Healthcare & LifeSciences

JULY **2025**

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HEALTHCARE
Bridging
the Gaps







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Esteemed members of the global healthcare and life sciences community,

It is a pleasure to introduce the 2025 edition of Healthcare & Life Sciences Review Puerto Rico in my capacity as the island's Secretary of Health.

During my first 100 days in office, my team and I have been working tirelessly to execute Governor Jenniffer González-29 Colón's comprehensive healthcare commitments. These include addressing the exodus of healthcare professionals from Puerto Rico; advocating for greater federal funding equality; and passing five new laws on telemedicine, rare diseases. single medical records, folic acid awareness, and supporting maternal healthcare continuity.

We are also making significant new infrastructure investments in healthcare, including a new hospital in Vieques, new CETs in Mayagüez and San Lorenzo, a level one trauma centre, and upgrades to the Medical Sciences Campus. Meanwhile, the newly created Rare Diseases Office will collaborate with pharma companies, academia, and patient groups to improve access to orphan drugs and coordinate research into endemic syndromes.

Bringing Puerto Rico's healthcare system up to par with world-class standards in every area will not happen overnight and cannot be achieved by government agencies alone. Therefore, we seek collaborations to build a healthcare system that serves residents and global partners. Puerto Rico is open for business in health, tourism, and manufacturing, and I invite all stakeholders to explore the country and consider investing in our region.

Victor Rome

Yours sincerely



Dr. Víctor Ramos Otero

Secretary of Health



Dear colleagues in the international healthcare and life sciences ecosystem:

It is a deep pleasure to introduce the latest edition of Healthcare & Life Sciences Review Puerto Rico in my capacity as Secretary of the Department of Economic Development and Commerce.

Puerto Rico is at an exciting juncture in its history, one full of opportunities. Our island has a deep expertise and footprint in the life sciences, developed over decades, which will have a massive impact, both nationally and globally, in the coming years.

Most significantly, our island – a US jurisdiction in a highly geostrategic location and with great interconnectivity – will play a vital role in America's efforts to bring manufacturing back to its shores. We will contribute to strengthening the nation's supply chain for lifesaving medicines and medical devices as well as support broader national security priorities.

My office – in lockstep with the rest of the Puerto Rican government and our colleagues in Washington – is already working diligently to best capitalise on the coming opportunities. We are streamlining processes around permitting and energy, creating a single-entry point for new investment, and exploring various innovative incentives in areas like tax to ensure that the best talent chooses to develop their careers in Puerto Rico. At the Department of Economic Development and Commerce, we are implementing a comprehensive strategy to make doing business in Puerto Rico easier, faster, and more predictable.

We are fully committed to unlocking Puerto Rico's potential — for the benefit of our people, the U.S., and the world.

I invite you to explore this report and discover the momentum building across our ecosystem. But more than that, I encourage you to reflect on what Puerto Rico can offer. This is an invitation to think boldly, to analyze opportunities, and to envision prosperity — grounded in innovation, driven by talent, and anchored in a thriving business ecosystem.

Let this report be not only a source of information, but a springboard for ideas, partnerships, and future investments.

Enjoy reading,





Sebastián Negrón Reichard

Secretary, Department of Economic Development & Commerce





From the Publisher

In the global pharmaceutical supply chain, one small Caribbean island punches far above its weight. The US jurisdiction of Puerto Rico – just 100 miles by 35 miles – out-exports every individual US state in biopharmaceuticals, shipping over USD 53 billion worth of medicines and medical devices annually to 120 countries. That's more than twice the output of second-place Indiana, from an island you could drive across in two hours.

This is not just a story of scale, but also of sophistication. 25 million Humira syringes – the world's bestselling medicine – roll off Puerto Rican production lines each year while the island hosts manufacturing for 11 of the world's top pharmaceutical companies and over 30 medical device manufacturers. When the globe's most advanced therapies, from CAR-T cell treatments to cutting-edge biologics, need a home, they increasingly find it in Puerto Rico

But 2025 marks an inflection point. President Trump's renewed "America First" manufacturing push has suddenly rendered Puerto Rico's "made in America" status more valuable than ever. Everything produced on this US territory bypasses tariffs and regulatory hurdles, offering a ready-made solution to supply chain vulnerabilities exposed by recent global disruptions.

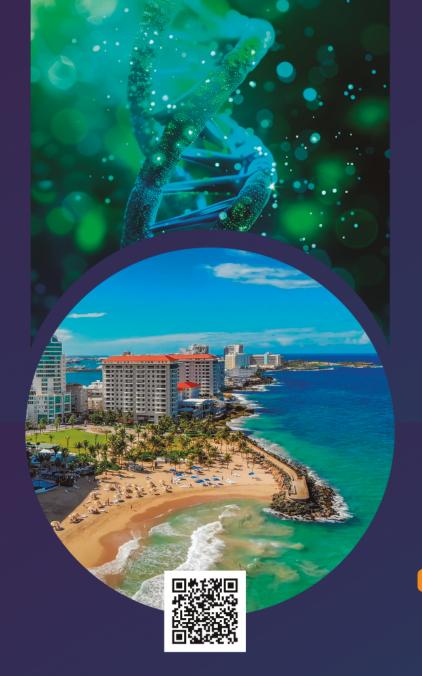
The fundamentals are compelling. Puerto Rico boasts the highest concentration of STEM workers in the United States and offers manufacturing costs 15-20 percent lower than comparable mainland operations. Under Act 60, eligible companies pay just four percent corporate income tax versus 21 percent on the mainland. Seven CEIV Pharma-certified logistics providers ensure temperature-controlled pharmaceutical handling meets global standards, while a newly extended DOT transshipment waiver positions the island as a strategic air cargo hub.

Yet this success story faces headwinds. An ageing physician workforce, persistent energy infrastructure challenges, and the spectre of federal Medicaid cuts threaten to undermine the ecosystem that has taken decades to build. The island that survived Hurricane Maria and emerged stronger now confronts a different kind of test: whether it can capitalise on <u>unprecedented reshoring opportunities</u> while addressing structural vulnerabilities.

This report, based on over 50 interviews with government officials, industry leaders, and entrepreneurs across the life sciences value chain, reveals an island in transition. From a new executive order promoting pharmaceutical relocation to Puerto Rico's designation as a national Tech Hub for biosciences, the pieces are aligning for another chapter of growth.

The question isn't whether Puerto Rico has what it takes to remain a life sciences powerhouse; its track record speaks for itself. Rather, it is whether this moment of unprecedented opportunity will be seized with the urgency and vision it demands. The island that has been quietly filling America's medicine cabinet for decades is ready to step into the spotlight.

MARY CARMEN LUNA, Head of LatAM



#1 Producer & Exporter of Pharmaceuticals in the U.S.

> Up to 50% Tax Credit on R&D activities

Highest Concentration of Pharma & Med Device Professionals in the U.S.

Bioscience finds its place Reshore to Puerto Rico

The Island combines full U.S. legal and regulatory alignment with world-class infrastructure, competitive incentives, and proven manufacturing expertise.





MACROECONOMIC SNAPSHOT



POPULATION (2025): 3.24 million



UNEMPLOYMENT RATE (2024): 5.6%



POPULATION DENSITY: 365/km²



MAIN INDUSTRIES: Manufacturing (notably pharmaceuticals & medical devices), tourism, services, some agriculture



POPULATION GROWTH (2023): -0.45%



CURRENCY: US Dollar (USD)



GDP (NOMINAL, 2024): USD 126 billion



POLITICAL STATUS: Unincorporated territory of the United States



GDP per capita (NOMINAI, 2024): USD 38,800

Source: Worldometer, Focus Economics, Trading Economics

Source: Invest Puerto Rico

ECONOMIC INDICATORS POINTING UPWARDS

Economic growth and constant increases in the Indexes of Economic Activity & Manufacturing Over 5-year period

An unprecedented increase in total employment over the last 5 years





Increase in the labor participation rate over 5-year period

Unemployment rate, the lowest in history, with over 1,134,000 people employed; a target that has not been registered in more than a decade





PUERTO RICO'S POLITICAL STATUS & BUSINESS ENVIRONMENT: KEY FACTS FOR LIFE SCIENCES INVESTORS

Source: DECA Analytics, DDEC, PRSTRT, PRIDCO

POLITICAL & LEGAL STATUS

- US territory (unincorporated); Commonwealth since 1952
- US laws apply incl. currency, courts, IP, FDA regulations
- US citizens, free movement to/from mainland
- No voting representation in US Congress

LIFE SCIENCES & MEDTECH HUB

- 4 of the top 10 global biopharma companies operate in PR
- 600+ entrepreneurial companies
- #1 IP ecosystem in Latin America
- 26,600+ **direct jobs** in the sector

TALENT & WORKFORCE

- US citizens; bilingual (English/Spanish)
- 25,000 STEM graduates annually
- Strong base in advanced manufacturing & biotech skills

MARKET ACCESS & BUSINESS ENVIRONMENT

- Part of the **US customs territory** no tariffs to mainland
- Eligible for "Made in USA" designation
- FDA-regulated manufacturing ideal for pharma & medtech
- US **IP laws fully enforced** strong innovation protection

TAX & INCENTIVES — Strong Advantage for Life Sciences

- Act 60 Incentives Code robust framework for pharma/medtech
- Corporate tax as low as 4% (1% for pioneer industries)
- 50% R&D tax credits on qualified expenses
- Mfg tax credit: 25% for raw materials/products made in PR
- Tax-exempt dividends, reduced sales tax & excise exemptions
- R&D tax credits are **monetisable** -can be sold at ~90% of face value
- Non-dilutive funding opportunities via grants & government-backed programmes

POLITICAL RISKS & STABILITY

- US military protection; US legal & financial systems
- 15+ year track record of consistent life sciences investment under current framework
- · Political debate around status (statehood vs Commonwealth) - no material impact on business certainty today

HEALTHCARE IMPERATIVES

Víctor Ramos Otero, Secretary of Health for Puerto Rico, reflects on his first 100 days in office and the key initiatives to strengthen the island's healthcare system. He discusses efforts to address the exodus of healthcare professionals, improve access to care through telemedicine and new legislation, and combat disparities in federal funding for Puerto Rico's health services.

You have completed your first 100 days as Secretary of Health. What have been the most immediate priorities?

VICTOR RAMOS OTERO

(VRO): As a starting point, we have been working based on Governor Jennifer González Colón's platform, which includes 29 commitments directed at the health sector. Some of these commitments have already been fulfilled, and others are in progress.

Among the priorities is the exodus of healthcare professionals. To address this, we have a comprehensive plan that includes student loan repayment. We are negotiating to create a legal trust fund with a base fund assigned by Puerto Rico's Fiscal Oversight Board, allowing people to contribute to the repayment of their loans.

Additionally, we aim to reduce licensing requirements without compromising profesional quality.

Currently, many unnecessary documents are requested, and there are over 30 regulatory boards with different laws and requirements. We want to standardise these processes through a unified

Regarding credentialing, we are working on a centralised database from the Office of the Insurance Commissioner, where insurers can access doctors' documents. Insurers are already participating, and we are integrating hospitals and outpatient centers so everyone can access the necessary documentation for credentialing.

health professionals code, simpli-

fying procedures without lower-

ing competency standards.

Another important topic is the tax incentive for doctors. Currently, only 3,000 of the 9,000 doctors in Puerto Rico receive a four percent tax incentive. We are negotiating with the Fiscal Oversight Board to increase this number without affecting public finances.

Payment to healthcare providers in Puerto Rico is lower than in the continental US. We have funding until 2027 under the federal law establishing Medicaid for territories, which differs from the law for states. Discussions on cuts are expected in 2027. Therefore, we plan to create a multisectoral committee by the end of the year to coordinate lobbying efforts in Washington,



"We have a healthcare system prepared to serve visitors and investors adequately"

D.C. to seek at least an extension, and ideally an increase, of current funds.

It is noteworthy that Medicaid has two main programs that Puerto Rico does not cover: long-term care and payment of Medicare Part B for dualeligible patients (Medicare and Medicaid). These represent approximately two billion dollars in funds Puerto Rico does not receive.

This situation affects healthcare professionals and patients, who migrate to states to access these services, incurring additional costs to the federal government. Therefore, securing adequate funding to maintain these services on the island is essential.

The exodus of doctors is clearly a major challenge, and you seem to already have a defined strategy. What other proposals are you working on?

VRO: During my first 100 days in office, five crucial laws have been approved: the new telemedicine law, the single medical record law, the rare diseases law, the folic acid awareness law, and the law establishing that obstetricians will be the primary doctors for pregnant women until one year after childbirth.

We will also address the labour and salary conditions of healthcare providers who do not bill medical plans, such as nurses, medical technologists, and respiratory therapists, aiming to improve their conditions. This is part of a study we are developing with the Institute of Statistics on the cost of medical practice in Puerto Rico.

Additionally, we will create a special prosecutors' unit within the Department of Justice. There is currently a unit for provider fraud and abuse, a federal requirement for funding. The new unit will allow patients to file complaints against insurers, enabling investigations of possible civil or criminal actions.

Another major program we are implementing is focused on the eradication of hepatitis C in prisons. Since January, in collaboration with the Secretary of Corrections, we have conducted rapid hepatitis C and HIV tests on approximately 80 percent of inmatesaround 7,000 people. This was possible thanks to the cooperation between the secretariats of Corrections and Health and the private operator of the correctional health system.

The next step is to perform confirmatory tests on those who tested reactive to link them to hepatitis C and HIV treatments. Hepatitis C prevalence in prisons is higher than HIV, and this disease is now curable. We are proud of this program, ensuring in-mates are not deprived of their right to health.

Finally, we are also working on the opioid initiative, focusing on addressing the root cause; the use of drugs in prisons.

What final message would you like to send to the global healthcare community on behalf of Puerto Rico?

VRO: As the governor says, Puerto Rico is open for business in the health, tourism, and manufacturing sectors. I want to assure you that we have a healthcare system prepared to serve visitors and investors adequately. I invite you to explore Puerto Rico and consider investing in our region; we are willing to collaborate with all the professionals interested in working with us.

While there are many needs and problems to address, a new emergency arises every day in a hospital, diagnostic center, or other facility requiring immediate attention. However, our team works with great enthusiasm and commitment. The Secretary of Health's employees are dedicated to our mission, and we will not let them down.

We may not have the most robust system, but we are proud. For example, during the COVID-19 epidemic, while other systems collapsed in major metropolitan areas around the world, we did not. This was thanks to the joint work of public health, medical colleges, hospitals, and professionals. We did the best possible work under the circumstances, and we are proud, especially considering we had fewer resources.

TIME TO CAPITALISE

Sebastián Negrón Reichard, Secretary of the Department of Economic Development and Commerce, sees Puerto Rico's current economic landscape as one of immense opportunity, particularly with the US government's focus on <u>reshoring</u>. With a skilled workforce, strategic location, and historical economic strengths, Puerto Rico is poised to contribute significantly to national security priorities. Negrón's priorities include overhauling the permitting system and streamlining processes to support both large multinational corporations and small businesses.



secretary, Department of Economic Development & Commerce

You have been in your current role for around two months. How would you assess the current economic landscape of Puerto Rico?

SEBASTIÁN NEGRÓN REICHARD (SNR): It is an exciting time for Puerto Rico, and I see our current economic landscape as one full of opportunity. We are at a unique juncture where Puerto Rico's natural talents are aligned with broader global shifts. This moment is particularly relevant in the context of Washington's efforts to bring manufacturing back to the US. With a highly skilled workforce, strategic location, and competitive incentives, Puerto Rico is ready to lead this reshoring initiative. This allows us

to play an integral role in strengthening the US supply chain and supporting national security priorities.

This is a time for Puerto Rico to capitalise on what we do best; by improving areas where we can do better, such as permitting and energy. We are addressing these concerns directly. Overall, Puerto Rico finds itself in a rare opportunity to leverage its strengths in a way that can have a global impact. By doubling down on what has made us successful historically, and focusing on improvements where needed, we can position Puerto Rico as a key player in the global economy moving forward.

What specific initiatives are being developed to bring back Puerto Rican talent to the island and ensure there are opportunities for them in these sectors?

SNR: Talent retention and attraction is one of our top priorities. As a young leader, I am deeply committed to ensuring that Puerto Ricans who have studied at our outstanding universities have jobs on the island, and for those who have had to leave, we want to create a path for them to come back and contribute to Puerto Rico's growth.

We are focused on attracting companies that offer competitive salaries in high-value sectors. Additionally, we are rethinking our tax system to make it more attractive for talent to return. We are exploring ways to simplify the system and make it fairer, easier to navigate, and more aligned with the



goal of bringing talent back to Puerto Rico. We are also considering adjustments to incentivise talent without necessarily relying solely on traditional incentives.

To that end, one of the ideas we are exploring is the possibility of reducing tax rates for everyone while broadening the tax base, which would also simplify the administration of the system. This is still in the works, and we are not ready to announce the full details yet, but these are the kinds of initiatives we are working on to support our talent and bring them back to Puerto Rico.

With the impending global minimum tax (GMT) framework, how is Puerto Rico preparing to adapt its tax incentives to remain competitive and compliant with international standards? **SNR:** We are fully aware of the global changes in tax regulations, especially the global minimum tax framework. Puerto Rico has been in constant collaboration with industry stakeholders and policymakers to ensure that we remain not only competitive but also compliant with US law. The governor, the Secretary of the Treasury, and I have received clear instructions to ensure that Puerto Rico doesn't lose a single job and continues to be an attractive jurisdiction for investment and employment.

We have spent significant time in Washington D.C., talking to Congress and the Treasury, and we maintain ongoing communication with local companies that could be impacted by these global tax changes. Puerto Rico remains

"This is a time for Puerto Rico to capitalise on what we do best; by improving areas where we can do better, such as permitting and energy"

committed to making sure we continue to support our local businesses and keep them competitive on a global scale.

We are confident that, in partnership with these companies, we will be able to navigate these changes effectively and find solutions that will minimise any negative impact from these international tax developments.

Looking ahead four years, what does success look like for Puerto Rico's economic strategy, and how do you envision your legacy as Secretary of the Government? **SNR:** In four years, we will no longer be discussing permits. Puerto Rico will have doubled down on its strengths, particularly in the high-value pharmaceutical manufacturing and medical device sectors. We will have expanded our R&D investments, making Puerto Rico more competitive and fostering a thriving bio and life sciences community. The government will be more aggressive in attracting investment, creating jobs, and leveraging local infrastructure, such as airports and roads, to support businesses. We aim to leapfrog small, incremen-

tal changes, focusing instead on making Puerto Rico a hub for innovation.

My endeavour during my tenure will be focused on creating optimal conditions for doing business in Puerto Rico. If we succeed in our goals, in four years, Puerto Rico should be a place where well-paying jobs are growing, where entrepreneurship is possible, and where the quality of life invites both locals and those who have left the Island to build a future here. If we can make this island more attractive to those who once left, and offer real reasons to return, we'll also be improving our demographic outlook, strengthening our workforce, our communities, and our long-term economic resilience.

My legacy, I hope, will have helped turn a period of overlapping crises into an opportunity to reconceptualise prosperity. I envision looking back at having pushed bold changes, strengthened our talent, and thought outside the box to ensure a growing, vibrant economy. That Puerto Rico is seen not only as a place to invest, but as a place to live, to grow, and to thrive. ::



Dear Members of the Global Healthcare and Life Sciences Community,

It is both an honor and a privilege to introduce the 2025 edition of the Puerto Rico Healthcare & Life Sciences Review as the President of the Pharmaceutical Industry Association (PIA) of Puerto Rico. As we reflect on the continued growth and transformation of Puerto Rico's healthcare and life sciences landscape, we remain committed to driving innovation, enhancing patient access to life-saving treatments, and contributing to the global healthcare ecosystem.

Puerto Rico has long been recognised as a cornerstone of pharmaceutical manufacturing. Today, our island continues to be at the forefront of biopharmaceutical production, with over 20 state-of-the-art facilities operating here. These facilities are pivotal in supplying life-saving medicines to more than 100 countries worldwide, solidifying Puerto Rico's position as a critical hub for the global pharmaceutical supply chain.

In addition to our manufacturing strength, Puerto Rico is increasingly becoming a beacon for clinical research and innovation. Our biopharmaceutical industry is deeply invested in clinical trials, facilitating knowledge transfer and cutting-edge medical advancements. Through strong public-private collaborations and partnerships, we are fostering an environment that accelerates discovery, supports disease awareness campaigns, and enhances patient care through vital support programs.

I am proud to represent an association composed of leading multinational and international biopharmaceutical companies, as well as supporting members who provide state-of-the-art services to the industry and have operations in Puerto Rico. Together, we are not only advancing the healthcare agenda in Puerto Rico, but we are also driving substantial investments in research and development that will improve the lives of millions across the globe.

Looking ahead, we remain optimistic about the future. Puerto Rico is uniquely positioned to continue its leadership role in the healthcare and life sciences sectors due to our strategic location, skilled workforce, and ongoing investments in infrastructure and patient-centered initiatives. As we move into 2025, we are committed to leveraging these advantages to foster further innovation, expand access to essential therapies, and enhance the quality of healthcare for all. In this spirit of progress and collaboration,

In this spirit of progress and collaboration, I invite all members of the global healthcare and life sciences community to explore the exciting opportunities Puerto Rico offers in biopharmaceutical manufacturing, clinical research, and healthcare innovation. Together, we can continue to advance science, improve health outcomes, and build a brighter, healthier future for patients everywhere.

I look forward to the continued collaboration and partnerships that will drive our shared mission forward.

With warm regards,





Juan Diddi

President
Pharmaceutical
Industry Association
of Puerto Rico (PIA)



Dear friends, colleagues, and partners

I am delighted to be able to introduce this new edition of Healthcare & Life Sciences Review Puerto Rico. As we celebrate the 95th anniversary of the Puerto Rico Manufacturers Association (PRMA), it is a perfect moment to look back on all we have achieved in becoming a key player in the global biomedical supply chain, as well as the future successes we can look forward to.

The life sciences sector alone contributes approximately 30% to Puerto Rico's GDP and is as a key driver of the island's economy. Manufacturing more broadly accounts for around 50% of GDP, encompassing industries such as aerospace, electronics, and food production. This broad manufacturing ecosystem supports numerous jobs, sustains local businesses, and contributes to a resilient economic framework.

Given our island's propensity for natural disasters, strengthening our infrastructure, particularly our energy systems, will be of crucial importance to maintaining Puerto Rico's competitive edge and attracting further investments.

At PRMA we are working tirelessly to target sectors primed for growth, particularly pharmaceuticals and biotechnology. Puerto Rico's regulatory alignment with the U.S. makes it especially attractive for pharmaceutical companies, offering a familiar regulatory framework and favourable tax incentives. PRMA also works on

improving business processes, like streamlining permits and enhancing access to capital and essential resources, to create a more seamless business environment. This, combined with the island's strategic location and skilled, English-speaking workforce, makes Puerto Rico a compelling destination for both U.S.-based and international investments.

Finally, we have our eyes firmly set on the future, embracing Innovation and workforce development. As the global manufacturing sector advances toward digitalization and Industry 4.0, Puerto Rico is making strides in integrating technologies like Al and automation into its production processes. PRMA also acknowledges the need for academic institutions to adapt quickly, aligning their programs with industry demands to produce graduates proficient in emerging technologies.

We therefore have much to do in order to build on our historic successes, especially in biopharmaceutical manufacturing, but I am confident that Puerto Rico – and especially Puerto Ricans – are up to the task.

Yours,

yed a



Yandia Perez

Executive Vice President Puerto Rico Manufacturers Association



Industry Priorities: The Path Forward

DESPITE BEING A SMALL ISLAND IN THE CARIBBEAN, MEASURING JUST 100 BY 35 MILES, PUERTO RICO HAS LONG PUNCHED ABOVE ITS WEIGHT AS AN INDUSTRIAL POWERHOUSE. ALREADY A LEADING PRODUCER OF EVERYTHING FROM BLOCKBUSTER MEDICINES TO HIGH-TECH MEDICAL DEVICES, HOW HAS IT GOT TO THIS POINT AND WHAT COMES NEXT? FOUR INDUSTRY LEADERS FROM THE PHARMA, MEDTECH, LOGISTICS, AND MANUFACTURING SECTORS WEIGH IN.



Multinational Innovative Pharma: Puerto Rico's Economic Engine

JUAN IGNACIO DIDDI, president of the board of directors, Pharmaceutical Industry Association of Puerto Rico (PIA) & general manager, BMS Puerto Rico & Caribbean

"I am honoured to represent this sector, which makes substantial and far-reaching contributions to Puerto Rico. The pharmaceutical industry drives economic growth, enhances healthcare quality, and actively supports community development, making it a cornerstone of the island's prosperity and well-being.

"This sector generates around USD 32 billion in economic activity and pays USD 3.1 billion in payroll. PIA members create 18,000 direct jobs with an average salary of USD 80,000, which is four times the average salary in Puerto Rico. These highly specialised and well-paid jobs contribute an estimated USD 150 million in taxes paid by our employees. Indirect employment rises to 69.000.

"The industry is also a large contributor to philanthropic initiatives on the island such as the United Way PR (where





individual donations are matched by the companies) and relief funds for natural disasters such as Hurricane Maria in the past.

"There is no question that our sector has been, and continues to be, Puerto Rico's economic engine and the most critical economic development sector for its long-term financial stability."



Medtech: Skills, Infrastructure, Supply

ILIETTE FRONTERA, president, Medical **Devices Cluster**

"Given the sector's rapid expansion, a resilient and well-integrated ecosystem - one that unites academia, government, industry partners, and service providers – is essential to maintaining Puerto Rico's position as a global MedTech hub. Our approach has prioritised open collaboration, not only to expand existing operations and attract new investments but also to cultivate the next generation of industry professionals. Our efforts have concentrated on three strategic pillars with a keen focus on continuing education and talent development has been a major priority.

"Recognising the urgent need for specialised skills, we collaborated with multiple companies to pinpoint critical skills and gaps in automation, software engineering, and business analytics; fields essential to high-precision, technology-driven manufacturing. In response, we designed and implemented training programs, deployed them across the industry, and are currently being integrated into Puerto Rico's top universities, allowing students to obtain industry-recognised certifications. This initiative ensures a steady pipeline of skilled professionals to continuously reinforce the island's competitiveness in advanced manufacturing.

"Second, strengthening the broader MedTech ecosystem has been imperative, particularly in addressing infrastructure constraints. Through a collaborative effort with the Puerto Rico Industrial Development Company (PRIDCO), we provided critical inputs into their launched of the White Box Project – an initiative aimed at replacing outdated facilities with modern, purpose-built industrial spaces designed to accommodate business expansion and investment growth.

"The third major focus has been supply chain optimisation, a crucial factor in ensuring long-term industry stability. After conducting an industry-wide assessment of raw material needs, we identified key commodities such as metals and packaging and pursued a dual strategy—expanding local sourcing capabilities while simultaneously attracting international suppliers to establish a presence in Puerto Rico. This approach not only reinforces supply chain resilience but also creates new business opportunities within the local manufacturing ecosystem."



Logistics: Reshoring & Hub Status

IVAN LUGO, board of directors. Air Cargo Community Puerto Rico

"Puerto Rico is making strides in gaining recognition for its logistics strengths, and we are actively working on strategies with the government to promote reshoring: bringing foreign manufacturers back to the US and Puerto Rico. The island has a significant advantage in this area because we have the global regulatory knowledge, talent, infrastructure, incentives, and a robust supply chain that can support logistics to anywhere in the world.

"One of the key reports we are focusing on is the 'U.S. Bioscience Economy: Driving Economic Growth and Opportunity in States and Regions.' This report, produced by the Biotechnology Innovation Organization (BIO) and the Council of State Bioscience Associations, highlights Puerto Rico's strengths in bioscience which includes pharmaceuticals, medical devices, agricultural biotechnology, and medical research. Notably, the global bioscience industry continues to grow at a remarkable pace, second only to the semiconductor and AI industries.



"Puerto Rico stands out as the only US jurisdiction with a highly skilled workforce in all four areas of bioscience. According to this report, Puerto Rico is one-third above the national average in terms of highly specialised employment in these fields. This is a significant achievement, especially when compared to other states in the US. It highlights how competitive Puerto Rico is, particularly in pharmaceuticals and medical devices, which continue to grow on the island. This skilled talent not only makes Puerto Rico a competitive player within the US but also strengthens its position on the global stage.

"Moving forward, we aim to build on these strengths and continue positioning Puerto Rico as a leading logistics and bioscience hub by leveraging our highly skilled workforce, world-class infrastructure, and strategic location."



Manufacturers: Embracing New Tech

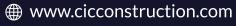
YANDIA PEREZ, executive vice president, Puerto Rico Manufacturers Association (PRMA)

"Puerto Rico is actively working to keep pace with the advancements in digitalization and new technologies in manufacturing. While we have a robust infrastructure and state-of-the-art facilities, there is a growing need for a deeper integration of artificial intelligence and other emerging technologies into our manufacturing processes. Many companies here are already implementing these technologies to enhance productivity and efficiency, showcasing a commitment to modernizing operations.

"However, there remains a gap in aligning academic programs with the specific skills needed in the industry. Our universities produce highly qualified graduates, but as technology evolves rapidly, we must ensure that their curricula reflect current market demands. Strengthening this connection between academia and industry is crucial for our workforce to remain competitive.

"The opportunities lie in not only enhancing technical skills but also fostering innovation and adaptability among our talent pool. For instance, encouraging partnerships between companies and educational institutions can help bridge this gap, allowing students to gain hands-on experience and learn the latest industry practices.

"Ultimately, PRMA's mission is to support the economic development of Puerto Rico by strengthening our members through benchmarking, best practices, attractive incentives, and access to capital, all while ensuring that Puerto Rico remains a prime location for business."













A DYNAMIC DESTINATION

ELLA WOGER-NIEVES

CEO, Invest Puerto Rico



How has Puerto Rico's narrative to global investors evolved in the past five years?

ELLA WOGER-NIEVES (EWN): Puerto Rico continues to be a global leader in pharmaceutical manufacturing and biosciences. However, the story has grown more dynamic in recent years. Beyond its hallmark resilience, world-class assets, skilled workforce, and attractive incentive structure, Puerto Rico has significantly advanced its capabilities in R&D and innovation.

The island now provides a unique ecosystem where global corporations and startups coexist seamlessly, supported by cutting-edge talent, state-of-the-art logistics, and a strong emphasis on R&D. Puerto Rico facilitates the entire innovation pipeline – from initial research to full-scale commercialisation - making it a leader in transformative fields such as gene and cell

therapy. Pharmaceutical and medical device companies increasingly embed R&D into their operations, using pilot plants and research facilities to develop and test products locally before entering the market. This integration streamlines the path from innovation to commercialisation, positioning Puerto Rico as much more than a production hub; it is an innovation

Furthermore, Puerto Rico's reach has become increasingly global. Companies from India, Europe, Asia, and Latin America are leveraging Puerto Rico as a strategic entry point into the North American market, benefiting from its established legacy in the industry, a highly skilled workforce, advanced logistical infrastructure, and competitive tax incentives. In line with global reshoring trends, Puerto Rico has emerged as an ideal destination for companies seeking a reliable and innovative base for their operations.

What recent developments and investments have strengthened Puerto Rico's position in the life sciences sector?

EWN: Puerto Rico's life sciences sector has experienced remarkable growth, driven by significant investments from both established and emerging players. Long-standing companies such as CooperVision, Medtronic, Sartorius, Johnson & Johnson, NeoPharma, Avara, and Terumo have expanded their operations in recent years, collectively creating nearly 3,000 jobs and contributing over USD two billion in investments.

Adding to this momentum, new entrants like CytoImmune, OcyonBio, Aurobindo, Woodward Pharma, Laris, ReAlta, and Organon have established a presence on the island, generating over 1,200 jobs and committing more than USD 500 million in investments. Since its operational inception in 2019, Invest Puerto Rico has facilitated commitments totalling nearly 25,000 jobs, further solidifying the island's pivotal role in the global life sciences sector.

Puerto Rico's strategic advantages extend beyond its investments. The island's logistical infrastructure, exemplified by the IATA CEIV certification for pharmaceutical handling at San Juan International Airport and its robust air cargo network, ensures seamless global connectivity. Furthermore, the implementation of hybrid energy systems for critical industries underscores Puerto Rico's commitment to resilience, providing stability and continuity in climate-vulnerable regions.

Beyond life sciences, Puerto Rico has achieved notable progress in sectors such as aerospace, technology, renewable energy, and the circular economy. The aerospace sector alone has grown exponentially, expanding from 700 jobs in 2013 to over 8,000 today. This diversification, coupled with Puerto Rico's well-established manufacturing base and knowledge-based service industries, forms the foundation of its economic resilience and growth.

Puerto Rico's ability to attract both global corporations and innovative startups highlights its dedication to fostering research and development, driving innovation, and sustaining leadership in cutting-edge industries. These investments not only reinforce Puerto Rico's status as a premier destination for life sciences but also underscore its broader strategic importance for businesses seeking a skilled workforce, economic incentives, and advanced infrastructure.

What impact will Puerto Rico's designation as a **US Economic Development Administration Tech** Hub have on its bioscience sector?

EWN: Puerto Rico's selection as a Tech Hub by the US Economic Development Administration is a transformative achievement for its bioscience sector. This designation, earned through a competitive federal process, underscores Puerto Rico's role as a key inno-

vation and technology hub. It paves the way for access to additional federal funding to enhance research and development, launch new academic programs, and establish incubators that will further support the growth of the biosciences. However, beyond the funding and programs, the most remarkable aspect of this achievement is the unified effort behind it.

The designation exemplifies the extraordinary collaboration among government agencies, nonprofit organisations like the Puerto Rico Science, Technology & Research Trust, academic institutions, and private industry. This cohesive approach reflects the shared vision of elevating Puerto Rico as a global leader in biosciences. The sector's stakeholders – from public and private entities to universities – all contribute to creating a thriving, innovative ecosystem. This spirit of partnership ensures not only the industry's vibrancy but also its ability to respond quickly to emerging opportunities and challenges.

What makes Puerto Rico unique?

EWN: Puerto Rico's collaborative culture is a defining strength that sets it apart from other regions. As a smaller, tightly knit community, stakeholders operate with a sense of pride and ownership in the island's status as a hub for pharmaceuticals and biosciences. This shared commitment drives efforts to attract investment, foster startups, and strengthen existing industry players. Economic development here is a collective endeavour, with every sector working together to ensure Puerto Rico remains competitive and innovative.

For instance, Puerto Rico's participation in the BIO International Convention – the largest biotech conference in the world – highlights this collaboration. Instead of attending as isolated entities, representatives from Invest Puerto Rico, the Science Trust, the Department of Economic Development, pharmaceutical associations, and private companies present a united front, showcasing the island's capabilities. This joint effort illustrates Puerto Rico's unified messaging as a premier destination for bioscience innovation and investment. The synergy between legacy industries, academia, and entrepreneurial innovation continues to position Puerto Rico as a global leader in biosciences and technology. **

Manufacturing Reshoring: Puerto Rico's Big Chance

CAN PUERTO RICO CAPITALISE ON THE TRUMP ADMINISTRATION'S "MAKE IN AMERICA" PUSH?



EFRAIN RODRIGUEZ COO, Copan Industries

President Donald Trump wants to bring manufacturing back to America. The last 40 years of globalisation and free trade saw huge chunks of the US supply chain for all kinds of goods, including essential medicines and medical devices, outsourced to lower-cost destinations in Asia.

Now, through a mixture of tariffs on goods manufactured abroad and incentives for firms to produce within the US, his administration hopes to usher in a new era of "made in America."

One of President Trump's recent executive orders, issued in March 2025, aims to accelerate the reshoring of pharmaceutical manufacturing by streamlining FDA approvals for new domestic production facilities and imposing higher tariffs on certain imported drug products. Announcing the move, Trump stated, "We can't keep relying on other countries for our essential medicines. We're bringing manufacturing back home — creating jobs and securing our supply chain."

This push builds on Trump's long-standing "America First" strategy but reflects a renewed urgency in his second term to reduce dependence on foreign suppliers and strengthen domestic resilience.

All the Ingredients

This political appetite for "reshoring" pharmaceutical manufacturing could spell opportunity for Puerto Rico. Everything produced on the island – a US territory that is part of the US customs zone and not subject to US tariffs – is technically "made in America."

Puerto Rico follows FDA regulations and US intellectual property laws, allowing products manufactured there to be seamlessly exported to the mainland. Eleven of the world's top pharmaceutical companies maintain manufacturing sites on the island, and over thirty medical-device companies also operate locally. For example, AbbVie has produced Humira, the world's best-selling biologic drug, in Puerto Rico since around 2002. One report notes that 25 million Humira syringes are manufactured annually on the island, and it remains a vital hub for biologics production

But why would a company considering relocating or bolstering its US pharma manufacturing footprint look to an island 1,000 miles off the mainland? The answers are manifold.



LUIS E. PIZARRO OTERO president, Puerto Rico Chamber of Commerce



Firstly, Puerto Rico has an established pharma/medtech manufacturing base developed over 65 years, already exports over USD 50 billion of pharma products annually according to the Puerto Rico Department of Economic Development and Commerce (DDEC), churns out over 25,000 STEM graduates every year, and boasts FDA-certified cold chain logistics infrastructure.

"Despite some companies downsizing or leaving the island in the past, there are still major companies like Amgen, Lilly, AbbVie, Boston Scientific and CooperVision that view Puerto Rico as essential to their operations," explains Elizabeth Plaza, founder of ProQuality Network, which helps pharma manufacturers maintain CGMP compliance and improve their quality systems.

"The island offers unique advantages, including competitive incentives, bilingual talent, and a strong foundation in GMP. Additionally, Puerto Rico has outstanding universities that produce top engineers, pharmacists, chemists, and other life sciences professionals. She adds, "Water is the main ingredient in most biopharmaceutical processes and the availability of water and its cost here are highly competitive. This is crucial for manufacturing and yet is often overlooked."

Manufacturers - both large and small - moving into Puerto Rico often "piggyback" on this dense network of existing infrastructure rather than create their own from scratch. "Puerto Rico is witnessing a notable trend where startups in the life sciences sector increasingly favour brownfield projects over greenfield initiatives," explains Ella Woger-Nieves of Invest Puerto Rico. CDMO OcyonBio, CRO CDI Labs, medtech manufacturer Copan, contact lens giant CooperVision, and oncology biotech CytoImmune Therapeutics, are just five recent examples of this trend.

"Rather than building facilities from the ground up, these companies are leveraging existing GMP (Good Manufacturing Practices) ready sites, which allow for a seamless transition for everything from R&D to full-scale production," explains Woger-Nieves. "This approach not only reduces costs but also accelerates operational timelines."

The results have been startling at Copan. "Initially envisioned as a modest-scale operation, our initial investment into Puerto Rican manufacturing quickly expanded as Copan experienced substantial institutional backing and identified new business opportunities," proclaims Copan Industries COO Efraín Rodriguez. "This confidence translated into a significant financial commitment, with the company investing over USD 100 million to solidify its presence in Puerto Rico."

Even more significant as a selling point are the cost savings. According to data from the US Bureau of Labor Statistics (BLS) and DDEC, the average hourly wage for production workers in pharmaceutical and medical device manufacturing is 30 to 40 percent lower in Puerto Rico than in comparable mainland US hubs such as New Jersey, Massachusetts, and North Carolina.

Moreover, under Puerto Rico's Act 60, eligible manufacturing and R&D companies pay a flat four percent corporate income tax, versus the 21 percent federal rate in the mainland US. There is also no additional state income tax (which can range from three to 12 percent on the mainland) and real estate costs for industrial and laboratory space are 20-35 percent lower than in major US hubs.

Finally, a 2022 KPMG report estimated that Puerto Rico total operational costs for pharma manufacturing (labour, taxes, utilities, facilities) were 15 to 20 percent lower than comparable operations in mainland US regions with similar compliance and infrastructure; creating a compelling investment case.



ELIZABETH PLAZA founder, ProQuality Network



JESUS MANUEL LABOY president, VIBRA, Puerto Rico



ROBERT SALCEDO CEO, OcyonBio

Capitalising on the Moment

With all these fundamentals in place, perhaps the biggest challenge for Puerto Rico is raising awareness of its advantages and competing effectively with other US states. Intra-state competition for biopharma investment dollars is extremely high, with many mainland states offering aggressive incentives, established research clusters, and reliable infrastructure. Puerto Rico also faces lingering concerns around electricity stability and long-term resilience, which can make companies hesitant to commit large-scale investments despite the island's clear strengths.

To this end, Republican Governor Jenniffer González-Colón issued her own, complementary, executive order in late March 2025 and reached out to top officials in the US to offer Puerto Rico's well-established, yet currently underutilised, manufacturing capacity as an economic engine to help grow American prosperity.

As George Laws Garcia, executive director of the Puerto Rico Statehood Council, writes in The Hill, "González-Colón's executive order promotes the relocation of overseas manufacturing of pharmaceuticals and other products to Puerto Rico. Much like Trump's executive order, it eliminates barriers and streamlines the process for businesses to move to the island."

"Puerto Rico is ready to welcome and expand multinational companies and continue consolidating its position as a key player in the national supply chain," Gonzalez-Colon affirms. With its manufacturing muscle, the governor argues, the island also has an important role to play in securing national supply chain resiliency.

"The national security of the United States of America depends to a large extent on the strength of its supply chain. In the current global context, Puerto Rico plays a fundamental and strategic role in the American supply chain."

Over at the Puerto Rico Chamber of Commerce, President Luis E. Pizarro Otero has been at the forefront of getting over messaging that resonates with the core priorities of the Trump White House.

"Under the Trump administration, the Chamber has refined its federal engagement strategy to resonate more directly with the administration's focus on fiscal responsibility, government efficiency, and domestic industrial revival," he explains.

"Rather than shifting its objectives, the Chamber adjusted its positioning, emphasising Puerto Rico's proven ability to deliver high-quality healthcare and manufacturing outcomes under constrained budgets.

"Through the Federal Affairs Chamber Educational Series (FACES) these themes have been communicated effectively, particularly in relation to reshoring, where Puerto Rico has been presented as a natural extension of US manufacturing capacity, a message that aligns with the "China-fired, Puerto Rico-hired" narrative championed by [Trump senior counsellor for trade and manufacturing] Peter Navarro."

Unpicking the Strategy

The key pillars of the governor's strategy are the creation of a new task force under the direction of Sebastián Negrón-Reichard, secretary of the DDEC, and a series of initiatives aimed at boosting Puerto Rico's attractiveness.

Several of these plans are designed to enhance the experience of companies establishing themselves in Puerto Rico. "This is a time for Puerto Rico to capitalise on what we do best by improving areas where we can do better," says Negrón-Reichard. "By doubling down on what has made us successful historically, and focusing on improvements where needed, we can position Puerto Rico as a key player moving forward."

These improvements include a 'One-Stop Investment Window' aimed at providing companies with a centralised point of contact to streamline processes and a 'Fast-Track Permitting Process,' which sets out to expedite the approvals. "[Puerto Rico's permitting system] has long been a bottleneck that frustrates entrepreneurs, delays investment, and weakens our competitiveness," said Negrón-Reichard, admitting the need for an upgrade.

Then there is the issue of energy supply (discussed in depth elsewhere in this report). Many of Puerto Rico's government and business leaders see energy reform as crucial to the island maintaining a competitive edge.

"Energy remains one of the most pressing challenges, but we are making strides toward a more sustainable and reliable system," affirms Negrón-Reichard.

Although energy was not mentioned in the recent decree, the DDEC secretary confirmed that "the governor has prioritised addressing both energy generation and distribution, with legislation passed to ensure flexibility in the current system while planning for future generations."

Opportunity Knocks

If Puerto Rico can tackle its main challenges — namely bureaucratic hurdles and energy reliability — and successfully make its case for investment in Washington DC, it has the potential to become a central player in the US effort to reshore pharmaceutical and medical device manufacturing.

Much of the infrastructure - both physical and human – is already in place but under-utilised, meaning that potential investors do not need to start from scratch, but rather build on strong foundations.

As the political winds blow towards reshoring, the island's manufacturers and service providers are braced

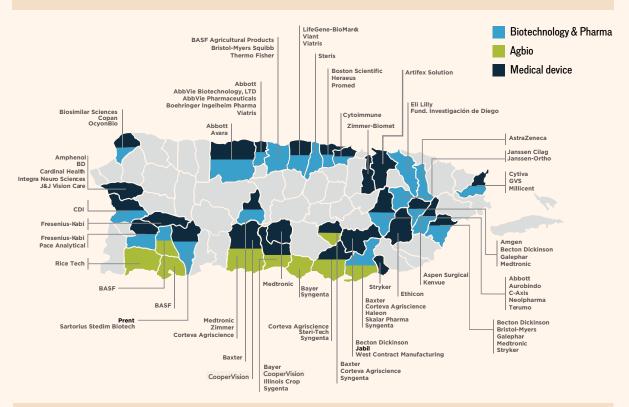
for an influx of new investment and demands. "With reshoring in the US, many companies will need to scale their operations, and we will be here for that," proclaims Jesus Manuel Laboy, president of VIBRA, which provides predictive maintenance and reliability engineering services for industries across the Americas. "We are bilingual and are also investing in our software to break down barriers. Language has been a significant challenge in our work, particularly because most technical literature and vendor materials are in English."

However, this will require a multi-stakeholder effort, as OcyonBio CEO Robert Salcedo concludes. "Unlocking Puerto Rico's full potential requires a fundamental shift in infrastructure strategy, governance, and media engagement," he states. "The island possesses all the necessary components to become a global leader, but achieving this vision demands decisive action, structural reforms, and a change in both perception and execution." ::





HEALTHCARE INDUSTRY MANUFACTURING IN PUERTO RICO



LIFE SCIENCES EXPORTS TRADE

Source: Invest Puerto Rico USD) 80 billion 70 billion 81.35% 82.66% 81.04% 60 billion 86.20% 87.43% 85.15% 85.47% 85.80% 86.84% 80.14 % 83.61% 50 billion 40 billion 30 billion 20 billion 10 billion 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 Total manufacturing (All) Pharmaceuticals & medicines Medical equipment & supply

A NEW APPROACH TO INNOVATION

Javier Deida outlines what Puerto Rico means to Pfizer – moving from an industrial base to a regional hub for marketing, finance and supply chain functions - and what Pfizer brings to Puerto Rico in terms of innovative medicines and clinical trials.

What role does Puerto Rico play in Pfizer's current strategy?

JAVIER DEIDA (JD): Puerto Rico has long held strategic importance for Pfizer, historically serving as a key manufacturing base, particularly for solid oral and parenteral products. However, as the company's global portfolio has shifted towards more specialised therapies, that industrial footprint has transformed. Many of the legacy sites are now part of Viatris, a spin-off managing established products, while Pfizer has progressively pivoted towards a more commercially focused presence on the island.

Today, our operations are centred around a distributed field force supported by a regional hub encompassing marketing, finance, and supply chain functions, many of which extend support beyond Puerto Rico to Latin America and select global operations. As we prepare to introduce new products from our pipeline, the focus is firmly on market preparation: understanding local access dynamics, identifying unmet needs, and positioning ourselves to deliver meaningful solutions.

Which areas of innovation are you most eager to introduce in Puerto Rico?

JD: What I find most compelling is the opportunity to bring forward therapies that offer meaningful advances, particularly in areas where treatment options remain scarce. The industry has moved beyond the era of "me-too" medicines; regulators no longer approve drugs that simply replicate existing solutions, and patients expect more. At Pfizer, our focus is firmly on developing differentiated therapies that can address significant gaps in care.

In Puerto Rico, that ambition translates into a strong commitment across several high-need

JAVIER DEIDA. regional business director and country lead, Pfizer

therapeutic areas. Cardiovascular disease remains a core priority, and obesity – a condition with serious and growing implications for the local population - is another space where we are actively looking to contribute. Beyond these, we are expanding our efforts in rare diseases, which often affect small patient populations but carry immense unmet needs. Our goal is to introduce therapies that can truly shift the standard of care and bring additional tools to patients who have few, if any, alternatives.

What makes Puerto Rico a compelling location for clinical trials, and how is Pfizer working to position the island more prominently within its global R&D network?

JD: Puerto Rico offers a strong foundation for clinical research, combining demographic diversity with technical expertise and supportive infrastructure. At Pfizer, this has become a priority area, and I currently sponsor a cross-functional workstream within PIA focused on expanding the island's role in trials.

We are working with the PRCCI to raise awareness at the global level not only of the island's capabilities and incentives, but also of its established centres of excellence. Although no industry headquarters are based locally, we aim to ensure Puerto Rico is top of mind when global teams select trial sites. We've seen encouraging momentum, with several Pfizer studies already underway and increased interest across the sector. ::

A LONG-TERM VISION

Spending almost 30 years working for a single company is almost unheard of in today's life science industry, where executives chop and change between firms with bewildering frequency.

However, in CooperVision – one of the world's leading soft contact lens manufacturers with Puerto Rico at its beating heart - Rolando Torres seems to have found a professional home for life.

Now serving as global chief operations officer for the company he joined back in December 1995, Torres is a homegrown Puerto Rican success story.

After graduating from the University of Puerto Rico-Mayaguez, he advanced through roles including plant manager, SVP for Americas manufacturing, and EVP of global operations. In 2016, he received the Puerto Rico Manufacturers Association's Manufacturer of the Year award.

> Torres' personal and career growth has been accompanied by a stunning increase in the size and scale of CooperVision's Puerto Rico

operations over the past half-decade; a period Torre characterises as "extremely exciting and fruitful."

sturdy business growth,

company announced a USD 500 million multi-year investment into Puerto Rican manufacturing.

This historic investment showcased the company's deep-seated commitment to the island and has involved creating new production cells, manufacturing and packing lines, expanding existing facilities, and growing the workforce from 1,700 in 2019 to around 2,500 today.

Additionally, in response to the island's welldocumented energy supply issues, Torres has even led CooperVision to create its own power system and microgrid. "Our 25-megawatt facility, using natural gas, is certified and has won multiple awards, including the Project of the Year from the Engineering Association of Puerto Rico," he explains.

CooperVision has lofty global goals for the next few years, with a Puerto Rican executive and Puerto Rican manufacturing at their core. It aims to become the world's leading contact lens manufacturer by revenue (currently it sits in second place), and maintain its position as its biggest firm in terms of patient reach.

"Puerto Rico will play a pivotal role in that journey," exclaims Torres. "The expansion of our operations here will require further investment, as the growth we are aiming for will drive the need for increased market share."

"No other company will invest more in Puerto Rico over the next five years than CooperVision," he continues. "We are among the top investors in Puerto Rico over the past decade and our corporate leadership has a deep belief in the island, its people, and our local teams."

And what keeps Torres motivated after all these years with CooperVision? "The people and the culture," he muses.

"I have always been surrounded by talented individuals. From manufacturing to regulatory, we have world-class teams in all locations, which I am incredibly proud of."

He concludes, "Additionally, the trust I have received from my peers and the leadership of the company has been a significant motivator. I feel fortunate to work with such great people and am extremely excited about the future." ::



ROLANDO TORRES, chief operations officer, CooperVision

Medtech: Collaboration, Innovation & Foresight

lliette Frontera, president of the Medical Devices Cluster, explains what sets Puerto Rico apart from its competitors as a world-class medtech hub.

Puerto Rico's medical device sector has established itself as a cornerstone of global MedTech manufacturing through decades of strategic development, world-class expertise, and our unique position as a U.S. territory. With over 30 production facilities, including operations from 12 of the world's top 20 medical device companies, our island has become the largest U.S. exporter of medical devices, contributing over USD 20 billion in annual exports and providing direct employment to 20,000 skilled professionals.

What truly sets Puerto Rico apart is our comprehensive ecosystem that extends far beyond manufacturing. Unlike regions focused solely on production, our island offers an integrated environment where companies engage in research and development, process development, commercialization, and distribution—all within a single operational framework. This seamless integration, combined with our sophisticated infrastructure and proven track record in regulatory compliance, positions Puerto Rico as an ideal destination for companies seeking stability, scalability, and global reach.



lliette Frontera

President **Medical Devices** Cluster



On the talent development front, our collaborative approach has yielded significant results. Through strategic partnerships between industry leaders, academia, and government, we have implemented comprehensive training programs in critical areas such as automation, with software engineering and business analytics following. These initiatives ensure a consistent pipeline of skilled professionals while reinforcing our competitiveness in advanced manufacturing.

The landscape is not without its challenges. We are actively working to strengthen supply chain resilience through local sourcing initiatives and supplier attraction programs. Additionally, we continue to advocate for greater global recognition of Puerto Rico's contributions to the MedTech industry and push for policies that support sustained growth and innovation.

Puerto Rico's medical technology sector stands as a testament to the power of collaboration, innovation, and strategic foresight. We remain committed to working with stakeholders across the ecosystem to drive technological advancement, enhance operational excellence, and continue to drive our sector to improve patient care globally.

"WHAT TRULY SETS PUERTO RICO APART IS OUR COMPREHENSIVE ECOSYSTEM THAT EXTENDS FAR BEYOND MANUFACTURING "



The Global Gateway

THE LARGEST PHARMACEUTICAL HUB IN THE AMERICAS, PUERTO RICO CURRENTLY EXPORTS TO 120 COUNTRIES, ACCOUNTING FOR NEARLY USD 53 BILLION IN WEEKLY BIOPHARMA SHIPMENTS. REMARKABLY, THIS SMALL CARIBBEAN ISLAND OUT-EXPORTS ALL INDIVIDUAL US STATES, SHIPPING OUT OVER TWICE AS MUCH AS SECOND-PLACED INDIANA. THE LIFE SCIENCES INDUSTRY IS CENTRAL TO THIS SUCCESS STORY, ACCOUNTING FOR NEARLY A THIRD OF THE ISLAND'S GDP AND OVER 70 PERCENT OF ITS EXPORTS.



Pasil Khalil VP of operations, FedEx Caribbean & Central America

"The island has a unique combination of infrastructure and expertise, which makes it an ideal place for manufacturing high-value products like pharmaceuticals," proclaims Basil Khalil, VP of Operations for Caribbean & Central America at international logistics titan FedEx. "FedEx has been operating in Puerto Rico for 45 years, and we have made substantial investments in this market to support the growing demand for rapid, secure transport of life sciences and healthcare-related goods."

"FedEx has made continuous multi-million dollar investments in Puerto Rico's facilities and fleet upgrades over the last decade, including state-of-the-art temperature-controlled rooms, digital tracking solutions, and additional capacity at both San Juan and Aguadilla airports."

Behind the startling numbers lies a dense network of local and international freight forwarders, third-party logistics providers, and ground handlers, helping bring the pharmaceuticals and medical devices produced in Puerto Rico to the world.

With many of these firms now holding internationally recognised quality certifications; regulation in place that allows Puerto Rico to serve as a strategic air cargo transshipment point under certain customs provisions; and the establishment of an 'Air Cargo Community' uniting industry and

government stakeholders, the future looks bright.

Transshipment Waiver: A Game Changer?

For decades, most of Puerto Rico's cargo was routed through the US mainland for further distribution; a costly process due to the Jones Act (officially the Merchant Marine Act of 1920), which requires that goods moving between US ports use US-built, -owned, and -crewed ships.

However, since April 2020, Puerto Rico has been the beneficiary of a waiver from the US Department of Transport (DOT) on air cabotage which allows for international cargo and passenger transfers at three airports (SJU, BQN, PSE). The recent renewal of this DOT transshipment waiver up to 2027 is, in the words of INDUNIV Research Centre CEO and Air Cargo Community board member Ivan Lugo, "The biggest recent news for Puerto Rican logistics."

He explains, "This waiver creates tremendous opportunities for Puerto Rico's logistics industry. Many airlines currently fly over Puerto Rico, but they do not stop. With the new transshipment waiver, we can attract airlines to make technical stops, drop cargo for added value activity and pick up cargo to new destinations."



RODNEY COLÓN president, GMD Airline Services



SASCHA HERZIG president and CEO, ETH Cargo

While the opportunities are clear, some stakeholders are urging caution. "While this policy shift has broadened the island's potential, its full impact depends on a parallel increase in local manufacturing output," warns Rodney Colón, president of GMD Airline Services, an appointed ground handler for several major international air-

lines operating on Puerto Rico. He adds, "Infrastructure and regulatory flexibility are in place, but they must be matched by production volumes that justify expanded air connectivity."

CEIV Certifications: Raising the Bar

The island's government is keen to leverage the momentum from the DOT waiver reauthorisation and double down on its logistics capabilities. "The governor has worked hard to strengthen Puerto Rico's role in the air cargo sector, particularly in sectors like healthcare and life sciences," explains Secretary of the Department of Economic Development & Commerce (DEDC) Sebastián Negrón Reichard.

"Through the hiring of a specialist, DEDC is helping local manufacturers improve logistics and transportation of their goods. We are also investing in cold storage capabilities, employee training, and company certifications to manage sensitive products, with seven companies currently qualified to handle specific air cargo needs (CEIV Pharma cold chain certification from the International Air Transport Association (IATA) – ed.) and plans to train four more."

These seven certified companies include both global players like American Airlines and Expeditors as well as local outfits Prime Air Corp, ETH Cargo, César Castillo, Isla Frio, and GMD. CEIV Pharma certification ensures all aspects of a company - from training to equipment, infrastructure, documentation, and quality systems – meet rigorous global standards for safe, temperature-controlled pharmaceutical handling and transport.

Additionally, both Luis Muñoz Marín Airport (SJU) and FedEx (at SJU and Rafael Hernández Airport in Aguadilla, BQN) are now CEIV Pharma-certified, making them key hubs for safe, compliant pharmaceutical handling in Puerto Rico.

The Power of Partnership

The Puerto Rico Life Science Air Cargo Community (ACC) was crucial to securing these CEIV certifications and bringing a previously fragmented ecosystem together. Modelled after successful pharma cargo hubs in Brussels and Amsterdam and supported by Invest Puerto Rico and the DEDC, the ACC is an inter-stakeholder collaboration platform "that allows shippers to voice their needs, airlines to share their constraints, and everyone involved to ensure there is clear communication and compliance in managing critical products," explains Sascha Herzig, president and CEO of ETH Cargo.

GMD's Colón agrees. "The establishment of the ACC has been a vital development in advancing the island's role within global logistics," he adds. "For years, there





TOM VINCENT vice president, Prime Air Cargo

was a notable gap, a lack of a unified platform bringing together all relevant stakeholders. The formation of this community, which now includes government agencies, manufacturers, airlines, freight forwarders, and handlers like GMD, has created a more coordinated and cohesive environment. Regular dialogue between these groups has not only improved day-to-day operations but also strengthened the island's strategic alignment around shared goals."

Having the life science logistics community as a united front is also a key selling point to potential investors, as Tom Vincent, vice president of Prime Air Cargo, points out. "By aligning capabilities across the supply chain – such as air cargo and ground transportation – we provide a comprehensive and reliable logistics framework. This gives Puerto Rico a significant advantage when attracting new pharmaceutical companies. For instance, when organisations like Invest Puerto Rico promote the island to potential investors, they can highlight our dedicated life sciences air cargo community as a unique asset."

As an example of how this culture of collaboration manifests in practice, global shipping giant UPS has partnered with local pharmacy chains to create access points and with a local firm Islandwide on intra-island deliveries. "Both projects enhance flexibility, expand coverage, and strengthen Puerto Rico's logistics ecosystem, allowing us to better serve customers across the island," proclaims José F. Oramas, Caribbean GEO



JOSÉ F. ORAMAS

Caribbean GEO
country manager, UPS

"The technologies and processes that we develop here often set the tone for broader applications worldwide"

BASIL KHALIL, FEDEX

country manager, whose firm now operates more than 100 flights per month from Puerto Rico to mainland US.

However, as Geoffrey Parrillo, founder of cold chain storage solution provider Isla Frio, warns, "while there is a concerted effort to get stakeholders to collaborate, there is sometimes a disconnect between the needs of the industry and what is available." He outlines, "For instance, when we were looking to expand our storage capacity, the process was somewhat complicated as banks want to know who will be using the facility before they will finance it, but companies are often hesitant to commit until the infrastructure is already in place. This kind of challenge is something that needs to be addressed for the industry to thrive, but I do see positive steps being taken in the right direction."

Built for the Unexpected

As detailed elsewhere in this report, Puerto Rico's frequent power outages and its susceptibility to natural disasters are a major roadblock to increased exports and investment.

However, those that have managed to survive and thrive against this backdrop have become increasingly resilient and flexible. As ETH Cargo's Herzig notes, "Pharmaceutical manufacturers expect logistics partners like us to match their level of preparedness. By maintaining up-to-date plans, we ensure continuous access to air and ocean shipment capacity, even during crises. Success in overcoming these challenges depends on staying vigilant, conducting frequent reviews, and collaborating closely with our clients to align contingency strategies."

Multinationals, including the likes of FedEx, have adapted too. "Puerto Rico presents unique logistical challenges due to natural events like hurricanes, earthquakes, and occasional geopolitical issues that can disrupt supply chains," says FedEx's Khalil.

"That's why we have made significant investments in infrastructure to ensure flexibility. For example, we operate out of two airports on opposite sides of the island. This redundancy allows us to adapt quickly if natural disasters or disruptions impact one area of the island, ensuring we can continue moving goods without compromising reliability or product integrity."

Moreover, if a new technology or process works in Puerto Rico, it can probably work anywhere. "Puerto Rico certainly leads a lot of the innovations within the company, particularly when it comes to healthcare logistics," adds Khalil. "The technologies and processes that we develop here often set the tone for broader applications worldwide. For example, innovations in temperature-sensitive shipping or healthcare logistics are often piloted in Puerto Rico before being rolled out globally."

What's Next?

Where is a more unified, certified, and unburdened Puerto Rican life science logistics sector heading next? Education is a key pillar; led by the ACC, programs at the University of Puerto Rico in Bayamón, Mayagüez, and other private institutions are training the next generation of professionals in supply chain and logistics.

"This marks a pivotal shift, formalising logistics as a recognised professional path and creating a structured pipeline of talent to support the evolving needs of the industry," states GMD's Colón.

Then there will be the expansion of CEIV certification to four additional companies - Magic Transport, Droguerías Betances,



GEOFFREY-PARRILLO founder, Isla Frio

DSB and the Air Group – in the near future as well as to the airports at Aguadilla/Borinquen and Ponce.

Looking ahead, stakeholders such as Ivan Lugo believe the island can evolve from a prolific exporter into a true redistribution hub, funnelling high-value therapies from South America to Europe, the Middle East and Asia via its newly won transshipment freedoms. Coupled with a widening circle of CEIV-certified operators, redundant airport capacity and a purpose-built talent pipeline, Puerto Rico is positioning itself to become an indispensable link in the world's life-science supply chains; one that moves far more than its own medicines. ::



Delivering on the Promise of Cancer Immunotherapy

IN CELL AND GENE THERAPY, WHERE R&D AND MANUFACTURING ARE INSEPARABLE, PUERTO RICO'S STRONG BIOPHARMA BASE MAKES IT AN ATTRACTIVE OPTION FOR CGT COMPANIES.

The first mover in this space is CytoImmune. Founded in 2017 by a cadre of Big Pharma veterans and established in Puerto Rico in 2020, CytoImmune is developing immune-based cancer therapies using proprietary natural killer (NK) cells derived from umbilical cord blood.

While still private with no immediate plans to go public, the company has built a solid financial base — raising USD 36 million in a Series A round and investing USD 28 million into its Puerto Rico facility — giving it the runway to advance this ambitious work.

The potential impact of this technology is enormous, as CytoImmune CEO José Eduardo Vidal explains. "Unlike typical NK cells, our cord blood-derived NK cells are more aggressive and persistent, capable of repeatedly binding, killing, and regenerat-

> JOSÉ EDUARDO VIDAL CEO, Cytolmmune Therapeutics



"Puerto Rico's scientific expertise, advanced technology infrastructure, and skilled workforce make it a strategic hub for biopharmaceutical innovation"

ing."

He adds that "in theory, they could target any cancer, as long as there is a distinct marker to recognise." However, this is a bleeding-edge technology and – as of 2025 – no NK cell-based therapies have been approved by the US FDA or any other regulatory body.

Then there are the cost savings of these "allogeneic" therapies (which use batch-manufactured cell batches to treat multiple patients) versus "autologous" treatments made using a patient's own cells.

Vidal notes that autologous therapies can cost up to USD 1 million per patient, limiting access, while allogeneic options like theirs are closer to USD 200,000.

Growing NK cells is, however, not easy. This has led Cyto-Immune to invest in large-scale bioreactors of the type used by US biotech giants like AbbVie and Amgen. This helps scale up production, produces more cells per batch, and ultimately reduces costs for patients.

But why base this in Puerto Rico, rather than in more established R&D hubs in the US, China, or Europe?

Vidal asserts that all the fundamentals are already in place. "Puerto Rico's scientific expertise, advanced technology infrastructure, and skilled workforce make it a strategic hub for biopharmaceutical innovation, enabling us to shorten development timelines and improve patient access worldwide," he proclaims.

The fact that processes are less set in stone in Puerto Rico than in other hubs could be a blessing in disguise. Vidal and his team, for example, have been busy filling in the gaps in a Puerto Rican R&D ecosystem and moulding it to their liking through creative partnerships.

"When we arrived, we saw gaps in pre-clinical infrastructure and partnered with the University of Puerto Rico and the Molecular Science Research Center (MSRC), leveraging their animal research facilities."

"This collaboration has since

expanded to in vitro studies and fosters an innovation-driven ecosystem, combining scientific expertise with practical skills. It also offers the added benefit of training students and professors in real-world therapy development, ultimately building a pipeline of future talent."

Collaboration will be a watchword for CytoImmune's future success, with the company offering its services as a contract research organisation and expertise hub for other teams' projects in addition to developing its own molecules.

"What started as informal collaborations has now grown into a formal service offering," says Vidal. "Initially focused on NK cells, we now work with multiple cell lines, addressing a wider range of diseases. We are also integrating diverse technologies such as gene regulation, mRNA, and epigenetics into our therapies."

"Ultimately, it's about collaboration to reach more patients and deliver on these therapies."

PROPELLING PRODUCTIVITY

Carlos Ceinos leads Principia, a consulting firm focused on automation, MES, project management, and validation for the biopharmaceutical industry. Now entering a management buyout phase – ensuring that the company's next generation of leaders come from within – Principia is applying its skills to new sectors, while carefully integrating AI and staying grounded in strong values and technical excellence.



Could you explain the value of your services?

CARLOS CEINOS (CC): As

Puerto Rico's financial and tax systems began to change, starting around 2006, companies realised they needed to improve cost-efficiency to remain globally competitive. One way to manage costs was to avoid maintaining large internal departments. Instead of hiring and sustaining a full team of highly specialised engineers and project managers, it made more sense to bring in

expert service providers like us on a project basis.

We offer clients high-value, specialised support exactly when they need it. For example, a plant launching a major automation project might engage us to manage the entire effort, often turnkey from start to finish. We also provide ongoing operational services, maintenance, and troubleshooting. It is a win-win: companies gain top-tier expertise without the long-term overhead.

What types of clients do you typically serve and how do you tailor your approach?

cc: We work with and adapt to top-tier global pharmaceutical companies, mid-sized firms and even some small generic manufacturers. The frequency and complexity of the projects we are assigned are evidence of the strong relationships we have built. Interestingly, we are also branching out into medical devices and even outside of life sciences altogether. The rigorous standards of the pharmaceutical industry have allowed us to develop practices that can be transferred to other sectors. For example, we are now applying our automation expertise to large utilities in Puerto Rico. Our disciplined, protocol-driven approach has proven highly effective in that context.

What kinds of KPIs do pharmaceutical plants use to measure your performance?

CC: In project-based work, the key performance indicators are straightforward: did we deliver on time, within budget, and with the expected quality? Quality is usually measured in terms of rework—how often we need to go back and correct something. For ongoing services, the KPIs revolve around responsiveness: how quickly do we diagnose and solve problems.

Some clients call us from anywhere in the world to help troubleshoot their systems. Speed and precision in response are essential, and we are evaluated accordingly.

Every project brings a human dimension. Introducing new systems means people must change the way they work. Our role is not just technical; we also help manage those cultural transitions. It is vital that external teams understand, follow, and comply with the client's procedures. That is always a challenge, but one we are experienced in handling.

Innovation Transformation

LONG CELEBRATED FOR ITS WORLD-CLASS PHARMACEUTICAL AND MEDICAL DEVICE MANUFACTURING, PUERTO RICO IS NOW LEVERAGING THIS STRONG FOUNDATION TO NURTURE A NEW ERA OF RESEARCH AND DEVELOP-MENT. RATHER THAN SHIFTING AWAY FROM PRODUCTION, THE ISLAND IS INTEGRATING R&D DIRECTLY INTO ITS MANUFACTURING OPERATIONS - FROM PILOT PLANTS AND SMALL-SCALE PROTOTYPING TO ADVANCED PRODUCT DEVELOPMENT. WITH A SKILLED WORKFORCE, ROBUST TECHNICAL EXPERTISE, AND SUPPORTIVE INCENTIVES, PUERTO RICO IS POSITIONING ITSELF NOT JUST AS A PRODUCTION POWERHOUSE, BUT AS AN EMERGING HUB FOR CUTTING-EDGE INNOVATION AND SCIENTIFIC DISCOVERY.

MANUFACTURING LEGACY: HELP NOT HINDRANCE

Puerto Rico's manufacturing legacy doesn't directly create new biotech companies, but it has shaped an environment that deeply values quality, compliance, and technical excellence. This strong production base provides a supportive backdrop that can make the island more attractive for ambitious research ventures while playing host to the manufacture of global pharma and medtech's most cutting-edge products.

"Puerto Rico offers exceptionally appealing tax incentives for pharmaceutical companies engaging in R&D"

AMARILYS SILVA-BOSCHETTI, PRCCI

As Ella Woger-Nieves, CEO of Invest Puerto Rico, explains, "Pharmaceutical and medical device companies increasingly embed R&D into their operations, using pilot plants and research facilities to develop and test products locally before scaling up."

Companies like Johnson & Johnson and Medtronic, for example, have expanded their facilities on the island to include pilot labs and product development teams, embedding smallscale research within large-scale production sites.

Startups, in particular, are taking advantage of existing infrastructure rather than building entirely new facilities from scratch, which accelerates their timelines and reduces costs. OcyonBio, for example, has transformed a large facility in the northwest of the island into what CEO Robert Salcedo calls "an integrated biotech campus for gene and cell therapy startups."

By providing turnkey GMP-ready space and services, OcyonBio enables emerging companies to "handle all aspects of production — from R&D to commercialisation — within a single facility," eliminating the need to start from zero. According to the company, OcyonBio currently supports several cell and gene therapy organisations and is expanding significantly, with plans for eight additional buildings on its campus to scale manufacturing capacity and welcome more biotech ventures in the coming years.

Other service providers are also emerging. A 30-minute drive down the coast from OcyonBio sits CDI Labs, a Mayagüezbased contract research organization (CRO). Specializing in immunology and proteomics, CDI has developed a "human on a chip" protein array platform that enables high-resolution mapping of antibody-antigen interactions for its clients.

CDI Labs offers another example of how this production-focused culture supports new research efforts. Co-founder and COO Ignacio Pino highlights, "Here in Puerto Rico, we've developed a deep-rooted understanding of quality over the years. The concept of a quality department is widely recognised, and this awareness is ingrained within the local workforce. It is something that is sometimes overlooked in other ecosystems. As a result, Puerto Ricans tend to have an inherent un-

derstanding of what is required to maintain quality standards and achieve positive outcomes."

GOVERNMENT SUPPORT

Puerto Rico's move into more complex and high-ticket R&D activities has received significant governmental support in recent years, both from Washington DC as well as San Juan. Significantly, in 2023, the US Economic Development Administration designated Puerto Rico as one of just 31 national Tech Hubs and, notably, the only one focused specifically on biosciences.

Additionally, major tax advantages are helping attract more research-driven startups to the island. "Puerto Rico offers exceptionally appealing tax incentives for pharmaceutical companies engaging in R&D," says Amarilys Silva-Boschetti, executive director of the Puerto Rico Consortium for Clinical Investigation (PRCCI), an organisation that offers specialised services for conducting clinical studies in Puerto Rico.

"Currently, companies can receive a tax credit of up to 50 percent on their investments in Puerto Rico, contingent



co-founder & COO, CDI Labs



AMARILYS
SILVA-BOSCHETTI
executive director
Puerto Rico
Consortium for Clinical
Investigation (PRCCI)



 $\textbf{DESIGN-BUILD} \mid \textbf{ARCHITECTURE} \ \& \ \textbf{ENGINEERING} \mid \textbf{GENERAL CONTRACTING}$

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upon presenting data that supports the impact of R&D investments." According to the Puerto Rico Science and Technology Research Trust (PRSTRT), the number of clinical trials on the island doubled between 2015 and 2022, generating more than USD 50 million in economic impact.

These efforts have been bolstered not only by national policy shifts, but also by the work of local institutions spearheading innovation on the ground, chief among them the PRSTRT. CEO Lucy Crespo outlines how, over the past decade, the PRSTRT has focused on "the building blocks" of the innovation ecosystem, including funding individual researchers to the tune of over USD 16 million; creating a technology transfer office that now manages over 120 patented technologies; and launching an investment fund that provides access to venture capital for start-ups.

These building blocks have created fertile ground for homegrown innovation to take root. Local biotech success story MBQ Pharma, for example, used a combination of PRSTRT support, philanthropic donations, and a USD 4.4 million US Department of Defense grant to move its lead candidate, a novel compound that targets metastatic cancer, into trials. This milestone was - in the words of MBQ CEO José F. Rodríguez-Orengo "historic" as the first compound originating from Puerto Rican research (at the University of Puerto Rico) to reach clinical testing.

"The PRSTRT played a critical role early on, providing administrative support for patent licensing and financing for pre-clinical experiments for our candidate," outlines Rodríguez-Orengo. "This early backing not only established our credibility but also positioned us as a leading example of the PRSTRT's Advanced Research Grants Program." However, demonstrating the path yet to travel for Puerto Rican innovation, MBQ could not conduct these trials in Puerto Rico as it had hoped and instead located them in mainland US.

Building on the success of pioneers like MBQ, the next generation of bioscience start-ups can lean on BioLeap, Puerto Rico's first dedicated life sciences incubator. Launched in late 2023 and managed by PRSTRT, BioLeap is housed within the Forward Center in San Juan alongside the well-known tech accelerator Parallel18. "With BioLeap, we recently completed our first cohort," says Crespo. "Eight companies participated, focusing on areas like medical devices and tech bio, and they collectively raised over USD 1.7 million in capital investment in less than three months."



LUCY CRESPO CEO, Puerto Rico Science, Technology & Research Trust (PRSTRT)

MISSING LINKS AND NEXT STEPS

BioLeap's early success shows the ecosystem's promise. But for Puerto Rico to truly scale its innovation ambitions, critical gaps still need to be addressed. Eduardo Nicolau of the Molecular Science Research Center (MSRC) has a few thoughts.

Regulation is an area of concern. "One of the primary issues that has historically been missing was the regulatory framework," explains Nicolau, whose institution is the University of Puerto Rico (UPR)'s first multidisciplinary research hub, housing over 300 researchers, students, and technicians. "In the 2000s, researchers from the UPR were not allowed to commercialise their inventions and - while this was rectified in 2010 – other jurisdictions resolved similar issues decades previously."

He continues, "Additionally, there is a significant need for support in terms of resources; both economic and infrastructural. There aren't many research labs or incubators on the island; while there are process development and manufacturing facilities, dedicated research spaces are limited."



EDUARDO NICOLAU executive director, Molecular Science Research Center (MSRC)

While Puerto Rican officials tout the island's highly educated workforce (it leads the nation in the percentage of its workforce employed in science, technology, engineering, and mathematics (STEM) fields) as a key potential contributor to its innovation push, others are more critical. Arthur Deboeck of Galephar instead identifies the Puerto Rican education system as an inhibitor to innovation on the island.

"While there is a strong desire for innovation in Puerto Rico, there is still something of a gap between aspiration and reality," states Deboeck, a chemical engineer with more than 50 years of expertise in drug delivery systems. "I would like to see a more rigorous, multi-year commitment to PhD programmes, which would then result in higher-quality research and critical thinking," he muses.

There is also the issue of retaining those young professionals of sufficient calibre. Puerto Rico has long struggled with emigration, one-third of people born on the island now live in the mainland US, and STEM-skilled professionals are overrepresented among those who leave. This trend, driven by economic uncertainty and natural disasters, complicates efforts to build a sustainable R&D workforce.

Then there are the challenges for local biotech start-ups of attracting the investment they need. This is no mean feat, as MBQ's Rodríguez-Orengo lays out. "One of the primary hurdles is the limited awareness of the biotech sector among local investors, who are predominantly focused on technology ventures. Biotech requires a deeper level of expertise and understanding, and the absence of this knowledge often leads to hesitancy. Investors tend to favour familiar areas, leaving innovative fields like biotechnology underfunded and underexplored."

However, the investment landscape is rapidly evolving. "While Puerto Rico may

not have as many traditional VC funds or large private equity funds like those in other jurisdictions, there is a significant amount of activity from sophisticated individual investors," counters Colton Wandke, co-founder and partner at DECA, a consulting firm focused on helping businesses in Puerto Rico access non-dilutive financing incentives, such as federal grants, local grants, and monetisable R&D tax credits.

"These investors often pool their resources and make strategic investments. It is not always newsworthy since these investments don't come from traditional large-scale venture capital firms, but there is a lot of private investment happening, which continues to grow."



JOSÉ F. RODRÍGUEZ-ORENGO CEO, MBQ Pharma

BUILDING ON SUCCESS STORIES

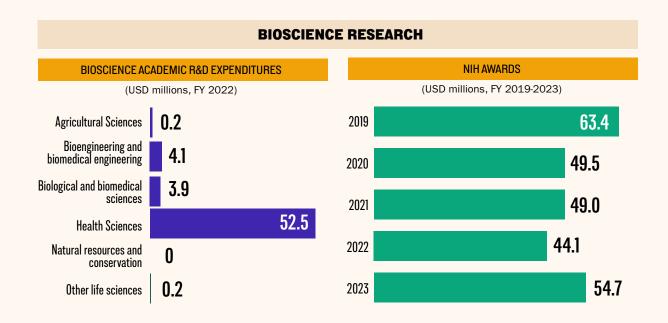
Despite the challenges, momentum is building. And for every challenge, there is a company proving what is possible. Those early pioneers now stand as case studies for others to follow and examples of how Puerto Rican R&D is already a reality.

"When we speak to investors about some of the incredible work being done here, we highlight companies like Cytoimmune Therapeutics, who have been making great strides, particularly in NK cell therapies," says DECA's Wandke. "Then there's OyconBio, which is building a major hub for gene and cell therapies. MBQ Pharma is another team making great advancements in cancer research. These are just some of the vibrant and innovative businesses that investors might not always hear about, but they demonstrate the creativity and potential of Puerto Rico's business ecosystem."

CDI Labs' Pino agrees. "In established ecosystems, success stories are common, but here we are still laying the groundwork. By focusing on what is working well, we can draw attention to Puerto Rico's potential and open doors for future growth."



COLTON WANDKE co-founder and partner, DECA



BIOSCIENCE PERFORMANCE METRICS

METRIC	PUERTO RICO	US	QUINTILE
BIOSCIENCE INDUSTRY 2023			
Bioscience Industry Employment	42,483	2,287,268	II
Bioscience Industry Location Quotient	3.30	n/a	1
Bioscience Industry Establishments	1,077	149,744	IV
ACADEMIC BIOSCIENCE R&D EXPENDITURES, FY 202	2		
Bioscience R&D (USD thousands)	\$60,961	\$58,224,514	V
Bioscience Share of Total R&D	64%	63%	III
Bioscience R&D Per Capita	\$19	\$175	V
NIH FUNDING, FY 2023			
Funding (USD thousands)	\$54,692	\$38,017,143	V
Funding Per Capita	\$17	\$114	V
BIOSCIENCE VENTURE CAPITAL INVESTMENTS, 2019-2023 (USD MILLIONS)	\$12.59	\$278,893.13	V
BIOSCIENCE-RELATED PATENTS, 2019-2023	104	222,670	V

Healthcare: Bridging the Gaps

PUERTO RICO'S HEALTHCARE SYSTEM IS A PARADOX OF STRENGTH AND FRAGILITY. WITH ONE OF THE HIGHEST INSURANCE COVERAGE RATES IN THE US (AROUND 94 PERCENT) AND A LONG TRADITION OF MEDICAL EXCELLENCE, IT HAS ALSO FACED PERSISTENT FUNDING GAPS AND A GROWING EXODUS OF TALENT. NOW, NEW FEDERAL POLICY SHIFTS RISK DEEPENING THESE VULNERABILITIES. YET, AGAINST THIS CHALLENGING BACKDROP, PUERTO RICO IS EMERGING AS A LAUNCHPAD FOR PHARMACEUTICAL INNOVATION AND ADVANCED THERAPIES, HINTING AT A MORE RESILIENT FUTURE IF CRITICAL GAPS CAN BE ADDRESSED.

Funding Gaps

Luis E. Pizarro Otero, president of the Puerto Rico Chamber of Commerce, points out that while Puerto Rico operates under the same federal compliance standards as the mainland United States, it receives only a fraction of the financial support.

"Despite having the highest Medicare Advantage (MA) penetration rate in the country, with 85 percent of Medicare beneficiaries enrolled, and 99 percent in fourstar plans or above, including the largest five-star plan in the nation, the island receives the lowest reimbursement rates," he explains. Puerto Rican patients receive Medicare reimbursements approximately 41 percent below the national average and 22 percent lower than other mainland jurisdictions like the US Virgin Islands. Medicare is the US federal health insurance for people 65+ and some with disabilities while MA is its private plan alternative offering bundled benefits.

Puerto Rico operates a separate Medicaid program (locally called Mi Salud), distinct from stateside Medicaid (a joint federal-state program providing health coverage to people with low incomes). While eligibility standards are similar, federal funding

is capped and primarily provided through block grants. This often forces the government to reduce services or limit enrolment when funds run low; indeed, Puerto Rico receives under 15 percent of what a similarly sized state might get.

According to Pizarro, average annual per capita healthcare expenditure in the US stands at around USD 15,400, compared to just 5,400 in Puerto Rico. This imbalance has weakened infrastructure, limited investment capacity, and fuelled the migration of healthcare professionals to the mainland, where compensation can be two to three times higher.

Puerto Rico's health indicators reflect these structural challenges. Approximately 27.8 percent of adults on the island reported fair or poor health to the Puerto Rico Community Health Assessment in 2022, well above the US average of 16.1 percent. Moreover, the island's poverty rate stands at 43 percent according to 2022 reporting from the US Census Bureau – nearly four times higher than the mainland US average – further straining public health resources.

These longstanding challenges are set to deepen with recent developments in







Washington. The Trump administration's so-called 'One Big Beautiful Bill,' which was approved by both the Senate and Congress in July 2025. The Bill proposes sweeping Medicaid cuts estimated at up to USD 930 billion over the next decade. For Puerto Rico, which already starts from a disadvantaged baseline, these cuts could further squeeze services and deepen healthcare disparities.

"Rather than pushing into a conversation not designed to include us, our efforts are focused on maintaining rigorous compliance with federal funding requirements and information exchange with key congressional partners," Pizarro notes. Against this backdrop, relatively lowly goals are being set; Pizarro underscores that protecting the current level of Medicaid funding would be seen as a strategic success for

Víctor Ramos Otero, the island's Secretary of Health, adds that provider payments are significantly lower on Puerto Rico than on the mainland. "We have funding until 2027 under the federal law establishing Medicaid for territories, which differs from the law for states. Discussions on cuts are expected in 2027," he says. Ramos highlights two major program gaps: long-term care for the elderly and Medicare Part B payments for dual-eligible patients, which together represent approximately two billion dollars in lost support. These gaps not only drive patients to migrate for services but also incur higher costs for the federal government.

Workforce Challenges

These funding constraints and structural gaps also contribute to workforce challenges, affecting both recruitment and retention across the health sector. Millie Rivera, business director Puerto Rico & LATAM chief of staff at women's health player Organon, notes that "one of the challenges is a growing shortage of physicians, a situation that, if left unaddressed, could evolve into a critical access crisis over the next ten years." She stresses the importance of involving the private sector in long-term workforce solutions, particularly for women, who often face disproportionate barriers.

Others from the life science community echo this concern. Javier Deida, regional business director and country lead at Pfizer laments that "Puerto Rico produces outstanding medical graduates, yet many are forced to leave for training elsewhere due to limited residency slots. Too often, they do not return," he explains. Deida emphasises expanding local fellowship opportunities and better-structured incentive schemes as key strategies to improve retention.

"The physician shortage in Puerto Rico is frequently misunderstood," adds Salvador Rovira, president and CEO of CredeMtia, a healthcare software development company and



MILLIE RIVERA business director Puerto Rico & LATAM Chief of Staff, Organon



SALVADOR ROVIRA president & CEO, CredeMtia



GLORIMAR TORRES general manager/ country director, executive board member of the PR Pharmaceutical Industry Association, Amgen



service provider. "While some doctors have emigrated, the deeper issue lies in an ageing workforce and limited local training capacity. The average physician is now around 60 years old, and many are retiring, not due to dissatisfaction, but because they are financially secure, exhausted by bureaucracy, or ready to join family elsewhere. At the same time, although Puerto Rico's four

medical schools graduate approximately 450 students annually, fewer than half can access a local residency position. The remainder must leave the island to pursue specialist training, not because they want to, but because the system gives them no alternative."

Secretary Ramos and the wider administration of Governor Jenniffer González-Colón have outlined several initiatives to address these workforce gaps. These include student loan repayment programs supported by a legal trust fund, simplifying licensing requirements through a unified health professionals code, and creating a centralised credentialing database. Currently, only 3,000 of Puerto Rico's 9,000 doctors receive a four percent tax incentive. Ramos is negotiating to expand this number without jeopardising public finances.

The Chamber of Commerce also sees targeted incentives as a crucial tool. Pizarro argues that the current universal application of tax incentives could be rebalanced: "If Mayagüez [a city and region on Puerto Rico's west coast] lacks neurologists, incentives should be targeted specifically at attracting



and retaining neurologists in that area, rather than being extended universally to physicians regardless of local need." He suggests phasing out benefits for late-career practitioners and redirecting them to new graduates more likely to stay and serve full-time.

Pharma Market: Opportunities & Obstacles

Despite these structural strains, Puerto Rico has shown remarkable adaptability, positioning itself as a promising hub for pharmaceutical investment and commercialisation.

Organon's Rivera highlights Puerto Rico's strategic importance: "Puerto Rico is our fastest-growing market in the Latin America & Mexico region and among the top ten worldwide. We have a broad portfolio, including biosimilars, immunology, oncology, fertility, and women's health. Around 55 percent of the market is public, and 45 percent is private – our focus is on ensuring patients in both channels have access to affordable, quality medicines."

Echoing this momentum, Glorimar Torres, general manager and country director at Amgen, explains: "Puerto Rico is one of our fastest-growing markets in the region and has consistently delivered double-digit growth. We are already among the top six companies for sales in Puerto Rico, which is significant for an innovator company like Amgen."

Puerto Rico operates under US FDA jurisdiction, allowing faster approval timelines and direct alignment with mainland launches. This strategic benefit is highlighted by Juan Ignacio Diddi, general manager for BMS Puerto Rico & Caribbean. "One of the biggest advantages of Puerto Rico is that we can launch products almost simultaneously with the US," he explains.

A prime example is BMS's introduction of CAR-T cell therapy at Auxilio Mutuo Hospital. CAR-T (chimeric antigen receptor T-cell) therapy involves reprogramming a patient's own T-cells to recognise and attack cancer – a complex and often expensive breakthrough treatment for certain blood cancers. Diddi describes this as a milestone: "It showcases

"Although there is a general understanding of the value that innovation brings, the key challenge lies in creating a framework that makes it economically feasible"

JAVIER DEIDA, Pfizer

the capacity of the island to quickly integrate cutting-edge therapies and provide local patients with global-standard care."

Yet, even with FDA alignment, specific local regulatory work remains crucial. Naiomi Chardon, commercial director and co-founder of Rebexa Group – a leading Puerto Rican regulatory consultancy - clarifies that "even when products are FDA-approved, they still need to be registered locally under the Puerto Rico Pharmacy Act. This local registration ensures accountability and traceability and acts as an added layer of public health protection. Similar frameworks exist in some US states, but in Puerto Rico, it is strictly enforced."

While the commercial environment is strong, actual market access for new therapies can be complex. Amgen's Torres warns that "while physicians are generally well-educated and products can be justified through the exception process, gaining access through insurance plans isn't always straightforward. Even if a product is FDA-approved and prescribed, it can be challenging to get it included in formularies, especially for innovative or high-cost therapies."

Diddi underscores that market access requires more than regulatory green lights. "First, clinical trials play a crucial role," he begins. "We have increased clinical trials by 20 percent in the past year, which gives patients early access to therapies and strengthens local medical infrastructure. Second, addressing access in underserved communities is key; with a poverty rate of over 40 percent financial barriers remain high. Our patient support programmes help at every step, from financial assistance to education."

He adds, "Lastly, pricing and sustainability are universal challenges. We work with governments and healthcare systems to balance innovation and affordability, developing sustainable models that ensure patients get the right treatments at the right time."

Pfizer's Javier Deida agrees. "Although there is a general understanding of the value that innovation brings, the key challenge lies in creating a framework that makes it economically feasible," he states "While list prices match the US, local rebates shape real access. We focus on ensuring innovation is not just approved but truly reaches patients."

Reasons to be Cheerful

Despite all these headwinds, there are reasons for cautious optimism. Since 2009, advocacy efforts have led to historic gains, especially in Medicaid funding, and steady improvements in the MA administrative process. Pizarro cautions, however, that "administrative improvements alone cannot resolve the structural inequity."

For Puerto Rico to stabilise its healthcare system, retain clinical talent, provide broader and faster access to medicines, and improve patient outcomes, additional funding is essential. As Secretary Ramos puts it, while Puerto Rico's healthcare professionals are as qualified as their mainland counterparts, "when it comes to equipment, technology, and the necessary resources to make everything work, there is a clear disparity." Addressing this gap will be key to ensuring that all Puerto Ricans can access the quality of care they deserve.

Regardless of the challenges, Secretary Ramos is positive about the system he oversees. "There are many needs and problems to address, and new emergencies arise daily in our hospitals, diagnostic centres, and other facilities," he concludes. "However, our team works with great enthusiasm and commitment. The Secretary of Health's employees are dedicated to our mission, and we will not let patients down." ₩

CONSTRUCTION: ADAPTABILITY IS KEY

Gustavo A. Hermida of CIC Construction Group shares how construction demands – including from the life science industry – have evolved in Puerto Rico, and how his firm has adapted to remain the island's leading general contractor.

How have construction demands evolved in recent years, particularly with trends like sustainability and smart construction?

GUSTAVO A. HERMIDA (GAH): The industry has transformed significantly, with sustainability and smart construction now at the forefront. Clients expect environmentally friendly practices and certifications such as LEED or Green Building. For example, in hotel developments, we work to preserve and integrate natural features rather than clearing land, minimizing environmental impact.

Smart construction has also become essential. Clients seek energy-efficient designs, advanced materials, and innovative technologies that enhance building performance. These trends reflect both market demand and our responsibility to deliver sustainable, modern solutions.

The construction sector in Puerto Rico has faced significant challenges, from hurricanes to economic shifts. How has CIC adapted to maintain its leadership?

GAH: Adaptability has been key. After Hurricane Maria, our experienced team managed reconstruction projects without major disruptions. The COVID-19 pandemic, however, brought new challenges. The government-mandated shutdown and labor market disruptions forced us to rebuild our workforce gradually, with rising wages adding further complexity.

Despite these challenges, our disciplined approach to growth and commitment to excellence allowed us to maintain our leadership position and deliver critical projects for Puerto Rico.

What distinguishes CIC from other companies in Puerto Rico?

GAH: The key differentiator is our ability to self-perform much of the work on our projects.



GUSTAVO A.
HERMIDA
president, CIC
Construction Group

While many construction companies rely heavily on subcontractors, we made the decision early on to retain control over civil, structural, and architectural work. This approach ensures consistent quality, safety, and precision.

We briefly experimented with subcontracting certain tasks during periods of rapid growth but quickly found it compromised our standards. Today, we self-perform critical areas such as steel structures and finishes, relying on subcontractors only when necessary, for instance, in concrete work for housing projects. By doing so, we reduce risks, maintain quality, and confidently meet client expectations.

What enabled CIC to stand out and become one of Puerto Rico's leading general contractors?

GAH: Our success comes down to three key factors: quality, safety, and people. The pharmaceutical industry's demands pushed us to raise the bar, developing a reputation for delivering projects on time, within budget, and to the highest standards.

As our reputation grew, we were careful to manage growth responsibly. Rapid expansion can compromise quality, which was never an option for us. Instead, we focused on building a team of highly skilled engineers, craftsmen, and professionals who shared our values. This disciplined approach allowed us to scale without losing sight of our commitment to excellence.

CONSTRUCTION: MEETING SHIFTING DEMANDS

Umberto Donato of DDD Group reflects on the importance of infrastructure and facility design to attracting investments to Puerto Rico and why collaboration is vital on large-scale construction projects.

How do you see the construction market evolving locally in Puerto Rico?

UMBERTO DONATO (UD):

There are a lot of positive forces shaping the construction market here. We have substantial funds from post-Hurricane Maria recovery, but there is still a lot of work to be done. Additionally, there is significant military investment, billions of dollars being directed to various facilities, and growth in health and pharmaceuticals, like the new eye surgery hospital we worked on, which operates on 100 people a day. Infrastructure projects like aqueducts, electrical work, and highways are also booming, and we are seeing more large-scale projects being managed locally.

After Hurricane Maria, we realised large projects were not being done by local contractors. We created a joint venture with three contractors to compete with large stateside contractors for emergency repair contracts, including projects up to USD 200 million. One of our most significant projects was the USD 300 million Camp Santiago project - a military facility that includes

headquarters buildings, barracks, and other military infrastructure. This was the largest bond ever issued for a project in Puerto Rico.

The joint venture allowed us to combine resources and expertise to take on projects that we could never have managed alone. This partnership has made us one of the biggest bonding capacity contractors on the island, enabling us to tackle high-complexity projects.

Do you have any standout projects or success stories in recent years?

UD: We have several. As well as Camp Santiago, we are also working on revamping Lilly Pharmaceuticals' corporate image by making architectural modifications to their buildings. This is part of Lilly's long-term commitment to Puerto Rico and aims to create an attractive work environment for new generations of employees.

Another key project is for the US Coast Guard in San Juan, La Puntilla. This is a USD 140 million design-build job where we are designing and constructing



UMBERTO DONATO president, DDD Group

central utility plants and mission command centres, along with other infrastructure improvements to enhance resilience.

What role does infrastructure and facility design play in attracting investments to the island?

UD: It is critical. Many clients, when they are doing feasibility studies early on, need to know how much things are going to cost and how long it will take. That is where pre-construction services come in. A client can come to us with a concept, hire us for pre-construction consulting, and we help with early conceptual estimating, scheduling, and all the digital tools to build cost and schedule models. This is critical for feasibility analysis and essential for attracting investment. ::

Powering Progress: Overcoming the Energy Challenge

ACROSS OVER 50 INTERVIEWS WITH PUERTO RICAN GOVERNMENT AND INDUSTRY STAKEHOLDERS, ENERGY SUPPLY WAS CONTINUOUSLY IDENTIFIED AS THE MAIN BARRIER TO GROWTH. PUERTO RICO'S AGEING, CENTRALISED, AND FOSSIL FUEL-DEPENDENT POWER SYSTEM REMAINS VULNERABLE TO DISRUPTION FROM HURRICANES AND OTHER NATURAL EVENTS. HOWEVER, NEW INVESTMENTS IN RENEWABLES, BATTERY STORAGE, AND DECENTRALISED CO-GENERATION – LED BY BOTH PUBLIC AND PRIVATE ACTORS – ARE STARTING TO BUILD A MORE RESILIENT FOUNDATION.

s a recent example of the scale of the issue, in April 2025, an island-wide blackout left 1.4 million customers without power, underlining the urgency of the grid modernisation efforts now underway. Puerto Rico is gradually reshaping its energy landscape through public-private efforts to stabilise the grid, expand renewables, and modernise transmission infrastructure.

Under the current model, the publicly owned Puerto Rico Electric Power Authority (PREPA) owns most of the physical assets but has ceded day-to-day operation and maintenance to two private operators. LUMA now manages the grid (transmission and distribution) while another firm Genera PR, operates the generation plants. PREPA acts as asset owner and strategic overseer while restructuring its finances.

PREPA's new leadership is prioritising grid repairs and fuel conversion projects to support a more resilient system in the coming years. "Puerto Rico is making steady progress toward its renewable energy goals," explains newly installed PREPA Executive Director Mary C. Zapata Acosta.

"Over 250 megawatts of utility-scale solar and about 1,000 megawatts of rooftop solar are already operational. In line with the Integrated Resource Plan, PREPA has signed contracts for around 800 megawatts of additional utility-scale solar and nearly 900 megawatts of battery storage."

THE MAIN BARRIER TO LIFE SCIENCE HUB STATUS

For complex industries like pharma and medtech, energy reliability is not just about keeping the lights on. It ensures critical functions such as stable cold-chain storage, continuous bioreactor operation, precise environmental controls, and uninterrupted data monitoring.

"Puerto Rico's infrastructure challenges, particularly in energy, remain a concern," opines Gustavo A. Hermida, president of CIC Construction Group, the island's leading general contractor. "The privatisation of the electrical system aimed to improve efficiency, but progress has been slow, especially following Hurricane Maria in 2017, which left the grid in a fragile state."

This could threaten Puerto Rico's ambitious goals to become a life sciences hub, adds Sascha Herzig, president and CEO of local logistics player ETH Cargo. "Urgent attention is needed to rebuild and modernise the power infrastructure," he proclaims. "A resilient, affordable, and reliable grid would reduce costs for manufacturers and bolster confidence in the island's long-term viability as a production base."

Others agree. "For industries like medical devices, where production processes are sensitive and precision is paramount, inconsistent power supply creates considerable risk," notes Rodney Colón, president of GMD Airline Services. "Without meaningful improvements to the power grid, it will be difficult to sustain long-term sectoral growth."

TAKING MATTERS INTO THEIR OWN HANDS

Despite these not-inconsiderable challenges, several firms have shown admirable adaptability and worked to create their own alternatives to the main power grid.

"Many companies in Puerto Rico's industrial sector - including AbbVie, CooperVision, and Coca-Cola – have already tackled the challenge of high infrastructure costs on their own, installing solar farms, co-generation facilities, and other independent energy solutions," explains Antonio Medina, CEO of consultancy firm Convergent Strategies and a former member of the island's Fiscal Advisory Board. Puerto Rico's industrial electricity rates are around 20-25 cents per kWh; significantly higher than US states like Texas (about 6-8 cents).

For Ella Woger-Nieves, CEO of Invest Puerto Rico, energy reliability has shifted from a challenge to an opportunity, at least for individual companies. "Many companies, particularly those in the life sciences sector, have adopted robust redundancy systems, integrating grid electricity with renewable energy and microgrids to ensure uninterrupted operations," she notes.

This move toward energy self-sufficiency mirrors steps taken by household industry names globally. Novo Nordisk, for example, has powered all its pro-

duction sites worldwide with 100 percent renewable electricity since 2020. Merck KGaA sources over 60 percent of its electricity from renewables in China and is targeting 80 percent globally by 2030. AstraZeneca, meanwhile, is rolling out large-scale biomethane and biogas projects to cut emissions across its UK and US manufacturing hubs.

Woger-Nieves continues: "Puerto Rico's expertise in disaster preparedness, redundancy planning, and cogeneration systems has made it a leader in maintaining business continuity under challenging conditions and multinational corporations often cite the island as a benchmark for operational resilience."

Consumer healthcare manufacturer Haleon is just one such example. Site Director Elba Cruz explains that Haleon "has established independent power generation capabilities, including our own generation facilities and solar farm infrastructure. This redundant energy system ensures operational continuity during emergencies or major weather events. Such investments are essential for maintaining the uninterrupted



manufacturing operations that our global supply chain depends upon."

Italian medtech manufacturer Copan Group, which holds a major manufacturing site on Puerto Rico, is just one such example. The firm, best known for its medical sample collection and lab automation solutions, is making a USD eight million investment in a cogeneration system, which will allow it to generate its own electricity using natural gas.

"Beyond mitigating external risks associated with Puerto Rico's energy grid, the system is expected to reduce overall energy consumption by more than 40 percent and generate substantial cost savings, lowering annual energy expenditures by several million dollars," explains Efraín Rodriguez, COO of Copan Industries, Copan's Puerto Rico operations. "Rather than perceiving energy challenges as a constraint, Copan sees them as an opportunity to innovate and strengthen its self-sufficiency."

SYSTEM REFORM: STEADY PROGRESS

To fix its persistent energy issues, Puerto Rico is pursuing structural change to the energy grid through privatisation. In 2021, LUMA Energy took over transmission and distribution while another firm, Genera PR, handles generation. A newly appointed "Energy Czar," Josué Colón, oversees both and explores alternatives to LUMA.

However, this is being carried out against the backdrop of a drawn-out bankruptcy process at PREPA. Only when PREPA exits bankruptcy – which it entered in 2017 – can it tap capital markets, federal billions, and move forward with LUMA and Genera contracts to rebuild the grid.



MARY C. ZAPATA ACOSTA executive director, PREPA



ANTONIO MEDINA CEO, Convergent Strategies



ELBA CRUZ site director, Haleon

Resolving this issue "should be a top priority for the island's new administration," according to Convergent Strategies' Antonio Medina.

"There are approximately USD 17 billion in federal funds allocated for this effort, though only about 10 percent has been deployed so far," says Medina. "Effective coordination is key to making progress. With the ongoing bankruptcy court process for PREPA's plan of adjustment, I am optimistic that within the next two to four years, we will see a resolution to Puerto Rico's energy crisis."

PREPA's Acosta is rather more circumspect. "If the government can resolve key issues with the private operators, we could begin to see progress within two years," she outlines. "In four years, we should see more tangible results. But I believe reaching the ideal balance may take closer to ten years."

"We are working to ensure that the island can offer reliable and affordable electricity to support existing industries and attract new ones," adds Acosta.

A mood of caution tinged with optimism prevails around what has long been the main stumbling block for the further growth of Puerto Rican life sciences. "No matter how advanced the plant, without a reliable power system, manufacturing becomes extremely difficult," cautions Carlos Ceinos, president & co-founder of Principia, a Puerto Rico-based consulting firm focused on automation, MES, project management, and validation for the biopharmaceutical industry.

"Thankfully, there are promising plans in place to address this," he concludes. "With solid infrastructure and a renewed focus on quality, scientific rigour, and efficient systems, I believe we can make real progress." ::



WITH OVER 80,000 PEOPLE DIRECTLY AND INDIRECTLY EMPLOYED IN PUERTO RICO'S BIOSCIENC THE ISLAND RELIES HEAVILY ON A SKILLED AND STABLE WORKFORCE TO MAINTAIN ITS COMPETITIVE EDGE. BUT IT FACES A TOUGH TALENT LANDSCAPE: THE MEDIAN AGE OF THE LOCAL WORKFORCE IS RISING, AND POST-HURRICANE MIGRATION, COMBINED WITH GLOBAL COMPETITION, HAS DEEPENED SHORTAGES IN CRITICAL FIELDS LIKE ENGINEERING, ADVANCED MANUFACTURING, LOGISTICS, AND HEALTHCARE, AGAINST THIS BACKDROP, STAKEHOLDERS ACROSS THE VALUE CHAIN - FROM MEDTECH TO PHARMA, LOGISTICS CONSTRUCTION, AND COMMUNICATIONS - ARE DOUBLING DOWN ON TALENT DEVELOPMENT AND RETEN-TION AS A STRATEGIC PRIORITY.

Medtech Manufacturing: Laying the Path to Management



MIGNA FONTAN director of operations, Viant

Migna Fontan of medtech manufacturer Viant Medical outlines how her organisation retains talent in a highly competitive environment.

"Viant has a comprehensive human resources strategy focused on talent retention. We focus on development and work closely with our associ-

ates to create career development plans in collaboration with their supervisors. Through our emphasis on career ladders, which provide a clear path for advancement, we have supported numerous success stories of employees growing from entry-level roles to management positions.

"Recognition and performance-based rewards are also essential to our retention strategy. This includes site-level awards and corporate-level Value Awards, which highlight outstanding contributions across the entire organisation, ensuring associates' hard work and positive impact is recognised and celebrated."

A Commitment to Professional **Development**

Yolanda Lassalle of global consulting firm LaSalle Group explains how talent development has become a core part of her firm's service package.

Around 2011 or 2012, a university approached me to teach Lean Six Sigma. I accepted,



YOLANDA **LASSALLE** president, La Salle Group

and that experience changed everything. Teaching became a passion, and it is now a core part of our firm. Whenever we work with a client, we aim to leave a legacy by upskilling their people so they can sustain the transformation in the long run.

LaSalle Academia is transitioning to LaSalle Talent Development and Innovation Center and offers over 30 certification programmes, covering areas like supply chain, project management, Lean Six Sigma, and regulatory compliance. It is a workforce development initiative open to any organisation looking to enhance its talent.

Importantly, this is not just training. We focus on competency development, where the client ends up with the benefit of people able to execute with the knowledge acquired.

Professionalising the Construction Workforce

DDD Group, a construction firm specialising in complex sectors including pharma, has worked to populate, professionalise and upskill the construction sector in Puerto Rico through a dedicated foundation, as President Umberto Donato explains.

"One of the key initiatives we have launched is the AGC Workforce Development Foundation, which aims to address the talent shortage in Puerto Rico. This foundation created the island's first open-shop registered apprenticeship system, which is a significant milestone as previous programmes were only specific to individual companies. Through this apprenticeship programme, we offer workers the opportunity to learn on the job, with pay increases as they advance in their training. They also receive a US Department of Labor credential, which is valid across the United States and its territories.

"This programme benefits both employees and employers. It helps develop a better-trained workforce and provides employees with skills that increase their earning potential. We aim to incentivise the younger generation to enter the construction industry, where there's stiff competition from other sectors like pharmaceuticals, technology, and media. Many of our skilled workers are nearing retirement, with a significant portion of the workforce being over 40, so attracting new talent is crucial.

"Through this foundation, we are offering not just a job, but a career in construction. We have already started the first cohort of 50 apprentices, and we plan to run these cohorts regularly. The programme is an essential tool to close the workforce gap, which currently stands at about 80,000 workers, with half of them not in the formal workforce. This is an ongoing effort, and we've been working on it for the past three years, with full operational plans now in place.

"The response from the industry has been positive, and we've seen collaboration from competitors, which is unique in Puerto Rico's construction sector. This collective effort is crucial in addressing the workforce challenges post-Hurricane Maria and during the pandemic. Our focus is on professionalising the workforce, ensuring they have the training and certifications to succeed."

Logistics: A Competitive Offering

For Sascha Herzig, president and CEO of logistics player ETH Cargo, a competitive and differentiated offering is key to securing and retaining top talent.

"Access to skilled personnel is a challenge, not just in Puerto Rico, but globally. From my recent travels to conferences in Dallas and Vienna and conversations with colleagues in the logistics industry, it's clear that talent shortages are a common issue across many countries. The key to managing this, at least in logistics, is being competitive in what you offer to employees. Compensation, flexibility, and benefits like hybrid work options can go a long way in attracting and retaining talent.

"The younger generation, in particular, has different expectations for their work environment compared to older generations. They tend to value work-life balance, flexibility, and purpose in their roles. Adapting to these new expectations can be a chal-

lenge for companies that are used to more traditional workplace structures. However, this shift is inevitable as younger generations enter the workforce, and it's something companies need to embrace if they want to stay competitive. At E.T.H. Cargo, we recognise these changes and are focused on offering an environment that meets the evolving needs of our employees. It's about creating a workplace where they feel valued, motivated, and aligned with our goals."

People, Passion, Purpose



IVELISSE CASILLAS founder, PMC Health Group

Ivelisse Casillas of PMC Health Group, formerly Pharmacon, leads a team of 20 many of whom have worked with her for over a decade - in delivering integrated healthcare communications. She explains why a passion for the field is key to retaining top professionals

"I am extremely passionate about what I do. For me, this is not merely a job it is a way of life. I love the health sector. I understand its vital importance. You often do not realise just how critical health is until you no longer have it. "That awareness fuels my desire to keep evolving



— to discover new ways of communicating with patients, of negotiating with clients, of remaining relevant. I invest in training our people so that every interaction with a client brings fresh ideas and creativity. No two days are the same in this line of work. Each day, you must reinvent yourself. And of course, we face intense competition, inflation, and economic challenges — reinvention is necessary if you want to remain relevant.

"Over the years, the team here has become another key source of inspiration. We are a team of 20 people, and some of my colleagues have been with me for many years. PMC, under my leadership, has worked with 13 of the 15 largest pharmaceutical companies in the world. That is an immense source of pride for us. That longevity is a real competitive advantage for PMC. They are experts in their fields, and that continuity and shared commitment have become part of my passion as well. That is why our mantra is: our people, our passion, our purpose." 👯





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