

Research Article

How Start-up Ecosystem in Greece is Recovering from the Effects of the COVID-19 Pandemic

Athanasios Vasilopoulos^{1*}, and Christos Tsitsakis²¹Independent researcher²National & Kapodistrian University of Athens**ORCID**Athanasios Vasilopoulos: <https://orcid.org/0000-0002-5859-1232>**Abstract.**

It is well known that the recent global pandemic crisis of 2020, despite the health-related problems that it caused, also unstabilized the economies around the globe. That situation led to many business closures, unemployment, extra government funding support for businesses, and many other protective reforms that were necessary in order to restart the economy. However, in Greece, even though this health crisis was rapidly affecting the economy and businesses, reports showed that during the pandemic, start-up businesses seemed to be adapting and handling the new situation quite well. Reports, also indicated, that the quick recovery from the start-up ecosystem, was mainly because there were good opportunities for the most innovative start-ups to further expand their operations and bring innovative solutions to handling the pandemic situation. Furthermore, the government, the universities, and some organizations helped the start-ups to further expand through special health and digital hackathons, dedicated seminars, business accelerators, devoted online support platforms for start-ups, and many more. Therefore, the objective of this short paper is to examine, through the latest literature, studies, and reports, how the Greek start-up ecosystem is recovering and expanding, what were the difficulties of start-up founders, and to find other interesting facts about the start-up ecosystem in Greece, during the first two years of the pandemic. Additionally, we will also try to answer questions that will help us in understanding the current situation. Some of these questions include the difficulties that entrepreneurs had in that period and lastly, if the Greek Government was able to help, through various initiatives, the start-up ecosystem during Covid-19.

Keywords: start-ups, Covid-19, Greece

1. INTRODUCTION

It is well known that the Greek economy had suffered a lot in recent years. One major problem was the devastating European economic crisis that lasted 10 years and caused a lot of difficulties in society, businesses, and more. [1,2]

To be more specific, businesses, despite the problems that occurred from the economic crisis, had also limited access to the right and properly skilled employees. One

Corresponding Author:

Athanasios Vasilopoulos; email:
vasilopoulosthanos@gmail.com**Published:** 1 February 2023Publishing services provided by
Knowledge E

© Vasilopoulos and Tsitsakis. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the EBEEC Conference Committee.

OPEN ACCESS

reason for this problem was the brain drain in Greece since a lot of young people chose to move out and pursue their dreams in other countries that had better living and working conditions. Lastly, the unfriendly business environment in Greece at the time also played an important role since the high taxation in combination with huge bureaucratic processes did not help the Greek business environment to expand and regrowth. [3]

After the economic crisis and the effects that had on the Start-up ecosystem, the COVID-19 pandemic started. In general, according to reports, even though the severity of the pandemic had major problems for the traditional businesses in Greece, the Start-ups seemed to tackle and adapt fast to the effects of the pandemic. One main reason for this outcome, was the innovative ideas that many Start-up founders had, on how to help with the Covid situation and also the production of services and products that helped other companies, to be sustainable and continue to operate in this difficult period.

At the moment, there are two main reports available from EIT Digital Startups in Greece 2020-2021 & 2021-2022 that we will discuss in the following chapters and they will help us to understand the situation. Furthermore, we will also discuss the governmental measures and actions, that are currently helping the Greek Start-up ecosystem during the Covid-19 crisis.

Our main goal with this short paper is to examine, through the latest literature, studies, and reports, how the Greek Start-up ecosystem is recovering and expanding, what were the difficulties of Start-up founders during the last two years of the Covid-19 health crisis, and lastly to find other interesting facts about the expansion of Start-up ecosystem in Greece, during this period of time. Additionally, through our paper, we will try and answer some questions, that will help us to understand the current situation with the Greek Start-up ecosystem. The first question is about the difficulties of Start-up entrepreneurship in Greece during Covid-19. The second one is, how the Greek Start-ups grow during the first two years of covid. Lastly, the final question is about the Greek Government and if were able to help the Start-up Ecosystem and how that was achieved through that time.

In conclusion, it is important to mention the structure of our paper. This is vital because it will help any reader to understand the timeline of the events that occurred in the Start-up scene during the two years of the pandemic. To begin with, in the first chapter, we will provide a brief literature review of the Start-up ecosystem in Greece in order to understand how the situation was in the previous years and what happened during the pandemic. Furthermore, in the second chapter, we will discuss the two reports about Start-ups in Greece, featured in the EIT reports. This will help to understand the current situation in Greece and also to find the key elements of how Start-ups adapted to this

situation. Additionally, during the third chapter, we will talk about the measures that the Government took in order to help the Greek Start-up ecosystem during the covid crisis. Lastly, in the fourth and final chapter, we will conclude all of our major findings with some policy-making markings that we believe will benefit the Greek Start-up ecosystem in general.

2. Brief literature review about Start-up ecosystem in Greece

In the last 20 years, Start-ups in Greece were not much active. Even though the relevant bibliography on Greek Start-up is limited [4] It was only after the economic crisis back in 2009, that due to unemployment and other factors, people turned in favor of making innovative business ideas in order to tackle the difficult economic situation in Greece.

In the period between 2009 - 2018, the Start-up ecosystem blossomed. The Government, the Universities, and also many private organizations, helped a lot the people which had innovative business ideas. The help that they provided, was through the business model. If the proposed idea had a great economy and innovation value, they supported it and tried to connect the founders, with investors in order to build a sustainable business.

To take into perspective the increased value of the quality of business ideas that come from the Greek Start-up ecosystem, along with the research conducted by Marathon VC, data shows that in the period 2010 – 2020, 608 Greek Start-ups managed to raise 6 billion dollars from 790 investors and it has also made a total of 84 acquisitions from other companies. [6, 7]

Additionally, according to the data from Elevate Greece report in 2019, even though it was not easy to count and list the Start-up companies in Greece, there were around 2.000 Start-ups at that time. The report also mentions that a really important role in the continuation of the good results in the Start-up ecosystem was the creation of co-working spaces. The co-working spaces gave the opportunity to many people with innovative ideas, to have reliable, and cheap alternatives, grow their businesses, and benefit from extra services such as networking, mentoring funding opportunities, and more. [5]

Another important aspect of the sustainability of the Greek Start-up ecosystem during the previous years was the role of the Greek Universities. Throughout the years, Universities, have managed to introduce their own incubators and support mechanisms, in order to help their students, build their ideas into Start-up companies. That was a critical

moment because it sparked the idea of building innovative and sustainable business ideas and making them part of the ecosystem.

Similarly, the Government with the support of other international and local organizations, launched a lot of different Start-up hackathons, events, and competitions in order to boost the Start-up ecosystem in Greece. At the moment, there is also a dedicated platform that supports the ecosystem with available new tools. Also, Elevate Greece, the official registry platform for Start-ups, which we will discuss later on, is helping tremendously the Greek Start-up ecosystem. [5]

Therefore, after the end of the economic crisis and the start of the global pandemic, and the shockwave to the market, Start-ups in Greece, found a way to recover from the first shock, and not only that, they did their best to help with this situation as well. From making applications that can control how many people are in a room to self-cleaning devices that can be used in hospitals in order to disinfect the rooms. To conclude, currently, according to www.startupblink.com, which is providing an overview of the Greek Start-up ecosystem, the regional ranking in Greece is 18th in Eastern Europe, and the global ranking is 48th in the world. [8] In the following chapters, we will discuss how the Start-up ecosystem in Greece is recovering from the effects of the Covid-19 pandemic through some reports and data.

3. Start-up Ecosystem in Greece During the Pandemic

In this chapter, we will discuss the results of the two reports about Start-ups in Greece featured in the EIT reports. According to their site (<https://www.eitdigital.eu>), EIT Digital, is a European digital innovation and entrepreneurial education organization.

3.1. The EIT digital Start-ups in Greece 2020 -- 2021 report

According to **EIT Digital Start-ups in Greece | 2020-2021 report** [9] in the first year of the pandemic, some major investments exceeded the numbers of 150 million euros in total for the Start-up ecosystem in Greece. Similarly, it is important to mention that the EquiFund program (<https://equifund.gr>) invested approximately 250 million Euros in 106 Start-up companies too.

On the other side, the report recognizes the importance of the new legislation which was also an important step that helped the Start-up ecosystem even more. That is because, according to the new law, it will provide a huge tax incentive for the angel

investors that will invest in the ecosystem. Now they will be able to claim up to 50% of their invested money as income-tax deductible. [9]

The report also speaks about one more important factor in the sustainability of the Start-up ecosystem. This factor was the Hackathons and other volunteering acts, that played a crucial role in the ecosystem. [9] Lastly, below we will discuss the survey results that the team of Found.ation asked its Start-up founders' community. Some useful statistics are: [9]

Firstly, 40% of Start-ups, hired people during that year. Another useful statistic is that 34.4% of the respondents want to get involved in some kind of initiative combating COVID -19 (e.g., hackathons). Furthermore, 11% of the Start-ups did not switch to remote working. Lastly, 26% of startups have proceeded to lay-offs and most of the Start-up founders cut down their business expenses and apply for Government support mechanisms. To conclude, the data above shows, how well the ecosystem managed the pandemic during the first year.

3.2. The EIT digital start-ups in Greece 2021 -- 2022 report

In relative data from **EIT Digital Startups in Greece | 2021-2022** report [10] in the second year of the Covid pandemic, the situation in the Greek Start-up scenery was also quite good. Firstly, there were again a lot of funding opportunities for Start-ups. The report indicates that 70 Start-up companies received funding that exceeded 500 million euros. As we can understand, this is a great amount for that short time. [10] Furthermore, life sciences, agricultural technologies, and retail Start-ups were the most active in 2021. We believe that huge activity was due to the fact that we the current situation with Covid there was a huge spike in online shopping and e-commerce in general. [10]

To continue, the report also indicates that more and more Start-up companies requested to be funded during that year. This is also a good indicator that in 2022 we will see more Start-ups grow especially in the B2B sector where approximately 70% of these Start-ups focus on. [10] It is really important to mention that some digital innovation hubs are helping the ecosystem more and more. Some examples are the Digital Innovation Hub of Pfizer in Thessaloniki, and the Athena Research Center which is another digital innovation hub whose purpose is to help and support Start-ups and spin-offs in the areas of Computational Sciences, Informatics, and more. [10]

To conclude, the report indicates that 2021 was a record year for the Greek startup ecosystem. The growth in funding opportunities was many. A lot of new investments went through the EquiFund mechanism and there was also a lot of Start-up that were not

backed by Venture Capital money. That is very positive because it will help to expand the Greek ecosystem, even more, than in previous years. [10]

4. How the Government is Helping the Greek Start-up Ecosystem During the COVID-19 Crisis

In this chapter, we will discuss how the Greek government tried to help the Greek startup ecosystem through some initiatives during the pandemic. In general, it is really important for any Government to act as quickly as possible and take measures in situations like this. Below we gathered some important actions that the Greek Government took in order to help the Start-up ecosystem.

Firstly, the Greek Government passed a law in order to increase the deduction tax rate (from 130% to 200%) with the aim to make Greece a hub for many Research and Development investments that will help the Greek Startup ecosystem as well.

Similarly, one more important aspect is the creation of Thess-INTECH. Thess-INTECH is the 4th generation technological park placed in Thessaloniki. The aim of this project is to attract Research and Development investments and to build an innovative ecosystem that will support also innovative business ideas and will help the Greek Start-up scenery.[11]

Furthermore, the funding help of 500 million euros, from the Hellenic Development Bank (HDB), will further help the investment opportunities in the Greek startup ecosystem. In general, the Hellenic Development Bank (HDB - <https://hdb.gr>) is a very valuable asset in the business ecosystem because through its investments, it is trying to finance and invest in SMEs with more tolerance to the business risk that can be included in the business models of the innovative companies. [12]

Additionally, the “Politeia” Innovation Center, is a construction project powered by the Ministry of Development and Investment. The use of this “innovation hub” is to provide the chance for more cooperation and joint synergies between research and innovation institutions and organizations, universities, and companies. [13,14]

Moreover, one more goal of this project is to expand Greek economic competitiveness and make innovative products through research. It is important to mention that according to the European Innovation Scoreboard, Greece has made important growth in the last 4 years in the Summary Innovation Index (SII). [15]

Likewise, the operation of the innovation hub will create conditions for the production of commercially viable innovative products and services. Lastly, it will allow be a point of reference, corresponding to innovation centers in other countries. [16]

Finally, one more thing that we need to mention, is a new initiative, the National Startup Registry which provides many benefits to the national Greek startup ecosystem. The Registry also focuses on monitoring startup entrepreneurship progress and supporting them with benefits and incentives.

Lastly, the registry helps the ecosystem by giving networking opportunities to many young people that want to build a business helping them also by having job openings and employment vacancies, and lastly, by providing funding opportunities through Venture Capital, Angel Investors, and more. [5]

5. Discussion on key findings

According to the two report studies, we can understand that Start-ups in Greece had succeeded in the first two years of the pandemic situation in Greece. A positive outcome is that a lot of Start-up companies managed to increase their personnel, and make new products. This indicates that not only they managed to sustain their business operation in a very fragile time, but also that they managed to expand their business operations. Similarly, if we consider that 70 Start-up companies received funding that exceeded 500 million euros, we can recognize that the level of innovation and problem-solving solutions of the Star-up ecosystem in Greece is pretty powerful. Finally, we must not forget to mention the very concrete role, that the Greek Government had in the success of the Greek Start-up ecosystem.

Firstly, the funding help of 500 million euros, from the Hellenic Development Bank (HDB), gave a very clear message that the Greek Start-up ecosystem is actually capable of doing some great things. Likewise, the construction of the “Politeia” research center indicates that the Greek government wants, by investing a lot of money, to turn Greece into a global innovation and research hub. Lastly, the elevate Greece platform also indicates that the Greek government wants to certainly support many innovative ideas that can change the way we work, communicate and collaborate. So, in conclusion, all of those actions and the ingenuity of the Greek Star-up companies, in accordance with the masseurs that the Greek Government took in order to help in the rapidly changing situation, managed to sustain a very positive outcome for the ecosystem.

6. Conclusion

In conclusion, through this paper, our main goal was to briefly present the Start-up ecosystem in Greece throughout the last two years of the COVID-19 pandemic. The

difficulties that Start-up entrepreneurs in Greece had during that period, even though it brought many challenges to the general economy and business section in Greece, also made it possible to set the ground for pioneering and revolutionary innovations that the Start-up ecosystem implemented.

Furthermore, Start-ups were able to grow and expand as well. That is because they manage to stay agile, focused and work more efficiently. The two reports are also indicating that Start-ups amid the covid crisis appear to do better than what was expected. As the data showed, they received a lot of funding to further expand their operation and grow. Lastly, the Start-ups in Greece, are now much more active. As we mentioned, there are a lot of initiatives that helped and supported the founders in order to build, collaborate and disseminate the results of their work.

Moreover, the Greek Government was indeed able to help the Start-up Ecosystem during the first two years of the pandemic too. As we stated in the previous chapter, the Greek Government was able to make initiatives like the Elevate Greece platform and tax reductions for Angel investors. These proactive reforms are providing the necessary help for Greek Start-ups to connect and get financial funding. In addition, some more Governmental initiatives like the “Politeia” Innovation Center, can give the opportunity to many new enterprises to get access to research and development methodologies and help them thrive. Lastly, the funding of 500 million euros, from the Hellenic Development Bank and the 4th generation technological park of Thessaloniki, will further attract Research and Development investments and therefore it will give the chance to build an innovative ecosystem that will be used by the Start-ups.

To conclude, some final key elements from our paper, are that in the last years, the Start-up ecosystem tried to sustain its powers and focused more on the community to create solutions that will help not only to tackle the covid-19 crisis but also to further help the ecosystem to grow more than before. We also believe that in the next years no matter how the situation of the covid crisis will be, the Greek Start-up ecosystem will continue to be more and more resilient and thrive with the help also from the Government, the Universities, and the organizations that will support even more the ecosystem.

6.1. Limits of the research

It is really important, to mention also the limitations of our research. Firstly, the pandemic is still in progress and many things are rapidly changing day to day. So, we cannot know for sure if the situation in the Greek Start-up ecosystem will going to be the same as

it was in the period between 2020 - 2022. Also, our study was limited to only two major studies that were conducted by the same organization, and there may be more statistical or other analyses that we may have missed. To conclude, we believe that there is a need for further research on how the Start-up ecosystem managed to stay alive and be sustainable during a very harsh moment like the Covid pandemic.

6.2. Policy recommendations

As we were previously discussing the help from the Greek Government to the Start-up ecosystem during the pandemic, is also important for the Government to be able to help more in this situation. Consequently, our policy recommendations in order for the Start-up ecosystem in Greece to be able to continue the great work are: Firstly, the Government has to further promote collaborations and share-knowledge actions between Universities and Start-ups. Furthermore, the Government must also build a finance program that will allow Start-ups to further expand their services and their products to other regions or countries. Moreover, the Government covers some research expenses such as patents or other intellectual outputs in order to help the Greek Start-ups to further expand and maintain their technological breakthroughs. Additionally, there is a need to build tools and programs specific to Start-ups, that will help them to adopt open innovation practices and to network more with same-minded companies. Lastly, there is a need to adopt a better taxation system and regulation for Start-ups in order to make them more competitive.

References

- [1] Johnston M. Understanding the downfall of Greece's economy [Internet]. Investopedia. 2020 [cited 2022 Jan 15]. Available from: <https://www.investopedia.com/articles/investing/070115/understanding-downfall-greeces-economy.asp>
- [2] Vasilopoulos A, Tsitsakis C. Entrepreneurship in Greece. KnE Social Sciences [Internet]. 2020. Available from: <http://dx.doi.org/10.18502/kss.v4i1.5978>
- [3] Antoniadis V, Giakoumelos M, Petkakis T, Zacharia Z. Greece's startup ecosystem: A prime opportunity for economic growth [Internet]. The Boston Consulting Group. 2018 [cited 2022 Sep 8]. Available from: https://www.sev.org.gr/Uploads/Documents/50906/BCG_Greeces_Startup_Ecosystem_Apr_2018.pdf

- [4] Sidiropoulos Z. The development of start-up entrepreneurship in Greece supported by modern financing methods [Internet]. Asecu.gr. [cited 2022 Oct 19]. Available from: <http://www.asecu.gr/files/asecu-youth/7th-conf/379-sidiropoulos.pdf>
- [5] Elevate Greece [Internet]. Elevate Greece. 2018 [cited 2022 Feb 21]. Available from: <https://elevategreece.gov.gr/startup-registry>
- [6] Papadopoulos P. The Greek Startup industry: Investments and exits, 2010–2020 [Internet]. Marathon.vc. 2021 [cited 2022 Sep 8]. Available from: <https://marathon.vc/blog/the-greek-startup-industry-investments-and-exits-2010-2020>
- [7] Greeknewsagenda. Strategic initiatives supporting the Greek startup ecosystem [Internet]. Greeknewsagenda.gr. n.d. [cited 2022 Feb 21]. Available from: <https://www.greeknewsagenda.gr/topics/business-r-d/7239-strategic-initiatives-supporting-the-greek-startup-ecosystem>
- [8] Startuplinkcom. Startup ecosystem overview of Greece [Internet]. Startupblink.com. n.d. [cited 2022 Sep 8]. Available from: <https://www.startupblink.com/startup-ecosystem/greece>
- [9] Kokidou M, Nikolaidis C, Papastergiou G. Eitdigital.eu. n.d. [cited 2022 Jan 21]. Available from: https://www.eitdigital.eu/fileadmin/files/2020/publications/EIT-Digital_Startups-in-Greece-2020-2021.pdf
- [10] EIT Digital. Startups in Greece report [Internet]. 2021 [cited 2022 Jan 28]. Available from: <https://thefoundation.gr/wp-content/uploads/2021/12/Startups-in-Greece-2021-by-EIT-Digital-and-Foundation.pdf>
- [11] Derveni K. 4 incentives attracting R&D investments in Greece [Internet]. Endeavor. 2021 [cited 2022 Oct 19]. Available from: <https://endeavor.org.gr/5-incentives-attracting-rd-investments-in-greece/>
- [12] Hellenic Development Bank [Internet]. Current programs of Hellenic Development Bank. [cited 2022 Feb 21]. Available from: <https://hdb.gr/category/programmata/trexonta-programmata>
- [13] Athens Innovation District – Cropei [Internet]. Gov.gr. n.d. [cited 2022 Feb 21]. Available from: <https://gsri.gov.gr/protovoulies-draseis/chropei>
- [14] “Politeia” Innovation Center to promote R&D ecosystem in Greece [Internet]. Greeknewsagenda.gr. n.d. [cited 2022 Oct 19]. Available from: <https://www.greeknewsagenda.gr/topics/business-r-d/7188-%E2%80%9Cpoliteia%E2%80%9D-innovation-center-to-promote-r-d-ecosystem-in-greece>

- [15] The position of Greece in European Innovation Scoreboard 2014–2021 [Internet]. EKT. 2022 [cited 2022 Oct 19]. Available from: <https://www.ekt.gr/el/news/27719>
- [16] Enterprise Greece. The Greek start-up scene: High caliber Greek start-up ecosystem ripe for investment [Internet]. enterprisegreece.gov.gr. 2019 [cited 2022 Sep 8]. Available from: https://www.enterprisegreece.gov.gr/files/pdf/startup2019/5-The-Greek-Startup-Scene_2019.pdf