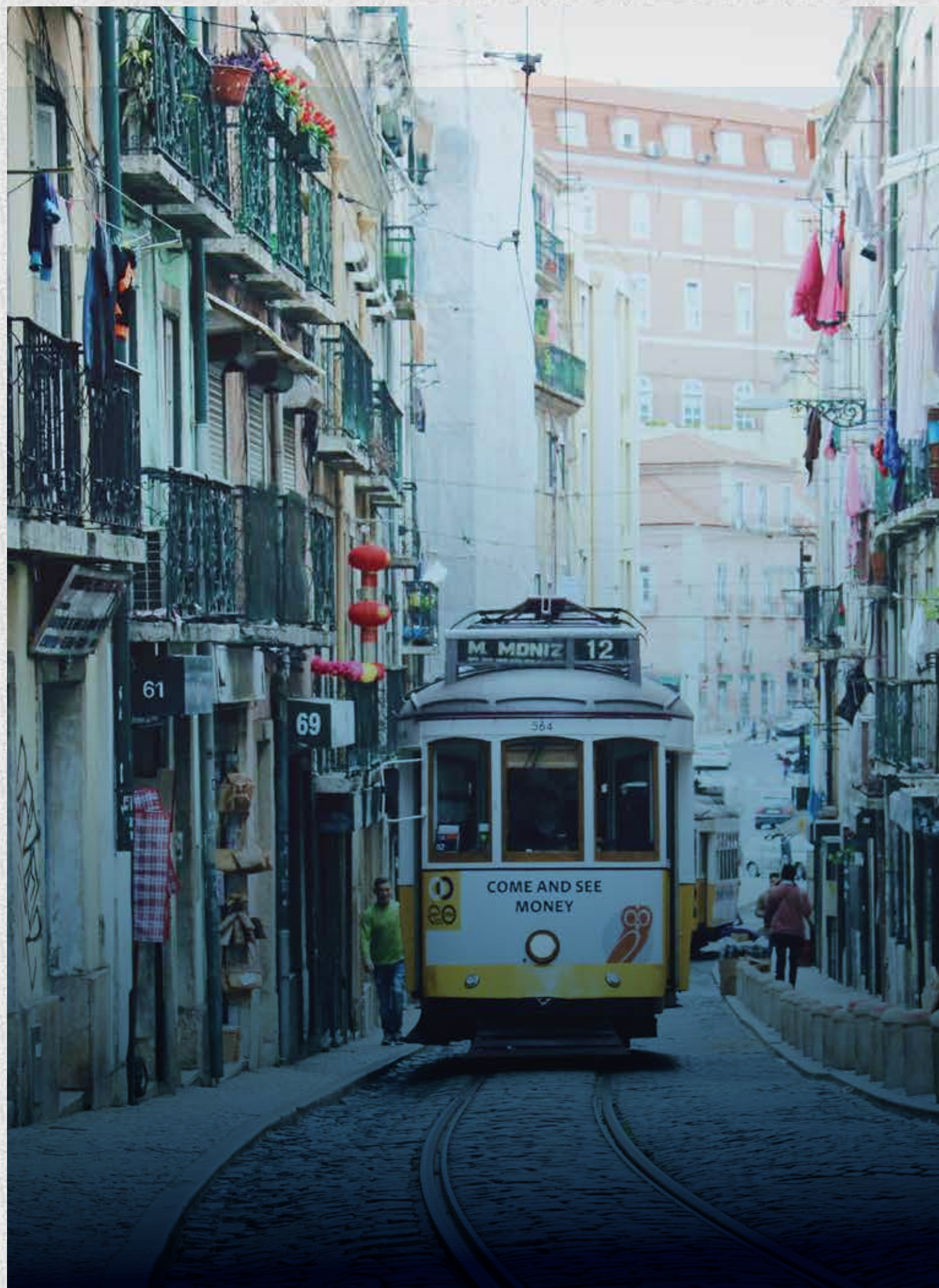


11. ACKNOWLEDGEMENTS

We would like to thank the individuals and organizations who made it possible to complete this report. Firstly, we would like to thank EIT Digital as a whole; EIT Digital as the leading European digital innovation and entrepreneurial education organization driving Europe's digital transformation was extremely supportive of the data collection and writing of this report. Through the ARISE outreach programme and intensified activities in Portugal, mainly their partnership with BGI, EIT Digital has put Portugal's scaleups in the focus of their attention. More specifically, we would like to thank Fabio Pianesi and Thomas Kusters for their invaluable support.

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Finally, we acknowledge the contribution of the BGI team for their tireless effort in the preparation of this report. Each person's role has been instrumental to the success of the report. Gonçalo Amorim (CEO; Editor-in-Chief), Pritesh Dineschandra (CMO; Quality Assurance), Sofia Fernandes (Head of Business Development; Editor), Nuno Serra (Head of Operations; Editor), Tomé Canas (Head of Open Innovation; Editor), Otitooluwa Dosumu (Digital & DeepTech Manager; Data Analysis & Report writing), Cláudia Carocha (Food & Sustainability Manager; Data Validation), Beatriz Riscado (Community Manager; Event Planning), Sami Haraketi (Content & Design Manager; Graphic Design & Website), Eduarda Monteiro (Communication Manager; Communication plan and Event Manager), Reihaneh Hajishirzi (Data Analyst Intern; Dashboards & Quality Assurance), and Galina Vysotskaya (Business Development Intern; Quality assurance).



A vintage tram, number 545, is the central focus of the image. It is white with a blue lower section and features the 'Mercure HOTELS' logo and 'ACCORHOTELS' branding. The tram is moving along a street in Lisbon, with historic buildings and tram infrastructure visible in the background. The image has a warm, slightly faded aesthetic.

PORTUGAL STARTUP OUTLOOK

2020

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