

COSTA RICA: Sustainability champion opens up to the world

With its new government expanding the country's presence on the global stage and removing red tape for doing business, now is the ideal time to explore the many opportunities for trade and investment in a diverse economy

COSTA RICA

Winter 2023



Diversified and open economy offers ideal platform for growth

Now is the ideal time to invest in one of Costa Rica's many thriving sectors as the pro-business government rolls out a red carpet for investors and removes red tape

Boasting the most powerful economy in Central America and an enviable reputation as a leading destination for global technology giants thanks to its excellent manufacturing capabilities and skilled human resources, Costa Rica is going from strength to strength and is ideally positioned to take advantage of the trend for nearshoring by US companies as they retreat from Asia Pacific nations.

Long popular with international tourists given its favorable climate, safe and welcoming civil environment and superb flora

and fauna, the country of 5.2 million people has grown into a major technology and outsourcing hub for hardware and software companies, as well as manufacturers of cutting-edge medical technology (medtech) devices.

President Rodrigo Chaves heads a business-friendly administration that — through various organizational channels — is committed to streamlining and simplifying trade and commerce legislation and regulations to boost foreign direct investment (FDI) in a host of sectors. Courtesy of a trade liberalization



Known for its natural beauty, Costa Rica's growing economy is also very attractive



Rodrigo Chaves
President



Manuel Tovar
Minister of Foreign Trade

policy and preferential trade agreements with 51 countries, the economy is forecast to grow 4.3% in 2022 as tourism and exports perform strongly. Exports in 2021 surged 24% over 2020.

"Vision without action is an illusion," says President Chaves. "Our vision is to bring Costa Rica to the world through our products and services, in practical terms, that means more international trade and international trade facilitation. Instead of red tape, investors will enjoy a red carpet; we are removing all

restrictions, simplifying procedures and improving legal certainty so that Costa Rica is the ideal investment destination."

This upbeat view is echoed by Manuel Tovar, Minister of Foreign Trade, who notes the nation enjoys preferential access to two-thirds of global GDP and one-third of the world's population.

"In addition, we wish to join the Pacific Alliance [Latin American trade bloc] and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)," he says.

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Exports conquer new markets far and wide

By offering a diversified range of quality products and services to international markets, Costa Rica has built an outstanding reputation with the help of dynamic trade entity Procomer

Juggling the twin goals of attracting major FDI and promoting Costa Rican goods and services to scores of export markets, Promotora de Comercio Exterior de Costa Rica (Procomer) is a key figure in the country's thriving trade and industry arena.

As a Public Private Partnership (PPP) dedicated to international commerce, Procomer is highly active in a host of sectors. Its core activities include export promotion and the development of free trade zones. The agency has more than two dozen branches worldwide as it works to grow Costa Rica's global trade footprint across continents.

Exports now represent 36% of GDP and are responsible for more than 700,000 jobs. The country exports more than 4,000 different products to 160 countries. According to Procomer Managing Director Pedro Beirute, this very diversified pool of products and services boosts competitiveness and reduces exposure to risks associated with various market circumstances. Meanwhile, a long-running country branding campaign has been hugely successful, as he explains.

"Nine years after its launch, our country branding 'Essential Costa Rica' has proven to be a very powerful and successful international



Pedro Beirute
Managing Director, Procomer

promotion and positioning tool, as evidenced by the figures for exports, tourism and foreign investment; sectors that represent the great engines of the economy, as well as generators of employment and well-being for the country," he states.

"Likewise, this country branding has been successful due to reasons such as its apolitical nature, comprehensive messages and a human talent that stands out in each exported product, in each worker hired by a multinational company and in each person who expresses our culture and idiosyncrasy.

"For all this, for the future we foresee the generation of more messages focused on sustainabil-



EC030's protocol creates carbon offsets by planting healthy new trees

ity, not only environmental as mentioned above, but also economic and social. Costa Rica has been a model of sustainability for many years and we must continue taking advantage of that good reputation to generate well-being for Costa Ricans, and that applies to the trade, tourism and investment sectors."

The senior executive adds that national socioeconomic development is not just related to fiscal performance, but to citizens' quality of life and the services they enjoy. "Our way to differentiate ourselves from the rest of the world is by developing businesses with purpose; businesses in which we build value through our values," he adds. "We are contributing to humanity by being a role model to the world: a country in which all our electricity is renewable."

One of Costa Rica's success stories is GBM, a leader in technology services and exclusive distributor for IBM. The enterprise also represents many other famous brands, such as Lenovo, Cisco, SAP and Microsoft.

The award-winning firm employs 2,000 people in nine countries and offers a broad range of infrastructure, software and IT services, as well as support and advice on the planning and implementation of new technology for companies of all sizes. GBM has been recognized as one of the leading employers in Latin America due to its excellent working conditions and strong focus on staff welfare.

"We want to take our clients' systems and transform them to the latest technologies; but instead of handing it back to them, we want to manage everything for them, with more security and with better practices," says GBM CEO, Ramón J. Aguilar.

"When you digitally transform and move systems to the cloud, they become more complex to manage. There is also the issue of security. When a computer is inside a room, it's very secure, but when all the systems are moved to different clouds, your footprint gets bigger and your security gets more complex."

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Triple-value bottom line in sustainable development

For Costa Rica's most successful and influential enterprises, the three priorities are having positive economic, environmental and social footprints



Jorge Sauma
General Manager, Corbana



Federico Odio
Country Manager, BAC Credomatic



Ramón J. Aguilar
CEO, GBM

Costa Rica's approach to economic development offers inspiration to others, according to Pedro Beirute, managing director of Promotora de Comercio Exterior de Costa Rica (Procomer), the highly respected export promotion agency: "When we think about progress, we think about sustainable progress; we have worked that way for 30 years and will continue to do so. In Costa Rica, sustainability is understood to have a triple bottom line: economic, social and environmental."

That mantra is followed by Costa Rica's most successful enterprises, including BAC Credomatic, Central America's leading universal bank that has a presence in six countries. Named Best Bank in Costa Rica by Global Finance Magazine in 2022, BAC is focused on adding triple value, says country manager, Federico Odio: "Success for us is good economic performance, but we also want to be net positive in our environmental and social footprints."

Already carbon neutral and a signatory of the United Nations' Principles for Responsible Banking, plus the global Partnership for Carbon Accounting Financials, BAC aims to be net positive for carbon, water and waste by 2025. "Our longer-term aspiration is to catalyze clients to join us on this journey, so that we can, together, leave a positive balance for future generations," states Odio. BAC has also invested to be at the forefront of technological innovation in order to foster financial inclusion and growth in small and medium-sized enterprises (SMEs), he adds: "BAC has a large number of SME clients, many owned by women, and we generate solutions specifically for them."

Another organization that illustrates the triple-value concept is



Costa Rica's vibrant capital, San José

La Corporación Bananera Nacional (Corbana), the body responsible for promoting and advancing the quality of Costa Rican bananas, the only bananas to have geographical indication recognition from the European Union (EU), says Corbana's general manager, Jorge Sauma: "Great effort goes into guaranteeing that our bananas meet high environmental and social standards. For example, 53% of our farms are already carbon neutral, workers receive good salaries and all join a social security scheme."

last 2-3 years: "That's because of our close location, stability, talent, rule of law and incentives. We also have more companies involved in nearshoring and friendshoring activities here now. Costa Rica is the ideal partner for this as we are just 2.5 hours away from the US."

Ramón J. Aguilar, CEO of GBM, a leading regional information technology (IT) company that provides its clients with cutting-edge hardware, software, consulting and services, backs up this statement: "Nearshoring and offshore services are great oppor-

“When we think about progress, we think about sustainable progress; we have worked that way for 30 years.”

Pedro Beirute, Managing Director, Procomer

Among its many services, Corbana operates an internationally renowned banana research institute, which focuses on increasing productivity and reducing agrochemical usage. One priority is developing solutions to the Tropical Race 4 (TR4) strain of the *Fusarium* fungus. Although not present in Costa Rica, TR4 causes a currently untreatable disease that threatens worldwide production. "It's the biggest challenge facing the banana industry, which generates 40,000 direct and 100,000 indirect jobs in Costa Rica," explains Sauma.

Today, about 32% of the nation's \$1-billion annual banana export crop goes to the US, Costa Rica's biggest trade partner. According to Procomer's Beirute, exports of all goods to the US have seen double-digit annual growth over the

opportunities for the country. That has a vital social aspect, as US firms will want to bring software factories here and to employ programmers. Companies like GBM are putting a lot of energy into English programming training through foundations, which will enable many young people to be lifted out of poverty quickly."

Winner of the Microsoft Partner of the Year Costa Rica Award 2022 and Cisco's first partner in the region for sustainable development, GBM's alliances with numerous technology giants are helping it drive the nation's digital transformation in other ways too, he says: "For instance, it's expensive for firms to have complex IT systems in house. By becoming the IT center for our clients, GBM can manage everything faster, better and cheaper."

Enriching destination for business and tourism

Dynamic Costa Rica's openness to the world benefits both high-tech industries and more traditional sectors such as agriculture and tourism

Costa Rica has recorded an annual average 6.7% growth in its export sales over the last 20 years and achieved another steep rise of 13% between January and October 2022, during which period the value of its exports was \$9.35 billion.

The country's openness to the world is a major factor in this performance, says Minister of Foreign Trade Manuel Tovar: "To date, we have negotiated agreements with 51 countries that give us preferential access to two-thirds of global gross domestic product (GDP) and one-third of the world's population." Those agreements include ones with the US, Canada, Latin American and Caribbean nations, China, Singapore, South Korea and the European Union.

Additional pacts are set to follow, he adds: "Under President Chaves' government, Costa Rica is focusing on the world and we have an ambitious agenda of further integration into the global economy. The exceptional work of Procomer, which the International Trade Center has ranked as the world's best trade promotion agency for several years, is also fundamental to our success."



William Rodríguez
Minister of Tourism

tionals have bases in Costa Rica, including Oracle, Samsung, Panasonic and Intel, which was among the first to spot its potential 25 years ago. At Intel's inauguration of a new plant in 2022, CEO Pat Gelsinger said: "Costa Rica is an appropriate location for this important expansion of our assembly and testing operations. The work we do here is critical to rebalancing the global semiconductor supply chain and supplying the industry with much-needed chips. We appreciate the partnership, passion and commitment of the local government, community and ecosystem."



Poás is one of over 60 active volcanoes in Costa Rica

top four for bananas and supplies various other in-demand items like coffee and cocoa, Tovar says: "Our agricultural products are distinguished by great quality, a commitment to the environment and the highest labor standards. Of course, another major industry for the country is tourism."

Essential vacation experiences

Costa Rica is famous for its stunning Pacific and Caribbean beaches, plus an array of jaw-dropping landscapes, which include lush rainforests that are home to 6.5% of the world's biodiversity. Pre-pandemic, those and lesser-known attractions drew in over 3 million visitors a year.

The industry experienced a substantial recovery from COVID in 2022 and the Costa Rican Tourism Board has devised a new plan for tourism to encourage a 100% return to form this year. The plan is based on three pillars, says Minister of Tourism William Rodríguez: "The first is innovation: we have to be innovative in exploiting new tourism niches and in diversifying our tourism product. Our main markets will continue to be sun, sand and adventure but, for instance, we are now putting greater emphasis on sectors like digital nomads

and nautical tourism, especially in terms of yachts and super yachts."

The second pillar is inclusivity. "The world generally sees tourism as an economic activity that is measured by how much it contributes to GDP and so on. As a sector, we have concentrated on the economics and not given enough weight to the social element. So we are making all our tourist attractions accessible to everyone, be they older people, minors or those with disabilities. The possibility of enjoying Costa Rica's beauty should be open to the world," asserts Rodríguez.

The plan's final pillar is environmental, social and economic sustainability. Costa Rica has already received international acclaim in this area, with a large part of the country's pristine natural environment being protected in national parks and reserves that limit the number of tourists who can visit at any one time. The government is also working on new measures to boost local tourism businesses, particularly entrepreneurial micro and small firms.

Rodríguez sums up his vision for the future of tourism in Costa Rica: "Our essence is to be a destination where people come not just for a vacation, but to enrich themselves as humans."

“We have an ambitious agenda of further integration into the global economy.”

Manuel Tovar, Minister of Foreign Trade

Added to this is the fact that the country has emphatically diversified and added value to its exportable goods and services. "Today, Costa Rica is a Latin American leader in areas like technology, electrical components and life sciences. Medical devices represent 35% of the goods we export, while business and information technology services, software and telecommunications are also important sectors," he notes.

A cluster of high-tech mul-

More US manufacturers are likely to arrive soon as a result of Costa Rica, along with the Dominican Republic, Panama and the US, signing a memorandum of understanding to advance the US-Alliance for Development in Democracy, which aims to strengthen supply chain resiliency and economic cooperation. The nation's second-biggest export revenue generator after medical devices is agriculture. It is the world's leading exporter of pineapples, among the

Committed to equality and collaboration

Tourism illustrates how Costa Rica has become an innovative leader in various sectors through public-private collaboration and by nurturing female entrepreneurs

Tourists wanting to experience unforgettable Costa Rica benefit from a large number of direct international flights to the country. “We have excellent air connectivity, especially with the US,” confirms Minister of Tourism William Rodríguez, “Costa Rica has the second-highest connectivity with the US in Latin America, with nine North American passenger airlines flying here.”

For 80% of tourists arriving by plane, the gateway is Juan Santamaría International Airport (SJO), which lies 12 miles west of the vibrant capital, San José. 24 international airlines connecting Costa Rica with 34 global destinations operate from SJO.

“In 2019, 5.4 million passengers passed through our airport. That dropped during the pandemic, but by August 2022 we had recovered 95% of our tourism traffic and we estimate we will reach 2019’s numbers by the middle of this year. Notably, only 3% of tourists arriving make connections — the rest remain in the country for over 2 weeks on average, which, after New Zealand, is the second-longest average stay globally,” reveals Ricardo Hernández, CEO of Aeris Holding Costa Rica, which is responsible for operating, maintaining, financing, remodeling and promoting the airport.

In 2022, SJO was named best airport in Central America and the Caribbean at the World Airport Awards, although Hernández is keen to stress that Aeris shares the credit for this with others: “Approximately 6,000 people work at the airport, of which 200 are Aeris’ direct employees. There is a spirit of collaboration among all of the organizations that operate at SJO, as well as with entities like the Costa Rican Tourism Board (ICT) and government authorities — the airport is a pub-



Ricardo Hernández
CEO, Aeris Holding Costa Rica

lic-private partnership in which the state is a genuine partner. Aeris’ role is to find out what each stakeholder needs to offer the best quality services within the airport, in alignment with the country’s approach to tourism, and to invest in facilitating that.”

Equally important to the CEO is that SJO won the prize for best airport staff in its region at the awards: “Just as we focus on the passenger experience, we believe in the employee experience. Our employees are the center of the organization and our job is

“Our investments are normally made as equity capital, the program has changed many lives and demand is huge.”

Cindy Quesada, Minister for the Status of Women

to provide them with empathy, clear communication and training to equip them with the tools to achieve their professional and personal goals and to go the extra mile in their work.”

To retain SJO’s position as the region’s top airport, Aeris will continue collaborating with other stakeholders and investing in infrastructure, innovation, technology and sustainability, an area in which it is already a pioneer. “Sustainability matters in Costa Rica.



INAMU supports equality in science education, training and employment

For us to be the best airport that also contributes to the country, operating in a sustainable manner is non-negotiable,” he insists.

Empowering women

Another aspect of tourism where Costa Rica excels is gender equality, which is a “fundamental element of our tourism model,” according to Rodríguez. Evidence of its ongoing efforts to support women in the sector came in September, when 175 female entrepreneurs joined a World Tourism Organization training program led by the ICT. “The successful initiative aimed to strengthen the entrepreneurs and help them with commercialization,” states Minister for the Status of Women Cindy Quesada.

The new government has made equality a top priority, with an emphasis on the economic autonomy of women; care systems for children, people with disabilities and older adults; the fight against gen-

der-related violence; and the promotion of women’s rights. Unlike other Latin American countries, Costa Rica already has the right institutional framework in place to achieve its goals, says Quesada: “We have the advantage of the National Institute for Women (INAMU), which was created in 1998 as the public entity for promoting equality. It’s a stable institution with economic resources.”

the National Institute of Learning, universities and others to strengthen women’s businesses and technical training throughout the country. One of its most important schemes to date has been a non-reimbursable funding program for entrepreneurs, she believes: “Traditional banks often demand real-estate guarantees that the vast majority of Costa Rican women don’t have, so this is an opportunity for them to be able to access financing. Our investments are normally made as equity capital, the program has changed many lives and demand is huge.”

Another sector with numerous female business owners and workers is agriculture and INAMU works alongside the Ministry of Agriculture to increase the economic autonomy and employability of women in the industry via programs that are also increasing the quality and diversity of the country’s agricultural produce.

“One thing we have in the pipeline is providing technical support to link production with food security and a response to climate change. That’s about activities that generate income, are sustainable and help recover ecological spaces that may have been degraded, such as mangroves and deforested public areas. In addition to producing oxygen, lost traditional and nutritious foods can be grown in those areas,” enthuses Quesada. “Initiatives like this improve the economic situation of women and further empower them by giving value to what they are doing, which is something that’s important for the community and the planet.”

Costa Rica's biggest asset is talent

A key advantage for inward investors is the country's dedication to training its population in advanced skills that match businesses' requirements

According to Investment Monitor's 2022 analysis, Costa Rica ranks first in the world for its inward foreign direct investment (FDI) levels, which are running at 13.4 times the volume expected when compared to the size of its gross domestic product. Central to that performance is the Costa Rican Investment Promotion Agency (CINDE), a non-profit private entity that works in close partnership with the government.

"Our role is to promote the country, attract international companies and retain those companies. A vital part of our job is listening to investors, passing on their needs to the government so that it can quickly adjust the investment climate, and facilitating connections between companies and the president, ministers and public entities, who are always very accessible in Costa Rica," says Vanessa Gibson, director of investment climate at CINDE.

In recent years, the agency has consistently been recognized by the International Trade Center as the world's best investment promotion body. Gibson attributes that success to the country itself: "Costa Rica is a great product to promote! Importantly, we have a good understanding of the requirements of both the private and public sectors, and of how to find synergies to achieve our common goal: prosperity of the country and of businesses. Costa Rica's value proposition includes 3 Ps: people, planet and prosperity, and that is reflected in the investors we attract. They are companies that are integrated into our philosophy of seeking the development of our people, with an ambition to impact the planet by making it more sustainable and, on top of that, generating prosperity."

In 2021, 63% of Costa Rica's inward FDI came from investors



Vanessa Gibson
Director of Investment Climate
CINDE

working in technology, life sciences, business and professional services, Investment Monitor reports. "The activities that have positioned the country where it is today are medical device manufacturing, other advanced manufacturing and a buoyant, rapidly expanding corporate services sec-

Costa Rica's value proposition includes 3 Ps: people, planet and prosperity, and that is reflected in the investors we attract."

Vanessa Gibson, Director of Investment Climate, CINDE

tor. Costa Rica is evolving hand in hand with technological advances and global trends," confirms Gibson.

An illustration of this is the number of manufacturing firms that are now carrying out research and development in the country, she notes: "This is directly correlated to the fact that we've attracted so many North American multinational companies, which see Costa Rica not only as a nearshoring destination, but as a complementary extension of the US. They recognize that they can replicate their corporate values in a country that welcomes them and is closely aligned with the same values."



Around 192,000 students enrolled in INA's training programs in 2021

Costa Rica's advantages for investors are varied and depend on the sector they are operating in, but one factor benefits all of them when it comes to added value: highly skilled talent.

"Our main asset is our people — we invest to ensure that the country will always have the quality of human resources companies are looking for. In this area, CINDE acts as a facilitator. We work with the Ministry of Public Education, the entire education and training sector, plus companies, which provide feedback on the talent they find and gaps that have to be filled. As an example of the results of this approach, we've created a new 3-year technical course in artificial intelligence for

development centers for training entrepreneurs and we provide scholarships. Our resources are prioritized toward supporting young people, women, the unemployed and other disadvantaged or marginalized groups," explains INA's CEO, Juan Alfaro.

INA has played a vital role in transforming the country into a hub for medical device manufacturing and other high-tech industries by reskilling workers for those sectors, Alfaro says: "We are very aware of the opportunities that still exist in these areas and will continue taking them to promote the development of the country and of our population. For instance, we are researching how we can produce people with the design and programming capacity needed in aspects of the metaverse's architecture, we are advancing into industry 4.0 and we have enrolled close to 1,000 students on a new course in cybersecurity in just 3 months. Our aim is to be continually evolving."

The CEO's main mission is to ensure that INA's training programs lead to employability, which means targeting them precisely to the requirement of businesses, he asserts: "We're in constant dialogue with the private sector, industry clusters, chambers of commerce and organizations like CINDE in order to understand and put into practice companies' needs — not just for today, but in 5 years time. We have an obligation to stay ahead by designing programs and starting to train people in the skills of the future now, so that they are available when companies need them."

15-year-old students, which is tailored to businesses that provided the content for the program," she reveals.

Training that continually evolves

A key organization in the education and training ecosystem is the National Institute of Learning (INA), which offers free skills-based training to any Costa Ricans over the age of 15 through 54 vocational training centers that are spread across the nation. "In 2021 we had 192,000 student enrollments. We offer apprenticeship programs that can last up to two years, shorter training modules and accreditation services. We also have five business



Ad Astra Rocket Company is creating a hydrogen ecosystem in Costa Rica

Healthy environment for innovation

Costa Rica offers the ideal conditions for entrepreneurs working in diverse sustainable technologies, including carbon offsetting, green hydrogen and fuel-cell vehicles

Costa Rica’s decades-long focus on contributing to the global fight against climate change makes it fertile ground for innovators in sustainable technologies. One illustration of this is ECO30, a young software firm that is weaving together the country’s passion for sustainability with natural solutions and blockchain technology to position itself as a world-wide leader in carbon offsetting.

ECO30 set out to solve a growing problem: the fact that the traditional system for generating carbon offsets by planting trees is not working effectively. It is an industry that was worth \$1 billion in 2021 and is expected to reach \$35 billion by 2030, but the processes currently used for verifying and quantifying the trees involved are complex, slow and manual.

The firm’s answer was to create a scalable protocol for high-quality offsets that enables full, transparent traceability from seed to offset. This utilizes technologies like Internet of Things devices and unmanned aerial drones to capture accurate data in minutes, which is stored in blockchains to make it inherently immutable and verifiable. The company’s commitment to transparency extends to

regular online documentary-style updates that evidence the stages of a carbon offset’s growth, which also provide a chance to meet its community of Costa Rican farmers, planters, forest engineers and its team members.

As well as supporting the planet’s decarbonization and demonstrating how nature and technology can be symbiotic, ECO30’s activities will have significant

“A country doesn’t have to be large to innovate — all it needs is brains and we have plenty of those here.”

Franklin Chang, CEO, Ad Astra Rocket Company

economic and social benefits for the country. For example, it aims to reforest 5,000 hectares of land a year, generating revenue for landowners and employment for planters, while the creation of a marketplace for the sale of immutable carbon offsets will establish a profitable new export sector.

Hydrogen powers up for takeoff

Ad Astra Rocket Company offers a very different example of the nation’s potential for innovators in sustainability. This NASA spinoff was founded in 2005 by Franklin Chang — a Costa-Rican native



ECO30 plans to plant 5,000 hectares of trees in the country every year

with 25 years’ experience as an astronaut and a PhD in nuclear physics from the Massachusetts Institute of Technology — who was named as one of the 100 most-intriguing entrepreneurs at Goldman Sachs’ 2021 Builders + Innovators Summit.

From its base near Space Center Houston in Texas, Ad Astra is developing a revolutionary plasma engine for space propulsion that should soon be ready for commercialization. Requiring less fuel than conventional rocket engines, this will allow longer space journeys over far greater distances.

In 2010, Ad Astra set up a Costa Rican subsidiary, initially to bolster its space research activities. However, says Chang: “We’ve changed our focus in Costa Rica toward renewable energy and hydrogen in transportation and other areas. By developing

the perfect laboratory for a hydrogen-based transportation ecosystem — which the company has taken full advantage of.

“We’ve established renewable energy generation; hydrogen production, compression, storage and transportation; and we’ve developed four fuel-cell electric cars and a bus. We’re Latin America’s pioneer in integrated hydrogen systems and now we want to scale up to produce 500 kilograms of hydrogen a day initially, so that we can feed a fleet of vehicles. We’re most interested in heavy transportation like trucks, buses, trains, ships and jet aircraft,” he states.

Beyond transportation, Chang says hydrogen can become a major export commodity for Costa Rica, while also powering and heating its homes and industries, and providing the raw ingredient for fertilizers. Additionally, the byproducts of every kilogram of hydrogen that Ad Astra produces are 8 kilograms of oxygen, which could be used in aquaculture, and 9 liters of pure, clean water that would be ideally suited to, for instance, beverage companies.

Although the firm is mainly advancing in Costa Rica through hydrogen, in 2021 it supported the design and construction of LeoLabs’ first radar in the equatorial band, part of a global network of devices for tracking space debris, he notes: “It’s the world’s most-advanced space radar. We created and built this radar in Costa Rica where it’s sited just a few miles from our facility. That goes to show that a country doesn’t have to be large to innovate — all it needs is brains and we have plenty of those here.”

Latin America's medtech hub

A multitude of companies from global giants to homegrown startups have made medtech the country's frontrunning export industry

Costa Rica's booming medtech sector generated export sales worth \$5.2 billion in 2021, 33% more than in the previous year. Described by Health Tech World magazine in 2022 as the medtech giant of the Americas, the country is home to 92 companies that are manufacturing a wide variety of advanced medical devices, 10 of which are also engaged in research and development. Among those firms are 14 of the world's top-100 medtech businesses, including Boston Scientific, Smith & Nephew, the Cooper Companies, Hologic, Abbott Laboratories, Philips and Cardinal Health.

Another is Edwards Lifesciences, the global leader in replacement heart valves and hemodynamic monitoring. Headquartered in the US, Edwards has a presence in approximately 100 countries, around 8,500 employees worldwide and its innovative products that target heart disease and critical-care monitoring have been used to treat over 2 million patients to date. With projected sales of \$5.6-\$6.0 billion this year, an increase of 9%-12% on 2022's figure, demand for the company's products is growing rapidly as a result of global population aging, rising incidence of rheumatic fever and improving diagnostic technologies.

To be able to service that demand, in 2016 Edwards expanded its operations into Costa Rica, where it set up a plant to assist its production of heart valves in the US and other locations. A year later, the company revealed it was investing \$100 million to build a second facility in the country to enable start-to-finish manufacturing for global export. "Since we established operations in Costa Rica, we have appreciation for the excellent business and political environment to help develop our operations. This good experience,

along with the excellent workforce we found, has supported our decision to proceed with our plans to build a modern, state-of-the-art heart valve manufacturing facility," said Edwards' CEO Michael Mussallem at the time.

The new plant covers over 25,000 square meters and was inaugurated in 2019. According to Mussallem: "Our talented team in Costa Rica is building the capabilities to support our long-term growth aspirations and to meet the high-quality standards for Edwards' sophisticated heart valve technologies. The success in scaling our current operations in the country gave us confidence to ex-

Costa Rica as a whole is one of the few places where firms can keep growing over decades."

Carlos Wong, Managing Director, Coyoil Free Zone

pand further. We are proud of our employees and the passion they have shown for our patient-centered work at Edwards."

As well as multinationals, the medtech ecosystem includes homegrown businesses. An excellent example of these is multi-award-winning Plasma Innova, a startup that beat prominent worldwide competition when it was selected to join the Global Fundraising Stage investment platform at 2020's World Business Angels Investment Forum. Founded in 2016, Plasma Innova is a pioneer in purification solutions based on plasma technologies that create healthy environments free of bacteria, spores, allergens, odors and viruses, which have been certified to work against COVID.

The firm's disruptive technologies are applicable in air, water or on surfaces. For instance, it has created efficient, cost-effective, low-maintenance air purifiers that are registered with the US Food



Plasma Innova's powerful purification technologies are efficient and cost effective

and Drug Administration and which require no chemicals, filters or other consumables. Plasma Innova's diverse product list also contains solutions such as hand dryers and disinfection equipment, although its impressive in-house innovation and customization capabilities mean that its portfolio is regularly expanded.

Appropriate for household, commercial and industrial cus-

over the next four.

CFZ was established 15 years ago and specializes in medtech. Covering 107 hectares, it contains an integrated ecosystem of companies working in the industry, plus suppliers active in areas like sterilization, packaging, extrusion and logistics, says its managing director, Carlos Wong: "CFZ generates around 22,000 jobs and 55% of the nation's total exports of medical devices. We have a great location that is close to the airport, main highways and both the Pacific and Atlantic Oceans."

CFZ has been recognized by Site Selection magazine as one of the top-ten free zones worldwide and also ranks highly for environmental and social sustainability, he adds: "For example, we've invested in training programs for entry-level workers, and created alliances with education institutions to develop mid-level technical and engineering programs, as well as master's courses. We're also founding members of Costa Rica's new dual education program in which students study at technical schools and work as apprentices at the same time."

Notably, over 75% of businesses in the park have expanded their presence there within the last 5 years. "CFZ has built out robust, competitive infrastructure and Costa Rica as a whole is one of the few places where firms can keep growing over decades. At the end of the day, we are here to provide solutions for our customers and quality of life for our people — that's the difference between us and parks that are focused purely on real estate," explains Wong.

Prioritizing inclusive economic and social progress

Through industries as disparate as film production and coffee growing, Costa Rica is working hard to ensure those who live in its rural areas are not left behind

To ensure the entire country benefits equally from future economic growth, President Chaves' government has put in place programs to close any gaps that exist between the country's Greater Metropolitan Area (GMA) and its rural regions. For instance, it plans to improve regional airports and the rail network, and it has bolstered incentives for investors to set up operations in free economic zones outside of the GMA.

The government is also making it more attractive to invest in sectors like the film industry. "The development of rural areas is a priority for the country and it's been shown in international studies that the audiovisual industry is able to distribute income widely. For example, when we're filming, we have to build, which means employing carpenters, builders, architects and engineers; we have to prepare costumes, which needs seamstresses, designers, hair and make-up artists; and we have to feed, transport and host large numbers of people," explains José Castro, film commissioner at the Costa Rica Film Commission.

Over the years, numerous international productions have been staged in Costa Rica and there are many reasons why it is a superb choice. "Number one is diverse locations. Costa Rica contains 6.5% of the world's biodiversity and eight of 12 global climate zones in a small space. You can travel between oceans, mountains, rivers, forests and volcanoes very quickly," states Castro.

Additional advantages include a geographical position at the center of the Americas, political and economic stability and a robust health system. The nation also offers a wealth of local talent, with service companies experienced in projects

of every size, he asserts: "16 Costa Rican higher education institutions train professionals and technicians for the audiovisual sector. Our people are also well prepared for multinational projects: they have great soft skills and the second-best level of English in Latin America, for instance."

Costa Rica boasts excellent actors and other creative talents as well, with the latest to emerge on the global stage being Valentina Maurel, who picked up the prize for best director at the 2022 Locarno Film Festival in Switzerland for *I Have Electric Dreams*, a locally made film that has also received awards at major events in Spain, Greece and India.

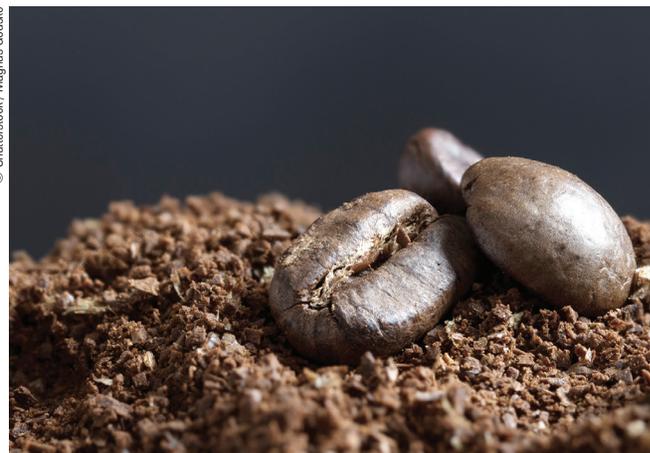
To encourage more and larger productions to the country, the government has implemented a new legal framework based around five types of incentives. "These are a 60-day cash reimbursement of 90% of taxes paid with no item restrictions; no taxes for international producers, directors, actors

Costa Rica contains 6.5% of the world's biodiversity and eight of 12 global climate zones."

José Castro, Film Commissioner, Costa Rica Film Commission

or crew who work in Costa Rica for less than a year; free and fast-tracked equipment importation; no import taxes on consumables used in filming; and central and local government institutions are now authorized to provide their facilities for projects," says Castro.

While the Film Commission has only been operating for 5 years, the Coffee Institute of Costa Rica (ICAFE) has been promoting inclusivity for decades, notes its executive director, Xinia Chaves: "Costa Rica is the only country with a law regulating relations be-



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At least 79% of Costa Rican coffee export revenues go directly to the producers



Xinia Chaves
Executive Director
Coffee Institute of Costa Rica



José Castro
Film Commissioner
Costa Rica Film Commission

tween coffee producers, mills, exporters and roasters, which dates from 1961, the year ICAFE was established. Above all, this law's objective is to protect producers and it's created a great example of wealth distribution."

As the governing body for coffee, the public entity serves 26,704

of our processes, quality standards and consistency are recognized in countries like the US, which is why that is our main market."

Another factor is the sector's pioneering approach to environmental protection. As an illustration, it is implementing the world's first agricultural program of Nationally Appropriate Mitigation Actions (NAMAs) to reduce greenhouse gas emissions and improve resource use efficiency. "Over 7,500 producers have already adopted these practices and we contributed 68,000 tons of carbon reduction in our last harvest," she comments.

Social sustainability is equally at the forefront in a sector that provides universal social security to workers and prohibits child labor. Just as crucially, stresses Chaves: "People enjoying Costa Rican coffee can have peace of mind in knowing that the money they pay reaches the producer. We guarantee that, for every dollar of coffee that's exported, at least 79 cents go directly to the producer. That's the biggest difference between our system and any other worldwide."



