

SUSTAINABILITY

LT IndexAmericas Awards 2019

PepsiCo, Mexichem, Citigroup,
EDP Brasil, Grupo Argos

WASTE

Untapped riches

PROSPECTS FOR 2019

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into the year ahead
Grupo Éxito, Wyndham,
and Microsoft

TALENTED, DISRUPTIVE AND HIGH-TECH
UNICORNS

Global, Softtek, Nubank, Crystal Lagoons and Rappi:
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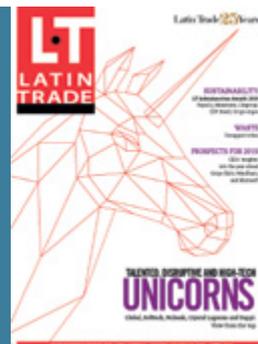


AEROMEXICO



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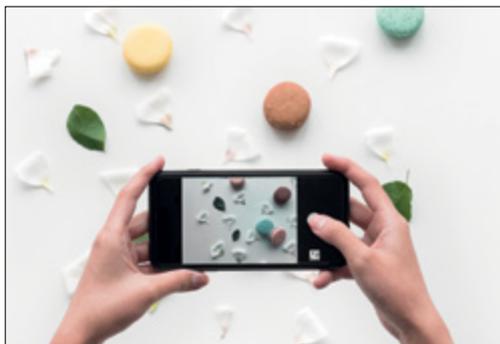
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The new New World



* Por Santiago Gutiérrez

Sometimes we lose perspective. Over the past quarter-century the world has changed more than it did during thousands of years of human existence. Just a few of these changes serve to make the point.

In 1994, the internet was operating literally at half pace. Forty percent of adults in the United States, the leader in connectivity, had active accounts. Mobile phones were a rarity. The largest companies in the world were General Motors, Ford, ExxonMobil, and IBM, and none of the FAANG had been founded. Banks were barely starting to operate online, and the financial scene was dominated by current accounts and ATMs.

The New World has undergone a similar transformation.

Built around the internet are five billion cell phones and a cloud that now makes it unnecessary for users to memorize hundreds of telephone numbers.

It moves with the 200 billion apps that are downloaded each year, which enable users to choose how they dress each day, which movie to see on Friday, research the argument for the next political confrontation, or order and pay for goods and services. It depends on the micro transmission of data and energy. You need wifi and an electrical outlet, today just as much as you needed a water tap a century ago.

Also, concepts of climate extremes, privacy, nation and distance have all changed.

The New World has its own *lingua franca*, an esperanto that sometimes is drawn with little points inside a yellow

circle, or written with words like LOL and contractions such as K (representing “what” in Spanish).

This New World isn’t any particular place. Its geography doesn’t follow national boundaries, which were blurred some time ago by multinationals and politics. There are areas and cities that are in it, and others outside it.

In the 25 years of existence that we celebrate in 2019, *Latin Trade* has been witness to the consolidation of the new global order. We are enthralled by the promise of more material well-being for more people, but we are concerned that this well-being has, for some time, been moving away from us and toward other places.

Our wish is that Latin America – the New World of five centuries ago – will not be left out; but that is what is happening. In the last quarter of a century, the region’s per capita GDP in constant dollars increased by 33%, from almost \$7,000 to \$9,300. A major achievement? Not if you consider that during the same time South Korea, which in the 1960s was poorer than most Latin American countries, went from \$11,100 to \$21,200.

In this year and over the next 25 years, we wish to accompany (incentivize, maybe?) Latin America, its businessmen, its governments and its people, in the task of speeding up growth. To make these lands of hope and of reserves of air, water and life no longer fertile ground for anxiety, discord and war.

Welcome to our quarter-century celebration. **LT**

* EXECUTIVE DIRECTOR
sgutierrez@latintrade.com



Ecoins collection center

Recycling with Purpose

PepsiCo Latin America launches program to promote recycling and the circular economy

Plastic is a subject that concerns us all. The situation is particularly worrying in Latin America, where the general waste recycling rate is only 4.5%, according to the World Bank. The threat that non-recycled plastic represents for the environment is enormous. A report by the World Economic Forum and the Ellen MacArthur Foundation projects that by 2050 there will be more plastic (by weight) than fish in the oceans.

PepsiCo recognizes the importance of the subject and is focusing its efforts to build a world where plastics never become waste. The company's vision of sustainable plastics is based on three pillars: to reduce its use, to promote recycling, as well as to reinvent packaging and containers.

To achieve this, PepsiCo Latin America is launching "Recycling with Purpose" in the context of Global Recycling Day— a program to strengthen its inclusive regional recycling initiative which started ten years ago, and to promote circular economy. Through the program, the company will continue to work with the recycling industry to increase access to these materials and will also continue to promote inclusive recycling to ensure that grassroots recyclers and their associations are part of the circular economy. Additionally, "Recycling with Purpose" will include an incentive and rewards program to encourage consumers to recycle

the plastic they use when they buy their products.

To meet this objective, PepsiCo Latin America is establishing a partnership with ecoins, a company founded in Costa Rica. This program will be expanded to 10 countries in the sector over the next two years. The process is very straightforward: consumers create a virtual profile on the ecoins platform. Then, they take the clean and dry plastic to collection centers where they will receive ecoins in return. These ecoins can later be exchanged for discounts on products and experiences, including PepsiCo products. It is expected that, by the end of 2019, more than 1 million consumers will be aware of the ecoins platform in 7 countries.

"We are deeply committed to becoming part of the solution and to working in Latin America to make our vision of sustainable plastics a reality," said Laxman Narasimhan, PepsiCo Global CCO and CEO of PepsiCo Latin America.

Karla Chaves, Director of ecoins, commented, "Our program generates public-private partnerships, the platform connects businesses and conscious consumers who want to participate actively in the solution of the waste problem in countries that lack strong systems of classification and recycling. Ecoins changes the traditional view and turns an environmental problem into a business opportunity, to strengthen sustainability."

In Latin America, sustainability gains as the

For Latin America's power sector, going green isn't easy. The region depends on fossil fuels for three quarters of its electricity, according to the International Energy Agency, and that makes reducing carbon emissions both a challenge and a concern for power executives.

The more people worry about global warming, the bigger the threat of a backlash that could hit power companies with slower growth, higher costs, and tighter access to capital. This has led more power companies to invest in environmental compensation, such as by building a wind park to offset emissions.

For Miguel Setas, CEO of **EDP Brasil**, one of the biggest electric utilities in Brazil, the compensation is good, but it's not enough to set a company apart as responsible and sustainable. The difference, he said, comes from cultural and social investment.

EDP Brasil is not alone in its policy of putting corporate profits to good use in society, an effort that won it and four other companies the **Latin Trade IndexAmericas Sustainability Awards**.

EDP Brasil scored highest in social innovation, while Colombian construction and energy conglomerate **Grupo Argos** won the environmental category, and US-based beverage and snack giant **PepsiCo** led corporate governance. US-based financial services giant **Citigroup** got the nod for economic development, and Mexico-based chemical giant **Mexichem** for multilatina.

Candidates for the Latin Trade IndexAmericas Sustainability Awards are selected from the Thomson Reuters ESG Data and Solutions database, a universe of more than 7,000 firms. From this initial benchmarking exercise, the Inter-American Development Bank compiles IndexAmericas. The final decision on which companies in the index win the awards is made by LT's editorial committee.

EDP Brasil invested more than \$25 million over the past decade in culture, education, sports and social development projects that have benefited more than three million people. This includes planting community vegetable gardens, sponsoring book fairs, and helping in the restoration of two of São Paulo's most popular museums: the Portuguese Language Museum and the Ipiranga Museum.



“right thing to do”

LT INDEXAMERICAS SUSTAINABILITY AWARDS 2019

Last year, *Latin Trade* created the LT IndexAmericas Sustainability Awards with the aim of highlighting and recognizing the best practices of sustainability applied by the region's largest companies. The 2019 awards honor those corporations that did exceptional work during the previous year. *Latin Trade* will present the awards at a ceremony in Washington D.C. on April 12.

Winners in each of the five categories are:

ENVIRONMENT

Grupo Argos

SOCIAL INNOVATION

EDP Brasil

CORPORATE GOVERNANCE

PepsiCo Latin America

ECONOMIC DEVELOPMENT

Citigroup Latin America

MULTILATINAS

Mexichem



The effort is paying off. “Our brand recognition and perception and the values that are associated with our company are positively affected by these kinds of investments,” he said.

Another benefit: a fifth of EDP Brasil’s employees take the time to volunteer in the projects the company sponsors. “This is important for keeping up morale and to improve the engagement and productivity in our employees,” Setas said.

2018 WINNERS

ENVIRONMENT

Valeo

SOCIAL

AES Corporation

CORPORATE GOVERNANCE

Johnson & Johnson

DEVELOPMENT

Telefónica

MULTILATINAS

Globant

RESOURCE CONSERVATION

Jorge Mario Velásquez, CEO of **Grupo Argos**, said the trend for sustainability stems in part from a realization that Latin America’s wealth of natural resources is not unlimited as had been widely perceived.



Photo: Charles Trigueiro - Courtesy of EDP Brasil



Miguel Setas,
CEO, EDP Brazil

Photo: Courtesy of Citigroup Latin America



Jane Fraser,
CEO, Citigroup Latin America

“The great challenge of our Latin American industries, especially those that are intensive in the use of natural resources, is to innovate in productive processes and implement new technologies that will lead us to increase the region’s productivity so we are in line with the world’s highest standards,” he said.

This is important, he said, to leave “a better society” for future generations and also to respond to “the growing interest of our investors in responsible businesses.”

Grupo Argos is investing in reducing carbon emissions and water consumption at its plants, and in fueling its cement kilns with industrial waste, capturing CO2 with seaweed, and building renewable power capacity. To do all this, Velásquez said it’s key for management to make environmental care a priority, as that helps foster a culture of sustainability in day-to-day work and in the blueprints of each new project.

Mexichem has also put sustainability at the core of its business strategy as it expands internationally. Its focus is on providing solutions to global challenges such as rapid urbanization, climate change, digitalization, food shortages, and water scarcity.

Mexichem is expanding its range of products and helping create solutions to tackle these challenges. “We are delivering fresh water where people need it, with

better water management solutions for homes, and rainwater, wastewater, and drainage systems for cities,” the company said. Also, it is growing more food with less water through intelligent irrigation solutions and farm-management techniques.

Last year, for example, it acquired Israeli irrigation equipment maker Netafim with the aim of helping farmers increase food yields while reducing water waste and pollution runoff with drip irrigation, which provides water more efficiently and at a lower cost.

The company has also partnered on a project in the Netherlands that will use recycled plastic recovered from oceans to replace asphalt for roads, helping to reduce pollution.

SUSTAINABILITY GOALS

To craft sustainability strategies, companies can draw on 17 goals set out in the United Nations’ 2030 Agenda for Sustainable Development, a sort of roadmap to pursue.

Jane Fraser, CEO of **Citigroup Latin America**, says the bank is putting a focus on seven of the sustainable development goals (SDGs), including energy, climate, resilient infrastructure, and sustainable cities. “In the years leading up to 2030, we will continue to innovate and collaborate to achieve these ambitious goals,” she said.

SUSTAINABILITY AWARDS

Photo: Courtesy of Grupo Argos



📷 Jorge Mario Velásquez, CEO, Grupo Argos

It will be a challenge. By 2050, an estimated 68% of the global population will live in cities, up from 55% in 2017 and a third in 1960, according to the World Bank. This will put a strain on housing, infrastructure and services, and increase the need for infrastructure financing “to replace aging facilities and keep up with population growth and economic development,” Fraser said.

Her bank has arranged nearly \$600 million in financing for the construction of a new metro line in Panama City and loaned money for installing smart water meters in water-short Barbados, as well as making banking services available for micro-entrepreneurs in Peru to expand their businesses.

CORPORATE GOVERNANCE

PepsiCo also has made sustainability a priority. Laxman Narasimhan, global chief commercial officer & CEO Latin America at PepsiCo, says the company’s performance is “inextricably linked to the sustainability of the world in which we operate,” adding that, as a result, sustainability topics — and the SDGs — are vital for business strategy. The company has also improved its reporting practices on sustainability in the region to provide more transparency and inform the public of what it is doing.

Photo: Courtesy of PepsiCo



📷 Laxman Narasimhan, Global Chief Commercial Officer & CEO Latin America, PepsiCo

“We believe strong corporate governance and an ethical culture are the foundation for financial integrity, investor confidence, and sustainable performance,” he says. “Strong corporate governance and a steadfast commitment to doing business the right way are and have been long-standing priorities at PepsiCo.”

This strategy is meeting a rise in consumer demand for both nutritious food options and environmental sustainability, such as eco-packaging, fair trade, and BPA-free plastic, as well as for water conservation and replenishment, shrinking its carbon footprint and smarter use of packaging.

Narasimhan says he expects the trend to gain as more companies realize the importance of sustainability and reporting what they are doing. “Governance goes beyond compliance,” he said. “It involves transparency, accountability, and true commitment to the company’s values. Sustainability and ethical standards must be adopted from the top, and be part of the organizational culture and the strategy of the company. At PepsiCo, we believe acting ethically and responsibly is not only the right thing to do, but also the right thing for our business.” **LT**

CHARLES NEWBERY REPORTED FROM BUENOS AIRES.



Waste is Money

A business model that throws money into the dumpster?

Yes. Waste management in Latin America, where recyclables are thrown away and buried in the garbage dump.

Latin America creates 11% of the world's garbage but recycles less than 10% of what could be recovered, World Bank data shows. That's a meager performance when compared with, for example, the European Union, which recycles 45% of its municipal waste (urban garbage, excluding industrial waste and dangerous residues),

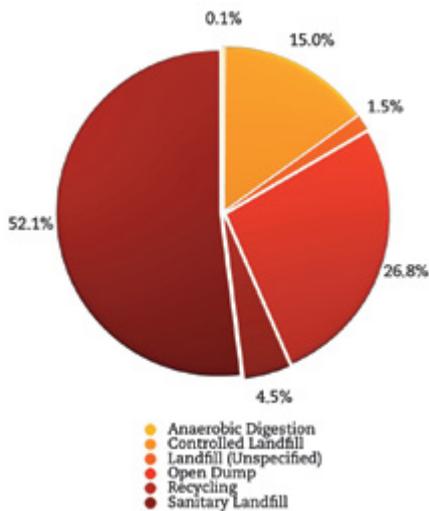
according to Eurostat, the European Statistical Office. Moreover, garbage that's poorly managed increases environmental risks and endangers public health. Diarrhea, respiratory infections and neurological diseases are more common in places where garbage is not collected regularly. Some projections

suggest that by 2025 more than 8% of all greenhouse gas emissions will be produced from landfills.

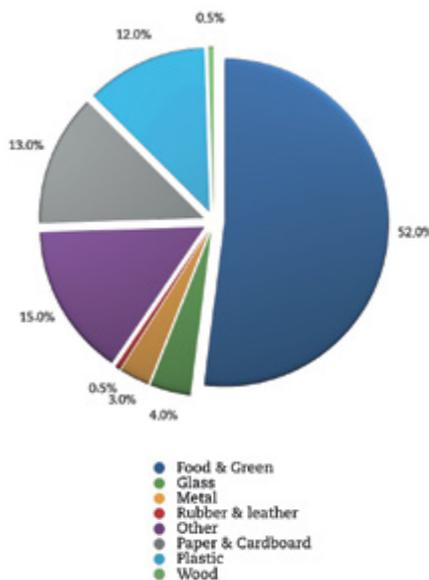
Such factors, along with an estimated 70% increase in global garbage production by 2050, have driven the World Bank to call for "urgent action" to deal with the issue.



WASTE DISPOSAL AND TREATMENT IN LATIN AMERICA AND THE CARIBBEAN



WASTE COMPOSITION IN LATIN AMERICA AND THE CARIBBEAN



Source: What a Waste 2.0 report from the World Bank, 2018

A STRONG ECONOMIC SLANT

“Recycled material is money,” said Paola García Nieto, partner and senior consultant at IMPULSA-T, a Mexican consultancy specializing in financing and sustainability.

García Nieto, a former official with the Economic Commission for Latin America and the Caribbean (ECLAC), told *Latin Trade* that Mexico recovers only “between 5% and 7% of what it could recycle.” Change could be spearheaded by small businesses that represent 70% of the Mexican economy and “often lack a clear way to becoming involved in major recycling projects,” she said.

Large corporations such as Coca Cola, Danone and Nestlé, have joined the Regional Initiative for Inclusive Recycling, which is led by the Inter-American Development Bank and the Avina Foundation in 17 countries across the region.

But changing waste management culture isn’t easy. In the State of Mexico, the technological solution adopted for doing away with landfills, thermovalorization, is a source of “tensions,” said García Nieto. It’s not just the conflict between the authorities and the 15,000 urban recyclers of Mexico City, who fear being deprived of their raw materials, but also resistance from companies that have bet on investing in recycling.

Controversy arose when it was announced that French company

Veolia will begin generating electrical energy by incinerating 4,500 tons of garbage per year out of the total of 8,500 that now ends up below ground or, in the worst case scenario, in the open air. The project will provide enough energy to power Mexico City’s Metro train system.

“The green economy organizations are not against thermovalorization,” said García Nieto. “It’s a useful technology, but only after all the recyclable material has been recovered. As it is now, it will create a lot of social conflict.”

FROM PROBLEM TO OPPORTUNITY

At the other end of the continent, the diagnosis is shared by Gustavo Curia, until earlier 2019 CEO of CEAMSE, the state company that processes garbage produced in Buenos Aires and its suburbs, home to 40% of Argentines.

“With treatment based on the principles of the circular economy, waste stops being a problem and turns into an opportunity,” he said. The circular economy is an initiative that encourages the reduction of consumption through more reuse, which in turn results in less production of waste.

For Curia, “it’s necessary to reduce the amount of waste that we bury.” He said he favors thermovalorization as the final link in the treatment chain, making it possible to reduce the volume that goes to final disposal to 10% of what

The world produces slightly more than 2 billion tons of solid municipal waste per year, according to a World Bank report, and this will grow to 3.4 billion tons by 2050.

Latin America & the Caribbean
Projected increase in waste



enters the chain, with efficient control of greenhouse gases and the added value of generating an asset in the form of electrical energy.

Recycling and the social inclusion of urban recyclers are built into the CEAMSE business plan, said Curia. “We recover 100% of the tires and put them back into the market. With all the plant cuttings we get we create an organic layer to cover the landfills,” he said. The company has the world’s largest treatment plant for lixiviated liquids, processing 17,657 cubic feet of effluents recovered from landfills each day for reuse in irrigation.

CEAMSE is a case that has adapted to the Argentine demographic distribution and the local regulatory system. The model is different in its neighbor, Chile.

“The garbage business stinks,” says Tomás García, manager of recycling consultancy TriCiclos, whose clients include some of the largest companies in Chile. “There are some disgusting mafias in the business in Chile. There are contracts worth millions with concessions of up to 20 years. The municipalities spend up to 40% of their budget managing waste without achieving greater efficiency.” TriCiclos’ work has been recognized by the World Economic Forum, among others. Its clients include Coca Cola, Walmart, Pepsico, Unilever and Sodimac.

Chile’s 17 million citizens create an average of 2.86 pounds of garbage per day, of which barely 10% is recovered, according to García. “We have 54 community garbage drops throughout Chile, and from these we recover 650 tons per month,” he said. Sodimac,

a leading home improvement company, is its main partner. “The 18 garbage drops installed in its parking lots comprise the largest network in the country,” said García.

The company realized that the existence of these spaces is “very tempting” to responsible citizens, and that they also get an economic return by attracting customer promoters. “People are going to recycle and buy, or buy and recycle,” he said.

Coca Cola is another company that’s active in the transition to sustainable waste in Chile. Through its Triple W program (World Without Waste) it aims to recover all the packaging that it puts into the market by 2030. “It’s the most ambitious world class challenge with respect to recycling plastics,” said García.

DIFFICULT WASTE

In Brazil, U.S. company TerraCycle is focused on non-recyclable waste – or waste that can’t viably be recycled because of high costs of logistics and processing.

The company promotes nationwide programs for recovery of this hard-to-manage garbage, said Renata Ross, the company’s market and relationship manager.

“If you take into account the cost of a product – the cost of extracting virgin material, the energy involved in manufacturing it – and then end up destroying that material, that’s letting its value go to waste,” Ross said. “Burning garbage is better than burying it. But we invest in solutions to transform it into new recycled raw material, to reintroduce it to industry.”



A prime example are sponges used for washing dishes. Brazil is the leading producer in the world of this recyclable material. “We got together with 3M, which paid all the costs of the program,” Ross said, adding that they even reprocess sponges from their competition, Scotch.

Through the TerraCycle do Brasil online platform, 1.7 million direct consumers have registered to take part in the program. They put together a minimum volume of sponges and ship them to TerraCycle free of charge, gaining points similar to a loyalty program. “Once the user gathers a certain number of points they can convert them into money to donate to an NGO or school. TerraCycle makes the deposit,” Ross said. “This changes the relationship between people and their waste products.”

TerraCycle converts the sponges into plastic pellets that are then sold to industry as high-quality raw material, in association with a local manufacturing plant. The company has also carried out packaging recycling programs thanks to financing from companies including Avon, L’Occitane, Faber-Castell and Pamper.

Garbage recycling is making progress in Latin America. By integrating technology and engineering with their value chains, industries are trying to make economic sense of recovering a large part of what they waste. The effort, however, is only sustainable to the extent that it is adopted by regulators, companies, individuals and recyclers. **LT**

DIEGO LLUMÁ REPORTED FROM BUENOS AIRES.

One-third of the total garbage that is created today is not managed safely. High-income countries, with just 16% of the population, create about 34% (683 million tons) of the total.



Source: What a Waste 2.0 report from the World Bank, 2018





To sell or not to sell: Embraer's dilemma

* By Lourdes Casanova

When I started studying Latin American companies 20 years ago, Embraer was one of the first case studies I published. The company was an example of what business schools' faculty would call "reverse outsourcing." While western companies outsource manufacturing to emerging markets, Embraer would design and assemble the planes in São José dos Campos, close to São Paulo, and outsource the manufacturing of parts to Europe and the U.S.

The complex value chain worked extremely well. Embraer's reverse outsourcing was taught in business schools, and my MBA students visiting the manufacturing facility would marvel at the technological might of this great Brazilian company. It was also an example of a world-class innovation eco-system with the Instituto Tecnológico de Aeronáutica (ITA), one of the best aeronautical engineering schools, suppliers, and research centers. Embraer was a prime example of a technological leader that could help an economy leapfrog thank to its research strengths and technological excellence.

Furthermore, it was a success within the privatization wave of the '90s. While Latin Americans were not always happy with the services provided by privatized companies, Embraer was seen as a success, having become lean, efficient and profitable after privatization. Today, Embraer is the jewel in the crown of Brazilian manufacturing and, after Boeing and Airbus, the third largest manufacturer of civil aircraft.

In the U.S., and under the tenure of President Trump, there has been an increased scrutiny regarding Mergers and Acquisitions activity. The Committee on Foreign Investment in the U.S. (CFIUS), the entity that assesses the national security implications of foreign investments in

the country, is imposing limitations on how much foreign investment is permitted in certain industries, including defense and the defense-related space. Three major technology acquisitions have been stopped by the agency in the last year. The CFIUS has the mandate to scrutinize companies and determine those that should not be sold, as they are strategic assets for the country because of positive technological spillovers and the creation of jobs. This new paradigm has spread to Europe as well.

In July 2018, Boeing announced its intention to acquire 80% of Embraer's commercial aircraft division for \$3.8 billion. The price seemed a bargain. Subsequently, the offer was sweetened in December to \$4.2 billion. In recent weeks we have seen a Brazilian judge issuing injunctions, which are then overturned, to stop the deal. The government still holds the veto power through a golden share.

It is not hard to imagine how the U.S. or Europe would react if a foreign company were to make an offer for Airbus or Boeing. In comparison, Embraer is more strategic for Brazil, as the presence of cutting-edge technology companies is scarce both in the country and the region.

At this particular moment, during which Brazil's economy seems to be moving to positive growth, Embraer's shareholders and the government need to be brave and look beyond the short-term increase in shareholder value. Is Embraer a strategic asset, essential for creating an innovative Brazil, and for the country to occupy the place it deserves among the most advanced in the world? In a world where competitiveness and growth is increasingly driven by the ability to create and leverage technology, Embraer is a unique source of leverage and strength for the future of Brazil. **LT**

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C-suite talk

C-suite executives of three companies from different industries in Latin America give their projections for 2019.

CARLOS MARIO GIRALDO
CEO, Grupo Éxito



What expectations do you have for your company in 2019? The most important projects are concentrated in innovation. In 2019 we will open seven stores with the Carulla FreshMarket format, a concept that is tasty, healthy and sustainable, and we will work to have nine Wow hypermarkets in Barranquilla, Bogota, Cali and Medellin. Surtimayorista will strengthen its expansion and we expect to arrive at 30 points of sale. As leaders in retail transformation, we are working in line with worldwide trends in direct commerce channels.

And for your sector? We expect that the gradual recovery of 2018 will continue in 2019 in Colombia and Brazil. In Argentina and Uruguay it will be a year of transition, with major challenges, especially in domestic consumption.

What investments will your company make in Latin America this year? For 2019 we have projected investments of between \$86 and \$95 million for expansion, renovation, introduction of new formats, technological applications and new commercial centers.

ALEJANDRO MORENO
President and Managing Director for LATAMC
Wyndham Hotels & Resorts



What expectations do you have for your company in 2019? We have almost 20 openings scheduled in the region for 2019. Plus 15 more over the following two years. Our team is working to expand our network of managed hotels. We are world leaders in management, with almost 400 managed hotels at the global level, and more than 20 in the region.

And for your sector? In the past two years, the number of international travellers more than doubled worldwide, and the projection is that it will continue to grow. At the regional level, the tourist industry is going through one of its best moments. Latin Americans are travelling more and more, and most of those trips are at country and regional levels. All this suggests that growth potential in the region is enormous.

What investments will your company make in Latin America this year? This year we are focusing on migrating to new booking and distribution tools, with the goal of making processes more efficient and bringing a better experience to the customer. We will continue to invest in the speed, effectiveness and the response capacity of our mobile sites and the web, which have continued to be our fastest-growing distribution channels, having grown almost 20% in the last quarter of 2018.

CÉSAR CERNUDA
President, Microsoft Latin America



What expectations do you have for your company in 2019? Microsoft has been in the region for 33 years, and we see lots of potential for the adoption of technologies that help with digital transformation. The region has the opportunity to approach it directly (without having to reconvert technology). According to predictions from IDC, in 2019, 30% of digital transformation initiatives in Latin America will use artificial intelligence services.

And for your sector? We are optimistic about the impact of digital transformation, and we think that advances like artificial intelligence will help solve many of the challenges. The combination of big data, cloud computing, and the development of advanced algorithms are the elements driving this technological revolution. Those elements will continue developing at an accelerated pace during 2019.

What investments will your company make in Latin America this year? We will continue to invest strongly in supporting companies and users in training and certification of employees, who undoubtedly will be the leaders in the transformation of the Latin American region. **LT**

The

DNA

*of Latin
America's*

THEY ARE YOUNG,
TECHNOLOGY-
BASED AND WORTH
MORE THAN \$1
BILLION EACH.

WELCOME TO
THE WORLD OF
THE UNICORNS,
A HANDFUL
OF UNIQUE
COMPANIES IN
THE REGION.





MOSTLY LESS THAN 20 YEARS OLD, they are not typical Latin American companies. Not only are they digital natives, they are cutting-edge: disruptive, defiant and possessing a unique vision that has catapulted them into a rarefied world.

Unicorns

They are the unicorns, dubbed so because they are almost mythological among the millions of companies in the region that have little hope of ever achieving such meteoric growth. Their dynamism and management skills have propelled them a valuation of more than \$1 billion in just a few years.

Today, Latin America has about a dozen unicorns born in Argentina, Brazil, Chile, Mexico, and Colombia. The pioneer being Mexican firm Softtek, which develops software and information and communication services technology. It began operations as a start up in 1982 and now has more than 12,000 associates. Softtek is also the only unicorn on the list led by a woman: CEO Blanca Treviño.

"We compete with the big multinational companies and scale has never been a limitation (...) We know that everything depends on ourselves," Treviño told *Latin Trade*. "We know that in order to compete we have to develop skills and we have to have a value proposal... No one is going to give us anything and no one is going to feel sorry for us for being smaller or for coming from a certain place."

Two of the most recent companies to achieve unicorn status are Colombia's Rappi, a delivery app founded in 2015; and the fintech Nubank, which was launched in Brazil two years earlier, and can already count eight million clients.

CONTINUOUS INNOVATION

By nature, unicorns are not static. They innovate constantly, evolving and searching for new ways to improve, discovering market niches and servicing client needs. Their strategy is a combination of being close to the user and exploiting the digital world, along with a penchant for constant transformation.

In the case of Nubank, founder David Vélez told *Latin Trade* that there is little hierarchy in his company. "It gives us a lot of agility, a huge need to continually defy conventional beliefs, and a voracious appetite for leaving the status quo in the dust," he said. The Colombian-born executive emphasizes a focus on the client and the ability to use technology, design and data science as pillars for creating financial products.

Martín Migoya, CEO of Argentine unicorn Globant, said his company is based on the culture of fast learning, developing products that are centered on the consumer, and creating solid relationships and reliability. The IT and software development company was established in 2006 and has operations in Latin America, the United States, Europe and Asia. "Globant reinvents itself every 18 months," Migoya said. "That prepares us for any change in the market or the industry."

A key part of the Unicorns' DNA is that they are not risk averse. On the contrary, their culture is based on the idea that failures are lessons that inevitably result from the quest for new models, a natural consequence of innovation and an integral part of the process of improving what they offer.

Simón Borrero, the 30-something co-founder of Rappi, sums up this attitude. "We set very big goals and do not rest until we reach them," he told *Latin Trade*. "We see failure as an ally. We have seen them putting our dreams in danger, but we keep on working so that those dreams don't fade."

Fernando Fischmann, founder and CEO of Crystal Lagoons feels the same. "Entrepreneurs have to be



Photo: Courtesy of Softtek



Blanca Treviño, CEO, Softtek

prepared to be frustrated, to fall down and get up again, to have sleepless nights,” he told *Latin Trade*. “It’s not easy. And any entrepreneur who wants to do something important is going to go through that.” Based in Chile, Crystal Lagoons has developed the technology to create artificial lagoons, in which the water is always a crystalline blue.

Softtek’s Treviño said: “Technological change isn’t tomorrow, it’s now, and you have to dream and not be stopped by thinking that an obstacle is too big. Unicorns have big dreams, and use the pressure of the day to be inspired and to prosper. When something isn’t working, they try something else.”

This perseverance also harbors the seeds of success. Rappi, for example, is a young company with a basic concept that appears too simple to have revolutionized an entire sector of the economy: delivering orders made through a telephone application within 30 minutes. It was, however, a sensation, and last year the company’s market value crossed the billion-dollar threshold.

“The digital economy is transforming the world and Rappi is a player in this change, creating new sectors within e-commerce and transforming an idea into a business model,” said Borrero.

PIONEERS OF TECHNOLOGY

Another defining trait of unicorns is that they generate technology that upends many existing industries, from Mercado Libre, which uses a digital system to replace traditional retailing, to Nubank, a fintech that seeks to eliminate bureaucracy in banking and thus improve customer experience and cut transaction costs.



Martín Migoya, CEO, Globant

Photo: Courtesy of Globant

Argentina’s Mercado Libre, founded in 1999 by Marcos Galperín, was one of the first companies in the region to achieve unicorn status. In the 20 years since its creation, the company has grown explosively as a marketplace for individuals to buy and sell new and used goods, and has become the standard for e-commerce development throughout Latin America.

The volume of business it manages is so large that new technology companies have been created out of this platform. The companies aid small businesses that sell through Mercado Libre’s platform to maximize their sales potential through the application of artificial intelligence.

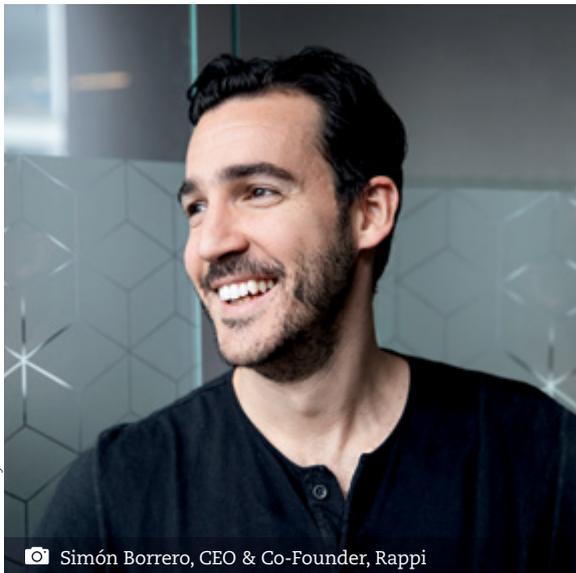
Omar Galicia, market director of Mercado Libre Mexico, sums up the company’s policy as a matter of anticipating customer needs. “[We use] e-commerce solutions based on the analysis of the user experience of our services and the search for constant innovation,” he said.

The development and integration of technological advances by the unicorns in other areas of the economy are crucial to the emergence of more technology companies in the region. Their challenge is to remain in the vanguard of innovation so they can continue to open roads.

“The stage of technological transformation is barely starting and is accelerating,” said Nubank’s Vélez. “But there’s no doubt that we expect artificial intelligence and machine learning will completely change every industry. And, in financial services, we will see significant changes.”

That thought is the same at Despegar, another Argentine unicorn that in just a few years has become the regional leader in the tourism sector.

Photo: Courtesy of Kieran Kesner



Simón Borrero, CEO & Co-Founder, Rappi

The company, with 17 million clients, is much more than Latin America’s biggest online agency; it has changed the concept of booking and buying plane tickets, accommodation and packages.

With about 30% of its workforce focused in the tech area, the company aims to improve the user experience, develop new and better technologies that rapidly respond to current needs and, in particular, to anticipate what customers will demand in the future.

“Despegar is a company that was born and grew up with entrepreneurs, and our challenge is to make



David Vélez, CEO, Nubank

Photo: Courtesy of Nubank

with an abundance of data, it is possible for us to make decisions taking into account an amount of information that was not available to us before, and the key to interpreting such large volumes of data is through artificial Intelligence,” said Globant’s Migoya.

Such rapid and disruptive advances of technologies has led to gaps in standards, as legislation has been left behind by changes. “Technology will always be advancing,” said Rappi’s Borrero. “The challenge is how society and the government adapt to these changes and understand that technology requires flexibility,

and to understand that innovation leads to revolutions.”

For example, Mexico’s first Fintech Law, passed to provide

UNICORNS ALSO DEVELOP TECHNOLOGIES THAT ARE USED BY OTHER INDUSTRIES.



sure this spirit continues,” said Francisco Ceballos, country manager for Mexico. “There are two key pillars that define Despegar’s leadership: our regional presence, together with the knowledge of the industry and the local markets, as well as our wager on technology as the foundation of the business.”

IMPROVING HUMAN WORK

Over the past 20 years, Latin America’s unicorns have demonstrated how artificial intelligence, virtual reality, enhanced reality, the development of biometric security and the internet of things have become part of day-to-day business.

“We are living at a time when technology, far from replacing human work, is improving it and making it more efficient. In a connected world and

a regulatory framework for the business, was only just passed in 2018. The aim of such legislation is to improve public confidence in the use of disruptive technology without limiting innovation within companies.

“Latin America has the talent, and what is lacking is the commitment from industry leaders and the private sectors to work together more closely,” said Softtek’s Treviño. “As Fabio Schvartsman, CEO of Brazilian Vale, said recently in a panel discussion at the Council of the Americas Symposium: ‘In a challenging environment, the advantage we all have is that we are all Latin Americans. We know how to lead in the midst of uncertainty.’” **LT**

DANIELA CLAVIJO REPORTED FROM MEXICO CITY.



BENEFITTING SOCIETY

While there have already been significant advances in Latin America, technologies that will revolutionize education, work models, financial inclusion, and healthcare are in constant development. The key is making the benefits available to all sectors of society, something to which the unicorns are contributing.

“Artificial intelligence will transform humanity and enable human beings to reach their potential, increasing productivity and creating inclusion and growth,” says Martín Migoya, co-founder and CEO of Argentine company Globant. “The impact that AI could have is extremely broad because it can touch and improve every aspect of our daily lives.”

Omar Galicia, market director for Mercado Libre Mexico, anticipates a future where new technologies serve to make societies more egalitarian and inclusive. “A world where these technologies are instruments for breaking barriers, not only for the free transit of goods, but also for people, so that they can achieve their full potential,” he said.

Fernando Fischmann of Crystal Lagoons agrees. A biochemist who started out developing a technology for creating transparent artificial lagoons, he is now looking for a low-cost way to purify water that can be expanded to a global scale. “We are developing technology for making water drinkable without using energy,” he told *Latin Trade*. “[This innovation could] have a huge impact because today 20% of the world population lacks water to meet their biological needs and the existing solutions are expensive. With these new projects of public lagoons I want to make a worldwide impact on the lives of people; I want to change people’s lives.”



VALUED TALENT

For unicorns, innovation is based on being open not only to ideas but also to involving members of the organization in strategic planning and attracting the talent of the future. They are leaders in creating entrepreneurial policies that improve the lives of employees and that change the rules of the game in the labor market.

“We look for people with heads full of questions and not full of answers,” said Nubank’s Vélez. Even though Nubank is a fintech, just 10% of its employees come from the banking sector, something he said is fundamental to finding new solutions and not getting stuck with old industry paradigms.

The thinking is similar at Globant “Rather than looking for professionals with specific knowledge, we look for talented people,” Migoya said. “People who have the ability to learn quickly... and to un-learn. Today the contents become old every 18 months, and so it is necessary for all of us to reinvent ourselves.”

Such policies encourage internal talent to develop a commitment to communication and to implement ideas that emerge within the organization. Workers then feel valued and drive the growth of the entire company. Vélez said that knowledge is ever more “commoditized,” but what are scarce are critical thinking skills, creativity and the ability to solve new problems. The key, he said, is to train the talent of the future. According to Vélez, Latin American countries must give priority in their education systems to the creation and development of computer engineers. While China produces four million systems engineers each year and India 100,000, the number in Brazil is just 10,000. “If we do not focus on developing this training, our region will fall even further behind,” he said.



WHY “UNICORNS”?

In 2013, risk capital analyst Aileen Lee coined the term “unicorn” for technology companies that raised \$1 billion or more in their IPOs in the U.S. Their emergence is accompanied by the disruption of their markets. The best-known example is Facebook, which picked up \$2.2 billion before going public and became a super-unicorn, with a market valuation of \$16 billion when it went public.



THOSE THAT MADE IT BIG

Foundation date	Company	Country of origin	Sector
1982	 Softtek®	Mexico	Global provider of process-driven IT solutions with 30 offices in North America, Latin America, Europe and Asia.
1999	 mercado libre	Argentina	Operates online marketplaces dedicated to e-commerce and online auctions. Latin America's most popular e-commerce site by number of visitors (53 million users). Operates in 15 countries.
1999	 despegar.com	Argentina	The leading online travel company in Latin America. Operating in 20 countries, provides a broad suite of travel products, including airline tickets (300 airlines), package tours, hotel bookings (520,000 hotels) and other travel products, to over 17 million customers.
2002	 KIO Networks	Mexico	Infrastructure and technology services. 40 data centers in Mexico, Latin America and Spain.
2003	 Globant we are ready	Argentina	IT and software development company. 37 offices in 14 countries.
2005	 TOTVS	Brazil	Software, platform, services and consultancy. Operates in 41 countries.
2006	 OLX	Argentina	Global online marketplace, operating in 45 countries.
2006	 B2W DIGITAL	Brazil	Online retail company.
2007	 Crystal Lagoons	Chile	Developed innovative and sustainable technology for building and maintaining crystalline lagoons of unlimited sizes at very low cost, using a minimum amount of additives and energy.
2012	 99 TAXIS	Brazil	App for taxis. Acquired in 2012 by China's Didi Chuxing. 18 million users in Brazil.
2013	 nu bank	Brazil	Fintech with 8 million clients.
2015	 Rappi	Colombia	App for product delivery in seven Latin American countries.



A tale of two populists

* By John Price

Latin America's two largest economies are now governed by populists. Both Andrés Manuel López Obrador (AMLO) and Jair Bolsonaro are political renegades, promising to up-end the political status quo after a period of unprecedented corruption revelations and intolerable crime levels. Both leaders tapped into an angry sentiment that helped them stand apart from the mediocre leadership of established parties, the PT in Brazil and the PRI and PAN in Mexico. But the similarities end there.

Judging by capital flows, the monied classes endorse Brazil's Bolsonaro and worry about Mexico's AMLO. Bolsonaro has a plan and the political support to pass pension reform, long considered the third rail of Brazilian politics. In Davos, Bolsonaro reiterated his commitment to simplify Brazil's tax codes and drastically cut the time it takes to start a business. Brazil's government payroll will be aggressively shrunk with the closure of several ministries and the country will privatize a controlling interest in Eletrobras, as well as up to 20 airports, led by the one that serves Curitiba. New concessions will be issued to build rail lines and ports to facilitate raw material exports. The national content laws that stymie investor interest in Brazil's offshore oil resources will also be reformed.

Together, these announcements have attracted waves of new capital to Brazil, driving the Bovespa to new records and strengthening the Real – boosting the acquisition power of every Brazilian. Not surprisingly, an IBOPE poll conducted at the time of his inauguration found that 75% of Brazilians approve of Bolsonaro and 65% believe that he can revive Brazil's economy in a matter of months.

To placate his base, which includes a large contingent of evangelicals, Bolsonaro regularly employs strong language against political correctness, homosexuals, and indigenous land rights. Those remarks are offensive and regressive, but spoon-feeding Bolsonaro's voter base has few economic consequences for Brazil. The exact opposite can be said of AMLO.

AMLO's first major policy decision as President was to cancel the \$13 billion project to construct a new airport in Texcoco, east of the overcrowded Benito Juárez airport. At first glance, this appeared to be a concession to his voter base, which includes students, farmers, and green-minded urban voters. But a closer look reveals a more worrisome tendency. Structured as a transparent referendum, the quickly assembled and questionably counted plebiscite included less than 2% of eligible Mexican voters. Santa Lucía, a military base, is favored by AMLO and lobbied heavily by construction firm Grupo Riobó, which, curiously, was contracted to produce an analytically dubious feasibility study. The Montreal-based International Air Transport Association (IATA) has publicly declared that Santa Lucía and Benito Juárez airports cannot technically co-exist because they are too close to each other.

AMLO took a significant pay reduction and then forced a 60% wage cut on the five Central Bank governors. That prompted one governor to resign ahead of schedule, on top of the regularly scheduled rotation of another governor. In two years, AMLO will replace a third governor and thereby take control of Mexico's most important independent economic institution.

The rational voices of advice that guided AMLO through his campaign are increasingly sidelined by the man who controls the Presidency and via coalition controls the Senate and the House.

Mexico's billionaires, who underwrote so much of Mexico's industrial expansion over the last two decades, are quietly but quickly moving their remaining Mexico-based assets offshore. Luxury home pricing in Mexico City has dropped an estimated 20% since October 2018. A sense of gloom is taking hold among the elite in Mexico, even while AMLO's approval ratings continue to climb. **LT**

* JOHN PRICE, managing director of Americas Market Intelligence and a 25-year veteran of Latin American competitive intelligence and strategy consulting. jprice@americasmi.com

Footprints

Leaving footprints. Passing through life leaving a mark ...

In the following pages – and issues – we will interview a select group of leaders whose thoughts and work have left their footprint in Latin America at the same time that our publication was developing.

These individuals showed vision, audacity, perseverance and passion when it came to defending their ideas. We have now asked them to look into the future and tell us how they see life in Latin America 25 years from now.

Ángel Gurría Secretary General of the OECD

Fernando Henrique Cardoso President of Brazil (1995-2002)

Adrienne Arsht Philanthropist



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Ángel Gurría, Secretary General of the OECD

DAVID BUCHANAN REPORTED FROM MEXICO CITY.



An economist, Gurría is currently Secretary General of the Organization for Economic Cooperation and Development (OECD). As the main negotiator of Mexico's debt between 1982 and 1990, he closed a restructuring deal with hundreds of foreign banks. He was secretary of foreign relations and, as secretary of finance (1998-2000), he was able to guide Mexico through the first change of presidents to take place without a financial crisis in 25 years. During his three terms as head of the OECD, his most important achievement to date has been the reform of international regulations to combat tax evasion. Within this framework, the OECD and the governments of the G-20 agreed to put an end to bank secrecy and implement the automatic exchange of tax information of individuals.

What are your overall expectations for Latin America in 25 years time? Are we educating for the future?

The quality (of education) continues to be a major challenge: the tests of the 2015 Program for International Student Assessment show advances in the quality of learning in Latin America and the Caribbean (LAC), but there is still a gap of three years in secondary schooling compared with OECD countries. In addition, the focus of education is another huge challenge, especially in the context of rapid technological change, in which three out of every four registered companies encounter difficulties in finding skilled workers.

How much will the “technological literacy” have to advance to narrow the labor gap?

We must prepare ourselves for a new labor market, taking advantage of the region’s demographic bonus, with one of every four citizens between 15 and 29 years of age. However, there is still a lot to do. In 2015, just one out of every five university

“We must prepare ourselves for a new labor market, taking advantage of the region’s demographic bonus.”

students graduated in STEM (Science, Technology, Engineering and Mathematics) courses, while 70% of registered companies say that some form of digital or technological competence is required, according to a survey by the OECD Center of Development and Manpower

What long-term impact do you see from the zero hunger policies that several countries are trying to implement?

Poverty reduction has been one of the major socioeconomic advances in Latin America’s recent history. It’s gone from 34.9% to 24% between 2007 and 2016. However, it is closely related to macro-economic development, and in recent years this has come to a standstill. And there are still 186 million Latin Americans who live in poverty. While that reduction has brought about the expansion of the middle class, the result is a “vulnerable middle class” that represents 40% of the population, and which is at risk of falling back into poverty in the face of any negative economic shock.

How do you see health care evolving in the region by 2044?

Access to health care in some countries has improved, as is the case of universal health coverage in Colombia. However, the proportion of public spending on health of 3.2% of GDP is still below the OECD average (5.9% of GDP), which is reflected in a low quality of service, especially for the less well off. It is necessary to guarantee a minimum quality of health, and to develop a focus on primary care, irrespective of whether workers are legally registered or not.

There is a major international debate about the future of cities. What might the region’s cities be like in 2044?

The rural exodus will continue, and it is predicted that by the year 2050 almost nine of every 10 Latin Americans will live in cities. To ensure their sustainability, the inequalities and social exclusion that could arise from that demographic concentration must be addressed. For example, transportation policy must favor public transport, and means of transport beyond private cars (bicycles, trains, metro). These measures would improve mobility and reduce carbon dioxide emissions by 31% in the region by 2050.

Which sectors of the economy will have the best prospects over the next two and a half decades?

There are several “Latin Americas” and the export structure varies by country, but in general there is a need for diversification. This must be a priority in LAC. Their exports are concentrated on unsophisticated and, in many cases, low value-added sectors. In 2016, 50% of exports were concentrated in primary goods, 23% were basic manufactures from raw materials, just 15% were manufactures with medium-level technology and 5% were high technology.

Will agribusiness continue to play such an important role in exports?

International demand for food will continue to be high and new actors will play a more important role. With just 7% of its land arable and 6% of the

world’s water resources, China must feed 19% of the world’s population.

What progress do you expect in regional integration?

We are going in the right direction, but the challenge is an important one. Just 16% of total exports go to destinations within the region, compared with 63% in the European Union and 46% in ASEAN + 5. Similarly, despite significant efforts to consolidate financial integration through the Latin America Integrated Market (MILA in Spanish), flows within the region continue to be low.

Do you expect any significant changes in the role played by national institutions?

The challenge is central for LAC countries. In 2017, 75% of the population said they have little or no confidence in institutions. This is 20 percentage points higher than in 2010. The impact of this discontent could affect the social contract.

Finally, how do you expect Latin America as a whole to be doing in 2044, in 25 years?

The basic goal is to improve the wellbeing of all of its citizens. There are four central challenges: 1) **increasing productivity**, emphasizing competitiveness of exports and creating quality employees; 2) **consolidating the middle class**, with systems of social protection that are more developed, higher rates of registered employment, and equality of opportunities; 3) moving toward **making institutions more credible**, capable, open and innovative, which can respond to the changing demands of society; 4) constructing a more **environmentally sustainable model**. **LT**

Fernando Henrique Cardoso, President of Brazil (1995-2002)

THIERRY OGIER REPORTED FROM SÃO PAULO.



Teacher, sociologist, and president of Brazil for two terms (1995-2002), FHC tasted exile after the military coup d'état in 1964, when he became a staunch critic of the regime. Always in favor of a peaceful transition to democracy, Cardoso began his political career once he was able to return to his home country. As finance minister, he implemented the *Plano Real* (or Real Plan) in 1994, seeking to stabilize a chaotic economy and control rampant inflation. Later, as president, Cardoso oversaw Brazil's largest-ever privatizations in companies Telebras and Vale. In the area of social welfare, Cardoso addressed inequality and introduced a number of programs aimed at helping the most vulnerable sectors. Here, his opinions of what may lie ahead for the region.

As president of Brazil, Fernando Henrique Cardoso showed strong leadership in the face of recurrent crises at the turn of the century. Later, as part-sociologist and part-political observer, Cardoso was one of the first analysts to identify the “malaise” among voters, and the crisis of representation suffered by the country in recent years. In 2018, he called for a union of centrist forces to avoid the election of extreme-right candidate Jair Bolsonaro.

Though his political influence may be on the wane, the depth of Cardoso’s analysis and those presented by his FHC Foundation still offer penetrating insights into Brazil’s and Latin America’s prospects.

As an intellectual, Cardoso is a skeptic. He told *Latin Trade* that though there have been several improvements in Latin America in the past 25 years in terms of social indicators, external debt and inflation, the future depends on forthcoming policies and their implementation. “Will

A greater share of the population must be able to innovate (thanks to education and opportunities-for-all policies) and be able to take advantage of technological advances. Democratization of innovation will also be an issue; one Cardoso calls “a condition for improving national societies in the future.”

HEALTH

Latin America still faces major challenges to catch up with the rest of the world in terms of education and health. While there are numerous opportunities for private investment in these areas, they may translate into greater inequality among Latin Americans.

Another problem is that, in many countries, the reputation of public services has suffered because of poor quality. However, Cardoso said that popular perceptions of the national health service in Brazil, for instance, must be put in perspective. “There has been considerable progress,” he said. “The public and private sectors have joined forces, as in the SUS (Brazil’s universal health service) without any cost for patients.” Meanwhile, patients with deeper pockets may choose to pay for private health insurance.

Brazil, which contains the largest portion of the Amazon forest within its territory, has a special responsibility regarding the environment, said Cardoso. Several policies currently in place to mitigate climate change have been questioned by the Bolsonaro administration. After hinting that the country may pull out of the 2015 UN Paris agreement on climate change, Bolsonaro has come under intense international pressure to refrain from doing so. “If the new Brazilian government does not understand that the climate issue is key, we will lose the relevance that we have achieved in the past,” Cardoso said. The question extends beyond Brazil’s borders, as logging and deforestation are a problem in a number of other Latin American countries as well. And the world is watching the region closely, said Cardoso. “It is still a long way before governments of the region understand that the so-called new development agenda depends on [how they deal with] these issues,” he said.

So what future does Cardoso, now 87, want for his grandchildren? “I wish that they live in a more democratic world where peace prevails, with less inequality, more technological skills, and in which personal happiness depends on the goals that anyone can define for themselves,” he said. “As a result, they will be able to know themselves as human beings and use their potential to meet their goals.” **LT**

“The climate issue is key to Brazil.”

things be better for the people? Are we going to improve compared to the rest of the world? There is no certainty about that,” he said.

The keys, he says, are education, the ability to foster innovation, and integration with the global economy. “[Latin America] has already been left behind in terms of innovation and technology,” Cardoso said. “Those countries that have moved ahead on these issues will have a greater opportunity to find a place in tomorrow’s world.”

Some Latin American countries are more integrated into the global economy than others. Some have competitive advantages in terms of natural resources, education and technological development. More importantly, countries must face the challenge of network integration through artificial intelligence, robotization and productivity. “Those countries in the region that are tackling these issues in a more dynamic fashion understand this, and are better positioned to achieve such integration,” Cardoso said.

At the same time, the social context cannot be forgotten. Latin America has a long legacy of inequality. Its reduction, said Cardoso, depends on economic growth and social pressure. Latin America’s prospects must also be considered against the background of “a better income distribution, better opportunities, and a higher level of education,” Cardoso said, adding that it will ultimately depend on the public policies that Latin American governments choose to implement.

Adrienne Arsht, Philanthropist

SANTIAGO GUTIÉRREZ REPORTED FROM WASHINGTON D.C.



A commitment and personal connection for the arts drove Adrienne Arsht to become a leading supporter of various large institutions in Miami, Washington D.C. and New York. The stage in Alice Tully Hall at Lincoln Center, a Musical Theater Fund at the Kennedy Center in Washington and the Adrienne Arsht Center for the Performing Arts in Miami all bear her name. A lawyer, she was chairman of Miami based TotalBank for a 11 years until selling the bank in 2007. She is executive vice chair of the Atlantic Council, a global foreign policy think tank, where she also founded the Adrienne Arsht Latin American Center and the Adrienne Arsht Center for Resilience. In her interview with *Latin Trade* she gives a refreshingly candid view of how Latin America may fare over the next quarter century.

“You want me to talk about the next 25 years? Can we try, the next 25 minutes?” Lawyer, entrepreneur and philanthropist Adrienne Arsht knows much of what there is to know about Latin America. On January 24, almost 25 days before being interviewed by *Latin Trade*, Juan Guaidó declared himself interim president of Venezuela. “Who would have thought 40 days ago that something like that would have happened?” she said.

Another example, she said, were the changes introduced by Brazil’s President Jair Bolsonaro in just over a month in office. Such remarks aren’t aimed solely at highlighting the region’s economic and political instability. Climate change will have a big impact in different ways all over the world. “Some parts of Latin America, particularly the urban areas, will have to adapt to living with too much or too little water and increasing temperatures,” said Arsht. “Florida is particularly vulnerable, with its porous limestone soil and

in that direction, according to Arsht. “More countries will become OECD members. The region will also become more influential in world economic issues. The gap between Latin America and fully developed economies should narrow, but even if the gap is not closed, the region would have made significant inroads.”

The region will probably be more resilient, she said. “We live in a complex and challenging environment, and when we look out to the future, we only see those trend lines leading to more challenges. More opportunities, no doubt, but certainly challenges as well.” The Adrienne Arsht Center for Resilience, at The Atlantic Council, a global foreign policy think tank, is focused on translating the concept of resilience into actions and impact. “Obviously, we cannot prevent the next hurricane, or the next pandemic,” Arsht told *Latin Trade*. “But 25 years from now we should be in a position to better mitigate these challenges: that we can absorb shocks when they do happen and then recover smartly after major events.”

ADAPTING PHILANTHROPY

What can philanthropists do in this scenario? “Each philanthropist has a particular passion,” she said. Some are worried about eradicating malaria, others about education. “The entire spectrum of philanthropy will adapt.”

Arsht has expanded her philanthropic work in several directions: the arts, foreign relations, education (especially in ethics) and health. She has said that her interest in the arts stems from her desire to preserve the essence of civilization. “I have been asked why I do not give to children or to eradicate disease,” she said. While she knows that art would be meaningless without human life, she feels that her task is to “preserve the reasons to live,” she said.

Arsht is not a conventional donor. She has said that she relies on instinct. The extraordinary success of the Adrienne Arsht Center for the Performing Arts in Miami is a perfect example of the accuracy of her instincts. She donated \$30 million in 2008 to make it financially viable. After that, she anonymously gave \$1 million per year during six years to help the project survive.

The Arsht Center, designed by celebrated Argentine architect César Pelli, is now self-sufficient, and estimates place the impact that it generated over its neighborhood at \$1 billion.

Arsht can adapt faster than others because her contributions are free from the limitations that restrict many donors. “I do not have a foundation. I have a checkbook,” she said. “My giving, as long as I live, is to do whatever I want.”

Arsht doesn’t divulge the plans for her philanthropic work in 2019. In a way, her instinct-driven actions make detailed planning unnecessary. Citing Justice Potter Stewart to describe how she would pick a good project, she said: “I know it when I see it.” **LT**

(Read the full interview at www.latintrade.com)

“It’s change, and change does not make things bleak.”

1200 miles of coastline, it will absolutely look different in 25 years.”

Arsht is by no means a somber pessimist. On the contrary, her passion for Chopin and a select collection of American musicals reveal a romantic and joyful approach to life.

Despite the challenges facing Latin America, she doesn’t paint a gloomy future for the region. “It’s about change, and change does not make things bleak,” she said. “On the contrary, change brings opportunities.”

Pressed on what she believes is in store for Latin America over the next 25 years, she compared the question to asking someone in 1900 about the future of transportation. The reply would probably have been about a world with more horses and sleeker carriages. It’s highly unlikely the response would have predicted that things would change forever when the Wright brothers made their first flight on the Kitty Hawk in December 1903.

“Five-year plans were the standard. Now it’s the 10-minute diet,” she said to illustrate the shortened shelf life of forecasting.

With this proviso, she agreed to comment on the next quarter century. “My hope is that Latin America becomes a region of enormous prosperity,” Arsht said. “The work that is being done through the Adrienne Arsht Latin America Center helps to carve out a better path for the region. In 25 years, Latin America will have a larger middle class, less inequality and should have been able to build upon its enormous economic and human capital potential.”

Though it will be hard for Latin America to bridge the income gap to become a First World player, it should move

SMART phones get SMARTER

High tech handsets
will continue
to dominate
Latin America's
mobile market in
the coming years.





Smartphones have become the most popular connected devices in Latin America. No longer do they just send and receive calls or messages. For millions of users, they are now tools of productivity, work and entertainment.

According to market analyst IDC, smartphones have about 90% of the telephone market in the region. Some 147 million units of smartphones were sold in Latin America in 2017, data by analyst Counterpoint show. "Although this is a nice place to be, it is important to emphasize that this market is now maturing", so it is expected that in 2018 it would have remained stable compared to the previous year, said Paola Soriano, research & consulting manager, consumer devices, for IDC Latin America.

There's no doubt smartphones will be with us for the foreseeable future. As their capabilities expand and operators broaden network coverage, they are set to take on increasingly important roles in the fields of education, medicine and e-business.

Ricardo Mendoza, regional analyst, mobile phone devices, at IDC Latin America, says smartphones will continue to be the vehicle par excellence for integration with other devices as the Internet of Things (IoT) becomes more widely used. "Devices like the automobile, the refrigerator, air conditioning, smart watches and sensors are already controlled through the smartphone," he said. "As the network evolves, the functions will be more and more in demand."

José Otero, director of 5G Américas for Latin America and

the Caribbean, thinks along similar lines. He believes there will be major changes in the kind of services on offer, with operators no longer competing in selling traditional "lines" and instead focusing on IoT. "With the arrival of the fifth generation networks, human beings will no longer be the principle means of connection, and the number of machine-to-machine interactions will grow," said Otero, whose group represents equipment manufacturers and mobile operators for the continent.

The 5G networks will offer connection speeds of up to 20 gigabytes per second (Gbps), providing sufficient broadband for high demand applications such as high resolution video or remote operation of equipment. Current 4G LTE networks only provide up to 150 megabytes per second (Mbps).

With the arrival of this technology, 5G Américas expects that by 2025 there will be 3.7 connected devices per person in the region. With this, cellular networks will increase from today's 600 million lines to more than 1.8 billion, with two of every three dedicated to equipment-to-equipment connections.

Equipment with changes

With the size of smartphones continuing to be limited by "the palm of the hand," the major advances will be in internal technology and, most of all, applications. "Users will use this tool to improve their work, to train themselves, to have better health – that is what technology must explore," said Otero.

In terms of design, screens will continue to evolve, with displays that have no borders and the

possible incorporation of folding screens, which are already at the prototype stage.

"Some characteristics that we might expect in the smartphone of the future are: more advanced sensors, virtual reality, enhanced reality, much more powerful batteries, and, of course, much more functional artificial intelligence, integrated with the virtual assistants," said Mendoza.

Higher connection speeds will be reflected in the development of applications that take advantage of them. For example, teachers in rural schools could have access to content from the world's best universities, or surgeons might carry out operations remotely, hundreds of kilometers away from the hospital.

Changes in generational needs will also influence development. These include the growing need for multimedia content in services such as Netflix or Spotify, and in social networks like WhatsApp, Instagram, Facebook, Snapchat or Twitter.

Hand in hand will come improvements in the quality of the phone's photo-taking ability, according to IDCs Soriano. "The camera is also a tool that is evolving and is one of the most important development trends of the smartphone, with functions like dual cameras and more megapixels," said Soriano.

As technological advances spur development of devices and appliances, and operators integrate high-speed networks across Latin America, what was once just a simple phone will become an essential tool in the region's economic growth. **LT**

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JOSÉ A. GONZÁLEZ T. REPORTED FROM BOGOTÁ.



Human artificial intelligence

A promising future or a deepening of social inequalities?

Photo: Pexels



For some, artificial intelligence (AI) paves the way to freedom from repetitive human labor. For others, it leads to social disintegration and mass unemployment.

The attainment of liberty or worsening inequality are both real possibilities in this era of digital platforms, the internet of things and smart cities. But, leaving apocalyptic visions aside, the business ecosystem of Latin America is slowly starting to use the tools that provide advanced analytics.

The trend began with the explosion of e-commerce over the past few years through the exponential growth of internet navigation through smartphones. This opened the door to the development and use of AI.

International Data Corporation (IDC), a consultancy, has predicted that by 2022 more than half of Latin America's GDP will be comprised of producing goods and services that use digital technology. And in the next three years, there will be a democratization in its use thanks to the almost \$380 billion to be invested on information technology.

"Small businesses can gain access to the same technology as large companies," said Patricio Cofré, CEO and co-founder of Metric Arts, a Chilean company that shows companies how to use AI solutions to improve business.

Cofré is fascinated with the idea that a store could use AI to compile data on the sex, age, and number of customers and develop predictive analysis of their

behavior, simply by using its own surveillance camera. In fact, the techniques are already being implemented. In this way, a small business could direct its spending on marketing, increase conversion (rate of sales relative to investment), and achieve higher efficiency in delivery.

Cofré said that in a few years, Latin America's GDP will grow by 20% to 30% as a result of the impact of AI. That's in line with what the consultancy Accenture has suggested in its report "*How artificial intelligence can create growth in South America.*"

Like other Latin Americans in the field, the technology revolution means a cultural shift in terms of businesses' vision, said Cofré.

One example is Nubimetrics, an Argentine company which creates business intelligence solutions on the e-commerce platform Mercado Libre. The company has developed a tool to help those who operate in Mercado Libre identify trends in the platform, which has seven million sellers, 500,000 of which are small businesses. Nubimetrics offers automated statistical analysis, and sells market research information, to companies such as Samsung and HP.

"The growth horizon is immense," said Pamela Scheurer, CTO and co-founder of Nubimetrics. "In Argentina alone there are 350,000 small businesses that still aren't digitized." The company offers to help small businesses make the transition to digital, but to do this, it says it has to turn the paradigm upside down. AI makes it easier for sellers "to understand demand,

Latin American companies are advancing in the incorporation of artificial intelligence in their businesses, to improve performance or reduce costs.



📷 Patricio Cofré, CEO & Co-Founder, Metric Arts



📷 Aylton Souza, IoT & AI Business Lead, Microsoft Latin America

which is the most important feature people are looking for, and that is what they are selling,” Sheurer told *Latin Trade*.

She added that data analysis guided by AI includes also the advantage of making it easier to keep track of the competition. “It makes it possible to identify your competitor’s offers from the moment they are launched,” Sheurer said.

Mexico-based Ibushak is another highly successful regional platform. With a staff of 50, it manages the sales of 300 brands in addition to its own. It also helps with sales in the United States, Argentina and Brazil.

THE ADVANTAGE OF STARTING FROM ZERO

Microsoft is paying attention to what is happening in the region as well. Aylton Souza, IoT and AI business lead at Microsoft Latin America, said there is a possibility of democratizing technology and helping companies to do more. “We have a very simple approach,” he said. “The same technology that Uber uses to authenticate drivers with a selfie, or the one Rolls-Royce uses, could help a Latin American company improve its processes.”

The star of the arsenal for AI to level the playing field between Latin America’s small and large companies is Microsoft’s Azure tool, he said. Using Azure, combined with personalized follow-up by company engineers, mid-sized businesses can match large ones in applying cognitive services to identify faces, emotions, and

voice patterns, or developing bots for automated customer service. Paradoxically, it makes things easier that many of the region’s companies do not have any “technological legacy” weighing them down, said Souza. They do not have to transform existing systems, but can simply introduce them in one quantum leap.

For Souza, Latin America’s Microsoft users are software vendors, or partners. He cites Mercedes-Benz Brazil as an example. There, an AI system developed by Microsoft in 2018 perfects the sales strategy of the company’s largest global truck manufacturing plant. It combines drivers’ licenses older than three decades, macroeconomic indicators, and the legislation and statistics of each region in Brazil. The resulting information is distributed to the 180 service points to develop personalized offers to customers.

Lastly, most experts emphasize that AI is software for distancing customers from science fiction and moving closer to the actual experience of users. The World Bank warns that rejecting the technology for fear of losing jobs would be a mistake. It’s a cultural revolution that downgrades intuition as a guide to business decisions and replaces it with automated predictions based on the analysis of immense volumes of data. That’s how it boosts the opportunities of a company to become a business leader and improves the understanding of the user-client relationship. **LT**

DIEGO LLUMÁ REPORTED FROM BUENOS AIRES.

Photos: Courtesy of Microsoft & Metric Arts

Navigating a sea of technology

Container shipping companies are using digitalization to improve customer experience, giving them more confidence in using services, helping manage supply chains, and reducing costs. *Latin Trade* reports on current and future innovations.

Photo: Courtesy of Maersk and Hamburg Süd



📷 Lars Oestergaard, president, Latin America & Caribbean, Maersk



📷 Stephan Dühning, global head customer order management, Hamburg Süd

Digitalization in the container shipping industry is reflected in new options that not only improve the client's experience, but also help them save costs.

Global sector leader Maersk, for example, recently launched an application that enables instant booking confirmation. "No one else in the industry has done this yet," Lars Oestergaard Nielsen, president, Latin America & Caribbean at Maersk told *Latin Trade*. "It is a revolution; it is just like booking an airline ticket."

The app enables customers to book sailing options and thus, be certain about container availability. The process, which can be done through a mobile device, takes just seconds, compared with as long as two hours using previous systems.

The digital revolution is also enabling shipping companies to help clients improve supply chain management, with resulting benefits to profits.

"It is all about optimizing supply chain," Stefan Dühning, global head customer order management and member of the Digital Competence Team at Hamburg Süd, told *Latin Trade*. He pointed out the relevance of technologies that apply the Internet of Things (IoT) to manage containers remotely.

"IoT applied to remote management control is particularly beneficial to Latin American exporters of any refrigerated cargo," Dühning said. In the case of banana shipments, temperature and atmosphere control inside containers is key to an optimal ripening process while the cargo is being moved as bananas are loaded in different conditions in each port.

“Knowing the state of each container allows to distribute the cargo better and this helps to reduce product quality claims,” Dühning said.

Similarly, Maersk’s Nielsen stressed the importance of low temperatures to kill pests such as the Mediterranean fruit fly: “Our remote container management option allows customers to remotely handle each container’s temperature at a low cost, even in the middle of the sea.”

And while digitalization in itself is helping reduce costs, the implementation of such technologies is also getting cheaper.

Although the shipping industry has been using temperature sensors in containers for several years, they are becoming less expensive. “The cost of technology is coming down, making it more efficient,” Nicholas Allan, IT innovation specialist at Panalpina, told *Latin Trade*.

For Allan, customers don’t just want lower technology costs, “they always want certainty.”

that will help increase customer satisfaction levels. Predictability has become the key word.

Nielsen said he envisages a future “in which we make sure we use more predictable data to help the client.” This would entail offering alternative ports, routes, and even other transportation methods in the event of unexpected bad weather.

Dühning pointed to the potential offered by data storage and analysis for enhancing predictability. “We will continue to improve our capabilities to capture and cluster data more rapidly, so that customers can lever on the latest information to make their supply chain process better,” he said.

Dr. Ralf Belusa, managing director of digital channel incubation unit at Hapag-Lloyd AG, provides a more comprehensive approach to the industry’s future. He foresees “ecosystems and platforms that create more effective collaborations, accelerated by the use of artificial intelligence.”



 Ralf Belusa, managing director of digital channel incubation unit, Hapag-Lloyd AG



 Nicholas Allan, IT innovation specialist, Panalpina

Technological innovation enables customers to know more about the location and status of their cargo. “Traceability adds an extra level of reassurance for clients,” he said.

WHAT SHIPPERS HAVE IN STORE FOR THEIR CLIENTS

Besides developing more IoT applications, container shipping companies are actively working on future uses of artificial intelligence and blockchain technologies

What this means is that, in the future, shipping companies will work in closer collaboration with partners such as car or furniture manufacturers to transport products from manufacturer to consumer.

“This is why the ecosystems are so important for the future,” he said. “They will expand the possibilities of the value chain for better and faster service”. **LT**

DAVID RAMIREZ REPORTED FROM MIAMI.

“Our remote container management option allows customers to remotely handle each container’s temperature, at a low cost, even in the middle of the sea.”

Lars Oestergaard Nielsen, president, Latin America & Caribbean at Maersk



INNOVATION IS IN THE AIR

Air freight giant FedEx is adopting technological innovations based on close interaction with its customers. Such interaction is key to “identify points of friction and then rapidly prototype to determine the most compelling solution for each customer challenge,” Juan Cento, FedEx’s president for Latin America and Caribbean, told *Latin Trade*.

“Innovation has always been part of the FedEx DNA,” said Cento when asked to explain how the company is able to constantly expand options that use the latest technology to serve customers. Like the container shippers in our main article, FedEx applies IoT-based technologies to track cargoes in situations that are “time-critical, temperature-sensitive and high-value shipments,” Cento said. As an example, he described how IoT-based services allow customers to program and monitor shipments from any web-enabled device, view product temperature in real time and document temperature before, during and after delivery.

FedEx is also applying AI technology to chatbots that can help client and other users respond to questions regarding, for example, the status of a delivery or the characteristics of specific products and services. “AI shifts the industry’s operational model to be more proactive, predictive, efficient, and leads to reduced costs,” said Cento.

A chatbot solution developed by FedEx Express Brazil is for use in services involving Payment Operating Systems (POS). This enables end-customers to confirm their availability (in terms of address and business hours) before a courier arrives with the payment card machine. “This preventive action improved the success rate on deliveries by 12% during the pilot project phase,” Cento said. The solution is being extended for other customers in the POS segment, which generate more than 400,000 deliveries per month.

Client solutions based on blockchain technology are mostly applied to supply chain management across vendors and borders. “Blockchain’s shared network, or database, can track almost any kind of business activity from financial transactions to medical records to patents,” said Cento. The company sees a huge, still unexploited potential for blockchain. It has a pilot project that uses the technology to share shipment information among suppliers, FedEx and retailers. “Blockchain is the next frontier that’s going to completely change worldwide,” Cento said.

Commenting on what innovations will emerge in the near future, Cento picked out “Sam,” the first public-facing robot to assist in receiving shipments. There are also other robots currently assisting with pickup and delivery functions at FedEx’s Collierville (Tennessee) facility. The company is also working on the concept of “platooning”, which basically consists of electronically linking trucks into small groups or “platoons.” The lead truck controls the speed and brakes of those that follow it, and is basically designed to reduce wind speed and, thus, save fuel.

Last, but not least, there is FedEx’s online virtual assistant that will eventually allow customers to order services by voice on their mobile devices, hands and paper-free. “We are continuously investing in new technologies that will have relevant impact on our clients,” said Cento. **LT**

DAVID RAMIREZ REPORTED FROM MIAMI.

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