



FROM SURVIVING TO THRIVING:

A case study on Puerto Rican
entrepreneurship



Foundation
for Puerto Rico



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INTRODUCTION

José Cintrón-Bartolomei doesn't miss a beat. Born and raised in Ponce, food, culture and music make up his identity. Especially when it comes to *La Bomba*. The Puerto Rican traditional dance and music genre? Yes. But also, his lifelong dream: a restaurant that combines great service, creativity and entertainment to provide a holistic cultural experience of his hometown. Formally educated in Communications, José understood how his target audience—mainly millennials—are introduced to new experiences through branding and digital media. However, some ingredients were missing.

Then came *Emprende 360°*, a multi-stage business incubation pilot program that sought to provide a complete overview of the entrepreneurial experience, making it accessible to underserved communities in the southern region of Puerto Rico. As part of the program's first cohort, José now had the opportunity to develop his business idea with the knowledge and guidance of leading entrepreneurial support organizations on the Island. A couple of weeks in, earthquakes shocked the southern coast of the Island, bringing the region to a standstill. Months later, the pandemic sent the world into a full lockdown. In less than a year José faced some of the struggles Puerto Rican entrepreneurs endure when launching their ventures, topped by unprecedented historic circumstances brought on by each event.

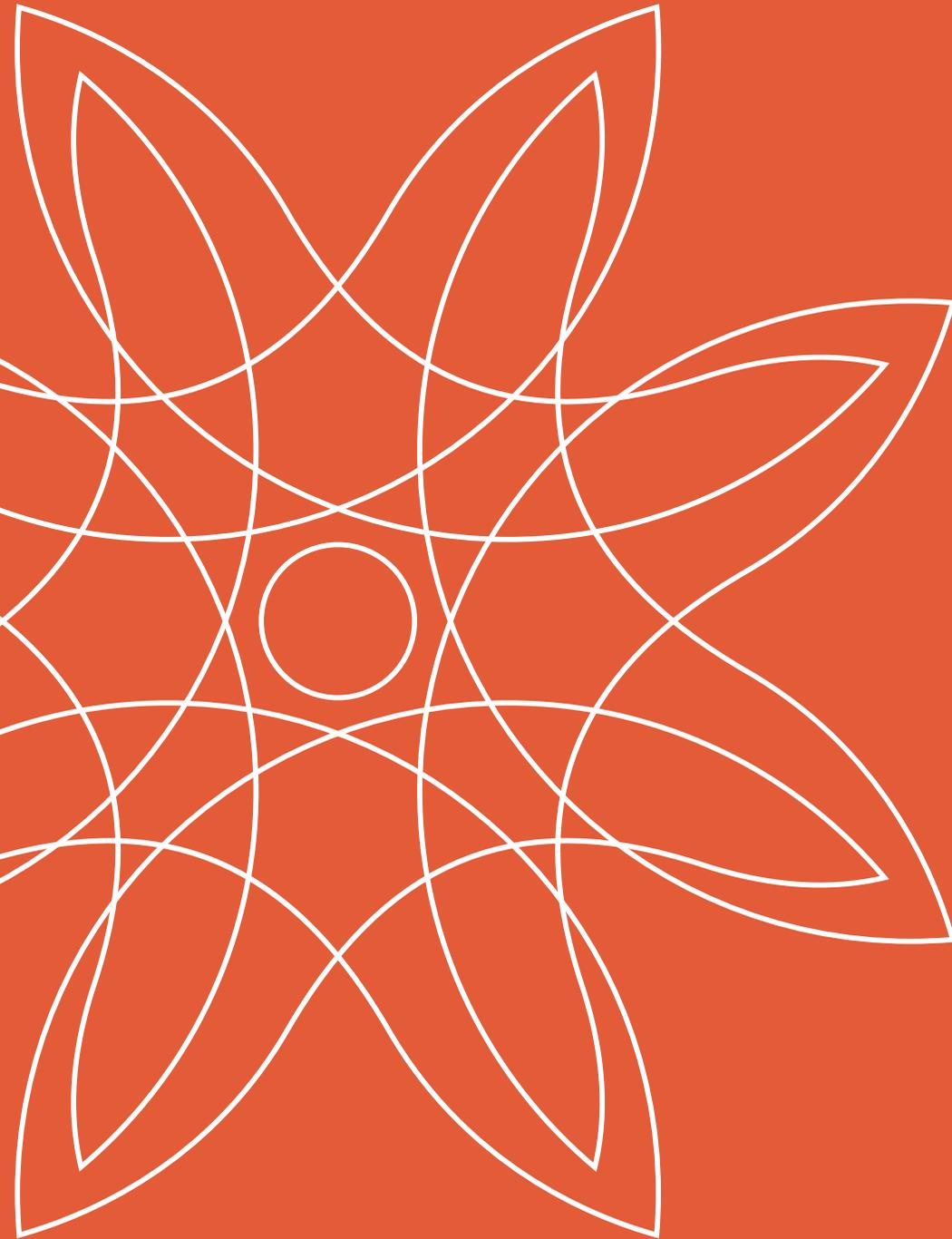
However, just as they did, he adapted. He turned his garage into the home of his minimum viable product and tested his idea against all odds. José realized that being a Puerto Rican entrepreneur meant being inherently resilient.

Puerto Rico's long recession compounded with the calamities of the hurricanes, earthquakes and the COVID-19 pandemic has

forced entrepreneurs on the Island into an endless cycle of disaster recovery. Entrepreneurship is both an integral part of the economic resilience of communities, regions and local economies, and the future of Puerto Rico. To open the door for entrepreneurs like José, we need a cohesive approach to facilitate the creation of hopeful ventures that can endure disasters and prosper, despite their cyclical nature.

But how do we go from a constant survival mode to a thriving entrepreneurial ecosystem that does not depend on reactive measures to flourish?

To this end, this case study is meant to provide an overview of Puerto Rico's entrepreneurial ecosystem and the importance of well-connected networks to aid in the development of new ventures. Furthermore, we've developed a toolkit for entrepreneurial support organizations (ESOs) to better serve entrepreneurs in the wake of a disaster and beyond. Through actionable, coordinated strategies, we provide concrete guidance on how to best leverage organizational resources and deploy effective programs amid the recovery process that can spur equitable access opportunities.



SECTION 1

THE PUERTO RICAN EXPERIENCE: AN ECONOMIC OVERVIEW



THE PUERTO RICAN EXPERIENCE: AN ECONOMIC OVERVIEW

Governments around the world are increasingly recognizing the importance of entrepreneurship to spur economic growth. Various economic studies have linked entrepreneurial activity with job creation, gross domestic product growth and long-term productivity increases.¹ However, unlocking these benefits means confronting deeply rooted stressors that have been affecting the cost of doing business and overall quality of life on the Island.

Amid a recession of more than 10 years, Puerto Rico was struck by hurricanes Irma and María, the 2020 earthquakes in the southern region and the COVID-19 pandemic. These calamities have tested the island in more than one way on its adaptability skills to recover and embark on new ventures. Yet conditions for recovery were already hindered by economic measures dating decades before.

Puerto Rico's transition from an agrarian economy to an industrialized one was achieved through a series of tax incentives. The Tax Reform Act of 1976 created Section 936 of the Internal Revenue Code of the United States, which spurred the creation of a manufacturing industry on the Island, mainly composed of pharmaceutical companies. These incentives granted U.S. corporation tax exemptions on income originating from U.S. territories. The Island saw a short era of modest growth until 2006, when Section 936 was phased out after a 10-year transition period. The weight of the economy fell upon

the shoulders of the government and the local private sector. However, Professors Álvarez, Aponte and Lobato, who lead the Global Entrepreneurship Monitor (GEM) research study in Puerto Rico, explain that "the domestic private sector was not ready to become the new engine. An economy with low rates of entrepreneurial activity and employment was not able to cope with the structural changes."² In 2009, 38,000 public sector employees were laid off, effectively shrinking the government by 20%.³

After this period, the government sustained expenditures through public debt, until 2015 when Puerto Rico's debt was deemed unpayable. In response, the U.S. Congress passed the Puerto Rico Oversight, Management and Economic Stability Act (PROMESA) which enacted a federally appointed oversight board in charge of implementing fiscal austerity measures to address budget deficits.

¹ Isenberg, Daniel J. "How to Start an Entrepreneurial Revolution." *Harvard Business Review* 88, no. 6 (2010): 40.

² Lobato, Manuel; Álvarez, Marta, and Aponte, Marínés. "Entrepreneurial Dynamics in Puerto Rico Before and After Hurricane María." *Centro Journal* 32, no. 3 (2020): 39.

³ Casey, Nicholas. "In Puerto Rico, a Governor Pushes Big Change." *The Wall Street Journal*, November 5, 2012. Accessed July 2021. <https://www.wsj.com/articles/SB10001424052970204789304578086982081099020>.

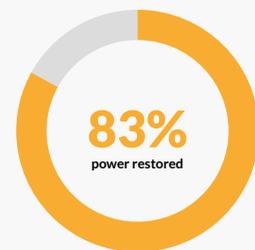
Then came the 2017 hurricane season. Just as the archipelago was recovering from Hurricane Irma, Hurricane María decimated Puerto Rico on September 30, 2017. It destroyed most of the Island's power grid, leaving more than three million residents in the dark for months. Puerto Ricans were disconnected from loved ones, and the Island struggled to coordinate emergency aid efforts. More than 3,000 lives were lost and over 200,000⁴ individuals relocated to the U.S. mainland in the two years that followed.

The Federal Emergency Management Agency (FEMA) confirmed the total damage to Puerto Rico and the U.S. Virgin Islands was \$90 billion. An island wide disaster declaration was passed and approved by then-President Donald Trump, declaring all of Puerto Rico's 78 municipalities eligible for both individual and public assistance.

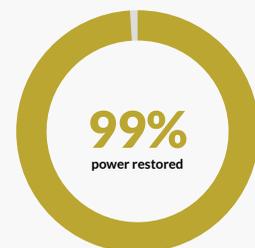
Recovery has been slow. To this date, only 32%⁵ of the appropriated recovery funds have been disbursed. A review conducted by the Office of the Inspector General published on April 20, 2021⁶, stated that bureaucracy and red tape, both at the local and federal levels, are the main challenges to seeing a more expedited recovery.

DAYS ELAPSED UNTIL POWER WAS RESTORED

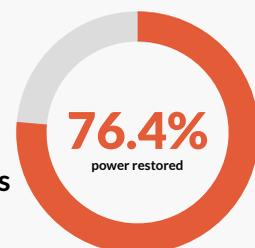
Texas
 🌀 Harvey
 restored in **9** days



Florida
 🌀 Irma
 restored in **9** days



Puerto Rico
 🌀 María
 restored in **149** days



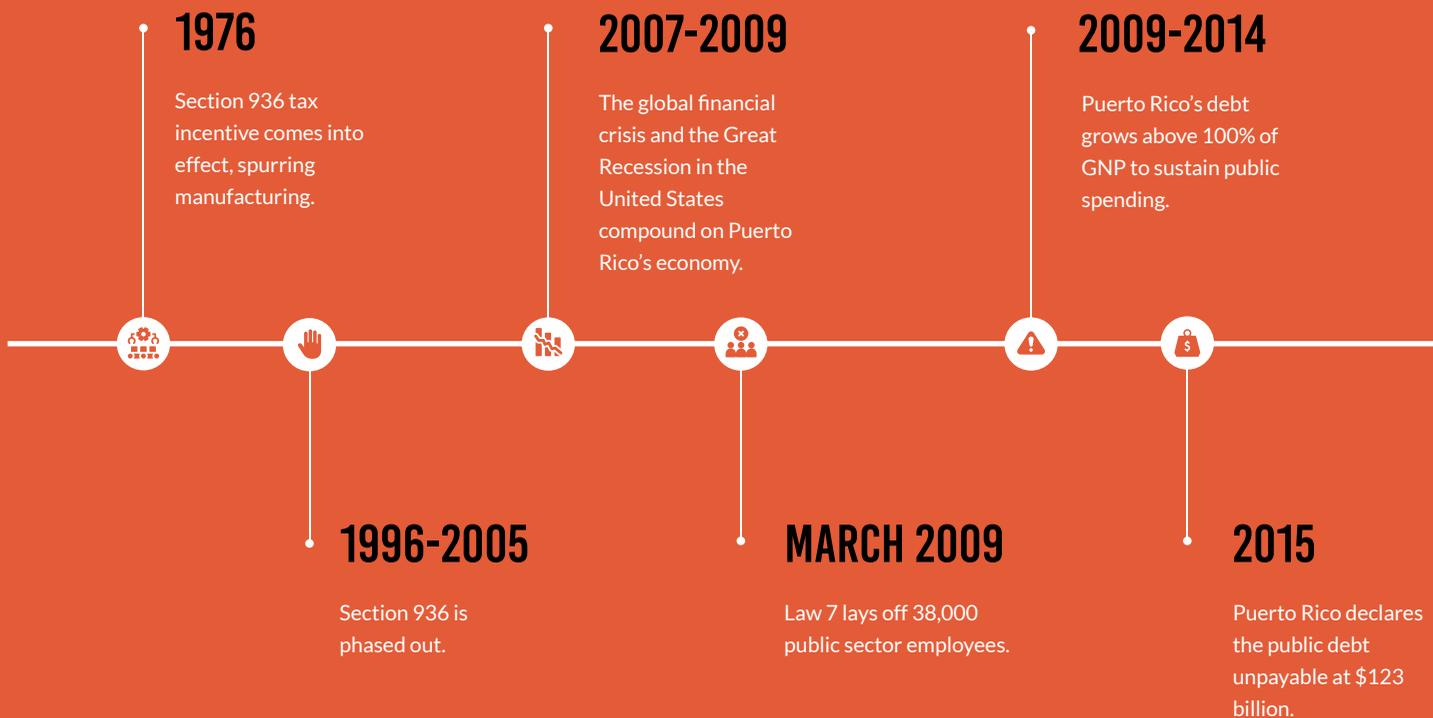
⁴ Meléndez, Edwin, and Venator-Santiago, Charles R. "Puerto Rico Post-Hurricane María: Origins and Consequences of a Crisis." *Journal of the Center for Puerto Rican Studies* 30, no. 3 (2018).

⁵ COR3 Transparency Portal. <https://recovery.pr/en>

⁶ Office of Inspector General. Review of HUD's Disbursement of Grant Funds Appropriated for Disaster Recovery and Mitigation Activities in Puerto Rico. April 20, 2021.



Source: FEMA; Assistance totals do not include FEMA flood insurance payments, SBA disaster assistance or private insurance payments.



Residents continued experiencing constant blackouts due to an unstable electrical grid. When the American Society of Civil Engineers released its 2019 report card for Puerto Rico's infrastructure, energy received the lowest grade⁷ among all the categories evaluated.

By the time the earthquakes shocked the southern region in December 2019, they challenged an already crumbling infrastructure. The initial damage in January 2020 was estimated at 3.1 billion.⁸ Unlike the cyclical nature of hurricanes, earthquakes are unexpected.

By nature, their magnitude is unpredictable, and so are aftershocks. This brings an increased sense of uncertainty and trauma.⁹ Puerto Rico had not been struck by a major earthquake in a century, which was detrimental to an already anxiety-ridden population.

Months later, small businesses still recovering from the after-shocks would have to close once again due to the COVID-19 pandemic. In March 2020, the Island went into a full lockdown. An initial survey conducted by Estudios Técnicos

highlighted the economic scenario as entrepreneurs' biggest obstacle, followed by government bureaucracy, energy costs, restrictions over the pandemic and workforce shortage.¹⁰

Despite this, the data shows there is hope. The first months after Hurricane María, the unusual rates of establishment closings stopped and the rate of new businesses rose by 28%, when compared to the same period the year before.¹¹

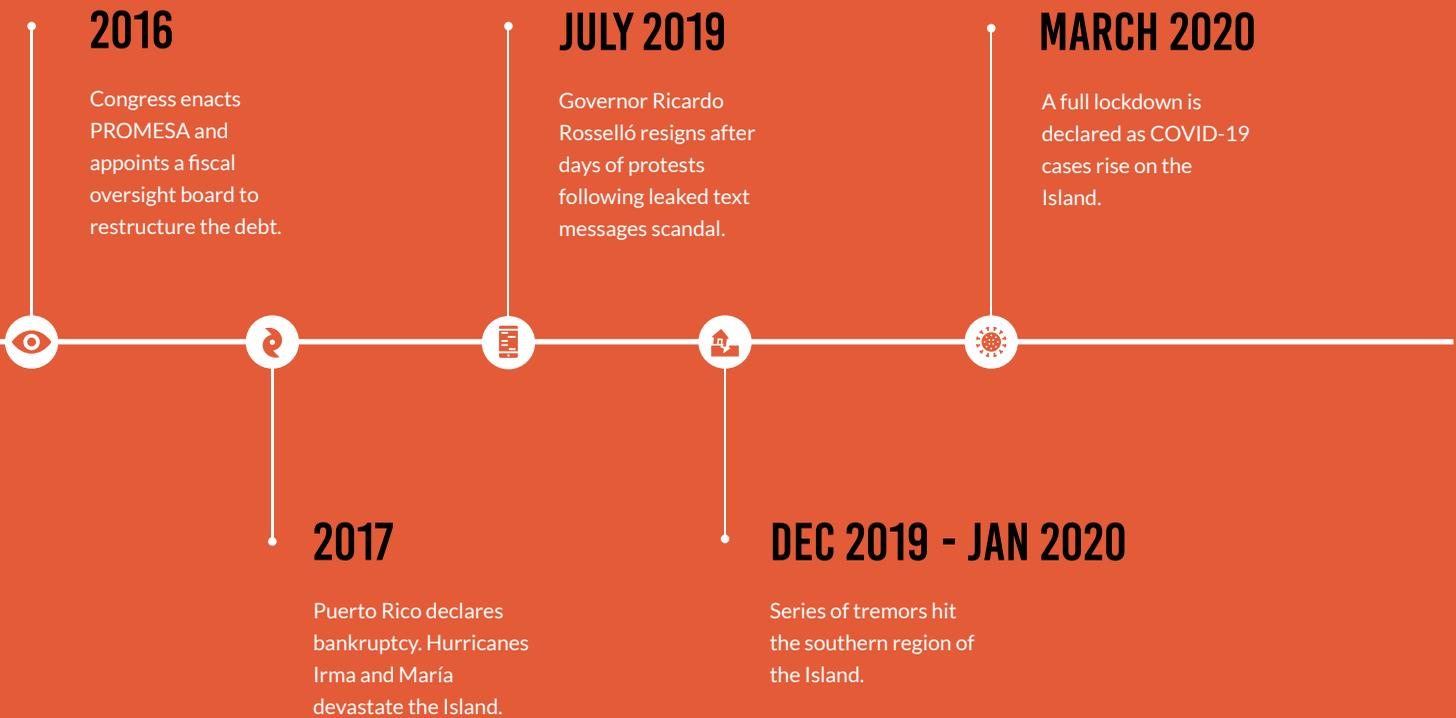
⁷ American Society of Civil Engineers. 2019 Puerto Rico Infrastructure Report Card. <https://infrastructurereportcard.org/state-item/puerto-rico/>

⁸ Kaske, Michelle, and Levin, Jonathan. "Puerto Rico Board Releases Emergency Funds After Earthquake." Bloomberg, January 7, 2020. Accessed June 2021. <https://www.bloomberg.com/news/articles/2020-01-07/puerto-rico-board-releases-emergency-funds-after-earthquake>.

⁹ Chokroverty, Linda. "66.4 The Early Aftermath Of Earthquakes In Puerto Rico: Enlisting The Community In Mental Health Recovery." *Journal of the American Academy of Child and Adolescent Psychiatry* 59, no. 10 (2020): S101.

¹⁰ Garofalo, Giovanna. "Economy, Not COVID-19, the Top Challenge for Puerto Rico Businesses." *The Weekly Journal*. December 16, 2020. Accessed July 21, 2021. https://www.theweek-lyjournal.com/business/economy-not-covid-19-the-top-challenge-for-puerto-rico-businesses/article_307c489a-3f08-11eb-aa59-53f46878bef6.html.

¹¹ Lobato, Manuel; Álvarez, Marta, and Aponte, Marínés. "Entrepreneurial Dynamics in Puerto Rico Before and After Hurricane María." *Centro Journal* 32, no. 3 (2020): 39.



The new administration of President Joe Biden is offering accelerated reconstruction funding, more funds for infrastructure, and parity for Puerto Rico residents in U.S. welfare programs, including health insurance under Medicaid. Current federal programs include \$85 million¹² in small business incubators and accelerators programs and, despite being the hardest hit economic sector worldwide after the pandemic, tourism is showing strong signs of recovery. Hotel bookings are down only 13%,

compared to 2019, and Puerto Rico stands as the fourth most popular destination¹³ among U.S. travelers.

All these accounts encompass the Puerto Rican experience through numerous hurdles, economic hardships and disasters. As we'll elaborate throughout this report, these challenges require integrated solutions to yield the expected results in entrepreneurship.

¹² <https://cdbg-dr.pr.gov/en/programs/economy/>

¹³ Priceline.com. Top Travel Trends for U.S. Travelers This Season. <https://press.priceline.com/top-travel-trends-for-us-travelers-this-season/>

SECTION 2

RESILIENCE AS A DYNAMIC AND CONTINUOUS PROCESS

RESILIENCE AS A DYNAMIC AND CONTINUOUS PROCESS

Resilience is a buzzword.

Its growing popularity over the last few years has given it too many synonyms—grit, optimism, preparedness. The abstract and often malleable term has been adapted to a wide array of disciplines that range from the more usual social-ecological systems and mental health to less common and recent varieties of resilience such as infrastructure, and disaster risk reduction.

It is believed that the scientific term was first used in the English language around the 1620s by Francis Bacon in the field of natural sciences.¹⁴ As he kicked a ball against a wall, what Bacon originally observed served later as the basis for the common definition we know today: “the capacity of a system or material to recover its former shape following a displacement or disturbance.”

Now, the term is required in the climate change discourse and it is positioned as an expected quality from place-based communities after being hit by a natural disaster or other type of disturbances.¹⁵

One key activity that can contribute to the resilience of a community is entrepreneurship. Resilience is particularly important for entrepreneurs because of two reasons:



When seen as the entrepreneur’s **preparedness, persistence and self-efficacy**, resilience can inform why some businesses perform better than others.



The **psychological and behavioral traits** around resilience can increase the ability of a business to adjust to new circumstances and use innovation to achieve sustainability in the long-term.

One particular exercise that can help us organize the various perspectives on resilience is asking oneself: “resilience of *what to do what?*” From our view, resilience is about the **adaptive capacity** of entrepreneurs to **identify and embrace flexible solutions** to emerging challenges.

When small businesses are flexible, it affords them the ability to respond rapidly and effectively to external shocks, like disasters. In the face of adversity, flexibility and innovation are key.

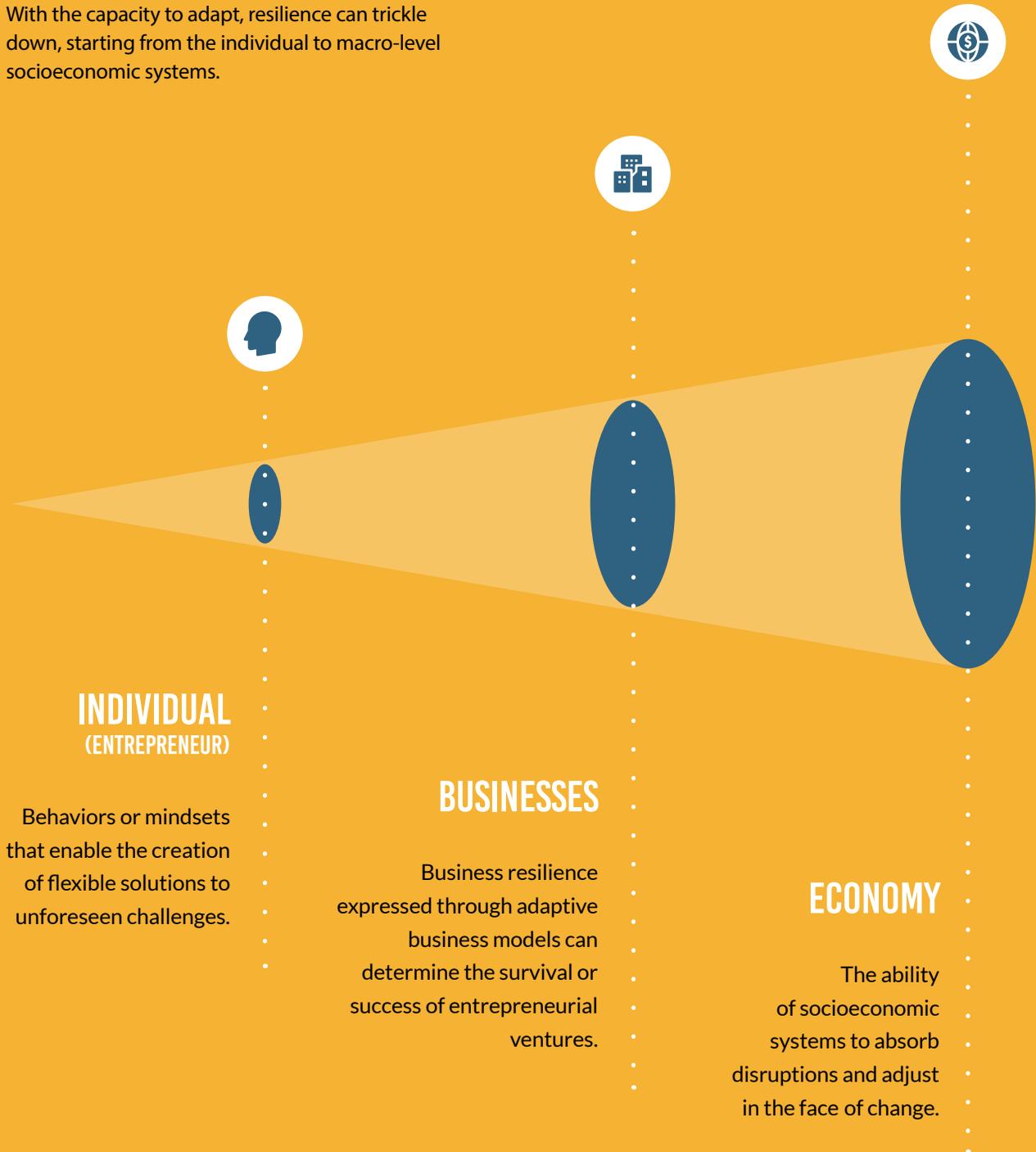
This capacity to adapt can translate to collective resilience at the community and regional level increasing the chances for socioeconomic systems to endure and overcome ecological and economical disruptions.

¹⁴UCI Regional Climate Resilience Project: “Deconstructing Resilience”. “Origins of Resilience.” https://canvas.eee.uci.edu/eportfolios/13884/Origins_of_Resilience Accessed May 2021.

¹⁵Berkes, Fikret, and Ross, Helen. “Community Resilience: Toward an Integrated Approach.” *Society & Natural Resources* 26, no. 1 (2013): 5-20. doi:10.1080/08941920.2012.736605.

CORE DIMENSIONS OF RESILIENCE

With the capacity to adapt, resilience can trickle down, starting from the individual to macro-level socioeconomic systems.





SECTION 3

THE LINK BETWEEN ENTREPRENEURS' ADAPTIVE CAPACITY AND AVAILABLE RESOURCES

THE LINK BETWEEN ENTREPRENEURS' ADAPTIVE CAPACITY AND AVAILABLE RESOURCES

Our own lived experience tells us that disasters create striking disparities between the available resources and those needed to respond to the crisis. Research tells us that those disparities don't happen randomly but rather are determined by how well a given community is organized and connected.¹⁶

In the same way communities can thrive and better respond to disasters when they are connected, entrepreneurs can have better chances of growing, surviving and expanding when there is a network of actors that provide the necessary resources at different developmental stages.

Recognizing that entrepreneurs are not a homogenous group is the first step. Good ideas and capable entrepreneurs live in every community, which encompass a wide array of socioeconomic, geographic, and educational backgrounds. These contrasting upbringings urge the

need for a personalized approach that allows us to tap into newer and fresher ideas, embracing this diversity.

For Puerto Rican entrepreneurship, most efforts and support programs are concentrated in the metropolitan area which comprises the capital of San Juan and neighboring municipalities. This means that aspiring entrepreneurs in rural and historically underserved communities are often overlooked and are put at a disadvantage.

Leveling the playing field to close the gaps in access is key. If the goal is to enhance resilience at the regional level, strongly connected entrepreneurial ecosystems are needed to develop the capabilities required to overcome barriers and see more successful and innovation-driven ventures.

¹⁶ Marincioni, Fausto; Appiotti, Federica; Pusceddu, Antonio, and Byrne, Kenneth. "Enhancing Resistance and Resilience to Disasters with Microfinance: Parallels with Ecological Trophic Systems." *International Journal of Disaster Risk Reduction* 4 (2013): 52-62.





SECTION 4

THE IMPORTANCE OF NETWORKS AND ECOSYSTEMS IN A CRISIS

THE IMPORTANCE OF NETWORKS AND ECOSYSTEMS IN A CRISIS

An ecosystem approach emphasizes interdependencies within the entrepreneurship context¹⁷ and how local environmental conditions affect entrepreneurial behavior.

It is a common misconception that the higher the number of start-ups and nascent businesses, the stronger the ecosystem. The debate of quantity vs. quality continues. However, it has been demonstrated that “high-growth” or “high-impact” entrepreneurship, meaning those enterprises that achieve 20% or greater annual growth in revenue

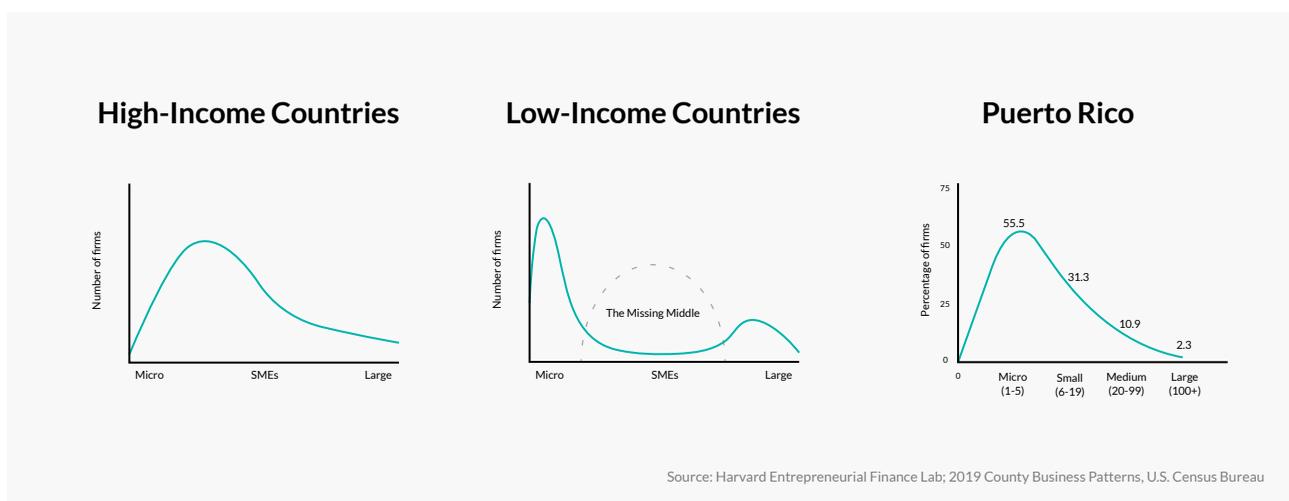
period, could contribute more to society and transform industries to a greater extent.

There are significant differences in the speed at which start-ups, and especially new start-ups, develop into bigger companies. This can be explained by the fact that successful entrepreneurship takes place on fertile ground where the socioeconomic environment is favorable to entrepreneurial activity.

In Puerto Rico, there are approximately 44,000¹⁸ establishments segregated between micro, small, medium

and large enterprises. All these businesses coexist, grow, thrive, and are threatened by the ecosystem in which they operate. **The extent to which these can advance from one category to another will depend on the extent entrepreneurs can access the knowledge and resources they need to succeed, and how well connected is the ecosystem to respond.**

An innovation system works well when there is a sufficient variety of organizations that fulfill the required functions and, as a result, create an optimal interaction between these elements.¹⁹



¹⁷ Stam, Erik. "Entrepreneurial Ecosystems and Regional Policy: A Sympathetic Critique." *European Planning Studies* 23, no. 9 (2015): 1759-769.

¹⁸ United States Census Bureau. County Business Patterns. 2019. Distributed by The United States Census Bureau, April 22, 2021. <https://www.census.gov/data/tables/2019/econ/cbp/2019-cbp-tables.html>

¹⁹ Stam, Erik. "Entrepreneurial Ecosystems and Regional Policy: A Sympathetic Critique." *European Planning Studies* 23, no. 9 (2015): 1759-769.

Nevertheless, ecosystems are not replicable.

All stakeholders in the entrepreneurial ecosystem, including government and ESOs, must recognize the unique circumstances of their environment—be it political, socioeconomic or natural—and propose homegrown solutions that reflect its reality. In the case of Puerto Rico, it means acknowledging the political status, climate change threats, the string of obstacles due to an ongoing recession, among other factors. In this regard, trying to replicate or emulate the success of other ecosystems is a senseless pursuit. This is the case of several jurisdictions when it comes to Silicon Valley.

THE CASE OF SILICON VALLEY

It took over 40 years for Silicon Valley to get to where it currently is. Its growth is tied directly into particular events.



The founding of Stanford University with an explicitly industrial orientation



The U.S. government shifting defense research away from east coast into the 1930s and 1940s



The emergence of the venture capital industry in the 1950s and 1960s



The existence of a long standing culture that encourages risk taking, rebellion and innovation.



A flexible immigration policy toward doctoral students.



And pure luck...

Source: Isenberg, D. J. (2010). The big idea: How to start an entrepreneurial revolution. Harvard Business Review, 88, 40-50.

KEY PROPOSITIONS OF ECOSYSTEMS

Although well-developed and connected ecosystems can serve as a source of inspiration, we must recognize that the only way forward is by forging one's own path. However, there are some fundamental guiding principles that can help achieve this goal.

According to research conducted by professor Spigel, Senior Lecturer in Entrepreneurship at the University of Edinburgh, there are a series of key propositions that establish the role of ecosystems and the ways in which entrepreneurs engage with them:²⁰

01 | Access to resources

Firms that are better able to access the resources of the ecosystem will be more competitive than those that are not.

02 | Perceived legitimacy

Entrepreneurs' ability to access the flow of resources within an ecosystem depends on their perceived legitimacy as high-growth entrepreneurs within the community.

03 | Willingness

Entrepreneurs will display a continuum of ability and willingness to engage with their ecosystem, which will affect their ability to benefit from the resources in the ecosystem.

²⁰ Spigel, Ben, and Harrison, Richard. "Toward a Process Theory of Entrepreneurial Ecosystems." *Strategic Entrepreneurship Journal* 12, no. 1 (2018): 151-68.

04 | Opportunities

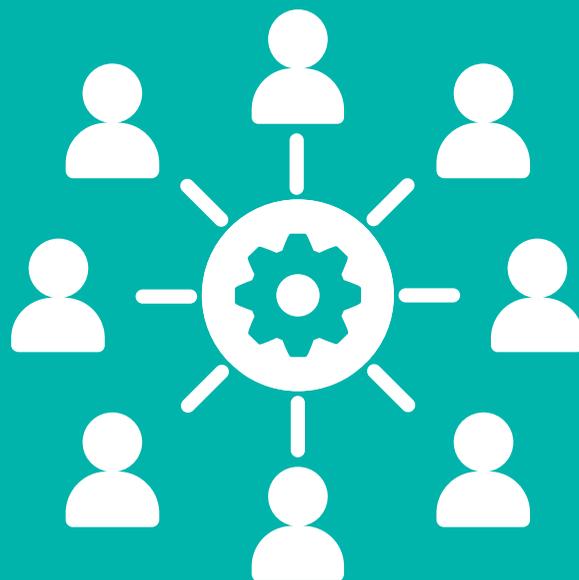
The extent to which the public sector creates opportunities for entrepreneurs to come together will be reflected in the level of development of an entrepreneurial ecosystem.

05 | Shared knowledge

Entrepreneurs in successful ecosystems will be able to take advantage of the knowledge, talent, and other resources produced by previous rounds of successful and failed entrepreneurship.

06 | Tendency

Aside from external and internal shocks, more resources created by or drawn to well-performing ecosystems tend to remain there than in poorly functioning ecosystems.



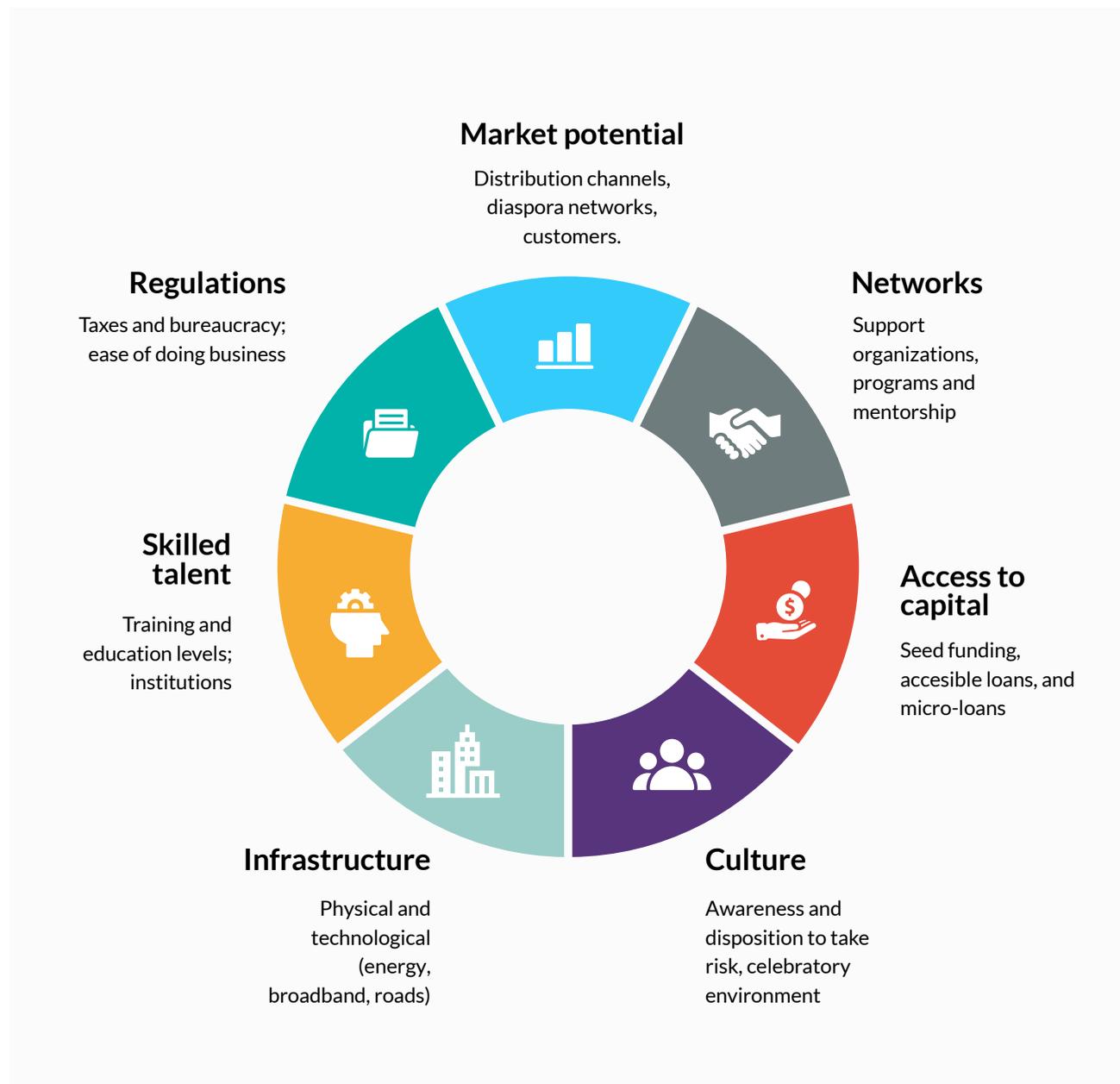


SECTION 5

THE SEVEN PILLARS FOR AN INNOVATIVE ECOSYSTEM

THE SEVEN PILLARS FOR AN INNOVATIVE ECOSYSTEM

A well-functioning ecosystem includes seven pillars:





NETWORKS

According to the Ewing Marion Kauffman Foundation, “the essence of an entrepreneurial ecosystem is its people and the culture of trust and collaboration that allows them to interact successfully.” Networks are essential to building community recovery. Entrepreneurial support organizations provide access to mentorship and training programs and often emergency funding for their participants. Organizations within this component initiate entrepreneurs with their first formal training experience or workshops designed to validate business models.

These include incubators, accelerators, co-working spaces, venture and angel investors, mentors, NGOs, and other related programs and initiatives implemented by the government, universities, and development partners.

Tip: Tried-and-tested methodologies might be due for an overhaul. As a best practice, ESOs should review the content of their programs every two to three years to ensure they respond to the new normal.

On Puerto Rico’s Ecosystem:

“There’s a need to take on a design-driven approach. Our role as entrepreneurial support organizations is to assess what entrepreneurs’ true needs are and stay relevant to that.”

– Jahannie Torres-Rodríguez, Colmena66

“In addition to events and meetings that allow key players to share their efforts, there should be more opportunities to work on projects together.”

– Denisse Rodríguez, Colmena66

“As ESOs in Puerto Rico we need to understand that we don’t compete against each other, but that we actually complement each other. I believe it was a big step for us when a group of organizations came together after the hurricane (María) and we were able to sit down and plan together. That’s an example of what needs to happen in the ecosystem more often.”

– Nerma Albertorio, Centro para Emprendedores

“(To foster the network across the ecosystem’s components) we have focused on 3 core aspects. Holding regular meetings with other members of the ecosystem to identify areas of collaboration, defining our scope, and keep referring entrepreneurs to other resources so they continue to navigate the ecosystem efficiently.”

– Alessandra Correa, INprende



ACCESS TO CAPITAL

Businesses require adequate funding from different sources, which are tailored to their needs and stages of growth.

Entrepreneurs need access to both short-term financing (less than one year) and long-term investment capital to support expansion.

After a disaster, the uncertainty about their ability to predict future cash flows highlights the need for short-term financing vehicles to provide the necessary liquidity to restart operations or to remain open after the emergency.

One of the elements the COVID-19 pandemic emphasized is the need for more creative ways to access capital. The need for cash is particularly acute after a disaster, likely due to unequal access to government support. According to Levanta Tu Negocio, a survey conducted by Colmena66 from March to May 2020, 84% of the businesses surveyed indicated that they didn't have an emergency fund and most businesses had only four to six weeks of cash reserves.

The survey also reflects that many of these small and medium-sized businesses have relatively modest capital needs: over half of the respondents indicated they needed less than \$10,000 to survive the crisis.

Traditional capital is not feasible for many entrepreneurs. For small business owners like those who have inherited a family business, taking out a loan after an emergency seems high-risk considering the uncertainty surrounding a disaster, which prevents them from accurately

predicting reestablishment. In Puerto Rico's case, this was especially true for entrepreneurs in the southern region, where aftershocks were consistently delaying the start of recovery.

In some parts of the island, blackouts also mean interruption of water supply, since pumps are needed to serve households and businesses, especially in the central area and the mountainous regions.

On Puerto Rico's Ecosystem:

"There's been a growth in the access to capital ecosystem in the past 5 years, mainly in private equity funds and in the creation of Parallel 18, which is meant to be a pipeline for scalable start-ups to access those funds. Despite this, new entrepreneurs and start-ups in Puerto lack wealthy support networks, making it harder for them to undertake new ventures. This not only affects the entrepreneur, but Puerto Rico as well. To the extent that existing talent lacks access to capital, then there's no creation of employment opportunities, no economic development, and talent flees. There's a need for alternative access to capital, such as patient capital, (for example) in the form of grants, and other alternative financing."

– Denisse Rodríguez, Colmena66



CULTURE

Culture refers mainly to how society views entrepreneurship as a viable career, as well as the risk tolerance level. Low cultural support for entrepreneurship will result in low levels of start-up activity, as is the case in rural communities in Puerto Rico.

According to the GEM in Puerto Rico, only 30.7% of Puerto Ricans consider being an entrepreneur a good career choice, the lowest percentage among all participating countries. Despite that, 73.1% think that the media pays attention to entrepreneurs.²²

On Puerto Rico's Ecosystem:

“There are talented entrepreneurs out there, but you have to look for them. They are people who don't know the ecosystem and don't know about the efforts happening on the Island.”

— Ana María Cintrón, Causa Local



INFRASTRUCTURE

The hurricanes and the earthquakes caused significant damage to Puerto Rico's infrastructure. Decades-long deferred maintenance meant the Island's electric grid couldn't withstand the additional tension caused by storm winds.

A reliable, continuous power supply is an ongoing concern for many parts of the Island to this

day, with daily blackouts still occurring in some areas. For many businesses, this means having to incur losses.

In addition to its lack of reliability, Puerto Rican businesses face high electricity costs due to the limited options and low adoption of green and renewable energy sources.

In some parts of the island, blackouts also mean interruption of water supply, since pumps are needed to serve households and businesses, especially in the central area and the mountainous regions.

²² Aponte, Marínés; Álvarez, Marta, and Lobato, Manuel. *Informe 2019 - Global Entrepreneurship Monitor (GEM) Puerto Rico*. Report. Facultad De Administración De Empresas, University of Puerto Rico.



SKILLED TALENT

While four out of ten Puerto Ricans reported losing their jobs after the hurricanes in 2017, most small businesses—one of the main sources of job creation in the Island— were able to resume operations over the following year.²³

Skilled talent deals primarily with education levels, and access to opportunities and quality programs aligned with national priorities and global trends.

Current degree programs should be designed and include up-to-date content that prepares students with the skills that respond to market or industries' needs. Highly talented people are needed to build new enterprises and skilled workers to fill important roles as enterprises grow.

On Puerto Rico's Ecosystem:

Migration has been one of the most visible effects of the long recession, which has been coupled with a historic trend of declining birth rates. Jahannie Torres, from Colmena66, identifies the exodus of talent as one of the biggest obstacles for the proper development of the entrepreneurial ecosystem. "There's a lot of young people with technical skills and knowledge leaving the Island, which in turn hinders the development of scalable and innovative-driven ventures." In addition, the creation of well-paid jobs, which tempt young, skilled workers to stay on the Island, has been a constant struggle for the Island's economy.

²³ Acevedo, Nicole, and Patricia Guadalupe. "Puerto Rico Needs More Entrepreneurs. What's Being Done to Help Them?" NBC News, 2018. Accessed July 2021. <https://www.nbc-news.com/news/latino/puerto-rico-entrepreneurs-forge-ahead-despite-setbacks-n889331>.



REGULATIONS

Regulations are concerned with improving the ease of doing business. This includes the number of days it takes to obtain a permit, tax reform and tax systems, as well as available incentives for small enterprises.

Governments play an influential role in entrepreneurship by defining and executing clear strategies and policies that foster business creation. The goal should be a regulatory system entrepreneurs can navigate by themselves, without the need for consulting support.

On Puerto Rico's Ecosystem:

80% of participants in the Emprende 360° program indicated that obtaining permits is the most significant challenge faced by entrepreneurs, second to access to capital.

To enhance ecosystems, governments can:²⁴



Engage the private sector



Modify cultural norms



Remove regulatory barriers



Encourage and celebrate success stories



Pass legislation conducive to entrepreneurship



Be judicious in emphasizing clusters and incubators



Offer attractive financing programs that reflect to market needs



Serve as connectors and facilitators



Raise awareness of available aid and programs



Above all, approach the entrepreneurial ecosystem as a whole

²⁴ Isenberg, Daniel J. "How to Start an Entrepreneurial Revolution." Harvard Business Review 88, no. 6 (2010): 40.



MARKET POTENTIAL

The number of Puerto Ricans who intend to undertake entrepreneurship in the next three years (including self-employment) has increased from 13.1% in 2013 to 23.9% in 2019.²⁵

Having an addressable market is a crucial element of growing a business. Aspects such as barriers to entry, and the ability for domestic companies to tap into or compete in regional and international consumer markets are part of the market potential.

In order to unlock market potential, domestic companies should show uniqueness in their product and service offerings. Competition should be encouraged to force innovation while supporting themselves on digital technologies which can lower entry costs in many industries.

On Puerto Rico's Ecosystem:

Puerto Rico usually focuses on the entry and exit of multinational corporations, but true economic transformation is at the hands of domestic entrepreneurs.²⁶

²⁵ Aponte, Marínés; Álvarez, Marta, and Lobato, Manuel. Informe 2019 - Global Entrepreneurship Monitor (GEM) Puerto Rico. Report. Facultad De Administración De Empresas, University of Puerto Rico.

²⁶ Lobato, Manuel; Álvarez, Marta, and Aponte, Marínés. "Entrepreneurial Dynamics in Puerto Rico Before and After Hurricane Maria." Centro Journal 32, no. 3 (2020): 39.



CLOSING THE DIGITAL GAP

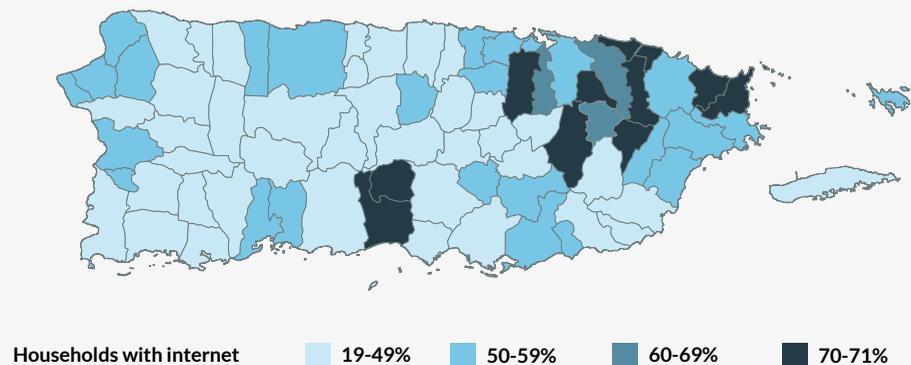
Amid the COVID-19 pandemic, the internet became the answer to many problems that confinement and social distancing measures brought to light. Worldwide, several universities and colleges transitioned their courses to an online format; businesses and workplaces operate remotely; and citizens rely on the internet to access data on the latest variant, access government assistance and order food to minimize trips and their time in crowded places.

However, despite its relevance, for many, the internet is not an accessible utility.

How can the government ensure the effectiveness of its aid programs? How does relief reach the most disadvantaged communities or education reach disconnected children? How does the highly aging population access aid? What are the odds for merchants without e-commerce options?

From 2010 to 2017, the percentage of households in Puerto Rico with a broadband internet subscription increased from 31% to 56%. At the same time, the Island became one of the markets with the highest penetration of mobile internet users. As of February of last year, the number of mobile internet users stood at 78%. However, over 600,000 households, or 1.4 million residents, still do not have an internet subscription.²⁷

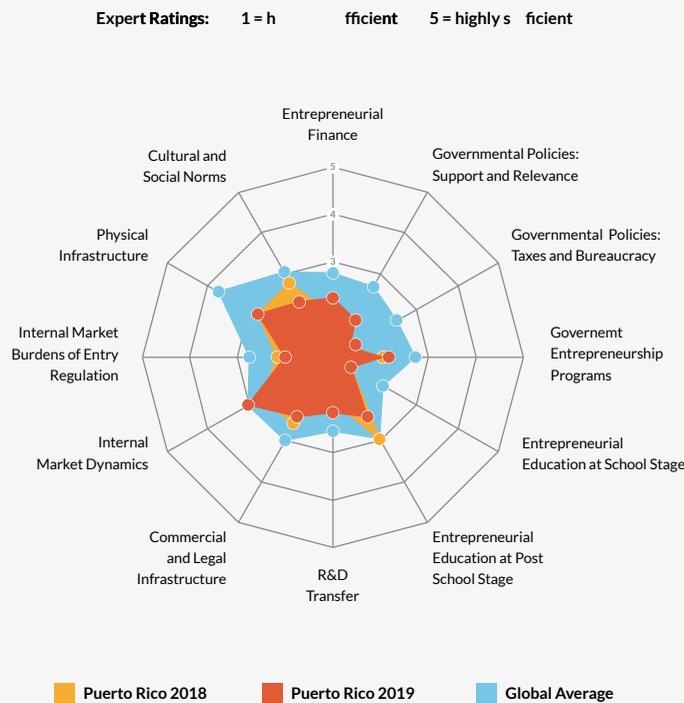
PERCENTAGE OF HOUSEHOLDS WITH INTERNET ACCESS



Source: Puerto Rico Community Survey, 5 year estimates, 2013-2017. U.S. Census Bureau. Statistics Institute of Puerto Rico.

²⁷ Chevalier, Stephanie. "Topic: Internet Usage in Puerto Rico." Statista. Accessed July 2021. <https://www.statista.com/topics/7378/internet-usage-in-puerto-rico/>.

ENTREPRENEURIAL FRAMEWORK CONDITIONS



Source: Global Entrepreneurship Monitor Report (2019)

On Puerto Rico's Ecosystem:

ESOs in Puerto Rico agree that data gathered among key players and entities is often not accessible or shared. Accessibility of research and data will increase ESOs capacity not only to showcase the impact of existing efforts but to make a case for new funding opportunities to continue addressing unmet needs in the ecosystem.³⁰

Although most households in Puerto Rico have a web connection, the majority are mobile internet users.

According to the Puerto Rico Community Survey from the United States Census Bureau, the category of “[household] with a broadband internet subscription” refers to those households that have at least

one type of internet connection, including a cellular data plan. Statistics compiled by the Puerto Rico

Telecommunications Bureau estimate that, as of December 31, 2019, there were about 3,166,303 broadband subscribers. Of these subscribers, 81% use mobile broadband which, due to its

speed and connection stability, is not ideal for remote work, attending classes or managing all the aspects of a business.

These fundamental aspects of the ecosystem overshadow most initiatives to foster entrepreneurship.

²⁸ United States. Bureau of the Census. U.S. Department of Commerce. Computer and Internet Use in the United States: 2018. By Michael Martin. April 2021. Accessed July 2021. <https://www.census.gov/content/dam/Census/library/publications/2021/acs/acs-49.pdf>.

²⁹ Garofalo, Giovanna. "Internet Use Spikes During Lockdown." The Weekly Journal, April 15, 2020. Accessed July 2021. https://www.theweeklyjournal.com/business/internet-use-spikes-during-lockdown/article_71fa4f26-7f2b-11ea-bf1a-67cc2c1b1d29.html.

³⁰ Insights gathered from interviews with several entrepreneurial support organizations performed by Foundation for Puerto Rico.



SECTION 6

ENTREPRENEURSHIP IS THE FUTURE

ENTREPRENEURSHIP IS THE FUTURE

The accelerated adoption of digital tools caused by the COVID-19 pandemic offers us a unique opportunity to imagine new ways in which entrepreneurs can access the resources they need. Shifting away from a constant survival mode will require the adoption of an integrated approach to entrepreneurship that only an ecosystem perspective can provide.

This transition can be assisted by integrating digital technologies. After all, digital technologies enabled innovative companies like Uber, Snapchat and Airbnb. These start-ups include technology as a vital component of their business models and operations. The core competencies of these companies are their ability to match users and providers.

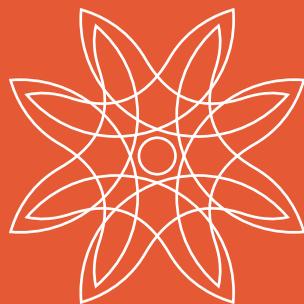
Just like these companies match and satisfy the needs of their customers, the ecosystem should develop similar core competencies to leverage technology and provide entrepreneurs with the skills and resources required to start, grow and expand their ventures.

Reaping the benefits of the digital ecosystem will require the presence of new platforms or the improvement of current ones to better facilitate these exchanges or encounters. Our long-standing challenges means it'll be a long journey until we get there.

ESOs should have a crucial role in leveraging technology to enhance collaboration and collective resources and create a thriving entrepreneurial ecosystem. Once we break through the access barriers, we will see a new diverse network of adaptive and resourceful entrepreneurs that will unlock true economic transformation.



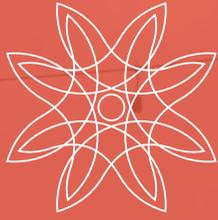




Foundation
for Puerto Rico

From Surviving to Thriving

A case study on Puerto Rican entrepreneurship



Foundation
for Puerto Rico

TOOLKIT

The role of ESOs in emergency response, recovery, and long-term sustainable development

TOOLKIT: THE ROLE OF ESOs IN EMERGENCY RESPONSE, RECOVERY, AND LONG-TERM SUSTAINABLE DEVELOPMENT

The series of disasters that have struck Puerto Rico in recent history forced ESOs to change their short-term goals and strategies to focus on the immediate survival of businesses and the ecosystem. Past efforts have showcased their protagonist role in disaster response and recovery, and are being recognized as such across organizations and entities. Furthermore, ESOs identify a need to document these efforts as a process in response to future events.¹

The pandemic also required ESOs to get creative to address their communities' and businesses' needs and navigate existing challenges within the ecosystem. New ideas and business practices can and should be similarly deployed to address inequities in entrepreneurship and small business development.

In the wake of a disaster, community leaders, NGOs and municipalities are usually the first line of response and address basic needs such as food, water and medical attention. Once the immediate emergency response phase has passed, ESOs can have an instrumental role in driving much-needed business recovery to jumpstart economic activity.

“We cannot provide an innovative and high-level educational experience if we, as an organization, do not innovate and adapt to the needs of entrepreneurs. Hurricanes, earthquakes and pandemics have moved us to be flexible and constantly put ourselves in the shoes of entrepreneurs.”

**–Alessandra Correa,
INprende**



¹ Insights gathered from interviews with several entrepreneurial support organizations performed by Foundation for Puerto Rico.

5

STEPS TO DEPLOYING ENTREPRENEURSHIP DEVELOPMENT PROGRAMS

WHERE

Select geographies with the potential to make a transformative impact on community, municipal and regional access and resource inequities.

WHAT

Analyze challenges, understand the current and future needs of your target audience, define the most appropriate services to deliver and evaluate available resources to satisfy those needs.

WHO

Organize a coalition that offers an integrated solution that addresses each of the ecosystem's key components (e.g. combining technical support with infrastructure or access to technology).

HOW

Evaluate and choose the most appropriate delivery mechanism considering challenges relative to the scenario.

WHY

Stay true to your mission. Understand how this connects with the work your organization is doing at large.



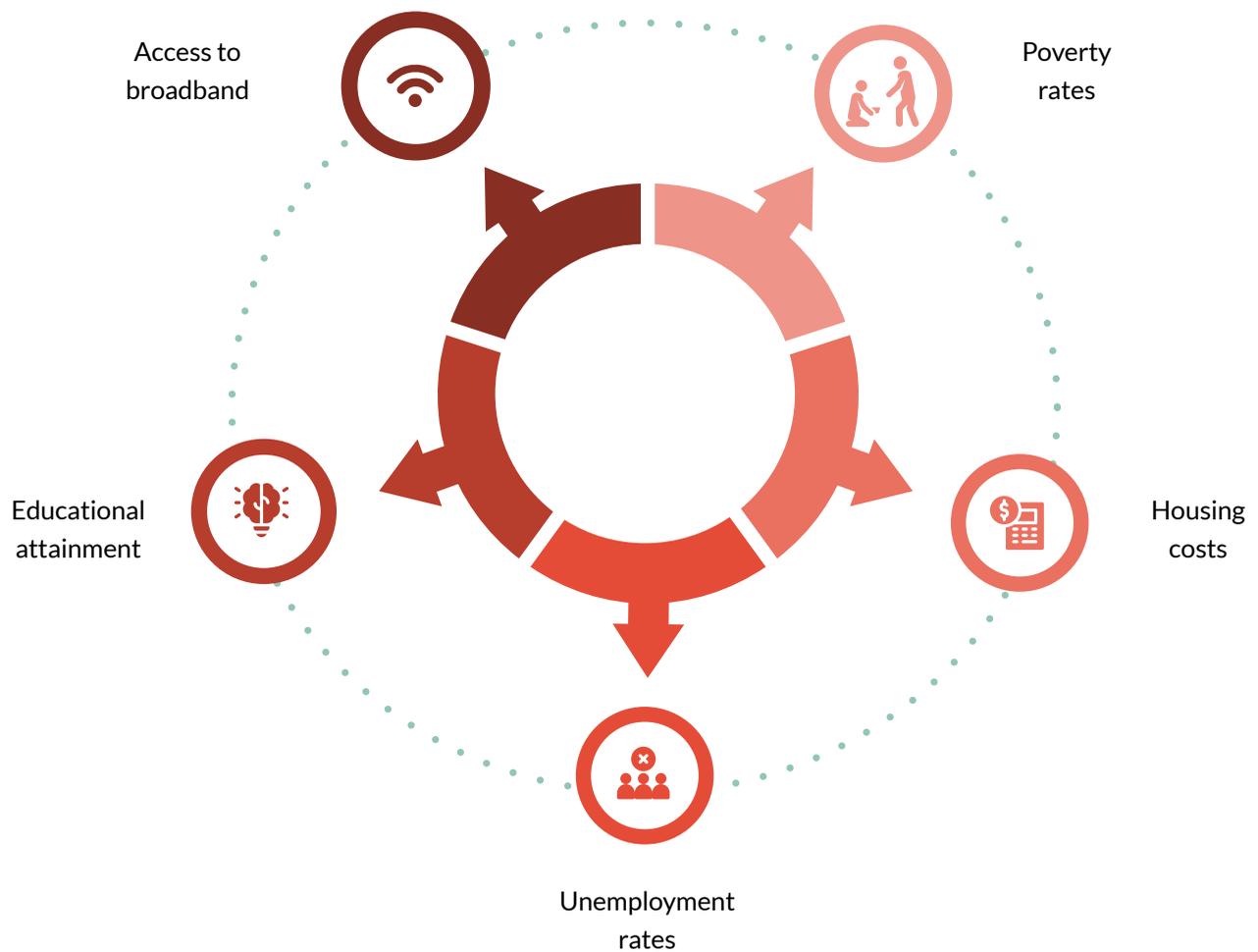
WHERE

ANALYZING WHERE IT IS MOST EFFECTIVE TO DEPLOY YOUR RESOURCES

- 1 | Federal and local agencies may not publish official estimates of total damages until a few months after the disaster; as an example, approximately one month after Hurricane María, several preliminary estimates were published by insurance companies and economic consulting firms which ranged from \$16 billion to \$95 billion. It was not until October 2018 when FEMA published their Mitigation Assessment Team Report which included more detailed analysis and accurate estimates.
- 2 | Although these estimates are useful to pledge more resources to the region, the community, NGOs and municipalities are the ones who can guide the deployment of resources in the earlier stages of disaster response.
- 3 | Determine the state of infrastructure in the impacted area. Evaluate whether business owners can return to their physical locations.
- 4 | Use your judgment to determine whether this is the appropriate time to conduct business recovery work. In the weeks (and in some cases, months) after a disaster, families prioritize their wellbeing and move towards securing shelter, food, water, medicine and clothing.
- 5 | Become aware of the progress or decline of businesses in the area, know the market opportunities, and be able to recognize over and under-supplied business sectors.
- 6 | Identify the businesses and entrepreneurs that communities love and care for. Often within communities, there are iconic/legacy businesses that unify a place-based sense of community.
- 7 | Use data-driven approaches to identify potential impact areas

LEARN ABOUT PRE-EXISTING CONDITIONS BEFORE DISASTER STRUCK.

Examine indicators such as:





WHAT

DECIDING WHAT TO PROVIDE

Many ESOs have highlighted the value of individualized assistance after a disaster. Although some might think Puerto Rico's recovery phase is over, the truth is many areas of the Island are still struggling with basic needs.

- 1 | Identify what are the common complaints of local entrepreneurs
- 2 | Identify what other resources are available to them. Are they aware of those resources? Do they know how to access them?
- 3 | Define clear objectives for the program
- 4 | Design integrated support packages that respond to the beneficiary's needs
- 5 | Although it is useful to research needs beforehand using sources like local media and regional contacts, always validate your assumptions on site.
 - + Create easy-to-fill and accessible assessment tools that can help you fine-tune your objectives as well as the content or curricula of your programs. E.g., have surveys both in digital and physical format and have someone provide assistance filling them out when possible.
- 6 | It's a good practice to update your program's curriculum every two to three years so it matches or responds to your beneficiary's current recovery phase

Tip:

Although valuable on their own, studies have shown that cash grants are more effective when combined with technical support. Combining cash grants with direct links to appropriate financial services and relevant financial education can spur long-term recovery.

COMMON NEEDS AND CHALLENGES

Our experience supporting businesses reflects common themes businesses require to recover.



HURRICANE MARIA

Short term liquidity in the form of cash grants

Cash-flow management

Business continuity planning

Emotional support

Disaster response plan



EARTHQUAKES

Short term liquidity in the form of cash grants

Business interruption and damage insurance claims

Structural assesment

Emotional support

Disaster response plan



COVID-19 PANDEMIC

Short term liquidity in the form of cash grants

Digitalization and e-commerce

Financial literacy

Health safety practices

Business innovation strategies



DEFINING THE ENTREPRENEUR PROFILE THAT WILL BENEFIT THE MOST FROM THE SERVICES AND MATCHING THEM WITH THE MOST APPROPRIATE SERVICE PROVIDER AND SERVICE DELIVERY METHODOLOGY.

- 1 | Define a clear entrepreneur's profile of the type of business that would benefit most from the program. Consider using data points such as:
 - + Industry
 - + Number of employees
 - + Sales volume
 - + Years in Existence.
- 2 | Who can implement it?

The value ESOs could bring to the table

 - + Deep relationships with the community
 - + Key relationships with municipal and regional partners
 - + Established trust and credibility as a partner capable of offering high-quality technical assistance based on tested methodologies
 - + Experience and technical expertise
- 3 | Consider partnering with subject matter experts. These can help you accelerate deployment while your organization can focus on other areas.
 - + Be clear about roles, expectations, and resources from the beginning
 - + Whenever possible, use written agreements such as a contract or Memorandum of Understanding
- 4 | Know your target beneficiaries. Beyond identifying critical needs, take the time to learn about their businesses' pain points, goals, aspirations.
 - + Consider that, for many, a disaster might lead to trauma, and the mental health of beneficiaries could have been significantly impacted. Research shows that employers who ignore the mental health of their employees will likely face long-term adverse consequences. Ignoring employee trauma can lead to a decrease in morale and productivity in the short term. Evaluate forming coalitions that can help deepen your knowledge of the community or region. Talk to residents, community-based organizations, cultural institutions, and other local businesses.
 - + Allow for change, flexibility, and adaptation.



HOW

EVALUATE DELIVERY MECHANISMS

- 1 | Ensure your program delivery mechanisms respond to the pre-existing conditions discovered in the Where phase. For instance, an online program would not be effective if the electric grid is down or if there are low broadband penetration rates in the region.
 - + Open communication channels with other organizations that offer similar services.
 - + Coordination of resources can lead to higher impact and helps develop community buy-in.
- 2 | Research what has been previously done and is being done to avoid duplicating efforts.
 - + Maximize local resources.
 - + Offer flexible terms and find creative ways of giving access to the assistance needed.
- 3 | Maximize local resources.
 - + Establish adequate measurement and monitoring tools.
 - + Agree on the metrics that your organization cares about, needs to report to grantors or donors, and those that reflect the long-term outcomes of your program.
 - + Know your results but also know your impact.
- 4 | Offer flexible terms and find creative ways of giving access to the assistance needed.
- 5 | Establish adequate measurement and monitoring tools.



WHY

ENSURE STRATEGIC FIT WITH YOUR ORGANIZATION

- 1 | Know and prepare your organization.
 - + Is your staff adequately trained to be deployed?
 - + Would responding to the emergency compromise other important deliverables?
 - + Do you have the right processes and procedures? Can they be built on time?
- 2 | Know your organizational goals (clarity of purpose and intention).



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